

Opinion on a notification for prior checking received from the Data Protection Officer of the European Commission related to the "Fingerprint recognition study of children below the age of 12 years"

Brussels, 25 July 2011 (Case 2011-0209)

1. Proceedings

On 25 February 2011, the European Data Protection Supervisor ("EDPS") received from the Data Protection Officer of the European Commission a notification for prior checking ("the Notification") regarding the data processing operations relating to the fingerprint recognition study of children below the age of 12 years.

The following documents were attached to the notification:

- EC document on "Creation, handling and storage of restraint UE information" (Security Notice 2-V.7-03.12.2009).
- JRC Corporate Notification DPO-1946 on "ICT Infrastructure at the JRC" (including security measures).
- Administrative Arrangement between DG JLS and DG JRC on the conduct of a feasibility study.
- Specifications for a Technical Feasibility Study (Annex1 - JRC Contract n. 31216-2008).
- Inception Report "Fingerprint Recognition Study of Children below the Age of 12 Years" (vers.7 - 07.05.2010).
- Interim Report "Fingerprint Recognition Study of Children below the Age of 12 Years" (vers.3 - 30.11.2010).
- Authorization from the Portuguese Data Protection Office concerning the study on children fingerprints (PT).
- Draft translation of the authorization from the Portuguese Data Protection Office concerning the study on children fingerprints (EN).

The draft opinion was sent to the DPO for comments on 14 July 2011. These were received on 21 July 2011.

2. Examination of the matter

2.1. The facts

According to the notification, the purpose of the processing is to study in detail the physiological development of the fingertip ridge structure of children (ridge distance, position

of minutiae) and the resulting recognition rate of fingerprint matching algorithms adapted to children.

Moreover, according to Annex 1 to the JRC Contract on the specifications for a technical feasibility study, the objective of this study is to carry out a thorough and integrated in-depth assessment of the technical feasibility of different age limits for fingerprint recognition -in particular of children aged below 12 years- in the context of large-scale databases. It is foreseen that the study shall give an answer as to whether the change of size of fingerprints of this age group -related to the growing process of fingerprints- has a significant impact on accuracy for verification and identification purposes.

The JRC will conduct processing of fingerprint data for scientific purposes. As to the source of the data, it is stated in the inception report produced by the JRC that the portuguese Government has offered to make available children fingerprint data obtained in the context of the roll-out of the new generation European passports. The inception report also discussed about possible additional processing operations on other fingerprint databases, but the JRC clarified to the EDPS that separate notifications would be transmitted to the EDPS if such case would occur.

The data will be used for two separated activities:

- measurement (the precise localization of fingerprint features (minutiae points) in order to measure their displacement over time);
- verification (the verification of modified fingerprint recognition software on the basis of the available test data).

The processing is partly **automated and manual**. The automated processing relies on IT supported analysis of the transformation of fingerprint features over time by measuring and processing geometrical information of the fingerprints.

As to the manual processing, it relies on manual inspection and classification of fingerprints to decide on the scientific usability.

It is also underlined in the notification that the careful analysis of the modifications over time requires a half-automated approach in which the manual classification selects the following automated analysis procedure.

According to the notification, the **data subjects** concerned are citizens of Portugal to which a passport has been previously issued and which were under the age of 12 when the fingerprints were collected.

The **personal data** processed are:

- fingerprint raw images (500 dpi) of both index fingers, collected at different times (time distance more than 2 years),
- age in months (no precise date of birth), and,
- as a primary key for the management of the database, a unique identification number and/or file name.

According to the notification, these data are provided by the Immigration and Borders Service of Portugal (SEF/MAI). The SEF/MAI will not provide any other information on that person or grant access to databases with additional data; lastly, the holders of the fingerprints cannot be identified directly or indirectly by the JRC.

In the case at stake, the EDPS considers that, the data will remain identifiable. Indeed, Recital 8 of the Regulation states that "[...] *To determine whether a person is identifiable, account should be taken of all the means likely to be reasonably used either by the controller or by any other person to identify the said person. [...]*". The same principle is applicable in the context of Directive 95/46/CEC¹ Regulation 45/2001 (see Recital 8).

In the agreement between SEF/MAI and the JRC, it is stated that such data are personal and identifiable, by comparing them with the respective holder or by crossing information stored in other databases, but that the scope of the same agreement does not grant access to the aforementioned databases of referred data, but rather provides for communicating fingerprints and age data, extracted from a chart, for the purposes of the research mentioned in the said agreement.

On the basis of the Portuguese law implementing Directive 95/46, an authorisation has been delivered by the Portuguese Data Protection Authority (CNPD), which allows for the transfer of the biometric data from the SEF/MAI to the JRC. A thorough analysis of the compatibility of the transfer of the data with the Portuguese data protection law has been conducted and guaranties to be respected by the JRC have been established. As a matter of fact, the analysis of the EDPS is limited to the processing operations conducted by the JRC itself.

