



Armed to kill

*An exploratory analysis of the guns
used in public mass shootings in Europe*

Nils Duquet

Report

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ARMED TO KILL

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Introduction

Every year in Europe around 1,150 people are shot dead with firearms. These deaths occur in various contexts, including the relational and criminal spheres. The little available research into the weapons used during these fatal crimes suggests that different types of firearms are used in different contexts.¹ In this report we focus on the weapons that were used for one specific form of deadly firearms incidents, namely “public mass shootings”. These are shooting incidents in the (semi-)public space in which the perpetrator(s) use one or more firearms and during which several people are killed and injured. Under this umbrella term we find numerous types of shooting incidents, ranging from school shootings in which a frustrated pupil murders a number of classmates and/or teachers to terrorist attacks in which groups of perpetrators attempt to spread terror in coordinated attacks. A look at recent mass shootings shows that significant differences can be observed in terms of, for example, the locations where these shootings were carried out, the number of perpetrators, the motives of the perpetrator(s), the selection of the victims and the firearms used. This report analyses one specific aspect of such shooting incidents, namely the firearms that were used.

Previous studies have demonstrated that public mass shootings are a global phenomenon, but a significant share of such shootings occur in the United States. Recent research comparing public mass shooting rates across 171 countries indicates that 31% of the global public mass shootings between 1966 and 2012 occurred in the United States.² Such shootings are not very common in Europe, and mass shootings figures generally represent a limited proportion of the total homicide figures and deaths from firearms in any given country. However, the impact of these deadly shooting incidents is usually considerable. Whereas incidents of criminal score settling generally occur at a distance from everyday life (that is, within the criminal underworld), the violence of these mass shootings in the (semi-)public space occurs extremely close to home. It is also the effect of such incidents on the broad public that leads to societal debate on the role of firearms in society, and consequently these incidents are an important stimulus for changes to be made to legislative frameworks or firearms policies. For example, we can observe that deadly shootings in the public sphere of several European countries have already led to amendments to the national legislative framework dealing with firearms or the development of new policy initiatives in this regard: we only have to consider the new legislation adopted in the immediate aftermath of deadly shooting incidents in, for example, the United Kingdom in 1996 (Dunblane), Belgium in 2006 (Antwerp) and Germany in 2009 (Winnenden). The European Union (EU) has also explicitly referred to such deadly shootings in recent years to motivate new policy initiatives.³ Moreover, the series of terror attacks in Europe in which terrorists used firearms have recently led to sharply increased attention being focused on this problem. For example, in the immediate aftermath of the terrorist attacks in Paris in November 2015 the European Commission proposed new measures to amend the EU’s legislative framework around firearms possession to harmonize it further and significantly strengthen it.⁴

A lack of basic information and thorough analyses of the European firearms issue is a considerable stumbling block in the development of effective firearms legislation and policy. The bulk of the research into the relationship between firearms and violence relates to the situation in the United States.⁵ This is also the case for research into public mass shootings: the United States has a long tradition of researching these violent incidents. In Europe, however, significantly less research has historically been available on the weapons used in mass shootings. For example, very few studies

provide an in-depth examination of the types of firearms used in these deadly shootings, the legal status of these weapons and the ways in which the perpetrators got hold of them. Yet these are important focal points in the societal debate surrounding the role of firearms in general in European society, and the various aspects of firearms legislation and policy in particular. A more substantial understanding of the problem is crucial, with the aim of developing legislation and policy to prevent these tragic shooting incidents as much as possible.

The aim of this report, therefore, through an analysis of the weapons used in public mass shootings in Europe, is to stimulate the societal and policy-oriented debate around violent shooting incidents in Europe. Specifically, we have approached this issue by analysing the firearms used in a selection of eight recent public mass shootings in Europe. After a brief explanation in the first chapter of the methodological framework used, we analyse the selected shooting incidents in the second chapter. Each case study begins with a concise description of the shooting incident itself, followed by an analysis of which types of firearms were used, and especially how the perpetrator(s) was/were able to obtain these weapons. In the final chapter we will analyse and discuss the findings from the case studies. Using this qualitative approach, we intend to go in search of the stories behind the statistics. By analysing in detail the ways in which the perpetrators of these shooting incidents acquired their firearms we intend to draw lessons for current and future European initiatives to improve firearms legislation and policy. To this end we should emphasize that, as a result of the observed gaps in European research into weapons use in public mass shootings, this report is intended as an exploratory analysis that, it is hoped, will foster the current European debate around firearms legislation and policy, lead to more research into this issue, and ultimately result in concrete steps being taken to deal with the issues that the report raises.

1 Methodological framework

In this study we have elected to use a qualitative research methodology to analyse in detail which firearms were used by the perpetrator(s) of eight public mass shootings carried out in Europe in the period 2009-2015 and how these perpetrators were able to obtain these weapons. Before proceeding to the case studies in chapter 2, we will briefly explain our methodological framework and, more specifically, the definition of public mass shootings that was used, the selection of the case studies and the sources of our information.

Definition

Deadly mass shootings are mass murders in which one or more firearms are used to kill several victims. Generally speaking, a mass murder is a murder in which several people are killed by one or more perpetrators in a short time frame (usually within a few hours) and within a very limited geographical area. The specifics of these elements (for example, the number of dead and/or wounded victims) vary from study to study. Moreover, a number of terms are also used to describe this phenomenon (for example, mass shooting, mass murder, mass killing, rampage killing, active shooter incident and multiple homicide), which can lead to confusion. Among other things, these differing definitions mean that the number of observed mass shootings varies significantly depending on the person or organisation identifying and analysing them.

In this report we analyse the weapons used in shooting incidents in the (semi-)public space in which there were at least four deaths (not including those of the perpetrator(s)). Shooting incidents that were carried out in the domestic sphere or which were the immediate result of purely criminal activities were not included in our selection.¹ Given the significant societal impact of the recent terrorist attacks in which firearms were used and the observed gaps in in-depth comparative analyses of public mass shootings in Europe, we have decided to include terrorist-related mass shootings² in the (semi-)public space.

Selection of the case studies

Based on our definition of public mass shootings, we have identified 19 mass shooting incidents for the period 2009-2015 in the (semi-)public space in Europe, in which a total of 319 people were killed (see Table 1). We compiled this list of mass shootings after an extensive web-based search using a series of search terms that included “mass shooting”, “public shooting” and “school shooting”³ and after looking at the various existing lists of similar shooting incidents in Europe. Additional information was subsequently sought about each of the initially identified shooting

¹ In our examination of deadly shooting incidents in Europe, only one shooting incident was identified for the period 2009-2015 that was related to criminal activities and in which four or more victims were killed (Annaberg, Oostenrijk, 2013). It is possible that more of these shooting incidents occurred, but we have not identified them due to language barriers or the generally lower (international) media attention that such incidents receive.

² Terrorist-related mass shootings are shootings in which the perpetrators had political, religious or ideological aims.

³ These search terms were also entered in languages other than English.

incidents to assess whether the incident in question fell within our definition of public mass shootings.

Table 1: Overview of public mass shootings in Europe, 2009-2015

Year	Location	Perpetrator	Firearm deaths*
March 2009	Winnenden (Germany)	Tim Kretschmer	15
December 2009	Espoo (Finland)	Ibrahim Shkupolli	5
June 2010	Cumbria (United Kingdom)	Derrick Bird	12
August 2010	Devinska Nova Ves (Slovakia)	Lubomir Harman	7
September 2011	Alphen aan de Rijn (Netherlands)	Tristan van der Vlis	6
July 2011	Utøya (Norway)	Anders Breivik	67
December 2011	Liège (Belgium)	Nordine Amrani	6
March 2012	Toulouse-Montauban (France)	Mohammed Merah	4
April 2012	Smilkovci (Macedonia)	Several perpetrators	5
September 2012	Chevaline (France)	Unknown	4
February 2013	Menznau (Switzerland)	Viktor Berisha	4
April 2013	Velika Ivanča (Serbia)	Ljubisa Bogdanovich	13
May 2014	Brussels (Belgium)	Medhi Nemmouche	4
November 2014	Tirana (Albania)	Konstandin Xhuvani	4
January 2015	Paris (France)	Several perpetrators	17
February 2015	Uherský Brod (Czech Republic)	Zdeněk Kovář	8
May (2015)	Naples (Italy)	Giulio Murolo	4
August (2015)	Roye (France)	Name not disclosed	4
November 2015	Paris (France)	Several perpetrators	130

* Perpetrator(s) not included.

Cases selected for the present study.

Our analyses show that the perpetrators of these 19 public mass shootings were all men. Furthermore, in almost all the cases the perpetrators committed suicide or were killed by law enforcement personnel. We can also observe that these shooting incidents were carried out throughout Europe. The 19 identified public mass shootings were carried out in 14 different countries spread across Europe, both in countries with high levels of firearms possession (for example, Switzerland and Finland) and those where firearms possession is significantly lower (for example, the Netherlands and the United Kingdom).⁶ A striking aspect is that some shooting incidents started as a domestic situation in which first one or more family members were killed before the perpetrator went into the (semi-)public space to continue his deadly attacks, killing and injuring victims there in the process (for example, Espoo, 2009; Cumbria, 2010; and Velika Ivanča, 2013). A total of 319 people were killed in the 19 identified mass shootings. This means that an average of 16.8 people were killed in each public mass shooting in Europe in the period in question. However, there are significant differences in the number of victims depending on the nature of the shooting incident.

