PROJECT DOCUMENT

Project title: Advancing the Forensic Capacities of the Police Directorate of Montenegro for processing Firearms and Explosives-related Crimes	
Targeted jurisdiction(s): Montenegro	
Participating organizations: United Nations Development Programme	
Contact details for each organization: Ivan Boskovic, Team Leader, Governance and Responsive Institutions, ivan.boskovic@undp.org; Gordan Ivanovic, Programme Manager, gordan.ivanovic@undp.org;	
Implementing partners: Ministry of Interior, Police Directorate, Forensic Center	
Project number from MPTF-O Gateway (if existing project): N/A	
Relevant SDG targets: SDG 16.1, 16.3, 16.4, 16.a; SDG 5.2; 5.c.	
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Brief project overview: The project aims at improving the crime scene investigation and laboratory forensic capacities of the Police Directorate of Montenegro for providing forensic evidence and intelligence necessary for investigating and judicial processing of the trafficking of firearms, their ammunition, explosives, and precursors, as well as other FAE-related criminal offences, including the sexual and gender-based violence. Improved evidence and intelligence capabilities shall serve the national criminal proceeding system and international investigations and proceedings. The project will do it by delivering specialized training, supporting relevant international and regional peer-exchanges, procuring equipment, developing and validating new methods, and developing standard operating procedures. The focus will be on standardizing work processes in accordance with the policy and recommendations of the European Network of Forensic Science Institutes (ENFSI) and preparing for accreditation in line with ISO/IEC 17025 and 17020 international standards. This implies implementation of project standardization results in the regulatory framework of the Ministry of Interior of Montenegro, thus providing sustainability of project's results. **Contribution to Roadmap Goals:** 1, 2 and 3	
Project Gender Marker Score (1, 2, 3 or N/A): 2	

Names and signatures of the Participating UN Organizations

Ekaterina Paniklova Resident Representative UNDP Montenegro	*Signature:* DocuSigned by: [redacted] 6DF3B186CB854F5... *Date:* 21-Nov-2023

Description of the project

The project aims at improving the crime scene investigation and laboratory forensic capacities of the Police Directorate of Montenegro for providing forensic evidence and intelligence necessary for investigating and judicial processing of the trafficking of firearms, their ammunition, explosives, and precursors, as well as other FAE-related criminal offences, including the sexual and gender-based violence. Improved evidence and intelligence capabilities shall serve the national criminal proceeding system and international investigations and proceedings. The project will do it by delivering specialized training, supporting relevant international and regional peer-exchanges, procuring equipment, developing and validating new methods, and developing standard operating procedures. The focus will be on standardizing work processes in accordance with the policy and recommendations of the European Network of Forensic Science Institutes (ENFSI) and preparing for accreditation in line with ISO/IEC 17025 and 17020 international standards. This implies implementation of project standardization results in the regulatory framework of the Ministry of Interior of Montenegro, thus providing sustainability of project's results.

Contribution to the Roadmap Goals:

The project aims to contribute to Roadmap Goals 1, 2 and 3.

Goal 1: *By 2023, ensure that arms control legislation is in place, fully harmonized with the EU regulatory framework and other related international obligations, and standardized across the region - Standardization of working processes in the area of CSI and laboratory forensics will contribute to the overall target to ensure standardization of procedures and practices in the area of FAE investigations. Development and implementation of SOPs, validation of methods and additional supporting activities towards ISO/IEC 17020 and 17025 accreditations represent standardization activities in line with ENFSI best practices and recommendations.*

Goal 2: *By 2024, ensure that arms control policies and practices in the Western Balkans are evidence based and intelligence led - Raising the diversity and quality of forensic evidence and intelligence will contribute to FAE-related crime investigations being evidence-based, intelligence-led, and gender responsive.*

Goal 3*: By 2024, significantly reduce illicit flows of firearms, ammunition and explosives (FAE) into, within and beyond the Western Balkans - Providing more diverse and reliable forensic evidence and intelligence will raise the efficiency of FAE-related crime judicial proceedings (in Montenegro and internationally), contributing to reducing illicit FAE flows into, within and beyond the Western Balkans.*

1. Project Background (situation analysis)

The situation analysis for the Montenegrin SALW Strategy[1] composing needs has shown that a significant part of various firearms, ammunition, and mine and explosive ordnance, originating from the former Yugoslavia conflict, remained in possession of civilians in Montenegro. According to SOCTA 2021,[2] despite the intelligence and security sector authorities making additional efforts to reduce the number of firearms in illegal custody, there are still significant amounts of weapons in Montenegro, and members of criminal groups can still obtain them without substantial obstacles. In addition to firearms, a high-security risk is also the use of improvised explosive devices with extreme destructive power.[3] The famous Montenegrin manufacturer of explosive materials, Poliex produces both commercial and military explosives. In recent years, cases were reported where significant amounts of explosive material were stolen from the factory warehouse.[4] It is not rare that police in Montenegro discover illegal storage of firearms and explosives. One example is the case where police in 2020 seized more than 200 kg of explosives with electrical detonators and other related materials.[5] Montenegro represents both a source[6] and a transit[7] country when it comes to the trafficking of firearms. Considering the complex nature of problems associated with illegal Firearms, Ammunition and Explosives (FAE), suppressing related criminality requires coordinated interventions involving relevant law enforcement and criminal justice institutions regarding crime prevention, investigation, and prosecution.

Physical evidence and intelligence provided by applying forensic methods (including Crime Scene Investigations - CSI) are necessary to efficiently investigate and prosecute almost all criminal offenses related to the misuse of FAE, ranging from domestic violence and street, gang, and criminal violence to serious criminality, terrorism, etc. This is why improvements and standardization in the forensic area have been addressed repeatedly by the actual SALW Strategy and Action Plan (AP) and why the Forensic Center (FC) is identified as one of the Responsible parties for implementing key AP measures. There is no forensic method that cannot be used in solving FAE-related cases or providing physical evidence for processing such criminal offenses: ballistics and firearms examinations, post-blast and explosives/explosive devices expert examinations, chemical/analytical examinations (explosives, GSR, etc.), firearms marks restoration, fingerprints, DNA, digital forensics, etc.

While implementing the previous project ***Advancing the capacities of the Police Directorate in the field of custody chain, crime scene investigations and the forensic laboratory in the field of operations and investigations in detection and trafficking of explosives criminality (January 2021 - October 2023)*** and during discussions with the beneficiary representatives, several gaps and challenges regarding efficiency in providing evidence for FAE-related cases were recognized.

The above mentioned project **achieved the following results**:

1. In the area of CSI, in cooperation between the FC representatives and the UNDP consultant a number of standard operating procedures were developed, reviewed, and agreed[8]. Procured specialized equipment enabled

[1] Strategy for Combating Illegal Possession, Misuse and Trafficking of Small Arms and Light Weapons (SALW) and their Ammunition from 2019 to 2025: https://www.seesac.org/f/docs/Strategic-documents_1/MNE-Strat-SALW-i-AP-za-port-18.-12.-2018-ENG-002.pdf

[2] Serious and Organized Crime Threat Assessment in Montenegro issued in 2022: https://wapi.gov.me/download-preview/cf105122-2c9b-4816-b152-8487b5f59063?version=1.0

[3] idem

[4] https://www.monitor.co.me/ukradeni-eksplozivi-u-tajnim-skladistima-opasnim-putevima/

[5] https://www.vijesti.me/vijesti/crna-hronika/432773/podgorica-uhapsen-muskarac-pronadeno-205-kilograma-eksploziva

[6] Kacowicz, A.M. et al. (2021). The Unintended Consequences of Peace: Peaceful Borders and Illicit Transnational Flows. Cambridge University Press.

[7] SOCTA 2021; https://www.vijesti.me/vijesti/crna-hronika/493897/up-sprijeceno-krijumcarenje-oruzja-uhapsen-njemacki-drzavljanin

[8] SOP for forensic processing of the crime scene (comprehensive overall CSI procedure, which includes CS securing, documenting, searching, evidence collection, packaging and tagging of evidence, chain of custody, etc.).; SOP for treatment of improvised explosive

introduction of some new methods and advancing the overall level of work, mainly in the FC CSI Unit[9]. In addition, a number of training courses were organized, based on curricula developed within the project[10]. All interventions were focused on supporting preparations for ISO/IEC 17020 accreditation in the CSI line of work.

2. Likewise, physical explosives/explosion examination lab was supported by drafting, reviewing, and agreeing on a number of SOPs[11]. Provision of necessary specialized equipment raised the overall operative and security level in this lab and enabled introduction of new methods[12]. Members of this lab participated also in the above-mentioned training courses for the 3D scanner and aerial photography. The end-user training for operating the instrument for measuring the detonation velocity - VOD 815 was delivered. A new method was developed and validated in the project (Electric detonator correctness determination), and the lab was extensively supported in ISO/IEC 17025 accreditation preparations: awareness raising training, developing documents (e.g., measurement uncertainty, risk matrix, first aid), accreditation action plan, etc.

3. Chemical lab was supported in the area of explosives analysis. In addition to specialized equipment[13], the project supported the development and validation of a new method, including a training (forensic analysing of TNT samples by using the HPLC-MS/MS device). Furthermore, the project ensured revision of four SOPs[14], and delivered a training on measurement uncertainty calculations in LC-MS/MS quantitative analysis of TNT. All these activities supported the planned accreditation scope extension of the chemical lab, in the area of explosives examination. Regarding ballistics, the experts passed the mentioned ISO/IEC 17025 awareness-raising course, as a contribution to preparation for accreditation.

When it comes to the **identified remaining gaps** in the Police Directorate/Forensic Center, this includes the following: The overall quality level in the PD CSI line of work represents the most serious gap in the PD forensic system, since CSI is not nearly as developed as forensic laboratory capacities in Montenegro, in terms of staff, equipment, premises, CSI and post-CSI methods, etc. The main origin of physical evidence for FAE-related crimes is CSI, so it needs to be significantly developed.

Developing ballistics aligns with relevant SALW Strategy goals and AP key measures, and therefore represents a priority. Ballistic methods are not accredited yet, which represents a relevant gap.

Physical examinations of explosives/explosions need to be further developed, because this was not completed in the first project due to financial limitations and not enough time. Since explosives impose a high-level threat to

devices by crime scene officers; SOP for forensic search of vehicles regarding explosives; SOP for securing, packaging, and further handling of explosive substances and post blast traces intended for chemical laboratory analysis.

[9] The following equipment was provided to the FC: device for detecting of explosive substances, 3D laser scanner with applicable accessories, software packages and computers, quadcopter with camera, video borescopes, post-blast crime scene investigation kits, evidence vacuum sweeper with accessories, tamper-evident sealing tape.

[10] The following training courses were provided to the FC: training on implementation of the 3D scanning methodology in documenting of crime scenes in cases of particular criminal offences, training in aerial photography, and advanced CSI training applicable to GBV cases.

[11] This included the following SOPs: SOP for reception, protection, and dispatch of explosive and post blast traces; SOP for handling, reviewing, sampling and measuring of explosive and post blast traces; SOP for reviewing of pyrotechnic devices; SOP for reviewing of improvised explosive devices; SOP for reviewing of conventional explosive devices; SOP for examining the correctness of the fuse regarding spark transfer and burning velocity; SOP for examining the correctness of the electric detonator.

[12] Provided equipment consisted of: special packages for explosives, detonation chamber, device for measuring the velocity of detonation, stopwatch, universal electric meter, laboratory scales (three types), personal protective equipment (anti-static clothes, footwear, bracelets), anti-static work surface – ESD table mat, anti-static floor mat, ESD earth bonding plug, ESD grounding cord, anti-contamination multi-layer adhesive mat, storage containers for explosives, safety storage container adjusted for laboratory purposes, blaster's ohmmeter, laboratory rheostat.

[13] Following equipment was procured with this aim: HPLC-MS/MS device, laminar flow cabinet, orbital shaker, micro-centrifuge with angular rotor, thermo-mixer with thermo-blocks, combined laboratory refrigerator-freezer, ultra-pure water system, upright freezer.

