

# Intelligence Network & Secure Platform for Evidence Correlation and Transfer

# D6.7: Dissemination – Period 2

Publications release 2 and Dissemination and Events report for Period 2.

| Grant Agreement<br>No   | 833276   | Acronym                  | INSPECTr            |  |
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# Glossary of terms and abbreviations used

| Abbreviation / Term | Description  |  |  |
|---------------------|--|--|--|
| AI                  | Artificial Intelligence  |  |  |
| CASE                | Cyber-investigation Analysis Standard Expression (an ontology for representing and tracing evidence) |  |  |
| ССІ                 | UCD Centre for Cybersecurity and Cybercrime Investigation (see UCD)                                  |  |  |
| CEPOL               | The European Union Agency for Law Enforcement Training   |  |  |
| CNR                 | Project Partner: Consiglio Nazionale delle Ricerche  |  |  |
| СоЕ                 | Council of Europe  |  |  |
| EAFS                | European Academy of Forensic Science   |  |  |
| ECTEG               | European Cybercrime Training and Education Group   |  |  |
| GN                  | Project Partner: French Gendarmerie  |  |  |
| IEEE                | Institute of Electrical and Electronics Engineers  |  |  |
| ILEAnet             | EU Project: Innovation by LEA Networking   |  |  |
| ILS                 | Project Partner: Inlecom Systems   |  |  |
| INTAP               | International Conference on Intelligent Technologies and Applications                                |  |  |
| ISO                 | International Organization for Standardization   |  |  |
| КРІ                 | Key Performance Indicators   |  |  |
| LEA                 | Law Enforcement Agency   |  |  |
| NLP                 | Natural Language Processing  |  |  |
| PHS                 | Project Partner: Norwegian Police University College (Politihøgskolen)                               |  |  |
| SRE                 | Security Research Event  |  |  |

| TRI  | Project Partner: Trilateral                               |
|------|---|
| UCD  | University College Dublin (project coordinators, see CCI) |
| VLTN | Project Partner   |

# **1** Introduction

From the outset, the principal objective of the INSPECTr project has been to develop a shared intelligence platform and a novel process for gathering, analysing, prioritizing, and presenting key data to help predict, detect, and manage crime to support law enforcement agencies at local, national, and international levels. This ambitious and wide-reaching goal cannot be achieved without the support and collaboration of various partners and stakeholders. As such, continuous open lines of communication both internally and externally are vital to the success and efficacy of the INSPECTr project.

In dissemination period 1, a clear dissemination strategy was developed to align with our project objectives and underlined by the ethical, legal, and social considerations of the project. This strategy provides a framework for all communication and dissemination activities ensuring all our interactions are focused and fruitful. The aim is to communicate regularly through targeted blogs, newsletters, and articles, to collaborate through webinars, meetings, and round-tables, to disseminate the project to as wide an audience as possible to amplify its impact, and to publish in academic journals to develop trust in the project methodologies and practices.

In dissemination period 2, the disseminations activities increased due to the exciting developments of the project tools. INSPECTr project coordinators and partners held workshops for external stakeholders, participated in several major international conferences, and exceeded the scientific publications target set for the entire duration of the project. The INSPECTr project website was further developed to provide more information to users.

The project website is the central communications hub for the INSPECTr project. Not only does it provide detailed information about the project funding, objectives, and partners, it also lists all project meetings, conferences, and webinars organised or attended by INSPECTr partners, and publishes news, blogs, and newsletters. The quarterly newsletters provide ongoing insights into project developments. They feature blogs by project partners which focus on key areas of the project development to enhance stakeholders' understanding, and summarise all project activities, providing insights into the scale and multi-disciplinary of the project.

Collaboration with LEA partners through workshops, training, and project development provides essential feedback to ensure iterative project improvements and to establish essential links with real-world investigations. It is vital to create a platform that can be adopted across cultures and jurisdictions and can withstand the ever-changing cybercrime landscape. Dissemination and collaboration ensure a diversity of voices feed into our vision and allow the INSPECTr project to speak to the needs of the cyber defence community. This report details all dissemination activities to date.

## **1.1 Mapping INSPECTr Outputs**

The purpose of this section is to map INSPECTr Grant Agreement commitments, both within the formal Deliverable and Task description, against the project's respective outputs and work performed.

| INSPECTr GA<br>Component<br>Title  | INSPECTr GA<br>Component<br>Title  |               | Justification  |
|--|--|---------------|--|
| DELIVERABLE  |  |               |  |
| D6.7: Publications release 2 and<br>Dissemination Dissemination and Events report for<br>- Period 2 Period 2   |  | All Sections  | The report provides a<br>comprehensive view on the<br>dissemination activity on the<br>project for period 2, includes a<br>recap of the activity from period 1<br>and provides some indicative plans<br>for the next reporting period. |
| TASKS  |  |               |  |
| ST6.3.1<br>Building the<br>INSPECTr<br>project identity<br>and brand   | At the start of the project, its unique<br>identity will be created, via several<br>activities:<br>a) INSPECTr Logo<br>b) The project website.<br>c) Dissemination templates | Sections 2-4  | Most of this task was covered in<br>Dissemination Period 1. However<br>there is still some minor work<br>ongoing here.   |
| ST6.3.2minimum of 3 press releases an<br>publications, 6 newsletters, suc<br>stories and fact-sheets and 5<br>technical articles and policy brid   |  | Sections 6, 7 | ongoing activity and plans outlined  |
| ST6.3.3<br>Dissemination   | Dissemination to LEA Communities<br>with a KPI to reach a pan-European<br>network of 100+ LEA actors.  | Sections 5-7  | ongoing activity and plans outlined  |
| ST6.3.4 Events   | Presentation of INSPECTr in at least 3<br>European LEA events  | Sections 5,7  | ongoing activity and plans outlined  |
| ST6.3.5 Partner<br>with CEPOL<br>with CEPOL<br>ST6.3.5 Partner<br>with CEPOL<br>webinars. Minimum six webinars<br>over the project lifetime, reaching an<br>audience of 100+ LEAs per webinar. |  | Section 5,7   | ongoing activity and plans outlined  |
| ST6.3.6 LiaisonExplore opportunities for regionalwith Council ofdissemination of INSPECTr with tenEuropeCoE supported countries.   |  | Sections 5,7  | ongoing activity and plans outlined  |

#### Table 1: Adherence to INSPECTr GA Deliverable & Tasks Descriptions

## **1.2 Deliverable Overview**

This deliverable is the first of three outputs of Task 6.3, "Dissemination", performed within Work Package 6 "LEA Capacity Building Programme, Adoption Actions and Policy Recommendations".

