



Operational Training Needs Analysis

Environmental crime

EDUCATE, INNOVATE, MOTIVATE

Operational Training Needs Analysis

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2022

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List of abbreviations

CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora

CKC - CEPOL Knowledge Centre

CSDP – Common Security and Defence Policy

EU – European Union

EUROPOL – European Union Agency for Law Enforcement Cooperation

EU-STNA – European Union Strategic Training Needs Assessment

ESDC – European Security and Defence College

FRONTEX – European Border and Coast Guard Agency

JHA – Justice and Home Affairs

LE – Law enforcement

MB – Management Board

MS – Member State/s

OTNA – Operational Training Need Analysis

SPD – Single Programming Document

Executive Summary

As defined by Article 3 of Regulation 2015/2219¹, the European Union Agency for Law Enforcement Training (CEPOL) shall support, develop, implement and coordinate training for law enforcement officials. The **Operational Training Needs Analysis (OTNA) methodology** (as adopted by the Management Board (MB) decision 32/2017/MB (15/11/2017) and 09/2020/MB (29/05/2020)) establishes a structured training needs analysis procedure taking into account deliverables of the EU Strategic Training Needs Assessment (EU-STNA) process.² Since piloting the methodology in 2018 by analysing training needs on the topics of Common Security and Defence Policy (CSDP) missions and Counterterrorism, CEPOL has produced a number of OTNAs on thematic security priority areas.

Building on the strategic training priorities defined by the EU-STNA 2022-2025, in line with the priorities set by the European Green Deal³ and the Justice and Home Affairs Agencies` Network⁴, CEPOL launched the OTNA on **environmental crime** in 2021. The aim was to use the outcomes of the research to define CEPOL's training portfolio addressing the required aspects in the field of environmental crime. A short-term expert was contracted from the list of individual external experts to assist CEPOL in the OTNA process, steps 3-6 (questionnaire, interviews and analysis of responses, overall analysis and drafting of the OTNA report).

In order to collect relevant data, in December 2021, CEPOL launched an online survey built around the strategic training priorities defined in the EU-STNA. The survey was addressed to direct contact points of 26 Member States⁵ (MS) and EU structures (hereinafter institutions) dealing with the subject of the OTNA. Data was collected between 16 December 2021 and 3 February 2022, resulting in **32 individual answers** received from different law enforcement (LE) agencies and EU structures in **20 EU MS⁶ and two institutions⁷**, reportedly representing more than 13 234⁸ European LE officials. The responses indicate a **77 % response rate** in terms of MS, which can be considered as a relatively good level of responsiveness for a survey research intended to represent the European LE community.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R2219&from=EN>

² The European Union Strategic Training Needs Assessment (EU-STNA) aims at identifying those EU level training priorities in the area of internal security and its external aspects to help build the capacity of law enforcement officials, while seeking to avoid duplication of efforts and achieve better coordination. More: <https://www.cepola.europa.eu/education-training/our-approach/eu-stna>

³ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

⁴ <https://www.cepola.europa.eu/media/news/cepola-hoops-presents-jhaan-presidency-priorities-cosi> and https://www.cepola.europa.eu/sites/default/files/Final_Report_JHAAN_Activities_2021.pdf

⁵ The terminology 'Member States' hereinafter refers to 26 Member States of the European Union participating in the CEPOL regulation, i.e. all EU Member States excluding Denmark

⁶ Responding countries: Austria, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain and Sweden

⁷ Responding institutions: European Union Agency for Law Enforcement Cooperation (Europol) and European Border and Coast Guard Agency (Frontex)

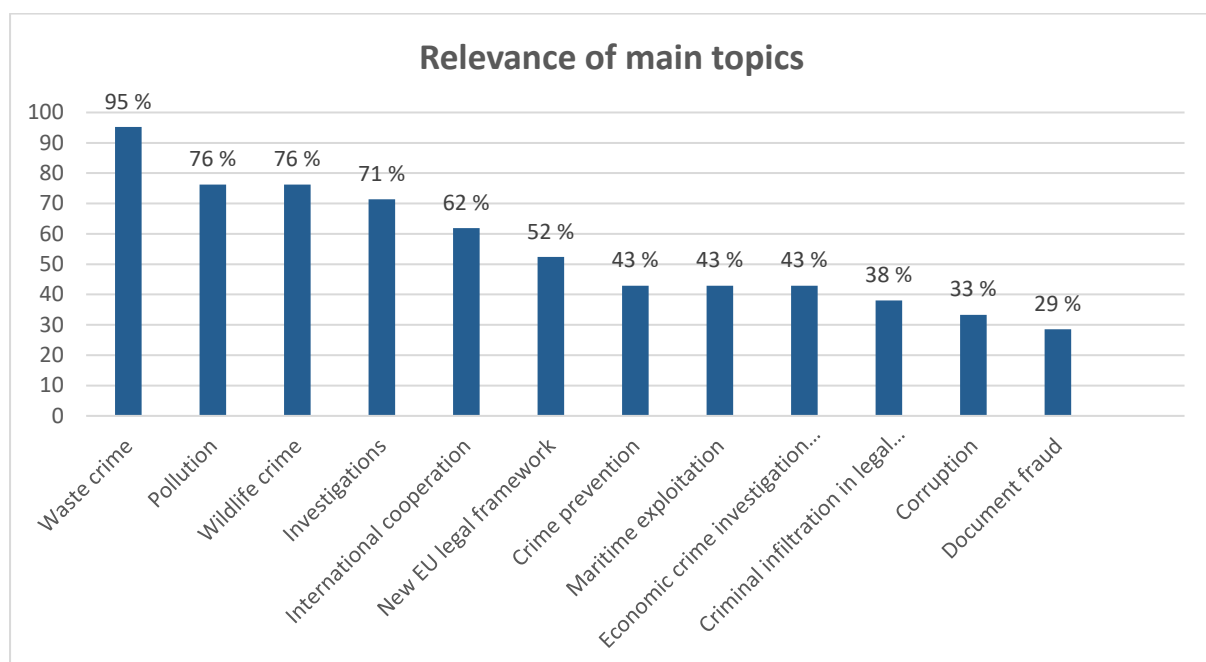
⁸ Number of officials performing their duties in the area related environmental crime as indicated by the respondents, with the exception of Hungary that did not provide the number

Based on the analysis of the collected data, this report describes **training priorities in the area of environmental crime for 2023-2025**.

Based on the data received from the responding MS and institutions, the **most relevant main topics** (out of the 12 individual topics) for LE officials in this area were related to:

- **Waste crime** (95 % of respondents found it relevant)
- **Pollution** (76 % of respondents found it relevant)
- **Wildlife crime** (76 % of respondents found it relevant)
- **Investigations** (71 % of respondents found it relevant)
- **International cooperation** (62 % of respondents found it relevant), and
- **New EU legal framework** (52 % of respondents found it relevant)

Chart 1. Distribution of training needs depending on the indicated relevance rate



As per methodology, training topics that more than 50 % of MS indicate relevant training need are to be considered for further analysis in terms of their content, urgency, proficiency level and number of participants. Based on this criterion, the topics of **waste crime**, **pollution**, **wildlife crime**, **investigations**, **international cooperation** and **new EU legal framework** were selected for closer review.

The other six topics⁹ with < 50 % were excluded from the analysis process and hence are not further elaborated in this report.

⁹ Please also see page 13 for the list of the main training topics under Environmental crime

However, prior to validating the OTNA on Environmental crime, the Expert Group¹⁰ discussed the ranking of the main training topics and concluded that since environmental crimes are often accompanied by other forms of crime, many of the topics are interlinked. Hence, training on environmental crime should take a holistic approach. This means that regardless of their ranking, topics such as economic crime¹¹ investigations techniques, criminal infiltration in legal business, corruption, and document fraud should be addressed as horizontal aspects to be integrated in training activities, when relevant.