[14] Following SOPs were revised: SOP for preparing bulk explosive samples for chemical analysis, SOP for preparing samples of trace amounts of post-blast explosive residues (in various matrices: soil, concrete, asphalt, oil, etc.) for chemical analysis, SOP for preparing samples of explosives in aqueous solution, SOP for keeping an analytical sample of explosives in the laboratory.

Montenegrin society, this gap was prioritized by the Project Team and Police Directorate/Forensic Center- the beneficiary during the implementation of previous project as indicated at previous page.

Chemical investigation of explosives needs to be extended on the quantitative analysis, and GSR examinations need to be improved and modernized. These are one of the main tools for providing forensic evidence for processing FAE-enabled criminal cases, which is the SALW Roadmap priority. Also, further standardization in this field is required, which include new method development and accreditation scope extension.

This project **proposal addresses the most relevant priorities**, while realistic capacities and timeframe define the scope of proposed interventions.

Crime scene investigation (CSI) requires a significant upgrade in Montenegro, as recognized by the gap analysis conducted within the first project and repeatedly explained by the beneficiary during that period. CSI is doubtlessly the highest priority regarding improvement needs since it represents the principal origin of physical evidence for FAE-related crimes, and it is not nearly as developed as forensic laboratory capacities in Montenegro. An integral intervention in this area cannot currently be proposed because of the ongoing territorial reorganization of the Police Directorate, which includes CSI, and the limited project possibilities regarding budget and time. For example, the CSI case management system, representing one of the most important needs that would support the integrity and continuity of evidence and the chain of custody, was considered with the beneficiary. Due to the reasons explained above and the information provided by the FC that there is a possibility for such a system to be financed from other sources, it was not included in the proposal. In this area, the previous project concentrated on developing relevant SOPs and on implementing new CS documenting methods (3D scanning, aerial photography), including equipment purchase, mainly for the FC CSI Unit. Since most FAE-related crimes committed in Montenegro are processed by the Podgorica and FC CSI units, the focus was on providing said units with priority equipment and training for implementing advanced methods for finding and collecting relevant evidence and simultaneous implementation of security measures for the personnel.

Within the forensic response regarding tackling sexual and gender-based violence (SGBV), including domestic violence, another room for improvement was recognized. The previous project provided training to relevant CSI officers on forensic processing of SGBV crime scenes. This project will work on awareness raising about improved inter-institutional cooperation modalities for providing more diverse and valid forensic evidence for such types of crime. Relevant stakeholders will be included, such as criminal police, crime scene, and laboratory-forensic investigators, prosecutors, and medical, social, civil and non-governmental sector representatives. New methods will also be introduced regarding forensic documenting of victims' injuries and retrieving information essential for CSI from victims, avoiding secondary victimization.

Ballistic investigations still need to be accredited in Montenegro, and the FC is investing strenuous efforts in this area, supported by OSCE. The previous project conducted an ISO/IEC 17025 accreditation awareness-raising training, among others for the ballistic lab staff. The proposed project will focus on supporting FC in the accreditation endeavor through equipment, training, ensuring security for the personnel manipulating firearms, and financing quality maintenance activities complementary to OSCE support. OSCE contributed by facilitating expert support from North Macedonia, whose ballistic lab is already accredited. The project will concentrate on contributing to accreditation preparatory activities by replacing the shooting backstop and providing a multifunctional device for the safe discharging of firearms and a ballistic radar (to improve security and operability), and by providing necessary proficiency test, training internal auditors, a participating ballistic lab staff members in international expert events, such as ENFSI Firearms/GSR Working group. These activities are not planned by OSCE. This intervention aligns with relevant SALW Strategy goals and AP key measures, and therefore represents a priority.

The project will build upon and further develop previous interventions in the area of explosives/explosive devices physical expert examinations where a number of SOPs were developed, and the lab integrally supported in

carrying out accreditation preparation activities. Personnel health care and security will be improved, as well as some previously established methods, by additional equipment and materials. Accreditation will be further supported by establishing and validating a new method and providing some equipment in line with SALW Strategy and AP. Since explosives impose a high-level threat to Montenegrin society, as explained above, an adequate forensic response in this area is required.

The activities regarding improving FC chemical analytical capacities for explosives, their forensic traces, GSR, etc., will build on previous project results. A new explosives-investigating method was introduced and prepared for accreditation, including purchase of key equipment, SOP development, method validation, training, etc. Equipment will be significantly upgraded and expert support provided, allowing further methodology improvements, development, and validation of a new method, contributing to an extended accreditation scope (in line with SALW Strategy and AP). The project will also engage international expert(s) for standardizing analytical and anti-contamination procedures. Similarly to the explosives/explosive devices physical expert examinations (see previous paragraph), the planned chemical lab improvements will additionally contribute to probative capacities improvements regarding explosives-related crimes.

2. National Ownership

The project proposal was developed in close cooperation with the Head of SALW Commission, Police Directorate and Forensic Center. Endorsement is provided by the SALW Commission for the project proposal by email on May 9th, 2023 and by Forensic Center by a letter sent on July 24th, 2023. The project outcomes are very much in line with the Roadmap for sustainable solution to the illegal possession, misuse and trafficking of small arms and light weapons and their ammunition in Western Balkans by 2024 as well as with the National SALW Strategy. The project will be implemented in close cooperation with the beneficiary – Police Directorate/Forensic Center as well as with SALW Commission which will ensure local ownership of the results of the project. Partners will participate/chair at the project board of the project. Consultations with beneficiaries are ongoing on daily bases also during implementation period.

When evaluating the human resources of the beneficiary, the current number of experts in the explosives/explosions physical examination lab appears insufficient. However, given the context of Montenegro being a small country, the existing two experts have proven to be adequate for the successful implementation of previous project. This track record provides a strong foundation for the current proposal.

Similarly, the ballistic lab currently employs one expert since the other one has retired, which might be seen as insufficient for optimal operability. The Beneficiary is actively working towards recruiting additional professionals, as indicated during the project development phase. This commitment to strengthening their human resources reinforces the project's prospects for success.

In terms of resources, there is a recognized lack of equipment. However, the proposed project takes a targeted approach to address this challenge. By focusing on the development of new methods and procuring essential equipment strategically, the project aims to contribute significantly to capacity improvements. This approach ensures that available resources are utilized efficiently and effectively, maximizing the impact of the project's efforts.

Overall, while there might be some initial concerns about human and equipment resources, the Beneficiary's previous project accomplishments and their proactive steps in addressing these issues indicate a strong potential for the successful implementation of the proposed project. By leveraging existing expertise and diligently acquiring necessary resources, the Beneficiary is well-positioned to make meaningful advancements in their field.

3. Project Objective and Theory of Change

Overall objective:

Improving overall forensic capacities in Montenegro (CSI and Forensic Center) to provide evidence and intelligence necessary for investigating and processing FAE-related crime and SGBV on the national and international levels.

Specific objectives:

- Improving the diversity of CSI and forensic laboratory practices, by introducing contemporary internationally-standardized and laboratory-developed methods.
- Enabling implementation of contemporary forensic methods by further modernizing forensic equipment and providing needed training for the forensic staff;
- Contributing to overall efforts of extending the scope of ISO/IEC 17025 accreditation and further enable for ISO/IEC 17020 accreditation;
- Enhancing the CSI performance and cooperation between all relevant stakeholders in tackling SGBV, particularly related to FAE
- Improving the overall staff security while handling FAE and the anti-contamination protection of evidence in line with ISO/IEC 17020 and 17025 standards.

Theory of change

The overall theory of change of the Project is that,

if

a) the forensic staff attending FAE-related crime scenes work under advanced security conditions, and

b) they manage to collect a broader range and a more significant number of relevant forensic evidence, and

c) they provide forensic labs more efficiently with different evidence related to committed SGBV criminal offenses, in cooperation with the medical sector, and based on specialized training and information retrieved from victims, by following a specific protocol including secondary victimization minimization rules, and

d) ballistic and explosives/explosive devices examinations are carried out more safely in the sense of the health and security of the staff and by using accredited methods, and

e) GSR and explosives traces are analyzed by contemporary and accredited methods, and

then

the judicial proceedings of FAE-related criminal offenses in Montenegro and the cross-border exchange of forensic intelligence will be more effective, evidence-based and gender responsive, enhancing the level of security and contributing to the overall exercise of human rights,

because

the spectrum, probative value, and validity of forensic evidence will be improved, together with better protection of the health and security of forensic practitioners when handling firearms and explosives.

Outcomes and outputs

Outcome 1. Improved overall Crime Scene Investigation (CSI) capacities in Montenegro for investigating FAE-related crime, encompassing SGBV criminal cases

The majority of physical evidence utilized in criminal processing of cases where firearms and explosives were included are retrieved during forensic processing of the crime scene. This specific forensic activity, usually called crime scene investigation (CSI), is recognized by the Criminal Procedure Code of Montenegro within the

framework of one of the evidentiary actions (Art. 135).[15] Improving national CSI capacities by advancing the overall quality of work and by standardizing procedures, methods, and techniques according to relevant EU and other international standards provides the essential basis for enhancing the quality of forensic evidence and its variety and validity. This is important for national criminal proceedings and the possibility of unobstructed international exchange, which supports the efforts to fight transnational organized crime efficiently. In addition to analyses of CSI capacities in Montenegro carried out so far and available reports and recommendations, the project will provide a targeted expert needs analysis in this area to precisely recognize the most actual needs from the perspective of the Project's overall objective. Building upon previous interventions carried out in the framework of the first project (mainly on the procedural and partially on the equipment level), the planned project will further support the CSI units in addressing the gaps identified during the previous project primarily through development of up-to-date procedures, trainings of the staff and purchase of the required equipment.

By combining certain statistical indicators provided in the UNDP/SEESAC publication Gender and SALW in Southeast Europe[16] (in Montenegro within the five-year period (2011-2015) all murdered women were murdered within the domestic context, while (e.g., in 2014) 70% of homicides were committed by firearms), it can be concluded that there is a strong correlation between firearms holding and domestic violence. The same publication informs that 43% of Montenegrin women considered guns a danger to their families. Also, in the context of domestic violence, a firearm represents an extraordinary aggravating circumstance for the victim and for the undertaking of whatever activity to stop the violence, but at the same time, an instrument for keeping the traditional behavior patterns and distribution of roles within the family.[17] Generally, CSI represents the weakest link in the forensic chain of providing physical evidence for processing SGBV, particularly when it comes to intimate relationships where the presence of a perpetrator's biometric evidence on the scene usually doesn't mean much by itself. Bearing also in mind the instability and weakness of testimonial evidence, establishment of special CSI techniques in this area is of crucial importance.

Output 1.1: Improved staff security and capacities in the on-site forensic investigation of explosives-related criminal cases and implementation of QMS and advanced methods for visualizing specific forensic evidence.

Activity 1.1.1: Development of SOPs, specialized training and knowledge-exchange for on-site forensic investigation.

Standard operating procedures (SOP) will be drafted, in line with implementing the quality management system (QMS) according to the ISO/IEC 17020 accreditation standard, such as an SOP containing instructions for the application of the handheld UV/VIS/IR device for the detection, examination, and capture of latent forensic evidence in CSI. The SOP will be developed after purchasing the device (Activity 1.1.2) and incorporating it the CSI practice, to enable harmonization with existing CSI processes and procedures. A training curriculum will be developed, and training implemented for utilizing the device and implementing the SOP. SOPs will also be developed for digital crime scene documenting, utilizing the techniques of 3D laser scanning and aerial photography. Advanced training will be provided, including curricula development, for practical application of those techniques and their SOPs, focusing on operating associated software packages for processing the recorded digital material and producing digital crime scene documentation. The trained participants will be able to further disseminate this knowledge, applying a ToT method. End-user training will also be provided for the explosive detector.

