



UNIDIR

The International Tracing Instrument:

**Examining options to support
operationalization**

Acknowledgements

This report is the final product of the UNIDIR project “International Tracing Instrument (ITI) and the Way Forward: Examining Possible Options to Support the Operationalization of the ITI.” The Institute would like to thank all those who participated in the informal expert meeting on 27 February 2018 and contributed their valuable inputs, time and support to this project.

Support from UNIDIR’s core funders provides the foundation for all of the Institute’s activities. In addition, this project was supported by the Governments of Australia and France and was conducted by UNIDIR, in collaboration with Conflict Armament Research.

At UNIDIR, this project was managed by Himayu Shiotani and supported by Franziska Seethaler, Nivedita Mathukumar and Sebastian Wilkin.

About UNIDIR

The United Nations Institute for Disarmament Research—an autonomous institute within the United Nations—conducts research on disarmament and security. UNIDIR is based in Geneva, Switzerland, the centre for bilateral and multilateral disarmament and non-proliferation negotiations, and home of the Conference on Disarmament. The Institute explores current issues pertaining to the variety of existing and future armaments, as well as global diplomacy and local tensions and conflicts. Working with researchers, diplomats, government officials, NGOs and other institutions since 1980, UNIDIR acts as a bridge between the research community and governments. UNIDIR’s activities are funded by contributions from governments and foundations.

Note

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication are the sole responsibility of the author. They do not necessarily reflect the views or opinions of the United Nations, UNIDIR, its staff members or sponsors.

@UNIDIR
www.unidir.org

Contents

<i>About the research team</i>	<i>ii</i>
<i>Preface</i>	<i>iii</i>
<i>Acronyms and abbreviations</i>	<i>iv</i>
Introduction	1
Framing the issue: the ITI	1
Past recommendations	2
UNIDIR's project on operationalization of the ITI	3
Challenges and solutions to the effective implementation of the ITI	5
Preconditions and prerequisites for domestic and international tracing operations: identification, marking and record-keeping	5
Implementing tracing operations	10
Domestic and international assistance and cooperation tools and mechanisms	15
Moving the ITI forward: recommendations	19
Recommendations related to preconditions and prerequisites for domestic and international tracing operations: identification, marking and record-keeping	19
Recommendations related to implementing tracing operations	20
Recommendations related to domestic and international assistance and cooperation tools and mechanisms	23

About the research team

Dr Andrea Edoardo Varisco is Head of Analytics for Conflict Armament Research. Andrea has experience working with the Flemish Peace Institute, the Italian Observatory on Arms Trade and the United Nations Office for Disarmament Affairs. He has worked in numerous developing and conflict-affected States across Africa, the Middle East and South Asia. Andrea holds a PhD in Post-war Recovery Studies from the University of York, United Kingdom, a Master's Degree in International Affairs, Peace and Conflict specialization, from the Australian National University, in collaboration with the Peace Research Institute Oslo, and a Master's Degree in Politics and Comparative Institutions from the University of Milan.

Jonah Leff is Director of Operations at Conflict Armament Research. Prior to this, he was the Project Coordinator of the Small Arms Survey's Human Security Baseline Assessment (HSBA) for Sudan and South Sudan, a multi-year project that aims to support armed violence reduction and arms control initiatives in Sudan and South Sudan. Between 2009 and 2011, he served on the United Nations Security Council sanctions expert monitoring groups, investigating arms embargo violations in Darfur, Eritrea, and Somalia. He holds a Master's degree in Public Administration in International Management from the Monterey Institute of International Studies in California.

Himayu Shiotani is Programme Lead and a focal point for conventional arms control at UNIDIR. He designs, manages and oversees all activities and projects undertaken by the Institute on conventional arms and related control regimes.

Preface

The International Tracing Instrument (ITI) was adopted in December 2005 to enable States to identify and trace, in a timely and reliable manner, illicit small arms and light weapons. However, several persistent challenges have impeded its full operationalization, including issues concerning identification, marking, record-keeping and information sharing. In addition, emerging technological trends (such as 3D-printed weapons) and wider contextual factors have had an impact on its implementation.

In view of the Third Review Conference of the United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects (PoA) in June 2018, UNIDIR developed this project to examine the preconditions and processes necessary for the effective implementation of the ITI. First, the project aimed to review and consolidate options and approaches on a select number of recommendations made under the PoA framework in order to strengthen the future implementation of the ITI. Second, it aimed to examine and identify concrete options to support the operationalization of the ITI by providing policy-focused recommendations to States. Additionally, the project sought to contribute to broader ongoing discussions on the way forward for the ITI beyond 2018.

This policy-oriented report is the final product of the project. First, it frames the issue, lists previously identified recommendations, and introduces the activities undertaken as part of the project. Second, it examines issues and key challenges to the implementation of the ITI, as raised and discussed during an informal expert meeting held in Geneva on 27 February 2018. Third, it presents a series of policy-oriented recommendations that constitute a roadmap for operationalization of the ITI to assist policymakers and practitioners to make further progress in achieving the ITI and PoA objectives.

Acronyms and abbreviations

ATT	Arms Trade Treaty
BMS	Biennial Meeting of States
CIFTA	Inter-American Convention against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials
ECOWAS	Economic Community of West African States
GGE	Group of Governmental Experts
iARMS	INTERPOL Illicit Arms Records and tracing Management System
IED	Improvised Explosive Device
IFRT	INTERPOL Firearms Reference Table
ISACS	International Small Arms Control Standards
ITI	International Tracing Instrument
MERCOSUR	Mercado Común del Sur
MGE	Meeting of Governmental Experts
NCB	National Central Bureau
NPC	National Point of Contact
OEWG	Open-Ended Working Group
PoA	Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects
PoE	Panel of Experts
PSSM	Physical Security and Stockpile Management
SALW	Small Arms and Light Weapons
SDG	Sustainable Development Goals
UNIDIR	United Nations Institute for Disarmament Research
UNODA	United Nations Office for Disarmament Affairs

Introduction

Framing the issue: the ITI

The marking and tracing of small arms and light weapons (SALW) is crucial for effectively identifying and tracing those weapons in a national or global context. Marking and tracing of SALW received increased international attention in the late 1990s, when the United Nations Panel of Experts (PoE) produced a study on marking,¹ and the Organization of American States adopted standards for marking, record-keeping, and tracing in the Inter-American Convention against Illicit Manufacturing and Trafficking of Firearms, Ammunition, Explosives, and other Related Materials (CIFTA).² A parallel France-Switzerland initiative,³ along with inputs from civil society groups, contributed to the preparations for the 2001 United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects.⁴ The Conference concluded with the adoption of the Programme of Action (PoA), which included a recommendation to the General Assembly that a United Nations study be undertaken on “the feasibility of developing an international instrument” on identification and tracing.⁵

Pursuant to General Assembly resolution 56/24V (2001), the Secretary General established a Group of Governmental Experts (GGE) to conduct the feasibility study recommended by the PoA. The GGE issued its report in July 2003.⁶ In its report, the GGE concluded that it was both “desirable”⁷ and “feasible”⁸ to develop an international tracing instrument. It recommended that the General Assembly take a decision to negotiate such an instrument within the United Nations framework. In keeping with the GGE’s recommendation, the General Assembly established an Open-Ended Working Group (OEWG) “to negotiate an international instrument to enable States to identify and trace, in a timely and reliable manner, illicit small arms and light weapons”.⁹ The OEWG reached a consensus agreement on a draft text on 17 June 2005.

On 8 December 2005, the General Assembly called upon all States to implement the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons (ITI).¹⁰ The ITI identifies tracing as a key mechanism in preventing, combatting

¹ United Nations, *Report of the Panel of Governmental Experts on Small Arms*, as contained in United Nations Document A/52/298, 27 August 1997, para. 80, item (l)(i). Available from <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N97/226/20/pdf/N9722620.pdf>.

² Inter-American Convention against Illicit Manufacturing and Trafficking of Firearms, Ammunition, Explosives, and other Related Materials, Organization of American States, Washington D.C., 14 November 1997. Available from <http://www.oas.org/juridico/english/signs/a-63.html>.

³ France and Switzerland, “Food-for-thought paper: Contribution to the realization of an international plan of action in the context of the 2001 Conference: marking, identification and control of small arms and light weapons”, as contained in United Nations document A/CONF.192/PC/7, 17 March 2000. Subsequent developments in the Franco-Swiss initiative are reflected in United Nations documents A/CONF.192/PC/25 and A/CONF.192/PC/38.

⁴ United Nations, *Report of the United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects*, United Nations document A/Conf.192/15, 9–20 July 2001. Available from [https://www.un.org/events/smallarms2006/pdf/192.15%20\(E\).pdf](https://www.un.org/events/smallarms2006/pdf/192.15%20(E).pdf).

⁵ Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects, as contained in United Nations Document A/CONF.192/15, sect. IV, para. 1, item (c).

⁶ United Nations, *Report of the Group of Governmental Experts established pursuant to General Assembly resolution 56/24 V of 24 December 2001, entitled “The illicit trade in small arms and light weapons in all its aspects”*, United Nations document A/58/138, 11 July 2003. Available from <http://undocs.org/A/58/138>.