In at least five of the 19 identified shooting incidents in Europe the perpetrators had terrorist motives (Utøya, 2011; Toulouse-Montauban, 2012; Brussels, 2014; Paris, January 2015; and Paris, November 2015). The deadly incident at Smilkovci lake in Macedonia in April 2012 in which five people were shot was also identified as an act of terror by the Macedonian Ministry of Internal Affairs, although this was subsequently disputed.⁷ In the 13 remaining public mass shootings it quickly became apparent that the perpetrators did not have terrorist motives. This shows that the majority of the public mass shootings in Europe are not terrorist-related. In the terrorist-related shooting incidents there were, however, significantly more deaths in recent years: in the five identified terrorist attacks carried out with firearms in 2009-2015 a total of 222 people were killed (which equates to an average of 44 deaths per shooting incident), while in the 14 other public mass shootings there were 97 deaths (which equates to almost seven deaths per shooting incident). The

high number of deaths in terrorist-related attacks is primarily the result of the incidents in Paris in November 2015 and on Utøya island in 2011, in which there were exceptionally high numbers of fatalities.⁸

The US Congressional Research Service (CRS) documented 78 public mass shootings in a recent report on the basis of a comparable definition to the one used in the present study, in which there were a total of 547 deaths in the United States in the period 1983-2013. This equates to an average of 2.5 similar shooting incidents and 17.6 deaths per year.⁹ The CRS figures do not include terrorist-related shooting incidents. In the EU in the period 2009-2015 we identified a total of ten non-terrorist-related public mass shootings with 71 deaths in total, which equates to an average of 1.7 similar shooting incidents and 11.8 fatalities per year. Given the difference in the size of the populations of the United States and the EU, these figures suggest that non-terrorist-related public mass shootings are, relatively speaking, carried out more than twice as often in the United States as in the EU each year (and that there are annually more than twice as many fatalities). However, more research is needed to thoroughly compare the differences in frequency and nature of public mass shootings in the United States and the EU.

In this report, for eight of the 19 identified recent public mass shootings in Europe we have searched for information regarding the firearms used and the ways in which the perpetrators obtained these firearms. For practical reasons it was not possible to analyse the firearms used and their acquisition for all 19 identified recent mass shootings. The cases selected for analysis are identified in Table 1. When selecting the cases we took various factors into consideration such as the context in which each shooting incident occurred, the modus operandi of the perpetrator(s) and the geographical location of the incident. The main aim was to analyse a broad range of public mass shootings. However, a number of practical obstacles also influenced our selection: for example, for some shooting incidents it is still not entirely clear what happened on the day in question. An obvious example of this is the deadly shooting incident in the vicinity of Chevaline, France, in September 2012 in which a British family and a Frenchman were shot, which has still not been resolved to this day. This implies that no reliable information is available regarding the acquisition of the firearm used, so we were unable to include this shooting incident in our selection. Language barriers also acted as considerable obstacles to the analysis of a number of other shooting incidents in terms of obtaining reliable information on the acquisition of the firearms used.

Sources of information

Research into mass murder is primarily based on two types of information, namely information released by official bodies and/or information from media reports. There are advantages and disadvantages associated with both types of data.¹⁰ In this report we will make use of both types of information, although we have given priority to that from official documents and declarations issued by public bodies, and have used these as much as possible in our study. For example, in the wake of the various shooting incidents, press conferences are frequently organized in which information about the facts is disclosed, often including information about the weapons used. Moreover, following numerous shootings that were carried out with legally obtained firearms, studies were carried out on the acquisition of the weapons used. The results of these studies were often released into the public domain. It goes without saying that this information from official bodies added significant value to our study, given its high level of reliability and detail.

Where no information was available from official documents, investigation reports and press conferences, only media reports were used. These reports often contain relevant information on the weapons used. However, one of the disadvantages of using this kind of data for analysing criminal activity is that not all types of activities receive the same level of media exposure. Mass murders generally receive significant media attention. This is also apparent from our analysis of mass shootings in Europe: for each of the selected cases detailed information was found in local (and often also international) media reports regarding the shooting in general and the weapons used in particular. However, the major concern regarding the use of media reports on the weapons used is their reliability. Media reports are at times speculative, can contain erroneous information and can contradict one another. This is why, for sources of information, priority was given to media reports that cited representatives of government agencies over other media reports. At the next level, priority was given to media reports containing the most detailed information, while local media reports were chosen over international media reports. If uncertainties and contradictions remained, we explicitly indicate this in the description of the cases and factored this into our analysis.

2 Cases

2.1 Winnenden (Tim Kretschmer), March 2009

On the morning of 11 March 2009, 17-year-old Tim Kretschmer walked into his former high school in Winnenden, a small town in south-west Germany, armed with a Beretta pistol. He entered three classrooms and shot dead nine students and three teachers.¹ Seven other students were wounded. The police quickly arrived at the scene and an exchange of fire took place between them and the perpetrator. However, Kretschmer was able to escape and, while fleeing, shot dead a worker at a nearby psychiatric hospital (where he had been treated a year earlier). He then hijacked a car and forced the driver to take him to Wendlingen, 40 km away. The perpetrator then entered a Volkswagen car showroom and shot a salesperson and a customer. When the police arrived at the scene a second exchange of fire took place in which two police officers and Kretschmer were wounded. Having been cornered by the police, he shot himself in the head. During the deadly attacks, which lasted for three hours, more than 100 shots were fired, 16 people (including the perpetrator) lost their lives, and nine others were wounded.¹¹

During the shootings Tim Kretschmer used a semi-automatic 9 mm Beretta 92 pistol. His father owned this pistol and the accompanying ammunition. At the time of the events the perpetrator's father was a member of a local shooting club and owned 15 legally obtained firearms. Every three years the father was checked by the Landsratsamt Rems-Murr-Kreis as to whether his licence to possess firearms should be extended. Most of the father's firearms were securely locked away in two gun cabinets, which were secured with a numerical code. However, the 9 mm Beretta pistol used in the shootings was not stored in one of the gun cabinets, but lay in an unlocked cabinet in the father's bedroom.¹² In the aftermath of this tragedy the father was convicted of involuntary manslaughter and "*negligence causing bodily harm*". He received a suspended sentence of 18 months for not having securely stored the pistol that his son used in the shootings.¹³

Following the shootings, it was suggested that the perpetrator must have been a very good marksman. Although Tim Kretschmer did not own any firearms himself, he did have more than 20 airguns in his possession. Along with youths from the neighbourhood, he regularly used these airguns for shooting, a practice at which Kretschmer excelled, according to his companions. According to some sources, Kretschmer even had a fully-fledged shooting range for his airguns in the basement of his home. During the first police interrogation the father confirmed that his son had come to the shooting club on at least three occasions and that they had practised shooting handguns there together. The last occasion had been around three weeks before the fatal shootings.¹⁴

¹ With the exception of one male student, all of the victims were female.

2.2 Cumbria (Derrick Bird), June 2010

On 2 June 2010, 52-year-old taxi driver Derrick Bird shot dead 12 people and wounded 11 others in the west of Cumbria, a county in north-west England. His deadly attack began in the early hours of the morning, when he left his house in Rowrah and drove in his taxi to his twin brother's house in the nearby village of Lamplugh and shot him dead. He then drove to the home of the family solicitor in the neighbourhood and also shot the man dead, at around 10 am. After these two murders within the family circle, armed with a sawn-off shotgun and a rifle he drove to the small harbour town of Whitehaven, where he worked as a taxi driver. There he shot four colleagues, one fatally. He then drove south towards the coastal town of Seascale, roughly 25 km away. On the way he continued to shoot at people from his taxi, often asking them what the time was from inside the taxi and, once they were standing close enough, shooting them. Nine people lost their lives in this way and eight others were wounded. He then drove inland, but after barely 15 km, at the village of Boot, he ran out of petrol. He had also used up all the shotgun ammunition. Bird left his shotgun in the car and continued on foot at around 12.30 pm armed only with his rifle. One hour later his body was found in the woods near Boot: he had shot himself with his rifle.¹⁵

During his deadly attacks Derrick Bird used two firearms: a “*side by side shotgun chambered for standard 12 gauge shotgun cartridges, using a non ejector, external hammer action*” and a type CZ 452-2E ZKM .22 rifle. He was legally entitled to own both firearms, possessing a shotgun certificate for the shotgun and a firearm certificate for the rifle. The Cumbria police had issued these licences. He was also in legal possession of the ammunition he used. However, several hours before the events Bird had sawn off a section of the rifle's barrel. Bird also owned two other shotguns¹ on the basis of his shotgun certificate, but did not use them on 2 June.¹⁶

Bird's shotgun certificate was issued in 1974 (when he was 16) and was subsequently renewed on several occasions. The most recent renewal took place in 2005 and was valid until November 2010. His firearm certificate was issued in 2007 and allowed the possession of a .22 calibre rifle, 1,500 rounds of ammunition and a silencer for the rifle. He justified his application by stating that he wanted to use the rifle to shoot vermin on his farm. The investigation into the Cumbria shootings, commissioned by the Association of Chief Police Officers, revealed that none of the authorised bodies possessed information that would have given reasonable cause to revoke his licences and confiscate his weapons. The most important conclusion from this investigation was that the licensing procedure had proceeded correctly.¹⁷

¹ According to the Association of Chief Police Officers' report, an “*over and under shotgun chambered for standard 12 gauge shotgun cartridges, using an automatic ejector mechanism*” and a “*single barrelled shotgun chambered for standard 20 gauge shotgun cartridges*”.