Within the framework of further preparing the CSI units for accreditation in line with the ISO/IEC 17020 standard, the project will support the CSI line of work of the Police Directorate in drafting specialized technical procedures for CSI, i.e., SOPs for the evidence chain of custody, packaging, and tagging, and for specific kinds

[15] https://www.gov.me/dokumenta/a1a42830-9a42-45d4-b519-64bc53300bd5

[16] https://www.seesac.org/f/docs/Armed-Violence/Gender_and_SALW_publication_eng-web.pdf

[17] dr Danijela Spasić, Marina Tadić, „Zloupotreba oružja i rodno zasnovano nasilje", Centar za istraživanje javnih politika, Beograd, 2016

of evidence, such as ballistic evidence, GSR, etc. Training will be provided, including curricula development, for practical aspects of ISO/IEC 17020 in CSI, including the custody chain, packaging, and tagging issues, case-management solutions for their implementation, and application of the SOP. During the project, the participation of FC representatives in the annual ENFSI Scene-of-Crime Working Group meetings, study visit, and peer exchange will be facilitated. Since there is a need to put efforts into developing QMS in line with the ISO/IEC 17020 standard within the Police Directorate CSI line of work, which is recognized by FC, acquiring knowledge about adequate experience in this area by being involved in relevant ENFSI activities and visiting prominent institutions, will significantly bolster the progress in CSI while a regional peer exchange will contribute to harmonization in WBs. The needs analysis at the beginning of the project, in cooperation with the beneficiary, will show for which procedures expert support is needed.

Activity 1.1.2: Provision of specialized equipment for on-site forensic investigation

Execution and overall sustainability of the specialized trainings and new SOPs from the activity 1.1.1. will be enabled through provision of specialized equipment required for these activities. The equipment planned under this activity will be purchased for the following purposes: to enable conducting on-site forensic activities, where the risk of explosion exists, in a safe manner, regarding people present at the scene and property, and to enable developing and implementing new, advanced forensic methods and techniques for detecting and collecting relevant forensic evidence. During the previous project, it was recognized that no technical means for detecting explosives were available to CSI units. Therefore, a mobile device for detecting explosives (including traces) will be purchased, and end-user training will be delivered to the Forensic Center. This device should be based on high-end technology, such as Raman spectroscopy, and able to detect bulk explosives (improving the security of the staff by, e.g., recognizing secondary explosive devices), as well as to detect traces of explosives (choosing evidence more selectively, thus improving the speed and efficiency of on-site searching).

Also, a device will be purchased to detect body fluids (such as blood, saliva, etc.), fingerprints, and other forensic evidence hard to recognize in the visible spectrum, on firearms, and similar complex backgrounds. The device shall be portable and battery-powered to be used on the crime scene. It needs to generate ultraviolet and near-infrared light (dual waveband light source) to have a UV-IR sensitive camera for detecting evidence that can't be seen in the visible light spectrum but beyond both ends of this spectrum. Since firearms' surfaces reflect and absorb UV and IR illumination in different quantities, and while the naked eye cannot see this, it can be observed using a UV/IR sensitive camera. By adjusting the camera filter, surfaces can be examined in different wavebands and UV and IR light intensities.

Finding and securing invisible and other evidence hard to recognize in the visible spectrum on firearms and similar complex backgrounds is one of the most demanding tasks during crime scene investigation. Advanced methods based on modern equipment utilizing forensic light sources for searching, detecting, and capturing a broad range of trace evidence, such as body fluids (semen, saliva, and urine, etc.), blood on dark fabrics and other surfaces, fingerprints, gunshot residue (GSR), and traces of physical evidence (glass, fiber, hair, etc.) are planned to be introduced in the Forensic Center and the Regional Center "Center." The most important application of such methods is the possibility of contactless searching, finding, and capturing all latent fingerprints and other traces on complex surfaces, such as, e.g., on firearms and parts of activated explosive devices. In this way, fingerprints and biological traces, as high-ranked personal identification evidence, as well as many other micro-traces, can be successfully recovered, while DNA is simultaneously fully protected from contamination.

Finally, in the previous project implemented in support of the CSI, a quadcopter with a camera was purchased for the FC CSI unit, intended for recording (documenting) CSI by aerial photography. During the basic training for using this device and applying aerial photography documenting, it was recognized that software is

necessary to support the use of the specialized equipment. Through the current project, in addition to advanced training in this area, the software will be provided to fully implement this CSI documenting method.

Output 1.2: Advanced methodologies for CSI processing of SGBV criminal cases as related to firearms.

Activity 1.2.1: Multi-sector Gender Based Violence (GBV) panels.

The advanced methodology for collecting forensic evidence during the medical examination of victims of sexual and gender-based violence (SGBV) and for assuring the chain of custody is designed and intended to maximize the variety, forensic value, and applicability of physical evidence collected during medical examination of sexual and gender-based violence victims. The methodology for collecting sexual assault evidence from the victim based on the sexual assault evidence collection kit was developed in Chicago in the mid-1970s by the American crime victims' advocate Martha Goddard and the Chicago police sergeant and chief microanalyst at the city's crime lab Louis R. Vitullo. It was first utilized in 1978 when 26 Cook County hospital emergency rooms incorporated its use into their standard practice for gathering trace evidence when treating rape victims. Besides in USA and Canada, the methodology is today used in many European countries, such as Scandinavian countries, the UK, and the Netherlands, but also in Serbia (where it was implemented within a Swedish-Serbian development project and supported by SEESAC) and some entities in Bosnia and Herzegovina.

This activity will predominantly be awareness raising on the benefits of use of the above-said methodology. As an outcome of the multi-sector panel sessions, solutions regarding implementation modalities in Montenegro are expected, which will further facilitate the implementation in the future.

In addition, implementing this methodology enhances the cross-sectoral cooperation between relevant stakeholders in fighting SGBV: police and forensic agencies, prosecution and judiciary bodies, and medical, social, and non-governmental sectors. The methodology is widely used in many countries applying the highest standards in this area, such as Scandinavian and other European countries. Unlike all other evidence pertinent to a specific SGBV case that is collected by forensic (CSI) officers and for which training was delivered within the previous project, the evidence from the victim is collected in medical institutions by medical staff. In these cases, there is always a risk of omission, inadequate collection, contamination, or deterioration of crucial evidence, which are, by rule, often the most important ones for identifying and processing the perpetrator. This happens mainly due to the absence of forensic-specific awareness, procedures, and material for collecting evidence from the victims in medical institutions. The project will support raising awareness of this methodology by organizing two multisector panels where representatives of all the above stakeholders will participate. Such mutual awareness-raising and learning events will share experiences in this area from different perspectives and present the new method based on a biological and micro-traces collection kit – a “sexual assault evidence collection kit”. In practice, in coordination with the prosecutor, this kit, which contains adequate DNA-grade material for collecting evidence from the victim (such as swabs, test tubes, tweezers, comb, specialized packages, etc.), and which is optimized both from a medical and forensic perspective, is brought to the medical institution by the CSI officer, and after the medical examination handed over to him/her again, enabling maximum protection of integrity for the physical evidence and its chain of custody. This project plans to present the methodology to all stakeholders during two multisector panels, and to find out jointly modalities for its implementation in Montenegro (including possible normative interventions). This will provide relevant institutions with sufficient basis for evidence-based decision-making as well as enable gender-responsive policy making in the future.

Activity 1.2.2: Training on documenting injuries on victims during medical examinations

Another forensic contribution to providing evidence for SGBV cases is the proper documenting of injuries on victims during medical examinations, which also includes those originating from firearms (e.g., blows inflicted

on the victim with a gun while being threatened[18]). Generally, in the medical sector, the injuries are not documented by photos, or at least not following forensic rules. The project will deliver training of several (preferably women) CSI officers from all four regional centers on forensic photographing of body injuries during the medical examination of the victim in a medical institution, which will significantly increase the probative value of such evidence. The trained participants will be able to further disseminate this methodology, applying a ToT method. Specialized cameras for those purposes will be purchased, as well.

Activity 1.2.3: Protocol development and training on interviewing techniques for CSI officers

Also, there is a general lack of specialized training and knowledge among scene-of-crime officers on conducting interviews with the victims of SGBV to acquire valuable information for locating and collecting key forensic evidence during CSI. As it applies to all violent crimes, the most crucial element for processing SGBV cases is the presence of valid forensic evidence. Providing relevant forensic evidence is especially difficult and complicated in partner relationships, where the very presence of the perpetrator on the crime scene and his physical contact with the victim generally does not prove much. For that reason, the information about the concrete circumstances and details of the crime might be of crucial importance for the forensic officer before performing the CSI. The most helpful information can be retrieved from the conversation with the victim, but as it is well-known, this is a very sensitive process. Within this activity, an analysis of the existing interviewing procedures and daily routines will be performed to identify the optimal solution for including a (preferably female) CSI officer in the interviewing procedure to retrieve information from victims relevant to the CSI including set of questions related to firearms as applicable. A specialized SOP (Protocol) will be developed to precisely guide the CSI officer in the conversation with the victim, especially if firearms are involved, which will involve adequate psychological techniques for minimizing secondary victimization. A curriculum will be designed, and training will be organized and delivered by an expert(s) on leading the communication by implementing the Protocol, with a particular accent on the victim-centered approach. The Beneficiary will previously select the participants of the training (preferably female CSI officers) based on general guidelines provided by the project.

Outcome 2. Improved ballistic capacities of the Forensic Centre

The critical forensic evidence utilized in processing firearms-related criminal cases (trafficking, gun-enabled crime, etc.) is obtained by expert examinations in ballistic laboratories. The results of the ballistic examinations are also used for firearms tracing, estimating the brand and model of an unknown firearm used in a crime, interconnecting different criminal cases by utilizing the Open Case File (OCF) collection, and many other purposes. Within the framework of this outcome, the project will support the FC Ballistic Laboratory's preparation for ISO/IEC 17025 accreditation, building upon the previous work where awareness of the accreditation requirements was raised among the ballistic experts by organizing their participation in the ISO/IEC 17025 accreditation awareness-raising training. Before carrying out the activities listed below, an assessment of the overall FC capacities for ballistic examinations, including OCF, will be performed, observing and complementing interventions already provided and planned, including ones supported by OSCE. Recommendations will be brought regarding activities supporting accreditation preparation, shooting range security, and purchasing equipment and potential IT solutions for the laboratory.

Output 2.1: Improved security and advanced preparation of the Ballistic Laboratory for ISO/IEC 17025 accreditation

Activity 2.1.1 Supporting ISO/IEC 17025 accreditation preparation of the Ballistic Laboratory

[18] Properly documented injuries may lead to identification of the offensive weapon.

The ballistic laboratory is currently preparing for ISO/IEC 17025 accreditation with certain OSCE assistance. Besides activities explained in the previous paragraph, the project will support this process by financing the necessary proficiency test, training internal auditors, and participating FC management and ballistic lab staff members in international study visit and peer exchange activities, and in expert events, such as ENFSI[19] Firearms/GSR Working Group and the European Academy of Forensic Science (EAFS) in 2025. SOPs, as essential procedural elements of the accreditation documentation, will be produced for operating the above-mentioned OCF and the recently purchased ballistic IT systems EVOFINDER and TRAFFIC. If necessary, the project will facilitate the translation of technical user manuals into the Montenegrin language. These activities will be complementary to the ones supported by OSCE and those envisaged by UK/NABIS.

Activity 2.1.2: Provision of specialized equipment for improving security and operability of the shooting range.

Facilitating above-state accreditation process, the equipment will be purchased as a contribution to personnel health care and security while discharging firearms (especially ones that are obviously unsafe for firing) and for enabling the implementation of methods and techniques included in the ISO/IEC 17025 accreditation. Based on assessment findings, in the area of improving security and operability of the shooting range, which serves for ballistic expert examinations, a multifunctional device for the safe discharging of firearms and a ballistic radar (chronograph) will be purchased and installed.

Activity 2.1.3: Equipping and refurbishing the gunsmith workshop and the shooting range.

The shooting range will be partially refurbished (shooting backstop replacement) and the gunsmith workshop equipped as per requirements of the ISO/IEC 17025 accreditation. More concrete needs regarding equipping and refurbishing the gunsmith workshop and shooting range will be defined in the scope of the assessment. For example, the need for providing alternative means for discharging firearms and catching bullets necessary for the ballistic expert examination (as part of the method which will be ISO/IEC 17025 accredited) was discussed with the beneficiary during carrying out the previous project. Also, a functional gunsmith workshop is an essential component of a forensic ballistic lab, enabling necessary interventions on firearms, which represent an activity in the overall expert examination process subject to accreditation. The firearms often need to be disassembled, repaired, and assembled for the reason of examinations and for making them safe to fire. For this purpose, specialized furniture and tools are needed.