In terms of urgency, the six most relevant main topics are ranging from 62 % to 44 %, meaning that all of them must be considered either **urgent** or **moderately urgent**¹² training needs where training should be delivered within a year's period. On those that score higher than 60 %, namely **waste crime** and **pollution**, training can be seen as an essential and necessary response to ensure quality performance. With less significance in terms of performance improvement, it would be advantageous for the audience to receive training on **investigations**, **international cooperation**, **wildlife crime** and the **new EU legal framework** during the next three years.

The detailed distribution of training needs on main topics based on relevance, urgency and indicated number of trainees¹³ is presented below in Table 1.

Table 1. Relevance and urgency rate of the main topics

Main Topic	Relevance rate	Urgency rate	Trainees (median)	Trainees (actual) ¹⁴
Waste crime	95 %	62 %	1 326	7 459
Pollution	76 %	60 %	1 157	1 784
Wildlife crime	76 %	52 %	741	2 307
Investigations	71 %	56 %	1 144	1 596
International cooperation	62 %	54 %	494	1 252
New EU legal framework	52 %	44 %	780	1 247
Economic crime investigations techniques	43 %	57 %	2 691	2 078
Maritime exploitation	43 %	38 %	589	833
Crime prevention	43 %	44 %	507	1 066
Criminal infiltration in legal business	38 %	40 %	481	807
Corruption	33 %	40 %	1 612	585
Document fraud	29 %	33 %	494	493
Average/total	55 %	48 %	12 016	21 507

¹⁰ An online meeting took place on Tuesday 29 March 2022.

¹¹ e.g. money laundering, fraud in obtaining or deviating a subsidy, grant, or credit

¹² See explanation of urgency levels in Annex 3.

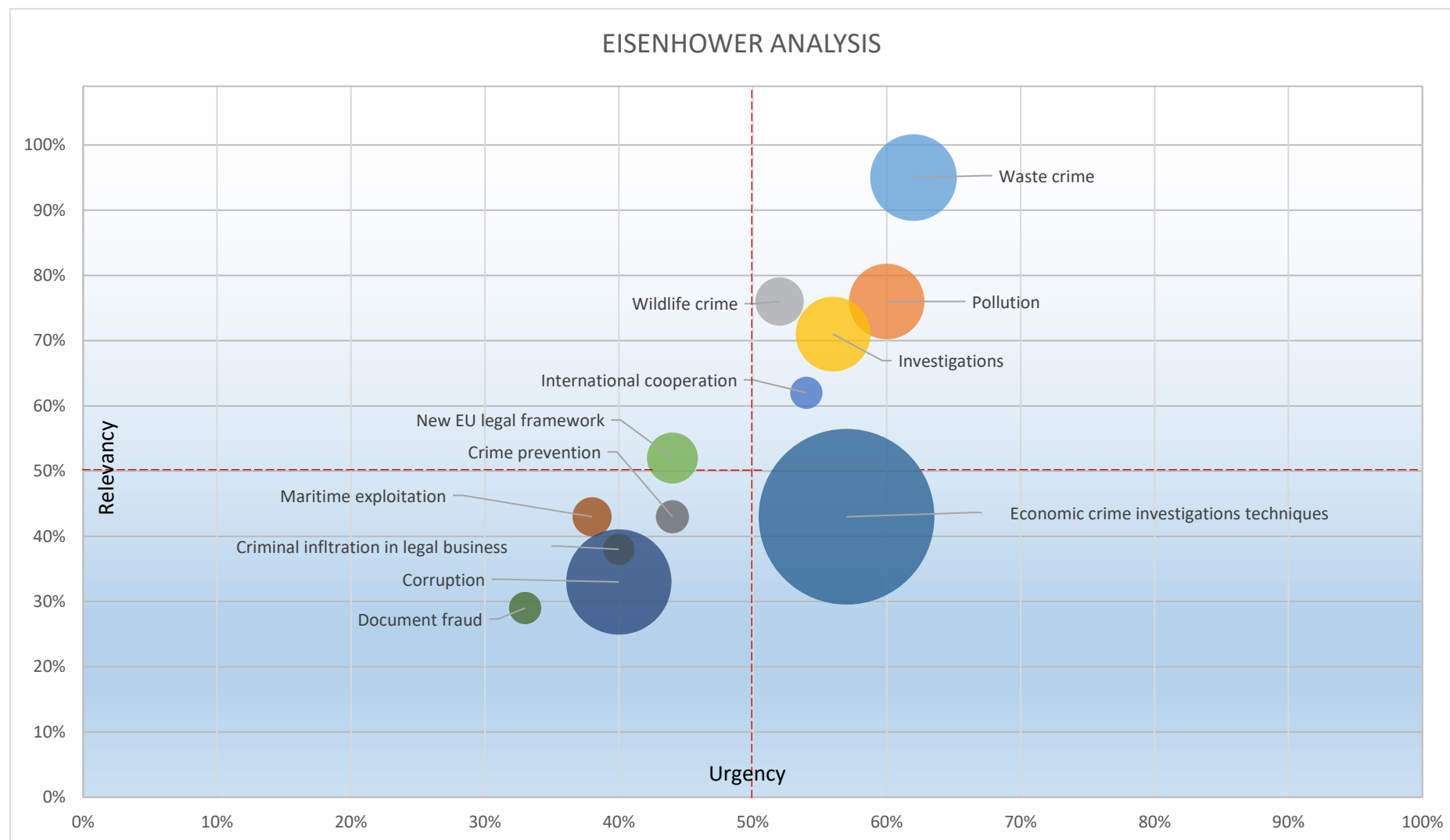
¹³ Based on median values, see further information on the methodology in the 'Analysis' section of this report.

¹⁴ While the OTNA methodology relies on the calculated statistical median when estimating the potential number of trainees, actual values as communicated by the survey respondents were added for comparison purposes.

Designed for prioritising tasks by first categorising items according to their urgency and importance, the Eisenhower Method was used to visualize the data in the form of a matrix for further demonstrating the distribution of main topics by their urgency and relevance rate. The Eisenhower Matrix below (Chart 2.), also known as urgent-important matrix, displays the relationships between three numeric variables, namely relevance, urgency and the number of potential trainees for each main topic.

Each dot in the centre of a bubble corresponds to a single data point (main topic urgency and relevance rate). The size of the bubbles corresponds to the median number of trainees. The vertical axis represents the relevance, and the horizontal axis the urgency rate. The order of implementation of tasks should be 1. Important/Urgent, 2. Important/Not Urgent, 3. Unimportant/Urgent, 4. Unimportant/Not Urgent.

Chart 2. Urgent-important matrix



In reference to the findings, it can be concluded that under the topic of **waste crime** the following thematic areas should be emphasised:

- Waste trafficking (hazardous and non-hazardous waste) patterns
- Export and import of waste (misdeclaration of products, customs procedures, intra EU movement of waste),
- Mixture of waste

Under the topic of **pollution**, the following thematic areas should be emphasised:

- Inland water and groundwater pollution or exploitation
- Soil
- F-gas regulation

Under the topic of **wildlife crime** the following thematic areas should be emphasised:

- Crime against flora and fauna in line with CITES regulation, including illegal logging and timber trade (modus operandi, investigation techniques)
- Emerging patterns, trends, crime groups, including wildlife cybercrime
- Trafficking protected species (glass eels, reptiles, mammals, birds) and parts

Under the topic of **investigations** the following thematic areas should be emphasised:

- Specific investigation techniques used in different crime areas (waste, wildlife, pollution, maritime)
- Evidencing the crime tools for quantification of impact / damage of environmental crime
- Digitalisation, OSINT, darknet

Under the topic **international cooperation** the following thematic areas should be emphasised:

- Interagency cooperation among different agencies dealing with environmental issues (prosecution, police, customs, environmental agencies)
- Law enforcement/judicial cooperation with non-EU countries, global cooperation tools
- EU law enforcement/judicial cooperation instruments and networks

Under the topic **new EU legal framework**, the following thematic areas should be emphasised:

- New EU Directive on Environmental Crime
- Probable revision of the EU Action Plan on Wildlife crime
- New EU Waste Shipment Regulation

In terms of horizontal aspects, their relevance ranged from 74 % to 51 %. The highest relevance was assigned to the topic of **law enforcement/judicial cooperation, information exchange and interoperability**, and the **lowest to fundamental rights and data protection**. However, regardless of its low ranking, as indicated in the agency's mandate, promoting a common respect and understanding of fundamental rights in law enforcement should always be given high priority when designing training portfolios, including the topic of environmental crime

Table 2. Average relevance of horizontal aspects among prioritised topics

Horizontal aspect	Relevance
Digital skills and the use of new technologies	68 %
Law enforcement/judicial cooperation, information exchange and interoperability	74 %
Forensics/Evidence	65 %
Fundamental rights and data protection	51 %

Responses indicated that approximately **5 624 participants¹⁵** would need training in 2023. Overall, the highest training need is indicated by respondents in the proficiency levels of **awareness** and **practitioner**, followed by advanced practitioner. In terms of volumes of trainees, expert and train-the-trainer level training is considerably lower on the priority scale, although the urgency of training between the different groups was slightly varied depending on the main topic (please find the details of training dimensions in the ‘Analysis’ section of this report).