2.3 Alphen aan den Rijn (Tristan van der Vlis), April 2011

Shortly after 12 pm on 9 April 2011, 24-year-old Tristan van der Vlis drove into the car park of the Ridderhof shopping centre in Alphen aan den Rijn, a Dutch town in South Holland province situated halfway between Amsterdam and Rotterdam. The young man parked his black Mercedes there and took a pistol, revolver and semi-automatic rifle from his car's boot. He shot a random passer-by with his rifle several times at close range in the car park. The man died at the scene. This was the start of a shooting spree that only lasted a few minutes, but which cost the lives of six people and left 16 others wounded. After he had shot the man in the car park van der Vlis entered the shopping centre at 12.08 pm and immediately began shooting in the direction of a clothing shop, killing a couple. The perpetrator walked around the shopping centre and continued shooting. Three people died on the spot, including two people in a mobility scooter. Later a sixth person died from his wounds in hospital. The police quickly arrived at the scene, but there was no exchange of fire with the perpetrator. At 12.11 pm van der Vlis killed himself.¹⁸ During these few minutes van der Vlis had fired more than a hundred shots with his three firearms.¹⁹ After the shootings the police found a letter in the perpetrator's parked car in which it was stated that explosives had been planted in three other shopping centres. However, this claim turned out to be false. Van der Vlis's mother subsequently found a farewell letter from her son.²⁰

Tristan van der Vlis used three firearms in the shopping centre: a Colt .45 pistol, a Taurus model 66 revolver and a semi-automatic Smith & Wesson M&P15-22. Shortly after the shootings it became apparent that the perpetrator, despite having been diagnosed with schizophrenia, was a member of a shooting club and was in legal possession of the weapons he had used. In reaction to parliamentary questions and with the aim of improving public safety, the minister for security and justice requested the Dutch Safety Board, which is an investigative authority set up in 2005 by the Minister for Internal Affairs, to *"initiate an investigation into the Dutch system governing the legal possession of firearms and determine whether the system functions and did function adequately in relation to the incident"*. This official investigation's report described in detail how van der Vlis acquired his weapons.²¹

In August 2005 the 19-year-old van der Vlis applied to the Hollands Midden police for a firearms licence for the first time. However, his licence application was refused in September 2005 when the police discovered that he had been involved in two incidents involving an airgun two years earlier: in February 2003 the then 17-year-old van der Vlis was involved in the destruction of property, for which an airgun was used, and in March 2003 was involved in a threatening incident with an airgun during which someone was shot in the ankle.²²

In September 2007 van der Vlis became a member of a local shooting club that rents shooting ranges from a commercial sport shooting centre, and where his father was also a member. Besides the shooting range in the sport shooting centre there are also a firearms retailer and a party centre. The Koninklijke Nederlandse Schietsport Associatie (Royal Dutch Shooters Association) granted him a licence to shoot small-calibre weapons at the shooting club. After one year's membership he became eligible for a firearms licence, and in October 2008 he applied to the Hollands Midden

police for such a licence for the second time. Another background check was conducted. The recorded facts regarding the incident with the airgun from 2003 were taken into consideration, but because the case had been dismissed (due to van der Vlis's minimal involvement), he obtained his firearms licence in November 2008, which allowed him to own and transport a SIG Sauer 9 x 19 mm pistol. He bought the pistol immediately. However, the information relating to the refused firearms licence in 2005 was not included in the background check. Furthermore, information relating to the fact that the mayor had ordered van der Vlis to stay in a psychiatric hospital for 15 days in September 2006 for fear of his committing suicide¹ was also not included in the background check.²³

In the subsequent years van der Vlis bought and sold numerous firearms. In October 2009 he sold his SIG Sauer pistol and bought a Taurus model 66 revolver. Five weeks later he also bought a Norinco pistol. However, in early 2010 he sold both of these firearms and bought a Colt .45 pistol. In April 2010 he bought another Taurus model 66 revolver. His firearms licence was extended twice during this period.¹¹ During a home inspection in December 2010 the police checked whether van der Vlis's weapons and ammunitions were correctly stored. The police did not observe any anomalies.

In 2010 van der Vlis applied for a firearms licence for a semi-automatic Smith & Wesson M&P15-22 rifle, having completed a WM3 form. The board of van der Vlis's shooting club confirmed in this document that he wanted to use the weapon to practise one of the disciplines that were practised at the club. The police approved this application and granted van der Vlis a licence for the weapon. Following the subsequent investigation by the Safety Board, it transpired that this firearms permit should not have been issued to van der Vlis, since the weapon could not be used in one of the sport shooting disciplines practised at the club. After obtaining his firearms licence van der Vlis bought an M&P15-22 rifle from the firearms retailer at the sport shooting centre in January 2011. A few weeks later he bought a second magazine at the same shop. In the meantime he bought three additional magazines from a different firearms retailer. These magazines were delivered on 8 April 2011.²⁴ The next day van der Vlis drove to the shopping centre with his M&P15-22 rifle, Taurus revolver and Colt pistol in the boot of his car and began his deadly attacks.

¹ His parents feared that he might use one of his father's firearms.

¹¹ In November 2009 and November 2010.

2.4 Utøya (Anders Breivik), July 2011

On 22 July 2011, 32-year-old Anders Breivik left the farm where he lived in Vålstua, a small village in eastern Norway, and drove towards the Norwegian capital, Oslo. This was the start of the most deadly attack in post-war Norway, in which 77 people died in total and dozens more were wounded. He used both a home-made car bomb and two firearms.

Around 3.15 pm local time, Breivik, dressed in a fake police uniform, parked a white Volkswagen Crafter van filled with a fertilizer bomb weighing around 950 kg in front of a government building that housed the prime minister's office in the Regjeringskvartalet, the political heart of Oslo. He left the car parked there and set off on foot. Around ten minutes later the van exploded and eight people were killed as a result, while ten others were seriously wounded and taken to a hospital. In the meantime Breivik had already walked to a nearby square armed with his pistol, where he had parked another car, a Fiat Doblo, a few hours earlier. He drove this car in the direction of Utøya, a small island situated approximately 35 km north-west of Oslo. The island is the property of Arbeidernes ungdomsfylking, the youth wing of the Norwegian social democratic party Arbeiderpartiet. At the time the group was holding its annual summer camp. More than 500 young people from across the country had been invited to the island to take part in political debates, sing and perform. Around 5 pm Breivik took the ferry to the island, dressed as a police officer and armed with a pistol and a rifle. He explained to the ferry operator that he was part of the Politiets sikkerhetstjeneste (the police security service) and that he needed to travel to the island in connection with the investigation into the bomb attack in Oslo. Once on the island he began shooting at the people present. He was able to continue his shooting spree on the island for over an hour without interruption, shooting 67 people dead¹, predominantly young people, and wounding tens of others. In total he fired at least 189 shots. He called the police twice from the island and told them that he would like to give himself up. However, after each telephone call he continued to shoot people on the island. A SWAT team arrived on the island at 6.25 pm. When confronted by the police Breivik surrendered immediately.²⁵

By his own account, Breivik was part of a militant-nationalist group called Knights Templar. Although he pleaded not guilty, Breivik explained during his trial that he had deliberately chosen his victims because, in his eyes, they were traitors who advocated immigration and a multicultural society.²⁶ This view was also confirmed in his 1,500-page manifesto entitled *2083: A European Declaration of Independence*, in which he described the preparations for his attack in detail and which he posted online shortly before the start of the attack. On 24 August 2012 Breivik was sentenced to 21 years of "preventive detention", a sentence that, on completion of the initial period of 21 years, can be extended repeatedly if the convicted person is still considered to be a danger to society.

¹ Two others died during their attempt to escape (fall and drowning).

Anders Breivik carried out his deadly attacks on Utøya island with two firearms: a semi-automatic .223 Remington calibre Ruger Mini-14 rifle equipped with a 30-cartridge magazine, additional laser sights and a bayonet, and a semi-automatic 9 mm Glock 34 pistol equipped with laser sights and two extra magazines with a capacity of 17 and 31 cartridges. In total he had 1,036 cartridges on his person in Utøya. In his car, which he left at the Utøya ferry terminal, a 12/89 calibre Benelli Nova pump-action shotgun and a large amount of ammunition were found.²⁷ During his trial Breivik explained that he gave his weapons names from Norse mythology¹ and had these names inscribed on the weapons.²⁸

A few weeks after the attacks a commission was set up to investigate what had gone wrong on 22 July. This investigation revealed that Breivik had these firearms in his possession legally. The first weapon he acquired was his Benelli shotgun, which he bought in June 2003 at a firearms retailer in Oslo. His application for the purchase of this weapon was approved and it was registered in the registry of weapons in September.²⁹ In his manifesto Breivik describes in detail how he obtained the remaining firearms. At the beginning of August 2010 he travelled to Prague with the specific aim of purchasing an AK-47 assault rifle and a Glock 17 or 19 pistol. However, he did not manage to complete the purchases and then decided to acquire the weapons legally back home: *"I have now decided to abort this sub-mission and rather focus on acquiring the weapons I need legally, back in Norway."*³⁰ In the subsequent weeks he applied for a licence for the semi-automatic Ruger Mini-14 rifle, officially for hunting: *"I now have to acquire a semi-automatic rifle and glock legally. I don't think the rifle will be a problem, as I have completed the 1 week duration hunter course, and I have had a Benelli Nova Pump-Action shot gun for 7 years without incident. I don't have a criminal record so there is no reason why the police should reject my application. I have now sent an application for a Ruger Mini 14 semi-automatic rifle (5.56). It is the most 'army like' rifle allowed in Norway, although it is considered a 'poor man's' AR-15. ... In any case; I would rather have preferred a Ruger Mini 30, but I already own a 7.62 bolt rifle and it is likely that the police wouldn't grant me a similar caliber. On the application form I stated: 'hunting deer'."*³¹

In his own words, Breivik had a much harder job acquiring the Glock pistol. Already in 2005 he had become a member of a local shooting club with a view to increasing his chances of being able to legally acquire a Glock. In the following years he only visited the shooting club sporadically. After the failed attempt to buy firearms in Prague he decided to visit the club more often to increase his chances of obtaining a licence: *"Acquiring a pistol, legally, is more tricky. I have been a member of Oslo Pistol Club for a few years but it is required that you train regularly in order to be eligible. I will have to train more often this winter and ensure I build up a solid track record, which in turn should enable me to get a permit."*³² During the period from November 2010 to January 2011, by his own account he went to the club 15 times to shoot in order to enhance the chances of his licence application being approved. In mid-January 2011 he submitted his licence application for a Glock pistol. In the same period he underwent training on three occasions in rifle shooting and bought large quantities of .223 bullets for his Ruger rifle through a small-scale US supplier.³³

The established facts that were summarized in the official investigation report by the 22 July Commission support Breivik's version of how he acquired his weapons. It was ascertained that Breivik was a member of the Oslo Pistol Club between 2005 and 2007, and, after an interval of a few years, once again from June 2010. From the summer of 2010 he gradually started buying more weapons, ammunition and associated equipment. In 2010 and 2011 he spent a total of 39,032 Norwegian krone (NOK) on the purchase of firearms and associated equipment and NOK 8,151 on

¹ More specifically, he gave the name Gungnir (the name of the Norse god Odin's spear) to the Ruger Mini-14 and the name Mjölfnir (the name of the Norse god Thor's hammer) to the Glock pistol.

