



Brussels, 24.7.2013
SWD(2013) 286 final

COMMISSION STAFF WORKING DOCUMENT

Methodology regarding the statistical evaluation of reported irregularities for 2012

Accompanying the document

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

**Protection of the European Union's financial interests - Fight against Fraud
Annual Report 2012**

{ COM(2013) 548 final }
{ SWD(2013) 283 final }
{ SWD(2013) 284 final }
{ SWD(2013) 285 final }
{ SWD(2013) 287 final }

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1. INTRODUCTION

The present commission staff working document accompanies the Annual Report from the Commission to the Parliament and the Council on the protection of the European Union's financial interests and the fight against fraud (further referred to it as 'Report') adopted on the basis of article 325 of the Treaty on the Functioning of the European Union (TFEU).

This document describes the main information sources on which the Report is based the legal framework which foresees the obligation to submit them to the Commission and the methodology followed regarding the statistical evaluation of irregularities reported as fraud and other irregularities in the areas where Member States implement the EU budget (expenditures for natural resources, cohesion policy and pre-accession funds) and of the collection of the EU's traditional own resources, as well as in the area of expenditure managed directly by the Commission.

EU legislation requires Member States to report to the Commission, on a quarterly basis, irregularities that have been detected in the areas of shared management and Traditional Own Resources¹.

Member States must inform the Commission whether the reported irregularities constitute suspicions of fraud (if they give rise to the initiation of administrative and/or judicial proceedings at national level in order to establish the presence of intentional behaviour, such as fraud²) and must update the reported information in relation to the completion of the relevant proceeding for the imposition of sanctions.

In the area of expenditure managed directly by the Commission it is the Commission services, which have to qualify³ the recoveries, whether they encountered errors, irregularities or suspected fraud.

Regarding recoveries, preventive and corrective measures for the protection of the EU financial interests, the analysis presented in the Report is limited to the information published in the EU annual accounts. For this reason it mainly concerns interruptions, suspensions and financial corrections by the Commission *vis-à-vis* Member States, although it also presents information concerning recoveries made.

Data sources

There are three main types of data sources used for the analyses developed in the Report:

- (1) Irregularities reported by Member States under a specific legal obligation. These are described in detail in paragraph 1.1 to 1.3. Irregularities related to expenditure areas of the budget are reported via an electronic tool known as the Irregularity Management System (IMS) managed and maintained by OLAF. Irregularities concerning Traditional Own Resources (TOR) are reported via an

¹ Provided that they do not fall in the derogations specifically foreseen by the relevant provisions
² Commission Regulation (EC) No 1848/2006 of 14 December 2006 concerning irregularities and the recovery of sums wrongly paid in connection with the financing of the common agricultural policy and the organisation of an information system in this field and repealing Council Regulation (EEC) No 595/91, OJ L 355, 15.12.2006, p. 56–62

³ According to the relevant budgetary and financial rules, irregularity constitutes any infringement of regulatory and/or contractual provisions; meanwhile in case the irregularity gives rise to suspicion of fraud, OLAF must be notified.

electronic system known as OWNRES and managed and maintained by DG BUDG.⁴

- (2) Recovery orders recorded in the Commission's Accrual Based Accounting System (ABAC). Authorising Officers by Delegation specify whether a given recovery order is linked to an irregularity, a potential fraud (defined as 'OLAF notified') or other.
- (3) Annual Reports published by competent DGs in relation to expenditure and the Provisional Accounts of the EU published by DG BUDG, in particular in relation to preventive and corrective measures (interruptions and suspensions of payments, financial corrections and recoveries).

1.1. The legal framework for irregularities reporting

European legislation provides for the protection of the Union's financial interests in all areas of activity⁵. The FinR sets the principles and rules for the correct implementation of the budget. Member States are required to notify the European Commission (EC) of evidence of fraud and other irregularities. This need is particularly evident in those sectors of the EU budget where the main responsibility for management is with the Member States, namely, in the fields of Agriculture and Cohesion Policy (on the expenditure side) and Own Resources (on the revenue side). In these areas, Member States must inform the Commission of all irregularities involving more than EUR 10 000 of EU finances. This applies at all stages in the procedure for recovering monies unduly paid or not received.

