


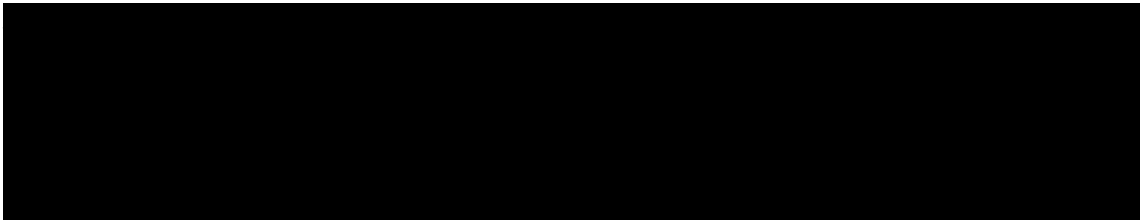


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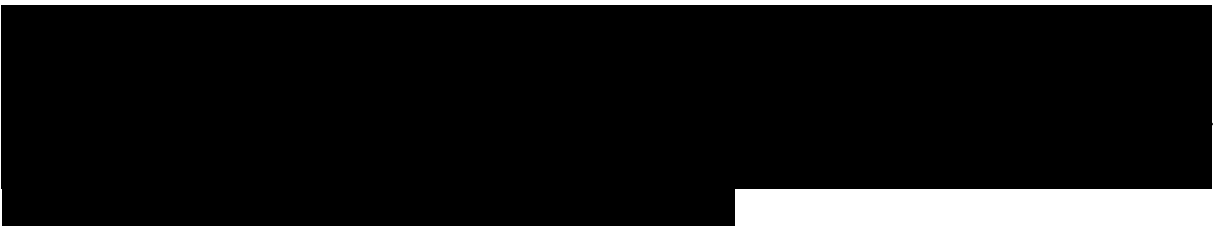
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## EXECUTIVE SUMMARY

In 2008, the main objective of the DG RTD external audit activity has been further implementation of **the FP6 Audit Strategy**. While initially the focus was on the planning and the execution of audits, the emphasis has been gradually turning towards the implementation of audit results, their possible extrapolation and the analysis and correction of the errors found.


At the end of 2008, the mid-term review of the Audit Strategy took place. Its main conclusion was that the Strategy is delivering its expected outcomes. However, further developments are required in four areas in order to ensure that the Strategy is completely and not only partially successful. These four areas are:


- Ensuring that an appropriate balance is achieved between audit efforts and the strategic aim of "cleaning" 40% of the budget from systematic material errors.
  - The formula for the calculation of the residual error rate which appeared in the original Strategy document is under review, and an agreement with the other RDGs on potential changes to it has not been reached yet.
  - Extrapolation is an important management tool that requires the active co-operation of beneficiaries and therefore efforts need to be intensified, particularly with regard to tightening up procedures and liaising with beneficiaries.
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The **activities** of the external audit units have both widened and deepened. On the one hand, traditional activities have been much strengthened, such as effective co-ordination between the DGs of the Research family, liaison efforts with the external audit firms, the internal quality control procedures of the audits or meaningful and timely reporting. On the other, in 2008 work related to new areas of responsibility has started:


- OLAF's external enquiries, which were transferred to RTD.A.4 in February 2008.
- Other assignments such as the ex-ante assessment of "dedicated implementation structures" to which certain tasks of execution have been externalised.
- Consultations with regard to the newly established "executive agencies" and "joint technology initiatives".
- Treatment of cost methodology certificates for FP7.

These new endeavours will potentially become an important part of our activities in the future. In addition, collaboration with the Court of Auditors has not only been strengthened but has also been extended to joint audit missions with the Court.






Also in the past year, a more qualitative analysis of audit results has been applied and, although more work in this area is needed, we can now provide a more informed view of the nature of the errors found in our audits. So far, most errors detected are related to personnel costs and overheads



The introduction of the FP6 Audit Strategy and an increased political scrutiny of the external audit efforts of the Research family of DGs have substantially changed the landscape in which the external audit units of DG RTD operate. In 2008, a lot has been delivered towards meeting these new challenges. The following report summarises our main achievements.

Bearing in mind the number of FP6 audits already closed, the audit targets previously communicated to the ABM and the limited number of auditable FP7 participations at this moment, it will be necessary to partially review our audit activity in 2009. In this context, it is recommended that the types of audits that are launched are changed. It is therefore proposed to launch follow-up audits of extrapolation cases and specific audit assignments for the review of average rates versus actual costs (in view of FP7), for which a tailor-made audit programme is currently under development. The evolution to these  audits will inevitably result in a reduction of the number of audits undertaken in 2009.

