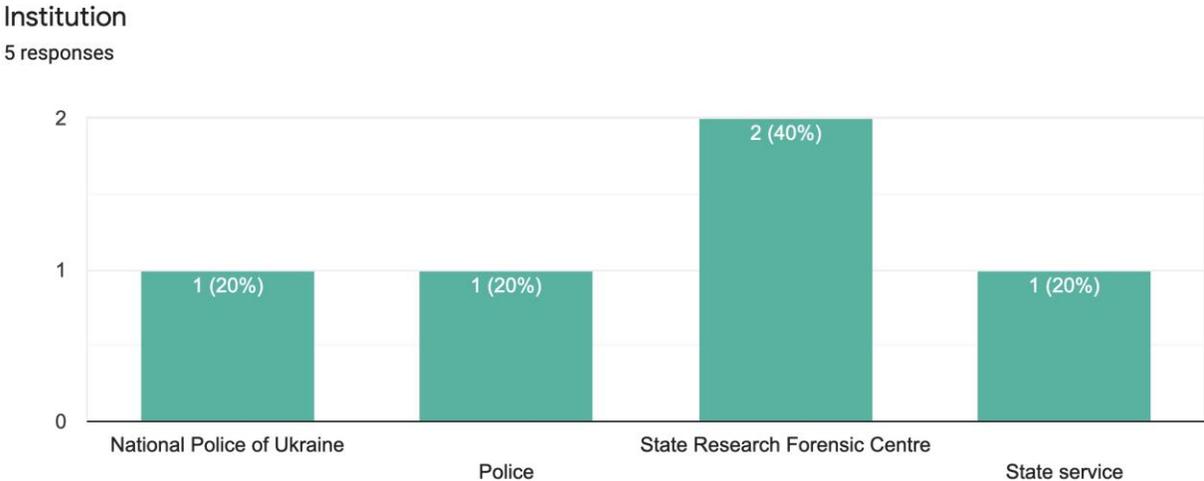


# Introduction

In order to improve the effectiveness of our activities in the Action, we tried to involve the end-users. In fact, they will be the actual users of the solutions and techniques we implement, and they can provide feedback and insight that researchers and developers cannot know or foresee.

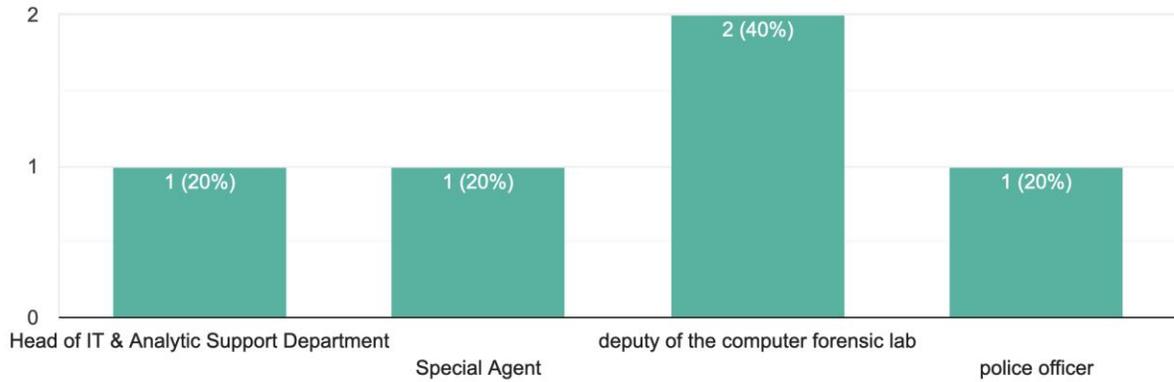
To this purpose, we prepared a form with questions proposed by the members of the consortium. The form has been then sent to various law enforcement institutions in the EU. However, only 5 responses have been obtained. In the following, we present the results obtained.

Of these five responses, four come from Ukraine and one from Slovakia. The users who filled the form are from different units, from the police officer to the head of the IT and Analytic Support Department.