The **recipients** of some results of the scientific analysis are:

- DG HOME (recipient of the scientific report), and
- the European Parliament (recipient of the public report).

Concerning the **rights of the data subjects**, Articles 13-16 of the Regulation are considered not applicable, on the grounds of Article 20 (2), as there is no disclosure of the data to third parties and no decisions producing legal effects concerning the data subjects. The authorisation of the CNPD also came to the conclusion that the right of access cannot be exercised in this case.

The **storage** of the data is ensured by DVD and electronic storage media. The authorisation of the CNPD agrees with such storage in light of Article 7 of the agreement which foresees that all research work should be done over the supplied DVD, and no copies or reproductions of its content should be done.

As to the **conservation**, the data will be kept for the lifetime of the study (envisaged duration of 2 years). This period is renewable for the same period if needed.

As regards the **information** provided to the data subject, Article 11 is considered not applicable. The same for Article 12 (1), on a basis of Article 12 (2), since the provision of such information would involve an effort disproportionate for processing for the purposes of scientific research.

Security measures have been put in place [...]

2.2. Legal aspects

2.2.1. Prior checking

¹ Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, Recital 26.

This prior checking Opinion relates to the processing of personal information by the JRC, carried out for the purpose of a scientific research on the technical possibilities and feasibilities of using/reading finger prints of children who are under 12 years old, with a view to better control and identify individuals within the scope of the European Visa Information System (VIS).

Applicability of the Regulation. The notification concerns the processing of personal data, within the meaning of Regulation (EC) No 45/2001. The data processing is performed by a European Union body, the European Commission (Directorate General JRC), in the exercise of activities which fall within the scope of EU law². Personal data of individuals which are not directly or indirectly identified, but are identifiable (Article 2(a)), will be processed in order to study in detail the physiological development of the fingertip ridge structure of children (ridge distance, position of minutiae) and the resulting recognition rate of fingerprint matching algorithms adapted to children. As explained above (point 2.1) Recital 8 of Regulation 45/2001 foresees that to determine whether a person is identifiable, account should be taken of all the means likely to be reasonably used either by the controller or by any other person to identify the said person.

Moreover, the processing relates to biometric data, for which the EDPS requires prior checking under Article 27(1).

These activities constitute partially automated and partially manual processing operations. The processing therefore falls within the scope of Regulation (EC) No 45/2001.

For the reasons described below, all elements that trigger the application of the Regulation are present:

Grounds for prior checking. Article 27(1) of Regulation (EC) No 45/2001 subjects to prior checking by the EDPS "*processing operations likely to present specific risks to the rights and freedoms of data subject by virtue of their nature, their scope or their purposes*". The EDPS considers that the presence of some biometric data other than photographs alone, such as the case in point where biometric are processed, presents specific risks to the rights and freedoms of data subjects³. These views are mainly based on the nature of biometric data which is highly sensitive, due to some inherent characteristics of this type of data. For example, biometric data changes irrevocably the relation between body and identity, in that they make the characteristics of the human body 'machine-readable' and subject to further use.

These risks justify the need for the data processing itself to be prior checked by the EDPS in order to verify that stringent safeguards have been implemented.

Prior Checking. Since prior checking is designed to address situations that are likely to present certain risks, the Opinion of the EDPS should be given prior to the start of the processing operation. In this present case, the notification relates to a processing which has not yet taken place at the JRC and therefore qualifies for **prior-checking**.

² The concepts of "Community institutions and bodies" and "Community law" can not be any longer used after the entry into force of the Lisbon Treaty on 1st December 2009. Article 3 of Regulation 45/2001 must therefore be read in light of the Lisbon Treaty.

³ See also case 2007-0501 (Iris scan system at the European Central Bank) and case 2007-0635 (Access control at OLAF).

Notification and due date for the EDPS Opinion. The Notification was received on 25 February 2011. On 12 April 2011, the EDPS made a request for additional information, received on 17 June 2011 and (confirming some facts of the processing operation) on 7 July. The reply contained the answers to the questions as well as the risk assessment and the access policy relating to the processing operation. Moreover, the contract between the portuguese authority providing the biometric data for the study and the JRC was also enclosed.

Pursuant to Article 27(4) of Regulation (EC) No 45/2001, the two-month period within which the EDPS must deliver an opinion was suspended for a total of 86 days to obtain additional information plus 7 days to allow comments on the draft Opinion. The Opinion must therefore be adopted no later than 26 July 2011.

