ORIGINAL ARTICLE

The future of counter-terrorism in Europe. The need to be lost in the correct direction

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Abstract Terrorism is a clear context of rapid change, greater complexity and genuine uncertainties. A review of the events that have been going on in Europe shows a great evolution of the threat and the continuous emergence of new scenarios, like those represented by "lone actors" and "foreign fighters". The complexity of the situation is due to the variety of quantitative and qualitative factors involved. Uncertainty is a key characteristic of our societies, generating fears that must be managed by governments and security institutions. Before defining new policies it is needed an analysis of the current situation of the phenomenon and its possible evolution. Critical thinking, loads of imagination, creative foresight and horizon scanning methodologies would be the pillars of the research. Policies are usually led by events and by social perception of risk. We propose a holistic approach that integrates the lessons learned from the past with modern foresight methodologies, intelligence analysis, evidence-based policing, and decision-making models. It is possible to manage our uncertainties in the present, a time and a matter in which perhaps we feel lost, but we must be sure that we are walking in a correct direction.

Keywords Counter-terrorism · Foresight · Policies · Future · Europe · Intelligence · Creativity

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Terrorist threats in Europe

Terrorism in Europe. A current picture

"*Acute and diverse*", it is the expression used by Europol [1] to describe the actual terrorist threat across Europe, but these adjectives not only exist in future terms. We can describe the complexity of current terrorist activity around ten facts that define it.

Low-level conflicts and irregular warfare

The characteristics that define current conflicts where terrorist groups even state-sponsored, urban guerrillas, rebels or fighters determine the asymmetry of at least one of its parts, have a dramatic impact on the local and regional security environment, but the effects do not remain there. Even if none of these scenarios take place within Europe today, the closeness regarding conflicts (Ukraine or Libya) requires an action by EU members. This is another effect of the globalisation process [2]. We cannot ignore that the world faces massive and enduring tensions like population shifts, demographics movements, natural resources shortage, global competition, spread conflicts, modus operandi copycat or transnational grievances, among others.

These challenges, no matter the way they may take, can only be combated by actions: international cooperation, military missions or international peacekeeping interventions, which in the current geopolitical circumstances should not be trivialised by EU members.

Increase of foreign fighters

Without underestimating the gravity of previous contexts as Bosnia, Chechnya, Afghanistan and Iraq, the current situation of foreign fighters are marked by the Syrian scenario that has

become the largest field of the jihadist battle so far [3] and is acting as a lure to radicals from around the world. According to data from the International Centre for the Study of Radicalisation (ICSR) (April and December, 2013) during the period between 2011 and early 2013 around 140–600 European fighters were displaced to Syria, and in the winter of 2013 this number increased to 1100–1700 individuals. Recent CIA data shows that this number could increase up to 2.000 fighters.

Although it is not a new phenomenon, European concern about the foreign fighters is increasing especially because of the threat that the return to their origin places may bring. In this direction we have several signals. One of the last was made by the Heads of State and Governments of the European Union on August 30th 2014, where they show a strong concern about the current situation and *"requests the Council to review the effectiveness of the measures and to propose additional action, as required"*.[1] However, the risk that may involve the return of these individuals to their origin places has not been analysed deeply within Europe [4] only a few researches about past plots exist like Sageman [5], Clarke and Soria [6] or the dataset explained by Hegghammer [7]. But still there are not studies on the implications, not only of their "fight", but also of those who are engaged in recruitment, training, propaganda and communication activities among others.

Homegrown terrorism

9/11 led to an unprecedented growth of violent activity inspired by radical Islamism and perpetrated by European citizens' descendants from immigrants, which have been called the second and third generations, and Muslim converts. Even when domestic terrorism is not a novel phenomenon, the current development of terrorism, especially coming from jihadist roots, has become a weapon of great destructive power that threats Western interests and citizens and is generally associated with transnational socio-political grievances [8]. As Europol [1] shows, Al-Qaeda and like-minded terrorist groups continued to encourage self-organized attacks within the EU aiming for indiscriminate casualties.

Extremism and radicalization increased

According to the last Te-SAT Report from Europol, left-wing and anarchist terrorism increased in number of attacks and arrests. In the case of far-right groups it is becoming more usual to show violent and intimidating behaviour, but they do not usually use terrorist tactics.

The European Commission[2] is concerned about activities that are not only led by large organizations. Individual actions, small cells or EU-based groups involve new and unpredictable forms of action. And the results are not only the loss of lives or economic damage; these episodes increase radicalization and encourage extremisms across society. Europe is also directly affected by global terrorism. Europeans could be victims of attacks or perpetrators, recruiters or propagandists, fighters or lone actors.

Individual terrorist actions

The phenomenon of individual terrorism is far from a modern modus operandi but it is noticeable that there are new trends: the adaptation process of new-style terrorist tactics helped by the access to new technologies. However, despite the antiquity of this problem, the increase in the number of cases, that still is a marginal problem, is happening mainly in Europe [9]. Though the United States is the country with the largest number of this kind of attacks, the second most affected region is Europe, specifically Germany and the United Kingdom. Also, if until 2010 individual jihadist terrorism had only taken place in the US, in the last four years its effects also were appreciated in the UK, Germany, France, Denmark, Sweden, Norway, Canada, and Spain [10].