Regulation No 1150/2000 specifies the requirement for own resources and Regulation No 1848/2006 for the agriculture sector. For the Cohesion Policy, which runs over multi-annual programmes the legal framework is more complex and is covered by Regulations Nos 1681/94⁶ and 1831/94⁷ for the programming periods

⁴ For a detailed description of the reporting systems, please refer to the Commission Staff Working Document 'Methodology regarding the statistical evaluation of reported irregularities for 2011' accompanying the Annual Report 2011 on the Protection of the EU financial interests, available at the following internet link: http://ec.europa.eu/anti_fraud/documents/reports-commission/2011/methodology_en.pdf, and in particular, paragraph 3.

⁵ See in particular for traditional own resources: Article 6(5) of Council Regulation (EC, Euratom) No 1150/2000; for expenditure: Articles 3 and 5 of Council Regulation (EC) No 1848/2006 of 14 December 2006 (OJ L 355, 15.12.2006) for Agriculture; articles 3 and 5 of Commission Regulation (EC) No 1681/94 of 11 July 1994 (OJ L 178 of 12.7.1994), as amended by Regulation (EC) No 2035/2005 of 12 December 2005 (OJ L 328 of 15.12.2005) for the Structural Funds until the programming period 2000-2006 included; articles 3 and 5 of Regulation No 1831/94 of 26 July 1994 (OJ L 191, 27.7.1994), as amended by Regulation (EC) No 2168/2005 of 23 December 2005 (OJ L 345 of 28.12.2005) for the Cohesion Fund until the programming period 2000-2006 included; articles 28 and 30 of Commission Regulation (EC) No 1828/2006 of 8 December 2006 (OJ L 371, 27.12.2006) as amended by Commission Regulation (EC) No 846/2009 of 1 September 2009 (OJ L 250, 23.9.2009) for the Cohesion Policy 2007-2013; Articles 55 and 57 of Commission Regulation (EC) No 498/2007 of 26 March 2007 (OJ L 120, 10.5.2007) as amended by Commission Regulation (EC) No 1249/2010 (OJ L 341, 23.12.2010) for the European Fishery Fund (EFF).

⁶ Regulation 1681/94 applies to the Structural Funds, that is to say European Regional Development Fund (ERDF), European Social Fund (ESF), European Agriculture Guidance and Guarantee Fund (EAGGF) – Section Guidance and Financial Instrument for Fisheries Guidance (FIFG). It has been amended by Regulation No. 2035/2005 of 12 December 2005

⁷ Regulation 1831/94 applies to the Cohesion Fund. It has been amended by Regulation No. 2168/2005 of 23 December 2005.

until the 2000-2006 and by Regulation No 1828/2006⁸ for the period 2007-2013⁹. Regulation No 498/2007 covers the European Fishery Fund (EFF).

The obligation to report irregularities in the area of pre-accession assistance is established in the Financing Agreements/Memoranda signed between the acceding countries, Candidate countries and the European Community/Union and is in accordance with the provisions of Commission Regulation (EC) 1681/1994¹⁰ and 1828/2006¹¹. This obligation is yet enhanced by the Commission decision granting conferral of management on extended decentralised basis (EDIS).

1.2. Expenditure – contents of the reporting obligation and derogations

1.2.1. The reporting obligation

Member States shall report to the EC any irregularities which have been the subject of a primary administrative or judicial finding, within two months following the end of each quarter. Therefore, the reporting period is divided in four quarters the last of which has as deadline the end of February of the following year¹².

The first communication of a case of irregularity is also known as ‘Initial Communication’

The information to be submitted concerns, among others:

- (1) The identification of the operation or budget line (for agriculture) affected by the irregularity;
- (2) The detection method and the *modus operandi*;
- (3) The financial impact of the irregularity;
- (4) The natural and legal persons having committed the irregularity.

Member States can differ to a subsequent updating communication the integration of the information of which they do not dispose at the moment of the initial communication.