Outcome 3. Improved capacities of the Arson and Explosives Lab for physical examination of explosives/explosive devices.

The FC capacities for physical examination of explosives and explosive devices have been significantly improved during the previous project by supporting the preparation for ISO/IEC 17025 accreditation and the establishment of proper and safe capacities for such kind of expert examinations exposed to specific security risks. The project will further support the operability of Arson and Explosives lab, the overall security, and ISO/IEC 17025 accreditation preparation. A new method will be developed and validated. The equipment for safe handling of explosives will be improved by purchasing additional storage containers and safety boxes (modules) for transporting explosives. Health care will be improved by purchasing and installing first aid kits. Operability in examining detonation velocity will be additionally supported by providing a specialized device for testing optical cables, as well as some consumable material, such as a 4-channel optical extension line, etc.

Output 3.1: Advanced security and operability and extended scope of accreditation within the Arson and Explosives Lab

[19] European Network of Forensic Science Institutes: https://enfsi.eu/

Activity 3.1.1: Method development, validation and additional support to accreditation

Also, a new method appropriate to extend the scope of accreditation of the Arson and Explosives Lab will be chosen during the assessment, together with the beneficiary and expert support provided (SOP, validation, etc.) for preparing the accreditation of this method. It will be chosen out of several methods recognized as a priority in the first project: Reviewing conventional explosive devices, reviewing improvised explosive devices, Examining the correctness of the fuse regarding spark transfer, and burning velocity, etc. The project will also finance the participation of the lab representatives in the ENFSI Fire and Explosion Investigation Working Group annual meetings and in international study visit and peer exchange activities as a contribution to further development of quality standards and accreditation in this lab.

Activity 3.1.2: Provision of equipment for safe handling and examination of explosives

In order to enable planned methods and validation process, as well as to ensure their longevity, the equipment is planned for the purpose of health care and security, since explosives are in question, as well as some additional equipment and consumables for improving the operability of methods in place and for enabling the planned establishment of a new method. For improving security, particularly in transporting, safe handling, and storing explosives, additional equipment recognized as necessary will be purchased within the framework of this output, such as storage containers and safety boxes (modules) for transporting explosives. The explosives/explosive devices examination premises are dislocated from the FC HQ in Danilovgrad. Proper storage at the location in Rogami is needed, as well as transport of explosives samples from that location to the FC chemical lab.

Regarding proper healthcare, first aid kits (e.g., wall cabinets) will be provided for this Group and all FC laboratories and other premises, where necessary. In addition, a specialized device for testing optical cables for examination of detonation velocity will be purchased (velocity of detonation tester bought by the previous project), as well as some consumable material, such as a 4-channel optical extension line, etc. Real needs will be assessed at the beginning of the project and agreed upon with the beneficiary.

Outcome 4. Improved capacities of the Chemical Lab for chemical examination of explosives and GSR

Chemical expert examinations in FC are performed within two Groups, one responsible, among others, for chemical analyses of explosives, and the other for chemical analyses of shooting distance and gunshot residue. Many analyses necessary for processing FAE[20]-enabled criminal cases are performed in these labs, and specific expert examinations provide forensic evidence. For determining important facts during criminal proceedings, such as the sort and composition of explosives (from bulk samples and post-blast traces), distance from which a firearm was discharged, and the person who fired the gun, etc. are examined in these labs, and relevant expert examination reports issued which serve as evidence in court. For improving the overall probative value of such kinds of evidence, which is essential for processing FAE trafficking cases, shooting and explosion incidents, etc., further enhancement of methods is needed.

Output 4.1: New methods and procedures for analyzing explosives developed, and the scope of ISO/IEC 17025 accreditation for expert examination of explosive samples/traces extended.

Activity 4.1.1: Development of SOPs, validation of methods and additional support to accreditation

With the support of the project, the chemical laboratory will develop new SOPs for processing explosives and traces, including improved preparation of the explosives samples and providing their faster processing. Purchased equipment will be used in order to facilitate the adequate introduction of the new methods for which SOPs will be developed. Also, SOPs will refer to anti-contamination measures by introducing the laminar

[20] Firearms, ammunition, explosives

flow hood and the laboratory dishwasher. Within the project, the laboratory will prepare a new method for ISO/IEC 17025 accreditation, applying the latest anti-contamination measures and processing a more significant number of samples per unit of time based on equipment to be procured.

The forensic samples originating from the scene of the explosion, which are the ones the new method will refer to, are extremely contamination sensitive. The explosion by rule destroys (burns) almost all explosive material and traces of explosives that may remain on the spot, if successfully collected, are present in samples on a molecular level. The expert examination performed by chemical analysis questions the sample on the presence of explosive traces, trying to determine the sort of explosive. There is always a risk that such a sensitive sample can be contaminated in a laboratory where explosives are generally examined, also in bulk. Applying strict anti-contamination measures, based on proper equipment, is of crucial importance to avoid false results, since criminal investigations and proceeding frequently significantly rely on those results.

Also, to raise the probability of detecting traces of explosives in the material collected from the explosion scene, the number of collected samples (swabs, forensic filters, traces from the crater, etc.) is usually very big. Therefore, the speed and possibility for the simultaneous processing of more samples are significant from the perspective of laboratory functionality and efficiency. The investigators need the results as soon as possible, the number of samples is by rule huge, and their preparation is time-consuming.

The project will finance the participation of the chemical lab representatives in the ENFSI Expert Working Group on Explosives annual meetings, in international peer exchange and study visit activities, and the participation of the FC Head in ENFSI Annual Meetings as a contribution to further the development of quality standards and accreditation in this lab.

Activity 4.1.2: Provision of specialized equipment for improved explosives chemical analysis

In order to facilitate the adequate validation of the new methods the required equipment shall be provided. The current capacities for performing explosives analysis will be developed by purchasing of following essential equipment:

- Gas chromatography-mass spectrometry (GCMS) device

Gas chromatography with mass spectrometry allows complex mixtures to be separated easily by GC, while MS is used to identify individual components. Due to the volume of work in the lab and bearing in mind the diverse state of the submitted evidentiary material, purchasing this device will enable a much faster response to the prosecutors' requests. The advantage of this instrumental technique is that it is possible to produce samples of higher concentrations that arrive at the lab in powder form, that databases facilitating search results are available, and that the overall speed of analysis is significantly improved.

- High Performance Liquid Chromatography with tandem mass spectrometry device

The project will also finance upgrading the HPLC LC/MS/MS device purchased within the previous project, allowing a more comprehensive range of explosives examination methods to be applied using the upgraded device.

For introducing new methods based on the equipment listed above, supporting necessary equipment will be purchased as well:

- Rotary vacuum evaporator

Due to the volume of work in the lab, it is essential to significantly simplify and shorten the sample preparation procedure for analytical techniques, which this equipment will achieve.

- Laboratory mill

Two such mills will be purchased to prepare post-blast samples featuring the temperature control functionality during grinding. In most cases, after the explosion, a large amount of debris from the center of the blast is submitted for chemical examination, which is usually a sample of gravel, sand, stone, asphalt, glass,

and, less often, a piece of soil with various admixtures (for example, grass, leaves, plastic...). Preparing the sample for instrumental analytical techniques takes time because it is necessary to first crush the delivered debris after physical separation (removal of plant or plastic material from the rubble), i.e., homogenize it, often multiple times.

- Balances (one technical and one bench-top)

For measuring evidence material and samples.

Output 4.2: Improved Gunshot residue (GSR) analysis capacities

Activity 4.2.1: Development of SOPs and method validation

The GSR analysis method will be revised based on the new device, including the SOPs and validation. It is necessary to harmonize the classification scheme of GSR particles in the existing program for GSR analysis with the classification scheme given in the new version of the AST 1588 standard and with the instructions of the ENFSI Working Group for GSR. For this purpose, the project will provide necessary expert support, including SOPs and validation of the method mentioned above on the new device.

Activity 4.2.2: Provision of equipment for improved GSR analysis

As a method of endorsement, the new equipment is intended to provide for the improved, revised GSR and analysis method as explained above. Determining the presence of gunshot residue (GSR) on a person's hands or other surfaces of interest provides scientifically based solutions regarding essential circumstances of a gun-enabled crime, including identifying the shooter. For this purpose, SEM/EDX technology is implemented. FC possesses such a device, but it is now 12 years old, based on somewhat outdated technology, and its maintenance is becoming difficult since spare parts are no longer available. Therefore, to maintain and improve the GSR expert examination capacities of the FC, a new SEM/EDX device will be purchased within this output based on more contemporary technology.

Contributions to Roadmap goals

GOAL 1. By 2023, ensure that arms control legislation is in place, fully harmonized with the EU regulatory framework and other related international obligations and standardized across the region.

Standardization of working processes in the area of CSI and laboratory forensics will contribute to the overall target to ensure standardization of procedures and practices in the area of FAE investigations. Development and implementation of SOPs, validation of methods and additional supporting activities towards ISO/IEC 17020 and 17025 accreditations represent standardization activities in line with ENFSI best practices and recommendations.

GOAL 2. By 2024, ensure that arms control policies and practices in the Western Balkans are evidence based and intelligence led.

Raising the diversity and quality of forensic evidence and intelligence will contribute to FAE-related crime investigations being evidence-based, intelligence-led. and gender responsive

GOAL 3. By 2024, significantly reduce illicit flows of firearms, ammunition and explosives (FAE) into, within and beyond the Western Balkans.

Providing more diverse and reliable forensic evidence and intelligence will raise the efficiency of FAE-related crime judicial proceedings (in Montenegro and internationally), contributing to reducing illicit FAE flows into, within and beyond the Western Balkans.

Overview - Outcomes, Outputs and Activities

Outcome 1: Improved overall Crime Scene Investigation (CSI) capacities in Montenegro for investigating FAE-related crime, encompassing SGBV criminal cases			
	Output 1.1: Improved staff security and capacities in the on-site forensic investigation of explosives-related criminal cases and implementation of QMS and advanced methods for visualizing specific forensic evidence		
		Act 1.1.1	Development of SOPs, specialized training and knowledge-exchange for on-site forensic investigation
		Act 1.1.2	Provision of specialized equipment for on-site forensic investigation
	Output 1.2: Advanced methodologies for CSI processing of SGBV criminal cases as related to firearms		
		Act 1.2.1	Multi-sector Gender Based Violence (GBV) panels
		Act 1.2.2	Training on documenting injuries on victims during medical examinations
		Act 1.2.3	Protocol development and training on interviewing techniques for CSI officers
Outcome 2: Improved ballistic capacities of the Forensic Centre			
	Output 2.1: Improved security and advanced preparation of the Ballistic Laboratory for ISO/IEC 17025 accreditation		
		Act 2.1.1	Supporting ISO/IEC 17025 accreditation preparation of the Ballistic Laboratory
		Act 2.1.2	Provision of specialized equipment for improving security and operability of the shooting range
		Act 2.1.3	Equipping and refurbishing the gunsmith workshop and the shooting range
Outcome 3: Improved capacities of the Arson and Explosives Lab for physical examination of explosives/explosive devices			
	Output 3.1: Advanced security and operability and extended scope of accreditation within the Arson and Explosives Lab		
		Act 3.1.1	Method development, validation and additional support to accreditation
		Act 3.1.2	Provision of equipment for safe handling and examination of explosives
Outcome 4: Improved capacities of the Chemical Lab for chemical examination of explosives and GSR			
	Output 4.1: New methods and procedures for analyzing explosives developed, and the scope of ISO/IEC 17025 accreditation for expert examination of explosive samples/traces extended		
		Act 4.1.1	Development of SOPs, validation of methods and additional support to accreditation
		Act 4.1.2	Provision of specialized equipment for improved explosives chemical analysis
	Output 4.2: Improved Gunshot residue (GSR) analysis capacities		
		Act 4.2.1	Development of SOPs and method validation
		Act 4.2.2	Provision of equipment for improved GSR analysis

4. Sustainability of Results

The project has been developed in such a way as to address the immediate and mid-term needs of the Police Directorate/Forensic Center. Project results will directly contribute to the more efficient functioning of the specific units of the Police/Forensic Center and will improve the entire investigative process in crimes with firearms and explosives. The focus on the development of the standard operating procedures and validating new methods, all in the context of extending the accreditation scope will also directly contribute to the sustainability of project results. Training of Trainers (ToT) approach which project will apply for capacity building, shall ensure that capacities of the professional within Forensic Centre are adequately developed so the knowledge will remain within Police Directorate/Forensic Center and additionally be transferred to other colleagues and possible newcomers beyond the project's duration.