The report provides a detailed description of the current dissemination activities conducted by the project coordination team to date, at Month 18 of the project.

This is the first of three reporting periods for dissemination on the project.

- D6.6: Dissemination Period 1 (M18).
  - Logo, project Website, Dissemination Templates, and posters and publications first release for Period 1.
- D6.7: Dissemination Period 2 (M30).
  - o Publications release 2 and Dissemination and Events report for Period 2.
- D6.8: Dissemination Period 3 (M42).
  - Publications release 3 and Dissemination and Events report for Period 3.

#### **1.3 Report Structure**

The structure of this report is as follows.

The next subsection provides an executive summary of the activities, key performance indicators and status of our dissemination tasks.

Section 2 provides a recap on the activities conducted during dissemination period 1.

**Section 3** describes the updates to the project website, which is one of our main dissemination drivers.

Section 4 describes the content of our quarterly newsletters.

**Section 5** lists the conferences and workshop attended by consortium partners, where INSPECTr was presented.

*Section 6* lists the academic publications, which have been accepted or are submitted but pending acceptance.

Section 7 describes some of our planned activities for the next reporting period.

# **1.4 Summary of Dissemination Targets**

| Subtask | Activity  | Status  |
|---------|---|---|
| 6.3.1   | Logo and dissemination guidelines   | complete  |
|         | Project website. KPI: over 6000 visits  | complete, KPI exceeded.   |
|         | Templates, flyer, brochure, posters, descriptions, video, roll-banners  | Video, second brochure and roll-banners in development, others completed in Dissemination Period 1.   |
| 6.3.2   | 3 press releases/publications   | 1 complete, 1 in draft stage.   |
|         | 6 newsletters   | 4 complete. At least 4 more in next period.   |
|         | 5 technical articles and policy briefs.<br>KPI: 6 submitted, 3 accepted.  | 3 academic papers published, 4 pending acceptance. Possibly more in Period 3.   |
| 6.3.3   | Dissemination to LEA Communities<br>through existing EUROPOL and<br>ILEANET communities to 100+ LEA   | Presented NLP tool to EUROPOL Innovation<br>Lab. Planning to further liaise with EUROPOL as<br>the project reaches maturity. Also planning to<br>distribute a new brochure and living lab report via<br>the 17 ILEAnet National Contacts and the<br>Knowledge factory (ILEAnet's repository of<br>practitioner research activity) |
| 6.3.4   | Presentation and demonstration of<br>INSPECTr in at least three European<br>LEA events  | Target achieved but more being considered.<br>Octopus 2021, EAFS 2022, CEPOL Showcase<br>2022   |
| 6.3.5   | Partner with CEPOL for the hosting of INSPECTr information and training webinars. Minimum six webinars over the project lifetime, reaching an audience of 100+ LEAs for each webinar. | CEPOL FREETOOL Showcase (with INSPECTr<br>integration and overview). 8 hour webinar<br>delivered to over 600 LEA participants   |
| 6.3.6   | Liaison with Council of Europe on<br>dissemination of INSPECTr to non-EU<br>LEAs  | Initially through the Octopus conference, further opportunities being considered.   |

# 2 Brief Overview of Dissemination Activities from Period 1

In Dissemination period 1, a unique and recognisable project identity was established by creating a logo, a website, dissemination guidelines, and dissemination templates including flyers, brochures, and other publication materials to be used when engaging with stakeholders and wider audiences about the INSPECTr project.

This section provides an overview of the dissemination materials, strategies, guidelines, and outputs that were created for the INSPECTr project in dissemination period 1.

## 2.1 Logo

The INSPECTr logo was designed by the project partners to reflect the global connectivity of the INSPECTr network. The logo was added to all presentations, desktop wallpapers, and document templates, and distributed to all project partners. Other logos were developed for some of the project tools, and these incorporate the INSPECTr logo for project recognition and cohesion.

### 2.2 Project website

The project website, <u>https://inspectr-project.eu</u>, was launched in July 2020. It was designed and continues to be hosted by CCI. The website supports the following activities:

- It hosts detailed information about the project goals and objectives, awarding information, and project partners.
- It is the central anchor for project communications, including the latest news and updates on project activities and results in the form of newsletters, blogs, academic publications, and articles.
- It is the repository for project results.
- It provides information about the ethical, legal, and societal impacts of the project, including the research privacy statement, website date privacy, and website terms of use.
- It hosts the archive of previous communications materials.
- It provides contact information for the project coordinators.

In January 2021, when the project moved from the initial phase into the testing and demonstrating phase, the project updates and latest news sections of the website were separated. This was to distinguish between project activities and dissemination activities. During this phase, dissemination activities increased as project outputs increased.

#### 2.3 Dissemination strategy, guidelines and quality assurance

From the outset, a clear dissemination strategy was established. The goals of the strategy were as follows:

• Communicate regularly with external stakeholders through targeted conferences, webinars, newsletters, press releases, and workshops for demonstration, awareness raising, and feedback gathering.

- Disseminate the project and its results to LEAs outside the EU member states to further improve the impact of the results.
- Commit to the open dissemination of novel research through the publication of academic journal articles and attendance at academic conferences.
- Foster confidence and trust in the project tools by publishing articles in professional journals and by presenting project results to relevant consortium contacts such as Eurojust and the Council of Europe.

Guidelines were established to ensure recognition of the project brand, visibility and acknowledgement of EU funding, and the exclusion of responsibility for content and opinions from the EU Commission. The guidelines include the following:

- Detailed instructions on the use of the INSPECTr logos
- Specific guidance on the placement and wording of the funding body and award information
- The exact wording of the disclaimer excluding EU commission responsibility for views and opinions expressed in dissemination materials
- A copyright statement

The following dissemination materials were created:

- A report template was created to be used for all deliverable reports that provides all partners a simple structure and layout to create informative, concise reports for the EU commission and for public audiences where appropriate.
- A project flyer was created to provide concise information about the project and its activities and to direct people to the project website.
- A brochure was created to provide more detailed technical information than the flyer where appropriate.
- Posters, such as the one on the right, have been created to display at stakeholder conferences and workshops.
- Four project descriptions of different lengths have been created for public dissemination purposes and are used by consortium partners to promote the project.



