



**EUROPEAN COMMISSION**

DIRECTORATE-GENERAL

JOINT RESEARCH CENTRE

Directorate G - Institute for the Protection and Security of the Citizen

**Global security and crisis management**

*Limited<sup>1</sup>*

## **Support to Open Sources User Community**

Enclosure: Second Interim Report

c.c.:

DG HOME

- [REDACTED]
- [REDACTED]

JRC

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

---

<sup>1</sup> This document is sensitive and limited for use within the European Union institutions, other offices and agencies established by virtue or on the basis of the Treaties, EU Member States and public administrations.

- Distribution on need to know basis
- Not for public dissemination. It is otherwise accepted to upload to ARES or other internal IT systems
- Where e-mail is used, this must be encrypted using SECEM
- May be distributed to other EU institutions or MS
- Further distribution on need to know basis allowed but must be aware that document is not released outside EU institutions and MS public administrations.



**EUROPEAN COMMISSION**

DIRECTORATE-GENERAL

JOINT RESEARCH CENTRE

Directorate G - Institute for the Protection and Security of the Citizen

**Global security and crisis management**

# **Support to Open Sources User Community**

## **Second Interim Report**

Administrative Arrangement

Between

DG Home Affairs (DG HOME)

No. HOME/2014/ISFP/AA/001-A1

and

Joint Research Centre (JRC)

JRC Contract No. 33362-2014 NFP

European Commission, Via Enrico Fermi 2749, I-21027 Ispra (Varese) - Italy. Telephone: (39)0332-78-9[REDACTED]  
[REDACTED]. Telephone: direct line (39)0332-78-[REDACTED] Fax: (39)0332-78-[REDACTED].

E-mail: g[REDACTED]

*Limited*

Title of Report or Deliverable: Support to Open Sources User Community – Second Interim Report

JRC Author(s): [REDACTED]

Classification: Limited

Distribution list:

DG JRC

- [REDACTED]@ec.europa.eu
- [REDACTED]@jrc.ec.europa.eu
- [REDACTED]@jrc.ec.europa.eu
- [REDACTED]@jrc.ec.europa.eu
- [REDACTED]@ec.europa.eu
- [REDACTED]@jrc.ec.europa.eu
- 

DG HOME

- [REDACTED]@ec.europa.eu
- [REDACTED]@ec.europa.eu

Type of report: Progress project

Institutional project: 213- EMM

	Name	Date	Signature
Reviewed by the Project Leader	[REDACTED]		
Approved and endorsed by the HoU	[REDACTED]		

**Legal notice:**

The information contained in this document may not be disseminated, copied or utilised without the written authorization of the Commission. The Commission reserves specifically its rights to apply for patents or to obtain other protection for the matter open to intellectual or industrial protection.

The distribution of this document is limited to the persons given in the distribution list.

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the information contained in this document.

*Limited*

## Document History

Date	Author	Comments
26.01.2016		Initial draft
20.02.2016		Improved structure and charts
26.02.2016		Reformatted using Eurolook

## TABLE OF CONTENTS

1	INTRODUCTION.....	6
2	PROJECT PLAN AND WORK PACKAGES.....	6
3	DELIVERED WORK PACKAGES .....	8
	WP 3.1.1.1 OSINT Workshop for MS practitioners .....	8
	Deliverables:.....	8
	WP 3.1.1.2: Workshop Evaluation .....	9
	Deliverables:.....	9
	WP 3.1.1.3: Workshop for EMM Institutional Users.....	10
	Deliverables:.....	10
	WP 3.1.2.3: On-site user training for existing and new users .....	10
	Deliverables:.....	10
	WP 3.1.3.1: Operational updates EMM OSINT Suite .....	10
	Deliverables:.....	10
	WP 3.2.1.1 On-site operation support with JRC trained experts .....	11
	WP 3.3.1 Inception Report .....	11
4	PROJECT PLAN FOR THE NEXT MONTHS.....	12
5	RISKS AND CHALLENGES.....	12
6	ANNEX .....	14
	6.1 EMM OSINT Workshops Participants.....	14
	Workshop 2015 .....	16
	Workshop Feedback .....	18
	6.1.1 Feedback Questionnaire .....	18
	6.1.2 Feedback Results .....	18
	6.1 Meeting Minutes Institutional Users of EMM Meeting November 2014 .....	20
	6.1.1 Introduction .....	20
	6.1.2 EMM Developments .....	20
	6.1.3 News from Participants .....	20
	6.1.4 Shared Repository Discussion .....	21

