



TRIVALENT

TERRORISM PREVENTION VIA RADICALISATION COUNTER-NARRATIVE

Project Overview



UNIVERSITÀ CATTOLICA del Sacro Cuore



Politie

Voorkempen



The Open University



Ministero della Giustizia Dipartimento Amministrazione Penitenziaria



ICT International Institute for Counter-Terrorism With the Support of Karen Daniel



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1 Project Rationale

On the assumption that to successfully contrast violent extremism it is needed a more balanced response, combining repressive with preventive measures, TRIVALENT project aims to a better understanding of root causes of the phenomenon of violent radicalisation in Europe, through a multidisciplinary analysis leading to a comprehensive approach, based on a firm commitment to respecting fundamental rights, promoting integration, cultural dialogue and fighting discrimination, in order to develop appropriate countermeasures, ranging from early detection methodologies to techniques of counter-narrative, involving LEAs together with academics, experts and civil society actors at local, national and European level, in collaboration also with communities of reference.

2 Project consortium

The TRIVALENT consortium reflects such an attitude by combining it with a balanced team of experts in several different aspects related to the project topic, such as: • Radicalisation processes and violent groups; • Radical narratives and counter-narratives; • Policies to tackle radicalisation; • Semantic analysis of online content; • Development of IT tools; • Skills and competences for LEAs. The TRIVALENT consortium encompasses:

- **6 University Centres/Departments:** 5 from 4 EU countries (1 from Belgium, 2 from Italy, 1 from Spain, 1 from UK,) and 1 from non EU country (Israel);
- **11 LEAs:** 10 from 6 EU countries (1 from Belgium, 3 from Italy, 1 from Latvia, 3 from Poland, 1 from Portugal, 1 from Spain) and 1 from EU candidate country (Albania);
- and **4 technical partners** with a multidisciplinary expertise: 4 from 3 EU countries (1 from France, 2 from Italy, 1 from Spain).

3 Objectives

The manifold and complementary objectives of TRIVALENT are:

- 1) To develop on the basis of a theoretical multidisciplinary study complex multidimensional models for better understanding the root-causes and related specific characteristics of violent radicalisation, defining different categories of radicalised individuals as well as providing a set of early detection indicators;
- 2) Within such theoretical framework, to critically assess strengths and weaknesses of different types of policies (e.g. preventive vs. legal and administrative measures) for countering radicalisation by testing them in the context of national and local experiences through a comparative analysis, with emphasis on best practices, aiming at the definition of a set of policy recommendations (guidelines) targeting different types of radicalised individuals;
- 3) To work out instruments for the analysis of specific online contents and communication codes used in particular by extremist groups, with an aim to contribute to the creation of media communication strategies directed to spread, both online and offline, an alternative narrative and counter-narrative;
- 4) To study and contribute to improved information exchange and more effective means of cooperation, coordination and communication between LEAs, local authorities/communities and

civil society actors, with an aim to promote and facilitate common efforts on prevention/protection against either radicalization symptoms and the exclusion of individuals or already marginalized groups, by promoting practices of intercultural and inter-religious dialogue;

5) To study and contribute to elaborate suitable means and countermeasures to prevent youth radicalisation in the families and at schools, as well as to develop measures to contrast the spreading of extremism among those detained or otherwise deprived of personal freedom;

6) To strengthen and update existing methodologies and to improve competencies, skills and characteristics of the various types of practitioners involved in preventing, detecting or countering violent extremism, through training courses, with a special focus on recognising and interpreting early radicalization signs;

7) To validate with LEAs partners, other practitioners and civil society actors, including communities of references, the results achieved by the research/study activities focused on new approaches to anti- radicalisation, and to disseminate them in the various institutional and social contexts.

All the above envisaged objectives are in line with the main project purpose to tie up prevention and protection together in a comprehensive strategic approach to countering violent radicalisation with a view to join efforts between scholarly teams, LEAs partners, experts, civil society actors, and representatives of the interested communities, in order either to improve professional skills and to raise up a greater awareness and sense of participation on the side of all the quarters involved.

4 Concept and approach

The underlying assumption of the project proposal, in line with the UN Security Council recommendations (Resolution n. 2178, September 2014) and the Commission “European Agenda on Security” 2015-2020 (28.4.2015, COM(2015) 185 final), is that in order to successfully contrast violent extremism, what is needed is a more balanced response to violent radicalisation, combining repressive measures with preventive measures, in a comprehensive approach in collaboration with actors of civil society and the communities of reference, based on a firm commitment to respecting fundamental rights, promoting integration, cultural dialogue and fighting discrimination.