Figure 1. A sample poster from INSPECTr

The project includes a quality managing partner, Trilateral, who has set up and monitors dissemination activities, including peer reviewing deliverables, producing internal six-monthly quality review reports, producing annual quality reports for the European Commission, and developing and implementing a quality plan.

Guidance on drafting deliverables was established which includes advice on writing style, terminology usage, templates, and links to the appropriate citation standards and style guides.

Every deliverable is peer reviewed by two reviewers who were not involved in producing or authoring the deliverable. There is a defined timetable for the review process so that all parties have the necessary time and information to perform thorough, incisive reviews.

## 2.4 Articles and academic publications

The project published an article for Enterprise Ireland in June 2020, as part of the commitment to promoting the project and acknowledging support from the EC in the fight against cybercrime. The article described the challenges faced by law enforcement, how the INSPECTr project addresses them, and the ambition of the project to provide an affordable solution to LEAs internationally. Refer to the article here: <u>https://globalambition.ie/horizon-2020-supporting-the-fight-against-cybercrime/</u>

During this period, one academic journal article was submitted for review and one was in the final draft stage for a targeted journal.

### 2.5 Workshops and Consortium Communications

In 2020, consortium partners attended eight workshops organised by other projects and the EC to disseminate information about the INSPECTr project and to network with potential collaborators. Workshops attended included the following:

- H2020 -Societal Challenge 7 "Secure Societies"
- COPKIT webinar: Analysing Language to Extract Information from Darknet Advertisements
- CoU workshop on Forensics: Explosives, Conventional Forensics, Digital Forensics

Several project partners maintain their own websites and, with permission, included blogs and information pages about the project and its activities. These include the following:

- <u>https://www.ucd.ie/cci/projects/inspectr/</u>
- http://www.ebostechnologies.com/new-h2020-project-inspectr-kicks-off
- <u>https://www.trilateralresearch.com/work/inspectr/</u>
- <u>https://www.ccdriver-h2020.com/cluster</u>
- <u>https://www.trilateralresearch.com/creating-clusters-to-develop-sustainable-data-drivenpolicing-solutions-adopting-an-ethical-approach/</u>

In October 2020 a new internal communication channel was opened within the Consortium, # dissemination. This channel is used purely for the exchange of information and updates regarding potential forthcoming INSPECTr dissemination opportunities. Attendance and submissions can be explored and assigned within the group and updates provided following the event. This dissemination management tool has performed well to date.

# 3 Website Updates

The purpose of the project website and its related activities is to act as a central anchor for project communications and as a repository for project results. These should be easily findable by any stakeholder knowing the project name. The website must provide a clear and concise summary of the project, its participants and its aims, and also provide updates on the project's activity.

To achieve this, our project website (inspectr-project.eu) provides a number of sections to disseminate our project and activities.

In terms of providing general information about the project:

- **The Project Information** area on the website introduces the objectives and aims of the project, knowledge discovery, ethics and societal impact, project award information, the group of consortium partners and a 'contact us' section.
- **The Privacy Statements** area makes available our Research Data Privacy Statement, Website Data Privacy Statement and our Terms of Use Policy. These are continually monitored for any changes that are required as the project evolves.

We also actively maintain various sections of the website for disseminating our ongoing activities and outputs from the project.

- **Project Meetings.** This is where we continue to record the main project meetings of the consortium and other major project events such as the project mid-term review.
- **Conferences and Workshops**. We list conferences and workshops that have been attended by project partners on behalf of the consortium. Partners who have presented at these events also provide a fuller report on these activities, and any linked dissemination activity, in our quarterly project newsletter.
- Academic Publications. Information regarding accepted academic publications are included in this area together with an abstract. Developments are in hand to reformat this area of the website and make available a publicly accessible pre-print link to the accepted paper/s.
- **Public Project Deliverables.** A list of public project deliverables is currently available and summaries of those public deliverables will be developed and available as a downloadable resource.
- In our Latest News area we make available news articles, press releases and media publications. We currently have one news article uploaded regarding "Supporting the Fight Against Cybercrime" where our Project Coordinator, Cheryl Baker, summarises the opportunity provided by H2020 in this regard. A second media report about the project is currently under development and will be made available via the website in the coming weeks.
- **Newsletter**. Our quarterly newsletter is available for download and we currently have four editions uploaded as a resource on the website. Our fifth edition will be uploaded during April 2022. Apart from detailing the project activities each newsletter contains a set of informative blogs, prepared by project partners, that delve more deeply into key emerging themes and spotlight issues being considered within the project as it evolves.
- **Blogs**. We have included a series of blogs covering themes of Ethics, Evidence Standardisation and AI as an Assistive Technology for LEAs :

- **Ethics** Various workshops were held to explore more deeply some identified 'spotlight' issues for the project and blogs were made available for each of these. The first blog considered the integration of publicly available data, typically online data into the INSPECTr platform and the importance of data minimisation and data storage limitations. The second blog focussed on Artificial Intelligence systems within INSPECTr and the third blog considered Gender and AI. A fourth Ethics blog explored the ethical approach to research being undertaken in the INSPECTr project including ethics-by-design, privacy by design, sensitisation, ELSI impacts (Ethical, Legal and Societal) and horizon scanning activities.
- **Evidence Standardisation** Two blogs were written and uploaded to explain the adoption and handling of CASE (Cyber-investigation Analysis Standard Expression) in the INSPECTr platform.
  - Explanation of CASE Language and Reasons for its Adoption for the INSPECTr Platform.
  - $\circ$   $\;$  Handling of Standardised Evidence (CASE) by the Platform.
  - AI as an Assistive Technology for LEAs These blogs focused on the following topics:
    - $\circ$   $\;$  Artificial Intelligence (AI) Research Methodology and Application
    - Natural Language Processing (NLP)
    - Image Processing in INSPECTr.