### Position in the organization

5 responses

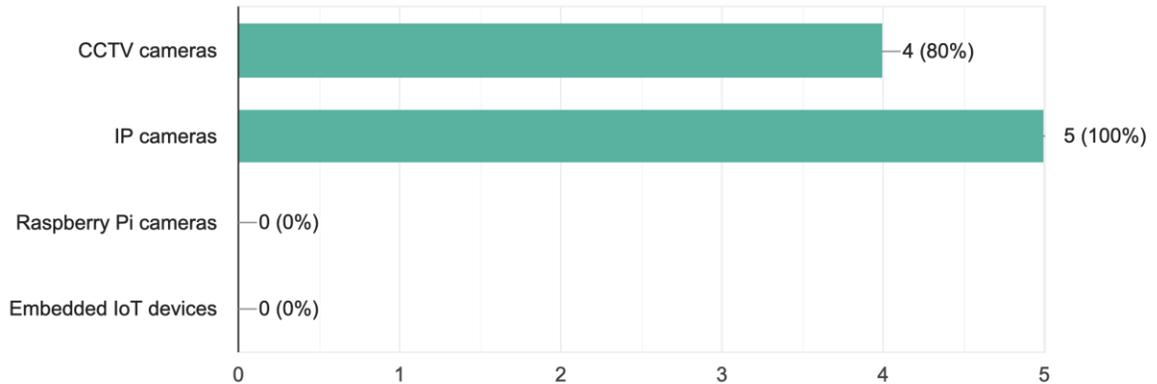


## Video Surveillance

All the users use CCTV or IP cameras, no one uses embedded devices as acquisition devices.

What acquisition device do you use to capture videos/still images? Select one or more choices:

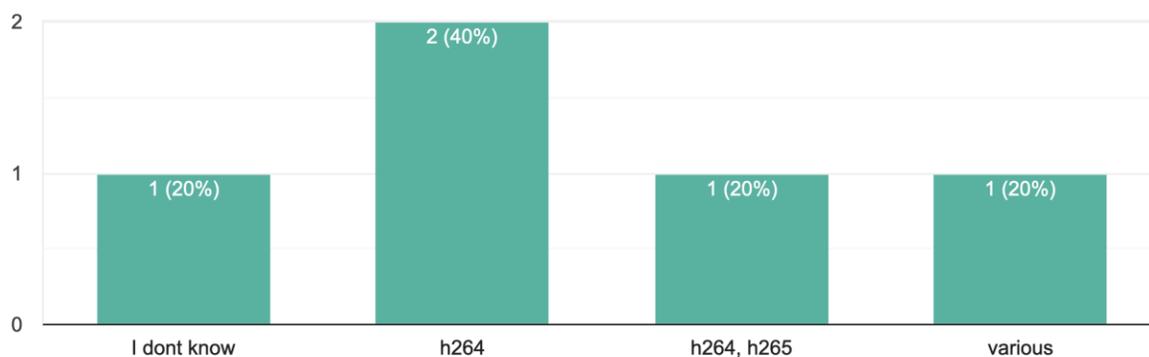
5 responses



For the video codec, the most used are h264 and h265, while for the file format avi and mp4 are the most used, with one user using also mov.

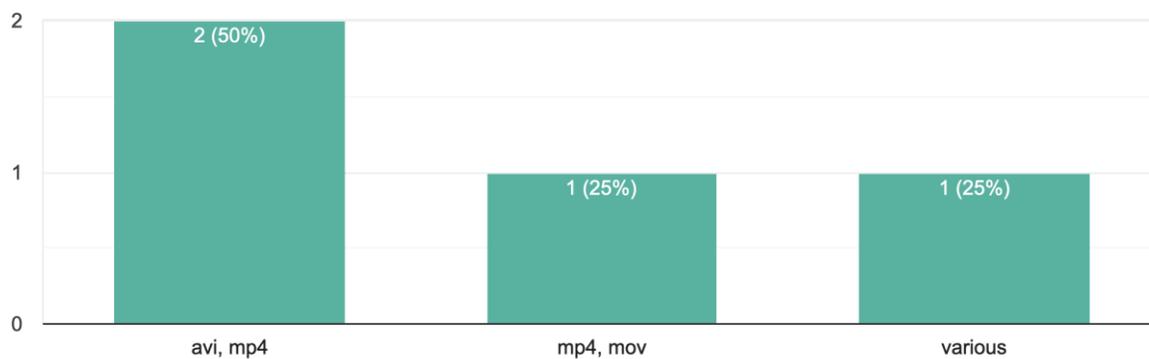
Specify the video encoding (for example mjpeg, mpeg2, mpeg4, avc, h264, h265):