Table 3. Proficiency levels and number of participants of all institutions

Proficiency level	Number of participants (median)	Number of participants (actual)
Awareness	2 158	6 789
Practitioner	1 586	5 250
Advanced practitioner	884	1 940
Expert	546	909
Train-the-trainer	468	757
Total	5 642	15 645

The OTNA questionnaire gave an opportunity to specify the profiles and indicate the number of LE officials who would need training in different topics. Most references were given to **investigators** (over 30 % of all), followed by **intelligence officers**, as well as the group of **prosecutors, investigative judges and magistrates**. These three profiles should be provided with the opportunity to be trained first. Notably a lower priority was indicated for managers, analysts and experts.

Data on previous training attended at the national or international level was provided by 15 MS (71 %), indicating that previous/recent training activities were related to environmental crime in general. Training also covered other environmental aspects, such as environment and/or heritage protection, as well as climate change, waste (e.g. illegal waste management, illicit plastic trafficking, waste crime disruption), wildlife (e.g. hunting, wildlife trafficking, animal cruelty, animal rights, illicit fishery, ivory trade) and pollution (emissions to land, water and atmosphere) related themes. Furthermore, training on other specific topics, such as chemical, biological, radiological, nuclear substances was mentioned. In terms of training delivery format, the division between online and onsite training was almost equal, indicating that just above half (51 %) of training attended has been implemented online (online module/course, webinar or other virtual implementation), 45 % on-site and the rest in an undefined mode.

¹⁵ Presented numbers are based on calculated median values (reported total actual number of participants: 15 645). For further details on the calculation methodology, please see ‘Analysis’ Section of this report.

Background

As defined by the Article 3 of Regulation 2015/2219, CEPOL shall support, develop, implement and coordinate training for law enforcement officials, while putting particular emphasis on the protection of human rights and fundamental freedoms in the context of law enforcement, in particular in the areas of prevention of and fight against serious crime affecting two or more MS, and terrorism, maintenance of public order, international policing of major events, and planning and command of Union missions, which may also include training on law enforcement leadership and language skills.

The Single Programming Document (SDP) for years 2022-2024¹⁶ describes OTNA as a process to help to the realisation of strategic goals through the implementation of operational training activities. The OTNA methodology, as adopted by the CEPOL Management Board (MB) decision 32/2017/MB (15/11/2017) was piloted in 2018 with a limited number of thematic priorities for the CEPOL training portfolio planning 2019, namely CSDP missions and Counterterrorism. The OTNA methodology was updated in 2020 (9/2020/MB) based on CEPOL's experience and feedback from the MS.

The methodology consists of a series of seven steps, encompassing close and dynamic cooperation with the MS, in particular CEPOL National Units and LE agencies, and involving CEPOL Knowledge Centres (CKC) in the training portfolio design. The overall OTNA process entails data collection and analysis, conducted via and corroborated by introductory surveys, detailed questionnaires and expert interviews. The target group referred to in this methodology is law enforcement officials, as defined in Article 2 of Regulation 2015/2219¹⁷.

Building on the strategic training priorities defined by the EU-STNA and the experience gained from previous OTNA studies, CEPOL launched the OTNA on **environmental crime** in 2021. Outcomes of the research are presented in this report and will be used to define CEPOL's training portfolio for the upcoming three years on a diverse list of topics related to preventing and countering environmental crimes.

¹⁶ <https://www.cepola.europa.eu/sites/default/files/31-2021-MB%20Annex.pdf>, p. 5.

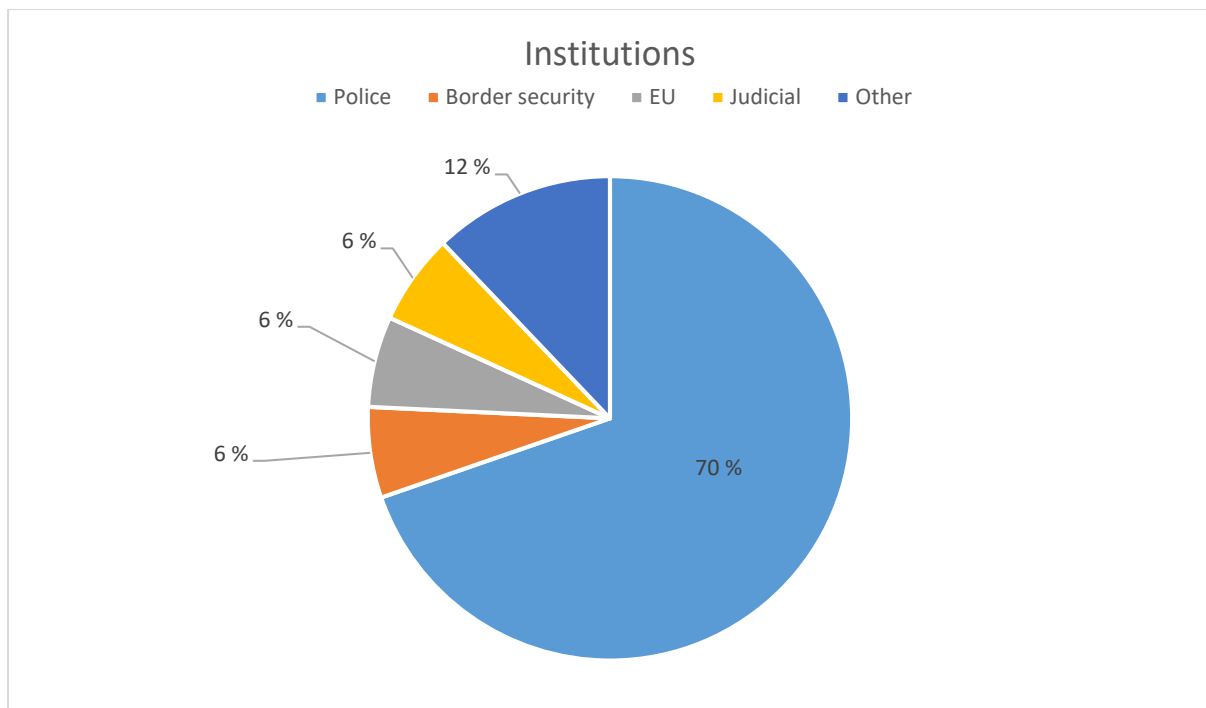
¹⁷ <https://publications.europa.eu/en/publication-detail/-/publication/c71d1eb2-9a55-11e5-b3b7-01aa75ed71a1/language-en>.

Analysis

Consolidation of data and responses

In order to conduct the research, CEPOL approached 26 MS¹⁸, and EU structures (hereinafter institutions) to provide direct contact points dealing with the subject of the OTNA. In total, representatives of 20 different MS and two institutions responded to the survey, resulting in 32 individual completed answers received from different law enforcement (LE) agencies and EU institutions. In terms of MS, the responses indicate a 77% response rate, which can be considered as a relatively good level of responsiveness. Most of the responses (70 %) were from **police** representatives, followed by the category of other relevant bodies (12 %). No responses were received from representatives of customs authorities. However, no data is available regarding the distribution of the questionnaires to customs authorities in the MS.