## 1. BACKGROUND

### 1.1. Introduction

The purpose of this document is to report on the external audit activities in DG RTD during 2008, using the results of the verifications carried out and providing feedback on any qualitative issues that may have come to light. It also aims to contribute to the opinion of the Director General in DG RTD's Annual Activity Report on whether reasonable assurance exists that the resources assigned to the activities carried out by the Directorate-General have been used for their intended purpose and in accordance with the principles of sound financial management, and whether the control procedures put in place guarantee with reasonable assurance that the legality and regularity of the underlying transactions have been respected.

### 1.2. Legal background

The legal basis for the external audit activity of DG RTD is annex III point 2, paragraph 7 of the Decision n° 1513/2002/EC of the European Parliament and of the Council, and article 18 of Regulation (EC) n° 2321/2002 of the European Parliament and of the Council.

The model contract for the 6<sup>th</sup> Framework Programme (Annex II, Article 29) states that: "*the Commission may, at any time during the contract, and up to five years after the end of the project, arrange for audits to be carried out, either by outside scientific or technological reviewers or auditors, or by the Commission departments themselves including OLAF*".

Similar provisions are in place for the 5<sup>th</sup> FP, as well as for the 7<sup>th</sup> FP but, in 2008, the main area of work of the external audit units has been the 6<sup>th</sup> FP.

### 1.3. The mission of the External Audit Units

The external audit units, by means of financial audits to the highest professional standards, provide a level of reasonable assurance to senior management and all interested parties, including ultimately the Discharge Authority (European Parliament and Council), on whether RTD contractors are in compliance with the terms of the RTD contract(s). By doing so, the external audit activity contributes to the protection of the European Union's financial interests.

The responsibilities related to external auditing are attributed to two units: RTD.A.4 is responsible for strategy and planning coordination, in-house on-the-spot audits and back-office work<sup>1</sup>; RTD.A.5 is responsible for outsourced on-the-spot audits and implementation of the audit certification policy. The mission statements of both units can be found in Annex I.

### 1.4. Relation with the control framework activities of DG Research

The ex-post audit activities need to be seen as part of the overall integrated control framework put in place by the Directorate General. Internal control activities include all ex-ante and ex-post evaluations, controls, financial and scientific verifications and monitoring tools.

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<sup>1</sup> Back-office work refers to a number of tasks in support of the auditing function including information systems and data maintenance, batch preparation, extrapolation, management reporting and a variety of administrative tasks.

Accounting transactions included in the cost statements are processed through the internal control systems of beneficiaries and checked by their certifying auditors, who then issue an audit certificate. These transactions are also monitored by the Commission's Project Officers (scientific and financial) even before the arrival of the cost statements, and thereafter checked by means of desk reviews before payments are made.

This control chain, which operates before any ex-post financial audit is carried out, has to be considered in the overall evaluation of risk and of the external audit results. Close cooperation exists between auditors and operational units in the preparation phase of an audit, as well as in the implementation phase (contacts through the Audit Liaison Officer in order to obtain an agreement concerning audit findings and their implementation).

A possible future control layer in the form of technological and scientific audits is currently under discussion<sup>2</sup>.

### **1.5. The 5<sup>th</sup> Framework Programme**

In order to fulfil the auditing requirements of the 5<sup>th</sup> Framework Programme, RTD's audit policy was mainly based on random sampling, and partially on risk assessments. The underlying assumption was that, provided that the sample was large enough from a statistical point of view, relevant conclusions could be drawn for the whole population<sup>3</sup>. DG RTD decided that a sample of around 10% of contractors should have been audited over the lifetime of the Framework Programme. With this target, the Research DGs aimed at giving a representative picture of their contractors' population.

The Commission, and in particular DG RTD, eventually recognised that the 10% target for FP5 was unrealistic but also that there existed enough justification for not having achieved it<sup>4</sup>. In 2008, FP5 audit activities were progressively phased out.

### **1.6. The 6<sup>th</sup> Framework Programme**

#### *1.6.1. The FP6 Audit strategy*

A comprehensive audit policy for FP6 was first established in February 2004

It is considered a 'corporate' Commission strategy adopted by all the Research DGs (RTD, INFSO, ENTR, TREN), but it is being implemented with due consideration to DG-specific circumstances. Any substantial amendment is to be approved at the level of the ABM Steering Committee.

<sup>2</sup> End 2008 DG RTD has started to follow-up the conclusions of the ad-hoc working group created in 2006, for defining the scope, feasibility and possible synergies of scientific and technological audits, separately from project reviews and ex-post impact assessment.