The project will envisage transition and phase-out arrangements, including a sustainability plan, which will be developed by the project team and approved by the Project Board. These arrangements will be reviewed and adjusted if necessary, during the project cycle.

The project's main goal is diversification by developing/adjusting and implementing contemporary forensic methods, as part of accreditation preparations and scope extension. Accreditation itself comprises extensive mechanisms for ensuring the sustainability of all its components: methods, staff competence, equipment, etc., providing the most powerful sustainability tool. Formal approval of SOPs through Police Directorate/FC mechanisms represents a supporting sustainability means.

In addition, knowledge sharing through ToT approach, will further ensure the application of SOPs developed by the project in CSI, even in a situation where CSI will not be accredited soon. The overall awareness among the beneficiary's staff that project is directly supporting capacity development in the most needed areas of work, is expected to contribute to their overall motivation to maintain the methods and procedures.

Planned training courses, including the ToT approach, will introduce all new methods, including relevant SOPs, to all staff members who shall implement them. Since the majority of methods (including SOPs) will be (during or after the project) included in the accreditation scope, their sustainability will be supported to the highest extent by strong mechanisms provided by accreditation. Since without equipment, no forensic method can exist, equipment is an additional means of sustainability.

Whilst the training on issues requiring further dissemination will include a ToT approach, trained professionals will be capacitated to train their colleagues on the same issues.

The equipment will be used as a tool to enable accreditation of intended methods as per international standards, and these will be embedded within the newly developed SOPs in that context - thus strengthening the sustainability aspects altogether. The cooperation with this beneficiary so far showed that they are very serious about maintenance and taking good care of all the sophisticated equipment they use in their everyday work. Since significant equipment is provided by the project, developing a maintenance plan together with the FC is envisaged, where the cost of maintenance would also be considered. Donation agreement will specifically entail commitment of the beneficiary for the proper use and maintenance of the equipment beyond the project's duration/warranty, as well as the authority’s ability to allocate resources for further maintenance as necessary.

5. Risk Identification and Management

Risks of the project will be assessed and managed together with SALW commission and Forensic Center/project beneficiaries during project board or coordination meetings.

Risks:

1. Project delay and poor works quality because of change of relationship with the national partner, change of government and/or political issues

Management measure: Since 2008, UNDP CO Montenegro has developed capacities and mechanisms for the successful project management and cooperation with the Police Directorate/Forensic Center in the similar projects. Risk will be mitigated closely with beneficiaries and SALW Commission. UNDP CO Montenegro has been successful in implementation of the project even in the period of frequent changes of counterparts from the relevant ministries and other political issues.

2. Due to workload, professionals from the Police Directorate/Forensic Center are not available for participating in training activities

Management measure: The project is developed together with partners from the Police Directorate and Forensic Center and the management will raise the importance of the project to the professional staff. There will be coordination and regular communication with police department senior management ensuring the commitment form the highest level to project activities. Also, all activities SALW commission will be included. The project will apply flexibility and adjust activity timeline, if necessary, to ensure effective engagement.

3. Project delay caused by inability of vendor to deliver equipment timely and train beneficiaries how to use equipment.

Management measure: The project team will work closely with the procurement unit and potential contractors as to plan carefully for possible delays. The project duration has been established as to accommodate potential delays of the procurement of equipment within the project timeframe.

In addition to that, UNDP procurement procedures are designed in the way that the delivery by the selected vendor is closely monitored and enables for timely interventions, if need be.

4. Professionals from Forensic Center do not contribute satisfactorily to project activities (where needed), such as producing SOPs and validating methods, mainly due to low staff number and regular workload (e.g., ballistic lab) thus affecting ownership and sustainability of results

Management measure: The implementation of the initial project (January 2021-October 2023) showed a consistent dedication of the Forensic Center (FC) management and expert staff to project obligations. For example, the explosives/explosion physical examination lab contributed fully and timely to all project activities (supported by the FC management team), in spite of the low staff number and significant daily workload. According to the FC Head, a new ballistic expert is expected to be employed in the meantime.

The project team will strive to harmonize the project activities with the dynamics of the beneficiary's regular work, to enable maximum participation of beneficiary's representatives, supporting its ownership over the project. Also, support will be provided to those representatives in the sense of informing their supervisors about the obligations imposed by the project.

5. Non-availability of consultants for activities where external expert support is required

Management measures: Utilizing adequate HR and/or procurement mechanisms, cooperating with the beneficiary in finding experts, and timely advertising will mitigate this risk. We will rely the pool of experts established by other COs in the region based on the work on SALW control thus far, as well as technical peer-exchange

Risk modalities: Excellent cooperation with the beneficiary will enable good planning and mitigation of all possible risks of the project. The Beneficiary is very much interested in the success of this project and participated in its development from the start which is a proof of the ownership of this project.

The Police Directorate and Forensic Center will raise the issue of importance of this project among their professionals and request their efficiency.

6. Cross-cutting Issues

As acknowledged by the United Nations Special Rapporteur on violence against women, its causes and consequences, there is a strong link between violence against women and women's imprisonment (Manjoo, 2013). Evidence shows that exposure to extreme, traumatic events can cause or contribute to borderline personality disorder, antisocial personality disorder, substance abuse, and symptoms of post-traumatic stress disorder, which are directly relevant to violent behaviour and often lead to imprisonment[21].

In cases of domestic and intimate partner violence, women may use force against their abuser out of fear for their own safety and that of their children. This is often referred to as 'battered woman syndrome', which is suffered by women who, because of repeated violent acts by an intimate partner, may suffer depression and are unable to take any independent action that would allow them to escape the abuse, including pressing charges or to accepting offers of support. Criminal processes are usually based on traditional evidence collection by forensic that are not supportive of gender perspectives of crime. Therefore, police and forensics plays crucial role on this matter especially in regard to adequate evidence collection at the crime scene spot[22]. Role of Forensic Evidence in Cases of Sexual Violence is crucial and it addresses these three elements in the prosecution of cases of sexual violence. It can offer evidence as to whether the complained of act occurred; it can support allegations that the perpetrator used force. And finally, it can address the identity of the perpetrator.

Available evidence indicates that, while few women commit violent crimes, a significant number of those convicted of murder or manslaughter killed a male partner or male family member and have experienced a history of domestic violence. A UNODC Global Study on Homicide[23] found that while only one out of every five homicides (at a global level) is perpetrated by an intimate partner or family member, women and girls comprise the vast majority of those deaths. Victim/perpetrator disaggregation reveal a large disparity in the shares attributable to male and female victims of homicides committed by intimate partners or family members: 36 per cent male versus 64 per cent female victims. Women are significantly overrepresented as victims of homicide perpetrated exclusively by an intimate partner: 82 per cent female victims versus 18 per cent male victims[24]. A 2016 study by Penal Reform International and Linklaters (2016) found that, with few exceptions, criminal justice systems are failing these women by ignoring their trauma and realities/dynamics of domestic violence.

According to the SEESAC's publication The Misuse of Firearms in Domestic Violence in SEE,[25] in the period from 2012 to 2016 the share of women killed by a family member out of the total number of killed women, is 100% in Montenegro, while more than 50% of these criminal offences are committed by firearms. The combination of these two data underlines the importance of a proper forensic response regarding domestic violence cases, particularly the most serious ones committed with firearms. Bearing in mind that, according to official data,[26] 99.4% of all firearms in Montenegro are owned by men, and that 59% of women feel that a gun at home makes them less safe, additionally highlights the fact to what extent women are endangered by the presence of a firearm at home.

[21] Artz et al., 2012, p. 141
[22] UN GA Resolution 65/2281
[23] UNODC Global Study on Homicide, 2018
[24] UNODC, Women and Violent Crimes, 2018.
[25] The Misuse of Firearms in Domestic Violence in South East Europe: Fast Facts, SEESAC, 2019: https://www.seesac.org/f/docs/Gender-and-SALW/Misuse-of-firearms-in-SEE_ENG_WEB_FINAL_1.pdf
[26] Gender and Small Arms in Montenegro – Fast Facts, SEESAC, 2019: https://www.seesac.org/f/docs/Gender-and-SALW/Gender-And-Small-Arms_Montenegro_ENG_WEB.pdf

Composition of the criminal justice workforce including Police and Forensics has an impact on the treatment of individuals who come in contact with the criminal justice system, whether as accused persons, prisoners, witnesses, or victims. It is unrealistic to expect that criminal justice institutions can deliver fair treatment to all such persons if the composition of the workforce is not representative of the diversity in the broader population, and/or where discriminatory human resources policies persist. It is thus imperative that criminal justice institutions provide equal opportunities to all persons on the basis of their abilities and qualifications, irrespective of their sex, gender or sexual orientation.

In the Forensic Center of Montenegro, the male-female composition stands at 21 males vs. 23 females and four women hold managerial positions out of nine managerial positions. On the other side, among 56 CSI employees in Montenegro, there is only one woman, and she was recruited in 2021. The Project will make effort to secure equal participation of women and men through proper information and publicity material along with the implementation and capacity building opportunities and empower all female employees to grow professionally and managerially within the structure. The Project will make sure all female forensic workforce participates and benefits from Project activities.

Equally, in developing the different evidence management and reporting systems, the Project will identify ways and possibilities to generate gender-disaggregated data and statistics that would enrich and diversify the types of analysis and research. Collection of sex disaggregated data is legal obligation of all national stakeholders so Project should enable development of gender analyses rather than data collection. Project has been assigned with GEN2.

The reliability of forensic evidence, based on advanced, standardized, and accredited forensic (including CSI) methods, supports fair legal proceedings contributing to the achievement of the right to a fair trial (Article 6 of the European Convention on Human Rights). Also, improving the SGBV forensic response and applying simultaneously a victim-centered approach will contribute to victims' rights protection, in line with specialist support for victims, as foreseen by Directive 2012/29/EU of the European Parliament and of the Council on establishing minimum standards on the rights, support and protection of victims of crime, Introductory Part, Par. 38.

On the other hand, the Project is not expected to have discernible effects on the environment. Almost all Project activities are related to drafting regulatory instructions, training, and procurement of various working instruments and tools. Nevertheless, choices will be made when appropriate in selecting more “eco-friendly” products and offers when it comes to procurement items.

7. Communication and Visibility

Strategic Objective: The main purpose of the Communication Plan is to ensure that activities effectively, efficiently, and timely reach project target groups (Primary target group: policy makers, representatives of relevant institutions, professionals; Secondary: Citizens).

Communication Objective 1: Relevant stakeholders are kept abreast of project results, findings, knowledge products, training opportunities and are fully aware of donor’s assistance in delivering impact.

Communication Objective 2: Ensuring project visibility and outreach; Wider public is informed about the boosted capacities for CSI, custody chain and forensic expertise.

The Project’s **communication plan** will be aim to:

a) Regularly communicate project achievements and sector-specific messages to target audiences;
b) Communicate key messages with target groups to be involved in the project implementation, in order to strengthen their engagement and sense of ownership;

c) Secure publicity in relevant national and local media, including through feature stories and targeted interviews;
d) Promote the main beneficiary (Police Directorate) and its work in this area, focusing on newly gained and/or boosted capacities;
e) Promote the work of the donors and implementing partner (UNDP) and ensure that the beneficiaries and partners are aware of the donors' assistance in delivering project's results;
f) Ensure full compliance with Trust Fund visibility requirements in all project materials, equipment, publications, training and learning materials, workshops, etc. In close collaboration with all partners and in coordination with Trust Fund Secretariat, joint branding guidelines will be cleared from the onset and key materials pre-approved.

Main Communication Activities:

- Launch event focusing on project goals and promoting partnership between the donors, implementing agency, beneficiaries, and other relevant stakeholders in the framework of the Western Balkans SALW Control Roadmap Multi-Partner Trust Fund.
- At least one high level event with participation of relevant governmental officials.
- A closing ceremony at the end of the project to promote its achievements and lessons learnt.