Updating communications provide relevant information about the administrative and judicial follow-up of the irregularities. In the areas of Cohesion and Pre-Accession

⁸ Commission Regulation (EC) No 1828/2006 of 8 December 2006 setting out rules for the implementation of Council Regulation (EC) No 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and of Regulation (EC) No 1080/2006 of the European Parliament and of the Council on the European Regional Development Fund, OJ L 371, 27.12.2006. This repeals Regulations (EC) No 1681/94 and (EC) No 1831/94. Commission Regulation (EC) No 498/2007 of 26 March 2007 laying down detailed rules for the implementation of Council Regulation (EC) No 1198/2006 on the European Fisheries Fund.

⁹ Regulation (EC) No 1080/2006 of the European Parliament and of the Council of 5 July 2006 on the European Regional Development Fund and repealing Regulation (EC) No 1783/1999; Regulation (EC) No 1081/2006 of the European Parliament and of the Council of 5 July 2006 on the European Social Fund and repealing Regulation (EC) No 1784/1999; Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999; Council Regulation (EC) No 1084/2006 of 11 July 2006 establishing a Cohesion Fund and repealing Regulation (EC) No 1164/94, OJ L 210, 31.7.2006.

¹⁰ As amended by Regulation (EC) No 2035/2005

¹¹ As amended by Regulation (EC) No 846/2009

¹² For the Agriculture sector, however, the financial year, which is also taken as a reference for the analysis of reported irregularities, runs from October 15 to October 14 of the following year.

information about financial follow-up has to be provided for irregularities related to previous programming periods (until 2000-2006 included)¹³.

The reporting of irregularities shall happen by electronic means, using the modules provided by the EC (see chapter 4 of this document about the electronic reporting systems).

In certain sectors, namely Cohesion Policy and Pre-accession, financial information has to be expressed in Euro by countries which have not adopted it as their currency.

1.2.2. *Derogations to the reporting obligation*

As a general rule, where the irregularities relate to amounts of less than EUR 10 000 chargeable to the general budget of the EU, Member States shall not send the EC the irregularity communication, unless the Commission expressly requests it.

Further specific derogations to the reporting obligation are foreseen in the areas of Agriculture, Cohesion and Pre-accession policies. More concretely, cases should not be reported:

- where the irregularity consists solely of the failure to partially or totally execute a (co-)financed operation owing to the bankruptcy of the final beneficiary or the final recipient; however, irregularities preceding a bankruptcy and cases of suspected fraud must be reported,
- if the case has been already brought to the attention of the administrative authority by the final beneficiary or the final recipient voluntarily and before detection by the relevant authority, whether before or after the payment of the public contribution,
- where the administrative authority finds a mistake regarding the eligibility of the financed expenditure and corrects the mistake prior to payment of the public contribution.

1.3. **Revenue – Traditional Own Resources**

Traditional own resources (TOR) is one of these own resources and mainly consist of customs duties that are charged on imports of products coming from a non-EU state. Member States are responsible for making traditional own resources available to the Commission within the deadlines set by Regulation No 1150/2000. Established amounts of TOR, that have been recovered or that are guaranteed and not under appeal, are to be made available via the *A-account*. Member States retain 25 % of these amounts by the way of collection costs. However, if TOR have been established by a Member State but not yet recovered and if no security has been provided or the secured amount has been disputed, Member States may enter these TOR amounts in the *B-account*. These amounts of TOR are not made available until they are actually recovered. Most fraud and irregularity cases relate to B-account items.

In order to get the right picture of the Member States' TOR recovery activity, it is important to keep in mind that about 98 % of established TOR is subsequently recovered without any particular problem. These amounts are entered in the A-account and made available to the EU budget. This covers most of the 'normal'

¹³ Regulation (EC) No 846/2009 has simplified the reporting obligation specified in Regulation (EC) No 1828/2006.

import flows where release for free circulation gives rise to a customs debt. The remaining exceptional items are entered in the B account.

Under Article 6(5) of the Regulation No 1150/2000, Member States are required to communicate to the Commission, via the OWNRES system, cases of fraud and irregularity, if the TOR amount exceeds EUR 10000. The OWNRES database is a key tool for obtaining data for global analyses of fraud and irregularities, and presents valuable information to the Budgetary Authority.