ammunition in various shops. On 12 July 2010 Breivik obtained a *våpenkort* (firearms licence) for a Weatherby Vanguard rifle designed for elk hunting. He bought the weapon in question and the accompanying ammunition in a department store in the centre of Oslo, but sold it to someone else in January 2011. On 14 October 2010 he obtained his *våpenkort* for the Ruger rifle for deer hunting, and bought it in November for NOK 8,790 (roughly €1,050 at the time) at a firearms retailer in Moss, a small coastal town 60 km south of Oslo. In March 2011 Breivik obtained his *våpenkort* for the Glock 34 pistol and bought it for NOK 7,700 (roughly €1,000 at the time) at a firearms retailer in Oslo. In the same shop he also bought two magazines, each holding 17 cartridges, and ammunition. In his licence application for this pistol Breivik indicated that he was a member of the Oslo Pistol Club, that he intended to participate in the NAIS training programme of the National Rifle Association of Norway (for which he could use this type of pistol) and that in the future he might want to focus on shooting competitions. Furthermore, between May 2010 and April 2011 he bought additional magazines and various pieces of firearms equipment, including a silencer and sights. He generally bought the equipment via the websites of foreign sellers and received the products through the post.³⁴

2.5 Liège (Nordine Amrani), December 2011

On 13 December 2011, 33-year-old Nordine Amrani walked into the centre of Liège around midday. He had been summoned for a police hearing in connection with a sexual offence, but instead of attending the hearing, Amrani went, heavily armed, to the Place Saint Lambert, the square in the centre of Liège where the courthouse is situated and where a Christmas market was taking place at the time. Just before 12.30 pm he walked over to a restaurant on the square and took the staircase to the roof of the building. A few minutes later Amrani took at least three hand grenades and an FN FAL assault rifle from his sports bag. He pulled the pins out of the grenades and threw them in the direction of the bus shelters and the Christmas market on the square. Numerous people were in the square at the time, many of whom were young people coming back from school and parents who were visiting the Christmas market. The explosions shook the square. He then began shooting in the same direction with his assault rifle.³⁵ Two teenagers and a one-and-a-half-year-old toddler died on the spot, and a 75-year-old woman and a 20-year-old man died later in hospital from their injuries.³⁶ Amrani himself was wounded when a fourth grenade exploded.³⁷ According to the public prosecutor, an investigation revealed that he then killed himself with his revolver.³⁸

Immediately after the start of the shootings 250 local police officers, 120 federal agents and 90 official investigators were drafted into Liège. The police reaction was initially chaotic and the security forces had difficulty in correctly assessing the situation, partly because of rumours that other gunmen were at large in the centre of Liège. A large security perimeter was set up. About two hours later the police confirmed that Amrani was working alone and the security perimeter was lifted.³⁹ In the hours following the shootings the police discovered that Amrani had already killed another victim half an hour before the attack in the square. In Amrani's shed in the Rue Bonne Nouvelle, approximately 2 km from the Place Saint Lambert, the police found the lifeless body of a 48-year-old woman. Amrani had asked the woman, who was a domestic worker for one of his neighbours, if she could come and do some chores in the shed. She had died from a gunshot wound to the head.⁴⁰

During the shooting Nordine Amrani was armed with an FN FAL assault rifle and a Smith & Wesson .41 Magnum revolver. Amrani used the assault rifle to shoot at the people present at the Christmas market and only used the revolver to kill himself. The police subsequently found nine magazines with a total of 270 bullets in Amrani's sports bag,⁴¹ together with numerous hand grenades.⁴² It was initially stated that no weapons had been found at Amrani's house, but the minister of justice subsequently confirmed that the police had found a revolver in the house after the shooting, and in his shed in the Rue Bonne Nouvelle they had found and confiscated a riot gun and a long rifle.⁴³

In the weeks following the shootings additional information appeared in the Belgian press about the FAL assault rifle and the Smith & Wesson revolver that Amrani used on that dark December day. Both weapons had originated from the illicit milieu, but had taken a circuitous route before coming into Amrani's possession. In November 2009 the Smith & Wesson revolver and a dozen other weapons were stolen from a firearms trader in Verviers, a small town in Liège province close to the border with Germany.⁴⁴ In January 2012 prosecutors confirmed that the weapon that Amrani had used to kill himself had been stolen in the burglary in Verviers.⁴⁵ According to the robbed firearms trader the burglary was carried out by professionals who clearly knew what they

were doing and which weapons they were looking for. In total, according to the firearms trader, exactly 30 small arms had been stolen, all of them "classic weapons" such as Smith & Wessons and Colt 45s.⁴⁶ Some of these weapons were found in 2010 in the possession of an armed robber from Beyne-Heusayn, a suburb of Liège, following an armed robbery at a car shop in Aubel, a small municipality near Liège. In a small bedroom of the man's house the police found numerous firearms that had been taken from the firearms trader in Verviers in 2009. The man denied that he had any connection with the firearms robbery, but was sentenced to 28 months in prison for armed robbery and illegal possession of weapons.⁴⁷ These facts suggest that Amrani's Smith & Wesson revolver originated from the criminal underworld.

The FAL assault rifle ended up in Amrani's possession through a different route. In August 2012 the Israeli media reported that the emblem of the Israel Defence Forces could be seen on Amrani's FAL assault rifle. A serial number and a few words in Hebrew were apparently engraved on the weapon. The Belgian police requested the Israeli army to investigate at what point the weapon had disappeared from the official radar. This report was confirmed by the Israeli Ministry of Defence, which added that the investigation was ongoing.⁴⁸ A few days later additional details about the weapon emerged in the Belgian media. It appeared that Amrani's FAL rifle had been put together with components from several such rifles. A number of components, including the barrel, originated from firearms that had been sold to the Israeli army by the Belgian weapons manufacturer FN Herstal sometime in the second half of the 1960s (probably between 1965 and 1967). These firearms were either produced in FN Herstal's weapons factory in Liège and then exported to Israel or produced in Israel under licence. Furthermore, it is still uncertain where these weapons went after being decommissioned from the Israeli army: they were either sold on to another country or sold to the local Israeli civilian firearms market.⁴⁹

After the deadly shooting at the Liège Christmas market the police confirmed that Amrani had probably spent time in the past converting weapons by, for example, reactivating neutralized weapons or converting fully automatic assault rifles that had been converted to semi-automatic weapons back to fully automatic weapons.⁵⁰ On the day of the shooting it was revealed that during a house search in October 2007 as part of an anti-drugs operation the police had found, in addition to a professional cannabis plantation, a dozen firearms and around 9,500 firearm components in Amrani's shed in the Rue Bonne Nouvelle. Among the "complete" firearms that were found were an AK-47 assault rifle, an MP40 machine gun, an FN FAL assault rifle and a pump-action shotgun, besides small arms. A rocket launcher was also found, as well as silencers and hundreds of rounds of ammunition.⁵¹ Amrani bought the shed in 2003. A striking fact is that the building was used until 1953 as the workshop of Jean Falla, a famous artisanal weapons maker from Liège. The district where the shed was situated used to be home to numerous weapons workshops where knowledge about firearms production was passed down from generation to generation. According to some sources, Amrani supplied the Liège underworld with firearms (either repaired or converted) from his shed.⁵² A few months after the shooting the minister of justice declared in the Senate that no investigation suggested that Amrani had also been a weapons dealer, besides being a weapons enthusiast.⁵³

On the basis of the weapons arsenal found in 2007 Amrani was prosecuted for illegal possession of weapons and was initially sentenced to 16 months in prison.⁵⁴ However, he was acquitted by the Court of Appeal for illegal possession of weapons. The Liège public prosecutor declared that the Court of Appeal could not convict him on the charges for technical reasons.⁵⁵ The public prosecutor subsequently clarified that Amrani had been acquitted based on the argument that at the time when he was caught an amnesty was in force in the context of the modified Weapons Act of 2006.⁵⁶ For the cannabis plantation, in 2009 Amrani was sentenced by the Court of Appeal to 48

months in prison. Additionally, he was required to serve an extra 24 months because of a conviction for rape in 2003, the sentence for which had been suspended. At the beginning of October 2010, despite two negative opinions from the prosecutors and the prison directors, Amrani was conditionally released early.⁵⁷

2.6 Paris (Kouachi brothers and Amédý Coulibaly), January 2015

Between 7 and 9 January 2015 at least four connected terrorist shooting incidents took place in the Île-de-France, the region around Paris, in which three perpetrators used firearms to kill 17 people. The wave of shooting incidents began in the morning of 7 January 2015 when the brothers Saïd and Chérif Kouachi, both heavily armed with East European assault rifles, entered the editorial office building of the weekly French satirical magazine *Charlie Hebdo* and started shooting at the people present. Eleven people, including the famous cartoonists Charb, Wolinski and Cabu, lost their lives in this attack, while eleven others were wounded. On exiting the building the two brothers shot a police officer dead and then fled. The French law enforcement agencies initiated a large-scale manhunt to catch the perpetrators, but the brothers were able to evade the police. On the following day the brothers were identified on the N2 highway at Villers-Cotterêts, where they raided a fuel station. In the early morning of 9 January an exchange of fire took place between the police and the Kouachi brothers in which Saïd was wounded in the head. However, the brothers managed to escape on foot, and around 9.30 am they walked into a small printing company in Dammartin-en-Goële, a small municipality 45 km north-east of Paris. There they took the owner of the company hostage. The perpetrators allowed one employee to leave, and another employee hid in the premises for the entire time that the brothers occupied the building.⁵⁸

While the law enforcement agencies were planning their operation to catch the Kouachi brothers, a third man, 32-year-old Amédý Coulibaly, armed with two Vz.58 automatic assault rifles and two Tokarev 33TT pistols, entered a Jewish Hypercacher supermarket at the Porte de Vincennes in the east of Paris. He shot four people dead and held hostage more than 20 customers and employees of the supermarket for several hours. The police cordoned off the area around the supermarket and started preparing for an operation to free the hostages. In a telephone interview with a French news channel, which took place during the hostage-taking situation, Coulibaly explained that he and the Kouachi brothers had "synchronized" the start of their actions: the Kouachi brothers' target was *Charlie Hebdo* and his was police officers. This was also apparent in a video Coulibaly made containing his demands, which was posted online two days after the hostage-taking situation.