⁷ A/58/138. sect. IV, para. 96.

⁸ A/58/138. sect. IV, para. 97; *ibid.*, sect. IV, para. 97, item (g); and *ibid.*, sect. V, para. 98.

⁹ General Assembly resolution 58/241, para. 8. Available from <https://undocs.org/A/RES/58/241>.

¹⁰ General Assembly resolution A/RES/60/81. Available from http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/60/81. See also Draft International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons, as annexed to United Nations document A/60/88, 27 June 2005. Available from <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N05/400/59/pdf/N0540059.pdf?OpenElement>.

and eradicating illicit SALW.¹¹ Tracing is an important component of accountability; it promotes inventory control and provides evidentiary chains of custody. In this regard, the ITI serves as the global operational framework to address the illicit transfer of SALW, enabling States to identify and trace illicit SALW, while promoting international cooperation and assistance in marking, record-keeping, and cooperation in tracing.

Past recommendations

Since the adoption of the ITI in December 2005, States have examined its implementation on several occasions. In particular, the implementation of the ITI was examined in the Third, Fourth, Fifth, and Sixth Biennial Meeting of States on the PoA (BMS3, BMS4, BMS5, and BMS6). These meetings took place in 2008, 2010, 2014, and 2016, respectively. The implementation of the ITI was also examined in the Second PoA Review Conference in 2012, and in two Open-Ended Meetings of Governmental Experts (MGEs) in 2011 and 2013.

These meetings repeatedly highlighted that the implementation of the ITI faces a number of challenges and obstacles, including:

- 1) Inaccurate identification of SALW;
- 2) Lack of marking of weapons at appropriate points in their life cycle;
- 3) Difficulty in maintaining comprehensive and accessible records; and
- 4) Limited information sharing and coordination between national and international stakeholders responsible for tracing operations.

In addition, non-assigned or non-operational National Points of Contact (NPC), and lack of comprehensive reporting have further limited the impact of the instrument.

Furthermore, previous meetings have also discussed the potential implications of the emergence of new technologies, as these could constitute additional challenges and opportunities for the implementation of the ITI. Finally, previous meetings considered the importance of tracing operations in conflict and post-conflict settings with a view to overcoming challenges related to weak law enforcement actors, contextual problems related to access and security, and States' lack of experience and familiarity with the process.

During the course of these previous meetings, a series of recommended actions was formulated, as listed in Table 1.

¹¹ A/60/88, annex, p. 6.

Table 1: Key actions agreed by States under the PoA review meetings between 2008 and 2016, as compiled by UNIDIR.¹²

Recommended Actions	BMS3 (2008)	BMS4 (2010)	2 nd RevCon (2012)	BMS5 (2014)	BMS6 (2016)
Establish and use NPC	X	X	X	X	
Establish laws, regulations, administrative procedures for tracing	X	X	X		
Establish national measures on marking (imports, parts and components)			X		
Establish measures against removal of marking			X		
Establish comprehensive record-keeping system, including for seized weapons			X		X
Establish procedures for identification of SALW			X		
Strengthen inter-agency coordination at national level			X		
Enhance information collection and/or exchange on illicit SALW		X			X
National reporting on ITI (experiences in tracing, tracing results, national marking practices)	X	X		X	X
Assistance and/or capacity building on marking and record-keeping, including equipment	X	X	X	X	X
Cooperation with UN and/or INTERPOL with information sharing	X	X	X	X	X
Use of INTERPOL tools	X		X		X
Enhance linkage with regional and/or other multilateral instruments (FP, SDGs), including border, customs, PSSM		X	X	X	X
Consider emerging technologies, including issues such as dialogue with industry, capacity gaps				X	X
Capacity building for tracing in conflict/post-conflict settings				X	X
Dedicated international assistance framework for ITI				X	
Request to UN Secretariat for dedicated reports			X	X	

The list of recommended actions in Table 1 encompasses several previously identified challenges to the full implementation of the ITI. Nevertheless, the repetition of these recommendations from one meeting to the next demonstrates that, despite international attention on the issue, operationalization of the ITI remains challenging.

UNIDIR’s project on operationalization of the ITI

Recognising the many challenges associated with operationalizing the ITI, and in view of the Third Review Conference of the PoA in June 2018, UNIDIR’s project examined and identified concrete options to support the operationalization of the ITI by providing policy-focused recommendations for

¹² The two Open-Ended Meetings of Government Experts (MGEs) were not included in this table because neither meeting involved outcome documents agreed by States.

States. The project further aimed to support States in their preparation for the Third Review Conference of the PoA and contribute to discussions on the way forward for the ITI beyond 2018.

Activities undertaken during the project included:

- 1) Review, identification, and consolidation of recommendations made by States from 2002–2016 to strengthen the ITI under the PoA process; and
- 2) Organization of an informal expert meeting, held on 27 February 2018 in Geneva, to examine and identify concrete options for operationalizing the ITI.

This report is the final product of the project. Section two of the report covers issues and key challenges to the implementation of the ITI, as raised and discussed during the informal expert meeting. Section two also includes some possible solutions that emerged from the meeting. Section three of the report lists a series of policy-oriented recommendations to assist policymakers and practitioners to make further progress in achieving the ITI and PoA objectives.

Challenges and solutions to the effective implementation of the ITI

Marking, record-keeping, and tracing are the three key pillars upon which the effective management of SALW rests. Each of these pillars is fundamental and necessary, as they enable States to: 1) identify and control weapons under their jurisdiction; 2) maintain easily accessible records of those weapons through registration and record-keeping; and 3) put in place appropriate procedures to share information on these weapons at the national level across security forces (through domestic tracing) and at the international level (through international tracing). Despite these considerations, sizeable gaps in the ability of States to operationalize these commitments and measures remain.

UNIDIR held an informal expert meeting in Geneva on 27 February 2018 where experts examined the preconditions and processes for effective implementation of the ITI. The group of experts (hereinafter the Group) discussed three main sets of issues:

- 1) Prerequisites to effective tracing, including identification, marking and record-keeping of SALW;
- 2) Implementing tracing operations at the national level; and
- 3) Domestic and international assistance and cooperation mechanisms and tools available to facilitate the implementation of tracing operations.

Experts identified a series of challenges and solutions to these issues, which are presented in this section of the report. Furthermore, they identified concrete options to operationalize the ITI moving forward.¹³ These opportunities resulted in a series of policy recommendations, which are presented in Section three.

Preconditions and prerequisites for domestic and international tracing operations: identification, marking and record-keeping

The Group considered preconditions and prerequisites to effective tracing, including identification, marking and record-keeping of SALW. The discussions primarily focused on the following sets of challenges.

a) Inaccurate identification of weapons

Section III of the ITI deals with markings of SALW, and commits States to ensure that markings are applied at the time of manufacture, import, transfer from government stocks to civilian use, and use by national armed and security forces. The purpose of marking is for national armed and security forces to uniquely identify SALW under their jurisdiction, and to maintain comprehensive records of these markings in cases of transfers.

As the ITI recommends States “ensure that every [SALW] always receives the unique markings prescribed”,¹⁴ there is an expectation that national legislation will regulate weapons marking at the national level. Many States do have legal or regulatory requirements to mark weapons, but such requirements are not universal, which creates discrepancies in marking practices by States. Such national regulatory frameworks often prescribe the application of unique marks on a weapon’s critical components, which, for instance, provides information about the name of manufacturer, the country and year of manufacture, and its calibre and serial number. In some cases, national legislation considers failure to mark a weapon or deliberately erasing a weapon’s markings to be a crime.

¹³ Guiding questions for experts were circulated before the meeting to facilitate discussions on the three topics and on opportunities for how to move forward on the ITI.

¹⁴ A/60/88, annex, sect. III, para. 10.

Despite these commitments, the Group highlighted inaccurate identification of SALW as one of the critical challenges to effective tracing operations. Inaccurate identification of weapons does not necessarily occur because of lack of resources and tools. Several experts were aware of the existence of tools such as the INTERPOL Illicit Arms Records and Tracing Management System (iARMS) and the INTERPOL Firearms Reference Table (IFRT), but noted the need to increase the use of existing resources to support capacity-building of national authorities responsible for tracing in this area (primarily law enforcement and military officials). Likewise, a few experts referenced guidance documents applicable to tracing in conflict situations, such as the SALW and ammunition identification guidance pamphlet developed by the United Nations Office for Disarmament Affairs (UNODA), as being particularly useful in supporting capacity-building of relevant national authorities. Most experts identified the lack of technical knowledge as well as capacity issues as the main factors for inaccurate identification of SALW. Specific examples of identification challenges included identifying “craft weapons” that do not bear unique markings (such as serial numbers), as well as those weapons which had their original markings altered or removed.