6.1.5	Conclusions and Actions .....	22
6.1.6	List of Attendees.....	22
6.2	OSINT Survey Results .....	23
6.2.1	Background of Participants .....	23
6.2.2	Use of the EMM OSINT Suite software .....	25
6.2.2.1	Reasons for not using the software.....	26
6.2.3	Assessment of the EMM OSINT Suite software.....	27
6.2.3.1	Strong points.....	27
6.2.3.2	Weak points .....	27

## 1 INTRODUCTION

The goals of the Administrative Arrangement (AA) are the following:

- (1) Improve the capabilities of Member States law enforcement authorities in the use of open source information to combat crime and terrorism.
- (2) Support DG HOME's strategic analysis and response capability with EMM tools and accompanying services.

This arrangement is a continuation of the work of previous collaborations which started around seven years ago with the goal to increase the use of open source information for law enforcement purposes.

The Joint Research Centre (JRC) has been involved in scientific research to improve multilingual tools and applications for Open Source Intelligence. With the mandate of DG HOME the JRC was able to transfer these research results into operational tools to be used by Member State law enforcement authorities and EU institutions for the purpose of gathering information from the Internet.

This report revisits the project plan, then outlines the delivered work packages since the last report and finally gives an outlook of the planned work going forward.

## 2 PROJECT PLAN AND WORK PACKAGES

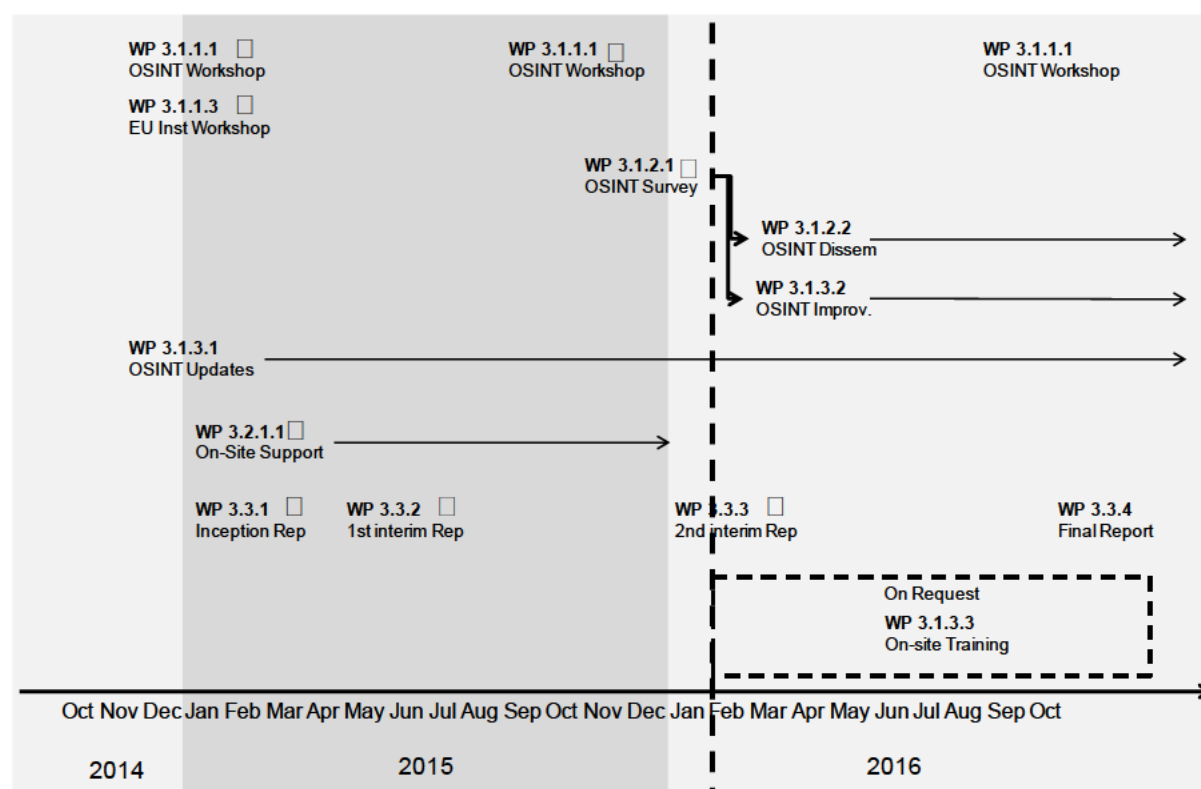
The different work packages are described in the technical annex as well in the inception report. The following table shows a consolidated overview of all work packages (WP).