<sup>3</sup> From a practical point of view, the selection of contracts to be audited was made on a random basis (75%) with an additional 25% of audits selected on a risk analysis basis.

<sup>4</sup> This has been stated by Commissioner Potočník to the COCOBU hearings on 27 and 28 November 2006, and by Commissioner Kallas to the European Parliament plenary session on 14 November 2006.

The overall objective of the FP6 audit strategy is to contribute to sufficiently reasonable assurance to support the DG RTD Annual Activity reporting exercise, including the Declaration of Assurance by the DG RTD Director General.

Hence, the common FP6 audit strategy is based on three pillars which aim to provide this reasonable assurance as well as to have sufficient corrective actions.

- The first pillar is based on the hypothesis that the [REDACTED] of expenditure received by a relatively small number of beneficiaries contains a certain proportion of systematic material errors and that by auditing three contracts per organisation these systematic material errors will be corrected by extrapolating the audit results to all non-audited contracts.
- The second pillar focuses on estimating the level of error present in the remainder of the population by auditing a representative selection of beneficiaries from this portion of it. This selection has been made using the monetary unit sampling (MUS) technique.
- The third pillar covers audits selected on the basis of a risk assessment methodology.

#### *1.6.2. Mid-term review of the FP6 Audit Strategy*

The audit strategy mentioned that a mid-term review would be carried out in 2008 to assess whether the strategy is functioning as intended. The mid-term review's main conclusions are incorporated in this report.

In the first two years of implementation of the FP6-audit strategy, which covers four years in total (2007-2010), the focus has been on increasing the number of audits, improving the consistency of approach and coherence of conclusions, more homogeneous audit policies (including reporting and documenting), calculating a reliable error rate and introducing the extrapolation procedure.

All the RDGs believe that the corporate FP6-audit strategy is delivering its expected auditing output satisfactorily. However, the "cleaning" of a significant part [REDACTED] of the budget from systematic material errors is proving to be, as expected, the most challenging objective, but it is progressively being achieved. A number of policy issues have a potential impact on reaching that target, such as defining the necessary auditing effort required before considering a budget as "clean". These policy issues are being analysed among the RDGs to establish a common line.

Here are some additional main points of the review in summary:

[REDACTED]

2. Further development of IT-supporting tools remains essential for an effective and efficient implementation of the Audit Strategy. The RDGs have listed what remains to be developed in the SAR Action Plan. The importance of the development of these tools is clear, in particular as a means to enhance the efficiency and effectiveness of extrapolation.

3. The need for a coherent application of the liquidated damages' clause in FP6 is being developed progressively, but this is of course a matter for AOSDs, and not immediately for the external audit units.
4. The increased number of audit results is at this point moving the emphasis of the Audit Strategy from the detection of errors to their correction.

[REDACTED]

6. Despite constant coordination efforts, the 'corporate' character of the audit strategy reaches its limits in the independence of the four AODs.

## 2. ACTIVITIES

### 2.1. Types and nature of the audits carried out

The external audit units perform audits in accordance with the FP6 Audit Strategy. The bulk of audits corresponds to the three strands of the FP6 Audit Strategy, which are:

- TOP: this is a selection of the beneficiaries which receive the most money from the Commission. The RTD list of top beneficiaries consists of [REDACTED] contractors which receive [REDACTED] of the FP6 budget managed by RTD. All beneficiaries in this sample have been audited at least once (on at least three participations) and, where necessary, further audits are carried out in order to confirm the presence or not of systematic material errors for each beneficiary.
- MUS: using a monetary unit sampling technique to ensure statistical representativity, a selection of [REDACTED] beneficiaries was made from the non-TOP RTD population. One audit is carried out for each of them.
- RISK: a number of different criteria have been used to select the beneficiaries in this strand. The audits of this strand are intended to have a corrective effect on the amount of errors present in the RTD population. The results of these audits are not taken into account in the calculation of the representative error rate.

There are, however, additional auditing commitments in the following areas:

- FUSION: a limited number of national bodies in the field of nuclear fusion are part of the FUSION programme, implemented through Contracts of Association between them and EURATOM (represented by the Commission). The current arrangement with Directorate J is to audit them all on a cyclical basis. [REDACTED]  
[REDACTED] These audits are part of FP6.
- Coal and Steel (C&S): a small number of audits is carried out on beneficiaries which receive monies from the Research Fund for Coal and Steel (RFCs), which is managed by DG Research, Directorate K. The first two audits of this type were closed in 2008, and more have been launched. In addition, an agreement has been reached to make the



selection of beneficiaries more representative in the future. RFCS contracts do not follow the provisions of the Framework Programmes, and therefore these audits are considered as not FP-related.

