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**Protection of the EURO**

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## **THE PROTECTION OF EURO COINS IN 2007**

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## 1. INTRODUCTION

This report is presented in line with Commission Decision of 29 October 2004<sup>1</sup> based on Council Decision of 8 December 2003<sup>2</sup>. Article 4 of the Commission Decision stipulates that “The economic and Financial Committee, the European Central Bank, Europol and the competent national authorities shall be kept regularly informed of the activities of the European Technical & Scientific Centre (ETSC) and of the situation as regards coin counterfeiting”.

The report is structured according to the above-mentioned double requirement. Chapter 2 gives first a detailed overview of the evolution of euro coin counterfeiting in 2007. Chapter 3 and 4 then present the regular and specific activities that the ETSC has carried out in 2007 in order to reinforce the protection of euro coins.

## 2. SITUATION WITH REGARD TO COUNTERFEIT EURO COINS

A first distinction that has to be made on counterfeit euro coins is between those detected in circulation and those seized before circulation. While the latter are usually seized by police, the former are generally detected in coin sorting centres, operated by National Central Banks or private sector CIT (cash-in-transit) companies.

### 2.1. Counterfeit coins seized in circulation

The total number of counterfeit euro coins removed from circulation in 2007 reached 211 100, rising by about 29% from 2006. The rate of increase, however, is lower than the previous year (when it was 63%).

The breakdown by denomination of counterfeits found in circulation for the last four years is shown below:

<b>Counterfeit euro coins detected in circulation, 2004 – 2007*</b>				
	<b>50-cent</b>	<b>1-euro</b>	<b>2-euro</b>	<b>Total</b>
<b>2007</b>	13 000	16 200	181 900	211 100
<b>2006</b>	8 300	14 100	141 400	163 800
<b>2005</b>	4 000	12 800	83 700	100 500
<b>2004</b>	1 000	8 500	65 000	74 500

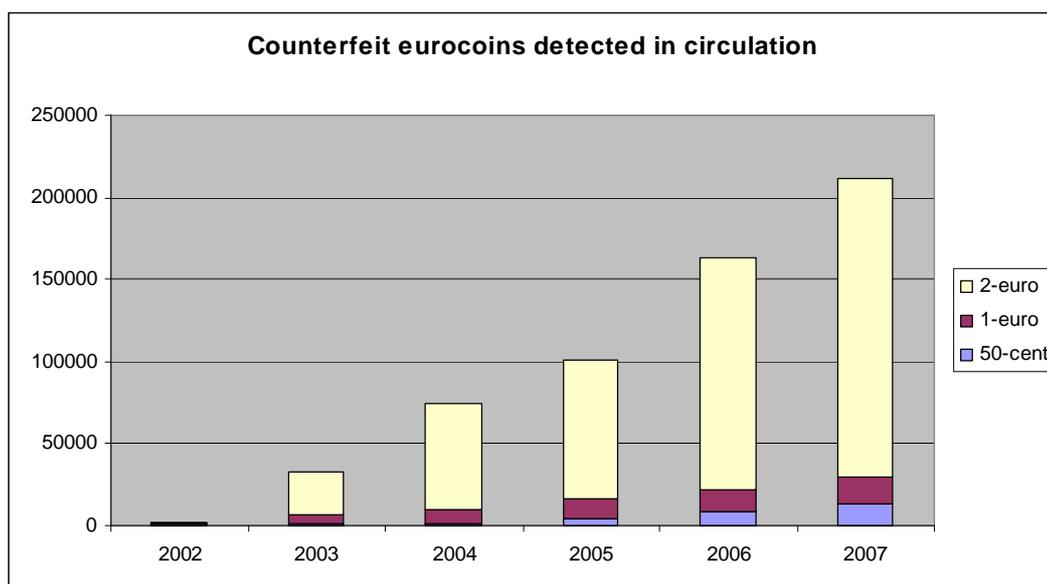
\* The figures comprise both stamped counterfeits (common classes) and cast counterfeits (local classes).