To this end, a better understanding of factors constituting violent radicalisation in Europe is needed. This will be achieved by TRIVALENT through a multidisciplinary analysis aimed at providing a comprehensive view of the phenomenon as well as investigating its root causes in order to develop appropriate countermeasures: from early detection methodologies to strategies and techniques of counter-narrative, involving LEAs together with experts and civil society actors at local, national and European level.

In addition, it is necessary to acknowledge that violent radicalisation (especially in the case of jihadist extremism) occurs mainly through narratives that:

- have specific characteristics and contents;
- use specific communication codes;
- are addressed to specific audiences;
- spread in a multitude of ways, over the Internet, as well as by means of in person communication exchanges that take place in families, schools, places of worship, prisons, local communities, etc.

These narratives have proven effective towards different types of groups: vulnerable individuals such as young people, detainees, and people craving for revenge after having experienced what they perceive as injustices, either at personal or group level, but also less sensitive subjects, such as graduates with a strong political/ideological sensibility or individuals with fighting experience in

conflict zones. Due to such multifarious backgrounds, acts of violent extremism carried out by single (solo or lone wolf) or group actors are often rooted in a large variety of influences and motivational drivers.

Therefore, to better cope with the processes of radicalization leading to acts of violence, it is of the utmost importance to elaborate, at theoretical level, multidimensional models capable of taking into account the interconnections between personal stories, social and local conditions, ideological or religious influences, international-geopolitical contexts. At the same time, it is crucial to test such models on the basis of case-studies and in connection with LEAs, experts and civil society actors, by having access to individual experiences of radicalisation that can provide information and insights on how the narratives through which the hidden mechanism of violent radicalisation attract, motivate and push people from various social and cultural backgrounds to violent actions, so as to identify recurrences, profiles and indicators useful to put in place early warning systems and more specific countermeasures with innovative, ethical solutions.

On such basic premises, the project idea centres around the need for effective ‘counter-narratives’ aimed at preventing and countering violent radicalisation, capable of combining together theoretical and operational tools, validation and participation means, and thus articulated in a variety of concurrent objectives towards the same purpose.

Traditionally, the process of radicalisation took place through physical interaction in social environments, such as in places of worship, prisons, and meeting venues. However, in recent years this process has migrated to the virtual environment of the Internet, where many terrorist organisations are now using social media to promote their ideology and propaganda, and to recruit individuals to their cause. With the spread of social media and encrypted communications, not only radicalisation but also operational planning can easily occur entirely online.¹ Recruitment conversations often start with open social media sites (e.g., Twitter, Facebook, Tumblr, Ask.fm, Instagram, YouTube, etc.) and then move onto private messages with target individuals.

The most recent example is the so-called Islamic State (IS), which is arguably one of the leading organisations in the use of social media for sharing their propaganda, for raising funds, and for radicalising and recruiting individuals around the globe.

According to a 2015 U.S government report, this organisation succeeded in recruiting more than 25,000 foreign fighters in Syria and Iraq, including 4,500 from Europe and North America. In a desperate attempt to disrupt and disconnect such radicalisation channels, some governments, organisations, and social media platforms continuously search and disable social media accounts that are found to be associated with such terrorist groups. For example, in response to the Paris attacks in November 2015, the hacker community Anonymous took down more than 20,000 Twitter accounts that were allegedly linked to ISIS. However, the method they deployed to categorise such accounts was too imperfect, evidenced by their inclusion in the blockage the social media accounts of the U.S president Barack Obama, the White House, the BBC, the New York Times, and many other anti IS accounts.

This demonstrates the need for advanced methods and systems to accurately monitor and assess the association of social media accounts with violent radicalisation, while protecting the rights of citizens to free thought, including non-violent radical ones.

Although some recent research targeted the understanding of the process and stages of online radicalisation,^{2,3,4} little is known about (a) what are the evolution paths of social media accounts that led to radicalised statuses, (b) what communication patterns tend to take place prior to radicalisation of individuals, what tools and models can be used to track and forecast signs of online radicalisation of individuals, and what rhetoric and media are most effective in radicalisation. Answering these questions could pave the way to detecting if and when a social media user or group are likely to spread and/or adopt a violent radicalised stance, and to understand the context under which this occurs, so that counter-narratives to radicalisation can be devised.

4.1 Project positioning

The TRIVALENT innovations aim at being available, effective and applicable by LEAs and other relevant stakeholders associated with de-radicalisation and countering extremism activities.

Following an achievable and clear work plan, TRIVALENT is expected to fulfill the criteria of Technology Readiness Level (TRL) 2/3 to TRL 6 – technology demonstrated in relevant environment, in line with the TRL output expected from a Research and Innovation Action (RIA).