Ref	Description	Planned Execution
<i>Community of OSINT practitioners in law enforcement</i>		
WP 3.1.1.1	Workshop for OSINT practitioners	Nov 2014 Nov 2015 Oct 2016
WP 3.1.1.2	Workshop Evaluation	after each workshop
WP 3.1.1.3	Workshop for EU institutional users	Nov 2014
<i>Disseminate JRC developed software tools</i>		
WP 3.1.2.1	Usage Evaluation EMM OSINT Suite	May 2015
WP 3.1.2.2	Dissemination EMM OSINT Suite	June 2015 - Oct 2016
WP 3.1.2.3	On-site user training EMM OSINT Suite	on request
<i>Improve and sustain EMM OSINT Suite operational use</i>		
WP	Operational Updates EMM OSINT	Nov 2014 – Oct 2016

*Limited*

3.1.3.1	Suite	
WP 3.1.3.2	Improvements EMM OSINT Suite	based on survey / on request by
<i>Support DG HOME Open Source Information Gathering and Analysis Capacity</i>		
WP 3.2.1.1	On-site operations support	01/2015-12/2015
<i>Reporting</i>		
WP 3.3.1	Inception Report	01/2015
WP 3.3.2	First interim report	05/2015
WP 3.3.3	Second interim report	12/2015
WP 3.3.4	Final Report	10/2016

The following diagram provides an overview of the project plan. The thick dotted line marks the current progress of the project.



The following work packages have been delivered so far:

- Institutional Users of EMM Workshop 2014 (described in First Interim Report)
- OSINT Workshop 2014 (described in First Interim Report)
- OSINT Workshop 2015
- On-Site Support
- EMM OSINT Suite operational updates
- EMM OSINT Suite Survey

*Limited*



### 3 DELIVERED WORK PACKAGES

#### WP 3.1.1.1 OSINT Workshop for MS practitioners

Organise three workshops for law enforcement practitioners about the use of open source information and its practical application.

#### **Deliverables:**

- Three workshops for MS law enforcement authorities
- Supporting event web site with online workshop material

#### *Workshop 2014*

The first workshop for OSINT practitioners was organised by the JRC in November 2014. The workshop was attended by 50 participants<sup>2</sup>. The workshop featured hands-on trainings both for EMM server and EMM OSINT Suite.

#### *Workshop 2015*

The second EMM OSINT workshop took place in November 2015. The workshop was attended by 46 participants. The workshop featured hands-on trainings both for EMM server and EMM OSINT Suite and the following presentations by experts from the Member States:

#### **"Potential online recruitment through connections made between members of Romanian Muslims and immigration/ refugees groups"**

*Romanian Intelligence Service*

Social media can help to identify connections between potential terrorist groups. Key influencers in these groups can be identified and monitored.

#### **"United Nations Office on Drugs and Crime – Global Product Portfolio "**

*United Nations Office on Drugs and Crime*

The UNODOC has developed a portfolio of software products which are used to counter money laundering as well as improve the process of public tendering. The products are in worldwide use by financial crime units and governments.

#### **"Monitoring Social Media for Customs"**

*Customs National Office, The Netherlands*

The talk discussed different ways to use information from social media for customs use. This comprises cargo movements broadcasted through Twitter as well as detecting of counterfeit products on blogs and personal sites.

---

<sup>2</sup> Please refer to the First Interim Report for the participant list and more details.

## **"EMM OSINT Suite in Education",**

*University of Applied Science (Hogeschool) Leiden, The Netherlands*

The EMM OSINT Suite is used in a curriculum for a forensics degree in Leiden. The talk gave an overview on how the software can be used for teaching basic OSINT skills.

### *WP 3.1.1.2: Workshop Evaluation*

Evaluate workshop to improve subsequent events based on feedback of attendants.