This context shows a latent need to adapt existing intelligence mechanisms and prevention and detection security measures.

Spread and adaptability of the modus operandi

In Europol words (2014), new tactics of several levels of sophistication continue to be observed in all affiliations. But it is not the only problem. The globalisation of the modus operandi and its continuous adaptation to the new security and prevention measures is becoming a silent real trend: an unusual combination of modalities and terrorist tactics with the ability to transcend international public opinion and threaten states through a single incident. This is a critical juncture understood as the period of significant change, which normally happens in different ways depending on the country.

The internet as a terrorist tool

The internet has become an unwanted enhancer in its illicit use, although it is recalled that its use by anyone involved in security issues brings great benefits.

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[1] Special meeting of the European Council (30 August 2014), Brussels http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/144538.pdf

[2] Preventing Radicalisation to Terrorism and Violent Extremism: Strengthening the EU's Response. European Commission. Brussels, 15 January 2014: http://ec.europa.eu/dgs/home-affairs/e-library/documents/policies/crisis-and-terrorism/radicalisation/docs/communication_on_preventing_radicalisation_and_violence_promoting_extremism_201301_en.pdf

In 2013, RAND Corporation [11] conducted an investigation which, in an exploratory way, studied the role of the internet use in 15 cases of radicalization, extremism and terrorism that had been previously identified by UK Counter Terrorism Units. The results of the study allowed confirming the following assumptions: the internet increases opportunities and facilitates the process of radicalization, promotes propaganda and begins to be a great recruitment tool.

In addition, UNODC [12] makes a classification of the features that the internet actually provides to promote and support terrorism as a tool for: propaganda (including recruitment, radicalization and incitement to terrorism); financing; training; planning; execution; and cyber-attacks.

Rise of trans-national terrorist groups capabilities

The problem is not only the growth of starring jihadist terrorism, already present in territories like Mali, Algeria, Mauritania, Niger, Libya, Morocco, Nigeria, Senegal and Burkina Faso [13]. Phenomena such as the anarchist or extreme right and left groups have international structures, resulting from the strong bonds between the different organizations, but also due to their ability to call to action and act in third states.

The impact of terrorist intergroup cooperation

International terrorist alliances are a latent threat [14]. Their existence contributes to increase opportunities for groups to improve their operational efficiency [15] and lethality [16] as well as it helps them to gain followers, provides a natural bridge for the diffusion of tactical knowledge [17] or brings new funding channels. Ultimately these alliances give them power and ability to act when its structure is limited or threatened. The existence of sanctuaries and safe havens in many parts of the world contributes to this threat by providing meeting places for terrorists. Places where they can design joint activities and seek and obtain support while they are sheltered and even receiving support from states that favour their cause.

It is a highly complex context in which the asymmetry of the conflict does not necessarily mean that one of the two sides lack sufficient potential to face the battle.

Links between terrorism, organized crime and corruption

This is an obstacle of enormous complexity. Facing a problem in which three independent variables are interrelated, potential negative outcomes are multiple. Terrorism, organized crime and corruption are evident in many fragile states like Afghanistan, Iraq or Syria (Fragile States Index, 2014) and this is not a problem far away from Europe.

The EU Anti-Corruption Report[3] published by the European Commission in March reflects a substantial increase across the region. In the Commission's words, it is "breathtaking" and entails a cost of at least 120bn euros per year. In the organised crime case the trend is similar. A recent Europol study [18] shows that criminal groups, over 3.600 currently active in Europe, have growing networks, transnational operation capacity, higher mobility and great diversification of activities. The cost of this scourge only in business terms is estimated at more than €670 billion annually within the EU.

Large social forces like economic inequality, unemployed youth population or austerity policies [19] may or may not have consequences. The ability to impact of these three variables together can be greater than we expect.

Counter-terrorism measures. A critical overview of the European framework

The EU legislative career in counter-terrorism was first taken seriously after the attacks of 9/11. Until then it had never designed or implemented any measures by EU members as a whole. However, despite the on-going initiatives as developed by SECILE [20] there is still no focus repository and catalogue of all these measures.

Early years of EU counter-terrorism cooperation were focused primarily on the "prevent" and "disrupt" elements of the EU strategy. It was seven years ago when the trend changed taking priority "action" and "protection". A bleak picture which imposes two dimensions of action over two different ones equally important.

A brief timeline is presented below indicating the major counter-terrorism actions undertaken by the EU in order to develop a critical view of the current situation (Table 1).

Starting from the initial situation that has been displayed, the current issues in terrorism matters, and with reference to this framework, make it difficult to assure the existence of a counter-terrorism strategy or if it is a cosmetic arrangement.