Figure 2. Splash page from inspectr-project.eu

#### 3.1 INSPECTr Website Visits

#### Target KPI: 6000 visits by the end of the project

The number of visits to the INSPECTr website are, in general, trending upwards with larger upticks in numbers following our quarterly upload of the project newsletter, latest blogs and news of recent events. The most recent quarterly upload of news and events, including the newsletter, was in early February 2022 and so we await statistics for the impact on site visits following that. We currently experience more readership interest in the project newsletter channelled through the project website than via active subscription. We are currently improving our telemetry capabilities in order

to measure more accurately what visitors are most interested in who visit our website and to monitor the number of downloaded resources. As the possibility of physical stakeholder events becomes more likely we can use these events as a platform to further inform stakeholders about the INSPECTr project, bringing further awareness to our Project Website and Newsletter.



Figure 3. Unique Site Visits March 2021 - January 2022 (total=8000).



Figure 4. Web Page Visits January 2022 (total=1294)



Figure 5. INSPECTr Newsletter Downloads April 2021-January 2022 (total=581)



Figure 6. INSPECTr Website Newsletter Downloads January 2022 (total=146)

#### 3.2 Future Developments

As the project develops and more outputs from the project come on stream the website structure will be under constant review to ensure ease of availability and ease of access for readers. For example we are currently reviewing the Blogs and Academic Publications areas of the website with the aim of ensuring the information contained in those sections is organised in a clear and accessible format as more publications and blogs are uploaded. We are also redeveloping the INSPECTr project brochure and this, together with our other dissemination materials i.e. project flyer, poster and video, will be made available for access via the website. Our Research Data Privacy and Website Data Privacy statements will continue to be monitored and updated as required throughout the life of the project. These freely available online resources will be included in our developing telemetry reporting as we work towards the project 'downloads of resources hosted online' KPI of 2000 downloads.

# 4 Newsletters

Target: initially 200 subscribers, with over 500 by the end of the project.

The INSPECTr newsletter, published online quarterly, provides direct communication to targeted readers including project stakeholders, LEAs, policy makers, prosecutors, and researchers, about INSPECTr project developments, current and planned activities, and news and insights about the latest tools and systems used by criminals and efforts to counter these criminal innovations.

In Dissemination period 1, four newsletters were published. See the following summaries of each newsletter.

We have decided to move away from a subscription model for the Newsletter as we consider that dissemination of the Newsletter via the project website increases ease of open access to updates on project news, and allows visitors to the site to access all online resources available to them in one place. Readers can also access all project development news as the full library of newsletters is available from the first edition to the current one. The subscription facility remains in place for those who prefer to receive the newsletter directly via e-mail. More information regarding downloads of the newsletter from the website is available in Section 3.

## 4.1 INSPECTr Newsletter, First Edition, March 2021

The first newsletter introduced the INSPECTr project by providing a summary of the project funding as supported by the European Union's Horizon 2020 research and innovation programme. To provide context for readers, the newsletter outlined the project objectives, the project partners, introduced the project coordinator, UCD CCI, and detailed the current challenges for law enforcement in combating increasingly sophisticated cyber criminals. The newsletter listed the eighteen project consortium partners, a multidisciplinary group of LEAs, academic institutions, and technical SMEs, who bring a wealth of knowledge and expertise to the project.

The planned features of the INSPECTr platform were described at a high level. Also highlighted was the ambitious plan to offer knowledge discovery between INSPECTr nodes to share evidential findings enabling investigators to correlate evidence across jurisdictions advancing the potential for multilateral assistance and joint investigations. This provided readers with an overarching sense of the scope and impact of the project when it is completed.

The newsletter introduced the living labs network which was set up to specify requirements, experiment with and test project outputs, and create the nucleus for the sustainable use of the INSPECTr platform by LEAs throughout Europe. Attention was given to the importance of a legal framework in establishing living labs for the project. Also, the legal and ethical guidelines, provisions, procedures, and protocols were listed as they relate to the design and implementation of the INSPECTr platform. A link to the project's privacy statement was provided. The first living lab demonstration was announced.

The newsletter included a useful table that listed the key milestones of the project to inform readers of early progress and future plans.

Finally, the newsletter summarised all previous and upcoming events, including the kick-off meeting held in UCD, Belfield, Dublin 4, Ireland, 18 to 20 September 2019 where project partners were

introduced and made initial project plans. Technical meetings and attendance at conferences were also detailed. There was an INSPECTr ethics workshop held in January 2021 and the newsletter included a link to a blog about this and other workshops. Forthcoming events were highlighted including the project general assembly and further conferences, webinars, and training events to disseminate and educate about the INSPECTr project.

### 4.2 INSPECTr Newsletter, Second Edition, June 2021

The second newsletter reiterated the principal objectives of the INSPECTr project and provided a brief summary of and link to the first newsletter, ensuring that new readers can easily orientate themselves with the context and early stages of the project.

To give readers insights into the ethical underpinnings of the INSPECTr project, the newsletter included blogs written by the ethics consortium partner, Trilateral Research. A key part of their work is the ethics and data protection monitoring of the living labs research. The challenges of Brexit were highlighted as regards measures that needed to be taken to ensure continued, stable collaboration between EU and UK-based partners. The INSPECTr project's ethics-by-design and privacy-by-design approaches to development were explained. The newsletter listed webinars and other training events that were held to educate all technical project partners about the ethical aspects of the project.

Through these discussions and workshops, a series of recommendations were made to mitigate risks and enhance opportunities related to ethics, legal, and societal impacts. These recommendations will inform the remainder of the project.

The EC's proposed AI regulation has shifted the ethical focus of the project towards future-proofing tools in preparation for legislative changes to mitigate any barriers to adoption of INSPECTr tools in future.

The newsletter detailed the Gender and AI ethics workshop which the partners held in June 2021. Discussions focused on how biases can lead to potentially inaccurate data, and how to avoid such issues when developing the INSPECTr tools. A major question was the issue of whether data used for training machine learning tools could have gendered effects, and the potential impacts of this. All future developments in the project will be informed by these discussions and by the work on bias undertaken by the IEEE and the ISO.

The newsletter's focus on ethics highlights to readers the work the INSPECTr project partners have undertaken to ensure full and informed compliance with all ethical implications of the project.