5 responses



Specify the video file format (for example avi, mp4, mov, mkv)

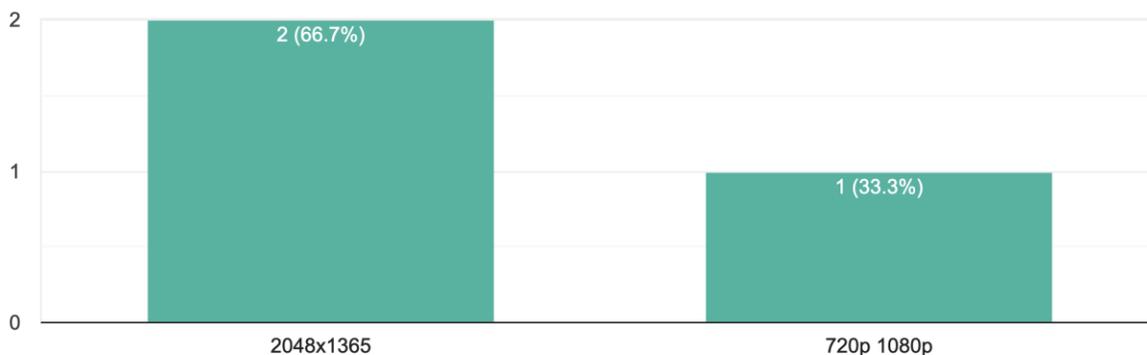
4 responses



Regarding the resolution, two users acquire videos at 3Mpx, while another one uses both HD (720p) and Full HD (1080p) videos. This is good since the effectiveness of the algorithm is better with high-resolution images.

### Specify the video resolution (in pixels):

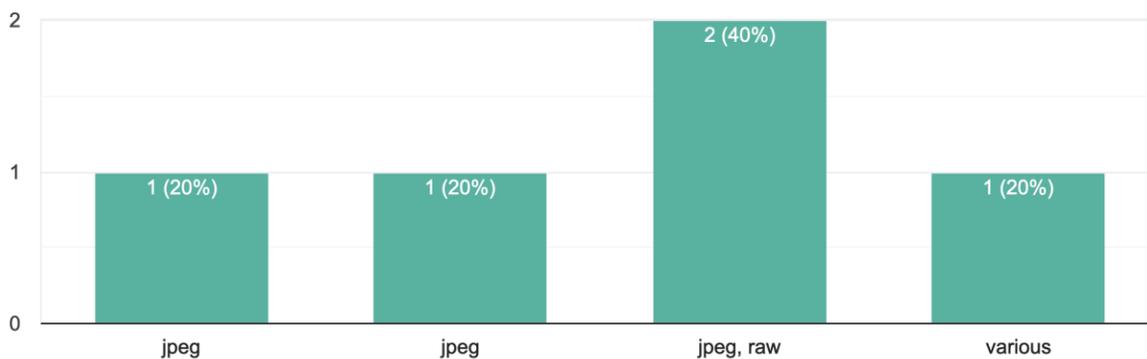
3 responses



For the still images, the most used format is jpeg, with two users acquiring also in raw and one user acquiring various kinds of image formats.

### Specify the image format/encoding (for example jpeg, png, bitmap, gif, raw)

5 responses

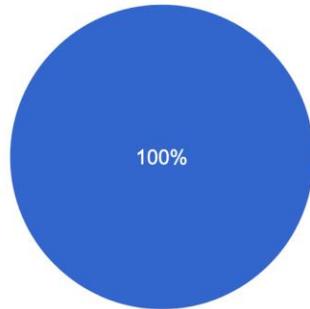


## Face Recognition

All users acquire frontal, profile, and infrared images of the face

Do you acquire frontal images of the face?