Furthermore, while the ITI states that “[t]he choice of methods for marking small arms and light weapons is a national prerogative”,¹⁵ some experts stressed that a database of weapon marking would help to ameliorate weapon identification shortcomings. In response to these suggestions, one expert noted that States could submit their national markings voluntarily as part of their PoA national reports, and that a compilation of such information was available from UNODA. The same expert, however, acknowledged that the number of submissions by States on marking practices remained low. Questions were raised by several experts on whether such a compilation of national marking practices should be maintained within the United Nations system for the public use, or if such information could be shared more meaningfully by States in the law enforcement domain, utilizing existing databases on SALW, such as under the IFRT.

b) Lack of import marking

The Group identified the lack of import markings as one of the critical challenges to enable effective tracing operations. Under Section III of the ITI States have declared a willingness to “require to the extent possible appropriate simple marking on each imported [SALW], permitting identification of the country of import and, where possible, the year of import and enabling the competent authorities of that country to trace the [SALW]”.¹⁶ For States parties to the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition, supplementing the United Nations Convention against Transnational Organized Crime (Firearms Protocol), import marking is a requirement.¹⁷ In spite of these existing provisions, experts stressed that most States do not undertake import marking. This corresponds with information in submitted PoA national reports, which in 2012 revealed that, “[l]ess than 10% of states that have submitted national reports state that they ensure imported SALW are marked at the time of import in such a way as to permit identification of the country of import”.¹⁸

While recognising that secondary markings are different from import markings and are only “encouraged” in the ITI,¹⁹ several experts noted that they could help with unique identification. The Group cited examples of how the presence of a secondary mark—such as markings specific to the

¹⁵ A/60/88, annex, sect. III, para. 7.

¹⁶ A/60/88, annex, sect. III, para. 8, item (b).

¹⁷ There are 114 States Parties to the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition, supplementing the United Nations Convention against Transnational Organized Crime. For more information, see <http://www.unodc.org/unodc/en/firearms-protocol/the-firearms-protocol.html>.

¹⁸ S. Parker and K. Green, *A Decade of Implementing the United Nations Programme of Action on Small Arms and Light Weapons: Analysis of National Reports*, UNIDIR and the Small Arms Survey, 2012, p. xxii. Available from <http://unidir.org/files/publications/pdfs/a-decade-of-implementing-the-unpoa-analysis-of-national-reports-en-301.pdf>.

¹⁹ A/60/88, annex, sect. III, para. 10.

Economic Community of West African States (ECOWAS) in the ECOWAS Convention on Small Arms and Light Weapons, their Ammunition and Other Related Materials (hereinafter the ECOWAS Convention), as well as the Nairobi Protocol for the Prevention, Control and Reduction of Small Arms and Light Weapons in the Great Lakes Region and the Horn of Africa (hereinafter the Nairobi Protocol)—significantly shortened a weapon’s traceable chain of custody to specific regions, in particular those that were manufactured decades ago.

The Group explored several different options to improve import marking practices. One option involved targeted capacity-building of recipient States with respect to import marking. The proposed practice would prioritize capacity-building of recipient States based on volume and items transferred, as well as on the potential risk of diversion by the recipient State at post-delivery stages.

A second option focused on whether exporting States could require, as part of an assurance, that importing States apply import markings at the time of import. Such an assurance would be similar in concept to other assurance practices commonly exercised by exporting States, such as “no re-export” as well as “end use restrictions” clauses. This option may be particularly relevant for those recipient States that have legally binding obligations to mark weapons at the time of import (such provisions exist in some regional instruments, e.g. the ECOWAS Convention).

A third option considered was whether manufacturers/exporters could be required to apply import markings applicable to the recipient State prior to the arms shipments. Such practices may be applicable in the following conditions:

- 1) Where arms are being supplied directly from the manufacturer/exporter to the recipient State;
- 2) Where import markings are applied in accordance with the recipient State’s national marking standards or, where the recipient does not have national marking standards, in accordance with relevant international standards set in the International Small Arms Control Standards (ISACS) module on marking and record-keeping; and
- 3) Where the recipient State does not have the capacity or system to apply markings domestically at the time of import (i.e. at reception of shipment prior to their distribution for use by relevant security forces).

Finally, a fourth option involved re-exporting States undertaking, as part of the conditions for re-export authorization from the original exporter, to apply the import markings for recipient States that do not have the capacity to adequately mark weapons at the time of import. In such cases, import markings would be applied in accordance with the recipient State’s national marking standards or, where the recipient State does not have national marking standards, in accordance with relevant international standards set in the ISACS module on marking and record-keeping.

c) Obliterated marks

As part of discussions on marking, the Group acknowledged the challenges related to the identification and tracing of weapons that are unmarked (such as craft-produced weapons), or whose marks were deliberately obliterated. Concerns were also expressed about developments in manufacturing technologies and design (discussed in next section), including the prospective advent of 3D-printed firearms, the difficulties of marking and recovering marks on polymer frames, and the production of modular weapons with exchangeable components.

The Group considered several ways to overcome the challenges associated with sanitized weapons (weapons where the markings have been removed). One approach involves States refusing authorization to export unmarked weapons and weapons with obliterated or altered marks. Further options relate to Paragraph 8 (e) of the ITI, which stipulates that manufacturers will be encouraged “to develop measures against the removal or alteration of markings”.²⁰ Among these options, several

²⁰ A/60/88, annex, sect. III, para. 8, item (e).

experts noted the need to improve methods and approaches to: 1) prevent removal of marks; and 2) enable recoverability to facilitate tracing. Some experts referred to their national practices, which included marking more parts and components of a weapon, applying deeper markings on the weapons, and using new marking techniques such as microchips, microstamping, and radio frequency identification technology. Nonetheless, with recent developments in manufacture and marking technology, some experts considered the development of standards for marking methods that use these new technological solutions as essential for future ITI implementation.

d) Developments in manufacturing technologies and design

Previous meetings conducted in the framework of the PoA have discussed how recent developments in weapon manufacturing, technology, and design could impact ITI implementation. In particular, attention focused on weapons with polymer frames, 3D-printed weapons, and the increasingly modular nature of weaponry.²¹

Experts recognized that new developments in small arms manufacturing technology and design constitute complex issues that could make ITI implementation more difficult. Several experts were thus interested in exploring some form of an international agreement, in particular on marking of modular weapons, in order to help facilitate tracing by law enforcement officials. As no standards on such types of weapons exist, markings applied on modular weapons may not necessarily facilitate meaningful identification. Moreover, parts and components can be changed/replaced with ease. In this regard, the Group also noted the need for training programmes to support the accurate identification of modular weapons. Regarding polymer weapons, a few experts noted potentially embedding metal plates into polymer-made arms to facilitate marking without damaging the firearm, and to deter removal.

Nonetheless, the Group also acknowledged that operationalization of the ITI should address traditional as well as emerging challenges. For instance, the conversion of objects into weapons (e.g. converting blank-firing and replica pistols into working firearms or re-commissioning weapons that had been de-commissioned) is a traditional challenge that remains a significant problem for many States. Several experts argued that the weapons created by conversion techniques could be considered a threat to certain States' national security. This is because such weapons are cost-effective, non-traceable and, in some States, can be acquired legally, making it difficult for law enforcement to mark and trace them.

e) Ammunition and associated materials

The ITI does not cover ammunition or associated materials. Nonetheless, some experts argued that States should also mark, keep records, and trace ammunition and associated materials. This is because diversion of such items constitutes a threat to peace and security, particularly when fuelling the activities of non-state armed groups, terrorists, and un-authorized end-users operating in conflict and post-conflict areas. Furthermore, many experts felt that comprehensive use of tracing data was key to the operationalization of the ITI, even if it entailed that tracing data went beyond the weapon itself and potentially covered illicit users and related trafficking routes.

Several challenges exist for comprehensive tracing of ammunition and associated materials. For instance, only a few States have national legislation with clear regulations on marking and record-

²¹ See United Nations, *Recent developments in small arms and light weapons manufacturing, technology and design and implications for the implementation of the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons*, United Nations document A/CONF.192/BMS/2014/1, 6 May 2014. Available from <http://undocs.org/A/CONF.192/BMS/2014/1>; B. King and G. McDonald (eds.), *Behind the Curve: New Technologies, New Control Challenges*, Occasional Paper No. 32, Geneva 2015. Available from <http://www.smallarmssurvey.org/fileadmin/docs/B-Occasional-papers/SAS-OP32-Behind-the-Curve.pdf>; and G. McDonald, "One Meeting after Another: UN Process Update", Small Arms Survey, Issue Brief, Number 12, February 2015. Available from <http://www.smallarmssurvey.org/fileadmin/docs/G-Issue-briefs/SAS-IB12-UN-Process-Update.pdf>.

keeping of ammunition. Marking ammunition involves States engraving a bar code on ammunition packaging, which identifies the lot and headstamps of the ammunition contained. This enables States to keep records of the ammunition its security forces possess. The bar code also includes information such as the name of the purchaser, and the delivery lot in case of export. Such good practices are currently uncommon globally. Additional challenges in tracing ammunition include tracing loose small-calibre ammunition—usually produced in millions and therefore difficult to trace—or tracing split ammunition lots, consisting of one production lot that manufacturers supplied to several consignees.