#### ***Deliverables:***

- On or offline survey to evaluate workshop results
- Evaluation of survey and results summary
- Changes to next event format

After each workshop we conducted a feedback survey by sending out an assessment form or using the Commission's online survey tool. The form and the results are available in Annex 6.1.2.

### *WP 3.1.2.3: On-site user training for existing and new users*

Provide on-site trainings for new and existing users of the EMM OSINT Suite. This work package can be requested by MS authorities to learn how to use the software or how to adapt it to special use case scenarios.

#### ***Deliverables:***

- Updated and customised training material
- On-site training delivery

The following on-site trainings for 2016 have been requested by MS:

- Tax Authority and Financial Police, The Netherlands
- National Crime Agency, United Kingdom
- Hogeschool Leiden in collaboration with Dutch Authorities, The Netherlands

### *WP 3.1.3.1: Operational updates EMM OSINT Suite*

Provide a quarterly release to keep the software current.

#### ***Deliverables:***

- Quarterly bug fix release
- Release notes and announcement mail

In 2015 we provided four operational updates for the EMM OSINT Suite (2.3.2-2.3.6). We plan the next major update for the first quarter of 2016.

*Limited*

#### *WP 3.2.1.1 On-site operation support with JRC trained experts*

The JRC provides on-site experts in order to support on-going operations and to facilitate the transfer of technical knowledge. The experts are based mainly in Brussels but have the opportunity to work in Ispra at specific intervals to get updated with the latest technical knowledge.

##### **Deliverables (on-site):**

- Operations support to keep EMM tools running
- Development of new categories, refinement of existing categories for DG HOME's areas of interest
- Production of open source daily products
- Reducing operational risks by providing latest expertise on the use of EMM tools
- Facilitate understanding of the system

##### **Deliverables (Ispra):**

- Training of the experts in the latest EMM products and developments
- Remote support of the experts

The on-site support commenced continuing operation from a previous arrangement as planned in January 2015. The on-site support concluded end of 2015 and will be continued by different AA in 2016.

#### *WP 3.3.1 Inception Report*

Submit inception report within one week after kick-off meeting, describing project plan for the first 6 months, team composition and further results of kick-off meeting.

The inception report incorporating the kick-off meeting was delivered in January 2015.

#### *WP 3.3.2 First Interim Report*

The first interim report was delivered in April 2015.

#### *WP 3.3.3 Second Interim Report*

In order to include the results of the Usage evaluation of EMM OSINT Suite, the second interim report will be delivered in early 2016, later than originally planned.

#### *WP3.1.2.1 Usage evaluation of EMM OSINT Suite ("OSINT Survey")*

Conduct a user survey to evaluate the use of the EMM OSINT Suite tool.

##### **Deliverables:**

- On- or offline survey to evaluate software use

*Limited*

- Evaluation of survey and results summary

The JRC conducted an online survey (using the Commission's EUSurvey web tool) with users of the EMM OSINT Suite.

Due to resource constraints the survey was delayed to the end of 2015. To validate the survey questionnaire a pilot survey with 15 law enforcement officers in November. The full survey was conducted with 270 users of the JRC's online community in December.

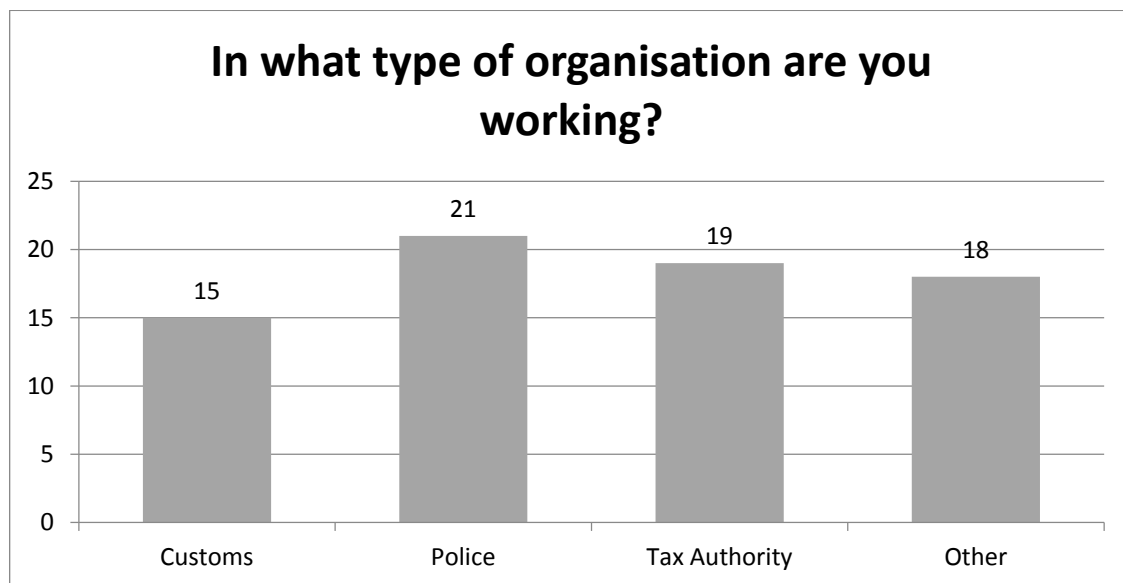
The JRC sent out 270 invitations to take part and received 76 answers (28%).