2.2.2. Lawfulness of the processing

Personal data may only be processed if legal grounds can be found in Article 5 of Regulation (EC) No 45/2001. The Notification points out that the grounds that justify the processing operation are based on Article 5(a), pursuant to which personal data may be processed if the processing is "*necessary for the performance of a task carried out in the public interest on the basis of the Treaties establishing the European Communities or other legal instruments adopted on the basis thereof*". In interpreting Article 5(a), recital 27 states that: "*processing of personal data for performance of tasks carried out in the public interest includes the processing necessary for the management and functioning of those institutions and bodies*".

The EDPS notes that the processing is considered necessary for the performance of a task carried out in the public interest on the basis of the Treaties establishing the European Communities or other legal instruments adopted on the basis thereof (Article 5(a)). However, in this case, the processing at stake is not necessary for the management and functioning of the JRC itself, as described in Recital 27, but is based on other public interests as stated in the VIS regulation.

Moreover, the EDPS considers that the processing could be also be based on Article 5(b) ("*..processing ... necessary for compliance with a legal obligation to which the controller is subject*"). In order to determine whether the processing operations in question comply with Article 5 (a) and 5(b) of Regulation (EC) No 45/2001 two elements must be taken into account: first, the legal obligation and legal basis under which the controller is subject, and second, whether the processing operations are indeed necessary for the performance of the legal obligation or the task carried out (necessity test).

As far as the legal basis is concerned, the DPO of the European Commission informed the EDPS of the following legal documents forming the basis for processing:

- Council Decision of 19 December 2006 concerning the Specific Programme to be carried out by means of direct actions by the Joint Research Centre under the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2006/975/EC) (2007 to 2013), under which the JRC provides technical and scientific support to EC policy development;
- Report of the European Parliament on the future processing of visa applications in which a feasibility study was requested;
- Administrative Arrangement between DG JLS and DG JRC on the conduct of a feasibility study.

Article 1 of Regulation of the European Parliament and of the Council amending the Common Consular Instructions on visas for diplomatic missions and consular posts in relation to the introduction of biometrics including provisions on the organisation of the reception and processing of visa applications states that:

"The exemption from the requirement to give fingerprints for children and the elderly, and in particular the age range for the taking of fingerprints, shall be reviewed three years after the start of operation of the VIS. To this end the Commission shall present a report which shall in particular cover the experience of the VIS with regard to the taking and use of fingerprints from children aged 12 and over and a detailed technical assessment of the reliability of taking and using the fingerprints of children under the age of 12 for identification and verification purposes in a large-scale database such as the VIS. The report shall incorporate an extended impact assessment of lower and higher age limits for requiring fingerprints, including social, ergonomic and financial aspects."

The purpose of the declared data processing (to realize a scientific study with a view to support the development of policies from the European Union, according to the VIS' objectives) is integrated in the framework of the JRC and appears to be specific, determined and legitimate, according to article 5(a) of the Regulation .

As to the necessity of the processing (necessity test), the EDPS takes note that the processing is conducted by the JRC, in the framework of a research study. This study also appears in the scope of the European Visa Information System (VIS) goals, and intends to determinate if there is scientific support for changing the age limits to collect fingerprints from minors. In this respect, the EDPS considers that the necessity of the processing could be considered as justified.

2.2.3. Data quality

Adequacy, relevance and proportionality. Pursuant to Article 4(1)(c) of Regulation (EC) No 45/2001, personal data must be adequate, relevant and non excessive in relation to the purposes for which they are collected and/or further processed. This is referred to as the data quality principle.

In analyzing whether the processing at point, which involves mainly the processing of biometric data, is in line with this principle, the EDPS notes the following. The type of data processed (fingerprint raw images (500 dpi) of both index fingers, taken at different times (time distance more than 2 years)) and age in months (no precise data of birth) corresponds to the data required to carry out a thorough and integrated in-depth assessment of the technical feasibility of different age limits for fingerprint recognition in the context of large-scale databases. From this point of view, the data collected could be considered adequate and relevant for the purposes of the processing.

Fairness and lawfulness. Article 4(1)(a) of the Regulation requires that data be processed fairly and lawfully. The issue of lawfulness was analyzed above (see Section 2.2.2). The issue of fairness is closely related to what information is provided to the data subjects who is further addressed in Section 2.2.8.

Accuracy. According to Article 4(1)(d) of the Regulation, personal data must be *"accurate and, where necessary, kept up to date"*, and *"every reasonable step must be taken to ensure that data which are inaccurate or incomplete, having regard to the purposes for which they were collected or for which they are further processed, are erased or rectified"*.

In this case, the personal data at stake include mainly biometric data provided by the Portuguese authority (SEF/MAI). The proper accuracy of the data which are provided has been assessed by the Portuguese Data Protection Authority allowing the transfer to the JRC.