Chart 3. Distribution of responding institutions



Collected data was processed from the online survey platform Qualtrics to Microsoft Excel. The data was synthesised and analysed by Excel functions. Furthermore, two MS¹⁹ were invited for an interview to further discuss their training needs and provide clarifications regarding the potential number of trainees.

¹⁸ The terminology Member States (MS) hereinafter refers to 26 MS of the EU participating in the CEPOL regulation, i.e. all EU MS excluding Denmark.

¹⁹ Italy and Slovakia.

Relevance of topics

Main training topics in relation to environmental crime are:

- Waste crime
- Pollution
- Wildlife crime
- Investigations
- International cooperation
- New EU legal framework
- Economic crime investigations techniques
- Maritime exploitation
- Crime prevention
- Criminal infiltration in legal business
- Corruption
- Document fraud

In order to identify which main topics are the most important for the European LE community requiring training to be provided by CEPOL in 2023-2025, the OTNA questionnaire presented multiple-select questions where the respondents could select one or more choices in a list of 12 main topics. While analysing the results, the relevance score of each main topic was calculated by summing up how many MS²⁰ found the topics relevant. The final relevance rate was then calculated by dividing the sum of MS that found the topic relevant by the number of responding MS. Where several LE agencies submitted answers from the same MS, entries were consolidated. If more than 50% of MS found a certain topic relevant, it was considered relevant to be processed for further analysis as per the OTNA methodology. Based on this method, six of all main topics passed the 50 % threshold of relevance rate.

Table 4. Relevance rate of main topics

Main Topic	Relevance
Waste crime	95 %
Pollution	76 %
Wildlife crime	76 %
Investigations	71 %
International cooperation	62 %
New EU legal framework	52 %
Economic crime investigations techniques	43 %
Maritime exploitation	43 %
Crime prevention	43 %
Criminal infiltration in legal business	38 %
Corruption	33 %
Document fraud	29 %

²⁰ While calculating the relevance rate, EU institutions were considered as a separate category, equivalent to MS.

Training dimensions

In order to gain further insights on necessary training themes and subjects, various **subtopics** and **horizontal aspects** were presented under each topic. The questionnaire gave the respondents an option to rate the relevance of subtopics and horizontal aspects by using the five-point Likert Scale with the following options: not relevant at all, somewhat relevant; relevant; very relevant and extremely relevant. For analysing the responses, this scale was converted into a numerical scale 0-1-2-3-4, where 0 represents the minimum value (not relevant at all) and 4 the maximum (extremely relevant). The relevance score of each subtopic was calculated by drawing the sum of the responses, while in those cases where several authorities from the same MS gave answers, an average was calculated and used as the final relevance level in the case of that particular country. The final relevance rate (percentage) was calculated by dividing the score by the maximum score²¹. If the relevance score reached 50% of the maximum score, the subtopic or horizontal aspect was found relevant.

In reference to the findings, it can be concluded that under the topic of **waste crime**, the following thematic areas should be emphasised:

- Waste trafficking (hazardous and non-hazardous waste) patterns
- Export and import of waste (misdeclaration of products, customs procedures, intra EU movement of waste)
- Mixture of waste

Under the topic of **pollution**, the following thematic areas should be emphasised:

- Inland water and groundwater pollution or exploitation
- Soil
- F-gas regulation

Under the topic of **wildlife crime**, the following thematic areas should be emphasised:

- Crime against flora and fauna in line with CITES regulation, including illegal logging and timber trade (modus operandi, investigation techniques)
- Emerging patterns, trends, crime groups, including wildlife cybercrime
- Trafficking protected species (glass eels, reptiles, mammals, birds) and parts

Under the topic of **investigations**, the following thematic areas should be emphasised:

- Specific investigation techniques used in different crime areas (waste, wildlife, pollution, maritime)
- Evidencing the crime tools for quantification of impact / damage of environmental crime
- Digitalisation, OSINT, darknet

Under the topic of **international cooperation**, the following thematic areas should be emphasised:

²¹ Maximum score identified by multiplying the number of responding MS that found the subtopic or horizontal aspect relevant with the highest relevance score (5).

- Interagency cooperation among different agencies dealing with environmental issues (prosecution, police, customs, environmental agencies)
- Law enforcement/judicial cooperation with non-EU countries, global cooperation tools
- EU law enforcement/judicial cooperation instruments and networks

Under the topic of **new EU legal framework**, the following thematic areas should be emphasized:

- New EU Directive on Environmental Crime
- Probable revision of the EU Action Plan on Wildlife crime
- New EU Waste Shipment Regulation

The horizontal aspects, common to all main topics are:

- Digital skills and the use of new technologies
- Law enforcement/judicial cooperation, information exchange and interoperability;
- Forensics/evidence
- Fundamental rights and data protection

Considering the average relevance rate among all prioritised main topics, the horizontal aspects were ranked as follows:

Table 5. Average relevance of horizontal aspects among prioritised topics

Horizontal aspect	Relevance
Law enforcement/judicial cooperation, information exchange and interoperability	74 %
Digital skills and the use of new technologies	67 %
Forensics/Evidence	64 %
Fundamental rights and data protection	51 %

As previous OTNA reports have noted, the horizontal aspects identified via the strategic training needs analysis have generally not gained the same popularity compared to the main topics. While the top three main topics are ranging from 95 % to 76 % in relevance, the three highest scoring horizontal aspects are ranging from 74 % to 65 %.

Law enforcement/judicial cooperation, information exchange and interoperability was considered as the most relevant horizontal aspect, however, with a difference of under ten percentage points, followed by the topics of **digital skills and the use of new technologies** and **forensics/evidence**. While **fundamental rights and data protection** remained as the lowest scoring horizontal aspect, barely reaching the 50 % relevance threshold, promoting a common respect and understanding of fundamental rights in law enforcement must remain a priority when designing the training portfolio on environmental crime. When comparing the different main topics, the differences on horizontal aspects relevance scores was marginal. However, the topic of law enforcement/judicial cooperation, information exchange and interoperability was considered the most relevant under the main topic of waste crime (82 %). The highest relevance rate of 72 % was indicated for both digital skills and the use of new technologies and forensics/evidence; for the first it was mentioned in the context of

investigations, and for the latter, on the topic of international cooperation, where also fundamental rights and data protection reached the highest single relevance rate (60 %). The relevance of subtopics under the prioritised main topics ranged from 81 % to 41 %. It can be seen that the differences between subtopics and horizontal aspects remained relatively small.

Table 6. Relevance rate of most relevant subtopics and horizontal aspects (*in italics*) from prioritised main topics.

Main topic	Subtopic / Horizontal aspect	Relevance
Waste crime	Waste trafficking (hazardous and non-hazardous waste) patterns	81 %
	Export and import of waste (misdeclaration of products, customs procedures, intra EU movement of waste)	74 %
	Mixture of waste	72 %
	Disposal	70 %
	Landfills in the nature, e.g. of chemical waste from the production of synthetic drugs	68 %
	False labelling of waste	64 %
	Dismantling	63 %
	Waste fires	58 %
	Dumping at sea	50 %
	Shipbreaking	45 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	81 %
	<i>Digital skills and the use of new technologies</i>	68 %
	<i>Forensics/Evidence</i>	65 %
	<i>Fundamental rights and data protection</i>	49 %
Pollution	Inland water and groundwater pollution or exploitation	71 %
	Soil	71 %
	F-gas regulation	55 %
	Biofuels	53 %
	Ozone depletion	50 %
	Noise pollution	41 %
	<i>Digital skills and the use of new technologies</i>	69 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	67 %
	<i>Forensics/Evidence</i>	64 %
	<i>Fundamental rights and data protection</i>	49 %
Wildlife crime	Crime against flora and fauna in line with CITES regulation, including illegal logging and timber trade (modus operandi, investigation techniques)	70 %
	Emerging patterns, trends, crime groups, including wildlife cybercrime	66 %
	Trafficking protected species (glass eels, reptiles, mammals, birds) and parts	66 %
	Illicit pet trade	61 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	76 %
	<i>Digital skills and the use of new technologies</i>	68 %

