The protection of euro coins in 2016

Situation as regards euro coin counterfeiting and the activities of the European Technical & Scientific Centre (ETSC)

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EXECUTIVE SUMMARY

Since the 1st January 2015 the protection of euro against counterfeiting is an integral part of the objectives of the Directorate General for Economic and Financial Affairs (DG ECFIN) for a deepened, efficient and fair Economic and Monetary Union.

The data withdrawn from Counterfeit Monitoring System (CMS) indicate an increase in the number of counterfeit coins seized in 2016, compared to 2015, exceeding the number of 150,000 pieces per year. The overall value of counterfeit coins seized in 2016 was EUR 243,714.5, slightly more than in 2015.

The quality of counterfeits continued to improve in 2016. New common classes were created covering "high quality" counterfeits. Several actions were carried out by the Commission in order to define the extent of the problem and to improve detection of these high quality counterfeits by coin-processing machines.

In the framework of the Commission activities for the protection of the euro against counterfeiting, the European Technical and Scientific Centre (ETSC) coordinates the activities of the Counterfeit Coin Experts Group (CCEG), participates in other institutional groups with regard the protection of euro coins against counterfeiting and provides training under the Pericles 2020 programme.

A comprehensive legal framework exists for the protection of the euro consisting of administrative, training and criminal law measures at European level.

- Regulation (EU) No 1210/2010 on the authentication of euro coins sets out the rules for financial institutions to ensure that all euro coins put back into circulation are genuine. In accordance with Article 12 (4) of this Regulation, the Commission presented its annual report for 2015 to the Economic and Financial Committee (EFC) on developments and results concerning authentication of euro coins and euro coins unfit for circulation. Also, in line with Article 7 of this Regulation, the ETSC updated the "ETSC Guidelines" in order to facilitate the implementation of the Regulation by all main stakeholders involved in the authentication process;

- Council Regulation (EC) 2182/2004 concerning medals and tokens similar to euro coins amended by Council Regulation (EC) No 46/2009, prohibits the production and sale of medals and tokens similar to euro coins. In accordance with Article 2(2) the Commission has the responsibility to specify whether the

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1 The Counterfeit Monitoring System (CMS) is a database managed by the European Central Bank.
2 Commission Decision of 19.10.2015 setting up the Counterfeit Coin Experts Group on the Commission's policy and Regulations regarding the protection of euro coins against counterfeiting. See Section 3.2.1.
4 See Section 3.5.1.
6 OJ L 17, 22.01.2009.
protective provisions referred to in the amended Regulation 2182/2004 have been respected and whether a metallic object is a "medal and token" after having consulted the Counterfeit Coin Expert Group. Ten cases were assessed in 2016.
1. **Introduction**

1.1. **DG ECFIN’s mission and mandate**

The mission of the Directorate-General for Economic and Financial Affairs is to contribute to raising the economic welfare of the citizens in the European Union and beyond, notably by developing and promoting policies that ensure sustainable economic growth, a high level of employment, stable public finances and financial stability.

In pursuing this mission one of the core objectives is to ensure a smooth functioning of the EU’s Economic and Monetary Union (EMU) through a strong economic governance framework. In this context, the protection of the euro against counterfeiting is a specific objective.

1.2. **DG ECFIN’s role in the protection of the euro**

DG ECFIN plays an important role in the area of the protection of the euro banknotes and coins against counterfeiting.

The action of the Commission with regard to the protection of the euro refers mainly to three domains:

- preparation of political or legislative initiatives for the Commission and reporting on the implementation of EU legislation;
- training and technical assistance, based mainly on the Pericles programme⁷;
- the technical analysis of counterfeit euro coins, through the European Technical and Scientific Centre (ETSC). DG ECFIN implements these tasks in close cooperation with other relevant Institutions and in co-ordination with the competent authorities of Member States.

1.3. **The European Technical & Scientific Centre (ETSC)**

The European Technical & Scientific Centre (ETSC) was established in 2004 within the European Commission⁸.

Within this framework, the mission of the ETSC is to analyse and classify every new type of counterfeit euro coin⁹, to contribute to the fulfilment of the objectives of the

---


Pericles programme, to assist the Coin National Analysis Centres (CNAC)\textsuperscript{10} and to generally collaborate with law enforcement and other authorities competent for counterfeit euro coins and the strengthening of euro protection.

In addition, the ETSC coordinates the necessary actions to protect euro coins against counterfeiting through periodic meetings of the Counterfeit Coin Experts Group (CCEG).