Nevertheless, the Group concurred that tracing ammunition was critical and that diversion of ammunition was a key aspect of illicit proliferation. However, experts could not agree on an appropriate framework for this activity. Some experts felt that the issue should be considered under the ITI, while others suggested the United Nations General Assembly, the United Nations Security Council sanctions context or the creation of a focal point for tracing ammunition within the United Nations mechanism.

One expert suggested that future recommendations in this area might include requests for enhanced cooperation on tracing associated material, such as components used in the manufacturing of an improvised explosive device (IED). As tracing such material is not covered by the ITI, the same expert considered whether this issue could be more systematically addressed in the United Nations Security Council sanctions context.

f) Record-keeping

Record-keeping is an essential aspect of weapon management, and is a prerequisite for successful tracing operations. As such, under Section IV of the ITI States declare that they will ensure the establishment of “accurate and comprehensive records”²² for all marked SALW within their territory and that manufacturing records will be maintained “for at least 30 years”,²³ and “[a]ll other records, including records of import and export, for at least 20 years.”²⁴

The Group noted that most States have laws or regulatory requirements at the domestic level to keep records of arms, but that they vary by scope, type of records, and duration. Some experts stated that their countries maintain electronic records and physical records indefinitely. This approach allows States to maintain comprehensive records of weapons, enabling them to perform physical checks and inspections on a regular basis, and domestically trace arms when necessary. Conversely, other experts acknowledged that record-keeping for more than 20 years represents a challenge.

On record-keeping timelines, some experts noted that tracing could be difficult when the lifecycle of a weapon is longer than the length of a State’s records. Many experts noted that duration requirements for record-keeping create challenges with respect to States, manufacturers and those involved in transfers of arms. Importantly, the Group acknowledged that differences exist among various multilateral instruments with respect to record-keeping. For instance, the ITI’s politically binding record-keeping commitment is longer than the legally binding obligations under the Firearms Protocol and the Arms Trade Treaty (ATT). The Group also underlined that multilateral and regional instruments often provide differing commitments on lengths of record-keeping.

Such variation indicates that standardization of record-keeping duration could prove challenging under the ITI. However, many experts shared the view that under regional instruments where legal

²² A/60/88, annex, sect. IV, para. 11.

²³ A/60/88, annex, sect. IV, para. 12.

²⁴ Ibid.

obligations may exist (such as under the CIFTA, the ECOWAS Convention, the Nairobi Protocol, or the Kinshasa Convention²⁵), such harmonization efforts may be worth pursuing.

The Group expressed differing views on whether centralized or de-centralized record-keeping better facilitated tracing operations. Several experts strongly expressed that centralization of tracing related records greatly helped to facilitate efficient tracing operations. They discussed the benefits of maintaining a dedicated centralized national database for tracing purposes, as it enables a “one-stop-shop” for tracing related data, facilitating timely access to records. On the other hand, a few experts underlined that, depending on national laws and/or record-keeping methods, centralizing records at the national level may not be feasible.

It was noted by several experts that the comprehensiveness of data often varied across States and economic actors, and that data may be disaggregated at different levels, making timely tracing operations difficult. To overcome this challenge, several experts supported the idea of improving engagement with industry actors with respect to record-keeping practices and requirements. Suggestions focused on the role that manufacturers could play in improving record-keeping and traceability. This included the creation of a register of manufacturers and the development of a Memorandum of Understanding between States and manufacturers that would allow States to easily trace weapons in partnership with their national manufacturers. However, some experts noted that national regulations on private-sector record-keeping can differ and that States cannot always gain access to industry actors’ records.

The Group suggested several ideas for enhancing the effectiveness of record-keeping. Several experts proposed that States should be encouraged to maintain records indefinitely, or at least for 30 years. Some experts suggested regular record-keeping verification as part of ITI implementation at the domestic level. This could include periodic inspections of weapons held by national defence and security forces. Several experts also underlined how keeping records of markings, accessing regional or global tracing databases, and formulating bilateral informational exchange agreements were successful methods to strengthen record-keeping.

Implementing tracing operations

The Group discussed issues related to implementing tracing operations, including inter-agency coordination and cooperation at the domestic level, national procedures, domestic and international sequencing, roles and responsibilities, border and customs cooperation, use of NPCs, and national experiences and practices in requesting and/or responding to tracing requests. The Group identified the following sets of challenges and possible opportunities for enhancement.

a) Legal framework

The Group referenced the lack of a comprehensive legally binding administrative framework for cooperation, either at the national or regional level, as a key challenge to tracing operations. Most experts noted that States often do not have adequate national legal frameworks that would enable them to implement domestic or international tracing, and that many States do not have laws explicitly related to tracing. Tracing at the national level may not be mandated by legislation or may be regulated under different parts of a country’s legislation. In such cases, experts referenced regional instruments and the ITI as the basis for justifying tracing requests/responses. Nonetheless, experts widely acknowledged that the results of tracing requests/responses made without a national or regional legal basis often yield unsatisfactory cooperation and results.

²⁵ Officially entitled the “Central African Convention for the Control of Small Arms and Light Weapons, their Ammunition, Parts and Components that can be used for their Manufacture, Repair or Assembly”.

Some experts observed that when States that lack such national or regional legal obligations nevertheless attempt to undertake a tracing operation, they could then face legal challenges on the grounds that the operation does not have a legal basis. Cooperation in tracing is often based on other international, or regional, legally binding instruments, such as the ATT, the Firearms Protocol, CIFTA, or the ECOWAS Convention. However, when multilateral and regional instruments have not been adopted into national legislation, participants noted that investigators faced challenges to initiating or responding to tracing requests. States often also rely on binding bilateral agreements between one another to facilitate cooperation in tracing. Yet, when such a bilateral legal framework is absent and trace requests come from States that are not party to regional or international conventions, or from non-State actors' cooperation in tracing is based on political will. As a result, some experts noted that the national legislation of certain States forbids responses to trace requests received from non-governmental entities, including industry actors.

The Group also recognized that there has been an increase in the number of bilateral agreements, joint trainings, and cooperation in tracing with partner countries and with specialized organizations such as INTERPOL and Conflict Armament Research. Several experts provided suggestions on how to promote adherence to the ITI while strengthening the legal basis for engagement in tracing, including:

- 1) Promoting universalization of multilateral and regional legal instruments which have tracing commitments;
- 2) Institutional support to develop national legal frameworks that harmonize ITI commitments with national legislation to assist States in responding to trace requests; and
- 3) Assessing the status of national policy on tracing, with a view to enhancing engagement in tracing requests and responses.

b) National coordination

The Group noted that coordination between different national agencies was a challenge to launching and responding to trace requests. Agencies within the same State may struggle to coordinate for a number of reasons, including a lack of capacity or a highly decentralized national system. In some cases, national regulatory frameworks may mandate a specific security force or agency to trace weapons, but this force may not link up with other security forces or agencies that may possess data vital for successful tracing operations. In all these cases, the Group acknowledged that a lack of coordination and access to records increases the time needed for States to respond to a trace request.

The Group also discussed the varying domestic structures that contribute to facilitating tracing operations. Several experts noted that dedicated coordination mechanisms for tracing are effective in facilitating tracing operations, but acknowledged that such capacity does not exist in many States. Several experts stressed that in some cases, national authorities that should be responsible for receiving and initiating trace requests are not operational, have limited capacity, or are unable to secure the cooperation of key defence and security institutions. A few experts explained that some States operated with ad-hoc, needs-based inter-agency coordination for tracing weapons, which they considered useful, but not always consistent in responding to trace requests.

As part of the discussion on domestic coordination of tracing operations, experts considered the role and capacity of NPCs. The Group suggested options to enhance their use and improve exchange of data among NPCs, and considered under what framework information exchange should take place. Some experts bemoaned the limited capacity of designated NPCs, noting that NPCs were not always the appropriate contact or entity for tracing weapons, or that they were rarely utilized in tracing related activities. Other experts noted the need to further clarify and raise awareness among national actors of the roles and responsibilities of NPCs in tracing operations domestically.

The Group identified various possible options to improve national coordination. One option was the development of a national paper outlining roles and responsibilities for tracing operations applicable to domestic and international tracing. Another option was the production of guidance documents for national coordination on tracing. Other options focused on the need to facilitate data access for tracing purposes at the domestic level, including centralization of relevant data to support timely data-retrieval on licensed weapons, users, and manufactures, as well as police and military records. Several experts noted the need to build capacity and awareness, including through training, on record-keeping and actions to be taken upon reception of tracing requests. A few experts encouraged creation of a dedicated inter-agency tracing unit at the domestic level to ensure traceability of weapons.

c) National procedures

The Group agreed that the existence of national procedures for tracing operations was critical in facilitating successful tracing activities. A few experts noted that, while many States have clearly established tracing procedures at the national level, many others lack national procedures to trace weapons or have a limited familiarity with the tracing process. This could result in a lack of shared understanding among States on how to initiate, respond to, and follow-up on, tracing operations.