	<i>Forensics/Evidence</i>	64 %
	<i>Fundamental rights and data protection</i>	48 %
Investigations	Specific investigation techniques used in different crime areas (waste, wildlife, pollution, maritime)	68 %
	Evidencing the crime tools for quantification of impact / damage of environmental crime	68 %
	Digitalisation, OSINT, darknet	66 %
	Collection of intelligence according to different jurisdictions (common defence tactics of suspects)	63 %
	Dealing with whistleblower reports	49 %
	Undercover actions, surveillance, wiretappings (international aspects)	48 %
	<i>Digital skills and the use of new technologies</i>	72 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	69 %
	<i>Forensics/Evidence</i>	63 %
	<i>Fundamental rights and data protection</i>	51 %
International cooperation	Interagency cooperation among different agencies dealing with environmental issues (prosecution, police, customs, environmental agencies)	82 %
	Law enforcement/judicial cooperation with non-EU countries, global cooperation tools	80 %
	EU law enforcement/judicial cooperation instruments and networks	78 %
	Funding opportunities	68 %
	<i>Law enforcement/judicial cooperation, information exchange and Interoperability</i>	77 %
	<i>Digital skills and the use of new technologies</i>	72 %
	<i>Forensics/Evidence</i>	70 %
	<i>Fundamental rights and data protection</i>	60 %
New EU legal framework	New EU Directive on Environmental Crime	75 %
	Probable revision of the EU Action Plan on Wildlife crime (planned for 2022)	69 %
	New EU Waste Shipment Regulation	66 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	75 %
	<i>Forensics/Evidence</i>	61 %
	<i>Digital skills and the use of new technologies</i>	57 %
	<i>Fundamental rights and data protection</i>	48 %

Through the OTNA questionnaire, the respondents communicated a number of **further training needs and/or potential subtopics** related to the prioritised main topics, including e.g.:

- Analysis of criminal profiles related to international trafficking of protected species and waste trafficking
- Tracking, monitoring and mapping of the main trafficking routes and flows of waste and wildlife species
- Preventing and fighting animal cruelty and neglect (animal welfare)
- Fraud with diesel and biodiesel

- End-of-life vehicles and used parts (e.g. exported as scrap materials)
- Use of advanced technologies in detection and fighting environmental crime
- Techniques for checking the origin of species by means of DNA analysis
- Identification of birds protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Forestry/timber illegal exploitation and trade
- Sample collection, preservation and analysis techniques

To better understand the training needs in each main topic, the questionnaire gave the respondents an option to indicate the **urgency level of training** on topics related to environmental crime and estimate the **number of participants** at five different **professional levels**²². A multiple rating matrix with a fixed sum function (facilitating an option to indicate quantities of trainees) was used to collect information on what level training is needed and how urgent would LE officials need the training to improve their current performance. By choosing from a six-point urgency level scale (most commonly known as Likert Scale)²³, respondents could express their opinion if a training need is not urgent; somewhat urgent; moderate; urgent or very urgent, or alternatively, not applicable at all. Urgency in the context of the OTNA methodology refers to the criticality of a timely training intervention and its impact on the operational performance. In the analysis, responses were converted into a numerical scale from 0-5, where 1 refers to a low need with an expected minor impact on the performance boost and 5 to a crucial need, as a critical response for ensuring the successful performance of duties. The minimum value is 0 because 'not applicable' corresponds to a zero training need. Where the same proficiency level was indicated by several LE agencies from the same MS to the attributes of the training, the highest rate indicated was taken into consideration.

Since CEPOL's training activities address law enforcement officials of the 26 EU MS and EU institutions, the number of participants indicated in the responses to the survey are considered as the number of participants who would need training from responding MS or EU institutions. In order to estimate the total number of LE officials who would need training in a certain topic at a certain proficiency level, the OTNA methodology relies on a calculation based on the identified statistical median of the number of trainees. The estimate of the number of participants at EU-level is then calculated by multiplying the median with 26 (as per the number of MS²⁴). In statistics, the median is the value separating the higher half from the lower half of a data set, hence, it can be considered as the middle value. Based on this method of calculation, approximately **5 624 participants** would need training on environmental crimes in 2023. As the basic feature of the median in describing data is that it is not skewed by a small proportion of extremely large or small values, and therefore provides a better representation of a typical value, it might happen that the rank of proficiency levels in each topic is different on the EU-level to the rank which is based on the responses given to the survey. For example, in the area of

²² Awareness, Practitioner, Advanced practitioner, Expert and Train-the-trainer; please find detailed description of proficiency levels in Annex 2.

²³ A Likert scale is commonly used to measure attitudes, knowledge, perceptions, values, and behavioural changes. A Likert-type scale involves a series of statements that respondents may choose from in order to rate their responses to evaluative questions.

²⁴ All EU member States except Denmark

waste crime, the actual number of potential trainees was much higher due to some MS²⁵ reporting considerable volume of LE officials in need of awareness and practitioner level training. Without statistically processing the data, the respondents communicated up to 15 654 potential trainees on topics related to environmental crime.

Table 7. Relevance and urgency rate of prioritised main topics

Main Topic	Relevance rate	Urgency rate	Trainees (median)	Trainees (actual)
Waste crime	95 %	64 %	1 326	7 459
Pollution	76 %	60 %	741	1 784
Wildlife crime	76 %	52 %	1 157	2 307
Investigations	71 %	53 %	1 144	1 596
International cooperation	62 %	54 %	494	1 252
New EU legal framework	52 %	44 %	780	1 247
Average/total	72 %	55 %	5 642	15 645

In addition to calculating the overall urgency rate and number of trainees per each prioritised main topic, the training needs and volume of trainees were also analysed per each proficiency level. Very little differences on the indicated urgency rates could be identified between the different proficiency levels, resulting in the fact that the training need in all categories is moderately urgent, but there are considerable differences in terms of numbers of participants. In terms of volumes, the highest need is indicated by respondents in the proficiency levels of **awareness** and **practitioner**, followed by **advanced practitioner**. Expert and train-the-trainer level training is considerably lower in terms of numbers of participants, as indicated by the respondents. Considering the urgency of training at different proficiency levels, the highest need is at **practitioner** level.

Table 8. Proficiency levels and number of participants

Proficiency level	Urgency	Number of participants
Awareness	61 %	2 158
Practitioner	68 %	1 586
Advanced practitioner	66 %	884
Expert	66 %	546
Train-the-trainer	64 %	468
Total	65 %	5 642

In order to establish a more comprehensive picture on target groups to be trained, the questionnaire offered the possibility of indicating **professional profiles**²⁶ and the related volumes of LE officials who need training under each main category. Most references were given to **investigators** (over 30 % of all), followed by **intelligence officers** and **prosecutors**, as well as **investigative judges and magistrates**. These three profiles should be provided with the opportunity to be trained first. Notably a lower priority was indicated for managers, analysts and experts. On top of six pre-set categories, through an

²⁵ e.g. Poland with 2 000 trainees

²⁶ Investigators; intelligence officers; analysts; managers; prosecutors, investigative judges and magistrates; experts (forensics, IT etc.)

open text field, the respondents were able to specify other professionals in need for training and insert the related numbers.