This report is presented in line with Commission Decision of 29 October 2004 based on Council Decision of 8 December 2003\textsuperscript{11}. 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 requirements. Section 2 provides a detailed overview of the evolution of euro coin counterfeiting in 2016. Section 3 presents the activities that the ETSC carried out in 2016 in order to reinforce the protection of euro coins.

\begin{footnotesize}

\end{footnotesize}
2. Situation with regard to counterfeit euro coins\textsuperscript{12}

A distinction has to be made between counterfeit euro coins detected in circulation and those seized before circulation. Counterfeits seized before circulation are usually seized by law enforcement authorities before causing financial damage, whereas those detected in circulation are generally detected in coin sorting centres operated by National Central Banks or by credit institutions\textsuperscript{13}.

2.1 Counterfeit coins detected in circulation

The total number of counterfeit euro coins removed from circulation in 2016 was 150,258, an increase of about 2.29\% compared to 2015. The breakdown by denomination of counterfeits found in circulation for the last five years is shown in the table below.

**Table 1: Counterfeit euro coins detected in circulation, 2012 – 2016**

<table>
<thead>
<tr>
<th>Year</th>
<th>50 cent</th>
<th>1 euro</th>
<th>2 euro</th>
<th>Total</th>
<th>Value (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>25 357</td>
<td>18 754</td>
<td>106 141</td>
<td>150 258</td>
<td>243 714.5</td>
</tr>
<tr>
<td>2015</td>
<td>25 146</td>
<td>20 022</td>
<td>101 709</td>
<td>146 889</td>
<td>236 013</td>
</tr>
<tr>
<td>2014</td>
<td>36 004</td>
<td>24 851</td>
<td>131 340</td>
<td>192 195</td>
<td>305 533</td>
</tr>
<tr>
<td>2013</td>
<td>30 100</td>
<td>27 100</td>
<td>120 400</td>
<td>177 600</td>
<td>282 950</td>
</tr>
<tr>
<td>2012</td>
<td>32 700</td>
<td>29 500</td>
<td>121 000</td>
<td>183 200</td>
<td>287 850</td>
</tr>
</tbody>
</table>

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

When compared to 2015, 2016 marks an increase in two (2-euro and 50-cent) of the three higher denomination coins. In particular, 2 euro denomination counterfeits increased by 4.35\%, 1 euro decreased by 6.33\% and 50 cent increased by 0.84\% in comparison to 2015.

In particular, in 2016 the 50 cent denomination maintains the second position, from a quantity point of view, (16.87\%) continuing the trend of the last three years. The 2 euro remains by far the most counterfeited denomination, constituting 87.10\% in value terms (up from 86.19\% in 2015).

\textsuperscript{12} In producing statistics, the data used by the European Technical and Scientific Centre are withdrawn from the Counterfeit Monitoring System (CMS), which is a database managed by the European Central Bank. The national competent authorities enter quantitative data and the technical details of the counterfeit coins seized in their respective countries. All national data have to be based on a common set of definitions and classifications, in order to ensure that they are sufficiently comparable to produce a significant aggregate (Data withdrawn from CMS on 15.02.2017).

\textsuperscript{13} As referred to in the first subparagraph of Article 6(1) of Regulation (EC) No 1338/2001.
Overall, 2,144,633 counterfeit euro coins have been removed from circulation since the introduction of euro coins in 2002.

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

**Chart 1: Counterfeit euro coins detected in circulation**

In 2016 Italy, the country with the highest number of detected counterfeit euro coins, registered an increased level (by 7.56%) compared to 2015. The counterfeits seized in Italy, together with those seized in Germany, Spain, France and Greece, accounted for 84.64% of the total counterfeits seized in 2016.

Counterfeit euro coins were found in all Member States of the euro area in 2016. The counterfeit coins detected in Italy has increased over the last 2 years to 27.21% of the total number of the received counterfeits. In addition 896 pieces of counterfeit euro coins were also reported to be detected in Member States which do not belong to the euro area and in third countries.

Overall, the number of counterfeit coins detected in circulation in 2016 remains modest in comparison to the total of 121 billion genuine euro coins in circulation including approximately 18.6 billion of the three highest denominations. Compared to the latter, the proportion of counterfeit euro coins is about one for every 123,000 genuine coins.

### 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 law enforcement authorities operations and investigations.

These activities include dismantling of clandestine mints, but also seizures of significant quantities from individuals, who might be involved in the distribution of counterfeit...
The protection of euro coins in 2016

coins. These seizures occur on an occasional basis therefore the number of counterfeits seized before circulation varies significantly from year to year.

The registration in the CMS (Counterfeit Monitoring System) indicates a significant increase in the number of counterfeit coins seized before circulation in 2016 (77 084 pieces). The breakdown per denomination of counterfeit euro coins found before circulation, as registered in the CMS for the last five years is shown below.