- Audits on Request: audits in this category are performed at the request of the operational services, and they are normally quite specific in their scope. [REDACTED]
- Joint audits with the Court of Auditors: a number of these audits were carried out in 2008 for the first time (see section 2.4).

Coal & Steel audits and joint audits with the Court are always done in-house by RTD's own auditors. Other audits can be either done in-house or outsourced to an external audit firm, under the framework contract. This last type is known as 'batch' audits. Finally, a small number of selected beneficiaries can be in non-EU countries ('third country audits').

## 2.2. Cross-RDG co-ordination

The adoption of a common corporate FP6 audit strategy means closer coordination between the RDGs in a significant number of areas. [REDACTED]  
[REDACTED] This requires a significant investment of resources.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 2.2.3. *Horizontal audit reference documents*

All Research DGs have agreed to a common 'Audit Process Handbook' to be used for FP6 audits. The audit process includes all the procedural steps to be performed by the auditor, the audit management, administrative support and other parties involved at the level of an individual (external) audit engagement from the assignment (start) of the engagement to the communication of audit results and the archiving of audit files.

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[REDACTED]

The 'Audit Process Handbook' is in force as from January 1<sup>st</sup> 2008 and aims at ensuring a common approach for all kind of audit tasks. The procedures established should ensure that 'generally accepted auditing standards' are applied.

The handbook has already been updated on several occasions. Updates relate mostly to simplifications and to new developments [REDACTED] Auditors can send their proposals for improvements to a functional mailbox that has been created for that purpose.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

DG RTD is also in the lead for coordinating the information and documents to be provided by all RDGs to the ABM on audit-related matters.

### **2.3. Extrapolation**

Extrapolation is a key component of the common FP6 audit strategy, because of its essential role in 'cleaning' the budget from systematic material errors.

#### *2.3.1. Extrapolation policy and coordination*

During 2007, the implementation of extrapolation was carried out separately by each RDG. This resulted in different practices in the four RDGs towards common contractors.

[REDACTED]

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[REDACTED]

### 2.3.2. Extrapolation management

\_\_\_\_\_

\_\_\_\_\_

	2019	2020	2021	2022	2023
2019	1	1	1	1	1
2020	1	1	1	1	1
2021	1	1	1	1	1
2022	1	1	1	1	1
2023	1	1	1	1	1
2024	1	1	1	1	1
2025	1	1	1	1	1
2026	1	1	1	1	1
2027	1	1	1	1	1
2028	1	1	1	1	1
2029	1	1	1	1	1
2030	1	1	1	1	1

\_\_\_\_\_

\_\_\_\_\_

### 2.3.3. Extrapolation implementation

As each individual extrapolation case can potentially affect many projects in a number of RTD directorates, ongoing extrapolation cases require a significant amount of effort, attention and supervision by the operational services responsible for the follow-up actions, as well as by the external audit units. The experience acquired so far has underlined the challenges in this area, especially with regard to the follow up of the reception of revised cost statements.

\_\_\_\_\_

Indeed, extrapolation is an important management tool that requires the active co-operation of beneficiaries and therefore efforts need to be intensified, particularly with regard to tightening up procedures and liaising with beneficiaries.

up procedures and liaising with beneficiaries. [REDACTED]

For all RTD-led ongoing extrapolation cases, 1 projects have been identified as affected by the application of extrapolation. In addition, 1 cases led by other RDGs have an impact within DG RTD (i.e. those beneficiaries participate in RTD projects). Currently, 1 projects are affected by these non-RDG cases.

Additional efforts need to be undertaken so that close follow-up of individual extrapolation cases could be carried out across the four RDGs despite, at present, weak IT-supporting tools. The development of IT-supporting tools is essential for the effective and efficient

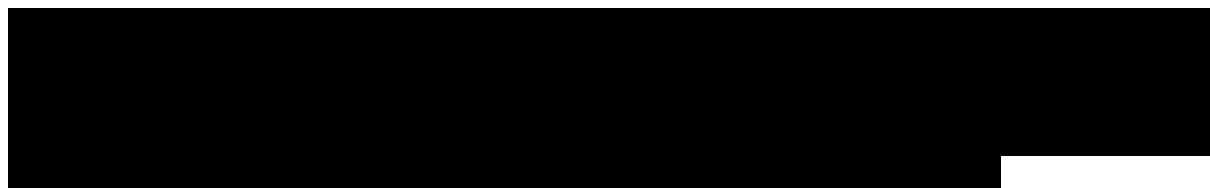
implementation of the extrapolation process. Therefore, in the context of the SAR Action Plan (see section 2.9), priority is given to developments in the area of extrapolation.

