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EUROPEAN COURT OF AUDITORS
COUR DES COMPTES EUROPÉENNE
CÚIRT INIÚCHÓIRÍ NA HEORPA



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Report on the annual accounts of the SESAR Joint Undertaking
for the financial year 2011

together with the replies of the Joint Undertaking

INTRODUCTION

1. The SESAR Joint Undertaking was set up in February 2007¹, located in Brussels, in order to manage the activities of the SESAR (Single European Sky Air Traffic Management Research) programme.
2. The SESAR programme aims to modernise Air Traffic Management (ATM) in Europe and is divided into three phases:
 - (a) "Definition phase" started in 2005 and led by the European Organisation for Safety of Air Navigation (Eurocontrol), with co-financing from the European Union (EU) budget through the Trans European Network - Transport programme. The outcome is the European ATM Master Plan, which defines the content, the development and deployment plans of the next generation of ATM systems.
 - (b) "Development phase" (2008-2013) managed by the SESAR Joint Undertaking (see the **Annex**) and leading to the production of new technological systems, components and operational procedures as defined in the European ATM Master Plan.
 - (c) "Deployment phase" (2014-2020) to be led by industry and stakeholders, for the large-scale production and implementation of the new air traffic management infrastructure.
3. The Joint Undertaking is designed as a public-private partnership. The founding members are the European Union represented by the European Commission, and Eurocontrol represented by its Agency. Following a call for expressions of interest, fifteen public and private enterprises from the air navigation industry are members of the Joint Undertaking. These include air navigation service providers, ground and

¹ Council Regulation (EC) No 219/2007 of 27 February 2007 on the establishment of a Joint Undertaking to develop the new generation European air traffic management system (SESAR) (OJ L 64, 2.3.2007, p. 1), amended by Regulation (EC) No 1361/2008 (OJ L 352, 31.12.2008, p. 12).

aerospace manufacturing industry, aircraft manufacturers, airport authorities and airborne equipment manufacturers.

4. The budget for the development phase of the SESAR programme is 2,1 billion euro, to be provided in equal parts by the EU, by Eurocontrol and by the participating public and private partners. The EU contribution is funded from the Seventh Research Framework Programme and the Trans-European Networks – Transport programme. Around 90 % of the funding from Eurocontrol and the other stakeholders is in the form of in-kind contributions.

5. The SESAR JU started to work autonomously on 10 August 2007.

INFORMATION IN SUPPORT OF THE STATEMENT OF ASSURANCE

6. The audit approach taken by the Court comprises analytical audit procedures, testing of transactions at the level of the Joint Undertaking and an assessment of key controls of the supervisory and control systems. This is supplemented by evidence provided by the work of other auditors (where relevant) and an analysis of management representations.

STATEMENT OF ASSURANCE

7. Pursuant to the provisions of Article 287 of the Treaty on the Functioning of the European Union, the Court has audited the annual accounts² of the SESAR Joint Undertaking, which comprise the “financial statements”³ and the “reports on

² These accounts are accompanied by a report on the budgetary and financial management during the year which gives further information on budgetary implementation and management.

³ The financial statements include the balance sheet and the economic outturn account, the cash-flow table, the statement of changes in net assets and a summary of the significant accounting policies and other explanatory notes.

implementation of the budget”⁴ for the financial year ended 31 December 2011 and the legality and regularity of the transactions underlying those accounts.

The Management’s responsibility

8. As authorising officer, the Director implements the revenue and expenditure of the budget in accordance with the financial rules⁵ of the Joint Undertaking, under his own responsibility and within the limits of the authorised appropriations⁶. The Director is responsible for putting in place the organisational structure and the internal management and control systems and procedures relevant for drawing up final accounts⁷ that are free from material misstatement, whether due to fraud or error, and for ensuring that the transactions underlying those accounts are legal and regular.

The Auditor’s responsibility

9. The Court’s responsibility is to provide, on the basis of its audit, a statement of assurance as to the reliability of the annual accounts of the Joint Undertaking and the legality and regularity of the transactions underlying them.

10. The Court conducted its audit in accordance with the IFAC International Standards on Auditing and Codes of Ethics and the INTOSAI International Standards of Supreme Audit Institutions. These standards require that the Court plans and performs the audit to obtain reasonable assurance as to whether the

⁴ The budget implementation reports comprise the budget outturn account and its annex.

⁵ SESAR Financial Rules adopted by the Administrative Board on 28 July 2009.

⁶ Article 33 of Commission Regulation (EC, Euratom) No 2343/2002 (OJ L 357, 31.12.2002, p. 72).