The newsletter outlined all project activities and events held between April and June 2021. These included monthly project meetings, weekly technical meetings, law enforcement steering group monthly meetings, ethics work package monthly meetings, the project general assembly on 15 and 16 June 2021, and an internal workshop on ethics held in June 2021.

Finally, the newsletter summarised all previous and upcoming webinars, training and conferences, including a stakeholder workshop held on 20 May 2021 and participation of project members at the ILEANET project public workshop about Standardisation in Security Research. Planned external stakeholder activities were listed as were forthcoming events, including the INSPECTr project mid-term review 2, July 2021, and the INHOPE Summit 2021.

## 4.3 INSPECTr Newsletter, Third Edition, September 2021

The third newsletter reiterated the principal objectives of the INSPECTr project and focused on the topic of standardisation in CASE by including blogs by the consortium partners, CNR and VLTN.

The first blog was a detailed explanation of CASE language and the reasons for its use in the INSPECTr platform. It described how and why the CASE language is used in three different forms by INSPECTr and stored in three different storage engines and gave concrete examples of the different forms in action. Handling CASE data in a clear and efficient way is crucial for the INSPECTr platform to function successively as a comprehensive LEA investigative tool.

The second blog provided a comprehensive explanation of what CASE is and why it was chosen for the INSPECTr platform. As a community-developed ontology designed as a standard for interchange, interoperability, and analysis of investigative information in a broad range of cyber-investigation domains, including digital forensic science, incident response, counter-terrorism, criminal justice, forensic intelligence, and situational awareness, Cyber-investigation Analysis Standard Expression (CASE) fulfils the INSPECTr project objective to provide a shared intelligence platform that is harmonised and accessible to multiple agencies across cyber security domains.

The newsletter outlined all project activities and events held between July and September 2021. These included monthly project meetings, weekly technical meetings, law enforcement steering group monthly meetings, and the network of living labs meetings. The newsletter also included the abstract of a recent INSPECTr publication titled "Iterative Learning for Semi-automatic Annotation Using User Feedback" and a summary of a roundtable discussion that INSPECTr partner CNR delegate Fabrizio Turchi attended at COPKIT on September 26, 2021. The discussion related to the use of CASE in the INSPECTr project and the tasks to undertake when developing and applying the standard.

Finally, the newsletter summarised all other previous and upcoming conferences, workshops, and events to keep readers informed of INSPECTr project dissemination activities.

## 4.4 INSPECTr Newsletter, Fourth Edition, December 2021

The fourth newsletter reiterated the principal objectives of the INSPECTr project and focused on the topic of Artificial Intelligence (AI) as an assistive technology for LEAs with a series of blogs from consortium partners, UCD, ILS, TRI, and GN.

The first blog discussed definitions of AI and gave a brief history of the AI research field. It detailed the use of Rosenblatt's formalisation of the perceptron (the abstraction of a neuron) in the 1950s and how this theory has been built upon for current research in the field. The blog provided practical examples of ways that AI can be used by LEAs and outlined further developments that are needed to improve the technology.

The second blog defined natural language processing (NLP) as a subfield of AI and linguistics concerned with the task of making machines "understand" text in documents and automatically extract information contained within to automate various processes. Several examples of NLP tasks

were provided to give readers a concrete understanding of how this field applies to the INSPECTr project.

The third blog detailed the image processing system that is implemented in the INSPECTr platform to reduce the workload of investigators who deal with large amounts of media content and provided an example of the system in action in an LEA setting.

The fourth blog provided insights into the ethical, legal, and societal impact assessment carried out by consortium partner, Trilateral. After their analysis of the project and the technologies being researched, Trilateral created a list of requirements. As the INSPECTr project is still in development, it is not possible to state how all the requirements will be fulfilled but consideration of ethical, legal, and societal issues is at the forefront of the project as this blog reiterates for readers.

The newsletter outlined all project activities and events held between October and December 2021. These included monthly project meetings, weekly technical meetings, law enforcement steering group monthly meetings, and ethics work package monthly meetings.

The newsletter highlighted recent events which disseminated the INSPECTr project and provided opportunities for learning and collaboration, including the Octopus Conference Lightning Talks, 16-18 November 2021, and the FREETOOL 3 showcase in January 2022 which was hosted by CEPOL and attended by 609 people from 42 countries.

Finally, the newsletter summarised all other previous and upcoming conferences, workshops, and events to inform readers of ongoing INSPECTr project dissemination activities.

## 5 Conferences and Workshops

Hosting and attending conferences and workshops is a key element in disseminating the INSPECTr project, showcasing the platform and the project goals, highlighting the most recent developments, and collaborating with and receiving feedback from industry and academic experts. This section describes the conferences and workshops attended or planned in dissemination period 2.

### 5.1 INSPECTr Stakeholder Workshop

, 12.30pm, on Tuesday the 8th., 12.30pm, on Tuesday the 8th. The workshop was organised to seek valuable input from LEAs with extensive experience in device triage or preliminary analysis, digital forensics, online intelligence gathering, or data analytics. After a Q&A session, participants were invited to complete a survey about current investigative practices and challenges, our proposed improvements, and the training needs of law enforcement. The results of this survey will be used to measure the impact of the project's deliverables and shape the direction of upcoming development tasks.

We will disseminate more information to the general stakeholder community in the next phase of the project.



### 5.2 CEPOL Research and Science Conference

The CEPOL conference was scheduled for December 2021 in Mykolas Romeris University, Lithuania. CEPOL invited contributions about policing and enforcing the law in the digital age, with a focus on emerging forms of criminal behaviour and new tools and methods in development to counter these crimes.

This was a key dissemination target of the project, and as a result the consortium prepared and submitted number of publications and presentations. However, due to the COVID 19 pandemic, it was postponed and we are awaiting news of when this will be rescheduled in 2022.

The following abstracts were submitted for consideration in the proceedings, which would later be published in the European Law Enforcement Research Bulletin.

|--|

Lead Author Conference

|   |                          | Track                  |
|---|--------------------------|------------------------|
| Can Privacy and Ethics-by-Design by adapted for law enforcement technologies?   | Joshua Hughes<br>(TRI)   | Ethics                 |
| Impersonal Data Treatment: Towards Unbiased AI?   | Daniel Camara<br>(GN)    | AI                     |
| LEA Capacity Building as a Driver for the Adoption of European Research   | Michael Whelan<br>(UCD)  | Capacity Building      |
| Developing of a Judicial Cases Cross-Check system for case searching and correlation using a standard for the Evidence. | Fabrizio Turchi<br>(CNR) | Cross<br>agency/border |

The abstracts for these papers are described later in the "<u>Pending Publications</u>" section of this report.