–   As can be seen on the timeline, the impact of 9/11 represented an unprecedented growth of European counterterrorism agenda. The instinctive reaction of governments of the EU was to include as much justice and security measures as possible under the premise of fighting terrorism [20]. As Romano Prodi, former President of the European Commission, said jokingly: Osama bin Laden

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[3] EU Anti-Corruption Report. Report from the Commission to the Council and the European Parliament. Brussels. 2 March, 2014 http://ec.europa.eu/dgs/home-affairs/e-library/documents/policies/organized-crime-and-human-trafficking/corruption/docs/acr_2014_en.pdf

Table 1   EU CTMeasures (Cohen and Blanco 2014) *(Measures quantified according to the type of instrument used by the EU to implement them and the counter-terrorism area of impact)

MAIN EU COUNTER-TERRORISM MEASURES

Plan of action to cooperate in criminal matters[4]	Petition from US Government written to the EU Commission	European Council adopted new declaration[5]	Roadmap was replaced for a new strategy[6]	New impetus to accelerate the creation of a regulatory framework[7]
"Extraordinary EU Justice and Home Affairs Council"	*"EU Parliament Resolution on the Extraordinary European Council Meeting"*	*"Declaration on Combating Terrorism"*	*"EU Plan of Action and Combating Terrorism"*	*"The EU Counter-Terrorism Strategy. Prevent, Protect, Pursue, Respond"*
21 September 2001	04 October 2001	25 March 2004	24 June 2004	30 November 2005
(after US 11S) Two Council Framework Decisions on June 13th 2002 on Combating Terrorism and the European Arrest Warrant. Internally, specialist anti-terrorist teams within Europol and Euro just were established		*(after Madrid 11M)* Attacks reinvigorated the political will to adapt the legal framework on counter-terrorism. November 2004, the 1999 Tampere Programme was replaced by the Hague Programme that called for a more integrated and coherent approach		*(after London 11J)* A strategic and multifaceted approach was introduced
NUMBER OF MEASURES*				
33 specific areas + 8 about US cooperation	40 specific request	57 specific measures (mostly news)	129 objectives divided across 7 strategic objectives	With so little changes

did more for the development of European counterterrorism and home affairs cooperation than Jean Monnet.

– In the same line it is observed that any urgency to deal with terrorism is performed once its effects are felt. Jihadist terrorism, al-Qaeda, individual terrorism, ISIS, foreign fighters, homegrown terrorism, every "new phenomenon" seems to swallow all previous problems and start to be the importance centre. The problem is when this tendency to act "following news" comes from the field of research and legislation and from the decision-makers. Listening these days, from members of European governments, the possibility of treating citizens as terrorists who are getting involved in conflicts abroad, or the intention to revoke citizenship to them, are some of these examples, born out of urgency and proposed without evaluation or criteria.

– The actual counterterrorism agenda with a huge number of measures, over 260, some unrelated, sometimes overlapping, not only makes very complex its study by the academic community but also its practical application.

– These more than 260 measures, many of which cannot be understood in isolation, circumstance which greatly hinders their development, inspire little confidence not only on the security forces from different countries who need minimum guarantees for the performance of their duties. It also downplays the damage suffered by the fundamental rights of citizens. Security is becoming the main objective, when it only should be a mean to ensure the exercise of civil rights and liberties.

– Despite the recent enlargements of the mandate and powers of the European Commission in these areas, their functions are still very limited. These decision-making bodies are suffering a "democratic deficit" and when they are given more power they just stumble frontally with the governments of the member states which do not allow large intrusions into their security agendas.

– These concerns on democratic control of the Council of the EU and its strategies, and its counter-terrorism agenda, are increasing the distrust generated by the growing involvement of industry security and defence policy in many newly developed measures.

– In fact, there is neither monitoring nor a regular evaluation of the actions that are being developed. Even more, the implementation of the measures for each country is individual and the effects, costs or benefits are measured, in the best case, in local terms.

The future of terrorism in Europe (2030)

Methodological framework

We have applied the analytical framework used by RAND Europe in its research "Europe's Societal Challenges. An analysis of global societal trends to 2030 and their impact on the EU" [21], that is consistent with the Development, Concepts and Doctrine Centre (DCDC) report of the UK Ministry

of Defence (2010), titled "Global Strategic Trends out to 2040" [22].

We selected the trends observed trough a literature review process owing to the fact that we believe it necessary to study the phenomenon of terrorism within the social context (with all variables that it entails) in which it runs. Using the same documents and helped by experts meetings in the headquarters of the Centre of Analysis and Foresight (CAP) of Guardia Civil (Spanish Law Enforcement Agency) we identified their drivers (factors that influence or causes change) indicators and those outcomes that could be related to terrorism, that could act as causes or factors, and produce threats and risks, according to the existing lists in "The Routledge Handbook of Terrorism Studies" [23].

A trend is a set of processes that cannot be changed easily, a discernible pattern of change. They were born, have been pushed or depend on the present and will continue in the future. A driver is an agent or factor which drive a change forward and the indicators are the different variables that explain it.