#### *2.3.4. Extrapolation follow-up activities*

From April 2008, and on the initiative of RTD.A.4, a number of extrapolation follow-up meetings have been organised in order to ensure better coordination within DG RTD. Given the decentralised structure in DG RTD financial management, this has been an essential initiative.

During the four meetings in 2008, representatives of operational RTD directorates responsible for the implementation of extrapolation have discussed the status of ongoing cases and any further actions to be taken, based on the latest information collected by all stakeholders. The meetings also allow for useful discussions of practical issues (i.e. registering and analysing revised cost statements, development of software tools to monitor follow-up, issues relating to the recovery procedure, possibility of global recovery orders, [REDACTED] etc.).

Reminder letters are sent when the contractors involved do not respond to the requests to send in revised cost statements or provide additional information. With the decision taken in 2008 to apply extrapolation not only to open contracts, but also to closed contracts, it is expected that these efforts, which are necessary for an adequate follow-up and implementation of audit results, will increase further.



#### *2.3.5. Further considerations*

Overall, it can be concluded that the extrapolation process and its follow-up prove to be a time consuming process which requires substantial resources.

The overall financial result of actual recoveries/adjustments related to extrapolation is potentially very important. However, given the fact that most of the extrapolation cases are still ongoing, at this stage it is not yet possible to have an exact picture of the overall (financial) impact of extrapolation in relation to the resources required. Please note that this monitoring is not being done by the external audit units, but by Directorate R (as is the case for other non-extrapolation related recoveries).

It will be necessary to further optimise and improve the working procedures, and – as already mentioned before - commit appropriate resources for the follow-up of extrapolation cases, as well as improve the IT systems used to register and monitor ongoing extrapolation cases. Furthermore it is necessary to further centralise and improve the coordinated approach of the follow-up activities. In 2008 this last issue was addressed with the creation of the new Unit R.7 ("Management of debts and guarantee funds").

## 2.4. Collaboration with the European Court of Auditors (ECA)

During 2008, our collaboration with ECA has been significantly strengthened in a number of areas:

- Planning: A4 now regularly receives the mission plan of the Court, via Unit R5<sup>11</sup>.
- Joint missions: a number of pilot-projects of joint missions with the Court were undertaken in 2008; this was considered a positive experience. As a consequence, more of these audits will be planned in 2009.
- Treatment of ECA's audit results: Although R.5 manages relations with the Court, A4 is now also consulted on the draft sector letters issued by the Court. [REDACTED]
- Reporting: the back-office of the external audit units sends a quarterly compilation of audit documentation to the Court related to all audits closed in that quarter. As for the results of the Court's audits, they are now systematically entered into ASUR by R5 for follow-up by the operational services.

[REDACTED]

One major outcome to be mentioned, at the technical level, is the recognition by the Court of Auditors of the need for a specific audit approach for the auditing of personnel costs and overheads, if averages are used by the contractor. This need is evident in the context of ex-ante certification for FP7. A first exchange on this matter took place in 2008.

## 2.5. Reporting activities

The external audit units are asked to report in quite a different number of formats and to a variety of audiences throughout the year.

[REDACTED]

<sup>11</sup> In DG RTD, R.5 is in charge of the Relations with the Court of Auditors.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Court audited the ex-post audit strategy in February 2008, acknowledging that the reinforcement in human resources and the reorganisation of the external audit function has positively influenced audit coverage, and that with a better follow-up of audit results this should lead to improved overall assurance. It equally acknowledged the efforts undertaken to come to greater coherence between the RDGs, as for example on common interpretations and guidance. The Court was still critical with regard to delays in implementing audit findings, and they were also of the opinion that extrapolation ought to be extended to closed contracts.

## **2.6. OLAF cases**

[REDACTED]

[REDACTED]

---

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

2.7. Quality control tools

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]



2.7.2. The quality review process

The quality review process for the audit reports done by Commission auditors was strengthened in 2008.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]


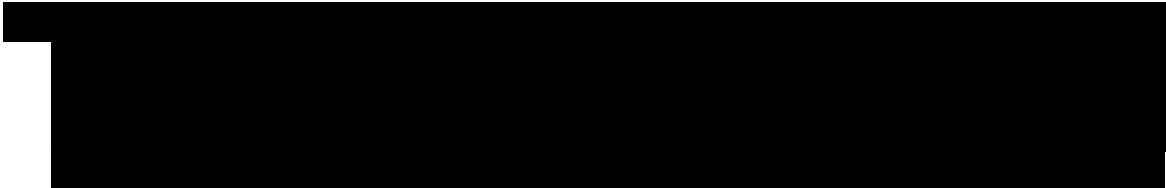
2.8. Collaboration with the DG RTD administration and finance (UAF) network

Throughout 2008 the external audit units have maintained close working relationships with the administration and finance units be it in the phase of planning and preparing the launch of new audit campaigns, during the audits (in order to obtain feedback on draft audit conclusions) or after the audit (for the implementation of the final audit conclusions).