To achieve this maturity level the consortium will organize its activities in well-defined phases during the whole project life cycle.

The members of the consortium have the expertise in:

- Implementation, coordination and risk management of cutting edge applied technological projects.
- Scientific excellence thanks to a large number of research papers in the area of text mining and analysis, emotion extraction, argumentation and counter-argumentation, data modelling and monitoring of radicalisation processes;
- Experience in a large number of national and EU projects, in which they have developed the main activities related to TRIVALENT concept;
- High participation and leadership of end users from the very beginning of the proposal preparation.

Technological innovations will be achieved by TRIVALENT under WP3 and WP5.

The activities foreseen under WP3 will bring TRIVALENT to adapt the current categorisation and entity extraction capabilities to the particular domains addressed by TRIVALENT. Such extension entails the development and fine tuning of new taxonomies and linguistic rules according to specific knowledge representation and analytics needs that are particular of the scenarios of interest in TRIVALENT.

Under WP5, a dedicated IT tool will be developed in order to foster real-time communication between the different actors involved in countering violent radicalisation. The tool will be tested in lab as part of WP7 activities and then validated within a relevant environment involving LEAs as well as civil society actors.

4.2 Approach and methodology

The methodological framework of TRIVALENT encompasses 4 main steps:

- analysis of radicalisation processes and narratives;
- building of counter-narratives;
- development of policies, tools and skills to tackle radicalisation;
- field validation of the TRIVALENT solutions.

Each step will be carried out using different techniques and tools (see table below).

Steps	Methodologies
Analysis of radicalisation processes and narratives	<ul style="list-style-type: none">• Desktop analysis of existing literature;• Case studies of radicalised individuals;• Surveys involving LEAs and EU experts in the field;• Semantic analysis on the web through semi-automatic IT tools.

Building of counter-narratives	<ul style="list-style-type: none"> • Counter-narratives based on the analysis of real narratives; • Selection of the most appropriate media for each message; • Development of methodologies to assess the effectiveness of counter-narratives.
Development of policies, tools and skills to tackle radicalization	<ul style="list-style-type: none"> • Organisation of workshops; • Use of blended learning methods; • Cooperation between LEAs and civil society; • Direct involvement of the end-users to analyse the knowledge gaps and find the needed skills.
Field validation of the TRIVALENT solutions	<ul style="list-style-type: none"> • Pilot training sessions; • Organisation of consensus meetings.

TRIVALENT methodology

Analysis of Radicalisation on Social Media

Understanding the process of radicalisation through the Internet and what motivates individuals to adopt such behaviour has become a burgeoning, albeit relatively-new, topic of research, and has recently focused on the role that social media plays in radicalisation. Existing works in this space have spanned multiple research domains (social science, psychology, computer science) and have often sought to understand the pathway to radicalisation: (i) picking out key signifiers of increasingly radicalised behaviour (e.g. distribution of jihad videos)⁵; (ii) defining pathway models of the stages towards radicalisation (e.g. isolation, disillusionment, anger, etc.)⁶, and; (iii) the process used by those radicalised to recruit others⁷.

In TRIVALENT, we will research and develop new techniques and methods for the detection and tracking of radicalisation stances and narrative (violent and non-violent), using a mixture of data mining and analysis methods, based on state of the art of semantic, linguistic, statistical, and network analysis research methods and techniques, as well as radicalisation models and theories from psychology.

5 Ambition

The following figure summarises the innovation potential of TRIVALENT in each step of the work programme



Figure 1 – Innovative potential of TRIVALENT

6 Progress beyond the state-of-the-art

The scientific study of radicalisation in the past has often been focussed on identifying profiles of radicals in order to be able to predict who would be available to radicalisation and who would not. In short, these profiles concentrated on two types of determinants: demographics and psychopathology. In the case of demographics, a considerable amount of effort has gone into trying to identify characteristics in the lives of radicals that form a common trend, such as marital status, criminal history, abusive background, nationality, or social-economic status. These efforts have essentially resulted in no structurally common characteristics attributable to violent radicals. In the case of psychopathology, studies have been conducted to examine the possibility that violent radical behaviour is due to some psychological disease. The most universal conclusion of these studies, however, is that what violent radicals have most in common is that they are psychologically sane. TRIVALENT wants to represent a real forward leap realizing a progress beyond the state of the art starting up from scratch, using primary data (leveraging on direct experiences from detainees: this is the reason for the high number of LEAs working with them involved in the consortium), secondary data and a real new multidisciplinary approach.