⁷ The rules concerning the presentation of the accounts and accounting by EU bodies are laid down in Chapters 1 and 2 of Title VII of Regulation (EC, Euratom) No 2343/2002, as last amended by Regulation (EC, Euratom) No 652/2008 (OJ L 181, 10.7.2008, p. 23), and are incorporated in the Financial Rules of the SESAR Joint Undertaking.

accounts of the Joint Undertaking are free from material misstatement and whether the transactions underlying them are legal and regular.

11. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the accounts and about the legality and the regularity of the transactions underlying them. The procedures are selected based on the auditor's judgement, including an assessment of the risks of material misstatement of the accounts and of material non-compliance of the underlying transactions with the requirements of the legal framework of the European Union, whether due to fraud or error. In assessing those risks, the auditor considers internal controls relevant to the preparation and fair presentation of the accounts and supervisory and control systems implemented to ensure legality and regularity of underlying transactions, in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and reasonableness of accounting estimates made, as well as evaluating the overall presentation of the accounts.

12. The Court considers that the audit evidence obtained is sufficient and appropriate to provide a basis for the opinions set out below.

Opinion on the reliability of the accounts

13. In the Court's opinion, the SESAR Joint Undertaking's annual accounts present fairly, in all material respects, its financial position as of 31 December 2011 and the results of its operations and its cash flows for the year then ended, in accordance with the provisions of its Financial Regulation and the Accounting Rules adopted by the Commission's Accounting Officer⁸.

⁸ The Accounting Rules adopted by the Commission's Accounting Officer are derived from International Public Sector Accounting Standards (IPSAS) or, by default, International Financial Reporting Standards (IFRS).

Opinion on the legality and regularity of the transactions underlying the accounts

14. In the Court's opinion, the transactions underlying the annual accounts of the SESAR Joint Undertaking for the financial year ended 31 December 2011 are legal and regular in all material respects.

15. The comments which follow do not call the Court's opinions into question.

BUDGETARY AND FINANCIAL MANAGEMENT

16. The final 2011 budget adopted by the Administrative Board included commitment appropriations of 148 million euro and payment appropriations of 91,7 million euro. The utilisation rates for commitment and payment appropriations were 99,4 % and 82,4 % respectively.

17. In 2011, the contributions from members (34 million euro) together with the outturn of the previous year (57 million euro) and other sources of revenue (0,2 million euro) amounted to 91,2 million euro, against payments of 75,6 million euro. This led to a positive budget outturn of 15,6 million euro and deposits in bank accounts at the end of the year totalling 15,3 million euro. This is at odds with the budgetary principle of equilibrium.

KEY CONTROLS OF THE JOINT UNDERTAKING'S SUPERVISORY AND CONTROL SYSTEMS

Internal control systems

18. The Court notes that a review of the Joint Undertaking's business processes carried out by an independent external auditor in 2011 found the internal control systems to be operating effectively. In April 2012, the Accounting Officer formally validated the underlying business processes, in line with the Financial Rules of the Joint Undertaking.

Internal auditing function and Commission Internal Audit Service

19. The Court previously observed that the Commission and the SESAR Joint Undertaking have taken action to clarify the respective operational roles of the Commission's Internal Audit Service (IAS) and of the Joint Undertaking's internal auditing function⁹.

20. The Court notes that, in November 2011, the Administrative Board of the Joint Undertaking adopted a Coordinated IAS Strategic Audit Plan for the Joint Undertaking for the period 2012-2014.

OTHER MATTERS***Late payment of membership contributions***

21. The deadline of 1 July 2011 for payment to the Joint Undertaking of the cash contributions for the year from its members was not respected. At the end of August 2011 there remained 17 outstanding recovery orders, totalling 3,7 million euro. One member had paid no annual contribution at all by the end of 2011.

This report was adopted by the Court of Auditors in Luxembourg at its meeting of 15 November 2012.

For the Court of Auditors

Vítor Manuel da SILVA CALDEIRA

President

⁹ Report on the annual accounts of the SESAR Joint Undertaking for the financial year 2010, together with the replies of the Joint Undertaking (OJ C 368, 16.12.2011, p. 32).