Several experts shared information about their national or agency specific procedures for tracing operations, which varied in structure, process and level of detail. One such procedure was focused on how to trace every weapon seized in the national territory and how to open a separate, independent tracing case for each weapon seized, recovered and/or lost. Given the varying approaches and tracing procedures, many experts underlined the importance of exchanging good practices and lessons learned in the development and use of national procedures for tracing operations. The Group also encouraged an informal exchange of feedback on a bilateral basis on how tracing procedures could be improved. Furthermore, the Group discussed the opportunity to clarify procedures on how recovered and/or seized weapons may be integrated into State stocks as a form of disposal (i.e. instead of destruction), in particular in conflict-affected environments.

The Group discussed whether tracing procedures could be harmonized more widely across States to facilitate consistent practices for tracing. Some experts argued that such a proposal might be challenging at the global level. A few experts noted that each national system can be unique in undertaking tracing operations, particularly with respect to national coordination and data collection, storage and use. Other experts highlighted that it is nonetheless important for States to put in place procedures that help harmonize data collection and record-keeping related to lost, recovered, and seized illicit weapons at the national level.

d) Addressing gaps in national capacity

The Group noted that inadequate capacity of national authorities—in the technical, logistical and financial sense—was a key factor in unsuccessful tracing operations. The Group acknowledged that capacity challenges were relevant to all aspect of tracing, including identification, marking and record-keeping. Several experts stated that the capacity to respond to trace requests was severely limited in certain contexts, particularly in high-risk and-low capacity situations, and in conflict and post-conflict situations.

Several experts referenced the duration of trace requests as a challenge, noting that in some cases responding to a trace request took several months, even for a single weapon. In places where resources and technical knowledge were limited within law enforcement, it was challenging to justify devoting time and resources to formulate or respond to trace requests for weapons. For instance, one expert explained that the tracing process for a foreign illicit weapon seized in a country's territory required several long bureaucratic steps, and had to overcome mistrust and scepticism from other security actors involved in the investigation. This placed individual investigators conducting tracing

investigations at a disadvantage. In this regard, several experts noted that more emphasis should be placed on developing a shared understanding between those involved in tracing operations regarding the purpose and benefits of such operations.

Many experts also noted the lack of guidance on the implementation of tracing procedures and follow-up investigations. The Group reflected that while some States had clear national procedures and established systems to facilitate tracing operations, including utilising relevant information from related investigations, most States did not have such procedures and systems in place. In particular, in low-capacity countries, national procedures to trace weapons were often unclear, while dedicated regulation and policy on tracing were often absent. For instance, one expert explained how, after officers took photos of a foreign illicit weapon in the State's territory, they had limited knowledge about how to proceed and who to contact at the domestic and international level to launch an international trace request.

The logistics of implementing tracing operations can constitute an additional challenge. Several experts noted that existing procedures for tracing did not always consider capacity considerations, which led to inadequate implementation of those procedures. For example, one expert noted that their national procedure to trace illicit weapons entailed that all illicit weapons be transported to the capital—a logistical capacity that the State did not have.

The Group raised several options for building the capacity of national stakeholders in the area of tracing. First, a risk-based approach to capacity-building assistance projects could be explored, prioritizing the capacity-building of national authorities operating in States heavily affected by the proliferation of illicit SALW. Second, to develop specialized training modules on tracing, designed to cover and address varying tracing contexts (e.g. for crime-related as well as conflict-related tracing). Third, to focus assistance projects on developing national procedures on tracing for those States that do not yet have such procedures in place. Fourth, to integrate identification, marking and record-keeping into existing and future trainings on small arms control, including trainings dedicated to transfer controls (e.g. export assessment) and physical security and stockpile management.

e) Comprehensive and selective tracing

The Group could be described as noting two approaches on the way to make the best use of a State's resources in tracing. The first approach, described by the Group as "comprehensive tracing", emphasizes the benefits of linking tracing data on arms to other relevant tracing data sets, such as actors, routes, and related components. This allows States to build a comprehensive overview of the tracing operation. The second approach, which could be called "selective tracing", seeks to make the best use of existing resources and capacity, and may be preferable to "comprehensive tracing" when a State lacks the resources for a broader approach.

Comprehensive tracing involves utilising all tracing related data and information—not only data derived from weapons—to inform intelligence work, risk management mechanisms (such as early warning systems) and situational awareness. Comprehensive tracing initiatives should ideally not be limited to tracing weapons, but should include comprehensive data covering the overall context and full network of parties involved in the supply of the weapon. Furthermore, a comprehensive tracing approach enables law enforcement agencies to extrapolate crime patterns over time and across locations. For instance, comprehensive crime data can reveal the location, time, risk groups, and the types of weapon involved in a crime incident. Based on this information, law enforcement agencies can assign resources accordingly to prevent possible future crimes of the same nature.

The Group examined how to better use comprehensive tracing data to support intelligence work and investigations. Many experts expressed that comprehensive tracing data and analysis enabled national authorities to:

- 1) Inform intelligence on early warning measures and preventive policy;
- 2) Establish baselines of arms and related indicators, such as actors and routes, to enable monitoring of capacity and trends;
- 3) Establish grounds for bilateral agreements and mutual legal assistance;
- 4) Foster regional cooperation against illicit flows of arms through information exchange and shared analysis; and
- 5) Provide data relevant to Sustainable Development Goal (SDG) indicator 16.4.2, which will assist in verifying the fulfilment of SDG target 16.4.

While recognising the benefits of comprehensive tracing, the Group also noted that many States did not have the capacity to trace all illicit arms and to gather information on related actors and activities. As a result, several experts noted that, at times, States can follow the “selective tracing” approach, prioritizing the tracing of weapons that are seized from areas with either the greatest risk of diversion or where diversion presents the greatest threat to the State’s security. This is particularly important for countries with large territories and borders, as they need to devote targeted resources to undertake tracing operations based on a risk management approach.

A few of the experts also explained that some States adopt a cost effectiveness approach to tracing, focusing their efforts on small arms that are easier to trace. This approach is different from “selective tracing”, as decisions on what to trace are based on the ease of tracing a weapon, rather than the importance of tracing a weapon. For example, one expert noted that weapons that are more than 20 years old are not always traced, as this requires robust record-keeping to be effective. Another expert distinguished between tracing and “monitoring”, noting that if capacity restrictions prevented tracing illicit weapons, a monitoring approach could be examined. This would allow information related to recovered, lost and/or seized weapons to be gathered and profiled, but not necessarily traced.

f) Conflict tracing

The lack of legal frameworks and national procedures, and often weakened national security services and law enforcement capacities, pose complex tracing challenges for States in conflict-affected environments. The Group noted that there is a lack of experience, familiarity, and confidence with tracing weapons in conflict, as procedures are not institutionalized nor prioritized by the conflict-affected States. States in conflict also do not necessarily see the utility of tracing conflict weapons if this activity does not lead to investigations at the national level. Nonetheless, some experts stressed the importance of tracing as a tool for intelligence gathering, recognized the distinction between crime and conflict tracing, and noted specifically that the ITI addresses both types of tracing.

A few experts reflected on the importance of conflict tracing, noting that it can impact Security Council decision-making on arms embargos, highlighting networks and actors that sponsor and sustain armed groups. In addition, conflict tracing can be instrumental in improving awareness of other related issues that fuel conflict. For instance, through conflict tracing, it is possible to identify weaknesses in stockpile management in bordering countries, improve knowledge of illicit trafficking in a region, and devise assistance measures that can promote security at the regional or national levels.

One expert emphasized that tracing in conflicts enables States to identify illicit circulation, secure seized weapons, understand diversion trends, reduce risks of further diversion, and solicit domestic and international cooperation. The tangible results of conflict tracing included communication of information to exporting States about diversion of their SALW, enhancement of export regulations to curtail weapons supplies, support to counter-terrorism investigations, prosecution of brokers and distributors, and support to a United Nations PoE on arms embargo monitoring.

g) Sensitivity of tracing data

Paragraphs 18 to 23 of the ITI focus on responses to trace requests and cooperation in tracing between the requesting and the requested States.²⁶ The Group repeatedly referenced a lack of responses to trace requests as a commonly observed challenge. Specific challenges included the failure to acknowledge that a trace request was received and a lack of information on potential traces conducted/concluded. Such unresponsiveness could be caused by many factors, including a lack of legal basis for cooperation, limited national capacity, weak national procedures, as well as the sensitivity of the tracing data.

The Group noted that sensitivities around tracing data remained one of the major challenges for the operationalization of the ITI. Tracing data often revealed information on sensitive deliveries of arms (such as into conflict areas), diverted weapons, as well as lost weapons, which some States did not wish to disclose. Some experts also referenced the lack of a political will to respond to trace requests, especially when it involves sensitive information on SALW that States produced, transferred, or previously held in their national stockpiles. The sensitivity surrounding information contained in trace requests was seen to represent a challenge to cooperation on tracing, even when States have robust national systems on tracing in place.

The Group considered different possible options to address political sensitivities emerging from tracing data. One option relates to enhanced bilateral and regional cooperation and to the establishment, where relevant, of mutually beneficial legal frameworks for tracing. Some experts noted that States should further consider the forum in which information exchange could take place, such as through INTERPOL National Central Bureaus (NCBs). Other experts identified “naming and shaming” as a negative incentive to apply pressure on States to respond to tracing requests.