The survey was composed of a number of sections to gather information about the knowledge of the participants, the use of OSINT and our provided tools and feedback on the actual tool. Finally, we asked for input on how to improve the dissemination of the tool.

## Survey Results

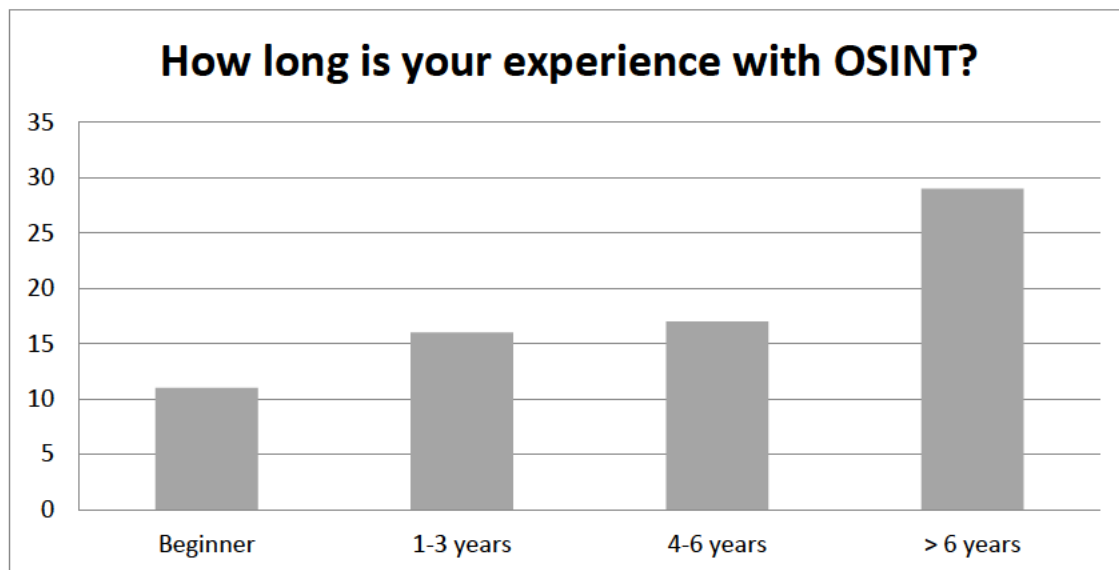
### Background of Participants

The first few questions tried to assess the background of the participants, such as the organisational background and the knowledge of OSINT as a tool.