Table 2: Counterfeit euro coins detected before circulation, 2012 – 2016*

<table>
<thead>
<tr>
<th>Year</th>
<th>50 cent</th>
<th>1 euro</th>
<th>2 euro</th>
<th>Total</th>
<th>Value (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>39 041</td>
<td>0</td>
<td>38 043</td>
<td>77 084</td>
<td>95 606.5</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>20</td>
<td>34.5</td>
</tr>
<tr>
<td>2014</td>
<td>1</td>
<td>38 690</td>
<td>263 279</td>
<td>301 970</td>
<td>565 245.5</td>
</tr>
<tr>
<td>2013</td>
<td>160</td>
<td>360</td>
<td>30 501</td>
<td>31 051</td>
<td>61 472</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
<td>1 800</td>
<td>72</td>
<td>1 872</td>
<td>1 946</td>
</tr>
</tbody>
</table>

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

The development of the number of counterfeit coins detected before circulation since the introduction of the euro in 2002 is presented in the following chart.

Chart 2: Counterfeit euro coins detected before circulation

Roughly 710 000 counterfeit euro coins have been seized before circulation since 2002 which corresponds to a face value of nearly EUR 1 119 511.5.

In 2016 several actions were carried out by law enforcement authorities. In particular:
In June 2016 in Italy (Arezzo), 39,040 50 cent denomination counterfeits were seized by law enforcement authorities. In addition, a die and a tool for the minting process were seized. Following this seizure, a new common class and three variants were created. The die was linked to one of the variants. The above mentioned common class has electrical properties close to the specification of the genuine, indicating that the quality of the 50 cent counterfeits keeps improving. From the quantity point of view, after the big number seized in this operation, a relatively small number of pieces were detected in circulation, and despite the fact that the majority were seized in Italy, pieces were found in 10 more Member States. The dismantling in Arezzo constitutes an innovative case due to the production process used: the dies are adjusted on the same tool and the process takes place in three steps.

Still in June 2016, another illegal site was discovered in Ivrea (Torino). A furnace was seized (the counterfeiters were trying to reproduce the "Nordic Gold" alloy for stamping 50 euro cent) together with a complete set of dies (1 euro and 50 cent). No counterfeit euro coins were found hence the importance of the dismantling of this illegal mint as a successful preventive action.

On 2nd of August 2016 in Greece, an amount of 27,796 2 euro counterfeits were found hidden in olive oil cans in a car, during a border control by the customs. The driver was a Turkish national and tried to enter in the Greek territory through the custom border control of Kipi (North-eastern borders with Turkey). The counterfeit coins were not of good visual quality, and the electromagnetic properties were also far from the specifications of the genuine. They were not linked to any of the already existing common classes, therefore a new common class and a variant to this class were created. Pieces of these two classes were detected in circulation in 12 Member States, the majority of which were seized in Germany.

In 2016 in Slovakia, 8,964 pieces of 2 euro counterfeits were found by the police at the bottom of a lake when the lake was emptied. The coins belonged to common class CEUAS 02E00052-07AT and common class CEUAS 02E00053-02DE. This important preventive action (the counterfeit coins were discovered before being put into circulation) contributed to reduce the number of pieces detected in circulation (a decrease of 92.2% for 2E53 and a decrease of 47% for 2E52) compared to 2015.

Finally, in 2016 1 illegal mint was dismantled in Portugal (Aveiro). The investigators seized a large number of different material (equipment for stamping coins, a floor mounted press, equipment to produce the edge lettering) and material used for the production of counterfeit 2 euro coins, such as dies and blanks. No produced counterfeits were found and no links to already existing classes were established.
The following table gives an overview of the illegal mints dismantled so far in Europe.

### Table 3: Illegal mints discovered, 2002 – 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Place</th>
<th>Denomination (€)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>June</td>
<td>Italy</td>
<td>0.50</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>Italy</td>
<td>1 and 2</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>May</td>
<td>Portugal</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>Italy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>Italy</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>April</td>
<td>Italy</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>Spain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>July</td>
<td>Italy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>January</td>
<td>Poland</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>Hungary</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>Bulgaria</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>April</td>
<td>Italy</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2007</td>
<td>March</td>
<td>Italy</td>
<td>1 and 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>Spain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>March</td>
<td>Austria</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>2009</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>April</td>
<td>Belgium</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>Italy</td>
<td>1 and 2</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>June</td>
<td>Greece</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2013</td>
<td>January</td>
<td>Italy</td>
<td>1 and 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>Italy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Spain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Spain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Spain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>October</td>
<td>Italy</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2016</td>
<td>June</td>
<td>Portugal</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>Italy</td>
<td>0.50 and 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>Italy</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>
Chart 3: Illegal mints discovered, 2002 – 2016
3. **Activities of the European Technical & Scientific Centre (ETSC)**

3.1. **Analysis and classification of counterfeit euro coins**

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

A distinction is made between common classes and local classes. Local classes correspond mostly to cast counterfeit coins, usually produced in smaller quantities and circulated in one country.