Domestic and international assistance and cooperation tools and mechanisms

The Group examined existing domestic and international assistance and cooperation mechanisms to facilitate the implementation of tracing operations. They considered and discussed tracing tools offered by various organizations and States, reporting tools related to tracing, bilateral and/or regional cooperation in the implementation of tracing operations, and available assistance frameworks, reflecting on the challenges and opportunities they present.

a) Value of regional instruments

Regardless of the region, the Group recognized that regional, and subregional agreements are essential in promoting information exchange to support tracing operations. Most experts recognized that regional mechanisms—such as the European Union, MERCOSUR and ECOWAS—strongly supported the identification of good practices (including in the field of investigations), development and use of dedicated databases, and in some cases, harmonization of legislation and procedures for tracing within a region. For instance, a few experts mentioned the importance of the Schengen Information System and the European Union Agency for Law Enforcement Training for supporting tracing operations in the European Union region.

Several experts also underlined the significance of capacity-building at a regional and subregional level. They noted that States in the same region face similar challenges and risks, can learn from one another’s approaches, and implement solutions to common challenge. Other experts highlighted that developing regional databases dedicated to lost, seized and recovered weapons could increase the exchange of information, which in turn could support regional efforts to tackle diversion and cross-border illicit tracking.

²⁶ A/60/88, annex, sect. V, paras. 18–23.

b) Information relevant to SDG indicator 16.4.2

The Group discussed the applicability of SDG indicator 16.4.2 to the operationalization of the ITI.²⁷ SDG indicator 16.4.2 considers the “[p]roportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments”.²⁸ The indicator helps verify the fulfilment of SDG target 16.4, which aims for a significant reduction in “illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime” by 2030.²⁹ Experts observed both challenges and opportunities for this indicator to support tracing operations. While recognizing that the indicator helps to promote the relevance and profile of tracing as it relates to the SDGs, several experts noted that a clear data collection methodology was needed to avoid duplication of efforts across multilateral instruments. On an operational level, several experts raised questions on whether a higher proportion of traced weapons necessarily correlated to a reduction in illicit arms flows.

The Group shared the view that record-keeping was critical for the provision of accurate data to support verification of the fulfilment of SDG target 16.4. Given that record-keeping obligations differ across various multilateral conventional arms instruments, the Group agreed that synergies in data collection were needed at the domestic level to facilitate reporting on this indicator.

Many experts identified how capacity-building of law enforcement actors and of national statistical commissions and offices could assist in providing accurate data to support the verification of this indicator. Some experts noted that given the inclusion of tracing within the development agenda, there existed opportunities to include tracing of small arms as part of national development plans. This could facilitate the use of development-related assistance resources to build capacity among law enforcement and relevant national statistical officers to implement tracing operations.

c) INTERPOL

The Group referred to the work of INTERPOL on weapons tracing and to the utility of the iARMS database. Several experts stressed that INTERPOL should be the first point of contact for the coordination of international trace requests. They stated that iARMS and the IFRT are useful tools to facilitate information exchange and investigative cooperation between law enforcement agencies, verify the unique identifiers of a weapon, search seized weapons to check whether they have been reported as lost, stolen, trafficked or smuggled, and generate a new record or a trace request.

Several experts were aware of the existence of such resources. They considered iARMS very useful and regularly used it to send trace requests. Conversely, other experts were less familiar with iARMS and related tools, indicating potential need for further awareness raising activities. A few experts noted the lack of responsiveness from some INTERPOL bureaus, and, consequently, had limited experience of working with their resources and tools. In this regard, some experts recommended that INTERPOL bureaus be adequately resourced to provide further awareness raising, trainings and capacity-building activities to law enforcement officials in support of tracing activities.

d) Other monitoring bodies

The Group discussed the role that other bodies, such as United Nations PoE and United Nations missions, have in supporting the operationalization of the ITI. Several experts stressed the importance of United Nations PoE to support the monitoring of illicit arms flows in the context of arms embargoes, and, under certain specific cases, report on captured illicit weapons from military operations. As such, these experts reflected on the extensive experience of United Nations PoE on

²⁷ See United Nations, *Report of the Inter-agency and Expert Group on Sustainable Development Goal Indicators*, United Nations document E/CN.3/2017/2, annex III, p. 35. Available from <https://undocs.org/E/CN.3/2017/2>.

²⁸ Ibid.

²⁹ Ibid.

tracing weapons, and encouraged sharing of experiences, lessons learned and tracing results with Governments, manufacturers, private entities, and INTERPOL.³⁰

Several experts also underlined that, where mandated, United Nations peacekeeping missions are requested to support States with arms management, monitoring, and capacity-building support. However, these experts reflected that such a mandate did not often explicitly reference and/or include measures on tracing.³¹ As a result, United Nations peacekeeping missions have limited engagement on tracing operations. However, some United Nations missions that have a monitoring mandate have successfully traced weapons, ammunition, and other commercial components used in the construction of IEDs with the voluntary cooperation of host States. Conversely, on other occasions, monitoring efforts by United Nations missions have not been undertaken due to a lack of legal basis for tracing. In this regard, several experts noted that, on a case-by-case basis, host States should cooperate with United Nations missions to undertake tracing requests where such an investigation may reveal violations of arms embargoes by supplying entities/actors.

Additionally, several experts noted that subject matter experts from United Nations missions might, upon request, support host States in building their capacity to accurately identify, mark, record and trace weapons. The experts stated that the national entities responsible for small arms control in host States often lack sufficient capacity and knowledge to gather and use information related to illicit weapons. This inhibits their ability to inform national intelligence work and to put in place adequate preventive measures to address illicit arms flows. In this regard, several experts shared the view that United Nations missions should be adequately staffed and mandated to support national authorities in building tracing capacity.

³⁰ J. Bevan and G. McDonald, "Weapons Tracing and Peace Support Operations: Theory or Practice?", Small Arms Survey, Issue Brief, Number 4, March 2012. Available from <http://www.smallarmssurvey.org/fileadmin/docs/G-Issue-briefs/SAS-IB4-Weapons-TracingPSOs.pdf>.

³¹ Bevan and McDonald, 2012.

Moving the ITI forward: recommendations

UNIDIR's policy-related recommendations on moving the ITI forward are informed by the Group's discussions on key challenges and opportunities with respect to implementing the ITI, together with additional research conducted by UNIDIR. These recommendations are organized in line with the issues analysed in Section two of this document. The full set of recommendations is reflected in Table 2. These recommendations are intended for all ITI stakeholders, including States, specialized organizations and private actors.

Recommendations related to preconditions and prerequisites for domestic and international tracing operations: identification, marking and record-keeping

Challenges related to identification, marking, and record-keeping include inaccurate identification of weapons, lack of import marking, obliterated marks, developments in manufacturing technologies and design, ammunition and associated materials, and record-keeping. The following recommendations provide a set of measures aimed at overcoming these challenges.

Emerging technologies and obliterated markings

- 1) *Establish an international technical panel or group dedicated to informing the community on developments related to tracing, including emerging technological challenges and opportunities.*
- 2) *Explore the development of marking standards for modular weapons under the ITI framework.*
- 3) *Examine under the ITI framework the growing issue of craft weapons and weapons that are not industrially manufactured.*
- 4) *Examine technical methods to recover obliterated markings.*

Recent developments in SALW manufacturing, technology and design, and their implications for the ITI, have been widely discussed in recent years.³² Identification and tracing of unmarked weapons (such as craft-produced weapons), weapons with obliterated markings, and new manufacturing techniques such as the advent of modular weapons, weapons with polymer frames, and 3D-printed weapons all pose challenges. To address these issues, global measures to support the operationalization of the ITI could include the establishment of an international technical panel or group dedicated to informing the community on developments related to tracing, emerging technological challenges and opportunities, craft weapons and weapons that are not industrially manufactured. Another option could be to explore the development of a marking standard for modular weapons. Such measures could allow the international community to monitor and adequately address these challenges under the ITI framework moving forward.

Identification, import marking, and secondary markings

- 5) *Promote targeted capacity-building and training on accurate identification of weapons.*
- 6) *Strengthen efforts to implement import marking.*
- 7) *Utilize assurances as part of export control to promote import marking and sharing of records.*
- 8) *Utilize, where appropriate, secondary markings to make weapons more uniquely identifiable.*

Lack of capacity and technical knowledge to accurately identify SALW remains a challenge to effective tracing. The capacity and knowledge gaps apply to both conflict and non-conflict settings. Targeted capacity-building initiatives and training for NPCs on tracing would contribute to tracing operations at the national level. Similar initiatives for relevant national security forces and law enforcement officials on the accurate identification of SALW could also have a positive effect. The following options

³² A/CONF.192/BMS/2014/1; King and McDonald (eds.), 2015; and McDonald, 2015.

could be considered to strengthen efforts in implementing import markings: 1) importing States to cooperate with the exporter to implement import marking at the time of manufacture prior to shipment; 2) re-exporting States to cooperate with importing States to implement import marking prior to re-export; 3) exporting States to include an import marking obligation applicable to importing States as part of an assurance placed on the arms exports; and/or 4) providing assistance to States to support import marking project proposals in regions with high diversion risks. Finally, while only an encouragement under the ITI, national measures aimed at utilizing secondary markings could make a weapon and its components more uniquely identifiable and subsequently traceable, as observed in the ECOWAS region.