Moreover, ad-hoc bilateral meetings have been held whenever appropriate to discuss specific files and – as already mentioned - extrapolation follow-up meetings were organised to

monitor the state-of-play of extrapolation files. The external audit units also participate in the monthly UAF meetings to present and clarify matters linked to audit and financial issues.

## 2.9. SAR and other IT developments

- 
- **Audit Management information System (AMS) in DG RTD** - The development of an application that will replace Aubase (the present audit management system that was developed internally by the External Audits Unit) has progressed during 2008. In agreement with R4, its planned implementation in 2008 has been postponed until March 2009 (phase 1) and late 2009 (phase 2), in order to include increased functionality and security.
  - **ABAC Audit Tracking System** - This module of ABAC was put into production at the end of 2007. RDGs were requested to upload data about audits.
  - **Extrapolation (EXITs)** - To address the acute need for the administration and management of the work created by extrapolation, a new application called EXITs was developed by A4. It is currently using the data tables of Aubase which will be replaced by AMS. The plan is that its functionality will be included in phase 2 of AMS.
  - **ASUR EXA** - The ongoing development of ASUR, which is the system through which the implementation of the proposed adjustments is monitored, resulted in a number of improvements. For example, recommendations are now assigned to the AOSDs<sup>14</sup> as responsible persons, and forecast of revenue details can now be recorded. These improvements have, in turn, helped to strengthen the working relationship between the back office of the external audit units and the operational directorates.
  - **ASUR EXTRA** - Extrapolation has had substantial repercussions on procedures and systems beyond those of the external audit units. As a consequence, and in order to improve the follow up of recommendations resulting from extrapolation, follow-up data has been migrated from EXITs to ASUR EXTRA (an application owned by R5).
- 

<sup>14</sup> AOSD=Authorising Officer by Sub-Delegation.

## 2.10. FP7 Certification policy

### 2.10.1. General Principles

The Certification policy for the FP7 Grant Agreements was designed with the aim to correct the most common errors identified in the past, and in particular those related to personnel costs and indirect costs. In this context, the 7th FP introduced, in addition to the Certificates on the Financial Statements, two new types of ex-ante certificates on the methodology which may be submitted prior to the costs being claimed: the *Certificate on Average Personnel Costs* and the *Certificate on the Methodology for Personnel and Indirect costs*.

### 2.10.2. State of play of Certification files as of 31 December 2008

Concerning the FP7 Certification on the Methodology for personnel and indirect costs, as of 31 December 2008, █ requests for eligibility were submitted out of which █ have been rejected because they did not fulfil the relevant criteria. Furthermore, the Commission received █ requests for certification of the beneficiaries' methodology for personnel and indirect costs and █ concerning the methodology for average personnel costs. █

The methodology certification activity is characterised by an undetermined, yet, in view of the size of the beneficiary population, potentially very high workload. The moment in time when the certificates will be submitted and need to be dealt with cannot be planned up-front.

### 2.10.3. Supporting IT tools

The development of the central IT tool in OMM to support the management of the FP7 certification activities was started in the third quarter of 2007 under the responsibility of Unit R4. Due to resource constraints, this project was no longer considered by R4 as an IT priority and was finally abandoned due to the implementation of PDM/URF in replacement of OMM.

From June 2008 onwards a new web-based project was initiated, promoted by ITPO. This project aims to provide a central Web-based IT tool, solely dedicated to supporting the FP7 methodology certification. In the meantime a local MS Access based tool supports the certification activities.

#### 2.10.4. *Inter-service collaboration*

An inter-service Working Group on Certification of Methodology (WGCM) involving the other research DGs and DG BUDG contributed to the establishment of guidance for prospective FP7 beneficiaries and other implementation modalities of the cost methodology certification process. [REDACTED]

Furthermore DG RTD has received delegated authority as part of the ABM action plan to handle and organize the FP7 cost methodology operations on behalf of all RDGs. DGs TREN and ENTR delegated the entire FP7 methodology certification management while DG INFSO remains involved in the operational activity. Appropriate structures, procedures and working tools were put in place to manage this activity within this scope. [REDACTED]

#### 2.10.5. *Communication activities*

In the framework of the FP7 Certification policy, RDGs cooperated in conducting communication activities to increase internal and external awareness on the new instrument of FP7 Certification on the Methodology:

- handling questions submitted through the Research Enquiry Service on *Europe Direct*.
- an internal awareness-raising campaign on FP7 Certification issues leading to meetings with operational and UAF units.
- an external communication campaign towards potentially eligible beneficiaries for the Certification on the Methodology through a mailing sent to 400 beneficiaries.
- participation in seminars, conferences, bilateral meetings and pilot reviews (over 50 events in total).
- posting of certification-related documents on [www.cordis.europa.eu](http://www.cordis.europa.eu) (FAQ document, specific certification-dedicated pages, "Guidance notes for Beneficiaries and Auditors").