SESAR Joint Undertaking (Brussels)**Competences and activities**

<p>Areas of Union competence deriving from the Treaty</p> <p><i>(Article 187)</i></p>	<p>Research and technological development and space</p> <p>Efficient execution of EU research, technological development and demonstration programmes.</p>
<p>Competences of the JU / EA</p> <p><i>(Council Regulation (EC) No 219/2007, as last modified by Regulation (EC) No 1361/2008)</i></p>	<p>Main objectives</p> <p>The aim of the Joint Undertaking shall be to ensure the modernisation of the European air traffic management system by coordinating and concentrating all relevant research and development efforts in the Union. It shall be responsible for the execution of the ATM Master Plan and in particular for carrying out the following tasks:</p> <ul style="list-style-type: none"> — organising and coordinating the activities of the development phase of the SESAR project, in accordance with the ATM Master Plan, resulting from the definition phase of the project managed by Eurocontrol, by combining and managing under a single structure public and private sector funding, — ensuring the necessary funding for the activities of the development phase of the SESAR project in accordance with the ATM Master Plan, — ensuring the involvement of the stakeholders of the air traffic management sector in Europe, in particular: air navigation service providers, airspace users, professional staff associations, airports, and manufacturing industry; as well as the relevant scientific institutions or the relevant scientific community, — organising the technical work of research and development, validation and study, to be carried out under its authority while avoiding fragmentation of such activities, — ensuring the supervision of activities related to the development of common products duly identified in the ATM Master Plan and if necessary, to organise specific invitations to tender.
<p>Governance</p>	<p>Administrative Board</p> <p>The Administrative Board is responsible for:</p> <ul style="list-style-type: none"> (a) adopting the ATM Master Plan endorsed by the Council as referred to in Article 1(2) of this Regulation and approving any proposal to modify it; (b) giving guidelines and taking the decisions necessary for the implementation of the development phase of the Sesar project and exercising overall control over its implementation; (c) approving the Joint Undertaking's work programme and annual work programmes referred to in Article 16(1) as well as the annual budget, including the staff establishment plan; (d) authorising negotiations and deciding on the accession of new members and on the relating agreements as referred to in Article 1(3); (e) supervising the execution of the agreements between members and the Joint Undertaking; (f) appointing and dismissing the Executive Director and approving the organisation chart and monitoring the Executive Director's performance; (g) deciding on the amounts and procedures for the payment of members' financial contributions and the assessment of contributions in kind; (h) adopting the financial rules of the Joint Undertaking; (i) approving the annual accounts and balance-sheet; (j) adopting the annual report on the progress of the development phase of the Sesar project and its financial situation referred to in Article 16(2); (k) deciding on proposals to the Commission on the extension and the dissolution of the Joint Undertaking; (l) establishing procedures for granting rights of access to tangible and intangible assets which are the property of the Joint Undertaking and the transfer of such assets; (m) laying down the rules and procedures for awarding the contracts necessary to implement the ATM Master Plan, including specific procedures for conflicts of interest; (n) deciding on proposals to the Commission to amend the Statutes in accordance with Article 24; (o) exercising such other powers and performing such other functions, including the establishment of subsidiary bodies, as may be necessary for the purposes of the development phase of the Sesar project; (p) adopting the arrangements for implementing Article 8. <p>Executive Director</p> <p>The Executive Director shall perform his duties with complete independence within the powers assigned to him.</p>

	<p>The Executive Director shall direct the execution of the Sesar project within the guidelines established by the Administrative Board to which he shall be responsible. He shall provide the Administrative Board with all information necessary for the performance of its functions.</p> <p>The Executive Director has to:</p> <p>'(a) employ, manage and supervise the staff of the Joint Undertaking, including the staff referred to in Article 8;';</p> <p>(b) organise, manage and supervise the activities of the Joint Undertaking;</p> <p>(c) submit to the Administrative Board his proposals concerning the organisation chart;</p> <p>(d) draw up and regularly update the global and the annual work programme of the Joint Undertaking, including an estimate on programme costs, and submit them to the Administrative Board;</p> <p>(e) draw up, in accordance with the Financial Rules, the draft annual budget, including the staff establishment plan, and submit them to the Administrative Board;</p> <p>(f) ensure that the obligations of the Joint Undertaking, with regard to the contracts and agreements it concludes are met;</p> <p>(g) ensure that the activities of the Joint Undertaking are carried out with complete independence and without any conflicts of interest;</p> <p>(h) draw up the annual report on the progress of the Sesar project and its financial situation, and such other reports as may be requested by the Administrative Board, and submit them to the latter;</p> <p>(i) submit the annual accounts and balance-sheet to the Administrative Board;</p> <p>(j) submit to the Administrative Board any proposal involving changes in the design of the Sesar project.</p> <p>Internal Audit Internal Auditor of the European Commission.</p> <p>External audit European Court of Auditors.</p> <p>Discharge authority European Parliament, European Council and the Administrative Board of the SJU.</p>
<p>Resources made available to the Joint Undertaking in 2011 (2010)</p>	<p>Budget 147.7 million euro (129.5 million euro)</p> <p>Staff at 31 December 2011 The 2011 operating budget provides for an establishment plan of 39 Temporary Agents (TA) and 3 Seconded National Experts (SNE), leading to a total of 42 staff, out of which 35 were occupied at year end 2011, compared to 37 in 2010):</p> <ul style="list-style-type: none"> - 23 temporary staff, recruited externally, - 8 staff seconded by the SJU Members in accordance with Article 8 of the Regulation (EC) No 219/2007, - 3 contractual staff, - 1 SNEs. <p>Allocated to Operational tasks: 19 Administrative and support tasks: 15 Mixed tasks: 1</p>
<p>Products and services 2011</p>	<p>2011 constitutes a key year in the progress to achieve the Mid-Term Objectives and Vision 2012. In particular:</p> <p>Objective No 1 - Initial 4D trajectory is validated in an operational environment supported by satellite based technology</p> <p>The "Initial 4D trajectory based operations", is planned to be validated during a first validation exercise taking place as part of Release 1 in February 2012 in the traffic environment of MUAC, NUAC and Stockholm Approach. A number of preparatory activities were performed in 2011 including the development and integration of the two FMS prototypes as well as a number of simulation activities connecting ground and airborne simulation platforms. The second iteration, part of Release 2, is planned for late 2012 and the third for 2013. The aim will be to validate operational procedure for flying according to a CTA in the En-route and TMA airspace.</p> <p>It is expected that as planned the objective will be mostly met in 2012, although the use of satellite based technologies is being introduced after the 2013 timeframe.</p> <p>Objective No 2 – 10 000 flights, including 500 military, are SESAR labelled</p>