It quickly became apparent that Coulibaly had already started his deadly attacks a few days earlier. On 8 January, the day after the attacks on *Charlie Hebdo*, he shot a young female police officer dead and wounded someone working in the street. According to eyewitnesses, Coulibaly was firing a Kalashnikov and was also armed with a Tokarev pistol.⁵⁹ On the previous evening, on the day of the *Charlie Hebdo* attack, a jogger was shot in Fontenay-aux-Roses, the municipality a few kilometres west of Paris and the place where Coulibaly lived. The young man was seriously wounded after being shot several times in the leg and back, and fell into a coma. A ballistics investigation ascertained that the man was shot with one of the Tokarev pistols that Coulibaly had with him in the supermarket. At the time of writing it remains unclear why the jogger was shot and who shot him.⁶⁰

The two hostage-taking incidents came to an end around the same time on 9 January. At about 5 pm the French security services began their operation to free the hostages in Dammartin-en-Goële, and an exchange of fire took place between security personnel and the Kouachi brothers in which both brothers died. Shortly after 5 pm the French security services also stormed the supermarket and an exchange of fire took place in which Coulibaly was shot dead.⁶¹

In the days after the attacks in Paris it was repeatedly reported in the media that there were indications the weapons used in the attacks had been bought in Belgium. It was suggested that Coulibaly had bought several firearms that were used by the Kouachi brothers during the attacks¹ in the area around the Brussels South railway station for less than €5,000.⁶² Immediately after the attacks Metin K., a man from Charleroi, reported to the police that he had been in contact with Coulibaly in the previous months and had intended to defraud him in the sale of a car. During a search at this man's house the police found documents that also indicated a possible sale of firearms and ammunition to Coulibaly. However the man denied having delivered weapons to Coulibaly and no weapons were found in the house during the search. The man was suspected of illegal weapons trading, but was unconditionally released on 31 March 2015.⁶³ It is currently unclear how reliable the contents of these media reports are. More reliable are the findings of a group of European investigative journalists, working together as European Investigative Collaborations, which over the previous months collected detailed ballistics information about the weapons used in the attacks and the way in which the perpetrators acquired them. In what follows, we describe the most important results from their investigative work.

After the storming of the printer's in Dammartin-en-Goële where the Kouachi brothers were holed up, the police found two assault rifles and two pistols of Yugoslavian origin. More specifically, there were two Zastavaⁱⁱ M70 AB2 assault rifles, which had been manufactured in the former Yugoslavia in 1983 and 1987.⁶⁴ These are the Yugoslavian versions of the familiar AKM assault rifle (the modernized version of the AK-47), which were produced for the Yugoslavian army and for export.⁶⁵ Zastava also made the two pistols used by the Kouachi brothers. More specifically, there were two M57 pistols, of which one was a reassembled weapon whose breech was produced in the Soviet Union in 1946 and which carried the emblem of the ex-Yugoslavian army. The other pistol was not dated, but also carried ex-Yugoslavian army symbols.⁶⁶ It is therefore highly probable that these weapons had once belonged to the ex-Yugoslavian army, but had ended up in the illicit market following the break-up of Yugoslavia.

Coulibaly had at least nine firearms in his possession. During the hostage-taking incident at the Jewish supermarket Coulibaly was armed with two Vz.58 assault rifles (one in the shorter sporter compact version) and two Tokarev 33TT pistols. Following the hostage taking incident, four additional Tokarev 33TT pistols were found in the apartment that Coulibaly rented in Gentilly, where the police also found a Nagant revolver dating from 1932.

A striking fact is that Coulibaly's Vz.58 assault rifle and Tokarev pistols had all been reactivated in Slovakia and originated from the same Slovakian firearms retailer. The two Vz.58 assault rifles were produced in 1961 and 1964 and were deactivated in 2013 and 2014, respectively, by the company Kol Arms, and were subsequently sold by the Slovakian firearms retailer AFG Security, situated in the town of Partizánske. The six Tokarev pistols in Coulibaly's possession were produced between 1942 and 1952. These pistols had also been converted to blank-firing guns in Slovakia by Kol Arms (in 2014). They were sold by AFG Security for around €300 apiece, and a few months before their deadly use in Paris the weapons were reactivated by simply removing two metal pins from the barrel.⁶⁷ Most of the firearms sold by AFG Security used to be part of the Slovakian army's arsenal. After being decommissioned by the army, large quantities of these weapons were demilitarized and converted to blank-firing guns. They were then legally sold in Slovakia firearms through

ⁱ It was reported in the media that the weapon in question was a Scorpio machine gun. However, from later investigations it appeared that Coulibaly did not own a Scorpio machine gun, but a Vz.58 sporter compact assault rifle (which has a similar appearance).

ⁱⁱ Crvena Zastava was the name of the state-owned company that supplied firearms to the army and police force of the former Yugoslavia. Zastava still exists and currently produces firearms under the name Zastava Arms.

retailers such as AFG Security to adults on simple presentation of an identity card. In recent years similar converted weapons were found in illicit milieus throughout Europe. According to the German Federal Criminal Police in recent years more than 14,000 similar guns were sold to customers abroad.⁶⁸

Coulibaly obtained these assault rifles and pistols in at least two ways. One of AFG Security's customers was Patrick H., a Belgian living in Marcinelle, Belgium. An investigation ascertained that between June 2013 and May 2014 Patrick H. legally bought around 170 demilitarized firearms from the Slovakian firearms retailer, including in January 2014 one of the Vz.58 assault rifles that Coulibaly later used during the hostage-taking incident in the Jewish supermarket. Patrick H. subsequently offered this weapon for sale on an online auction site. Patrick H. admitted that he sold on weapons for profit in this way, but denied that he had sold a weapon to Coulibaly. According to him, the weapons were sold to "*Européens du Nord*". Furthermore, he denied that he converted the weapons that he sold in this way for use again, but during another search of his house in May 2014 the police apparently found materials that could be used to convert such weapons.⁶⁹

Another customer of AFG Security was Claude H., a 53-year-old Frenchman living in Comines, Belgium, who is known as a militant right-wing extremist and who in the 1990s was part of the security team of the French Front National political party. From his survival shop near Lille, France, this man ordered dozens of demilitarized firearms (including pistols, machine guns and Vz.58 assault rifles) from AFG Security. It was confirmed that at the time when Claude H. bought these weapons in 2014 he was a registered French police informer. According to him the French police were aware of these purchases and they formed part of an investigation into illegal weapons trafficking. In his workshop near Lille he made weapons ready for use again and sold them on, including to criminals from Roubaix.¹ Following investigations, it appeared that three of the weapons ordered by Claude H. (one of the Vz.58 assault rifles and two Tokarev 33TT pistols) were used by Coulibaly in the supermarket attack. Claude H. told the police that he had sold a total of 40-50 firearms (for between €600 and €800 apiece), but not to Coulibaly.⁷⁰

The person suspected of being the supplier of firearms to Coulibaly is Antoine D., a 27-year-old Frenchman from Pas de Calais in the north of France who is known in right-wing extremist circles and who had worked in Claude H.'s chip shop. In April 2016 this man was arrested by Spanish police on a European arrest warrant during a joint Spanish-French police operation in the vicinity of Malaga. According to a Spanish police communiqué the man was identified as "*le responsable d'un réseau de trafic d'armes qui a approvisionné le terroriste français Amedy Coulibaly*". Together with Antoine D., a Serbian and a Montenegrin were also arrested who were linked to illegal weapons trafficking. The investigations by the security services suggest that Antoine D. fled France in the weeks after the attack and subsequently established himself in Malaga where, using false documents, he continued his illegal arms-trading activities. No weapons were found in the house where Antoine D. was staying and he denied the allegations made against him.⁷¹

¹ During a search at Claude H.'s house after the attacks in Paris the police found around 20 firearms (including 15 Vz.58 assault rifles) and 4,239 firearm components and cartridges.

2.7 Uherský Brod (Zdeněk Kovář), February 2015

At around 12.30 pm on 24 February 2015 the 63-year-old Zdeněk Kovář walked into the Družba restaurant in Uherský Brod, a small town in the south-west of the Czech Republic, armed with a pistol and revolver. Once inside the restaurant Kovář began shooting indiscriminately. Eight people were killed and a woman was seriously injured. The perpetrator fired a total of more than 20 shots. Several people present were able to escape and one person was able to hide in the toilets.⁷² At 12.38 pm the local police were alerted to the fact that an unidentified man was shooting in a restaurant. A local police patrol arrived at the restaurant at 12.47 pm, but Kovář immediately opened fire on them. The patrol then called for back-up.⁷³ It took around an hour for the police intervention team to arrive from Brno, approximately 100 km away.⁷⁴ While the intervention team was on its way Kovář called a Czech television station at 12.56 pm with the message that he was being harassed and that he had taken several people hostage. A few minutes later the police made contact with Kovář. He told them that he had five hostages, whom he would release in exchange for access to a television crew. After the contact with Kovář broke off the police decided to send in the intervention team. At 2.23 pm the intervention team entered the restaurant, at which point Kovář shot himself dead. No hostages were found in the restaurant.⁷⁵

Zdeněk Kovář was armed with two small arms of Czech origin: a CZ 75B pistol (a new version of the standard Czech police firearm) and an Alfa model 820 revolver.¹ He possessed both weapons legally⁷⁶ and had had a firearms licence since 2000. When this was revealed after the shootings it caused considerable controversy, given that Kovář had a history of mental problems. A security specialist from the Ministry of Internal Affairs confirmed that several people in Kovář's circle knew that he did not meet the requirements for the legal possession of weapons. Yet Kovář's firearms licence was renewed one month before the shootings, when on 19 January 2015 he applied for an extension to his firearms licence. He provided a medical certificate that only specified that he required glasses. The police checked his criminal record and extended his firearms licence. Nevertheless, one of Kovář's family members contacted his doctor and asked him not to issue a medical certificate to support Kovář's firearms licence application, given his mental health issues and the fact that they felt threatened by him. After the licence had been issued the man's family contacted the police, who in turn had a discussion with Kovář's doctor and psychiatrist. The police stipulated that Kovář must undergo a second medical test. Kovář collected the summons for this second medical test on Friday, 20 February. Four days later the deadly shootings took place in the restaurant.⁷⁷

¹ This is a small, light and inexpensive weapon that is primarily intended for self-defence. The revolver is produced by Alfa-Proj, a Czech company in Brno that has been producing firearms since 1993. It is currently the second-largest Czech producer of small arms.