3.1.1. **Common classes (stamped counterfeit coins)**

Common classes are counterfeits manufactured through a stamping process, sometimes similar to the one used in official minting. With such processes, larger amounts of counterfeits can be produced; for this reason monitoring on the EU level has been applied. Stamped classes usually bear defects which are characteristics of the tools used to produce them. Stamped counterfeit coins are classified into classes and variants according to their defects. Similar defects may indicate that counterfeits have been produced by the same tools, probably indicating the same illegal mint.

New variants of classes indicate a development in production tools, material used or production methodology applied. Variants therefore provide useful indications of the development in counterfeiting activity. The procedure of classification is an important "tool" for the law enforcement investigations as it facilitates the monitoring of counterfeit coins from a quality point of view and can provide important information related to links between dismantled illegal mints and existing classes of counterfeit coins.

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14 Data refer to counterfeit euro coins detected in circulation according to CMS registration.
15 Class: group of counterfeits having matching technical characteristics, therefore assumed to have the same origin.
16 Variant: “subclass” of a counterfeit class, corresponding to modification of the class, by changing the national side and/or the material used, etc... The variants have distinctive defects, linking them to their "mother class".
17 Cast coinage refers to coins made by a casting process (casting is a manufacturing method in which a molten metal is injected or poured into a mold - or mould - to form an object of the desired shape).
18 Stamping is a type of manufacturing process which shapes sheet metal by punching using a machine press or stamping press.
3.1.2. **Overall analysis**

*Creation of common classes*

The total number of families of counterfeits (common classes) created by the ETSC increased compared to 2015 but was in line with the average level of previous years. An effective European framework for the protection of the euro has a deterrent impact on the creation of the new (illegal) mints and counterfeiting tools.

The number of common classes created by the ETSC every year since the introduction of euro coins is indicated in the table below.

**Table 4: Number of newly identified common classes**

<table>
<thead>
<tr>
<th>Year</th>
<th>50 cent</th>
<th>1 euro</th>
<th>2 euro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2009</td>
<td>47</td>
<td>33</td>
<td>35</td>
<td>115</td>
</tr>
<tr>
<td>2010</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>2012</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>2013</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>2014</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>2016</td>
<td>7</td>
<td>-</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67</strong></td>
<td><strong>51</strong></td>
<td><strong>61</strong></td>
<td><strong>179</strong></td>
</tr>
</tbody>
</table>

The total number of common classes has now increased to 179. Despite the large number of common classes, the bulk of counterfeit coins is still concentrated in a small number of classes.

In particular, in 2016, one family of linked common classes (class 6, 31 and 37) represented 20.74% of the total number of registered 2 euro counterfeits.

In total, 5 classes (class 6, class 24, class 65, class 75, class 1) cover about 56% of the total number of 2 euro counterfeits seized.

For the 1 euro denomination, 4 classes (class 33, class 49, class 4, class 37) emerged as representing almost 54% of the total number of 1-euro counterfeits seized.

For the 50 cent denomination, almost 50% of the counterfeits found in circulation belong to two classes (common classes 1 and 39) and, in total, five classes (class 1, class 39, class 52, class 53, class 63) are responsible for nearly 67% of the total number of 50-cent counterfeits found in circulation.
**Creation of variants**

In 2016, 14 new variants (sub-types of classes) were created, a relatively high number in comparison to the average level of the previous years.

This brings the total number of classes and variants to 665. The number of new variants created by the ETSC every year since the introduction of euro coins is indicated in the table below.

**Table 5: Number of newly identified variants of the common classes**

<table>
<thead>
<tr>
<th>Year</th>
<th>50 cent</th>
<th>1 euro</th>
<th>2 euro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2009</td>
<td>14</td>
<td>52</td>
<td>326</td>
<td>392</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>3</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>2015</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>2016</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>72</strong></td>
<td><strong>393</strong></td>
<td><strong>486</strong></td>
</tr>
</tbody>
</table>

Counterfeits of commemorative euro coins have also been found, i.e. 2 euro coins with specific national sides. Since 2006 counterfeits of the following 2 euro commemorative coins have been detected:

The table below depicts the commemorative coins that have been counterfeited (common classes only).