TRIVALENT contribution to the progress beyond the state of the art is in online radicalization analysis, including the development of computational models for the early detection and tracking of radicalization behavior, while distinguishing between violent and non-violent radicalization. This analysis will still take into account radicalization models from psychology, as well as various data/text mining approaches, to identify common radicalization patterns with the aim to produce methodologies, tools, and services, for monitoring radicalization on social media. The role of gender, and economical, social, educational, and emotional statuses of individuals will also be studied in TRIVALENT, since such factors are known to influence the vulnerability of individuals to radicalization. These developments will empower LEAs with novel and powerful tools to detect, monitor, and analyze online radicalization behaviour.

For what regards online radicalization analysis, in recent years, much research started to take place to better understand the dynamics behind the radicalization of individuals on social media, due to

the increase of such incidents, and to the exploitation of terrorism groups of such venues to widen their recruitment strategies and practices. For example, Barlett and Miller studied the main indicators of radicalized behaviour, such as the distribution and iteration of terrorism-related videos and narrative. Rowe and Saif analyzed Twitter posts in search of linguistic radicalization patterns. King and Taylor developed a model to capture the stages of radicalization that individuals tend to go through. The general radicalization processes used by recruiters were also investigated, and several models were produced.

6.1 Innovation in contrasting radicalization

Various types of interventions to halt, reverse or prevent radicalisation have been implemented in the field in one form or another.

The most common types of means used are:

- Involvement of key figures;
- Information dissemination;
- Increase resilience;
- Knowledge development;
- Network/chain approach;
- Mentoring;
- Conversation techniques;
- Need fulfilment;
- Rules and sanctions;
- Contact increase.

Clearly, this is a rather diverse list and several means listed here are rather abstract and too unspecified to be of much practical use; for example, how does one go about implementing “need fulfilment”? One of the most difficult things for professionals working with high-risk individuals is to correctly identify who is in the process of radicalising and how far along this individual is in the process. A big progress in this area will be given by TRIVALENT applying semantic analysis to radicalization discourse to detect the real radicalization signs.

Until now the approach was strongly different. For example, regarding Islamist radicalization, the NYPD has done extensive work in this area defining the following signs of Islamist radicalization:

- Becoming alienated from one’s former life;
- Affiliating with like-minded individuals;
- Joining or forming a group of like-minded individuals in a quest to strengthen one’s dedication to Salafi Islam;
- Giving up cigarettes, drinking, gambling and certain types of dress;
- Wearing traditional Islamic clothing, growing a beard;
- Becoming involved in social activism and community issues;
- Withdrawal from the Mosque.

In the last years, however, many researchers, like Alex P. Schmid, advocate an approach basing on the development of a counter-narrative that can seriously challenge and undermine the radicalization narrative (in that case of IS). He mentions in this framework the attempt made, from a purely theological perspective, by a group of 152 leading Islamic scholars who, in September 2014 – some three months after the proclamation of the Caliphate – wrote a letter to Abu Bakr al Baghdadi, outlining what they consider to be errors and violations of Islamic and international laws committed by the leaders and followers of IS.

While some experts claim that the appeal of ISIS has little or nothing to do with religion but is more

a reflection of a youth revolt among Muslims, Schmid takes the position that ideology and religion are crucial and central for legitimising jihadist violence without denying that individual, social and generational conflicts play a role, both for Western foreign fighters as well as those who originate in Muslim-majority countries. He identifies a dozen claims and statements found in ISIS propaganda and presents as many attempts to counter these on historical, theological and other grounds.

TRIVALENT, as we have seen before, will develop a systematic approach based on semantic analysis to detect the signs of radicalization and, for what regards the building of the counter-narrative strategy, it will use the so-called Counter-Argumentation Methodology.

The resulting counter-messages, counter-speech, counter-arguments (and, in definitive, the final “counter- narratives”) will be tested with audiences that have a cultural affinity to the main target groups (such as vulnerable young Muslims, and involving relevant moderate Muslim scholars). These tools will empower LEAs, NGOS and other social actors to counter online and offline radicalization behaviour.