In addition to these, we also submitted a panel presentation on the following topic.

#### INSPECTr: Intelligence Network and Secure Platform for Evidence Correlation and Transfer

#### Presenter: Ray Genoe (UCD)

**Abstract:** Cybercrime is a borderless crime that leverages technology and the internet to exploit businesses, communities and individuals. Law enforcement officers responsible for investigating cybercrime need to be equally able to access cutting edge technology to combat these crimes and to bring down criminal networks. This talk presents the EU-funded INSPECTr project as a solution to many of the issues face by law enforcement agencies. INSPECTr produces and integrates a range of high-tech approaches, including big data analytics, cognitive machine learning and blockchain technologies into a shared intelligence platform that will improve digital investigations and forensic capabilities, and reduce the complexity and cost of cross-border collaboration. The platform is being designed through extensive collaboration with the law enforcement community, incorporates privacy and ethics by design principles, and takes into account relevant national and international legislation. After the project, the platform will be freely available to the law enforcement community and adoption will be enhanced through training courses, webinars and workshops. Exploitation of the project deliverables will also be available to LEAs who wish to further improve the platform, beyond the scope of the project, through additional research and development activities.

## 5.3 Council of Europe Octopus Conference



The Council of Europe Octopus Conference brings together cybercrime experts from public and private sectors, and international and non-governmental organizations to share experiences and developments, and network and collaborate. There were two presentations by INSPECTr project members at the conference in Strasbourg in November 2021.

Dr. Ray Genoe presented an overview of the INSPECTr project at the conference. In his introduction to the platform, he said:

"Imagine a harmonised approach to cybercrime investigations, where the analysis of big data is made possible by standardisation of all investigative tools. Al assisted technologies, linked case discovery, and evidential exchange across jurisdictions are just a click away."

He discussed the project aims and objectives, the project funding, and project partners. He described the usefulness of the platform and how it will be freely available to LEAs and will be complemented by SME technology and a robust capacity building programme. He also outlined some of the challenges the project will face.



Dr. Ben Roques presented on the use of AI as an investigative tool. The INSPECTr project aims to deploy artificial intelligence capabilities to guide and support law enforcement officers while keeping humans closely involved in the decision-making process. The presentation focused on ethical considerations in deploying

Al-assisted investigation pipelines and how the INSPECTr project dealt with the issue for its image classification component.

## 5.4 iLEAnet Public Workshop about Standardisation in Security Research

In June 2021, Dr. Ray Genoe, INSPECTr Project Coordinator, (UCD Centre for Cybersecurity and Cybercrime Investigation) and Fabrizio Turchi, INSPECTr Project Partner (Institute of Legal



Informatics and Judicial Systems of the National Research Council of Italy) presented to stakeholders about INSPECTr standardisation at the ILEANET Public Project Public Workshop on "Standardisation in Security Research".

The ILEANET workshop was organised to discuss the benefits of standardisation in security research and to facilitate the involvement of LEAs in standardisation activities and in research and innovation.

The aim of the INSPECTr platform is to ensure interoperability across various LEA tools, including the ability to discover links between cases, and to transfer evidence under legal compliance with participating nodes. This functionality requires standardisation. INSPECTr has implemented CASE (Cyber-Investigation Analysis Standard Expression) which provides a standard language (ontology) for representing information collected, analysed, and exchanged during investigations involving digital evidence. By using the CASE standard, you can ensure the interoperability between different tools and organisations, you can automate normalisation and combination of differing data sources, and you can ensure all analysis results are traceable to their sources, i.e., chain of evidence.

Adopting a standardised approach creates some challenges. However, the standardisation is key to the project for the following reasons:

- integrating and validating the tools LEA are using
- providing unified, even federated, data analytics
- evidential integrity, secure and reliable exchange
- providing interoperability with other projects/platforms
- encouraging vendor compliance

### 5.5 COPKIT Project Panel Presentation

Fabrizio Turchi, INSPECTr project partner, participated in the COPKIT roundtable discussion: "A Shared Journey - Stories from Fellow Travellers". The COPKIT project, a consortium of 18

partners, focuses on analysing, investigating, mitigating, and preventing the use of new information and communication technologies by organised crime and terrorist groups.

**NON**PKIT

Fabrizio gave an overview of the INSPECTr project and its adoption of the CASE standard. During the discussion, he highlighted three important features to remember during the development and the application of the standard/model:

- Sustainability: It is crucial to guarantee the maintenance and the updating of the model in the long term, to keep pace with the evolving needs of the technology.
- Appropriateness/Pertinence: The model must have the capacity to represent, as much as possible, the data/metadata of the subjects and objects involved in the domain of applicability.
- Feasibility: The model must have the capacity to be implemented a real environment. Within the INSPECTr project, it has been vital to take this step to address technical issues but also to improve the model (ontology).

An interesting and relevant point raised by other panellists was the importance of involving the large tech companies, such as Amazon, Apple, Google, Facebook, and Microsoft, in the development of a standard as without their approval the standard is unlikely to succeed. However, it was conceded that it is not possible to impose a standard on them. Also, if these companies took part in development, it would be difficult to create an open-source solution suitable to all involved stakeholders.

## 5.6 Europol Innovation Lab - First Innovation Demo Series

The Lab aims to identify, promote and develop concrete innovative solutions in support of the EU Member States' operational work. These will help investigators and analysts to make the most of the opportunities offered by new technologies. On Wednesday 13th October 2021 INSPECTr Consortium Partner GN (French Gendarmerie) presented several innovative tools they have created including two developed within the INSPECTr project. Europol has since merged their existing approach with the GN INSPECTr developed NLP annotator tool demoed at this event. It is encouraging at this stage of the project that there is already interest being shown in the adoption of project outputs.