In our process, which follows partially the model of Lia [33] for the study of the future of terrorism, we have selected political, economic, social, technological and environmental trends, based on the following sources:

– "Europe's Societal Challenges". RAND Europe [21].
– "Global Strategic Trends out to 2040". DCDC [22].
– "Global Risks 2013" [24] and "Global Risks 2014" [25]. World Economic Forum.
– "Global Trends 2030". National Intelligence Council [26]
– Internal documents of the CAP, Guardia Civil, based on a general literature review about the future, and the selection of the main trends about the future with a PESTEL / SWOT model.

For each trend we assign a degree of evidence (high: ***; medium: **; low: *), and a degree of uncertainty about the outcomes (H: high; M: medium; L: low).

Trends, drivers and indicators, although there are specific mentions to the EU or Europe, must be global, because they involve more than a country or a region. Events occurring on one part of the world can affect and be affected by events occurring in other parts. The process of globalisation is a continuous and permanent megatrend that affects politics, economics, social change, or technological development.

Trends, drivers, indicators and outcomes

Political trends (Table 2)
Economic trends (Table 3)
Social trends (Table 4)
Technological trends (Table 5)
Environmental trends (Table 6)

Megatrends, game changers and wild cards

A conclusion appears to be clear: international terrorism will persist, and needs to be faced with all our efforts and imagination. An asymmetric threat needs asymmetric measures.

Some of the identified trends offer a high degree of evidence, being megatrends, trends that are very probable to happen (i.e. demographic evolution). Other trends and outcomes could affect in a positive or a negative way the phenomenon of terrorism, we call them "game changers" (i.e. technology). Following those trends and outcomes, and applying them to the research on terrorism, we could think on a future with the following characteristics (Table 7):

Those risks with low probability (because of the high competencies or resources needed to plan and execute an attack, historical trends, or incidents that go beyond our imagination) and high impact (because they generate terror, casualties, or dangers) are what we call "wild cards". Different from those called as "known unknowns", the things we know will happen although we do not know exactly when or what effects will result.

There is a key factor that could act as a "game changer": counter-terrorism policies, that, as we argue, it is not possible to know if act as a pull, a push, or a neutral factor because the EU does not follow an evidence-based policing system.

In conclusion, there are several difficulties with uncertainty, complexity and change dynamics. So, the methodological effort would try to combine positive knowledge about future trends with intransparency. Game changers could be managed through a monitoring system of information, analysing the evolution of each one. Wild cards are impossible to detect, are incontrollable. We deal with the distinction between a "present future" and a "future present". Esposito (2011) [27], following the sociological systems theory of Niklas Luhmann, points out that the past and the future include a multiplicity of past and future presents. Even if the world is unknown, one still has a known and acceptable orientation about the future. We know emerging trends that could be consolidated in the future, and we know events (elections, demography evolution) and technologies that will be points of change. It is possible to get a methodological vision of "present future", through trends analysis, horizon scanning or other techniques (tools to understand the future, but not scientific

Table 2 Political trends and security outcomes (Cohen and Blanco 2014)

TRENDS	DRIVERS	INDICATORS	E	TIME	OUTCOMES	U
Crisis of power	Obama doctrine: "Leading from behind"; growing impact of nonstate actors; crisis of the power of nations; new international balance of power; multi-polar world and diffused power; post western period; lack of EU international leadership; WMD proliferation; world processes of democratisation.	Global Peace Index (GPI); Fragile States Index (FSI); inequality gaps between countries; power indicators (GDP, military power, etc.)	**	S/M/L	Global governance failure; anarchy; failed and weak states; corruption; organized crime; terrorism; long and permanent low level conflicts out of control	H
Growing local and regional conflicts	EU surrounded by unstable regions (Middle East, North of Africa); military participation of EU countries; peacekeeping operations; War on Terrorism.	GPI; FSI; presence of European countries troops in conflicts	**	S/M/L	Fragile states; corruption; organized crime; terrorism; intrastate conflicts; insurgencies.	H
Improvement in human rights	Democratisation process; transparency	Press Freedom Index, Civil Rights Index, Democracy Index	**	S/M	Disparities inside the EU	M
Changes in traditional political participation to issue based participation	Technological progress; connected devices; internet; social media; activism and cyber activism; new ways of participation; pressure for democratic reforms; transnational mobilizations; voters rejecting established political parties; low trust in politics	Number of political platforms online; new social movements; e-government index; transparency index; open data index; Democracy index; Civil rights index	***	S/M	Social conflicts; leaks; changing political engagement; demands of interaction; decrease engagement with traditional parties	H
Growing surveillance	Security concerns about privacy and cyberspace; legal systems of control	E-government and open data indexes; sentiment analysis output; proliferation of leaks	**	S/M	Multi surveillance from the states and from citizens; leaks; social conflict	M
Growing popularity of grassroots and populist movements, extremism	Declining trust in institutions; Diverging global attitudes; anti-globalization movements; nationalisms; Euro-scepticism ascendant; historical factors	EU elections results; national election results; number of terrorist attacks or incidents; confidence in institutions surveys.	***	S/M	Social unrest; political violence; terrorism; narratives that aim to conquest Al Andalus	H

methodologies). But we do not know what will happen, the information is limited, "both concerning the behaviour of others who are oriented to us and also concerning the future that will result from our choices", so we have the opportunity to revise this "present future" in the continuous "future presents". Esposito, in this situation, thinks that time is a great opportunity and allows for imagination and creativity.