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In addition to the regular coins, there are also commemorative and collector coins. Member States may issue a commemorative 2 euro coin once a year to celebrate a subject of major national or European relevance. Commemorative coins are legal tender throughout the euro area, and have the same features and properties as regular 2 euro coins. Euro-area Member States may decide to issue a commemorative coin jointly to celebrate a subject of the highest European relevance. In that case, all euro area Member States simultaneously issue a coin bearing the same design on the national side. Collector coins are not intended for general circulation and their designs may not be too similar to other euro coins to avoid confusion.
<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>The 5th decade of the World Food Programme</td>
<td>IT</td>
<td>2004</td>
</tr>
<tr>
<td>The Summer Olympic Games in Athens</td>
<td>GR</td>
<td>2004</td>
</tr>
<tr>
<td>The Belgium-Luxembourg Economic Union</td>
<td>BE</td>
<td>2005</td>
</tr>
<tr>
<td>The 1st anniversary of the signing of the European Constitution</td>
<td>IT</td>
<td>2005</td>
</tr>
<tr>
<td>The 20th Winter Olympic Games in Turin</td>
<td>IT</td>
<td>2006</td>
</tr>
<tr>
<td>The German Federal State of Schleswig Holstein</td>
<td>DE</td>
<td>2006</td>
</tr>
<tr>
<td>The German Federal State of Mecklenburg-Vorpommern</td>
<td>DE</td>
<td>2007</td>
</tr>
<tr>
<td>Event</td>
<td>Country</td>
<td>Year</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>The 50th anniversary of the Treaty of Rome</td>
<td>AT</td>
<td>2007</td>
</tr>
<tr>
<td>The 50th anniversary of the Treaty of Rome</td>
<td>IE</td>
<td>2007</td>
</tr>
<tr>
<td>The 50th anniversary of the Treaty of Rome</td>
<td>DE</td>
<td>2007</td>
</tr>
<tr>
<td>The 10th anniversary Economic Monetary Union</td>
<td>BE</td>
<td>2009</td>
</tr>
<tr>
<td>The 10th anniversary Economic Monetary Union</td>
<td>IE</td>
<td>2009</td>
</tr>
<tr>
<td>The 200th anniversary of the birth of Camillo Benso, Count of Cavour</td>
<td>IT</td>
<td>2010</td>
</tr>
</tbody>
</table>
3.1.3. **Local classes (cast$^{20}$ counterfeits coins and other counterfeits)**

The number of local classes detected in 2016 are shown in the table below.

**Chart 4: Local classes (2002 – 2016)**

During 2016 the number of local classes increased compared to 2015 (by about 40%). Local class counterfeits are dominated by 2 euro denomination counterfeits representing 72% of the total. They are of a relatively low quality and are therefore considered as less dangerous (than common classes).

The share of local classes compared to the total number of counterfeits detected in circulation, in 2016 remains very low, standing at 1.9% of the total.

**Chart 5: Evolution of local classes**

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$^{20}$ Cast coinage refers to coins made by a casting process (casting is a manufacturing method in which a molten metal is injected or poured into a mold - or mould - to form an object of the desired shape).
After having reached a peak in 2014, the number of local classes has decreased significantly. This peak of 2014 is attributable to a series of seizures in Spain in which a large number of local counterfeit classes were found.

It is noteworthy that, in 2016, the share of 50 cent local classes has decreased by 47% compared to 2015.
3.2. **Coordination of actions to protect euro coins against counterfeiting: CCEG and other groups**

The primary mission of the ETSC is the technical and scientific analysis and classification in common classes of counterfeit coins.

The coordination of the activities of competent authorities for protection of euro coin against counterfeiting is attributed to the Commission. This co-ordination takes place mainly within the Counterfeit Coin Experts Group (CCEG) as well as through other coin related groups.

### 3.2.1. The Counterfeit Coin Experts Group (CCEG)

In line with its establishing Commission Decision, the Counterfeit Coin Experts Group (CCEG), chaired by the Commission, is the group serving:

- to assist the Commission in the preparation of legislative proposals and delegated acts and policy initiatives for the protection of euro coins against counterfeiting;
- to establish cooperation between the Heads of the Coin National Analysis Centres ('CNACs') established in accordance with Article 5(1) of Regulation (EC) No 1338/2001, the Commission, the European Technical Scientific Centre (ETSC), the European Central Bank ('ECB') and Europol in matters relating to policy initiatives and actions aimed at an efficient anti-counterfeiting strategy;
- to provide advice and expertise to the Commission for implementing Union legislation, programmes and policies, in particular with regard to Regulation (EU) No 1210/2010;
- to exchange experience and establish good practices for the protection of euro coins against counterfeiting;
- to raise awareness among the public authorities involved in the protection of the euro against counterfeiting for upcoming threats and to monitor implementation of effective repressive measures for an anti-counterfeiting policy strategy;
- to promote training initiatives for the protection of the euro coins against counterfeiting;
- to promote and develop studies and to ensure technical support in facilitating counterfeiting detection activities;
- to discuss issues relating to the technical specifications of counterfeit euro coins.