7 Expected impacts

<i>Topic in work programme</i>	<i>Contribution of this project</i>
General impact	
<p>Security policy-makers and law enforcement agencies should benefit from a full set of policy recommendations and tools aimed at improving their ability to prevent and detect radicalisation by national and local security practitioners in a timely manner, i.e. before individuals turn towards violent, criminal or terrorists acts</p>	<ul style="list-style-type: none"> • TRIVALENT will develop a multi-dimensional complex model aimed at better understanding the factors and steps leading to violent radicalisation as well as to identify different typologies of radicalised individuals (WP2) • TRIVALENT will deliver (WP3): <ul style="list-style-type: none"> ○ analytical techniques for identifying violent-radical, non-violent-radical, and non-radical social media accounts, using content, network, and behaviour analysis methods ○ mechanisms to track radicalisation stages and alert LEAs of radicalisation turning points • TRIVALENT will provide policy makers with a full set of recommendations resulting from a comparative analysis of existing policies against radicalisation, a collection of best practices from different countries as well as from the outcomes of the research carried out under WP2 and WP3 (WP5) • TRIVALENT will develop IT tools to foster real-time communication between the different actors involved in countering violent radicalisation (WP5)
Specific impact	
<p>Comparative analysis of different types of policies (e.g. preventive vs.</p>	<ul style="list-style-type: none"> • TRIVALENT will build effective counter-narratives, identify the appropriate channels and media to spread them, develop a method to assess the effectiveness of those messages (WP4) • Different kind of policies will be analysed and compared, in order to impact on the ability of EU, national and local policy-makers to conceive sound policies against radicalisation (WP5)
<p>Improved description of competencies, skills and characteristics of the various types of practitioners involved in preventing, detecting or countering violent extremism</p>	<p>TRIVALENT will impact on two different aspects:</p> <ul style="list-style-type: none"> • identification of the needed skills and competencies to contrast the phenomenon of violent radicalisation and, particularly, the use of the media made by radical groups nowadays (WP6) • improved skills and competences of LEAs through pilot training courses (WP8)
<p>Improved information exchange between the different actors involved, including security practitioners, family of the radicalised individual, school/workplace of the radicalised individual</p>	<p>IT tools will be developed in WP5, to foster the new cooperation model between LEAs and civil society conceived by TRIVALENT. This model will impact on the way actors from civil society communicate with LEAs, providing them with timely alerts regarding individuals potentially undergoing radicalisation and manage such situations before violent actions are committed.</p>

<p>Field-validation of new approaches to anti-radicalisation directly applicable to support practitioners</p>	<p>A specific WP (WP7) has been devoted to field validation of the different approaches, methods, models and tools developed by TRIVALENT. The direct involvement of LEAs and other practitioners in the field will assure the consideration of their needs and a strong impact can be foreseen on:</p> <ul style="list-style-type: none"> • their understanding of the phenomenon • their ability to find and analyse radical content, both online and offline • their understanding of the needed skills to tackle radicalisation nowadays • their skills and competences
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7.1 Societal Impact

Considering society on the whole, TRIVALENT will give a better understanding of radicalisation processes, thus supporting the adoption of sound behaviours by citizens when facing these phenomena. One of the main aims of TRIVALENT is to create a new cooperation model between LEAs and the civil society, in order to remove the preconceptions currently widespread and to encourage a constant communication on potentially dangerous situations.

8 Implementation - Work plan

TRIVALENT activities are based on a clearly focused set of objectives and will result in the following phases:

- A. DRIVERS OF VIOLENT RADICALISATION PHASE
 - a. *Analysis of* radicalised individuals' experiences and motivations;
 - b. Analysis of radical networks.
- B. NARRATIVES AND COUNTER-NARRATIVES PHASE
 - a. Analysis of radical narratives online and offline;
 - b. Development of an IT tool to identify and analyse radical narratives online;
 - c. Development of targeted counter-narratives;
 - d. Identification of effective dissemination channels.
- C. POLICIES, TOOLS AND SKILLS PHASE
 - a. Comparative analysis of existing policies against radicalisation and delivery of policy recommendations;
 - b. Development of a model and IT tool for improving cooperation between LEAs and civil society;
 - c. Identification of relevant skills and competences for LEAs and other practitioners in the field.
- D. FIELD VALIDATION PHASE
 - a. Testing and validation of the TRIVALENT solutions.
- E. DISSEMINATION, EXPLOITATION AND TRAINING PHASE
 - a. Dissemination, exploitation and training based on the results of TRIVALENT.

The overall strategy underlying the work plan has been designed for optimal implementation of the project objectives and can be summarised as follows:

- A Work Package related to project management (WP1);
- A Work Package related to objectives sub A (WP2);
- Two Work Packages related to objectives sub B (WP3- WP4);
- Two Work Packages related to objectives sub C (WP5 – WP6);
- A Work Package related to objectives sub D (WP7);
- A Work Package related to objectives sub E (WP8);

Mutual feedback among the multidisciplinary activities foreseen by the project will be assured by the workplan. Deliverables will be developed through an incremental process where milestones represent key achievements, checkpoints of cross-disciplinary integration and feasibility assessments through the involvement a large group of stakeholders and users.