Ammunition and related materials

9) Establish domestic policies and mechanisms to monitor and trace, where applicable, ammunition and related materials.

Suggested actions identified in the United Nations Secretary-General's report on small arms include that States "provide support and ammunition marking information" and "share information submitted on national ammunition marking practices" with INTERPOL.³³ The project found that the diversion of ammunition and related materials, such as those used in the construction of IEDs, often fuels activities of non-state armed groups, terrorists, and un-authorized end-users operating in conflict and post-conflict areas. Tracing these components, in addition to weapons, often provides a more comprehensive picture of illicit users and armed groups. While the ITI has a narrower focus, experts promoted the concept of "comprehensive tracing". This encourages States to establish domestic policies and mechanisms to monitor and trace, where applicable, ammunition and related materials at the national level.

Role of industry actors in tracing

10) Improve engagement with industry actors to facilitate tracing, including shared practices related to record-keeping.

The project found that private companies, in particular weapon manufacturers, are important partners for States to facilitate tracing operations. States could be encouraged to pursue enhanced engagement with industry actors on tracing. In particular, devising shared practices related to record-keeping between industry and national stakeholders would help to facilitate tracing operations at the national level.

Recommendations related to implementing tracing operations

The project found a number of challenges related to implementing tracing operations. These included a lack of domestic legal frameworks, weak national coordination, a lack of national procedures on tracing, gaps in national operational capacity, implementation of conflict tracing, and limited sharing of tracing data due to sensitivity. The following recommendations provide measures to overcome these challenges.

Feedback mechanisms on tracing

1) Explore ways to strengthen feedback mechanisms for tracing operations under the ITI.

The project found that many trace requests, regardless of the requesting entity, often receive incomplete follow-up or no feedback at all. This is despite dedicated focus on cooperation in tracing under the ITI. In this regard, States may wish to consider mechanisms under the ITI to further promote technical follow-ups to trace requests.

³³ United Nations, *Report of the Secretary-General on Small arms and light weapons*, United Nations document S/2017/1025, 6 December 2017, annex I, P14.

These may include: 1) confirmation of receipt; 2) follow-up on incomplete or inaccurate information requests; and/or 3) informing the requesting party of restrictions that require requests to be in a specific form or to ask for specific information.

Capacity-building activities on tracing in high-risk and low capacity environments

- 2) Conduct, through international cooperation and assistance, targeted capacity-building activities, focusing on high-risk and low capacity environments.*
- 3) Focus resource allocation to support tracing in conflict-affected settings, paying particular attention to measures that can help tracing efforts.*
- 4) Integrate tracing into programming designed to prevent diversion, including in the areas of physical security and stockpile management (PSSM) as well as export assessments.*

States in high-risk and low capacity situations, including conflict-affected situations, often lack capacity to adequately mark, record, and conduct domestic and international tracing operations. The need to build capacity for tracing in conflict and post-conflict settings was highlighted in previous PoA-related outcome documents, recommendations made by the report of the United Nations Secretary-General on small arms,³⁴ and in the findings from this project. Several experts stressed the importance of establishing comprehensive record-keeping systems, including for seized, recovered, and/or captured weapons from military operations. International cooperation and assistance frameworks under the ITI could focus targeted capacity-building and resource mobilization efforts to support tracing in conflict and post-conflict settings. Such assistance could include: 1) support for accurate identification by developing domestic profiles of captured and seized weapons; 2) establishment of an import marking system; 3) establishment of clear procedures for record-keeping on imported, as well as seized, weapons; and/or 4) support for production of national procedures on tracing, including guidance on roles and responsibilities for domestic and international tracing. Further, tracing activities should be consistently integrated into programmes designed to prevent diversion, including when undertaking trainings on physical security and stockpile management (e.g. inventory management), as well as for export assessments by utilizing tracing results.

Regulatory and administrative national procedures

- 5) Establish clear grounds for undertaking tracing operations domestically by establishing national legislation/regulations or drawing from regional obligations.*
- 6) Establish adequate administrative processes to facilitate tracing operations, including ensuring that the procedures in place can be implemented from a logistical point a view.*

The lack of laws, regulations, and administrative procedures for tracing at the national level is a critical obstacle to the implementation of the ITI. States should draw from relevant legally binding regional instruments (e.g. the Kinshasa Convention) to establish national legislation and regulations dedicated to enabling tracing. This would greatly help in establishing a legal basis for initiating and responding to trace requests. Similarly, States could place greater emphasis on developing adequate domestic administrative processes on the implementation of tracing operations. This could include establishing national coordination processes for tracing operations and national procedures for requesting and responding to trace requests. It could also involve developing a guidance document on roles and responsibilities to implement existing administrative procedures for tracing. As part of such efforts, States should ensure that national procedures can be implemented from a logistical point of view, particularly in environments where technical and operational capacity may be limited.

³⁴ S/2017/1025, annex I, p. 11–12.

National Points of Contact and national entities related to tracing operations

- 7) Ensure, through adequate review, that NCBs and NPCs are accessible and responsive to facilitate and implement tracing operations.*
- 8) Build institutional capacity, knowledge, and awareness of NPCs and dedicated coordinating bodies related to tracing.*
- 9) Address staff turnover by putting in place longer-term and dedicated technical staffing and equipment.*
- 10) Establish dedicated, trained units to facilitate tracing.*

The PoA and ITI review processes have placed strong emphasis on the role of NPCs in supporting the implementation of the ITI. The project found that certain INTERPOL NCBs struggled with responsiveness, and some NPCs had limited capacity. In this regard, periodic review and assessment of NCBs and NPCs should be undertaken at the domestic level to ensure that these designated entities (or persons) are accessible and responsive to facilitate and implement tracing operations at the national and international level. In many cases, NCBs and NPCs lacked the capacity and the resources to respond to trace requests. Furthermore, project findings indicated that not all NCBs and NPCs were aware of the vast amount of assistance tools available to support them in the implementation of tracing operations. In this regard, the ITI framework could support the dissemination of information related to existing capacity-building activities, including trainings and tracing tools, to designated NCBs and NPCs. Similarly, States should address challenges related to high staff turnover by putting in place long-term and dedicated technical staff and appropriate equipment. This could be supported by the establishment of a dedicated trained unit at the national level. This unit would be responsible for developing and implementing national procedures related to tracing.

National access to weapon datasets

- 11) Establish clear criteria for disaggregated data related to tracing and ensure those involved in tracing operations are working with similar/same datasets.*
- 12) Enable timely response to trace requests by implementing a “single-window” approach, making relevant data accessible to all relevant national stakeholders.*

There is a need to strengthen timely access to tracing data and to enable meaningful information exchange on tracing results. States should therefore establish clear criteria for disaggregation of data related to tracing and ensure that actors involved in tracing operations use similar or identical datasets to facilitate inter-agency exchange of information. Likewise, States should enable timely responses to trace requests by implementing a coordinated approach to data access and retrieval for all relevant national stakeholders at the domestic level, such as a “single-window” approach, where a single location or entity is made responsible for the receipt and distribution of all relevant data.

Sharing of good national procedures and practices

- 13) Encourage sharing of good national procedures and practices on tracing among experts and NPCs.*

Exchanging information on good procedures and practices could benefit States that currently lack tracing systems. In this regard, States could be encouraged to share information between national experts and NPCs. This could include their national procedures and practices to undertake, respond to, and complete a tracing operation. Such an initiative would help the exchange of information on good practices related to tracing and would foster harmonization of tracing procedures at the national and regional levels.

Follow-up steps and activities once tracing operations are completed

14) Clarify follow-up steps and activities once tracing operations are completed.

The project found that national security stakeholders were not always familiar with the various steps involved in a tracing operation, including follow-up activities that could be undertaken using tracing results. This has a direct influence on the level of engagement by national security stakeholders in tracing operations. In this regard, further guidance on analysis of tracing data, as well as the use of tracing results, could be considered useful for States in promoting greater buy-in for the implementation of the ITI.

Comprehensive and selective tracing

15) Promote a comprehensive tracing model.

16) Strengthen domestic data collection and monitoring mechanisms related to tracing.

17) Promote a risk management approach for those States that are unable to conduct comprehensive tracing.

Many experts consulted as part of this project agreed on the benefits of comprehensive tracing, including gathering information on actors, routes, and related components. States could be encouraged, where possible, to promote a comprehensive tracing model at the domestic level. For such a tracing model to be effective, there must be robust and comprehensive domestic data collection mechanisms related to tracing. In this regard, States could also establish and implement comprehensive monitoring systems for tracing related information, keeping records on key indicators (such as weapons and actors), and closely monitoring related information (such as routes and related materials found with the weapons). While recognising the added value of comprehensive tracing, the project also found that several States are unable to undertake comprehensive tracing due to capacity constraints. In such cases, States could explore selective tracing, where high-risk weapons, routes and actors are targeted for tracing operations to yield meaningful intelligence results.