Communication Tools:

1) Promotional events: The project envisages organization of promotional events on the occasion of the equipment hand-over ceremonies, ensuring the participation of all relevant actors: Police representatives, donors and UNDP representatives. Media presence during these events will be ensured.
2) Information material: a. Project knowledge products for distribution to all partners, beneficiaries and other interested stakeholders. b. distribution of materials during trainings.
3) Press releases: a. Major project achievements will be communicated through direct distribution of press releases to media, including via UNDP CO website. The project team will pitch stories and interviews to the media, including print, TV, radio, online portals and news agencies.
4) Social media: Primarily focusing on UNDP Montenegro twitter account in order to provide quick updates about key project milestones, and most relevant activities. In addition, when applicable, content will be featured via UN Instagram and Facebook account.
5) Workshops, trainings, outreach events: UNDP will ensure donor's visibility during workshops, trainings, meetings, outreach activities, e.g. by having roll-up banners and project logos on visual presentations and material.

- LANGUAGE: The project is a national based with potential for promotion and dissemination of good practices. The content therefore will be communicated in Montenegrin and English.
- Having in mind the specificity of the project activities, all visibility-related actions will be agreed in close consultation with the representatives of the Police Directorate.
- All communication, information and press-statements will be in line with the Joint Visibility principles. No project logo is envisaged. Logos of UNDP, SEESAC, Roadmap and national partners will be used, to underline the engagement and ensure visibility, in line with the Trust Fund Visibility Guidelines. All content will be communicated in Montenegrin and English language. Support from the UNDP Communication Associate is essential for the successful implementation of communication and visibility component of the project.

During the implementation of the project, gender-responsive communication will be carried out, by ensuring fair visibility for men and women, emphasizing women's contributions, using gender-responsive language, etc.

8. Knowledge Management

The key steps involved in ensuring that knowledge is developed, utilized and shared during and beyond the project include ensuring key stakeholders' ownership over knowledge management and the systems that support it; disseminating key findings and lessons learned from project; structuring and storing knowledge so that it can be accessed easily and available to beneficiaries after the project completion; ensuring the knowledge is used effectively. All SOPs and other accreditation documents are planned to be developed in close cooperation between the UNDP expert advisors and FC forensic experts, ensuring the beneficiary's ownership over these documents. CSI SOPs will be disseminated as mandatory instruction documents to all CSI officers in Montenegro. All training courses will be delivered based on curricula developed as part of the project, which will be subject to previous beneficiary's review. Modalities for implementing the advanced methodology for collecting forensic evidence during the medical examination of victims will be identified jointly by all involved stakeholders. Relevant training include the ToT approach, which means that training participants will be able to further deliver the acquired knowledge and skills, which contributes to sustainability. All accreditation documents, being the main project knowledge products, will become part of the FC management system documentation, assuring adequate storage and availability to FC employees.

An assessment on overall CSI, ballistic, and physical and chemical explosives/explosion analysis needs and capacities will be carried out at the beginning of the project, and an assessment report will be delivered to the beneficiary and UNDP. The main source of information for the assessment will be the interviews with the Forensic Center and CSI representatives, providing for the beneficiary ownership over this knowledge product.

The project envisages a set of practical trainings, in combination with development of new knowledge products or improvement of the existing ones, and equipment to be used within the Police Directorate/Forensic Center. These include following specialized CSI procedures: SOP on interviewing techniques for CSI officers, SOP for first responders, SOP for ensuring anti-contamination control, SOP for handling firearms and ballistic evidence at the scene, SOP for handling GSR evidence at the scene, SOP for handling micro traces at the scene, SOP for handling shoe and tire prints at the scene, SOPs for the application of the handheld UV/VIS/IR device, and for digital crime scene documenting utilizing the techniques of 3D laser scanning and aerial photography, and SOPs for operating the OCF, the automated ballistic system EVOFINDER, and the illegal firearms tracing database TRAFFIC.

Also, the following laboratory SOPs will be revised within the project: SOPs for processing of explosives and traces, including improved preparation of the explosive's samples, SOP for anti-contamination measures, and SOP for SEM analysis of GSR.

a) For the needs of training, the following curricula are planned to be developed: Curriculum for utilizing the UV/VIS/IR device for latent evidence detection, examination and capture, Curricula on advanced trainings for 3D laser scanning and aerial photography crime scene documenting, Curriculum on training for practical aspects of ISO/IEC 17020 in CSI, evidence custody chain, packaging, and tagging, case-management solutions, and application of the SOP, Curriculum on documenting injuries on victims during medical examinations and Curriculum on SOP for interviewing techniques for CSI officers.

9. Project Management Structure

The project will be implemented following UNDP's Direct Implementation Modality (DIM) whereby UNDP is the designated Implementing Partner.

In addition to the general oversight performed by the Trust Fund Steering Committee, the Project will be overseen at the jurisdiction-level by a Project Board, as the central coordinating body for the implementation.

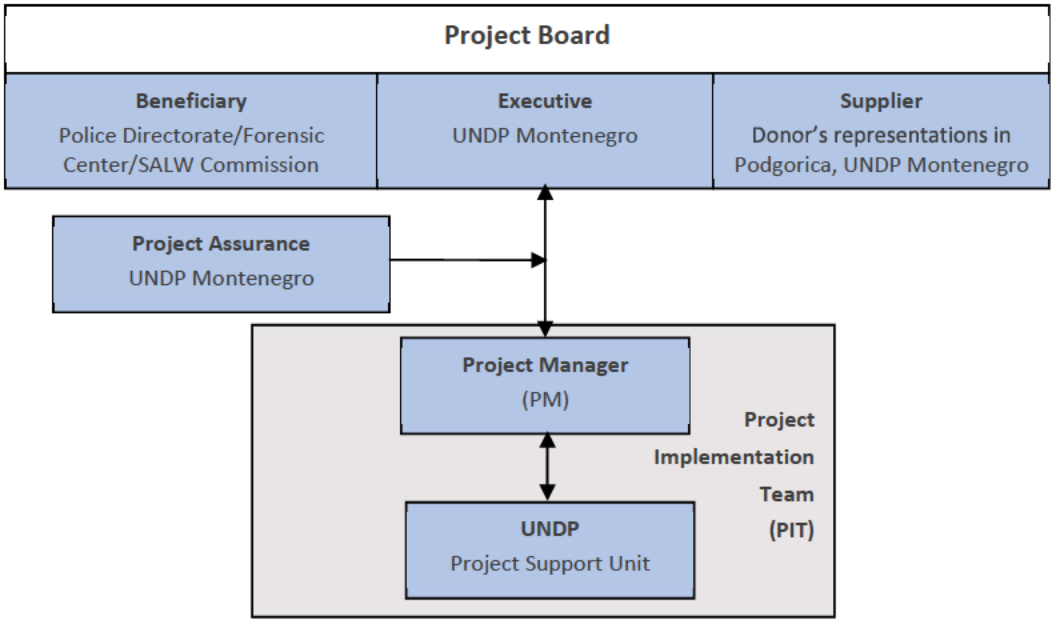
UNDP will:

- Ensure that all activities are carried out in accordance with UNDP rules, regulations and procedures
- Provide technical support to the project activities including best practices and knowledge available to UNDP regionally or globally
- Provide operational and administrative support services to ensure efficient business processes, including establishing project assurance and project support mechanisms
- Assume responsibility for implementation oversight, financial management, reporting, and evaluation.

The role of the Project Board will be to guide and monitor the progress of implementation and be responsible for making by consensus management decisions for the Project when guidance is required. The Project Board will meet periodically, at least every six months or as often as necessary upon the request of one of its members. The role and responsibilities of the Project Board are the following:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Manager;
- Guide on new project risks and agree on possible countermeasures and management actions to address specific risks;
- Review the project progress and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Review the combined delivery reports before certification by the implementing partner;
- Appraise the project annual review report, make recommendations for the next annual work plan, and inform the outcome group about the results of the review;
- Provide ad-hoc direction and advice for exception situations when the project manager's tolerances are exceeded;
- Assess and decide to proceed on project changes through appropriate revisions.

For the day-to-day management and implementation of project activities, UNDP will establish a Project Implementation Team, which will consist of a Project Manager, and Programme Assistant, and a part-time Public Relations and Communications Specialist. The Team will also play the secretarial role for the Project Board.



Annex 1: Project Detailed Budget

Project Proposal Budget

		Activities	Description of expense	Unit	Nr. Units	Unit Cost	Total
Outcome 1. Improved overall Crime Scene Investigation (CSI) capacities in Montenegro for investigating FAE-related crime	Output 1.1 Improved staff security and capacities in the on-site forensic investigation of explosives-related criminal cases and implementation of QMS and advanced methods for visualizing specific forensic evidence	Activity 1.1.1 Development of SOPs, specialized training and knowledge-exchange for on-site forensic investigation	International expert(s) for assessment 25%	day	5	450	2,250
			International expert for curriculum development/training delivery (for utilizing the UV/VIS/IR devices for latent evidence detection, examination and capture)	day	5	700	3,500
			Venue, accommodation, refreshments and meals for training for above-mentioned training (2 days, 10 participants)	day	2	1,500	3,000
			International expert for curriculum development and delivery of advanced training for 3D laser scanning crime scene documenting	day	8	700	5,600
			Refreshments and meals for training for above-mentioned training (5 days, 6 participants)	day	5	300	1,500
			International expert for curriculum development and delivery of advanced training for aerial photography crime scene documenting	day	8	700	5,600
			Refreshments and meals for training for above-mentioned training (5 days, 8 participants)	day	5	400	2,000
			International expert for curriculum development and delivery of advanced training for practical aspects of ISO/IEC 17020 in CSI, evidence custody chain, packaging, and tagging, case-management solutions, and application of the SOP	day	6	700	4,200
			Accommodation, refreshments and meals for training for above-mentioned training (3 days, 20 participants)	day	3	3,000	9,000
			End-user training for the explosive detector (1 day, 10 participants)	day	1	2,000	2,000
			Venue, accommodation, refreshments and meals for training (1 day, 10 participants)	day	1	1,500	1,500
			International expert for draft/revision of CSI SOPs (7 SOPs)	day	20	450	9,000
			International expert for drafting SOPs for the application of the handheld UV/VIS/IR device, and for digital crime scene documenting utilizing the techniques of 3D laser scanning and aerial photography.	day	12	450	5,400
			Participation in the ENFSI Scene of Crime Working Group - travel, accommodation and food, conference fee (2 representatives)	person	4	3,000	12,000
			Participation in regional peer-exchange - travel, accommodation and food (2 representatives)	person	4	1,500	6,000
			International study visit - travel, accommodation and food, interpretation (2 representatives+1 interpreter)	person	3	3,000	9,000
		Total Activity 1.1.1					**81,550**