<sup>1</sup> Commission Decision C(2004)4290 of 29 October 2004, OJ L 19/73, 21.01.2005.

<sup>2</sup> Council Decision of 8 December 2003 concerning the analysis and cooperation with regard to counterfeit euro coins (2003/861/EC), OJ L 325/44, 12.12.2003.

The most counterfeited euro coin denomination continues to be the 2-euro, accounting for over 85% of the total counterfeits in 2007. In relative terms, the number of 50-cent counterfeits increased significantly (+56%), although absolute levels remain limited. Overall, around 585 000 counterfeit euro coins have been removed from circulation since the introduction of the euro coins in 2002.

The evolution since the introduction of euro coins in 2002 is given in the following chart:



These developments give an indication, not only of the counterfeiting activity, but also of the level of detection activities in Member States. Some Member States have put in practice during 2007 new measures, which led to a significant increase in the number of counterfeits detected in those countries. Therefore, the rise in the number of counterfeit coins recorded in 2007 reflects, to a large extent, increasing efforts by the competent authorities to remove counterfeits from circulation.

In Member States where an efficient mechanism for the detection of counterfeit coins has been in place for several years, the amount of counterfeits detected in circulation during 2007 increased only slightly.

Counterfeit euro coins were found in all Member States of the euro area in 2007, except for Luxemburg. Member States are detecting now significant quantities of counterfeits, following the adoption of measures in line with Commission Recommendation of 27 May 2005 concerning the authentication of euro coins and the handling of euro coins unfit for circulation. Germany remains the country where most counterfeit coins are found, but its share has now fallen below 40%, which demonstrates progress made in other countries. Small amounts of counterfeit euro coins are also detected in Member States which are not part of the euro area and in third countries.

Overall, the number of counterfeit coins detected in circulation in 2007 remains significantly lower than the sum of counterfeit coins in the euro area countries

before the introduction of the euro, although the situation is different among Member States. The number is also very small by comparison to the 75 billion (genuine) euro coins issued or to the 14 billion (genuine) euro coins of the three highest denominations.

## 2.2. Counterfeit coins seized before circulation

In addition to the counterfeit euro coins removed from circulation, counterfeits are regularly seized before they enter into circulation, mainly in the framework of police operations. These include dismantling of clandestine mints, but also seizures of significant quantities from persons that might, in one way or another, be involved in the distribution of counterfeit coins. These seizures occur irregularly and the number of counterfeits seized before circulation therefore varies significantly from year to year.

The number of counterfeit coins seized before circulation in 2007 was almost 90.000. The breakdown per denomination of counterfeit euro coins found before circulation for the last four years is shown below:

<b>Counterfeit euro coins detected before circulation, 2004 – 2007*</b>				
	<b>50-cent</b>	<b>1-euro</b>	<b>2-euro</b>	<b>Total</b>
<b>2007</b>	8	66 700	23 200	89 908
<b>2006</b>	3	13 000	750	13 753
<b>2005</b>	50	50	3 500	3 600
<b>2004</b>	150	400	84 600	85 150

\* The figures comprise both stamped counterfeits (common classes) and cast counterfeits (local classes).

In 2007, two illegal mints were dismantled. The operations, located in Italy and in Spain, have produced 1-euro and 2-euro counterfeits. This brings to fourteen the total number of illegal mints discovered since the introduction of the euro in 2002.

The counterfeit coins seized in law enforcement operations concerning the illegal mint in Italy account for the large majority of the counterfeits seized before circulation in 2007. Overall, more than 268.000 counterfeit euro coins have been seized before circulation since 2002.

## 2.3. Common classes (stamped counterfeit coins)

Counterfeit coins detected in the Member States are analysed by Coin National Analysis Centres (CNACs). They are classified by reference to already identified counterfeit types. Counterfeits that cannot be classified to one of the already identified types are sent to the ETSC in order to create a new class or variant.

A distinction is made between common classes and local classes. Local classes correspond to cast counterfeit coins, usually produced in smaller quantities. These will be discussed in the next section.