Given the Budgetary Authority's particular interest in recovery, reliable information must be entered in OWNRES regarding the number of cases of fraud and irregularity and their development. Member States have a special responsibility to ensure that appropriate statistical information on fraud and irregularities is provided to the Commission.

1.3.1. *Monitoring of establishment and recovery TOR*

In its capacity as Authorising Officer responsible for executing the EU budget, the Commission (DG Budget as delegated Authorising Officer) monitors establishment and recovery of TOR by Member States in various ways. The monitoring is carried out in partnership with different Commission departments, including OLAF. The following three methods are used:

- (4) Overall monitoring of recovery of TOR via the write-off procedure as provided for in Article 17(2) of Regulation No 1150/2000;
- (5) Regular inspection in Member States of the establishment and recovery of TOR and B-account entries as provided for in Article 18 of Regulation No 1150/2000.
- (6) Specific monitoring (in close cooperation with European Anti-Fraud Office (OLAF), the Directorate-General for Taxation and Customs Union (TAXUD) and the Directorate-General for Agriculture and Rural Development (AGRI)) of Member States' follow-up of recovery in individual cases, which have a significant financial impact and which may involve Mutual Administrative Assistance.

1.3.1.1. Procedure for managing Member States' reports for write-off

Member States must take all requisite measures to ensure that established amounts of TOR are made available to the Commission. This requirement, mentioned in Article 17(1) of Regulation No 1150/2000, also implies that a Member State is only released from its obligation to make available TOR if it can prove that the debt is irrecoverable either:

- (7) for reasons of *force majeure*; or
- (8) for other reasons, which cannot be attributed to that Member State.

There are two ways to conclude that amounts of TOR have become irrecoverable. The first is by a decision of a Member State declaring that they cannot be recovered — this declaration may be made at any time. However, TOR must be deemed irrecoverable by a Member State at the latest five years from the date on which the debt was established, or in the event of an administrative or judicial appeal, the final decision was given, or the last part-payment to the debt was made, whichever is the later. If the amount of the written-off debt is less than EUR 50000, Member States do not have to communicate the case to the Commission, unless the Commission

makes a specific request. However, if the irrecoverable amount of TOR exceeds EUR 50000, the write-off must be reported to the Commission which has to decide whether the necessary conditions are fulfilled in order to release the Member State from the obligation to make the TOR available.

Member States submit their request to be released from the obligation to make the TOR available directly via an application called WOMIS¹⁴

1.3.2. *Commission's inspection*

The Commission carries out regularly inspection in Member States of the establishment and recovery of TOR and B-account entries as provided for in Article 18 of Regulation No 1150/2000.

A report on the operation of the inspection arrangements for traditional own resources system is produced every three years and sent to the Budgetary Authority¹⁵. Also, the Commission services draft annually a thematic report based on the outcome of the Commissions' inspections which is regularly discussed with Member States.

1.3.3. *Particular cases of Member State failure to recover TOR*

If TOR are not established because of an administrative error by a Member State, the Commission applies the principle of financial liability¹⁶. The main objective of these procedures is to encourage individual Member States to improve their administrative performance and to address weaknesses leading to a loss of TOR. Payments for these cases are made available via the A-account and they reduce in effect the contribution of the Member States via the GNI resource in proportion to their contribution to the EU budget.

1.3.4. *Detection of fraud and irregularities*

Cases should be included in OWNRES upon the initial discovery of the irregularity or fraud case or establishment of the duties. As a result the year of the customs operation and the year of discovery of the irregularity or fraud can diverge. Member State must indicate the year and the quarter when the OWNRES case was first discovered or the duties were established. Member States are constantly adding new cases and updating existing cases related to previous years. So the information generated by OWNRES represents the situation on the date of the query (cut-off date). For this report the query was carried out on 5 March 2013.

The distinction in OWNRES between fraud and irregularity might not be fully comparable between different Member States. In their reports Member States make this distinction usually on subjective grounds and before any court judgment is given. Such subjective grounds vary between national administrations depending on their national practises and legislation.

The concepts of *suspected/established fraud or irregularity reported as fraudulent/non-fraudulent* are not used in the OWNRES system. It should also be noted that a classification of a cases as a fraud or irregularity case is not static in

¹⁴ WOMIS: Write-Off Management and Information System.

