

## The Project



The DANTE project aims to deliver more **effective, efficient, automated data mining and analytics solutions** and an **integrated system** to detect, retrieve, collect and analyse huge amount of heterogeneous and complex multimedia and multi-language terrorist-related contents, from both the Surface and the Deep Web, including Dark nets.

### DANTE value proposition

DANTE aims to provide novel and innovative tools, techniques, processes and algorithms for supporting counter terrorism investigators and analysts in their daily work activities, also considering the Legal, Ethical and Privacy issues. Moreover, DANTE framework takes into account privacy and ethical issues by design with consequent increase of the public acceptance of next generation security system. The project implements and enhances innovative functionalities integrated into an open and extensible environment. It is designed for supporting the management of diverse and multi-lingual data sources and data types, in order to be able to detect and analyze data in diverse languages and coming from heterogeneous sources (video, text messages, audio, etc.).

Therefore, DANTE is an innovative platform characterized by the following:

- Effectiveness – DANTE is precise and accurate in supporting the analyses and investigations;
- Efficiency – DANTE increases users' productivity and improves their job;
- Automation – DANTE requires minimal human intervention to speed and support LEAs counterterrorism activity.

The DANTE framework introduces innovative knowledge mining, information fusion, and automated reasoning techniques and services and provide automated functionalities such as:

- detection and monitoring of sources of relevant terrorist-related data in surface/deep Web, and dark nets;
- accurate and fast detection, analysis, categorization of suspect terrorist related multi-language contents;
- large-scale temporal analysis of terrorism trends;
- real-time summarization of multilingual and multimedia terrorist-related contents;
- detection of dis-information in online contents;

- detection and monitoring of relevant individuals and linking pseudonyms with the original authors;
- accurate and fast identification of terrorist online communities and groups;
- capturing, storing and preserving relevant data for further forensic analysis.

DANTE will have an huge impact on several areas, with particular reference to the following perspectives.

### **DANTE impact on public expenditure and estimated total cost**

DANTE will significantly lower the cost of investigations reducing the required investigation time through the use of automatic processes for detecting relevant terrorist-related data in surface/deep Web, and dark nets. Moreover, by monitoring and categorizing suspect terrorist-related activities in multi-language content, it will accurately and quickly identify terrorist online communities and groups, reducing or even avoiding terrorists attacks, thus decreasing costs on reactive counterterrorism actions.

### **DANTE impact on security perception**

DANTE ultimate goal of discovering (by “connecting the dots”), analyzing, and monitoring potential terrorist-related activities and people, with a special focus on online funds raising activities, propaganda and training and disinformation, will have a proactive effect on the fight against terrorism, with a positive impact on the actual security and the general perception of security by EU citizens.

### **DANTE impact on increased trust in police**

By intercepting terrorism activities, law enforcement agencies will be able to accurately and quickly detect suspect terrorists and terrorist online communities and groups, indirectly participating in the increase of trust in Police forces.

## **DANTE past events**

On the 13th of September DANTE participated to the countering Child Sex Exploitation (CSE) workshop at the Europol headquarters in The Hague.

Even if DANTE is not clearly focused on countering CSE, the project was invited because its integrated platform and some specific tools developed, or under development, might successfully be applied for such type of investigations. To this end, DANTE presented three online demos: Secure Cloud Crawling Framework, Image and Video analysis and the DANTE Intelligence Platform. The services for discovering and extracting relevant online contents, made available through the Source Integration Framework (SIF), and the orchestration and monitoring of the analysis modules, were presented in the context of the integrated platform. The demo aroused interest in the Europol's attendees.

Moreover, DANTE attended MEDI@4SEC, which was held September 26<sup>th</sup> 2018 in Brussels. MEDI@4SEC focuses upon enhancing our understanding of the opportunities, challenges and ethical consideration of social media use for public security and aims to build a community of stakeholders engaged in using social media for public security who can exchange experience, information and ideas to enhance the use of this tool in a very dynamic environment.

## **DANTE collaboration activities**

To fight terrorism, it is essential to have optimal information exchange and accurate data. Two projects, funded by the EU under the Horizon 2020 research and innovation programme – DANTE and TENSOR – are developing solutions for the early detection of terrorist activities (propaganda, radicalization, recruitment, etc.). Based on the common goals, this collaboration is a trigger for the dissemination of projects' knowledge around the terrorism domain, best practices on ethical and privacy issues, and analysis results. By combining their efforts, DANTE and TENSOR aim to achieve greater impact and wider adoption of these new developments in counter-terrorism systems. The collaboration activities carried out so far include:

- MoU signed;
- Sharing of documents including Deliverable Lists and timings;
- TENSOR attendance at DANTE Meeting in Lisbon;
- DANTE attendance at TENSOR Meeting in Lancaster;
- Conversations within CERTH to explore synergies between projects and possible technical collaboration;
- Exchange of multimedia data between TENSOR and DANTE;
- Plans for reusing DANTE components for TENSOR, and vice versa

## **DANTE events in the next future**

The DANTE project announces the **practitioners training sessions** on the use of the DANTE system, that will be held in Rome on the **24rd and 25th of October 2018**. The training sessions will show a deep analysis on crime and terrorism, with particular reference to the use of Internet by terrorists. During the second day, simulated use cases will be executed with the support of project experts. Practitioners will be then invited to use the system in a practical session to experience the impact of the system in their day by day activity of fighting against crime and terrorism.

Moreover, DANTE will showcase project results at the **Security Research Conference and Expo 2018** (SRE 2018). The event is jointly organized by the European Commission and the Austrian Presidency, and will take place in **Brussels** from the **5th until the 6th of December 2018**. The main topics that will be discussed are: *Making Europe a safer place: demonstrating the impact of security research – Challenges and barriers* and *Projects Afterlife: From the lab to real life*. On December 6th, eight thematic panels will focus on specific issues such as addressing multi-country disaster situations, citizens awareness in the context of security research, management of dematerialized borders, cybercrime, maritime security, protection of public spaces, radicalization and response to terrorist attacks.