Common classes are counterfeits made with a stamping process, similar to the one used in official minting. With such processes, larger amounts of counterfeits can be produced, which is why these counterfeits are monitored on EU level and called common (EU) classes.

**Creation of common classes**

The total number of families of counterfeits (common classes) created by the ETSC continued to rise substantially in 2007, indicating a potential increase in the number of illegal mints producing counterfeit euro coins. In particular, 15 common classes were created in 2007, a development similar to previous years. The number of common classes created by the ETSC for each year since the introduction of euro coins is indicated in the table below.

<b>Number of newly identified common classes</b>				
	<b>50-cent</b>	<b>1-euro</b>	<b>2-euro</b>	<b>TOTAL</b>
<b>2002</b>	1	5	5	11
<b>2003</b>	6	4	5	15
<b>2004</b>	11	3	8	22
<b>2005</b>	9	3	6	18
<b>2006</b>	6	5	3	14
<b>2007</b>	7	6	2	15
<b>TOTAL</b>	40	26	29	95

The total number of classes has now risen to 95 for the three highest denominations. Despite the large number of common classes, the bulk of counterfeit coins is still concentrated. In particular, one 2-euro common class represented in 2007 around 45 % of the total number of registered counterfeits (found in circulation). For the 50-cent denomination, a majority of the counterfeits found in circulation belongs to a single class. In total, six classes are responsible for more than 80% of the total number of counterfeits found in circulation. Except for one class, no illegal mint has been dismantled for any of those classes.

Of the total number of classes, 16 were proven to be connected to the clandestine mints that have been dismantled until now. For four classes, linking evidence was found following their creation showing that they in fact belonged to an already

existing class. This leads to the conclusion that there are 75 independent and 'active' classes.

**Creation of variants**

Within the common classes, the diversity of counterfeit euro coins has also continued to increase significantly, reflecting an intense and continuing activity of counterfeiters, producing new minting tools and additional quantities of counterfeit coins. In 2007, 72 new variants were created, which is similar to previous years. This brings their total number to 435.

The number of variants (including new classes) created by the ETSC for each year since the introduction of euro coins is indicated in the table below.

<b>Number of newly identified common classes + variants</b>				
	<b>50-cent</b>	<b>1-euro</b>	<b>2-euro</b>	<b>TOTAL</b>
<b>2002</b>	1	14	19	34
<b>2003</b>	6	7	50	63
<b>2004</b>	12	12	72	96
<b>2005</b>	12	7	81	100
<b>2006</b>	10	9	51	70
<b>2007</b>	10	18	44	72
<b>TOTAL</b>	51	67	317	435

The variants describing all counterfeit types detected include all national sides of countries that have issued euro coins until 2007, except for Slovenia and the three states having a monetary agreement on the euro (Vatican, San Marino and Monaco). In addition to the usual circulation coins, counterfeits have been found of commemorative euro coins, i.e. 2-euro coins with specific national sides.

**2.4. Local classes (cast counterfeit coins)**

The number of cast counterfeit coins detected as well as the percentage of the total number of counterfeits in circulation are shown in the table below.

<b>Cast counterfeit coins</b>						
<b>Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Number</b>	756	1172	405	384	64	275
<b>Percentage</b>	34.85%	3.58%	0.54%	0.38%	0.04%	0.13%

Cast counterfeit coins mainly concern the 2-euro denomination. They are generally of a relatively low quality and quantity and should therefore be considered as less dangerous.

### **3. REGULAR ACTIVITIES OF THE ETSC**

The primary mission of the ETSC is the technical/scientific analysis and classification of common classes of counterfeit coins. This type of activity is already covered in chapter 2.

The Council attributed the coordination of the activities of the competent technical authorities to protect euro coins against counterfeiting to the Commission. This co-ordination takes place mainly in the Counterfeit Coin Experts Group but materialises also through the cooperation with coin related and other groups.

#### **3.1. Counterfeit Coin Experts Group (CCEG)**

The Counterfeit Coin Experts Group (CCEG), chaired by the Commission/OLAF, is the basic group serving to co-ordinate Member States' technical actions with respect to the protection of the euro coins against counterfeiting, in line with Council Decision of 8 December 2003 and the Commission Decision of 29 October 2004. The CCEG meetings bring together the Heads of the Coin National Analysis Centres (CNACs), the ETSC as main player, the ECB and Europol.