### 2.11. **Coordination of relationships with external audit firms**

The existing framework contract for audit services was signed with three audit firms to be used under a cascade principle.

Due to the audit targets of the FP6 audit strategy there is a relatively strong dependence on the external audit firms, as approx. [REDACTED] of the target is done through outsourced audits. The external audit firms operate according to established professional audit practice and standards and provide a useful and necessary complement to DG RTD's in-house audit expertise and capacity.

RTD A.5 closely monitors the performance of the audit firms ensuring that, as far as possible, all audits are completed and closed within the contracted time frame. The monitoring involves the following processes:

[REDACTED]

- Accompanying external audit firms on-the-spot audits (five such missions were performed).
- Providing guidance and clarification on specific problems.

## 2.12. Management of the audit framework contracts and their public procurement

Unit A5 chairs on behalf of DG RTD and towards the other RDGs the coordination of the external audit firms performing outsourced audits through the framework contract and also manages the public procurement procedures for new framework contracts for audit services on FP6 as well as on FP7 research grants (for use by all Research DGs and related agencies).

- Throughout 2008 it became apparent that the considerably increased volume of external audits stretched the capacity of the current main service provider who was selected based upon a tender that initially foresaw significantly lower audit volumes (■ audits per year).
- Unit A5 launched procedures to initiate, in conjunction with the open call for tender for audit services for FP7, a new open call for tender for additional FP6 audit services. Both tender procedures closed on 4 August 2008 and the evaluation procedure and award decision for the FP6 call ■ were concluded in December 2008. A positive advice from the DG RTD procurement committee was obtained to allow the new FP6 framework contract to be available for new outsourced audit campaigns as of early 2009. The new FP6 framework contract has been signed in the meantime. For the FP7 call for tenders, the appointed evaluation committee was end December in the process of finalizing the evaluation of the ■ tenders received. The evaluation procedure is ongoing. These procurement procedures cover the outsourcing of audits for FP6 and FP7 grants for the period 2009-2012 with a potential market value amounting to ■ respectively.

## 2.13. Other activities (Art.169 Initiatives/JTIs/Agencies)

### 2.13.1. Article 169 Initiatives ■

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

#### *2.13.2. Joint Technology Initiatives – JTIs*

Unit A4 participated in two technical working groups concerned with setting up the governance, administrative and financial features of the Joint Undertakings (JUs, where DG RTD is involved). The two working groups looked at (a) the definition of the internal control framework of the JU and (b) the finalisation of the grant financial agreement.

The main outstanding issue is the extent to which the audit strategy of the JTIs is to be harmonised with the corporate audit strategy of the RDGs.

#### *2.13.3. Executive Agencies – REA and ERCEA*

The external audit units were also involved in the process of setting up of the two "DG RTD" Executive Agencies, in particular where the Audit Strategy is concerned.

The relationship between the Agencies and the Commission services will be different before and after the Agencies have become autonomous. At present, working groups exist in which units A4 and A5 are present to analyse the most appropriate arrangements.

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[REDACTED]



1. **Identify the main components of the system.**  
 2. **Define the scope and objectives of the study.**  
 3. **Formulate hypotheses or research questions.**  
 4. **Design the experimental setup or methodology.**  
 5. **Collect and analyze data.**  
 6. **Draw conclusions and discuss implications.**





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Age Group	Male (%)	Female (%)
18-24	65	35
25-34	55	45
35-44	45	55
45-54	35	65
55-64	25	75

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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

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	2019				2020			
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the *Journal of the American Medical Association* (JAMA) and the *New England Journal of Medicine* (NEJM) are the most widely read journals in the field. The *Journal of the American Medical Association* (JAMA) is a peer-reviewed medical journal that publishes research, clinical practice, and medical education. The *New England Journal of Medicine* (NEJM) is a peer-reviewed medical journal that publishes research, clinical practice, and medical education. Both journals are published by the American Medical Association (AMA) and the New England Medical Center (NEMC).