Table 3 Economic trends and security outcomes (Cohen and Blanco 2014)

TRENDS	DRIVERS	INDICATORS	E	TIME	OUTCOMES	U
Growing unemployment	Shortfall or slow employment creation; labour exploitation	Unemployment rate; youth unemployment rate	**	S/M	Social unrest; inequality; populism and extremism; radicalization; ghettos and minorities integration; resurgence of leftist anti-globalisation ideologies	L
Inequality inside states and between rich and poor countries	Disparities inside the EU; Unemployment; development; education; health	Income indexes; Gini index; income per capita; Human development index	**	S/M		L
Economic and financial crisis	Lack of opportunities; reducing social benefits; unemployment; inequality	Gross Domestic Product (GDP); social budget evolution	***	S/M		H
Decreasing global poverty	Developing countries	GDP; income per capita; Human Poverty Index; Multidimensional Poverty Index	**	S/M/L	More opportunities	M

Table 4 Social trends and security outcomes (Cohen and Blanco 2014)

TRENDS	DRIVERS	INDICATORS	E	TIME	OUTCOMES	U
Global population growth	Growing life expectancy; growing fertility in developing countries	Fertility rates; life expectancy	***	M/L	Strain on natural resources and food; migration floods	L
Population ageing in high and middle income countries and family changes	Growing life expectancy; high fertility rates; less infectious diseases; elderly citizens; increasing in one single person ways of life; new forms of cohabitation; youth bulges on parts of the world	Fertility rates; life expectancy; % of single parent households; divorce rates; average households size; poverty by household; old age dependency ratio, health care costs; proportion of young population	***	S/M/L	Risks of poverty and social exclusion; migration to the EU; social unrest; pressure for democratic reforms; lack of opportunities; radicalization.	M
Decline working population in EU	Fertility decreases; longevity increases	Fertility rates; population growth; dependency ratios; % older people	***	S/M/L	Migration to the EU; pressure for democratic reforms; decreasing political EU influence; social unrest	L
Migrations	Diversity in migration flows; attractiveness for migrants: economic and employment opportunities; social and family networks; rights and liberties; attitudes to migrants; residential distribution of migrants; conflicts; second and third generations integration; "diaspora" communities	Global Peace Index; Human Development Index; Racism surveys; migration rates; integration indicators; education level and success rate; migrant unemployment rates; diasporas communities evolution	***	S/M/L	Cultural polarization; problems of integrations; ethnic and religious conflicts; stress to social welfare; racism; skill gaps for job access; ghettos; lack of opportunities; extremisms and radicalization; hate crimes; inter-communal violence; home-grown terrorism	H
Growing western values	Consumerism; globalization of values and ways of life; internet and social media; growing middle class	Gross domestic consumption; luxury industry trends; Democracy index; Civil rights index	**	S/M	Inequality; grievances; terrorist narratives based on western way of life; democratic reforms; anti-globalisation movements	M
Global urbanization	Economic opportunities; globalization of travel and transports and mobility	Urban population rate	***	S/M/L	Social exclusion; ghettos; radicalization; resource scarcity; urban warfare	M
Human development	Better education, health and wealth	Human Development Index	***	M/L	High variations in the EU; opportunities that can be applied or failed	L
Individual empowerment	Internet; social media, networks; education online; information and knowledge society	Internet and social media use	***	S/M	New opportunities, but terrorist opportunities too in communication and recruitment: loner terrorism, foreign fighters	H

Table 5 Technological trends and security outcomes (Cohen and Blanco 2014)

TRENDS	DRIVERS	INDICATORS	E	TIME	OUTCOMES	U
Development of information and communication technologies	Internet and social media; internet of things; semantic web; cloud computing	Technological foresight; analysis of impact of new technologies in security	***	S/M/L	Growing cyber-threats: cyber-terrorism, cyber-attacks, cyber-crime; critical infrastructures risks; espionage; intellectual property attacks; privacy; technological inequality	H
Big Data and predictive systems	Internet and social media; internet of things; semantic web; cloud computing	Volume of information (internet, social media), variety, and velocity	***	S/M/L	New opportunities to understand and study matters like terrorism. Privacy: terrorism and effects on liberties	H
Technological development: means of transportation; nanotechnology; 3D printers, cyborgs, CCTV…	Access to technologies; economic cost; drones	Technological foresight; analysis of impact of new technologies in security	***	S/M/L	Push and pull factors for terrorist use and for a counter-terrorism use. Dual use civil and military and possibility of access by terrorist groups. Gap between legislation and technology. Privacy	H
Smart cities	Technologies; social and political change and trends; internet of things	Smart cities index	***	S/M/L	Cyber threats; critical infrastructures targets	H