2.2.4. Conservation of data

Pursuant to Article 4(1)(e) of Regulation (EC) No 45/2001 personal data may be kept in a form which permits identification of data subjects for no longer than necessary for the purposes for which the data are collected and/or further processed. This is usually referred to as 'conservation principle'.

According to the notification, the data will be stored by the JRC for the duration of the study, established at two years (validity of the agreement between the SEF/MAI and the JRC) and may be renewed if needed. The EDPS takes note of the retention period of two years, but considers that any request for renewal will need to be authorised by the EDPS.

2.2.5. Transfers of data

The EDPS notes that the agreement between SEF/MAI and the JRC foresees in its article 4 that *"JRC undertakes not to use, disclose or convey, under any circumstances, in Portugal or abroad, the Information, for any other purpose other than that stated in paragraph 1 of Article 2"*⁴ and that *"JCR undertakes to apply for prior authorization from SEF/MAI for the publication of the results of the research mentioned in paragraph 1 of Article 2 which is dependent on the implementation of internal procedures by SEF/MAI"*.

As explained in the facts, the reports which will be established on the basis of the scientific analysis will be transferred to DG HOME and the European Parliament.

Besides the obligations already imposed on the JRC, these reports will not contain personal data. Therefore, the EDPS considers that the reports do not fall under Articles 7, 8 or 9 of Regulation 45/2001, which sets forth certain obligations applying when data controllers transfer personal data.

2.2.6. Right of access and rectification

According to Article 13 of Regulation (EC) No 45/2001, the data subject shall *"have the right to obtain, without constraint, at any time within three months from the receipt of the request and free of charge, from the controller, communication in an intelligible form of the data undergoing processing and any available information as to their source"*. Article 14 of the Regulation provides the data subject with the right to rectify inaccurate or incomplete data.

⁴ Paragraph 1 of Article 2 reads as follows: *"The disclosure of data mentioned in the previous Article, extracted from a chart, has the sole purpose of performing a scientific research on the technical possibility and feasibility of using / reading finger prints collected from minors under the age of 12 years old, for purposes of checking and identifying an individual."*

However, this right may be limited if Article 20 applies.

On the basis of Article 20 (2) of the Regulation, Articles 13 to 16 shall "*not apply when data are processed solely for purposes of scientific research or are kept in personal form for a period which does not exceed the period necessary for the sole purpose of compiling statistics, provided that there is clearly no risk of breaching the privacy of the data subject and that the controller provides adequate legal safeguards, in particular to ensure that the data are not used for taking measures or decisions regarding particular individuals*". In the case at stake, the EDPS notes that the conditions of Article 20(2) could be met.

2.2.7. Information to the data subject

Pursuant to Articles 11 and 12 of Regulation (EC) No 45/2001, those who collect personal data are required to inform individuals that their data are being collected and processed. Individuals are further entitled to be informed of, *inter alia*, the purposes of the processing, the recipients of the data and the specific rights that individuals, as data subjects, are entitled to.

The data are not collected directly from the data subjects. Therefore, Article 11 does not seem to be applicable in this case. Article 12 (which relates to information to be supplied where the data have not been obtained from the data subject) seems to be inapplicable either on the basis of Article 12(2) because the provision of such information would involve a disproportionate effort for processing for the purposes of scientific research. As specified by the same paragraph, in such case the Union institution or body shall provide for appropriate safeguards after consulting the European Data Protection Supervisor. These safeguards appear to be implemented through two documents adopted by the JRC (the Risk Assessment for processing fingerprints and the Access Policy: see 2.2.8).

2.2.8. Security measures

According to Articles 22 and 23 of Regulation (EC) No 45/2001, the controller and the processor must implement appropriate technical and organizational measures to ensure a level of security appropriate to the risks represented by the processing and the nature of the personal data to be protected. These security measures must in particular prevent any unauthorized disclosure or access, accidental or unlawful destruction or accidental loss, or alteration and prevent all other forms of unlawful processing.

Taking into account the special nature of the biometric data (as outlined above in section 2.2.1), to properly assess the adequacy of the use of such data it is necessary to carry out a ***targeted risk assessment***, evaluating the risks associated to the processing of such data.

Besides general security rules in place at the JRC (as explained in the facts), the JRC has laid down all relevant security aspects of the specific processing operations in two specific documents: the Access Policy and the Risk Assessment for processing fingerprints for scientific purposes.

[...]

3. Conclusion

The proposed processing operation would not appear to involve any breach of the provisions of Regulation (EC) No 45/2001, provided that account is taken of the observations made above. In particular, the JRC should:

-contact the EDPS to receive his approval in case of need of renewal of the initial conservation period;

[...]

Done at Brussels, 25 July 2011

(signed)

Giovanni BUTTARELLI
Assistant European Data Protection Supervisor