In terms of MS, the largest numbers for target groups were notably reported by Poland, Spain and Slovakia. Poland reported that potentially up to 4 825 trainees with most of them in need of awareness and practitioner level training on waste crime. Slovakia indicated up to 2 700 trainees, equally divided between all prioritised main topics and training needs at all professional levels, with the volumes decreasing from awareness to train-the-trainer, and Spain reported up to 2 265 trainees with an emphasis on wildlife crime, waste crime and pollution. In order to clarify the ratio of LE officials working in the field of environmental crime and their communicated training needs, the Slovakian respondent was invited for an interview. It was confirmed that they have a specialised department for environmental crime with 200 police officers, who would all need training in a number of topics. Additionally, approximately 100 other professionals, such as prosecutors and judges would need training on all prioritised main topics, which means that the required number of officials to be trained for Slovakia would be 270. Compared with other MS, Italy indicated a considerably high number of LE officials working in the field of environmental crime²⁷. While they communicated only a limited amount of EU-level training needs, an interview was held to discuss their training establishment and potential further needs. As a conclusion of the discussion, CEPOL training on certain environmental topics, especially at train-the-trainer level and events facilitating the exchange of experiences would be beneficial. Poland preferred to not be interviewed, hence, their particularly high demand for waste crime awareness and practitioner training could not be further explored as a part of this OTNA process.

National or international training

The OTNA questionnaire had a section with a question referring to previously attended national or international training on environmental crime. In total, 15 MS representing 71 % of the overall respondents provided data on previous training. In terms of topics, training data was provided in a free text form, therefore their presentation was not uniform. Provided text entries were approached by implementing light text analysis, i.e. based on word identification in an Excel spreadsheet, grouping similar entries and establishing categories of entries representing thematically similar topics. Most entries on previous/recent training taken at either national or international level were related to environmental crime in general. Also other environmental aspects, such as environment and/or heritage protection, as well as climate change, waste (e.g. illegal waste management, illicit plastic trafficking, waste crime disruption), wildlife (e.g. hunting, wildlife trafficking, animal cruelty, animal rights, illicit fishery, ivory trade) and pollution (emissions to land, water and atmosphere) related themes were also mentioned. Furthermore, training on other specific topics, such as chemical, biological, radiological, nuclear substances was reported. In terms of training delivery format, the division between online and onsite training was almost equal, indicating that just above half (51 %) of training attended has been implemented on-line (online module/course, webinar or other virtual implementation), 45 % onsite and the rest in an undefined mode. Since it was not a requirement, not

²⁷ A structure of the Carabinieri with approximately 7 000 officers specialised on e.g. waste crimes, fight against poaching, biodiversity protection, management of nature reserves, the European Union Forest Law Enforcement, Governance and Trade Action Plan (FLEGT), etc.

many details were provided in terms of training providers. The most commonly mentioned training provider on specific topics related to environmental crime was CEPOL. On broader subjects dealing with the interlinkages of environmental aspects and their impact on European security, references were made to other EU-level training offerings as well²⁸. Furthermore, some respondents reported being trained at institutes such as the Caserta-based International Advanced Training Institute for the Prevention and the Fight against Organized Crime. In most cases, it can be assumed that the respondents were referring to training activities implemented by the MS, and different national-level training providers were mentioned.

Training dimensions for main topics

As methodologically explained in the previous chapter, each of the six prioritised main topics was analysed in terms of relevance of subtopics and horizontal aspects, level of proficiency, potential number of participants per profile, as well as urgency of training needs. This chapter presents more detailed training needs related to each main topic. After a summary of training needs, the first table of each main topic shows the relevance rate of subtopics and the horizontal aspects in a descending order. The second table demonstrates the estimated number of participants per different proficiency level, both calculated in line with the OTNA methodology²⁹ and for comparison purposes, the figures as communicated by the responding MS, as well as the urgency rate of training to be delivered.

Waste crime

Waste crime is the most relevant main topic as indicated by the MS (relevance 95 %). The training need is **urgent**, and the largest amounts of trainees are in need of **awareness** and **practitioner** level training. **Investigators** were reported as the biggest group of trainees, followed by **intelligence officers** and **prosecutors, investigative judges, magistrates** (the latter two nearly equal to each other). Training should be delivered within 1 year to **approximately 1 326 trainees**. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 9. Relevance rate of subtopics and horizontal aspects of waste crime in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
Waste crime	Waste trafficking (hazardous and non-hazardous waste) patterns	81 %
	Export and import of waste (misdeclaration of products, customs procedures, intra EU movement of waste)	74 %
	Mixture of waste	72 %
	Disposal	70 %
	Landfills in the nature, e.g. of chemical waste from the production of synthetic drugs	68 %
	False labelling of waste	64 %
	Dismantling	63 %

²⁸ Namely the European Security and Defence College (ESDC)

²⁹ The number of trainees is presented as a figure extrapolated to EU and calculated based on statistical median; the related methodology and process is further explained in the section 'Analysis' of this report.

	Waste fires	58 %
	Dumping at sea	50 %
	Shipbreaking	45 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	81 %
	<i>Digital skills and the use of new technologies</i>	68 %
	<i>Forensics/Evidence</i>	65 %
	<i>Fundamental rights and data protection</i>	49 %

Table 10. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	58 %	520	3 315
Practitioner	62 %	416	2 963
Advanced practitioner	71 %	182	739
Expert	59 %	117	262
Train-the-trainer	58 %	91	180
Average/Total	62 %	1 326	7 459

Pollution

Pollution is the second most relevant main topic as indicated by the MS (relevance 76 %). The training need is **moderately urgent** at all proficiency levels. In terms of quantities, **investigators** and **intelligence officers**, followed by **prosecutors, investigative judges, magistrates**, would need training the most. Overall, training should be delivered within 1 year to approximately **741 trainees**. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 11. Relevance rate of subtopics and horizontal aspects of pollution in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
Pollution	Inland water and groundwater pollution or exploitation	71 %
	Soil	71 %
	F-gas regulation	55 %
	Biofuels	53 %
	Ozone depletion	50 %
	Noise pollution	41 %
	<i>Digital skills and the use of new technologies</i>	69 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	67 %
	<i>Forensics/Evidence</i>	64 %
	<i>Fundamental rights and data protection</i>	49 %

Table 12. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	54 %	260	743
Practitioner	55 %	234	555

Advanced practitioner	56 %	104	249
Expert	55 %	91	140
Train-the-trainer	59 %	52	97
Average/Total	56 %	741	1 784

Wildlife crime

Wildlife crime is the third most relevant main topic as indicated by the MS (relevance 76 %). While the training need is **moderately urgent** at all proficiency levels, the foreseen number of trainees is the highest at **awareness** and **practitioner** level. **Investigators** and **intelligence officers** are the largest training audience indicated by the respondents, followed by the group of **prosecutors, investigative judges and magistrates**. In total, it would be advantageous for **approximately 1 157 trainees** to receive training within a year's period. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 13. Relevance rate of subtopics and horizontal aspects of wildlife crime in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
Wildlife crime	Crime against flora and fauna in line with CITES regulation, including illegal logging and timber trade (modus operandi, investigation techniques)	70 %
	Emerging patterns, trends, crime groups, including wildlife cybercrime	66 %
	Trafficking protected species (glass eels, reptiles, mammals, birds) and parts	66 %
	Illicit pet trade	61 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	76 %
	<i>Digital skills and the use of new technologies</i>	68 %
	<i>Forensics/Evidence</i>	64 %
	<i>Fundamental rights and data protection</i>	48 %

Table 14. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	41 %	494	1 102
Practitioner	51 %	338	573
Advanced practitioner	56 %	182	309
Expert	54 %	78	149
Train-the-trainer	55 %	65	174
Average/Total	52 %	1 157	2 307

Investigations

Investigations is the fourth most relevant main topic, as indicated by the MS (relevance 71 %). The training need is **moderately urgent** at all proficiency levels, with **investigators** and **intelligence officers** representing the largest target groups. Overall, **approximately 1 144 trainees** would benefit from

receiving training within a period of one year. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 15. Relevance rate of subtopics and horizontal aspects of investigations in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
Investigations	Specific investigation techniques used in different crime areas (waste, wildlife, pollution, maritime)	68 %
	Evidencing the crime tools for quantification of impact / damage of environmental crime	68 %
	Digitalisation, OSINT, darknet	66 %
	Collection of intelligence according to different jurisdictions (common defence tactics of suspects)	63 %
	Dealing with whistleblower reports	49 %
	Undercover actions, surveillance, wiretappings (international aspects)	48 %
	<i>Digital skills and the use of new technologies</i>	72 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	69 %
	<i>Forensics/Evidence</i>	63 %
	<i>Fundamental rights and data protection</i>	51 %