The CCEG held two meetings in 2016.

The ‘ETSC Work Team’, formally a sub-group of the CCEG, chaired by the ETSC, held meeting of technical coin experts from several CNACs in 2016 to address the following:

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21 In line with Article 5 of the Commission Decision of 19.10.2015 setting up the Counterfeit Coin Experts Group on the Commission's policy and Regulations regarding the protection of euro coins against counterfeiting. See Section 3.2.1.
Implementation of the action plan on Common Class 1E37\(^{22}\);

Revision and update of the "ETSC Guidelines" which included a more detailed part on unfit coins and on categories of Coin Processing Machines in order facilitate the practical implementation of Regulation (EU) No 1210/2010.

3.2.2. Other institutional groups

During 2016, the ETSC provided updates to the groups mentioned below about the situation of coin counterfeiting while addressing possible actions to undertake:

- the Euro Counterfeiting Experts Group (ECEG) in the framework of the Council Regulation (EC) No 1338/2001. This group, chaired by the Commission, brings together counterfeit experts from law enforcement, central banks and ministries and meets three times per year. A number of coin protection related issues were discussed. In 2016, the ETSC reported the statistics on coin counterfeiting as well as on the progress made on legislative issues concerning coin authentication with particular reference to the revision of ETSC Guidelines;

- the Euro Coin Sub-Committee (ECSC) of the Economic and Financial Committee brings together representatives from coin issuing authorities of Member States. Commission initiatives are systematically discussed in that group. In 2016 the main issues addressed concerned the implementation of Regulation (EU) No 1210/2010 and the revision of ETSC Guidelines;

- the Mint Directors Working Group (MDWG) brings together the heads of the Mints of the EU Member States. The ETSC participated in all the meetings organised in 2016;

- the CEG (Counterfeit Experts’ Group). These meetings are organised by the ECB and bring together experts on banknote counterfeiting. The ETSC is invited to exchange and present information on coin counterfeiting;

- the Focal Point SOYA meeting. These meetings are organised by Europol and include representatives of Law Enforcement Agencies from Member States and third countries having cooperation agreements with Europol. The ETSC participated in the annual SOYA meeting held in 2016 providing participants with an overview on euro coin counterfeiting statistics and main threats with respect to euro coin counterfeiting.

3.2.3. The action plan to tackle the diffusion of Common Class CEUAS01E00037

The ETSC Work Team defined the technical specification of the new test pack (including the 1E37) in consultation with the CCEG, as referred to in Articles 4 and 5 of the Regulation (EU) No 1210/2010. The new test pack technical specifications were adopted in April 2015 allowing for the distribution of the new test pack to CNACs.

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\(^{22}\) See Section 3.2.3.
The protection of euro coins in 2016

The final stage of the action plan hence took place consisting of providing all Euro Area Member States with a Test Pack B. In the meanwhile, some Coin Processing Machines Manufacturers continued performing tests with samples of 1E37 for further developing the CPM detection capacity.

3.2.4. Medals and tokens similar to euro coins

With a view to preventing fraud and avoiding confusion regarding euro coins, the European Union has Council Regulation (EC) 2182/2004\(^23\) concerning medals and tokens similar to euro coins amended by Council Regulation (EC) No 46/2009\(^24\), prohibiting the production and sale of medals and tokens similar to euro coins.

The Commission has the responsibility to specify whether the protective provisions referred to in the amended Regulation 2182/2004 have been respected and whether a metallic object is a "medal and token" after having consulted the Counterfeit Coin Experts Group (CCEG).

Following the adoption of the Commission Decision C(2016)1785 final on a sub-delegation of the empowerment relating to the implementation of Council Regulation (EC) No 2182/2004, the competency to decide whether a coin-like object falls under the Regulation, and whether to prohibit or allow such an object now lies with DG ECFIN, after discussion in the CCEG.

In 2016, ten cases of medals and tokens were submitted to ETSC, by Italy, the Netherlands and France. The Commission/ETSC assessed the cases and the members of CCEG were consulted and finally endorsed the proposed decisions, in line with the Regulation\(^25\). All cases fell under the prohibition of Article 2 paragraph 1 (c) of Regulation (EC) No 2182/2004 (the production, sale and distribution is forbidden).

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\(^{24}\) OJ L 17, 22.01.2009.
\(^{25}\) The endorsed cases can be seen in the Implementing Decision C(2017) 2239 final of 30.03.2017.
3.3. **Assistance to national authorities**

The technical assistance provided by the ETSC to relevant authorities is essential in strengthening the protection of the euro coins against counterfeiting.