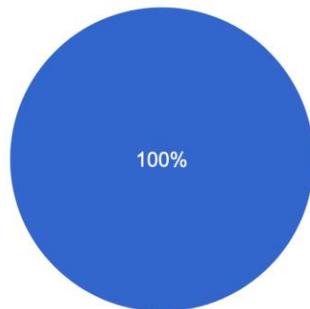
5 responses



● Yes  
● No

Do you acquire profile images of the face?

5 responses



● Yes  
● No

Do you acquire infrared images of the face?

5 responses

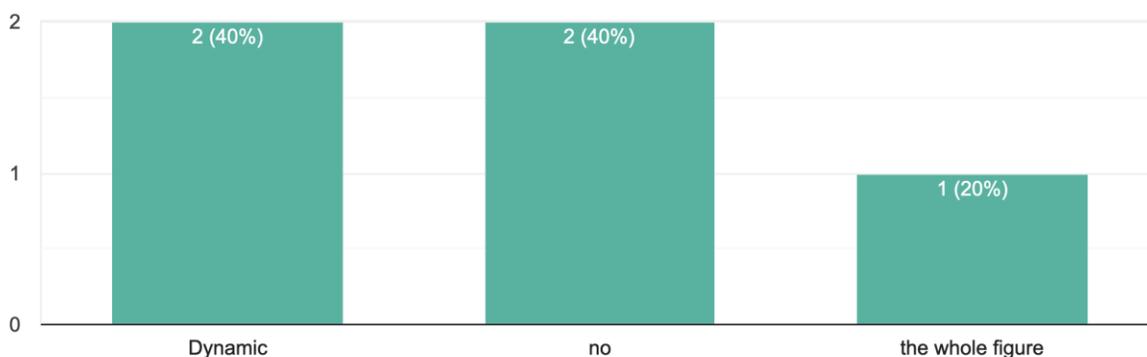


● Yes  
● No

Two users also acquire dynamic images of the face, while one user also acquires the whole figure of the person.

Do you acquire any other type of face image (in case please specify which kind)?

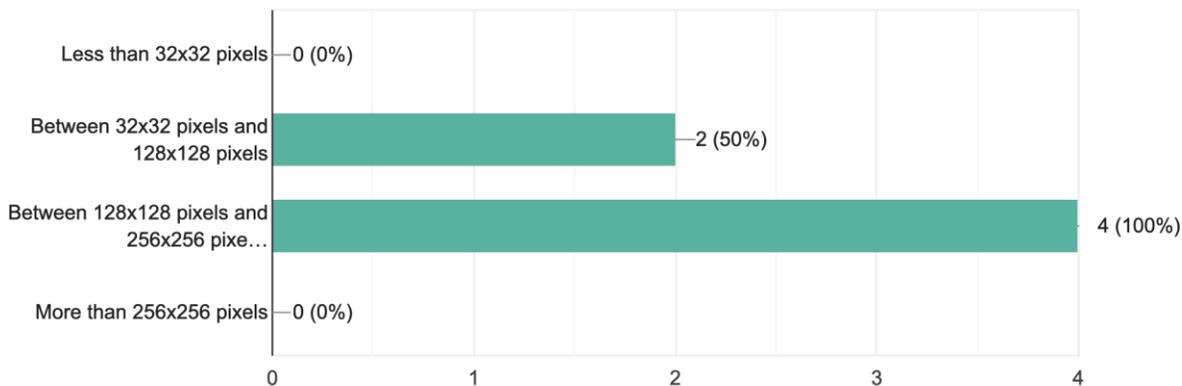
5 responses



The majority of users work with medium-resolution face images, with two users also working with low-resolution face images. Of course, the bigger the face, the better the face recognition accuracy.