Table 16. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	51 %	520	654
Practitioner	58 %	260	477
Advanced practitioner	50 %	208	273
Expert	53 %	104	107
Train-the-trainer	53 %	52	85
Average/Total	53 %	1 144	1 596

International cooperation

International cooperation is the fifth most relevant main topic, as indicated by the MS (relevance 62 %). The training need is **moderately urgent** overall, and **urgent** at practitioner level. **Investigators** represent the largest group of trainees, followed by **intelligence officers** and **prosecutors, investigative judges and magistrates**. In total, it would be advantageous for **approximately 494 trainees** to receive training within a year's period. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 17. Relevance rate of subtopics and horizontal aspects of international cooperation in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
International cooperation	Interagency cooperation among different agencies dealing with environmental issues (prosecution, police, customs, environmental agencies)	82 %

	Law enforcement/judicial cooperation with non-EU countries, global cooperation tools	80 %
	EU law enforcement/judicial cooperation instruments and networks	78 %
	Funding opportunities	68 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	77 %
	<i>Digital skills and the use of new technologies</i>	72 %
	<i>Forensics/Evidence</i>	70 %
	<i>Fundamental rights and data protection</i>	60 %

Table 18. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	55 %	104	492
Practitioner	67 %	156	339
Advanced practitioner	48 %	104	180
Expert	51 %	78	129
Train-the-trainer	49 %	52	112
Average/Total	54 %	494	1 252

New EU legal framework

New EU legal framework is the sixth most relevant main topic, as indicated by the MS (relevance 52 %). The training need is **moderately urgent**, and the volume of potential trainees is distributed relatively equally between the groups of **investigators, intelligence officers and prosecutors, investigative judges and magistrates**. Overall, **approximately 780 trainees** would find it advantageous to receive training within a year's period. Within this main topic, training should focus on the most relevant subtopics and horizontal aspects as indicated below.

Table 19. Relevance rate of subtopics and horizontal aspects of new EU legal framework in descending order

Main topic	Subtopic / Horizontal aspect	Relevance
New EU legal framework	New EU Directive on Environmental Crime	75 %
	Probable revision of the EU Action Plan on Wildlife crime (planned for 2022)	69 %
	New EU Waste Shipment Regulation	66 %
	<i>Law enforcement/judicial cooperation, information exchange and interoperability</i>	75 %
	<i>Forensics/Evidence</i>	61 %
	<i>Digital skills and the use of new technologies</i>	57 %
	<i>Fundamental rights and data protection</i>	48 %

Table 20. Urgency and number of participants per proficiency level

Proficiency level	Urgency rate	Number of participants (median)	Number of participants (actual)
Awareness	40 %	260	483
Practitioner	38 %	182	343

Advanced practitioner	42 %	104	190
Expert	55 %	78	122
Train-the-trainer	44 %	56	109
Average/Total	44 %	780	1 247

Conclusions

The outcomes of the OTNA on environmental crime show that half of the presented main topics are considered relevant and relatively urgent for the responding European LE officials. Based on the 50 % relevance threshold, the topics of **waste crime, pollution, wildlife crime, investigations, international cooperation** and the **new EU legal framework** were prioritised by the responding MS and EU institutions and should therefore be given the highest priority when designing training activities.

The top three priorities are directly reflecting the areas that are often considered as some of the most serious environmental crimes. Based on the results, seemingly the most crucial training topic is **waste crime**, reaching the relevance rate of 95 %³⁰ with most of its subtopics exceeding the relevance threshold as well³¹. Waste crime also has the highest overall urgency of training and the biggest volume of trainees. The following two, namely **pollution** and **wildlife crime**, both reached the relevance rate of 76 %, with the former indicating a higher urgency for training and the latter more participants in need of training.

Overall, with an overall urgency rate of 65 %, training in all prioritised main topics related to environmental crime can be treated as urgent. In terms of quantities, **awareness** and **practitioner** level trainees are the biggest target groups with the highest estimated number of participants in the category of awareness, and a slightly higher urgency level in the category of practitioners. In general, the differences related to urgency of training were marginal, meaning that training at all professional levels is essential and necessary to be delivered within a period of one year. In terms of professional profiles, it became evident under most of the prioritised main topics that the three groups, namely **investigators, intelligence officers and prosecutors, investigative judges and magistrates**, establish the largest training audience. In terms of horizontal aspects, the highest relevance was identified regarding the topic of **law enforcement/judicial cooperation, information exchange and interoperability** to be included in all training activities. Results suggest that in total, approximately **5 624 participants would need training in 2023**, potentially even more, as reflected in the Analysis section of this report.

The protection of the environment is a high political priority of the EU, and environmental crime, which poses serious and multidimensional challenges to societies and citizens, has been a long-term concern. Amongst the actions set out in the European Green Deal (2020), considerable commitments were made to step up the enforcement of environmental crime in the EU. To achieve these goals, European LE authorities must have sufficient and competent resources. As proposed in 2021, the new EU Directive³² would further introduce several provisions to improve the effectiveness of national enforcement chains, emphasising the provision of proper training as one response to improve capacities of preventing and investigating environmental crimes. In order to ensure the required development of skills and knowledge across the European LE community, investing in the

³⁰ Meaning that at least one responding institute from each MS rated the topic relevant

³¹ All subtopics except dumping at sea (50 %) and shipbreaking (45 %)

³² https://ec.europa.eu/info/sites/default/files/1_1_179760_prop_dir_env_en.pdf

development of a training portfolio on environmental crime should be considered as a priority during the coming years.

Annex 1. EU-STNA Chapter on Environmental crime

Environmental crime

Environmental challenges

The main issue regarding this crime area used to be the lack of awareness of decision-makers, law enforcement officials and the general public concerning environment-related criminal activities. Since the launch of the European Green Deal in 2019, more attention has been paid to the protection of the environment and to illicit activities against the environment. Despite the rapidly growing interest in the area at public and political level, the lack of awareness of the details on environmental crime and its costs to society remains one of the key challenges. Unfortunately, this lack of awareness results in a lack of resources for investigating environmental crime. Obviously, if the area receives less attention from law enforcement, criminals have more chances of avoiding detection and prosecution.

Much like the categorisation and classification of crimes, legislation on environmental crime is different in all Member States. The differences in legislation combined with the transnational nature of environmental crime make cross-border cooperation in investigations imperative, as criminals take advantage of legal gaps and inconsistencies. Although restrictive data protection regulations hinder to a certain extent the exchange of information among different authorities, cooperation between national authorities, as well as with the private sector could still be improved.

Despite the challenges mentioned above, environmental crime is receiving increased attention in the European and global political scene and it seems that this trend will continue in the future.

Challenges concerning knowledge, skills, responsibility and autonomy, and related training needs

Challenges

The awareness of decision-makers regarding the significant implications of environmental crime should be enhanced. The general public's awareness of the costs of environment-related criminal activities to society should be raised.

Environmental crime is a multifaceted phenomenon that includes, inter alia, hazardous and non-hazardous waste crime, wildlife crime, maritime exploitation, crime related to the use of renewable energy and recycling, illegal, unreported and unregulated fishing, pollution of air and waters, and ozone depletion. Investigators' knowledge about the varied *modi operandi* in all areas should be improved alongside the enhancement of their digital investigation skills. As environmental issues gain importance at European level, the number of environmental crime investigators is expected to grow. This means that there will be a need for a significant investment in international training, especially in view of the rapid changes in crime patterns.

Corruption constitutes an integral part of environmental crime, be it petty corruption involving bribery of public officials or grand corruption involving criminal infiltration of legal business structures. In order to disrupt the corrupt practices applied by criminal networks, there is a great need to improve investigators' ability to use financial and economic crime investigation techniques, such as national and international asset recovery, to seize the proceeds derived from environmental crime.