		Activity 1.1.2 Provision of specialized equipment for on-site forensic investigation	International expert(s) for designing technical specifications/procurement technical evaluation 22.2%	day	10	400	4,000
			Handheld UV/VIS/IR devices for detection, examination and capture of latent forensic evidence	piece	1	35,000	35,000
			Mobile device for detecting explosives	piece	1	40,000	40,000
			Cameras, 5 pcs.	piece	5	1,000	5,000
			Software to support previously provided quadcopter with a camera, for processing the digital recorded aerial photography material and composing documentation	piece	1	500	500
		Total Activity 1.1.2					**84,500**
		Total Output 1.1					**166,050**
	Output 1.2 Advanced methodologies for CSI processing of SGBV criminal cases as related to firearms	Activity 1.2.1 Multi-sector Gender Based Violence (GBV) panels	International experts for preparing and moderating two multisector panels on improving the forensic SGBV response	month	2	5,000	10,000
			Venue, accommodation, refreshments, meals, conf. equipment and material (two times: 2 days, 15 participants)	day	2	4,500	9,000
		Total Activity 1.2.1					**19,000**
		Activity 1.2.2 Training on documenting injuries on victims during medical examinations	International expert for curriculum development/training delivery on documenting injuries on victims during medical examinations	day	5	700	3,500
			Venue, accommodation, refreshments and meals for training (1 day, 10 participants)	day	1	1,500	1,500
		Total Activity 1.2.2					**5,000**
		Activity 1.2.3. Protocol development and training on interviewing techniques for CSI officers	International expert for analysis of interviewing procedures and daily routines in SGBV cases	day	6	700	4,200
			International expert for SOP (Protocol) development on interviewing techniques for CSI officers	month	6	700	4,200
			International expert for curriculum development/training delivery on SOP	month	6	700	4,200
			Venue, accommodation, refreshments, meals, conf. equipment and material (1 day, 25 participants)	day	1	3,750	3,750
		Total Activity 1.2.3					**16,350**
		Total Output 1.2					**40,350**
		Total Outcome 1					**206,400**
Outcome 2. Improved ballistic	**Output 2.1 Improved security and**	Activity 2.1.1 Supporting ISO/IEC 17025 accreditation	International expert(s) for assessment 25%	day	5	450	2,250
			Supporting delivery of proficiency test(s)	lumpsum	1	2,000	2,000
			Company for delivering the training for internal auditors	month	1	3,000	3,000
			Accommodation, venue, refreshments and meals for training (2 days, 5 participants)	day	2	750	1,500

		preparation of the Ballistic Laboratory	SOPs for operating the OCF, the automated ballistic system EVOFINDER, and the illegal firearms tracing database TRAFFIC	day	10	450	4,500
			Participation in the ENFSI Firearms/GSR Working Group and EAFS - travel, accommodation and food, conference fee (2+2+1 representative)	person	5	3,000	15,000
			Participation in regional peer-exchange - travel, accommodation and food (1 representative)	person	2	1,500	3,000
			International study visit - travel, accommodation and food (2 representatives+1 interpreter)	person	3	3,000	9,000
		Total Activity 2.1.1					**40,250**
		Activity 2.1.2 Provision of specialized equipment for improving security and operability of the shooting range	International expert(s) for designing technical specifications/procurement technical evaluation 11.1%	day	5	400	2,000
			Ballistic radar (chronograph)	piece	1	1,000	1,000
			Multifunctional device for safe discharging of firearms	piece	1	15,000	15,000
		Total Activity 2.1.2					**18,000**
		Activity 2.1.3 Equipping and refurbishing the gunsmith workshop and the shooting range	International expert(s) for designing technical specifications/procurement technical evaluation 11.1%	day	5	400	2,000
			Equipping the gunsmith workshop	lumpsum	1	15,000	15,000
			Refurbishing the shooting range	lumpsum	1	5,000	5,000
		Total Activity 2.1.3					**22,000**
		Total Output 2.1					**80,250**
		Total Outcome 2					**80,250**
Outcome 3. Improved capacities for physical examination of explosives/explosive devices	**Output 3.1 Advanced security and operability and extended scope of accreditation within the Arson and Explosives Lab**	Activity 3.1.1 Method development, validation and additional support to accreditation	International expert(s) for assessment 25%	day	5	450	2,250
			International expert for establishing and validating a new method	day	9	700	6,300
			Participation in the ENFSI Fire/Explosions Working Group - travel, accommodation and food, conference fee (1 representative)	person	2	3,000	6,000
			Participation in regional peer-exchange - travel, accommodation and food (1 representative)	person	2	1,500	3,000
			International study visit - travel, accommodation and food (1 representative+1 interpreter)	person	2	3,000	6,000
		Total Activity 3.1.1					**23,550**
		Activity 3.1.2 Provision of equipment for safe handling and examination of explosives	International expert(s) for designing technical specifications/procurement technical evaluation 22.2%	day	10	400	4,000
			Storage container 3 pcs.	piece	3	15,000	45,000
			Safety container (module) for transporting explosives (cca 20g TNT equivalent)	piece	1	5,000	5,000
			First aid kits (e.g., wall cabinets)	piece	10	75	750

			Device for testing of optical cables for examination of detonation velocity	piece	1	2,500	2,500
			Consumable material, such as 4-channel optical extension line, etc.	lumpsum	1	3,000	3,000
		Total Activity 3.1.2					**60,250**
		Total Output 3.1					**83,800**
		Total Outcome 3					**83,800**
Outcome 4. Improved capacities for chemical examination of explosives and GSR	Output 4.1 New methods and procedures for analyzing explosives developed, and the scope of ISO/IEC 17025 accreditation for expert examination of explosive samples/traces extended	Activity 4.1.1 Development of SOPs, validation of methods and additional support to accreditation	International expert(s) for assessment 25%	day	5	450	2,250
			International expert for revising SOPs for processing of explosives and traces, including improved preparation of the explosives' samples	day	12	450	5,400
			International expert for revising SOPs for anti-contamination measures	day	7	450	3,150
			International expert for development and validation of new methods based on equipment purchased under 4.1.2	day	28	450	12,600
			Participation in the ENFSI Explosives Working Group and in ENFSI annual meetings of directors - travel, accommodation and food, conference fee (1+1 representative)	person	4	3,000	12,000
			Participation in regional peer-exchange - travel, accommodation and food (2 representatives)	person	4	1,500	6,000
			International study visit - travel, accommodation and food (3 representatives+1 interpreter)	person	4	3,000	12,000
		Total Activity 4.1.1					**53,400**
		Activity 4.1.2 Provision of specialized equipment for improved explosives chemical analysis	International expert(s) for designing technical specifications/procurement technical evaluation 22.2%	day	10	400	4,000
			GCMS (Gas chromatography-mass spectrometry device)	piece	1	110,000	110,000
			HPLC LC/MS/MS (High Performance Liquid Chromatography with tandem mass spectrometry device) upgrade	piece	1	20,000	20,000
			Rotary vacuum evaporator	piece	1	11,000	11,000
			Laboratory mill	piece	1	10,000	10,000
			Technical balance 1,500 – 1,700 g	piece	1	4,505	4,505
			Bench-top balance 60 kg	piece	1	2,500	2,500
		Total Activity 4.1.2					**162,005**
		Total Output 4.1					**215,405**
	Output 4.2. Improved Gunshot residue (GSR) analysis capacities	Activity 4.2.1 Development of SOPs and method validation	International expert for revising SOPs and validation of a new method based on equipment purchased under 4.2.2	day	10	700	7,000
		Total Activity 4.2.1					**7,000**
		Activity 4.2.2 Provision of	International expert(s) for designing technical specifications/procurement technical evaluation 11.1%	day	5	400	2,000

		equipment for improved GSR analysis	SEM/EDX (Scanning electron microscopy/energy dispersive X-ray analysis device)	piece	1	235,000	235,000
		Total Activity 4.2.2					**237,000**
		Total Output 4.2					**244,000**
		Total Outcome 4					**459,405**
		Total Outcome 1-4					**829,855**
Project Management		Human Resources	Project Manager 24 months full time	month	24	3,200	76,800
			Project Assistant 24 months full time	month	24	2,300	55,200
			Communication Officer 20% in the 2nd and 3rd year	month	12	400	4,800
		Total Human Resources					136,800
		Travel	Travel costs local (costs of taxi service)	month	24	130	3,120
			Travel costs international	air tickets	6	500	3,000
			Per diems international	lump	16	250	4,000
		Total Travel					10,120
		Running costs	Office rent	month	24	300	7,200
			Consumables - office supplies	month	24	200	4,800
			Other services (tel/fax, electricity/heating, maintenance)	month	24	150	3,600
			One notebook for Project Manager	piece	1	1,700	1,700
			Financial services (bank charges etc.)	lumpsum	1	2,399	2,399
		Total Running costs					19,699
		Visibility and other services	Printing/publications	lumpsum	1	4,250	4,250
			Translation	lumpsum	1	8,500	8,500
			Visibility activities	lumpsum	1	11,500	10,500
		Total Visibility and other services					23,250
		Total PM:					**189,869**
TOTAL costs of activities & PM							**1,019,724**
GMS 7%							71,381
TOTAL Budget (GMS included)							**1,091,105**

10.Annex 2: Project Budget by UNDG categories

Budget per UNDG categories

UNDG Budget Category	2023	2024	2025	TOTAL
1. Staff and other personnel costs	16,500	68,400	51,900	**136,800**
2. Supplies, Commodities, Materials	0	0	0	**0**
3. Equipment, Vehicles and Furniture including Depreciation	0	0	0	**0**
4. Contractual Services	9,750	638,755	105,600	**754,105**
5. Travel	2,000	35,120	72,000	**109,120**
6. Transfers and Grants to Counterparts	0	0	0	**0**
7. General Operating and Other Direct Costs	3,749	9,000	6,950	**19,699**
Total Direct Costs	**31,999**	**751,275**	**236,450**	**1,019,724**
Indirect Support Costs (7%)	2,240	52,589	16,552	**71,381**
GRAND TOTAL	**34,239**	**803,864**	**253,002**	**1,091,105**

Annex 3: Project Results Framework

Objective: Improving overall forensic capacities in Montenegro (CSI and Forensic Center) to provide evidence and intelligence necessary for investigating and processing FAE-related crime and SGBV on the national and international levels				
Result	**Indicators**	**Baseline**	**Target**	**Means of verification (MoV)**
Outcome 1: Improved overall Crime Scene Investigation (CSI) capacities in Montenegro for investigating FAE-related crime, encompassing SGBV criminal cases				
Output 1.1: Improved staff security and capacities in the on-site forensic investigation of explosives-related criminal cases and implementation of QMS and advanced methods for visualizing specific forensic evidence.	1.1.1. Number of post-blast crime scenes attended with an explosive detector during 12 months	1.1.1. Post-blast crime scenes are attended without explosive detector	1.1.1. 10 post-blast CSIs	CSI logbooks (information to be required from the beneficiary)
	1.1.2. Number of fingerprints and micro-traces detected/captured/collected by utilizing the purchased device during 12 months	1.1.2. Such types of evidence are currently not possible to be detected	1.1.2. 50 trace evidence	CSI logbooks (information to be required from the beneficiary)
	1.1.3. Number of new SOPs on CSI	1.1.3. The SOPs to be drafted are not in place now	1.1.3. 10 SOPs	Copies of new SOPs
	1.1.4. Number of CSI officers trained on an advanced level for 3D scanning and aerial photography crime scene documenting in 2024	1.1.4. No CSI officers with such training	1.1.4. 14 trained forensic/CSI officers	Training report
	1.1.5. Number of CSI officers trained on an advanced level on practical aspects of ISO/IEC 17020 in CSI, evidence custody chain, packaging, and tagging, case-management solutions, and application of the SOP	1.1.5. No CSI officers with such training	1.1.5. 20 trained CSI officers	Training report
	1.1.6. FC representatives participated in ENFSI SOC Working Group (WG) meetings, in regional peer exchange (RPE), and in international study visits (SV) in 2024 and 2025	1.1.6. CSI officers do not participate currently	1.1.6. Successful participations [for ENFSI: FC rep.(s) involved in at least one SOC WG activity. for SVs: specific relevant knowledge gained (stated in the activity report). for RPE: at least one relevant joint task established and jointly processed.]	- Activity reports (to be provided by the beneficiary) - SOC WG activity work material - Joint task work material
Output 1.2: Advanced methodologies for CSI processing of SGBV criminal	1.2.1. Two successfully delivered multisector panels during 2024	1.2.1. No such methodology is in place	1.2.1. Positive evaluations by all stakeholders (4+)	Multisector panels' evaluation forms
	1.2.2.	1.2.2. No CSI officers with such training	1.2.2. 8 trained CSI officers	Training report