#### 5.7 FREETOOL Integration Showcase

On the 26th January 2022 CEPOL hosted the webinar of the final wrap-up meeting of the FREETOOL v3.0 project. This was a showcase of the FREETOOL investigative tools for law enforcement and was a law enforcement only event. The full suite of current tools provided via FREETOOL were demonstrated as standalone investigative solutions together with demonstrations about how they are being integrated into the INSPECTr project. The showcase provided an opportunity to demonstrate practically how FREETOOL's evidence visualisation, digital forensic, and intelligence gathering tools are being enhanced through integration with the INSPECTr platform.

The webinar was extremely well attended and CEPOL was able to provide statistics following the event, commenting further on how pleased they were with the results and with the amount of positive comments and feedback provided by the attendees.

# 780 Registrations with 609 Attendees from 42 countries and organizations with a 97.86% satisfaction rate.



Figure 7. Stakeholder Attendance By Category



#### Figure 8. Duration of Stakeholder Attendance

Due to the high level of attendance that was sustained throughout this event it provided an excellent platform for an introduction to the INSPECTr platform and its deployment and integration of various FREETOOL outputs, to both LEAs and other stakeholders.

## **6** Scientific Publications

Our scientific publication targets include a minimum of 6 submitted publications of which 3 will be accepted. Despite already achieving this target, we will endeavour to produce more in the next period of reporting.

## 6.1 Submissions Accepted

#### 6.1.1 Iterative Learning for Semi-automatic Annotation Using User Feedback

Conference: INTAP 2021

Authors : Meryem Guemimi (GN), Daniel Camara (GN), Ray Genoe (UCD)

**Abstract:** With the advent of state-of-the-art models based on Neural Networks, the need for vast corpora of accurately labelled data has become fundamental. However, building such datasets is a very resource-consuming task that additionally requires domain expertise.

The present work seeks to alleviate this limitation by proposing an interactive semi-automatic annotation tool using an incremental learning approach to reduce human effort. The automatic models used to assist the annotation are incrementally improved based on user corrections to better annotate the next data.

To demonstrate the effectiveness of the proposed method, we build a dataset with named entities and relations between them related to the crime field with the help of the tool. Analysis results show that annotation effort is considerably reduced while still maintaining the annotation quality compared to fully manual labelling.

#### 6.1.2 Automatic Generation of Parsers for Web Forums

Conference: EAFS 2022

Authors: Mohammed Belachen (GN), Daniel Camara (GN), Ray Genoe (UCD)

**Abstract:** In criminal investigations, but above all for intelligence purposes, collecting and organizing open source information is of paramount importance. However, each market and forum presents the information in different ways; for example, the vendor's name, product, price, are rarely in the same place on the page. Even if time-consuming, the creation of specific parsers capable of correctly identifying each site's important information is usually required. The problem is not only that this task is time consuming, it also needs to be done carefully, as all the other future data treatments rely on it. The problem is even bigger if we consider the dark web, where the average lifetime of sites is four months. Automating the data extraction process would increase the speed investigators would have to access the information but also would improve the capacity to treat different sites.

This paper presents the work we have conducted on the automatic creation of parsers for web forums and markets. A web wrapper is a tool that extracts information from semi structured data, such as html pages, guided by the structure inside the page. We have created a semi-automatic wrapper that creates a list of possibly interesting fields, based on the analysis of the repetitive inner

structures of the page. This tool is based on the hypothesis that the crucial information is contained in the structure generated by the site (post, answer, username, date,...). All generated structures create a repetitive schema that can be detected and analysed.

The method proposes fields and requests the validation of an agent over the pertinence of the found field. However, just after this validation, the wrapper can be used to organize the collected information from the website. Not only does the process decrease the required time to generate a parser, going from hours/days to seconds, but also it decreases the technical skills required to create efficient webpage parsers.

#### 6.1.3 Authorship Identification in Web Forums

#### Conference: EAFS 2022

Authors: Mohammed Belachen (GN), Daniel Camara(GN), Ray Genoe(UCD)

**Abstract:** With the growing volumes of data especially on social media and web forums, the correct identification of authors on Internet forums is a task that has great value for cyber investigations. It may help identify different accounts used by the same natural person. In this case, the person may be using multiple avatars to, for example, convey one idea or sell a product and other accounts to reinforce the value of his/her opinion or product. For investigators, this information may help understand the target avatar dynamics and establish investigative tactics.

Stylometry is a technique based on statistics of the text to detect particular writing styles specific to each person and that is hard to disguise fully. Advances in computer science and especially in natural language processing, have made the methods much more cost-effective and prone to be automatically applied to large datasets. The techniques may be as simple as counting the average number of words per sentence and the length of these words, or as complex as accessing the semantics of the given texts through sentence embeddings.

We propose a method and a framework for authorship identification in web forums. The suggested model is a combination of both linguistic features and embeddings to identify specific writing styles. The model is based on cosine similarity and yield an average accuracy of up to 99.4% when using 200 forum comments or posts per author. The framework also shows specific similarities in writing styles whether they are lexical or syntactic.

## 6.2 Submissions Pending Acceptance

As mentioned in <u>Section 5.1</u>, a number of publications had been submitted to the CEPOL Research and Science Conference in 2021. However, the conference was cancelled due to the impact of the pandemic at the time. The following papers are still pending acceptance, and we are awaiting the announcement of when this event will be rescheduled in 2022.

#### 6.2.1 Can Privacy and Ethics-by-Design by adapted for law enforcement technologies?

Conference: CEPOL Research and Science Conference, Ethics Stream

Author: Joshua Hughes (TRI)

Abstract: The impacts that technologies have on us as individuals and on society at large can be significant. It is, therefore, important that technologies are designed and developed in appropriate ways. This is particularly the case with law enforcement technologies due to the exceptional place that law enforcement plays in our societies, especially where data-analysis tools are used to reveal private information about suspects. Two design approaches that can assist in appreciating and mitigating risks raised by law enforcement technologies are Privacy-by-Design and Ethics-by-Design. However, these approaches are primarily focussed on commercial technologies where the end-users are the focus of attention. Yet, with law enforcement technologies, the end user is likely to be a law enforcement officer, such as a detective or crime data analyst, but the focus of attention from Privacy and Ethics-by-Design approaches is the subject of a criminal investigation. How should these approaches be adapted to deal with this change in focus? Another key issue is the lawful ability of law enforcement to uncover private details of individuals present in their investigations, how should Privacy and Ethics-by-Design be implemented in a situation where conventional standards of privacy do not apply, and the standards of what behaviours might be ethical and acceptable are different? This paper uses experiences from the INSPECTr project to begin answering these questions and provide an outlook as to how privacy and ethics-by-design approaches can be adapted and applied in the situation of researching and developing data-analysis technologies for law enforcement investigations.