¹⁵ See COM(2010)219 final of 10.5.2010.

¹⁶ Case C-392/02 of 15 November 2005. These cases are identified on the basis of Articles 220(2)(b) (administrative errors which could not reasonably have been detected by the person liable for payment) and 221(3) (time-barring resulting from Customs' inactivity) of the Customs Code, Articles 869 and 889 of the Provisions for application of the Code, or on the basis of non-observance by the customs administration of Articles of the Customs Code giving rise to legitimate expectations on the part of an operator.

OWNRES and can be changed by the Member State at any time in the course of the national process. Only when a case is closed in OWNRES system, it obtains its final classification as a fraud case or an irregularity case.

1.3.5. Categorisation of cases by amounts involved

In the field of TOR, a refined picture on the Member State' activities regarding establishment and recovery actions can be given by splitting cases of fraud and irregularities in categories based on the established amounts. Two categories of amounts — amounts below EUR 50.000 and amounts above 50000 — can serve as a basis for the analysis hereafter and give a deeper inside into the Member States' activities in detecting cases of fraud and irregularities.

1.3.6. Recovery

The recovery rate (RR) represents the percentage of the total amount recovered from debtor on the total established amount. The amounts for which Member States have been considered financially liable because of weaknesses observed in their recovery action are thus not taken into account. This recovery rate is a snapshot of the recovery situation at the moment of the query.

The historical recovery rate (HRR) takes into account cases which are registered in OWNRES as closed cases. Cases of seized and confiscated goods (usually cigarettes) for which no recovery is required are excluded. This HRR rate express the recovery result in both complex and easy cases. Therefore, established and closed cases from 2009 onwards are excluded, because these are predominantly easy (complex cases generally cannot be closed within 3 years).

2. DEFINITIONS

For the purposes of this document, two sets of definitions are used. The first set refers to legal definitions, the second to specific indicators used throughout the different chapters.

2.1. Legal definitions

2.1.1. Irregularity

Irregularity: means any infringement of a provision of European law resulting from an act or omission by an economic operator which has, or would have, the effect of prejudicing the general budget of the European Union or budgets managed by it, either by reducing or losing revenue accruing from own resources collected directly on behalf of the Union, or by an unjustified item of expenditure¹⁷.

2.1.2. Fraud

Fraud: affecting the European Communities' financial interests shall consist of¹⁸:

a) in respect of expenditure, any intentional act or omission relating to:

- the use or presentation of false, incorrect or incomplete statements or documents, which has as its effect the misappropriation or wrongful retention of funds from the general budget of the European Communities or budgets managed by, or on behalf of, the European Communities;
- non-disclosure of information in violation of a specific obligation, with the same effect;
- the misapplication of such funds for purposes other than those for which they were originally granted;

b) in respect of revenue, any intentional act or omission relating to:

- the use or presentation of false, incorrect or incomplete statements or documents, which has as its effect the illegal diminution of the resources of the general budget of the European Communities or budgets managed by, or on behalf of, the European Communities;
- non-disclosure of information in violation of a specific obligation, with the same effect;
- misapplication of a legally obtained benefit, with the same effect.”

National legislations contain several provisions that describe the conducts and the related penalties and sanctions. Some of these provisions are the result of the implementation of the PIF Convention into the national legal system.

The two definitions indicated above seem similar as both refer to “acts or omissions”. In fact, the concept of irregularity is much wider than that of fraud. Fraud explicitly refers to “intentional” act or omission. In this respect, the concept of irregularity includes that of fraud, but refers also to a whole series of infringements of rules which do not imply a deliberate intent to violate or for which such intent is

¹⁷ Article 2 of Regulation (EC) No 2988/95.

¹⁸ Article 1(1), point (a), of the "Convention on the Protection of the European Communities' Financial Interests" (PIF Convention).

not clear (for instance a breach of rules due to the misinterpretation of certain provisions because of their complexity).