The ETSC may provide assistance to Member States’ CNACs and police agencies and to third country authorities based on Cooperation Arrangements with third countries concerned\(^{26}\).

Support given by the ETSC is based on an interaction between law enforcement and technicians. The effectiveness of this approach has been proved in recent years since it adds expertise to investigations against currency counterfeiting, significantly improving their quality.

In 2016, ETSC organised a coordination technical meeting with Italian CNAC following the seizure of about 40 000 counterfeit 50 cent coins in Arezzo. A new common class and three variants were created and tools used for the minting process were seized. The in-depth analysis of the tools revealed an innovative methodology for producing the counterfeit coins. In fact, through a unique process the counterfeiters succeeded to stamp the coins. In particular, a punching tool was capable to strike the two sides of the coin and at the same time cutting the edge and reproducing the milled shape. This process differs from the traditional ones which use a collar for producing the milled shape.

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\(^{26}\) Administrative Cooperation Arrangements with Montenegro, Turkey and Serbia have been already concluded.
3.4. Training

3.4.1. Pericles actions for the protection of the euro coins

The ‘Pericles 2020’ Programme is a Union financing instrument 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 2016, the ETSC organised under the Pericles 2020 programme, a Commission action the “Workshop/assistance to MS – Euro, backlog in coins classifications”. The event took place from 4 to 8 of July 2016 in Madrid (Spain) at the premises of the Spanish Coin National Analysis Centre (CNAC). The action was based on the "learning by doing" principle and four experts from four CNACs (Germany, Portugal, Slovenia and Croatia) spent 1 week on-the-spot. The action allowed also Spanish authorities to analyse and classify a backlog of over 10 000 coins.

Furthermore, ETSC contributed to organisational/technical issues related to the "Curso de Formación sobre Falsificación de Moneda para Expertos de Países Iberoamericanos" held in Buenos Aires (Argentina) from 29 November to 2 December 2016.

The Pericles 2020 Programme co-financed also a study on the development of new interactive materials that will enhance potential security future euro coins.

3.4.2. Cooperation with third countries

ETSC supported Montenegrin authorities with technical expertise in 2016. In particular, the ETSC classified coins sent by the coin analysis centre and, upon request, provided technical information (production methodology and tools) aimed to assist the law enforcement authorities.
3.5. Coin-related legislative instruments and developments

3.5.1. Administrative provisions

The European Commission's policy with regard to anti-counterfeiting is based on four pillars: prevention, repression, training and cooperation.

The "authentication" process is vital with respect to prevention. The Regulation (EU) No 1210/2010, adopted in December 2010, and concerning authentication of euro coins and handling of euro coins unfit for circulation, constitutes the legally binding instrument guaranteeing equal standards for the authentication of euro coins throughout the euro area. It introduces specific obligations with regard to the authentication procedures to be applied by the institutions concerned, and the necessary controls to be conducted by Member State authorities.

Following Article 7 of the Regulation, and in order to assist the Member States in implementing these procedures, the ETSC has defined the technical specifications for the detection test and drafted the “ETSC guidelines” related to controls, checks and auditing by Member States and the rules for the rectification of non-compliance. According to Article 12(4) of this Regulation, the Commission presented to the Economic and Financial Committee its annual report on developments and results concerning authentication of euro coins and euro coins unfit for circulation. The main results and tendencies are shown in the Annex.

Furthermore, the Commission/ETSC promoted additional actions for better implementing Regulation (EU) No 1210/2010. In particular, bilateral meetings with several Coin Processing Machines manufacturers were organised in order to assess critical issues in relation to practical implementation of the authentication legislation.

Finally, the Commission/ETSC developed an IT tool (namely the LICO, LIst of COin processing machines) for facilitating the update of the consolidated list of coin processing machines according to Art. 5(2) of Regulation (EU) No 1210/2010. The tool will allow Member States to submit their Detection Test Summary Report (in line with Art. 4 of Regulation (EU) No 1210/2010) to ETSC as well as the ETSC to update the list promptly.

3.5.2. Criminal law provisions

The protection of the euro notes and coins and other currencies against counterfeiting is also ensured by criminal law. The European Parliament and the Council adopted a Directive which reinforces the criminal law rules to protect the euro and other currencies against counterfeiting.

27 The ETSC Guidelines were distributed, for internal use only, to the CNACs (Coin National Analysis Centres, competent national authorities as referred to in Article 2(b) of Council Regulation (EC) No 1338/2001).