In 2011, 9 366 commercial flights, demonstrated early SESAR benefits (including AIRE and OPTIMI flight demonstrations). It must be noted however that for the time being the number of Military flights remains limited. In addition to the ongoing Programme activities, the SJU Administrative Board decided the launch of a "Demonstration Activities" call where integrated trials during 2012 will allow the SJU to reach the target and bring in the military dimension mostly during 2013 too.

Objective n. 3 – 80 % of SESAR projects have tested their outputs in a real life environment

In order to achieve the objective of 80 % of validation exercises in real life environment, a Validation Strategy has been established. In particular, the deliveries of Release 1 and those planned for Release 2 in 2012 will connect primary Projects to the different exercises performed within the Operational Focus Areas and to real systems or environment.

Objective No 4 – First SWIM pilots are in place to exchange data across at least five domains

As already reported to the Administrative Board (hereinafter also ADB), in 2011 a SWIM Action Plan has been introduced to respond to the risks identified in the related Projects, inter alia, the lack of a legal framework for SWIM. Some progress was achieved and illustrated at the SWIM Demonstration Event, which took place in November 2011 with good participation from the overall programme. Still a number of yet unresolved issues and priorities have so far delayed the achievement of this mid-term objective. Despite the progress achieved by year-end 2011 and the implementation of the action plan with the contribution of the ongoing validation exercise, it is unlikely that the objective will be met in the set timeframe.

Objective No 5 – The first remote tower is ready for operation

The first validation exercises for the Remote Tower, part of Release 1, have been performed as planned and will be completed during 2012 in order to achieve this mid-term objective. The Release 1 Exercise has confirmed:

- feasibility of providing Air Traffic Service to Ängelholm airport from the Malmö ATCC R&D Remote Tower Centre;
- feasibility of conducting remotely nominal and non nominal operations;
- technical feasibility of capturing the "out of window" traffic situation and operational environment from a single airport and to display this picture in the remote site.

Regulatory Authorities participated in these trials.

Objective No 6 – SESAR benefits are demonstrated in city pairs connecting 8 European airports

Following the success of the first AIRE cycle in 2009, the SESAR Joint Undertaking further extended this green branch of the SESAR Programme. Through the connection of main European airports (Paris, Vienna, Madrid, Cologne, Dusseldorf, Prague, Brussels,...) and the involvement of some 40 partners in Europe and beyond, AIRE has demonstrated significant benefits in terms of emission reduction. The quality of these results is high not only in terms of reduction of fuel burn and therefore CO2 emissions, but because the high conversion rate from projects into daily ATM practice.

The results of AIRE and the results expected in the "demonstration activities" call launched and to be performed during 2012 will allow meeting the objective.

