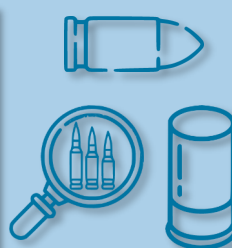


# Initial Impact of Ammunition Profiling

## Impact Factsheet

Profiling Small Arms Ammunition in Armed Violence  
Settings: Bedfordshire, United Kingdom (UK) Case Study



By Erica Mumford  
and  
Alfredo Malaret



## Why Focus on Ammunition?



### UNDERSTUDIED

There is a global need to increase data on ammunition to be more effective in preventing illicit flows, diversion, and misuse. To address this challenge, ammunition profiling is a data generation tool to gain baseline information on the types, volumes, patterns, and origins of ammunition and, potentially, its relation to lethal incidents of armed violence.



### REPLENISHABLE

Unlike firearms, ammunition must be replenished. Restricting its flow can therefore “starve firearms of oxygen”. Efforts to curb illicit ammunition flows can therefore improve the protection of civilians and create safer communities and cities.



### IMMEDIATE IMPACT

Ammunition supply chains are shorter from transfer to use, compared to those of firearms, thereby increasing the scope for local policy and operational changes to disrupt illicit ammunition supply and thus reduce armed violence.

## UNIDIR's Approach to Ammunition Profiling



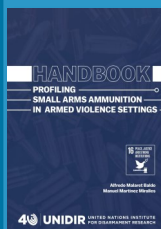
UNIDIR's Conventional Arms and Ammunition Programme (CAAP) examines and promotes ideas and action to prevent or mitigate the negative impact of the unregulated proliferation and misuse of conventional arms and ammunition and thus lay the foundations for peace, security, and sustainable development.



CAAP supports policymakers and practitioners to document and map ammunition flows and misuse, with a view to inform strategies and programmes designed to curb illicit trafficking. UNIDIR's [Handbook to Profile Small Arms Ammunition in Armed Violence Settings](#) (available in English & Spanish) is a practical tool that provides step-by-step guidance to generate standardized baseline data on small arms ammunition proliferation and misuse.

The Handbook is currently applied in a series of ammunition profiling case studies, which have already produced actionable information leading to effective downstream policy and operational changes. To offer an example, some key results and impact metrics, after conducting a case study in Bedfordshire, UK are captured in this UNIDIR impact factsheet.

For a video explainer, watch [how tracking a bullet can prevent armed violence](#)



# Profiling Ammunition Flows in Partnership with Bedfordshire Police



UNIDIR conducted an ammunition profiling case study in Bedfordshire County, UK, in partnership with and at the request of Eastern Region Special Operations Unit (ERSOU) Regional Organised Crime Threat Assessment Unit and Bedfordshire Police during 2021-2022.

This is the first time Bedfordshire County has conducted an ammunition profiling effort. Local authorities are interested in complementing and informing their crime-fighting strategies with new evidence.

The objective of the case study was to generate baseline data and evidence-based analysis of ammunition flows, which in turn, can be used to inform local and national efforts to curb the flow of ammunition reaching unauthorized users.

Bedfordshire Police provided data from the National Ballistics Intelligence Service (NABIS) database to enable the identification of patterns and trends. The study analysed 2,185 individual pieces of ammunition, within 181 firearms-related incidents, recovered between 2010-2020 in Luton and Bedfordshire.



The initial impact of this case study was made through the collaborative partnership with ERSOU, NABIS, Rutgers University Center on Public Security, and UNIDIR's core donors. The lessons learned from the Bedfordshire context can be channelled upstream to inform national and multilateral processes and global efforts to reduce armed violence.

## Key Observations from Bedfordshire

### Ammunition Quantity

*An overall increasing trend in the number of whole rounds and cartridge cases recovered was recorded for the 2010-2020 period. The year with the most documented firearms-related incidents was 2018, which also coincided with a documented peak in seizures and gang-related crime within the 10-year period.*

### Country of Manufacture

*23% of ammunition recorded between 2010-2020 was manufactured within the UK.*



### Manufacturer

*Amongst the entire sample, Focchi, Sellier & Bellot, and Umarex were the top 3 ammunition manufacturers recorded between 2010-2020 (ordered from first to last). Focchi ammunition represented 25% of the sample from the top 10 manufacturers, accounting for the largest portion of ammunition by a single manufacturer.*

### Calibre

*12 Bore ammunition was the most common calibre type recorded between 2010-2020.*

### Blank Cartridges

*Blank-firing cartridges and converted ammunition from blank cartridges were strongly associated with gang-related crime – in line with UK trends.*

## Armed Violence Context

The Bedfordshire findings were dominated by drug- and gang-related crime:

### Drug-related Crime:

The recurrence of (i) *Lyalvale-manufactured 12 Bore calibre*; and (ii) *Fiocchi-manufactured 9mm PAK and 9mm PAK modified with projectile ammunition*, may suggest an association between drug-related crime and heightened risk of lethal outcomes.