Therefore, the distinction between irregularities and fraud is that fraud is a criminal act that can only be determined by the outcome of judicial proceedings. As such, it occurs only when the judicial procedure has come to an end that the actual amount of fraud can be determined. While awaiting these results, the Commission works on the basis of the information supplied by Member States concerning cases of irregularities some of which, in the opinion of the reporting Member States, give rise to suspicions of fraud. The Commission's statistical assessment of and ability to respond to, irregularities are influenced by the accuracy and timeliness of the notifications made by the Member States.

2.1.3. Suspected fraud

Suspected fraud¹⁹: means an irregularity giving rise to the initiation of administrative and/or judicial proceedings at national level in order to establish the presence of intentional behaviour, in particular fraud, such as is referred to in Article 1(1), point (a), of the PIF Convention.

In their communications of irregularity to the Commission, Member States have been requested to indicate whether a reported irregularity can be regarded as 'suspected fraud'. This notion was introduced in order to provide some data for statistical purposes and to avoid the necessity of waiting until the end of criminal procedures for a final indictment.

2.2. Definitions applied in the analysis

However, it is to be noted that for the purpose of greater clarity, in the analysis and in the indicators only two broad categories of irregularity are applied:

'Irregularities reported as fraudulent' are those irregularities for which the fraudulent nature is suspected or established, also including those irregularities which Member States have not reported as fraudulent, but for which they indicate that a criminal proceeding has been initiated.

'Irregularities not reported as fraudulent' are any other type of reported irregularities, for which the fraudulent nature has not been ascertained.

2.3. Indicators

2.3.1. Fraud Detection Rate and Irregularity Detection Rate

Equation 1: Fraud Detection Rate (FDR)

$$\text{Fraud Detection Rate} = \frac{\text{Total financial amount affected by suspected and established fraud}}{\text{Total expenditure}} \times 100$$

The **Fraud Detection Rate (FDR)**²⁰ is calculated on the basis of total expenditure.

¹⁹ This definition has been introduced in Commission Regulation (EC) No 2035/2005. It has been "confirmed" in Regulation (EC) No 1828/2006 for the Programming Period 2007-2013 and in Regulation (EC) No 1848/2006 for the agriculture sector.

²⁰ These rates had already been introduced in the 2008 Report and Commission Staff Working Paper "Statistical Evaluation of Irregularities" with similar names. This year's Commission Staff Working Paper "Statistical Evaluation of Irregularities" defines precisely these concepts in order to use them in the years to come and to emphasise that, more than the level of fraud in a given country, they identify the level of detection / performance of anti-fraud controls in a Member State.

Equation 2: Irregularity Detection Rate (IDR)

$$\text{Irregularity Detection Rate} = \frac{\text{Total financial amount affected by non-fraudulent irregularity}}{\text{Total expenditure}} \times 100$$

Irregularity Detection Rate is calculated in a similar way, taking into account amounts related to irregularities not reported as fraudulent..

Both the FDR and IDR can be calculated by financial year (as in the case of the Agriculture sector and Centralised management) or on the entire Programming Period (as in the case of Structural Funds) and by Member State.

2.3.2. *Fraud Frequency and Fraud Amounts Levels*

The Fraud Frequency Level (FFL) represents the percentage of cases qualified as suspected fraud and established fraud on the total number of reported irregularities and is calculated using Equation 4 below.

Equation 3: Fraud Frequency Level

$$\text{Fraud Frequency Level} = \frac{\text{Total number of reported cases of suspected and established fraud}}{\text{Total number of reported irregularities}} \times 100$$

The Fraud Amounts Level (FAL) represents the percentage of financial amounts involved in cases qualified as suspected fraud and established fraud on the total reported financial amounts affected by irregularities and it is calculated using Equation 5 below.

Equation 4: Fraud Amounts Level

$$\text{Fraud Amounts Level} = \frac{\text{Total financial amount affected by suspected and established fraud}}{\text{Total financial amount affected by irregularities}} \times 100$$

FFL and FAL can be calculated by financial year (as in the case of the Agriculture sector) or on an entire Programming Period (as in the case of Structural Funds) and by Member State.

2.3.3. *Detection Efficiency*

This is a new concept to measure how quickly an irregularity is discovered. It calculates the time span between the date of committing the irregularity and the date of its detection.