This Directive, which replaces the Council Framework Decision 2000/383/JHA and was adopted in May 2014, introduces efficient investigative tools and improves prevention by allowing for the analysis of counterfeits by competent authorities, further enhancing the protection of the euro and other currencies from criminal measures.

Criminal offences have been modernised in this Directive. It is a criminal offence to produce and distribute not yet issued notes and coins; which is important in relation to the issuing of new euro notes (denomination 20 euro and higher).29

It further includes an introduction of a maximum sanction of at least 5 years imprisonment for distribution offences including not yet issued notes and coins; the maximum sanction of 8 years imprisonment for production offences should now include not yet issued notes and coins30.

The directive introduces the use of more effective investigation tools such as those that are used in combatting organised crime or other serious crime cases (like, the interception of communications, covert surveillance including electronic surveillance, the monitoring of bank accounts and other financial investigations)31.

Member States have to ensure that during criminal proceedings the examination by the National Analysis Centres and Coin National Analysis Centres of suspected counterfeit euro notes and coins is permitted without any delay32.

The deadline for the Member States to transpose the Directive into their national legislation was 23 May 2016. The Commission has sent a letter of formal notice to the Member States, which failed to notify the Commission within the above mentioned deadline and is currently taking all the necessary steps for the compliance assessment of the transposition reports received by the Member States.

29 See Article 10 of Directive 2014/62/EU.
30 See Article 5 of Directive 2014/62/EU.
31 See Article 9 of Directive 2014/62/EU.
32 See Article 10 of Directive 2014/62/EU.
4. **SUCCESSFUL ETSC MEASURES AND POTENTIAL THREATS TO EURO COINS**

Developments in 2016 confirm the success of the measures applied by the ETSC in conjunction with the administrative and training EU instruments to protect the euro coins in particular against counterfeiting. The annual report shows the following:

- the number of counterfeit euro coins found in circulation has remained well below 200,000 pieces per year, representing an equivalent of about 1 counterfeit coin for 123,000 genuine coins;
- despite the decreasing number of new types of counterfeit coins found in circulation, a significant number of illegal mints is still operating inside and outside Europe. This means that the criminal production capacity is still present and that continuous vigilance and cooperation is necessary to safeguard confidence when using euro coins;
- the implementation of the authentication procedures under Regulation (EU) No 1210/2010, facilitated by the ETSC, will continue having a positive impact on preventing circulation of counterfeited euro coins.

With a view to maintaining the high level of protection of euro coins, future actions should aim especially at the following:

- streamline the implementation of Regulation (EU) No 1210/2010 by updating the "ETSC guidelines" involving all main stakeholders in the process;
- promotion of studies, in the framework of Pericles 2020 Programme, on new detection technologies and security features of coins, in order to keep ahead of counterfeiters;
- support to law enforcement by sharing of technical information on new technical developments (high quality counterfeit classes) and on local phenomena, including in third countries;
- continue cooperation and awareness-raising actions together with Chinese authorities on supporting Member States in their investigation following seized counterfeit coins originating from China, and on production of reassembled and altered coins which are re-imported in EU.
Annex

The Commission's report to EFC for the year 2015 presented according to Article 12 (4) of Regulation (EU) No 1210/2010, shows the following tendencies in comparison with the previous one:

- An increasing number of coins is being authenticated (in 2015 over 17 billion coins were authenticated);
- The number of coins processed for the three highest denominations increased by 34.08% in 2015;
- The number of controls carried out by the Member States increased as well as the number of coin-processing machines checked;
- The number of machines deemed to be compliant (successfully passing the detection test as stipulated in Article 4(1)) has remained the same;
- In comparison with the previous year more Member States comply with the obligation to check the coin-processing machines which have processed at least 25% of the total cumulated net volume of the three highest denominations of the issued euro coins from the introduction of the euro, as stipulated in Article 6(3);
- The number of analysed suspect counterfeits has increased whereas the number of reimbursed unfit coins has decreased;
- 17 out of 19 Member States of the euro area carry out controls of the correct implementation of the authentication obligation by the institutions referred to in Article 6 of the Council Regulation (EC) No 1338/2001;
- Italy and Luxemburg reported that they had carried out no controls. The Commission reminded these two Member States, through the official channel of the pre-infringement stage (EU-PILOT), their standing obligation to fully comply with the Regulation.

The following charts offer an overview on the main figures described above.

**Chart 6: Volume of euro coins authenticated in 2012 – 2015**

![Chart 6](image-url)
The protection of euro coins in 2016

Chart 7: Controls carried out in 2012 – 2015

![Chart 7: Controls carried out in 2012 – 2015](image)

Chart 8: Counterfeit coins and unfit coins in 2012 – 2015

![Chart 8: Counterfeit coins and unfit coins in 2012 – 2015](image)