### Gang-related Crime:

The recurrence of *Umarex-manufactured 9mm PAK and 9mm modified with projectile ammunition* suggests a strong association between the use of blank and/or modified ammunition in connection to gang-related crime, in line with documented trends in the UK .

## Immediate Local Impact Achieved

Key achievements of the NABIS and Bedfordshire Police during the case study conducted in partnership with UNIDIR, as of April 2022

**DEVELOPED** new guidance documents with key considerations and minimum standards for law enforcement officials attending firearms scenes, circulated to all 7 forces in Bedfordshire County.



**UPDATED** existent data collection templates to generate a greater level of detail on firearms and ammunition seized in investigations by utilizing [UNIDIR's Ammunition Profiling Handbook](#).



**STRENGTHENED** inter-agency coordination and information sharing through regular consultations between NABIS and Bedfordshire Police analysts. The partnership fostered collaboration and communication between key agencies on trends in ammunition flows and the criminal context, thus strengthening the implementation of ongoing local efforts.

**ADVANCED** Information Technology systems to overcome obstacles in recordkeeping and data quality. In addition, the NABIS Memorandum of Understanding is currently being revised to clarify data requirements needed to reach optimum service levels thanks to the joint contributions of NABIS users from all UK law enforcement agencies.

**INCREASED** knowledge of NABIS database users on ammunition types and characteristics, including by producing specific NABIS database guidance on ammunition in September 2021. In parallel, a reference guide and visual aide for all individuals involved in the recovery and recording of ammunition was published in April 2022 and is expected to further increase levels of confidence on ammunition identification among database users and improve data quality and the level of detail in NABIS.



**RECOGNIZED** that a greater focus on ammunition is needed when analysing the criminal use of firearms, as articulated through the publication of the NABIS ammunition enhancement project in October 2021.

These examples of operational changes were made to enhance understanding of ammunition flows, thus informing local efforts to reduce armed violence.

## Phase 1

Research & community engagement (inputs)



Consultations and information sharing on current challenges and dynamics of armed violence and ammunition flows

## Phase 2

Research outputs provide practical solutions



Ammunition profiling case study provides actionable information, key findings, and baseline data for law enforcement to better understand ammunition flows



## Phase 4

Institutional & society level impact (long-term impact)

Operational and policy changes are expected to contribute to the goal of armed violence reduction, the promotion of safer communities, and supporting broader development and security goals



## Phase 3

Policy & operational impact (Immediate and local impact)

Using research findings to inform operational and policy changes for enhanced responses to curbing ammunition flows (e.g. recordkeeping, operational guidance, IT improvements, inter-agency coordination)

## Ideas for Global Action



**ENHANCE** qualitative and descriptive information in national ballistics databases to enable the full identification of patterns and trends in crime and to conduct comprehensive analyses. This includes generating disaggregated data on specific weapon types, characteristics of the victim/perpetrator relationship, and details on gender and age. Standardized data collection processes and templates may be examined and updated to support such efforts.



**RECORD** data on the year of manufacture for all ammunition to support the identification of regular flows of ammunition or old stocks; establish if a steady supply chain is available; or identify potential sources of diversion.



**PROVIDE** training and awareness raising on ammunition to increase technical knowledge and encourage law enforcement and police analysts to provide detailed information for national ballistics databases.



**CONSIDER** adopting enhanced ammunition marking practices and policies to increase the value and accuracy of ammunition profiling studies and allow for more targeted responses to prevent armed violence. This may include supporting lot and batch number markings to all individual small-calibre cartridges procured.



To learn more about UNIDIR CAAP's work, visit [unidir.org/programmes/conventional-arms](http://unidir.org/programmes/conventional-arms)



Designed by Theò Bajan