The CCEG held three meetings in 2007. These have enabled the exchange of information on subjects emerging from the daily work at the CNACs and the ETSC and allowed for discussing some of the specific initiatives (see below). In addition, the following cases of medals and tokens in the framework of the Council Regulation 2182/2004 of 6 December 2004 concerning medals and tokens similar to euro coins have also been discussed:

- a series of medals resembling existing and planned German commemorative coins of the series "Bundesländer": the Commission and the CCEG opined that the draft designs for those medals were indeed similar to the 2-euro commemorative coins;
- a medal depicting the image of 'Grace Kelly': the Commission and the CCEG were of the opinion that there was a pronounced similarity of the medal with an existing Monaco commemorative coin issued in 2007.

### **3.2. Other institutional groups**

Also in 2007, the ETSC has regularly informed the following groups about the situation of coin counterfeiting and discussed possible actions to be undertaken:

- The Mint Directors Working Group (MDWG), which brings together the heads of the Mints of the EU Member States. In that framework, Commission/OLAF promotes and cooperates in the elaboration of a study concerning higher security characteristics for coins; and has initiated a study on the measurement of the conductivity of euro coins.
- The international Mint Directors Conference (MDC), comprising participants from official mints throughout the world, as well as industrial observers. In the framework of the MDC's Technical Committee, OLAF chairs a Sub-committee on counterfeit and unfit coins, aimed at better authentication of circulating coins and stronger international cooperation in technical matters and with law enforcement.
- The Euro Coin Sub-Committee (ECSC) of the Economic and Financial Committee, which brings together representatives from the coin issuing authorities of the Member States. Commission/OLAF initiatives related to the protection of euro coins are discussed also in the Sub-Committee.
- The Euro Counterfeiting Experts Group (ECEG), functioning in the framework of the Advisory Anti-fraud Coordination Committee (Cocolaf). This group, chaired by OLAF, brings together counterfeit experts from law enforcement, central banks and ministries.
- The ECB's Counterfeiting Working Group (CWG) concerning counterfeit banknotes. Also, the ETSC continues to contribute to the improvement and testing of the CMS database, which is administered by the ECB.
- Europol's Forgery of Money Group. The ETSC highlights the counterfeit coin aspects at the Europol meetings and provides assistance to Europol and National Central Offices (NCOs). The ETSC also maintains contact with the Counterfeit Currency Unit of the General Secretariat of Interpol.
- The Euro Cash User Group (ECUG). Meetings are organised by the Commission and the ECB in order to inform the main users of euro cash in the private sector about developments concerning euro banknotes and coins, including counterfeits.

### **3.3. Cooperation with private sector coin-operated industry**

In 2007, the cooperation continued with the coin-processing and coin-operated industry, with a view to enabling better prevention of fraud in this domain. The Commission/OLAF keeps the coin-operated industry informed of technical developments regarding counterfeits, foreign coins and other objects, so that equipment may be adjusted to safely reject these objects.

In particular, the ETSC, in close collaboration with the French CNAC, continued to organize and receive in Pessac a number of test sessions with coin mechanism manufacturers, aimed at updating sorting and coin validating equipment in the

recognition of euro coins and the rejection of counterfeits. In addition, a number of contacts were taken in the framework of actions under the Pericles programme (see below).

#### **4. SPECIFIC INITIATIVES CONCERNING THE PROTECTION OF EURO COINS**

##### **4.1. Pericles actions for the protection of euro coins**

The 'Pericles' Programme is a Community financing facility aimed at reinforcing the protection of the euro banknotes and coins against counterfeiting, by means of seminars, conferences, staff exchanges, studies and other actions undertaken by Member States or the Commission. In the year 2007, in addition to other activities, the Pericles Programme financed a number of initiatives specifically or equally oriented to the protection of euro coins, as follows.