Objective No 7 – Airspace users have signed up to the SESAR business case for time based operations

This objective has many dimensions and the business case development process is not mature yet to encompass all the different stakeholders' perspectives. Nevertheless, substantial effort has been invested in developing business case methodologies for ANSPs, airspace users and airports. Step 1 of the 4D Time Based Operations deliverables has been validated in 2011 and will continue to be validated in 2012 and progress will be made on standardisation activities as well. To a certain extent and in some areas the business case will be endorsed to the level of industrialisation readiness, whereby additional work will be needed with stakeholders on its deployment. The objective will not be reached in the set timeframe although preliminary business case information will be made available to prepare the transition to deployment for first SESAR solutions from 2013. Furthermore, the following provides a broader view on the 2011 progress and achievements:

- the first SESAR Release content, Release 1, was consolidated through a first System Engineering review and endorsed by the Administrative Board as part of the AWP 2011.

It consisted of 29 Validation Exercises addressing concept elements in 16 Operational Focus Areas;

- in June 2011, the second System Engineering review took place to assess the progress of Release 1 towards the step V3 validation and, in particular, the validation plans and the platforms readiness. The review resulted in a number of corrective actions to mitigate risks related to the Release execution. The review concluded that the overall progress was adequate, while in terms of resource consumption and delivery alignment some weaknesses were noted. In particular, the level of maturity of the projects in following the EOCVM methodology, though improving compared to 2010, was still not sufficient;
- Release 1 has started to deliver tangible results and marks a turning point in the development of the new ATM system;
- at the end of 2011, 26 validation activities were conducted meaning that 90 % of Release 1 is achieved and 3 exercises are postponed to 2012;
- 282 Projects are in execution phase, representing more than 90 % of the total Programme but the progression of the Programme is not evenly distributed. As a matter of fact, deriving the top level concept into operational requirements is slower than expected and this impacts the critical path of several technical projects. A number of mitigation actions had to be put in place and are being monitored at the level of the Programme Control Group. SWIM is another area of concern where a dedicated action plan was elaborated to overcome the issues identified in the course of 2011.
- In terms of resource consumptions (FTE), the first estimates at the end of 2011 provided by the Members indicate an overall under consumption in the order of 20%. Nevertheless, it should be noted that for many Projects the planned distribution of resources during the execution phase is under revision and not yet reflected in the baseline used to measure the Programme progression. Following the IBAFO I and II reallocation adopted by the Administrative Board on 15 December 2011, it can be concluded that there is an under consumption of resources in the early stages of the Programme which appears to be compensated by a higher level of resources until the Programme end.
- A similar but less evident trend – maturity and resources – seems to appear in terms of deliverables, as in some areas the SJU noted a slower provisions of deliverables in line with the under consumption of the resources. In order to address the situation in the short term, different measures have been taken, inter alia, a request to the Programme Committee members to perform further verifications at partners level, an analysis of the major reasons behind the under consumption, the IBAFO I and II reallocation, the termination of some Projects, etc. All the measures are monitored at risk management level and consolidated at the SJU level. In addition, work is conducted with the Members to better identify key root causes. Some of them can already be mentioned, such as the organisation of the work in some Projects, some de-synchronized contributions across the Programme, the lack of clear identification of the deliverables and of more specific quality criteria.

With regard to the 310 R&D and Management projects under the SJU responsibility (excluding WP E Long Term Research Projects) the table below provides a summary of the situation by project status at the end of 2011.

	As of 31.12.2010	Implemented in 2011	As of 31.12.2011	
Total number of Projects in the SESAR Programme	304	6	310	
<i>of which</i>				
• Projects initiated	285	16	301	
<i>cancelled projects</i>	2	1	3	0,9%
<i>suspended projects</i>	11	-1	10	3,2%
<i>projects still under initiation</i>	26	-20	6	2%
projects in execution phase	246	36	282	91%
• Projects to be initiated	19	-10	9	2,9%

Source: Information supplied by the SESAR Joint Undertaking.

Replies of the Sesar Joint Undertaking

Statement of Assurance

13 – 14. The SJU acknowledges with satisfaction the clean audit opinion of the Court on the reliability of the annual accounts for 2011 as well as on the legality and regularity of the transactions underlying the accounts.

The audit opinions constitute an important achievement for the SJU, on which to build in order to further ensure that adequate internal management and control systems are in place and are effective in achieving the SESAR Programme objectives.

Budgetary and Financial Management

17. The SJU considers that it has further progressed in respect of the budgetary principle of equilibrium. The 2011 year end cash balance decreased from 57,2 million euro to 15,3 million euro, corresponding to a decrease of 73,2 %. The SJU will continue its efforts to ensure optimal cash management and the respect of budgetary principles.

Other Matters – Late payment of membership contributions

21. The late contribution still pending at year end was cashed in February 2012. The SJU will further discuss with its Members the most appropriate approach to ensure the respect of the contractual deadlines for the payment of membership cash contributions.