cases as related to firearms	Number of CSI officers trained in documenting injuries on victims during medical examinations in 2024			
	1.2.3. The protocol developed on interviewing techniques for CSI officers in 2024	1.2.3. No such protocol is in place	1.2.3. Protocol accepted by the beneficiary	Copy of the protocol
	1.2.4 Number of CSI officers trained in protocol implementation in 2024	1.2.4 No CSI officers with such training	1.2.4 20 trained CSI officers	Training report
Outcome 2: Improved ballistic capacities of the Forensic Centre				
Output 2.1 Improved security and advanced preparation of the Ballistic Laboratory for ISO/IEC 17025 accreditation	2.1.1. The laboratory and shooting range additionally equipped/refurbished till 2025	2.1.1. No such equipment and security measures in place	2.1.1. Shooting range and gunsmith workshop fully operational	Activity reports
	2.1.2 Proficiency test successfully completed by FC ballistic lab in 2025	2.1.2 No PT done so far	2.1.2 1 successful PT	PT report
	2.1.3. Number of forensic experts trained as internal auditors in 2025	2.1.3. No ballistic experts with such training	2.1.3. 3 trained forensic experts	Training report
	2.1.4. FC representatives participated in ENFSI Firearms/GSR Working Group meetings, in EAFS, in regional ballistic expert peer exchange, and in international study visits on ballistic labs in 2024 and 2025	2.1.4. FC representatives do not participate currently	2.1.4. Successful participations [for ENFSI: FC rep.(s) involved in at least one Firearms/GSR WG activity. for SVs: specific relevant knowledge gained (stated in the activity report). for RPE: at least one relevant joint task established and jointly processed.]	- Activity reports (to be provided by the beneficiary) - Firearms/GSR WG activity work material - Joint task work material
	2.1.5. Number of new SOPs on ballistic methods (OCF, ABIS, and illegal firearms systems)	2.1.5. The SOPs to be drafted are not in place now	2.1.5. 3 new SOPs	Copies of new SOPs
Outcome 3: Improved capacities of the Arson and Explosives Lab for physical examination of explosives/explosive devices				
Output 3.1: Advanced security and operability and extended scope of accreditation within the Arson and Explosives Lab	3.1.1. - Equipment for improving health care and security purchased and installed; - Number of transported explosive samples during 12 months; - Quantity of stored explosives during 12 months	3.1.1. Regarding the planned equipment, only one explosives storage container in place.	3.1.1. 20+ samples transported and 10kg+ of explosives stored.	Information to be provided by the beneficiary
	3.1.2. The new method selected during assessment (out of the following: reviewing conventional explosive devices, reviewing improvised explosive devices, examining the correctness of the fuse regarding spark	3.1.2. No such method in place	3.1.2. The new method implemented	Activity report

	transfer, and burning velocity, etc.) developed and validated			
	3.1.3. FC representatives participated in ENFSI Fire/Explosions Working Group meetings, in regional peer exchange with AE experts, and in international study visits to institution(s)/lab(s) in charge of physical examinations of explosives/explosive devices and explosions in 2024 and 2025	3.1.3. Forensic experts do not participate currently	3.1.3. Successful participations [for ENFSI: FC rep.(s) involved in at least one Fire/Exp. WG activity. for SVs: specific relevant knowledge gained (stated in the activity report). for RPE: at least one relevant joint task established and jointly processed.]	- Activity reports (to be provided by the beneficiary) - Fire/Exp. WG activity work material - Joint task work material
Outcome 4: Improved capacities for chemical examination of explosives and GSR				
Output 4.1 New methods and procedures for analyzing explosives developed, and the scope of ISO/IEC 17025 accreditation for expert examination of explosive samples/traces extended	4.1.1. Chemical lab equipment for implementing the new method for chemical examination of explosives	4.1.1. No such equipment in place	4.1.1. Equipment put into operation	Procurement report
	4.1.2. Number of SOPs for processing explosives and traces and for anti-contamination measures developed	4.1.2. The SOPs are not in place now	4.1.2. 4 SOPs	Copies of SOPs
	4.1.3. The new method for chemical examination of explosives (traces) developed and validated	4.1.3. No such method in place	4.1.3. The new method implemented	Activity report
	4.1.4. FC representatives participated in ENFSI Explosives Working Group and in ENFSI annual meetings of directors, in regional peer exchange with chemical experts in explosives, and in international study visits to forensic chemical lab(s) analyzing explosive samples in 2024 and 2025	4.1.4. Forensic experts do not participate currently	4.1.4. Successful participations [for ENFSI: FC rep.(s) involved in at least one Explosives WG activity. for SVs: specific relevant knowledge gained (stated in the activity report). for RPE: at least one relevant joint task established and jointly processed.]	- Activity reports (to be provided by the beneficiary) - Explosives WG activity work material - Joint task work material
Output 4.2 Improved Gunshot residue (GSR) analysis capacities	4.2.1. GSR lab equipment purchased	4.2.1. Current equipment old and based on somewhat outdated technology	4.2.1. Equipment put into operation	Procurement report
	4.2.2. Number of SOPs based on the new equipment revised	4.2.2. Current SOPs based on current equipment	4.2.2. 2 SOPs	Copies of SOPs
	4.2.3. The new method for advanced GSR analysis developed and validated	4.2.3. The method in place based on current equipment	4.2.3. The new method implemented	Activity report

Annex 4: Project Risk Matrix

#	Description	Category	Impact & Likelihood	Risk Treatment/ Management measures	Risk Owner	Current status
1	**Risk 1** Project delay and poor works quality because of change of relationship with the national partner, change of government and/or political issues.	organizational political	I = 3 P = 3	Since 2008, UNDP CO Montenegro has developed capacities and mechanisms for the successful project management and cooperation with the Police Directorate/Forensic Center. Risk will be mitigated closely with beneficiaries and SALW Commission. UNDP CO Montenegro has been successful in implementation of the project even in the period of frequent changes of counterparts from the relevant ministries and other political issues.	UNDP	Excellent cooperation so far
2	**Risk 2** Due to workload professionals from the Police Directorate/Forensic Center are not available for participating in training activities	operational	I = 4 P = 1	The project is developed together with partners from the Police Directorate and Forensic Center and the management will raise the importance of the project to the professional staff. There will be Coordination and regular communication with senior management and SALW commission. The project will apply flexibility and adjust activity timeline, if necessary, to ensure effective engagement.	UNDP/ Police Directorate	Beneficiary very much devoted to the success of the project
3	**Risk 3** Project delay caused by inability of vendor to deliver equipment timely and train beneficiaries how to use equipment.	operational	I=3 P=2	The project team will work closely with the procurement unit and potential contractors as to plan carefully for possible delays. The project duration has been established as to accommodate potential delays of the procurement of equipment within the project timeframe. In addition to that, UNDP procurement procedures are designed in the way that the delivery by the selected vendor is closely monitored and enables for timely interventions	UNDP	Vendors carefully selected
4	**Risk 4** Professionals from Forensic Center do not contribute satisfactorily to project activities (where needed), such as producing SOPs and validating methods, mainly due to low staff number and regular workload (e.g., ballistic lab) thus affecting ownership and sustainability of results	operational	I=4 P=1	The implementation of the initial project (January 2021-October 2023) showed a consistent dedication of the Forensic Center (FC) management and expert staff to project obligations. For example, the explosives/explosion physical examination lab contributed fully and timely to all project activities (supported by the FC management team), in spite of the low staff number and significant daily workload. According to the FC Head, a new ballistic expert is expected to be employed in the meantime. The project team will strive to harmonize the project activities with the dynamics of the beneficiary's regular work, to enable maximum participation of beneficiary's representatives, supporting its ownership over the project. Also, support will be provided to those representatives in the sense of informing their supervisors about the obligations imposed by the project.	UNDP/ Police Directorate	Beneficiary very much devoted to the success of the project

5	**Risk 5** Non-availability of consultants for activities where external expert support is required	operational	I=4 P=2	Utilizing adequate HR and/or procurement mechanisms, cooperating with the beneficiary in finding experts, and timely advertising will mitigate this risk. The project will also rely on the pool of experts established by other COs in the region based on the work on SALW control thus far, as well as technical peer-exchange	UNDP/ Police Directorate	Adequate external expert support for forensic UNDP projects in the region

11. Annex 5: Project Multi-Year Work Plan

Multi-year Work Plan

Title of project proposal: ADVANCING THE FORENSIC CAPACITIES OF THE POLICE DIRECTORATE OF MONTENEGRO FOR PROCESSING FIREARMS AND EXPLOSIVES-RELATED CRIMES

Implementing entity: UNDP CO Montenegro

Project implementation period: November 2023 - October 2025

	Activities	Sub-activities	2023			2024											2025										
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Outcome 1: Improved overall CSI capacities in Montenegro for investigating FAE-related crime encompassing SGBV criminal cases	**Output 1.1: Improved staff security and detecting capacities in the on-site forensic investigation of explosives-related criminal cases and implementation of advanced methods for visualizing specific forensic evidence**																										
	Activity 1.1.1 Development of SOPs, specialized training and knowledge-exchange for on-site forensic investigation	Assessment																									
		Drafting curriculum																									
		Specialized training for UV/VIS/IR device																									
		Drafting curriculum																									
		Advanced training for 3D laser scanning crime scene documenting																									
		Drafting curriculum																									
		Advanced training for aerial photography crime scene documenting																									
		Drafting curriculum																									
		Advanced training for practical aspects of ISO/IEC 17020 in CSI, evidence custody chain, packaging, and tagging, case-management solutions, and application of the SOP																									
		Preparation and revision of SOPs																									
		End-user training for explosive detector																									
		Participation in the ENFSI Scene of Crime Working Group																									
		Participation in regional peer-exchange																									
		International study visit																									
	Activity 1.1.2 Provision of specialized equipment for on-site forensic investigation	Preparing technical specifications																									
		Procurement process																									
		Equipment purchase																									
	Output 1.2: Advanced methodologies for CSI processing of SGBV criminal cases as related to firearms																										
	Activity 1.2.1 Multi-sector GBV panels	Preparation of panels																									
		First panel																									
		Second panel																									
	Activity 1.2.2 Training on documenting injuries on victims during medical examinations	Preparing training curriculum																									
		Training implementation																									
	Activity 1.2.3 Protocol development and training on interviewing techniques for CSI officers	Analysis of SGBV interviewing procedures																									
		Protocol development																									
		Preparing training curriculum																									
		Training implementation																									

Outcome 2: Improved ballistic capacities of the Forensic Centre	**Output 2.1: Improved security and advanced preparation of the Ballistic Laboratory for ISO/IEC 17025 accreditation**		
	Activity 2.1.1 Supporting ISO/IEC 17025 accreditation preparation of the Ballistic Laboratory	Assessment	
		Delivery of proficiency test(s)	
		Internal auditors training delivery	
		Preparation of SOPs	
		Participation in the ENFSI Firearms/GSR Working Group and EAFS	
		Participation in regional peer-exchange	
		International study visit	
	Activity 2.1.2 Provision of specialized equipment for improving security and operability of the shooting range	Preparing technical specifications	
		Procurement process	
		Equipment purchase	
	Activity 2.1.3 Equipping and refurbishing the gunsmith workshop and the shooting range	Preparing technical specifications	
		Procurement process	
		Equipment purchase and refurbishment of premises	
Outcome 3: Improved capacities for physical examination of explosives/explosive devices	**Output 3.1: Advanced security and operability and exteded scope of accreditation within the Arson and Explosives Lab**		
	Activity 3.1.1 Method development, validation and additional support to accreditation	Assessment	
		Drafting/revising the validation plan	
		Carrying out validation	
		Participation in the ENFSI Fire/Explosions Working Group	
		Participation in regional peer-exchange	
		International study visit	
	Activity 3.1.2 Provision of equipment for safe handling and examination of	Preparing technical specifications	
		Procurement process	
		Equipment purchase	
Outcome 4: Improved capacities for chemical examination of explosives and GSR	**Output 4.1: New methods and procedures for analyzing explosives developed and the scope of ISO/IEC 17025 accreditation for expert examination of explosive samples/traces extended**		
	Activity 4.1.1 Development of SOPs, validation of methods and additional support to accreditation	Assessment	
		SOPs development/revision	
		Establishing the methods	
		Drafting/revising the validation plan	
		Carrying out validation	
		Participation in the ENFSI Explosives Working Group and in ENFSI annual meetings of directors	
		Participation in regional peer-exchange	
		International study visit	
	Activity 4.1.2 Provision of specialized equipment for improved explosives chemical analysis	Preparing technical specifications	
		Procurement process	
		Equipment purchase	
	Output 4.2: Improved GSR analysis capacities		
	Activity 4.2.1 Development of SOPs and method validation	SOPs development/revision	
		Establishing the method	
		Drafting/revising the validation plan	
		Carrying out validation	
	Activity 4.2.2 Provision of equipment for improved GSR analysis	Preparing technical specifications	
		Procurement process	
		Equipment purchase