Table 6 Environmental trends and security outcomes (Cohen and Blanco 2014)

TRENDS	DRIVERS	INDICATORS	E	TIME	OUTCOMES	U
Growing resources demand	Cultivation; new technologies; economic and population growth; urbanization degree; food, water and energy scarcity	Prices of resources (oil, minerals, food); international conflicts	**	M/L	Conflicts; resources scarcity; food crisis; humanitarian crisis; migrations	H
Climate change	Determining the direct effect of climate change in natural disasters and other effects	Climate effects: droughts, floods, tsunamis…	**	S/M/L		H
Pandemics	Urbanisation; globalisation; travels	Evolution of incidents	*	S/M/L		H
Natural catastrophes	Floods, volcanos, earthquakes, tsunamis	Evolution of incidents	*	S/M/L		H

Table 7 Terrorism in Europe 2030 (Cohen and Blanco 2014)

FUTURE TERRORISM	DRIVERS	Probability	Impact
Low intensity conflicts, or small wars. Irregular warfare	The absence of a clear international leadership, the multi-polar distribution of power, the weak and late response of the US or the EU to emerging conflicts, the existence of radical religious ideologies, and the fragility of several states could provide the terrorist organizations the opportunity to have safe havens to recruit, train, and control partially some states. The proximity to the EU or the action of the states of the EU could be factors affecting the risk	H	H
New terrorist safe havens	Conflicts, weak states, terrorist mobility, foreign fighters	M	M
The merge between terrorism and transnational organized crime (TOC)	Urbanization, fragile and collapsed states, corruption, financing needs, weapons trafficking, false documents trafficking, drug trafficking, human beings trafficking, natural resources trafficking	H	M
Terrorist use of the internet	The cyberspace will be another battleground of terrorism, a marketplace of ideas, a way of communication, recruitment, financing, buying resources, terrorising	H	M
Cyberterrorism	Technological development, smart cities, interconnected critical infrastructures	M	H
Terrorist use of new technologies	Technological development, individual empowerment, internet, social media,	M	H
Armies of terror	Foreign fighters, big armies associated to Shia and to Sunni worlds, internet and social media, fragile states as objective	H	M
Individual terrorism	The process of individual empowerment, internet and social media, the knowledge society, "leaderless resistance" principles.	M	M
Homegrown terrorism	Migration to the EU, lack of opportunities, grievances (political, social, ideological, cultural, or economic), and the integration of second and third generations	M	M
Rise of extremism: religious, right-wing, left-wing. Radicalization	Globalization, urbanization process, corruption, international conflicts, the existence of "ghettos", migration to the EU, the acceptance of migrants, the integration of second and third generations of immigrants, the cultural polarization, economic and social inequalities	H	M
Rise of trans-terrorism networks. Trans-versal bridges between groups	Globalization, transports, internet, social media, foreign fighters networks, multiactivism, diffuse ideologies, relationships between different international groups, unexpected "marriages of ideologies", organized crime	H	H
New ways of action	Globalisation of terror. Kidnappings, small arms, soft targets, urban jihad, or dramatic actions used in Syria or Iraq	M	H
Access to weapons of mass destruction	Growing proliferation, fragile states, conflicts	L	H
Anarchism	Diffuse leadership, inequality, anti-capitalism values, proliferation of social unrest, surveillance battle between states and citizens, corruption; lack of confidence in institutions	M	M
International interventions against terrorism	War on Terrorism. International and regional alliances. Conflicts. Humanitarian crisis and human rights violations. Peacekeeping operations	H	M
Soft targets	Cultural gaps, narratives anti-western way of life, market orientation and privatisation of the power, business targets of anti-globalisation, anarchist or jihad groups	M	H

New counter-terrorism policies in contexts of change, complexity and great uncertainty

Intelligence analysis with creativity and imagination

The report about 9/11 [28] stressed in a chapter devoted to prospective analysis ("Foresight and Hindsight") that the lack of imagination was the major mistake when trying to prevent the terrorist attacks. Imagination is not common in bureaucracies. Policy-makers have a short horizon, but policies should not.

Some authors highlight the obsession for collecting data [29]. The so called "Big Data" is a revolution because it is a source of development that allows managing huge amounts of information and applying predictive techniques. When studying the phenomenon of terrorism or analysing intelligence, this obsession for details can let us know what is going on, but not its causes or the most appropriate measures to be implemented. In the best-case scenario, we can guess that some event will probably happen in the future, or we can compare patterns, but it does not guarantee that the future will be that way [30]. In addition, if analysts get used to having every possible detail before making a diagnosis, this might result in an excessive dependence that might lead to paralysis.

Unknowns unknowns, a famous concept developed by Donald Rumsfeld, are perhaps impossible to manage. Taleb creates the concept of "antifragility", a way to manage uncertainty (wild cards or black swans) but not trying to identify them previously, but being prepared to be stronger in this evolutionary and complex system when events with low probability happen. This concept goes over the *resilience* theories (Wildavsky, Douglas).