2.8 Paris (Group Abaaoud), November 2015

On the evening of Friday, 13 November 2015 Paris was shaken by a series of bloody terrorist attacks in which 130 people were killed and more than 400 wounded. Ten perpetrators divided into three groups struck several places in the French capital in a coordinated series of attacks. These came a few months after the attacks on *Charlie Hebdo* and the Jewish supermarket in Paris (see section 2.6) and were the deadliest terrorist incidents in Europe since the attacks on the train network in Madrid in 2004. The perpetrators were six Frenchmen (three of whom lived in Belgium),ⁱ two Belgiansⁱⁱ and two men who have not yet been formally identifiedⁱⁱⁱ. Several of the perpetrators had fought in Syria and/or Iraq.⁷⁸

The coordinated attacks began that evening at the Stade de France (the national football stadium), where a friendly football match was taking place between France and Germany, at which the French president, François Hollande, was present. Three men (including Bilal Hadfi and two as yet unidentified men) were dropped off by Salah Abdeslam in the vicinity of the stadium and carried out a suicide attack using TATP, a home-made explosive the raw materials for which are relatively easy to obtain.⁷⁹ Around 9.20 pm the first explosion occurred at the entrance to the stadium. When one of the perpetrators attempted to enter the stadium a security agent discovered his suicide vest. The perpetrators then blew themselves up. A second explosion followed ten minutes later and a third at 9.53 pm. Apart from the three terrorists, only one person died as a result of this series of suicide attacks.⁸⁰

In the meantime the second team also began a shooting attack. Three men (Abdelhamid Abaaoud, Chakib Akrouh and Brahim Abdeslam) were driving in a black Seat around the 10th *arrondissement* in Paris. Abaaoud was at the wheel. Around 9.25 pm between the first two explosions at the Stade de France, the men began shooting. The targets were people sitting on the terrace of the “Le Carillon” bar and the “Petit Cambodge” restaurant. Fifteen people lost their lives and ten others were seriously wounded. At 9.32 pm the attackers began shooting 400 m away at the “La Bonne Bière” bar, where five people were killed and eight others wounded. A few minutes later 19 people sitting on the terrace of the “La Belle Equipe” restaurant were shot dead and nine others were wounded. The black Seat stopped a kilometre away. Brahim Abdeslam got out, went inside the “Le Comptoir Voltaire” restaurant and blew himself up. There were no fatal victims, but one person was seriously wounded. Abaaoud and Akrouh drove on, parked their car 3 km away in the vicinity of the Croix de Chavaux metro station, took the metro to an unknown destination and disappeared.⁸¹ In barely 15 minutes the group had shot dead a total of 39 people.

Around the same time that Brahim Abdeslam blew himself up in the “Le Comptoir Voltaire” restaurant the three members of the third team (Foued Mohamed-Aggad, Samy Amimour and Ismael Mostefai), heavily armed with assault rifles, entered the Bataclan concert hall, where the rock group Eagles of Death Metal were giving a concert. Two of the perpetrators entered the

ⁱ Foued Mohamed-Aggad, Samy Amimour, Ismael O. Mostefai, and the Belgium-resident Bilal Hadfi, Brahim Abdeslam and Salah Abdeslam.

ⁱⁱ Abdelhamid Abaaoud and Chakib Akrouh.

ⁱⁱⁱ These two men are currently only known as “Ahmad al-Mohammad” and “Mohammad al-Mahmod”. These names are based on the names written in the Syrian passports they were carrying.

building via the main entrance and immediately started shooting. The third entered via the emergency exit and also began shooting. For 20 minutes concert audience members were shot in large numbers. According to eyewitnesses, grenades were also thrown at the concert-goers. Those who were unscathed tried to escape or pretended to lie dead among the corpses. Around 10 pm the three men, who were all wearing explosive belts, began to gather together the numerous people who could not escape and held them hostage. Around midnight the perpetrators contacted the police and demanded that France cease its military actions in Syria. Approximately 20 minutes later the police stormed the concert hall in an attempt to free the hostages. One of the perpetrators was shot in the process and detonated his explosive belt. The two other perpetrators opened fire at the police officers. One was shot dead before he could detonate his explosive belt, but the third was able to detonate his explosive belt. This effectively concluded the attack on the Bataclan. In total the perpetrators killed 89 people in the concert hall, predominantly by shooting them. Dozens of wounded people were taken to hospital.⁸²

After the attacks of 13 November the police initiated a large-scale manhunt for the perpetrators who had escaped. It later transpired that Abaaoud and Akrouh were hiding in bushes in Aubervilliers, a suburb of Paris. After a few days they were picked up by Hasna Aït Boulahcen, a cousin of Abaaoud, who provided them with food and drink during this period. She brought Abaaoud and Akrouh to a new hiding place in Saint-Denis, a suburb of Paris. In the early morning of 18 November the police raided an apartment in Saint-Denis where they suspected that Abaaoud and Akrouh were hiding. Around 110 specialist police officers were involved in this operation. In just a few hours more than 5,000 shots were fired and the police threw dozens of grenades into the apartment, where Abaaoud, Akrouh and Boulahcen were indeed hiding. During this raid Akrouh blew himself up. A DNA investigation later confirmed that Akrouh was one of the perpetrators of the attacks on the restaurants in the 10th and 11th *arrondissements*.¹ After the police raid Abaaoud and Boulahcen were found dead in the apartment, while eight others were arrested.⁸³ Five police officers were wounded during the operation.⁸⁴

Salah Abdeslam, the last fugitive perpetrator, was only caught in March 2016. At the time of writing his exact role during the Paris attacks was unclear. According to the French public prosecutor, Abdeslam confirmed during his hearing that he was part of the team of suicide terrorists who blew themselves up at the Stade de France, but changed his mind at the last minute.⁸⁵ According to a number of declarations, however, he was also one of the perpetrators who shot at the people in the bars and restaurants of the 10th and 11th *arrondissements*.⁸⁶ On 15 March 2016 Abdeslam was able to escape from the police after a shootout in Vorst, a borough of Brussels, but three days later he was caught in Molenbeek, another Brussels borough.⁸⁷ A few days after his arrest various people who were part of the network of the perpetrators of the 13 November 2015 attacks carried out suicide attacks at the Belgian national airport in Zaventem and on the Brussels metro. Thirty-two people died as a result.⁸⁸

¹ Akrouh's DNA was found on one of the assault rifles, which was later found in an abandoned Seat in the vicinity.

During the 13 November 2015 attacks in Paris the perpetrators used at least six firearms. These were variants of the type of Kalashnikov assault rifles that originate predominantly from the Balkans. After the shootings the police found three Zastava M70 AB2 assault rifles in the Seat used by the second team, which was parked in Montreuil-sous-Bois. Three assault rifles were used in the attack in the Bataclan: a Serbian Zastava M70, a Bulgarian AKS47 and a Chinese Norinco 56-1.⁸⁹ After the raid on Abaaoud and Akrouh's hiding place in Saint-Denis on 18 November 2015 a Browning HP-35 pistol (9 mm) with an empty magazine was found in the apartment. This pistol was produced in Belgium by FN Herstal and was intended for export.¹ However the serial number had been made illegible, meaning that it is very difficult to trace the earlier history of the weapon. A striking fact is that Abaaoud's fingerprints were found on the inside of the pistol. This suggests that at some stage he had put the disassembled weapon together.⁹⁰

The head of the firearms manufacturer Zastava confirmed after the attacks that several weapons that were used or found in connection with the attacks were produced by Zastava and were subsequently legally sent to military depots in Slovenia, Bosnia and Macedonia, among other places.¹¹⁹¹ From the French ballistics investigation it was ascertained that the M70 assault rifle used in the Bataclan attack was produced by Zastava in its factory in Kragujevac in the former Yugoslavia and was delivered on 26 May 1981 to the Republički štab teritorijalne odbrane (the Bosnian self-defence forces), which during the war in Yugoslavia in the 1990s developed into the regular Bosnian army. The Norinco 56-1 assault rifle used in the Bataclan attack was of Chinese origin, was produced under Chinese licence in Albania during the Cold War and was part of the arsenal of the Albanian army. The third firearm used in the Bataclan, the Bulgarian AKS47 assault rifle, was produced in 1985 by the state-owned company Arsenal in its factory in Kazanlak. Scarce public information is available about the M70 AB2 assault rifles used by the second team. It is only known that Zastava produced two of them in 1987.⁹²

It is unclear how the assault rifles of the second and third team came onto the illicit firearms market and how they subsequently came into the hands of the perpetrators. According to an article published in *Dabiq*, the official English-language online propaganda magazine of the so-called Islamic State, the El Bakraoui brothers (who blew themselves up in March 2016 in the suicide attacks in Brussels) were responsible for the acquisition of the firearms and explosives used in the Paris attacks in November 2015. The Belgian courts also suspect that these brothers provided the weapons for the Paris attacks.¹¹¹ It was ascertained that Khalid El Bakraoui had legally bought magazines for assault rifles at various times in the summer of 2015 from a firearms retailer in Walloon-Brabant (Belgium). As yet there is no proof that the brothers also provided the weapons themselves, but the prosecutors assume this to be the case.⁹³

¹ On the weapon both "Made in Belgium" and "Browning S.A." appear. These two inscriptions do not appear on weapons of the same type produced for the Belgian market.

¹¹¹ In the original media report the press agency Associated Press stated that one of these weapons had been exported to a firearms retailer in the United States. This report turned out to be erroneous and Associated Press rectified it the following week.

¹¹¹ This is probably related to their criminal history, among other things. For example, Ibrahim El Bakraoui opened fire on the police in 2010 with a Kalashnikov during a police pursuit following a botched robbery at a foreign-exchange office in Brussels. He wounded a police officer and was sentenced to ten years in prison. After four years and nine months in jail, and against the advice of the prison directors, he was conditionally released in October 2014. His brother was sentenced to five years in prison in 2011 for numerous car-jackings in Brussels.