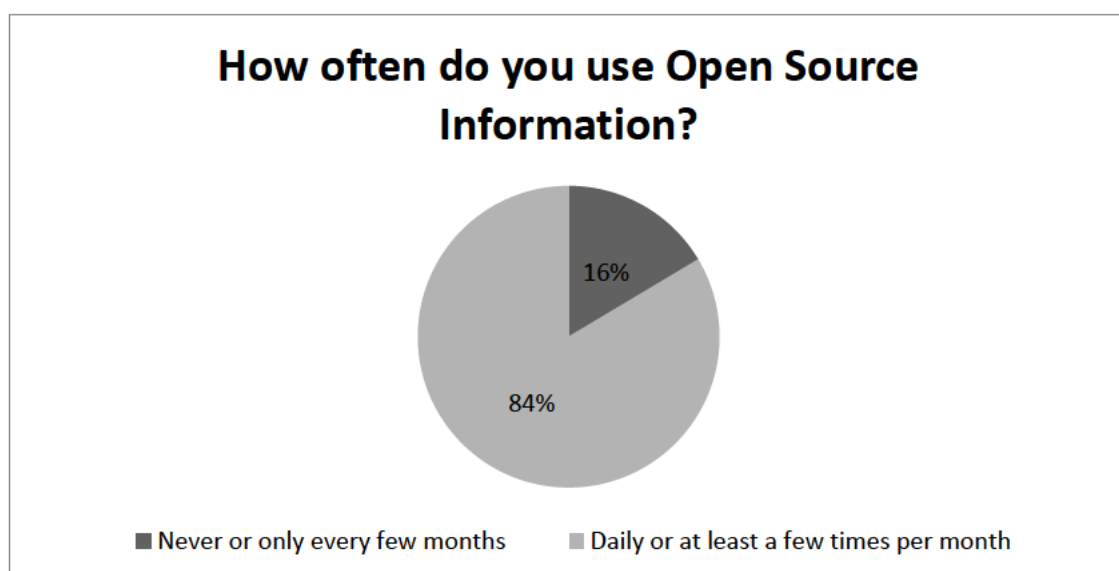


Other organisations mentioned:

- Economic Crime Authority
- Intelligence
- Competition Authority
- Combined task force police and customs
- University



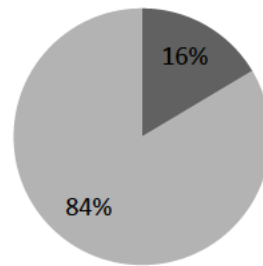
Most of the participants have more than 4 years of experience in using OSINT tools and techniques.



The great majority is using OSINT tools and techniques daily. One can assume that this group of people also forms the core of our user community.

Use of the EMM OSINT Suite software

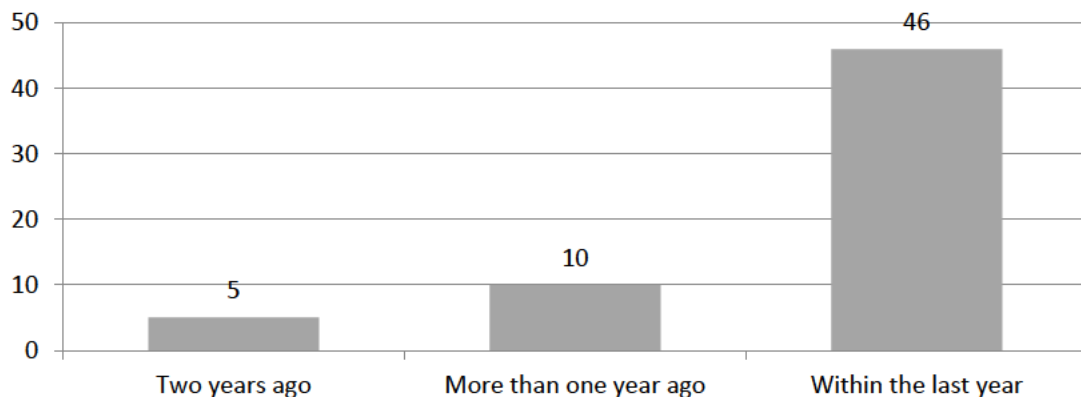
## Have you used the EMM OSINT Suite Software?



■ I have not used it    ■ I know it and have used it

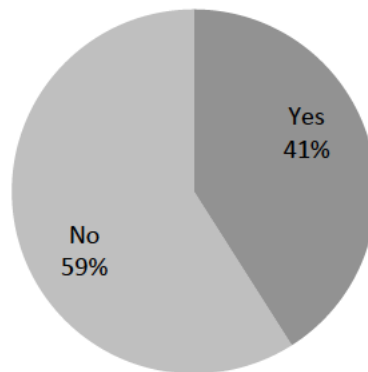
The result is not surprising, since the survey was conducted with users of the JRC's OSINT community. That means a participant became a member most often in order to try out one of the tools. Users of the site can also have experience only with the JRC's media monitoring tools this explains the percentage of people who have not tried the software.