According to the 9/11 Commission Report "it is therefore crucial to find a way of routinizing, even bureaucratizing, the exercise of imagination". Richard Clark (National Counterterrorism Coordinator, NSC, 1997–2001) attributed his awareness about the possible use of airplanes as weapons more to Tom Clancy novels than to warnings from the intelligence community.

Imagination is needed to identify attackers, to discover vulnerabilities, to think about a new modus operandi in terrorist attacks, to connect the dots (one of the key functions of intelligence analysis), to preview scenarios, to establish hypothesis to evaluate, to suggest different alternatives, to have different points of view, and to develop new ways and new processes of analysis. Imagination is, sadly, a non-used source of information.

Finding atypical observations, the "dots", could be the first step in an intelligence process based on creativity. These observations could be originated by the knowledge of rare events, or changes in classical patterns of terrorism. But this information could not only be based on existing data, information or events. It could be possible to create information based on a creative thinking process following some of the multiple methodologies that pursue this aim. Once we have identified a possible "dot", we propose the use of the Atypical Signal Analysis and Processing (ASAP) concept developed by the RAND National Security Research Division (NSRD) [31].

Foresight as a continuous system

Policy-makers take counter-terrorist measures without objective analysis systems, mainly responding to opportunity or social alarm triggered by some event, and without designing future scenarios that will never take place during their term of office.

The International Centre for Counter-Terrorism [32] developed an important research analysing the references to the future evolution of this phenomenon in 60 surveys conducted by well-known institutions and experts. This survey reaches a conclusion: most of them lack a methodological basis; in general, they do not even mention possible dynamics of change that would allow establishing indicators to monitor the evolution of the phenomenon.

In the best-case scenario, these surveys are a goodwill gesture based on personal opinions, intuition based on experience or trend forecasting.

Lia [33] points out that the literature about the future of terrorism lacks a systematic way of thinking on how social change creates new environments for terrorism. Normally individual events or cases are used and extrapolated, but no analysis is carried out on the evolution of those factors determining the environment where terrorism can increase or be tackled.

Among the different attempts to create such a model, Brynjar Lia's deserves special attention. The main advantage of this proposal is that it defines a framework to analyse the environment regarding the potential socio-political changes enabling the evolution of terrorism.

Lia basically mentions that there are factors such as international relations (leadership, proliferation of weapons of mass destruction, democratisation, fragile states, multilateralism, peace support interventions, non-governmental actions), economic factors (inequality, relationship between economy and politics, organized crime, energy), demographic factors (growth and

migrations), ideologies and technologies that would allow identifying the causes of terrorism and predicting the future (target patterns, terrorism level, deadliness, ideological motivations, geographical location, etc.). A similar model is the one we used in the second epigraph of this paper.

Foresight research, papers or books are static information. When we must address risks with rapid change and high uncertainty, the efforts must be continuous. Foresight must be a permanent system because terrorism is an evolutive concept. Trends are continuously evolving. Drivers and indicators need to be continuously evaluated.

Decision-making process

Evidence-based counter-terrorism policy is widely understood as a historical search for usable and relevant knowledge generated through rational scientific methods to help address and resolve terrorism-related problems, to produce knowledge required for fine-tuning programs and constructing guidelines and toolkits for dealing with known problems.

The centre of policy evidence-based should be to evaluate if counter-terrorism policies work and fix the way we could measure it. But our aim would be broader. It would be, at the end, to design a holistic approach, a model, in order to assure that policing designers had the best knowledge and the best intelligence when they take decisions on counter-terrorism.

For this purpose, we distinguish three phases, but each of them is formed by too many processes:

a) Before policing. The decision-maker must have access to the best possible information. Knowledge about terrorism is fragmented and elaborated by different actors (university, think tanks, intelligence analysts, government civil servants, lobbies, citizens' desires and needs, etc.), and we must join them. We must evaluate the results of this process, in order to know if it works, and to propose an integral framework of knowledge and intelligence for policy makers.