3 Discussion

In the eight mass shootings in the (semi-)public space that were analysed, different types of firearms were used, and these firearms were obtained in various ways. In this discussion we will explore the most important findings on the characteristics of the weapons used. We will then discuss our findings on the acquisition of these weapons. Finally, we will draw a number of lessons from this analysis for the development of robust firearms legislation and policy in Europe.

Characteristics of the weapons used

In the eight case studies at least 26 different firearms were used in total by the various perpetrators. At least nine additional firearms were subsequently found with the perpetrators (see Table 2). These were primarily rifles and pistols. However, the number of revolvers and shotguns used was limited. This finding is not surprising: from an earlier investigation into the weapons used in mass shootings in the United States between 1982 and 2012 it was apparent that the perpetrators there also predominantly used pistols and rifles.⁹⁴

Table 2: Overview of the firearms used by the perpetrators of the public mass shootings analysed

Pistols	
Beretta 92	Winnenden (2009)
Colt .45	Alphen aan den Rijn (2011)
Glock 34	Utøya (2011)
Zastava M57 (2 used)	Paris (January 2015)
Tokarev 33TT* (2 used + 4 found)	Paris (November 2015)
CZ 75B	Uherský Brod (2015)
Browning HP-35*	Paris (November 2015)
Revolvers	
Taurus model 66	Alphen aan den Rijn (2011)
Smith & Wesson .41 Magnum	Liège (2011)
Alfa model 820	Uherský Brod (2015)
Nagant 1932*	Paris (January 2015)
Rifles	
CZ 452-2E ZKM	Cumbria (2010)
Smith & Wesson M&P15-22	Alphen aan den Rijn (2011)
Ruger Mini-14	Utøya (2011)
FN FAL	Liège (2011)
Vz.58 (2 used)	Paris (January 2015)
Zastava M70 AB2 (2 used + 3 found)	Paris (January 2015; November 2015)
Zastava M70	Paris (November 2015)
Norinco 56-1	Paris (November 2015)
AKS47	Paris (November 2015)
Shotguns	
Benelli Nova pump-action shotgun*	Utøya (2011)
Unspecified shotguns* (1 used + 2 found)	Cumbria (2010)

* Found with the perpetrator(s), but not used during the shooting incident.

In the non-terrorist-related case studies the perpetrators always acted alone and used between one and a maximum of three firearms. Additionally, in one of the three analysed terrorist shooting incidents only one perpetrator was involved and only two firearms were used (Utøya, 2011). In the two remaining terrorist shootings (Paris, January 2015 and November 2015) several groups of perpetrators were involved and consequently more than half of the firearms in Table 2 were used in these two shooting incidents.

The weapons arsenals of the perpetrators of the analysed shooting incidents included a wide variety of pistols, revolvers and rifles. In total, seven different types of semi-automatic pistols were used and found with the perpetrators, as well as four different types of revolvers. A wide variety of rifles were also used. The 13 different types of rifles included fully automatic, semi-automatic and bolt-action variants. Given the wide variety of firearms types, it is not surprising that these weapons originated from a wide variety of producer countries: among others, there were pistols, revolvers and rifles of Italian, Belgian, Austrian, Czech, Bulgarian, US, Russian, Chinese and ex-Yugoslavian origin. Another striking aspect is that many of the firearms used, for example, the M70 assault rifles used in Paris in January and November 2015 and the FAL assault rifle used in Liège in 2011, had been manufactured several decades earlier. Their fatal use decades after their manufacture shows that these are very durable products with very long lifespans. Furthermore, several of the firearms had been reactivated after being deactivated, and at least one of the firearms used was likely made up of components from several other firearms.

In half of the case studies the perpetrators used a combination of rifles and handguns (Alphen aan den Rijn, 2011; Utøya, 2011; Liège, 2011; Paris, January 2015). Although in seven of the eight case studies the perpetrators had handguns in their possession, we can observe that in just two of the shooting incidents they only used handguns (Winnenden, 2009 and Uherský Brod, 2015). In the two other case studies the perpetrators used a rifle and a shotgun (Cumbria, 2010) or just rifles (Paris, November 2015).

Another noticeable feature is that in the three terrorist-related case studies (Utøya, 2011; Paris, January 2015 and November 2015), rifles were used. In the two shooting incidents in Paris fully automatic assault rifles of the Kalashnikov type were predominantly used by the various groups of perpetrators (specifically, five Zastava M70 assault rifles, a Norinco 56-1 assault rifle and a Bulgarian AKS74 assault rifle). Due to their fully automatic capability these are all "prohibited weapons" for which legal possession is limited to small groups of firearms owners in Europe. The perpetrators of these shootings therefore obtained these weapons via the illicit market. Exactly how they did so is, however, unknown.

Table 3: Types of firearms used and found in the selected public mass shootings

	Pistol	Revolver	Rifle		Shotgun
			Fully-automatic	Semi-automatic	
Non-terrorist-related incidents					
Winnenden (2009)	Beretta 92				
Cumbria (2010)					
Alphen aan den Rijn (2011)	Colt .45	Taurus model 66		Smith & Wesson M&P15-22	CZ 452-2E ZKM
Luik (2011)		Smith& Wesson .41	FN FAL		
Uherský Brod (2015)	CZ 75B	Alfa model 820			Unspecified shotguns**
Terrorist-related incidents					
Utøya (2011)	Glock 34			Ruger Mini 14	Benelli Nova pump-action shotgun*
Parijs (January 2015)	Zastava M57 (2x) Tokarev 33TT***	Nagant 1932*	CZ vz58 (2x) Zastava M70 AB2 (2x)		
Parijs (November 2015)	Browning HP 35*		Zastava M70 AB2 (3x) Zastava M70 Norinco 56-1 AKS47		

* Firearm found with the perpetrator(s), but not used during the shooting incident

** One firearm used during the shooting incident and two others found later

*** One firearm used during the shooting incident and four others found later

Acquisition of the weapons used

An analysis of the way in which the perpetrators acquired the firearms they used in public mass shootings is of vital importance if effective policy is to be developed. The legal status of the firearm is particularly highlighted in societal debate. Firearms owners' interest groups therefore regularly state that only illegal weapons threaten the safety of society and that legal firearms possession is already over-regulated. However, from previous quantitative analyses of the legal status of the firearms used in mass shootings it is apparent that the perpetrators mostly used firearms that they possessed legally. Consequently, in almost 80% of the 62 identified mass shootings in the United States between 1982 and 2012 the perpetrators were in legal possession of their firearm(s).⁹⁵ Similar analysis was carried out in Australia of the 17 identified mass shootings that occurred there between 1987 and 2015. This analysis showed that in about 70% of these cases the perpetrators possessed their firearms legally and that 56% of those who died were shot with a legal firearm.⁹⁶ The situation in terms of firearms legislation and possession in Australia and especially the United States differs from that in Europe. However, the fact remains that we observe a similar picture when examining 15 of the deadliest non-terrorist-related mass shootings in Europe between 1987 and 2015: in all these incidents bar one the perpetrators were in legal possession of the weapon(s) they used. Of the 227 victims who died in these incidents, 97% were killed with a legally obtained and owned firearm.⁹⁷ Similar results are often used by supporters of strict arms legislation to advocate for better regulation of legal firearms possession.

Our analysis shows that in mass shootings in Europe firearms were used that were both purchased legally and obtained by the perpetrators via the illicit market. It is noticeable that in two of the three terrorist-related shooting incidents, illegal firearms were used (Paris, January 2015 and November 2105), while in four of the five analysed non-terrorist-related shootings, legally obtained firearms were used (Winnenden, 2009; Cumbria, 2010; Alphen aan den Rijn, 2011; Uherský Brod, 2015). Therefore, terrorists in particular appear to use illegal firearms, while the other perpetrators of public mass shootings tend to use legal firearms. However, it would be incorrect to make generalisations from this picture. Above all, from our qualitative analysis of the way in which the perpetrators acquired these weapons, it appears that they used weapons that they already had in their possession or which they were able to obtain relatively easily.

Terrorists and people with a criminal records often do not have access to the legal firearms market. As previously cited, they also often prefer to use fully automatic weapons, the legal possession of which is more limited in Europe. If terrorists wish to acquire such weapons they generally do so via their criminal connections and not via the legal firearms market. In recent years an increase in the availability of fully automatic firearms in the criminal underworld has been observed.⁹⁸ The only fully automatic rifle that was used in the analysed non-terrorist-related shooting incidents was the FN FAL assault rifle that Nordine Amrani used to shoot at people at the Christmas market in Liège in 2011. It is probably not a coincidence that Amrani had a drug-related criminal history and, according to the police, was known to be involved in illegal weapons activity.

However, the observation that primarily illegal firearms were used in the recent terrorist-related shooting incidents does not imply that terrorists do not obtain their weapons via the legal firearms market. The example of Anders Breivik (Utøya, 2011) is telling in this regard. From his manifesto it appears that Breivik intended to purchase a fully automatic assault rifle, but lacked the necessary criminal connections. Disappointed that he had not managed to illegally obtain an AK-47, he decided to focus on the legal acquisition of (in his eyes, less suitable) firearms in preparation for his attack. He therefore applied for a licence for a semi-automatic Ruger Mini-14 rifle on the pretext of using it for hunting, and to increase his chances of acquiring a licence for a semi-automatic Glock

pistol he went shooting more often at the shooting club where he was a member. The legal firearms market was therefore an easy way for Breivik to arm himself compared to the criminal sphere.

The legal firearms market was also used to acquire the weapons used in other recent terrorist-related mass shootings. During the hostage-taking incident in the Jewish supermarket (Paris, January 2015) Coulibaly used four reactivated firearms that had previously been sold by a Slovakian firearms retailer, on the simple presentation of an identity card, as deactivated and freely available weapons. These deactivated firearms came into Coulibaly's possession via a Belgian and French connection and were reactivated somewhere along the way. The legal firearms market may also have been used to acquire equipment used in the terrorist shootings in Paris in November 2015. The Belgian courts suspect that the El Bakraoui brothers (who both blew themselves up in the terrorist attacks in Brussels in March 2016) supplied (some of) the weapons to the perpetrators of the terrorist attacks in Paris in November 2015, as well as the assault rifle magazines, which are not subject to a licence and which they legally purchased from a Belgian firearms retailer.