Counterfeit currency manual. This manual, in its simplified or advanced form, contains basic or specialised information regarding the euro and characteristics of counterfeits, as well as analyses of technical, institutional, operational and legal issues regarding counterfeiting. The manual addresses the problem of counterfeit euro banknotes and coins, methods of recognition and methods to recognise and combat the phenomenon.

This manual is considered to be a significant step in establishing guidelines for specialised investigators of Member States' authorities on measures to be taken upon arrival at a crime scene involving counterfeits.

The 'ETSC Work Team'. The Pericles programme also financed the Commission's initiative for the "ETSC Work Team for technical support to law enforcement on counterfeit euro coins". The Work Team chaired by OLAF, held one meeting in 2007.

The main topics discussed at the meeting were the following:

- Use of technical data on euro coin for law enforcement;
- Technical database on clandestine print shops & mints;
- Summary sheets for law enforcement on selected coin classes.

Training. The ETSC provided training on counterfeit euro coin analysis and classification to representatives of the CNACs from Portugal, Cyprus and Greece as well as from Europol on the ETSC premises in Pessac on 15 – 19 October 2007.

The ETSC also participates regularly in seminars organised under the Pericles programme.

## **4.2. Workshop on authentication of euro coins**

Commission Recommendation of 27 May 2005, on the “authentication of euro coins and handling euro coins unfit for circulation”<sup>3</sup> provides common rules for national authorities (i) to control authentication processes of euro coins during the cash cycle, with a view to removing from circulation counterfeits, euro coin-like objects, foreign coins and euro coins unfit for circulation, (ii) for handling and reimbursing genuine unfit euro coins.

An increasing number of Member States has taken or is in the process of taking legislative or other measures to implement the Recommendation. These include, mainly Germany, Belgium, France, the Netherlands, Austria, Ireland and Portugal. The increased attention and efforts of the Member States has explained to some extent the considerable increase in the number of counterfeit coins found in circulation during sorting operations in those countries.

The Commission Recommendation proposed a certain number of procedures aiming to ensure a high technical level of protection of euro coins. These procedures concern particularly the capability of coin processing machines to correctly detect counterfeit coins and withdraw them from circulation. As a result of continuous and coordinated efforts by most of the stakeholders over the past few years, a number of important steps have been taken in the elaboration and implementation of these procedures. This was achieved notably at a workshop that was organised in the framework of the evaluation process on this Recommendation in Mainz on 23-25 October 2007. The workshop was attended by experts from those Member States that have experience with implementing the Recommendation, specifically with testing coin-processing machines.

### **Common test procedure and common test report form**

Based on a combination of best national practices a European technical procedure was defined for testing coin-processing machines, with detailed rules for the detection of counterfeit coins.

### **Published list of successfully tested machines**

A further important result of the workshop was the establishment of an agreed and consolidated list of machines, tested by the ETSC or a CNAC in 2007, capable of detecting all currently known counterfeits. In total, 14 types of machines were included in the first list. The validity of a successful test is 12 months. The list was published on the Commission/OLAF website on 28 January 2008.

### **Important progress on the technical protection of euro coins**

The successful outcome of the workshop marks a big step forward in the fight against counterfeiting of euro coins. About two years ago, new types of sophisticated counterfeit 2 euro coins were discovered. The fight against euro

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<sup>3</sup> JO L184/60, 15.7.2005, n° 2005/504

counterfeiting faced at that time serious technical challenges, particularly as sorting machines were only partly successful in detecting these counterfeits. Thanks to a close collaboration between the coin-handling equipment manufacturers, the counterfeit experts of Member States and OLAF/ETSC, it has been possible to achieve technical solutions to appropriately reject all known types of counterfeit coins. These solutions are now in the process of being deployed in Member States in order to provide adequate protection against euro coin counterfeiting.

#### **4.3. Other threats to euro coins**

Besides counterfeiting, there are other potential threats for the use of euro coins in hand-to-hand transactions and vending machines. These threats include foreign coins, slugs, blanks, medals and tokens similar to euro coins. The latter two have already been discussed in section 3.1.