Recommendations related to domestic and international assistance and cooperation tools and mechanisms

Challenges related to domestic and international assistance, and cooperation tools and mechanisms, include reinforcing bilateral and regional instruments, establishing synergies with respect to SDG indicator 16.4.2, facilitating cooperation with specialized entities such as INTERPOL, and exploring the role that other monitoring bodies, such as United Nations PoEs, can have in supporting tracing. The following list of recommendations provides measures related to domestic and international assistance, and cooperation tools and mechanisms.

Reporting

1) Explore opportunities to encourage better engagement for reporting on tracing under the PoA.

2) Maintain an updated list of NPCs on tracing.

The current PoA reporting template allows States to report on their national tracing measures, including their national markings. The project found that a limited number of States have shared their national markings via the PoA national reports. Furthermore, many experts consulted as part of this project noted that the ITI-related NPCs identified in such reports were either outdated or difficult to contact with the information provided. In this regard, States may wish to consider how best to use the PoA report to share information to facilitate tracing, including maintenance of an up-to-date contact list of NPCs for the ITI.

Available tools and assistance on tracing

- 3) *Utilize existing trust funds on small arms control to prioritize support to the operationalization of the ITI.*
- 4) *Improve the knowledge platform of tools and assistance available on tracing, for instance by establishing an online clearing-house that informs interested users of available resources and partners.*

The project findings indicated the utility of developing a dedicated international assistance framework for the ITI. One option could be to utilize existing trust funds, such as the United Nations Trust Facility Supporting Cooperation on Arms Regulation, to promote and support dedicated projects related to operationalizing the ITI. Another option could be to establish a knowledge platform that provides a list of tools and assistance available on tracing.

Tracing in a sanctions context, including the role of United Nations bodies

- 5) *Inclusion of provisions to support host States in marking, record-keeping and/or tracing.*

The project emphasized the importance of United Nations missions in supporting the implementation of the ITI, in particular in conflict and post-conflict settings. Such missions often operate in countries that are subject to sanctions regimes, which can include requirements on marking and record-keeping. As United Nations missions are increasing mandated to support, upon request, host States in weapon and ammunition management, States could consider utilizing the United Nations missions to build capacity in marking, record-keeping and/or tracing, particularly when subject to a sanctions regime that requires such action. Such consideration should include provisions for equipment, such as marking machines or logbooks, to strengthen record-keeping. Furthermore, upon request, United Nations missions could be mandated to support joint tracing operations with host States.

Promoting regional cooperation

- 6) *Utilize regional mechanisms to trace weapons.*
- 7) *Establish subregional or regional databases on lost, received, and seized weapons, accessible only to approved law enforcement contacts.*

The project found opportunities to improve the use of existing regional mechanisms to support tracing. Moving forward, States could further emphasize the utility of regional mechanisms to support tracing under the ITI framework. This could include regional organizations facilitating tracing requests and responses, ensuring that States work cooperatively on timeframes for tracing operations, and requesting that parties involved in tracing operations work on the same sets of weapons data. Furthermore, regional organizations could support the establishment of subregional or regional databases on lost, received, and seized weapons. Such databases would be accessible only to law enforcement actors and may be feasible where regional legally binding commitments on tracing already exist.

Synergies between the ITI and the SDGs

- 8) *Ensure clear synergies domestically to implement the ITI and verify the fulfilment of SDG target 16.4.*

Findings from the project indicate a need to establish clear linkages between the ITI and other existing instruments, and to promote synergetic policies and operational plans at the national level. In particular, given that elements of the ITI assist in supporting SDG indicator 16.4.2 in verifying whether SDG target 16.4 has been fulfilled, States should examine, through internal review and assessment, how their domestic record-keeping and reporting obligations support the implementation of the ITI and the verification of the fulfilment of SDG target 16.4.

Table 2: List of recommendations

Recommendation	Theme/topic
<i>Recommendations related to preconditions and prerequisites for domestic and international tracing operations: identification, marking and record-keeping</i>	
1) Establish an international technical panel or group dedicated to informing the international community on developments related to tracing, including emerging technological challenges and opportunities	Emerging technologies and obliterated markings
2) Explore the development of a marking standard for modular weapons under the ITI framework	Emerging technologies and obliterated markings
3) Examine under the ITI framework the growing issue of craft weapons and weapons that are not industrially manufactured	Emerging technologies and obliterated markings
4) Examine technical methods to recover obliterated markings	Emerging technologies and obliterated markings
5) Promote targeted capacity-building and training on accurate identification of weapons	Identification, import marking and secondary markings
6) Strengthen efforts to implement import marking	Identification, import marking and secondary markings
7) Utilize assurances as part of export control to promote import marking and sharing of records	Identification, import marking and secondary markings
8) Utilize, where appropriate, secondary markings to make weapons more uniquely identifiable	Identification, import marking and secondary markings
9) Establish domestic policies and mechanisms to monitor and trace, where applicable, ammunition and related materials	Ammunition and related materials
10) Improve engagement with industry actors to facilitate tracing, including shared practices related to record-keeping	Role of industry actors in tracing

Recommendations related to implementing tracing operations	
1) Explore ways to strengthen feedback mechanisms for tracing operations under the ITI	Feedback mechanisms on tracing
2) Conduct, through international cooperation and assistance, targeted capacity-building activities, focusing on high-risk and low capacity environments	Capacity-building activities on tracing in high-risk and low capacity environments
3) Focus resource allocation to support tracing in conflict-affected settings, paying particular attention to measures that can help tracing efforts	Capacity-building activities on tracing in high-risk and low capacity environments
4) Integrate tracing into programming designed to prevent diversion, including in the areas of physical security and stockpile management (PSSM) as well as export assessments	Capacity-building activities on tracing in high-risk and low capacity environments
5) Establish clear grounds for undertaking tracing operations domestically by establishing national legislation/regulations or drawing from regional obligations	Regulatory and administrative national procedures
6) Establish adequate administrative processes to facilitate tracing operations, including ensuring that the procedures in place can be implemented from a logistical point a view	Regulatory and administrative national procedures
7) Ensure, through adequate review, that NCBs and NPCs are accessible and responsive to facilitate and implement tracing operations	NPCs and national entities related to tracing operations
8) Build institutional capacity, knowledge, and awareness of NPCs and dedicated coordinating bodies related to tracing	NPCs and national entities related to tracing operations
9) Address staff turnover by putting in place longer-term and dedicated technical staffing and equipment	NPCs and national entities related to tracing operations
10) Establish dedicated, trained units to facilitate tracing	NPCs and national entities related to tracing operations
11) Establish clear criteria for disaggregated data related to tracing and ensure those involved in tracing operations are working with similar/same datasets	National access to weapon datasets
12) Enable timely response to trace requests by implementing a “single-window” approach, making relevant data accessible to all relevant national stakeholders	National access to weapon datasets
13) Encourage sharing of good national procedures and practices on tracing among experts and NPCs	Sharing of good national procedures and practices
14) Clarify follow-up steps and activities once tracing operations are completed	Follow-up steps and activities once tracing operations are completed
15) Promote a comprehensive tracing model	Comprehensive and selective tracing
16) Strengthen domestic data collection and monitoring mechanisms related to tracing	Comprehensive and selective tracing
17) Promote a risk management approach for those States that are unable to conduct comprehensive tracing	Comprehensive and selective tracing

<i>Recommendations related to domestic and international assistance and cooperation tools and mechanisms</i>	
1) Explore opportunities to encourage better engagement for reporting on tracing under the PoA	Reporting
2) Maintain an updated list of NPCs on tracing	Reporting
3) Utilize existing trust funds on small arms control to prioritize support to the operationalization of the ITI	Available tools and assistance on tracing
4) Improve the knowledge platform of tools and assistance available on tracing, for instance by establishing an online clearing-house that informs interested users of available resources and partners	Available tools and assistance on tracing
5) Inclusion of provisions to support host States in marking, record-keeping and/or tracing	Tracing in a sanctions context, including the role of United Nations bodies
6) Utilize regional mechanisms to trace weapons	Promoting regional cooperation
7) Establish subregional or regional databases on lost, received, and seized weapons, accessible only to approved law enforcement contacts	Promoting regional cooperation
8) Ensure clear synergies domestically to implement the ITI and verify the fulfilment of SDG target 16.4	Synergies between the ITI and the SDGs



The International Tracing Instrument: Examining options to support operationalization

The International Tracing Instrument was adopted in December 2005 to enable States to identify and trace, in a timely and reliable manner, illicit small arms and light weapons. However, several persistent challenges have impeded its full operationalization, including issues concerning identification, marking, record-keeping and information sharing. In addition, emerging technological trends (such as 3D-printed weapons) and wider contextual factors have had an impact on its implementation.

This report examines key challenges to the operationalization of the ITI and presents a series of policy-orientated recommendations to strengthen the ITI in the future.