The findings of our qualitative approach refine not only the assertion that terrorists only acquire their weapons via the illicit firearms market, but also the suggestion that non-terrorist-related shooting incidents in Europe are almost always committed by perpetrators who have obtained their firearms legally. A clear example of this is the deadly shootings in Liège in 2011, during which the perpetrator shot at people at the Christmas market with an assault rifle that he had obtained illegally, before shooting himself dead with a revolver that had been stolen a few years earlier during a robbery at a local firearms retailer. He had obtained both weapons via his connections in the criminal underworld rather than via the legal route. In other cases a weapon was used for which a licence for possession was issued, but not to the perpetrator himself. For example, in the deadly shootings at a school in Winnenden in 2009 Kretschmer used his father's pistol. The father had a licence for this pistol and 14 other firearms, but the pistol that his son stole and used in the shooting was the only firearm that was not securely stored in a gun cabinet. Moreover, we can observe that some perpetrators of public mass shootings illegally adapt the weapons that they legally possess, such as Bird, who had sawn off the barrel of his shotgun before embarking on his deadly ride in his taxi.

Lessons for policy

Public mass shootings have been the specific cause of political debate in recent years regarding firearms legislation and policy in Europe. In the aftermath of the various public mass shootings analysed in this study, measures have been promulgated to strengthen firearms legislation, optimise the licensing procedure or better tackle the illicit market. After shooting incidents in which legal firearms were used, the focus logically was primarily on the first two of these aspects, while subsequent to shooting incidents involving the use of illegal firearms, the focus was predominantly on the third aspect. National governments were not the only bodies to react in policy terms to these shooting incidents. The EU has also taken various initiatives in recent years to regulate the legal possession of firearms more effectively and tackle illegal firearms possession. For example, in the wake of the terrorist attacks in Paris in November 2015 the European Commission announced new measures to better regulate the legal possession of firearms (by strengthening European Firearms Directive 91/477/EEC and new harmonized rules for the deactivation of firearms) and to better tackle the illicit firearms market (via an EU action plan).

From our analysis, there is a strong indication that the perpetrators of public mass shootings used firearms that they already had in their possession or which they were able to obtain relatively easily. Such deadly shootings have been carried out in Europe in recent years with both firearms that were obtained legally and those that the perpetrators had obtained via their connections in the criminal underworld or via the illicit firearms market. With the aim of limiting public mass shootings as much as possible, there is therefore a clear need for a comprehensive policy both to better control the legal possession of firearms and tackle their illegal possession.

Regulating the legal possession of firearms

The tragic consequences of public mass shootings with legal firearms underline the vital importance of an effective legislative framework and a properly functioning licensing system for individuals to possess firearms. Over the past 25 years the EU has undertaken several initiatives to improve and harmonize the legal framework for the legal possession of firearms and the legal trade in firearms. With the introduction of the Common Market and the gradual elimination of European internal borders, the EU implemented Firearms Directive 91/477/EEC in 1991. This directive established the minimum requirements for all EU Member States for the legal purchase and possession of firearms. However, Member States remained free to apply stricter rules if they wished. The most important provision of the directive is the classification of firearms into four categories, with different rules for each category. The directive was amended in 2008 to satisfy the provisions of the 2011 UN Firearms Protocol. A number of new provisions were adopted in the process, including the requirement for a "good cause" for the acquisition and possession of a firearm; the implementation of a maximum duration for specific licences; and requirements for regular checks on the conditions of possession, and for the mandatory marking and registration of all firearms that enter the internal market.⁹⁹ The Firearms Directive of 1991 and its subsequent amendment in 2008 were an important step towards the harmonization of European firearms legislation.

In Europe, the possession of weapons by individuals is not a right, but a privilege. The basic principle of European firearms legislation is that, due to the safety risks inherent to firearms possession, the legal possession of firearms by individuals is limited to people who have an acceptable reason for this possession, and who can demonstrate that they are responsible firearms owners who store their weapons safely. Considered overall, the rather limited number of firearms-inflicted deaths in Europe¹⁰⁰ suggests that the European legal framework for the legal possession of weapons works effectively. The vast majority of the holders of firearms licences in Europe are responsible and competent weapon owners, which limits the safety risks. When firearms legislation and the accompanying licensing system function properly, then this fact usually passes unnoticed. It is tragic incidents such as the deadly shootings with legally obtained firearms that put weapons legislation and firearms licensing policy in the spotlight, and demonstrate where improvements are possible. Without exception, the five public mass shootings with legal firearms analysed in this report are situations where something went tragically wrong: information about psychological problems and other histories that did not reach the right person, a father who did not store one of his firearms safely in his gun cabinet as required by legislation, family members who felt threatened but whose fears were heard too late by the relevant people, and so on. Several of these shootings have led to an evaluation of the ways in which the licensing procedure is monitored.

In the wake of public mass shootings in Europe, the existing deficiencies in firearms legislation and licensing procedures are often the subject of societal debate, but they are deficiencies that claim

victims in Europe almost on a daily basis: a woman who stole her husband's sporting weapon and killed herself and her child; a man who took his firearm out of the gun cabinet and shot his wife dead after the umpteenth domestic argument; an argument in a café that got out of hand, during which one of the café patrons fetched his hunting rifle from his house and shot another patron dead. These are stories that generally do not make it into the international press, but which nonetheless ruin the lives of the people involved and their relatives. Of course, the risk of deadly shootings can never be reduced to zero, and it is impossible to rule out all safety risks, but the fact remains that everything possible should be done to optimise the legal possession of weapons by individuals, both in terms of the development and updating of legislation and its implementation.

The most important objective in this respect is to create barriers that make it more difficult for people with malign intentions to obtain weapons. It is therefore crucial to carry out a thorough check of the criminal history and the mental and physical adequacy of an applicant during the licensing procedure, but also a check of previously recorded aggressive behaviour (even when the applicant was not convicted) or previous misuse of weapons. To ensure as far as possible that these people cannot circumvent the checks, it is also essential to limit the possibilities for remote purchasing to a minimum and to carry out a robust screening of weapons traders before they acquire accreditation. Furthermore, firearms owners should be able to prove that they are responsible citizens who practise their hobby in a serious way – for example, by storing their weapons in accordance with the necessary safety requirements. However, a robust licensing system should not only take these matters into consideration during the licensing procedure, but also ensure the subsequent monitoring of weapons possession by the individual after the issuing of a licence. A thorough exchange of information among the agencies involved is therefore also crucial, both during the licensing procedure and during subsequent monitoring of the licence holder. The licensing conditions therefore need to be checked, and there must be immediate intervention when the weapons owner no longer meets the legal requirements for the possession of a firearm.

Combating the illegal possession of firearms

Public mass shootings are carried out not only with legally obtained weapons, but also with firearms that the perpetrators have obtained via their criminal connections. The two terrorist shootings in Paris in 2015 show that it is easy for terrorists with criminal connections to get hold of fully automatic assault rifles via the illicit firearms market. These weapons are very attractive tools of violence, given that they make it possible to shoot large numbers of people indiscriminately in a short time, and in doing so spread terror. Previous investigation has shown that firearms are used in increasing numbers in Europe for primarily religiously inspired terror attacks. An explanation for this increase is given by the broader diversification of the modus operandi of these terrorists; by the fact that it is increasingly difficult to obtain the ingredients to make explosives; and by the contagion effect, whereby terrorists in Europe are inspired by successful attacks outside Europe such as the one in Mumbai in 2008, for example.¹⁰¹ Also, in several other terrorist-related shooting incidents (which were not included as case studies in this report) we can observe the use of fully automatic firearms, such as the shooting incidents in Toulouse and Montauban in March 2012¹⁰² and in Copenhagen in February 2015.¹⁰³ However, we must not generalize the use of fully automatic rifles in terrorist-related shootings in Europe: in the attack on Utøya island in July 2011 a semi-automatic rifle was used, while in the deadly shooting at Frankfurt airport in March 2011 a semi-automatic pistol was used.¹⁰⁴

Our analysis has shown that the illegal firearms that were used in recent public mass shootings left the legal sphere in various ways (for example, as a result of theft, during war situations or by converting legally bought deactivated weapons) and that these weapons leaks took place in various European countries. Although the availability of fully automatic firearms originating from the Balkans in the illegal European firearms market is a significant and serious problem, it would be inappropriate to only focus our policy attention on this aspect of illegal firearms acquisition.

It is not possible to tackle the illegal firearms market with weapons legislation alone, but such legislation is the first necessary step in the fight against the illegal possession of weapons. Without firearms legislation that clearly states what is punishable, the fight against the illegal weapons trade is a lost cause. From our analysis it is apparent that terrorists have also exploited the loopholes in the European firearms system in recent years to arm themselves. Moreover, differences in national firearms legislation play into the hands of people with malicious intentions. Harmonized firearms legislation and a thorough exchange of information among European countries are therefore also crucial. In order to tackle the illegal firearms market a sustained and comprehensive approach is required based on three pillars: (1) effective weapons legislation, (2) more understanding of the problem through better data management and exchange, and (3) more operational capacity on the ground and comprehensive European cooperation.¹⁰⁵

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In this report we have tried to rectify a number of misconceptions about public mass shootings in a balanced way, based on an analysis of the acquisition of the weapons used in such shootings, and have outlined the ways in which political debate on this subject can best be conducted. It is apparent that we still currently know too little about the precise relationship among the possession of firearms, weapons legislation and firearms mortality in Europe. Little quantitative research on this relationship is available, and further research is hampered by a lack of the basic data necessary for in-depth and comparative quantitative analyses.¹⁰⁶ But equally, very little qualitative research is available. With this exploratory investigation of one aspect of firearms mortality (public mass shootings) we hope to have contributed to a better understanding of the relationship among the possession of firearms, weapons legislation and firearms mortality in Europe.

End notes

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Author:

Nils Duquet

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Flemish Peace Institute
Leuvenseweg 86
1000 Brussels
tel. +32 2 552 45 91

vredesinstituut@vlaamsparlement.be
www.flemishpeaceinstitute.eu

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