## When did you last use the EMM OSINT Suite Software?



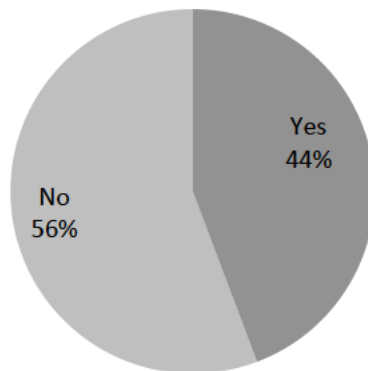
Again, the participants who responded are always testing new versions of the software.

## Have you taken part in a training?



This result is a bit surprising, since the JRC's OSINT user community was started to around the offered trainings and workshops. Since training is very crucial to unleash the full potential of the software especially for use in law enforcement, it gives a strong indication that frequent training sessions need to be offered.

## Have you used the software operationally?



Over half of the users have used the software operationally. But also a high percentage is not using the software operationally (34 participants). We asked these users what are the reasons for not using the software.

### Reasons for not using the software

The participants gave us the following answers:

- Documentation/training not sufficient (11 participants)
- Software is not appropriate for my job (5 participants)
- Software is defective (2 participants)

- Software lacks crucial features (2 participants)
- Other reasons (14 participants)
  - Missing hardware requirements
  - Tested old version needs to evaluate latest version
  - Moved job

Again this gives a strong indication that training and documentation is not sufficient.

#### Assessment of the EMM OSINT Suite software

We asked the participants to tell us strong and weak points of the software.

##### *Strong points*

- Tool is free and free tools are rare for law enforcement
- Extracting from PDFs
- Built from the ground up for law enforcement
- Software is working solid
- Good for student education
- Entity extraction and especially custom entities based on regular expression

##### *Weak points*

- Problems with large data sets
- Hard to learn “high threshold” to use
- Limited access to sites with password protection
- Difficult to add other search engines
- Limited language support

#### Results Summary and Conclusions

The majority of users is using open source information regularly and is proficient in doing so. The latest version of the EMM OSINT Suite tool has been tried by a majority of users but is used operationally only by 44%. Only 41% have taken part in training.

In order to improve the operational use the JRC needs to improve training for the tool. Also measures to better dissemination the software are needed.



## **4 PROJECT PLAN FOR THE NEXT MONTHS**

The following work packages will be delivered within the next months

- WP 3.1.1.1: EMM OSINT Workshop - the 2016 workshop is scheduled for 21.-23.09.2016
- WP 3.1.2.2: EMM OSINT Suite Dissemination

Based on the results of the survey, we are planning the following steps:

- Create dissemination package (brochure, quick start guide, evaluation download, get-started videos)
- Send package to all survey participants who asked for more information
- Send package to further law enforcement contacts
- Additional on-site training sessions in Ispra
- WP 3.1.3.2: OSINT Improvements

The survey provided a lot of feedback on how to improve the software. We are planning the following changes with the focus on usability improvements and improvements of documentation and training

- Improve user interface to be more consistent and responsive
- Make modules with importance for law enforcement more accessible:
  - Easier definition of custom entity types
  - Better integration into existing law enforcement tool chain
- Improve documentation
  - Videos to get started
  - Consistency
  - Focus on use cases
- WP 3.1.3.1: The EMM OSINT Suite software will receive further operational updates, such as security patches to stay current.

## **5 RISKS AND CHALLENGES**

The execution of several milestones faces certain risks and challenges.

We have identified the following risks:

- Development of software tools not meeting user requirements

- Software tools not meeting minimal quality standards
- Lack of personnel resources

To mitigate the risks the following measures will be taken:

- Increase communication and collaboration with MS authorities and community through website and dedicated mailing list
- Software will be tailored for law enforcement purposes to cover domain specific requirements
- Incremental software delivery process which allows changes to user requirements all along the way
- Systematic testing of tools and deliverables to ensure decent quality
- Timely reporting and discussion of activities between JRC and DG HOME to ensure effort is directed towards joint goals