Concerning foreign coins, the ETSC replied to several inquiries from private citizens on potential confusion of euro coins with the Turkish 1-Lira coin and the Thai 10-Baht coin. Discussions have also continued with the Turkish authorities that announced their intention to replace the current coins in 2009 with a new series of coins. The aim of this exchange is to avoid any risk of confusion between the euro coins and the new series of Turkish coins. Blank samples that could potentially be used for these coins have been received and analysed by the ETSC in 2007.

Slugs are coin-like objects specifically produced to imitate the physical properties of genuine coins and are typically aimed at fraudulent use in vending machines. Several cases have been reported by Member States to the ETSC, including a case in Germany where manipulated Polish coins were used as a component for slugs imitating 2-euro coins. The quantities involved are relatively low and need to be addressed mainly at national level.

Some blanks, intended for minting genuine euro coins, have been detected in circulation. As the materials of the blanks correspond to the materials used for the euro coins, it is difficult to detect them in vending or sorting machines. The quantities involved are relatively low and require action mainly at national level.

## **5. CONCLUSIONS**

The year 2007 was characterised by a further intensification of efforts to protect euro coins against counterfeiting, along with a continuation of coin counterfeiting activity. These two factors explain the observed increase of 29% in number of counterfeit coins detected in circulation, which rose to 211 100 pieces. The rate of increase was significantly lower than the previous year, when it was 63%.

Indeed, a larger number of Member States have made progress in 2007 in implementing coin authentication procedures, in line with the Commission Recommendation of 27 May 2005, concerning authentication of euro coins. For instance, France has now joined Germany, Austria, Belgium and the Netherlands in fully deploying the recommended authentication procedures, while Portugal has adopted legal procedures for

authentication in 2007, which can be expected to give results as of 2008 and Ireland is at an advanced stage of preparation.

The diversity of counterfeit coins continues increasing at a similar pace as in previous years, mainly due to the renewal of production tools by counterfeiters, but no major technical innovations have been discovered in 2007. However, the average degree of sophistication of counterfeits has improved, as the number of sophisticated 2-euro counterfeits detected has increased significantly. Despite this diversity, coin counterfeiting remains fairly concentrated. This is shown by the fact that six counterfeit classes, account for 80% of the counterfeit coins found in circulation. The major illegal production sites seem to remain in operation.

Technical developments of major importance took place in 2007 in the area of authentication processes. These include (i) the adoption of a new European technical procedure for testing coin-processing machines; (ii) enhanced cooperation between the Commission/OLAF and the private sector, which enabled a significant improvement in their detection capabilities. As a result, an increasing number of these machines are now capable of detecting even the most sophisticated 2-euro counterfeits that were discovered in recent years. This might explain, at least partly, the increase in the numbers of those counterfeits mentioned in the previous paragraph and is a major step in the technical protection of euro coins.

Overall, the need for circulating euro coins to be checked for authenticity is now generally accepted, although more time is needed to enable some Member States to implement measures to do so. To complete the process, the Commission adopted in September 2007 a proposal for amendment of Council Regulation 1338/2001, making it mandatory for professional cash handlers to ensure the authenticity of euro banknotes and coins is checked before they are recirculated.

The above considerations indicate that the system for the protection of euro coins is functioning efficiently:

- the methods and procedures put in place provide for close monitoring of the counterfeiting situation;
- technical procedures exist that are capable of distinguishing between euro coins and all different types of counterfeit coins;
- an increasing number of Member States are effectively applying the methods recommended by the Commission for detecting counterfeit coins ;
- several illegal mints have been discovered and dismantled by law enforcement operations.

However, continuous vigilance and cooperation is necessary to better guarantee the credible use of euro coins. Specifically, the thrust of future action will need to be directed towards the following issues:

- a) Implementation of authentication procedures by all Member States.
- b) Raising awareness with law enforcement agencies.

c) Continued cooperation with the private sector coin-operated industry.

The Commission, in cooperation with the Member States, Europol and the ECB is working in these directions with a view to further increasing the protection of euro coins.