Please specify the size of faces you normally work with (in pixels)

4 responses

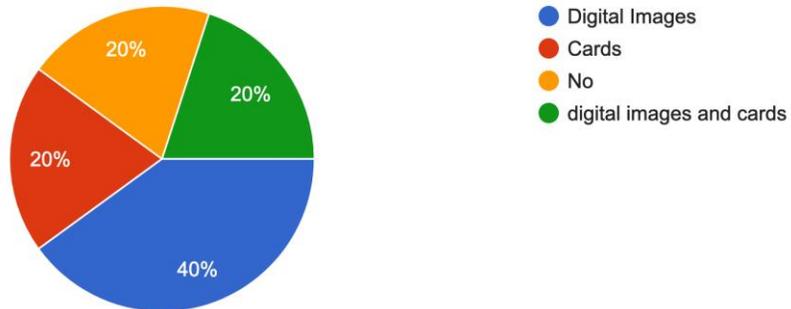


## Fingerprints

Four users also acquire fingerprints. In particular, two users only acquire digital versions of fingerprints, one user only acquires analytical versions of fingerprints (cards) and one user acquires both of them.

Do you collect digital images or cards (so not digital) about fingerprints?

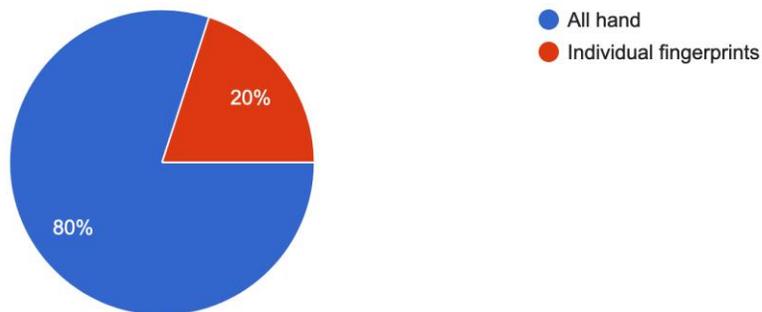
5 responses



Four users acquire fingerprints of the whole hand, while one user acquires individual fingerprints.

Do you collect images/cards of all the hand or of individual fingers?

5 responses

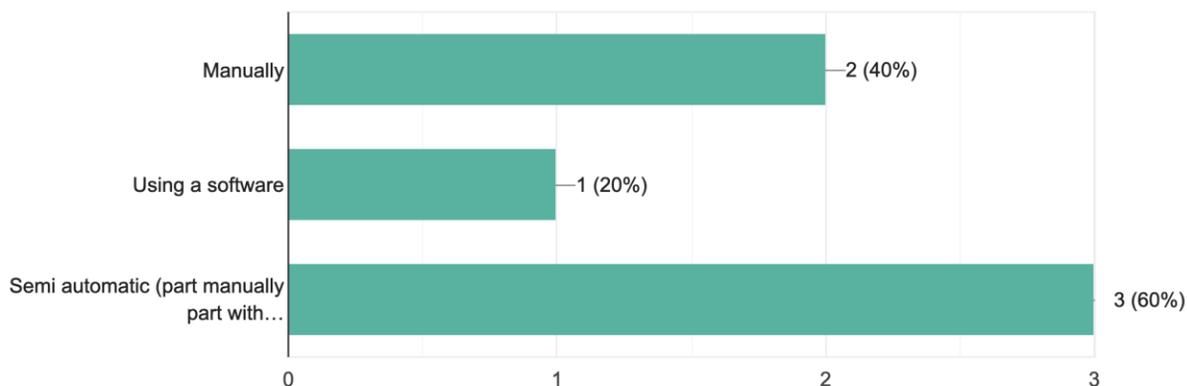


## Image Analysis

Regarding the analysis of the acquired images, two users perform the analysis manually, one user only relies on software, and three users adopt a semi-automatic approach, partially manually and partially with software support.