Better cooperation and information exchange is necessary between Member States' law enforcement structures and with non-EU countries, including CSDP missions. Networking among different agencies dealing with environmental crime issues should also be enhanced. Cooperation between law enforcement, judiciary authorities and environmental inspectorates is vital for success, the latter possessing expertise and critically important knowledge on environment management.

Training needs

Summary

Investigation techniques and *modi operandi* in the different areas of environmental crime must be among the training topics. The highest ranked area is waste crime, followed by wildlife crime, maritime exploitation, and pollution. All investigators would benefit from training on specific online and offline investigation techniques, as well as from training focusing on related crime areas such as financial crime, corruption and document fraud. Cooperation at national and international level should be enhanced through joint training activities. The emerging legislative trends related to the circular economy and the administrative steps to counter environmental crime constitute new training topics. Member States indicated that 5 861 officials need training in this area.

Further details

The ranking of training needs varies across the different areas of environmental crime. The highest priority is given to training on the *modus operandi* of waste crime (including waste trafficking, dumping at sea, landfills, mixture of waste, disposal, dismantling and waste fires), as well as to training on effective investigation techniques. Training on combatting wildlife crime, including timber trade, is ranked sixth in terms of priority. Tackling maritime exploitation is the ninth training priority, covering topics such as pollution and illegal, unreported and unauthorised fishing. This is followed by the need for training on combatting air pollution and ozone depletion.

The second highest training priority according to the Member States is related to specific investigation techniques for environmental crime cases. Focus should be placed on improving the digital skills of law enforcement, including the use of open source intelligence and darknet investigations, as well as on intelligence collection, dealing with whistleblowers, undercover operations and wiretapping.

Law enforcement officials need to be familiar with the unusual operations of high-risk criminal networks, active in the area of environmental crime. The infiltration of legal business structures by organised crime is an existing threat. Special attention should be paid to the criminal infiltration of the recycling and renewable energy systems, as these industries receive heavy state subsidies. At the same time, the transnational trade of quotas, due to its complex nature and lack of transparency, offers possibilities for criminal exploitation. Criminals also use legal and technical experts as crime enablers. In order to disrupt criminal networks, it is essential for investigators to be well-trained on financial investigation techniques, as well as on tracing, tracking and freezing assets originating from environmental crime. In addition, training is required on combatting document fraud and corruption related to environmental crime.

International cooperation could be enhanced by training law enforcement officials on how to use the existing EU cooperation instruments and networks, as well as global cooperation tools and mechanisms, and on how to implement best practices of cooperation with non-EU countries. Training focusing on cooperation between different agencies dealing with environmental issues would boost both national and international cooperation.

The new legislative trends related to the circular economy should be covered by training, as such knowledge would help in the process of identifying crime enablers.

In order to enhance prevention activities, it is important to provide training on administrative tools to combat environmental crime, as well as training for the personnel of CSDP missions on how to spread good enforcement practices and standards in host countries.

List of identified and prioritised training needs

The following list evidences the prioritisation, as carried out by the Member States, of topics in the area of training to combat environmental crime.

	Environmental crime
1	Waste crime (modus operandi, investigation techniques): waste trafficking (hazardous and non-hazardous waste), export and import of waste, dumping at sea, landfills, mixture of waste, disposal, dismantling, waste fires
2	Investigation: digitalisation, OSINT, darknet; collection of intelligence, dealing with whistleblowers; undercover actions, surveillance, wiretapping as part of environmental crime investigation
3	Criminal infiltration of legal business, system exploitation (e.g. systems relating to renewable energy, recycling, and quotas); crime enablers (e.g. legal experts and technical experts) supporting organised crime
4	Economic crime investigation techniques, national and international asset recovery to seize gains derived from environmental crime; enhancing the use of financial investigations in environmental crime cases
5	Cooperation: interagency cooperation between different agencies dealing with environmental issues; EU cooperation instruments and networks; cooperation with non-EU countries, global cooperation tools
6	Wildlife crime: emerging patterns, trends, crime groups. Wildlife crime shall cover crime against flora and fauna in line with CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), including illegal logging and timber trade (modus operandi, investigation techniques), trafficking of protected species (glass eels, reptiles, mammals, birds), illicit pet trade, etc.
7	New legislative trends related to the circular economy to help in identifying crime enablers
8	Related crime areas such as document fraud and corruption
9	Maritime exploitation and pollution; illegal, unreported and unauthorised fishing (modus operandi, investigation techniques)
10	Pollution or illegal exploitation of air, ozone depletion; F-gas Regulation
11	Administrative tools to combat environmental crime
12	Raising general public awareness of the costs of environmental crime to society
13	Role of CSDP missions in spreading good practices and standards in host countries (training for mission personnel as part of pre-deployment training)
14	Fundamental rights and data protection

Annex 2. Proficiency levels

	Level 1 – Awareness	Level 2- Practitioner	Level 3 – Advanced Practitioner	Level 4 - Expert	Level 5 – Train-the-trainer
Definition	Refers to those who only need an insight into the particular topic, they do not need specific skills, competences and knowledge to perform the particular tasks, however require general information in order to be able to efficiently support the practitioners working in that particular field.	Refers to those who independently perform their everyday standard duties in the area of the particular topic.	Has increased knowledge, skills and competences in the particular topic because of the extended experience, or specific function, i.e. team/unit leader.	Has additional competences, highly specialised knowledge and skills. Is at the forefront of knowledge in the particular topic.	Officials who are to be used as trainers for staff
Description	Has a general factual and theoretical understanding of what the topic is about, understands basic concepts, principles, facts and processes, and is familiar with the terminology and standard predictable situations. Taking responsibility for his/her contribution to the performance of practitioners in the particular field.	Has a good working knowledge of the topic, is able to apply the knowledge in the daily work, and does not require any specific guidance in standard situations. Has knowledge about possible situation deviations and can practically apply necessary skills. Can assist in the solution development for abstract problems. Is aware of the boundaries of his/her knowledge and skills, is motivated to develop self-performance.	Has broad and in-depth knowledge, skills and competences involving a critical understanding of theories and principles. Is able to operate in conditions of uncertainty, manage extraordinary situations and special cases independently, solve complex and unpredictable problems, direct work of others. Is able to share his/her knowledge with and provide guidance to less experienced colleagues. Is able to debate the issue with a sceptical colleague, countering sophisticated denialism talking points and arguments for inaction.	Has extensive knowledge, skills and competences, is able to link the processes to other competency areas and assess the interface in whole. Is able to provide tailored advice with valid argumentation. Is able to innovate, develop new procedures and integrate knowledge from different fields. Is (fully or partially) responsible for policy development and strategic performance in the particular area.	Has knowledge and skills to organise training and the appropriate learning environment using modern adult training methods and blended learning techniques. Is familiar with and can apply different theories, factors and processes of learning in challenging situations. Experienced with different methods and techniques of learning. Can prepare and conduct at least one theoretical and one practical training session for law enforcement officials.
EQF equivalent	EQF Level 3-4	EQF Level 5	EQF Level 6	EQF Level 7	n/a
EQF levels – Descriptors defining levels in the European Qualifications Framework, more information is available at https://ec.europa.eu/ploteus/en/content/descriptors-page					

Annex 3. Urgency levels

Urgency in the context of this questionnaire refers to the criticality of timely training intervention and its impact to the operational performance.

Urgency scale level	1	2	3	4	5
Training need is	Low	Secondary	Moderate	Urgent	Crucial
Training impact	Training has a minor role in the performance boost, it would refresh the knowledge, officials could benefit from training, and however, it is not essential.	It would be useful if the training would be delivered, however, the need is not urgent. Training can be delivered in (predictable) 2-3 years' time, it is needed to stay updated.	It would be advantageous to receive training within a year's period, it would improve the performance, however, not significantly.	Training is essential, it is necessary to be delivered within a year's period, it is important to perform qualitatively.	Training is critical, it is necessary as soon as possible, it is crucial for the successful performance of duties.