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Country	Year	Population (millions)	GDP (billion USD)	Economic Indicators			GDP per capita (USD)
				Unemployment (%)	Inflation (%)	Trade Balance (billion USD)	
USA	2019	328	21.4	3.8	2.4	65,200	
China	2019	1,402	14.0	5.2	2.9	10,100	
Germany	2019	83	3.9	5.3	0.2	45,300	
India	2019	1,380	2.9	6.7	0.1	2,100	
Japan	2019	126	5.0	2.4	-0.1	39,600	
UK	2019	67	2.8	3.9	0.0	42,800	
France	2019	67	2.8	7.5	0.0	41,800	
Canada	2019	38	1.6	5.9	0.3	42,800	
Italy	2019	60	1.9	11.3	0.0	33,000	
Spain	2019	46	1.4	14.3	0.0	30,400	
South Korea	2019	51	1.7	3.5	0.0	33,300	
Brazil	2019	215	1.0	13.7	4.3	4,700	
Russia	2019	146	1.1	4.4	0.0	7,600	
South Africa	2019	60	0.4	27.4	0.0	7,600	
India	2020	1,380	2.9	6.7	0.1	2,100	
China	2020	1,402	14.0	5.2	2.9	10,100	
Germany	2020	83	3.9	5.3	0.2	45,300	
India	2021	1,380	2.9	6.7	0.1	2,100	
China	2021	1,402	14.0	5.2	2.9	10,100	
Germany	2021	83	3.9	5.3	0.2	45,300	
India	2022	1,380	2.9	6.7	0.1	2,100	
China	2022	1,402	14.0	5.2	2.9	10,100	
Germany	2022	83	3.9	5.3	0.2	45,300	
India	2023	1,380	2.9	6.7	0.1	2,100	
China	2023	1,402	14.0	5.2	2.9	10,100	
Germany	2023	83	3.9	5.3	0.2	45,300	
India	2024	1,380	2.9	6.7	0.1	2,100	
China	2024	1,402	14.0	5.2	2.9	10,100	
Germany	2024	83	3.9	5.3	0.2	45,300	
India	2025	1,380	2.9	6.7	0.1	2,100	
China	2025	1,402	14.0	5.2	2.9	10,100	
Germany	2025	83	3.9	5.3	0.2	45,300	
India	2026	1,380	2.9	6.7	0.1	2,100	
China	2026	1,402	14.0	5.2	2.9	10,100	
Germany	2026	83	3.9	5.3	0.2	45,300	
India	2027	1,380	2.9	6.7	0.1	2,100	
China	2027	1,402	14.0	5.2	2.9	10,100	
Germany	2027	83	3.9	5.3	0.2	45,300	
India	2028	1,380	2.9	6.7	0.1	2,100	
China	2028	1,402	14.0	5.2	2.9	10,100	
Germany	2028	83	3.9	5.3	0.2	45,300	
India	2029	1,380	2.9	6.7	0.1	2,100	
China	2029	1,402	14.0	5.2	2.9	10,100	
Germany	2029	83	3.9	5.3	0.2	45,300	
India	2030	1,380	2.9	6.7	0.1	2,100	
China	2030	1,402	14.0	5.2	2.9	10,100	
Germany	2030	83	3.9	5.3	0.2	45,300	

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**ANNEX I: MISSION STATEMENTS**

**MISSION STATEMENT UNIT RTD.A.4: EXTERNAL AUDITS**

The Unit contributes to the assessment of the legality and regularity of the DG RTD payment transactions by means of ex post financial audits, thereby providing a basis of reasonable assurance to senior management and other stakeholders (including the budget discharge authorities) that RTD contract participants are in compliance with the financial terms of the RTD contract. The corrective actions and follow-up measures which result from the ex post audit activity contribute to the protection and safeguarding of the European Union's financial interests in the research area.

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

**MISSION STATEMENT Unit RTD.A.5 "Implementation of Audit certification policy and outsourced audits"**

The Unit contributes to the assessment of the legality and regularity of the DG RTD payment transactions by means of ex post financial audits, thereby providing a basis of reasonable assurance to senior management and other stakeholders (including the budget discharge authorities) that RTD contract participants are in compliance with the financial terms of the RTD contract. The corrective actions and follow-up measures which result from the ex post audit activity contribute to the protection and safeguarding of the European Union's financial interests in the research area.

Through the certification function for FP7, the unit aims to contribute in an ex ante manner to the legality and regularity of future DG RTD payment transactions by ensuring that the cost methodology systems of FP7 beneficiaries are in compliance with the rules, thereby resolving main errors observed in the past from the outset.

[REDACTED]

[REDACTED]

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