### How do you currently analyse acquired images (either for face or for fingerprints)

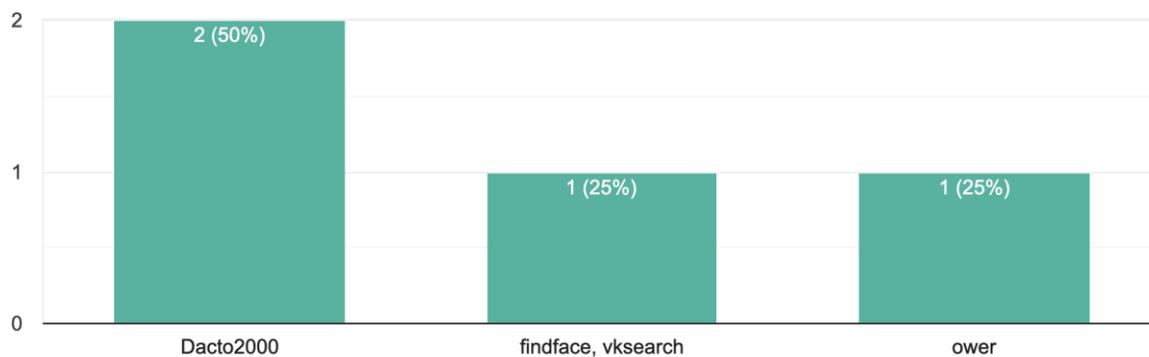
5 responses



Three users exploit commercial softwares like Dacto2000 or FindFace, while one user adopts an internally-developed software. No one uses open-source software.

### In case you use a software, can you please specify which software?

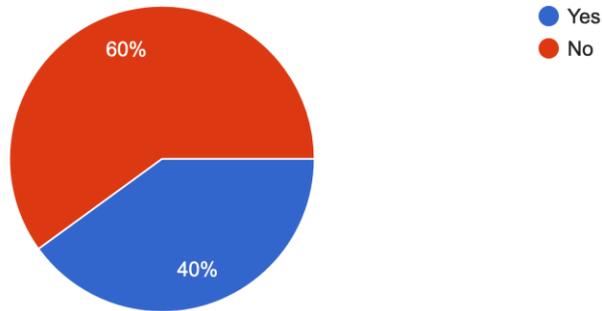
4 responses



Only two users follow ENFSI forensic guidelines and have personnel with special training.

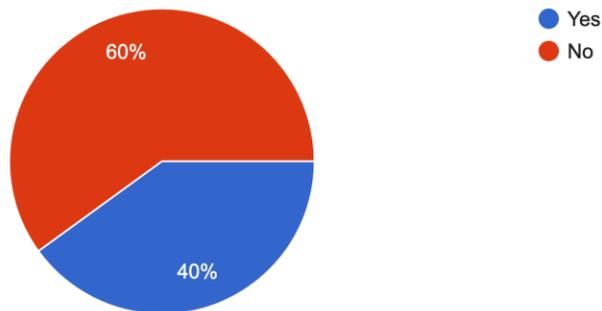
Do you follow ENFSI forensic guidelines (<http://enfsi.eu/documents/forensic-guidelines/>)?

5 responses



Do the personnel who analyze the images have special training?

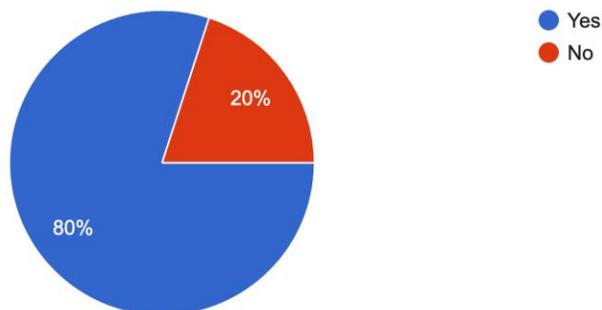
5 responses



Four users need special approval or certification to implement software. Of these, only two users specified that they need a Software validation card.

Do you need special approval or certification to implement a software in your routine work?

5 responses



Finally, three users use special equipment for the data acquisition process. Of these, two use RUVIS (Reflective Ultra Violet Imaging Systems) and one uses an infra-red camera.

**Author:** Claudio Vairo, CNR, Italy, on behalf of WG2, 2020