## 6 ANNEX

### 6.1 EMM OSINT Workshops Participants

#### Workshop 2015

[REDACTED]	[REDACTED]	[REDACTED]@yahoo.com	AL	FIU Albania
[REDACTED]	[REDACTED]s	[REDACTED]@gmail.com	AL	Ministry of Finance
[REDACTED]	[REDACTED]	[REDACTED]@ec.europa.eu	EU	European Commission
[REDACTED]	[REDACTED]t	[REDACTED]	AL	Albanian State Police
[REDACTED]	[REDACTED]	[REDACTED]	LT	State Security Department of the Republic of Lithuania (VSD)
[REDACTED]	[REDACTED]	[REDACTED]	ES	CITCO- Intelligence Center against Terrorism and Organized Crime
[REDACTED]	[REDACTED]	[REDACTED]	NL	FIOD/ Strategic Intelligence Unit
[REDACTED]	[REDACTED]	[REDACTED]	EU	European Commission DG HR
[REDACTED]	[REDACTED]	[REDACTED]	AL	FIU Albania
[REDACTED]	[REDACTED]	[REDACTED]	HU	SOA- Zagreb
[REDACTED]	[REDACTED]	[REDACTED]	RO	FIS
[REDACTED]	[REDACTED]	[REDACTED]	USA	International Atomic Energy Agency
[REDACTED]	[REDACTED]	[REDACTED]	EU	Joint Research Centre
[REDACTED]	[REDACTED]	[REDACTED]	SE	Swedish Customs
[REDACTED]	[REDACTED]	[REDACTED]	IT	Università Cattolica del Sacro Cuore di Milano
[REDACTED]	[REDACTED]	[REDACTED]	DE	Federal Criminal Police Office Germany - Bundeskriminalamt - BKA
[REDACTED]	[REDACTED]	[REDACTED]	DE	Federal Criminal Police Office Germany - Bundeskriminalamt - BKA
[REDACTED]	[REDACTED]	[REDACTED]	NL	UAS Leiden
[REDACTED]	[REDACTED]	[REDACTED]	HU	Ministry of the Interior
[REDACTED]	[REDACTED]	[REDACTED]	FI	Finnish Tax Administration
[REDACTED]	[REDACTED]	[REDACTED]	SE	Swedish Police Authority
[REDACTED]	[REDACTED]	[REDACTED]	HU	Ministry of the Interior
[REDACTED]	[REDACTED]	[REDACTED]	PL	ABW
[REDACTED]	[REDACTED]	[REDACTED]	HU	Counter Terrorism Centre (TEK)
[REDACTED]	[REDACTED]	[REDACTED]	NL	Customs National Office
[REDACTED]	[REDACTED]	[REDACTED]	NL	Dutch Tax Administration
[REDACTED]	[REDACTED]	[REDACTED]	PL	ABW

*Limited*

			RO	FIS
			UN	United Nations Office on Drugs and Crime
			EU	Frontex
			FI	Verohallinto
			CR	Croatian Tax Administration
			IT	Italian Customs
			EU	Joint Research Centre
			PL	ABW
			NL	ACM
			AU	International Atomic Energy Agency
			EU	Europol
			CZ	Ministry of Interior
			NL	Hogeschool Leiden
			NL	Belastingdienst
			RO	Romanian Intelligence Service

## Workshop Feedback

### 6.1.1 Feedback Questionnaire

For each question, the participant had the following answering options:

1	2	3	4	5
not agree at all	not agree	neutral	agree to some extent	fully agree

### 6.1.2 Feedback Results

In 2014 we received 15 returned forms from 46 external participants. In 2015 we received again 15 answer sets from 44 external participants.

Question ID	Question	Average Score 2014	Average Score 2015
Agenda (1) (a)	The agenda (duration, structure, discussion vs speakers) was appropriate for the event	4,27	3,9
Speakers (2) (a)	Speakers were professional and their knowledge of the subject was appropriate	4,73	4,3

(2) (b)	Presentation style was suitable for the event	4,60	4,1
(2) (c)	Speakers covered all expected topics	4,33	3,5
(2) (d)	Time for questions and discussion was sufficient	4,73	4,4
Documentation (3) (a)	Material covered all topics	4,40	3,6
(3) (b)	Structure and layout was appropriate (i.e. easy to read, understandable, etc.)	4,47	3,8
Facilities and Services (4) (a)	Presentation aids and room equipment were appropriate	4,73	4,1
(4) (b)	Facilities (incl. room layout, group meeting rooms, etc.) were functional to the purpose	4,67	4,5
(4) (c)	Technical support staff was available when needed	4,80	4,4
Before the Event (5) (a)	Necessary information and enough support were available	3,73	4
Overall Outcome (6) (a)	My expectations about the event were met	4,60	3,5

*Limited*