b) Taking decisions or policing. We must know how a policy-maker acts. There are many researches about it that we could apply to the process: studies about individual factors, cognitive biases, group factors, public policy theories, and intelligence led policing. We must evaluate this process in order to know the causes of a bad decision (for example, when the decision-maker does not follow the analysts' advice). It is important to go ahead classical models, as the rational model of decision-making. Policy-makers are not absolutely rational, so we must consider the use of incremental models [34] or less rational models like the *multiple stream approach* [35], the *discrediting* decisions of Weick, or the *mixed scanning* model of Etziani that combines a high policy-making process with basic directions and fundamental decisions and incremental ones that consider past policies and prepare for fundamental decisions and manage them after they are approved [36]. These models should be completed with new visions, under construction, based on networks and collective intelligence.
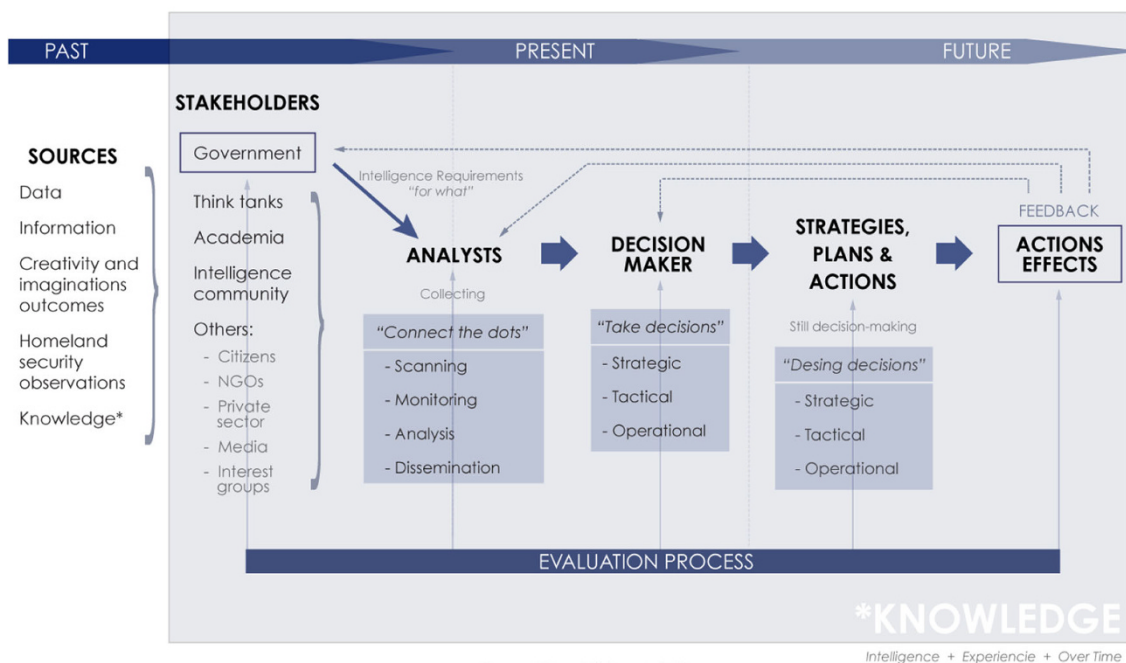

Fig. 1 Holistic process for Counter-terrorism policy-making (Cohen and Blanco 2014)

c) After policing. Policies generate effects that must be measured, but not only with rational indicators (arrests, number and cost of attacks, time between attacks). If causing terror is the main objective of terrorism, we should measure fear and terror, and other social impacts of counter-terrorism policies (i.e. loss of civil liberties). This process not only aims to know the effectiveness of the policies, but also to improve future policy making.

A new methodological approach to the study of terrorism and decision-making

Therefore, the model we propose, a holistic approach [37], integrates at least five individual models: a new intelligence process, the decision-making process, the "connecting the dots" model of RAND Corporation, evidence-based policing and foresight. The pillars of this holistic approach are:

a) Need to focus on intelligence surveys, analyses and actions on answering the question "what for?". Decision-making is the major goal, at strategic, tactical and operational levels.
b) The intelligence process must satisfy, as a main objective, the need to "connect the dots", answering the requirements established to inform the decision-making process.
c) The sources of those different "dots" are data, information, imagination and creative thinking, and homeland security observations (i.e. previous knowledge, or intuition based on experience).
d) There are multiple stakeholders that could help to create the best knowledge and intelligence in order to take actions, design strategies, or make plans. Think tanks, universities, experts, and citizens should be an important part of that process. It would be useful to integrate the synergies among academic studies about intelligence and terrorism.
e) A new intelligence process, with the support of modern information technologies, modifying and eliminating the classical cycle of intelligence. This process is not based on a lineal and continuous cycle, but on the use of different tools like scanning, monitoring, information classification and evaluation, integration, analysis, dissemination or visualization of information, which are not sequential stages.
f) Time perspective. We shape the future through the decisions we make in every moment. Expectations about the future introduce causal factors in it, and they also condition our decisions at present. But our past (experiences, education) creates our present too. Consequently, we can state that these three moments overlap. The model introduces considerations about non-linearity of time, path dependency and multi-causality.
g) The integration of every applicable methodology, from a holistic time-based perspective. From a methodological point of view, it would start from the scientific method and social sciences, incorporating the structured techniques of intelligence analysis, and even including Big Data or the futures studies.
h) As the model regards strategic and operational aspects, the use of global systems and models would allow supporting early warning systems. The starting point would be using methodologies such as Environmental Scanning and Horizon Scanning.
i) Finally, the model incorporates the theory of evidence-based policing, evaluating different processes: the requirements or needs of intelligence, the intelligence process developed by analysts and their managers, the decision-making process, and the effects of the CT strategies (efficiency, costs, impacts in citizens and other non-desired effects) (Fig. 1).

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