The Detection Efficiency (DetE) is calculated in months derived from the number of days between the date in which the irregularity was initiated (as communicated by the competent authority) and the date of the primary administrative or judicial finding (PACA)²¹ divided by 30 as showed in Equation 5 below.

Equation 5: Detection Efficiency

$$\text{Detection Efficiency (DetE)} = \frac{\text{Date of PACA} - \text{Date of initiation of irregularity (in days)}}{30}$$

The average Detection Efficiency (DetE) can be calculated per country and/or per sector according to Equation 6 below.

²¹ For the definition of PACA, see article 2§3 of Regulation (EC) No 1848/2006 for the Agricultural policy; article 27(b) of Regulation (EC) No 1828/2006 for the Cohesion Policy; and article 54(b) of Regulation No 498/2007 for the Fishery Policy.

Equation 6: Average Detection Efficiency

$$\text{Average DetE} = \frac{\sum_{k=1}^n \text{DetE}_k}{N}$$

Only irregularities containing the necessary information are used to calculate the average.

2.3.4. Reporting Efficiency

This is a new concept to measure how quickly an irregularity is reported after its discovery. It calculates the time span between the date of PACA and the date of its reporting to the Commission.

The Reporting Efficiency (RepE) is calculated in months derived from the number of days between the date of (PACA)²² and the date of the initial communication of the irregularity to the Commission, divided by 30 as showed in Equation 7 below.

Equation 7: Reporting Efficiency

$$\text{Reporting Efficiency (RepE)} = \frac{\text{Date of initial communication} - \text{Date of PACA (in days)}}{30}$$

The average Reporting Efficiency (RepE) can be calculated per country and/or per sector according to Equation 6 below.

Equation 8: Average Reporting Efficiency

$$\text{Average RepE} = \frac{\sum_{k=1}^n \text{RepE}_k}{N}$$

Only irregularities containing the necessary information are used to calculate the average.

2.3.5. Ratio of Established Fraud

The Ratio of Established Fraud (REF) is a new concept and allows to determine, on a given period of time (five years in the present report: 2008-2012) the percentage of irregularities reported as fraudulent for which fraud has been effectively established. It is calculated dividing the number of cases for which Member States have been indicating that fraud has been established on the total number of irregularities reported as fraudulent, as showed in Equation 9 below.

Equation 9: Ratio of Established Fraud

$$\text{Ratio of Established Fraud (REF)} = \frac{\text{number of established fraud cases}}{\text{total number of irregularities reported as fraudulent}}$$

It can be calculated by Member State or at EU level and by sector.

2.3.6. Error Rate

The Residual Error Rate (RER) indicates the risk of errors which remains after the Paying Agency/Certifying Authority has performed all its controls (administrative and on-the-spot) and has corrected the errors detected. It is an extrapolation of the error rate resulting from the population checked on-the-spot, where available, to the entire population. However, the precise methodology may differ from sector to sector.

²² See footnote 23.

This extrapolation is estimated by the Audit Authorities and revised by the competent Commission services.

Data published in the Commission Staff Working Document "Statistical evaluation of irregularities" are extracted from the Annual Activity Reports of the Directorates General of the Commission responsible for the different areas of shared management.

2.4. Assumptions and hypothesis

It has been affirmed that the IMS system is now fully deployed and the data quality is quite sufficient. The irregularity reporting of countries has been improving over the years, therefore it can be said that reporting (technically and substantially) cannot be the source of low number of irregularities in general. As a consequence, a renewed methodology regarding the analysis of the irregularities has been developed in relation to the expenditure part of the 'Statistical evaluation of irregularities' staff document. The renewed methodology is based on the assumption that **reporting effort equals the detection effort** of a country. This suggests that if a country reports a low number of irregular cases (especially irregularities of fraudulent nature), it will be interpreted as a deficiency of its detection capabilities. There are 4 hypothesis that derive from this basic assumption especially when looking at irregularities of fraudulent nature:

- H1) There is zero fraud happening in the country;
- H2) The country is unable to detect fraud
- H3) The country is unwilling to detect fraud
- H4) The combination of H2) and H3)

Subsequently, the renewed methodology provides for revised indicators to measure the reporting of irregularities from the point of view of the detection effort.