#### 6.2.2 Impersonal Data Treatment: Towards Unbiased AI

Conference: CEPOL Research and Science Conference, AI Stream

#### Author: Daniel Camara (GN)

**Abstract:** The issue of bias is always present when we discuss the treatment of data for public safety. Are specific genders treated equally? Are the minorities treated differently than the rest of the population? These are valid questions and show a certain mistrust society has over state institutions. It is understandable; trust is something hard to give, particularly when our own liberty is at risk. To avoid any bias on the data treatment when making data correlations, the INSPECTr project's approach is to treat all data in an impersonal way. INSPECTr does not know or even care about the semantics behind each field. For example, the "sex of the victim" field is treated as a categorical field, with its own specific statistics. The similarities are established through the values of the fields and the different distributions these have. At no time does the correlation algorithm take into account the semantics of the field. In fact, everything is designed so that the framework does not care for it.

In the first place, the framework evaluates the data, and detects the type of the fields. The types taken into account are: date, date-time, categorical, float, long and short texts. Each one of these types is treated differently, but uniformly inside its category, which guarantees fair treatment among fields. For example, the suspect's date of birth is treated the same way as the date of infraction. The initial analysis also has a nice side effect: it simplifies the insertion of new data sources into the system. LEAs that want to plug in a new data source, just need to create a profile and framework that will adapt to treat the new data source.

The second phase is a feature engineering that is made to improve the expressiveness of the fields. For example, new elements are created for date fields to represent the day of the week, the month of the year, season, etc. The implemented methods for data discovery and investigations correlation take these fields, and their specific statistics, to provide helpful information for the users of INSPECTr system.

#### 6.2.3 LEA Capacity Building as a Driver for the Adoption of European Research

Conference: CEPOL Research and Science Conference, Training Stream

Author: Michael Whelan (UCD)

**Abstract:** The INSPECTr project aims to produce a proof of concept that will demonstrate solutions to many of the issues faced by institutional procedures within law enforcement agencies (LEAs) for combating cybercrime. Unlike other H2020 projects, the results of INSPECTr will be freely available to stakeholders at the end of the project, despite having a low technology readiness level. It is imperative that LEAs fully understand the legal, security and ethical requirements for using disruptive and advanced technologies, particularly with a platform that will provide AI assisted decision making, facilitate intelligence gathering from online data sources and redefine how evidential data is discovered in other jurisdictions and exchanged. However, INSPECTr will also require the support of stakeholders beyond the scope of the project, in order to drive further development and investment towards market-readiness. The development of a robust capacity building program has been included in the project to ensure that LEAs can confidently use the system and that they fully understand both the pitfalls and the potential of the platform.

During our training needs analyses, various European instruments, standards and priorities are considered, such as CEPOL's EU Strategic Training Needs Assessment, the course development standards established by ECTEG and Europol's Training Competency Framework. With this research and through consultation with internal and external stakeholders, we define the pathways of training for the INSPECTr platform in which we aim to address the various roles in European LEAs and their requirements for the effective delivery and assessment of the course. In tandem with the project's philosophy of ethics-by-design, the training program produced by INSPECTr will have a strong emphasis on security and the fundamental rights of citizens while addressing the gaps in capabilities and training within the EU LEA community. In this paper we will describe the process we apply to curriculum design, based on the findings of our research and our continued engagement with LEA and technical partners throughout the life cycle of the project.

# 6.2.4 Developing of a Judicial Cases Cross-Check system for case searching and correlation using a standard for the Evidence

Conference: CEPOL Research and Science Conference, Cross agency/border stream

#### Author: Fabrizio Turchi (CNR)

**Abstract:** In a recent EU publication, a report commissioned by the European Union related to the Cross-border Digital Criminal Justice environment, a set of specific business needs have been identified. Some of the most relevant ones have been:

• The interoperability across different systems needs to be ensured.

- The stakeholders need to easily manage the data and ensure its quality, allowing them to properly make use of it (e.g., use the data as evidence in a given case).
- The stakeholders investigating a given case should be able to identify links between crossborder cases. Therefore, solutions are needed to allow the stakeholder to search and find relevant information they need for the case they are handling.

The study presents a set of solutions to address the highlighted needs, including:

- Judicial Cases Cross-Check (Evidence standard representation is suitable)
- A Judicial Cases Cross-Check system should provide a tool being able to search for caserelated information and identify links among cases that are being investigated in other Member States or by JHA agencies and EU bodies.

To facilitate the development of the above solution, a standard representation of the metadata and data of the Evidence should be adopted. In particular the ontology UCO/CASE, dedicated to the digital forensic domain, seems the most promising one to this aim. UCO/CASE, that stands for Unified Cyber Ontology / Cyber-investigation Analysis Standard Expression, provides a structured specification for representing information that are analysed and exchanged during investigations involving digital evidence. To perform digital investigations effectively, there is a pressing need to harmonise how information relevant to cyber-investigations is represented and exchanged. CASE enables the merge of information from different data sources and forensic tool outputs to allow more comprehensive and cohesive analysis. All these metadata represented in a standard format, could be provided to any potential stakeholder using a decentralised repository of metadata along with a suitable level of confidentiality and integrity.

The INSPECTr project (inspectr-project.eu) opted for the open-source UCO/CASE ontology to serve as a standard for interchange, interoperability, and analysis of investigative information.

# 7 Planned Activities

Despite challenges presented by the COVID 19 pandemic, in dissemination period 2, we engaged in various dissemination activities which led to fruitful discussions and insights for the INSPECTr project. In dissemination period 3, we plan to accelerate our dissemination plans due to the further development of the project tools. See the following descriptions of planned events.

## 7.1 European Academy of Forensic Science Conference, 2022



The Scientific Committee of the European Academy of Forensic Science (EAFS) 2022 have invited the INSPECTr project consortium to participate at the conference in 2022. EAFS is a triannual conference on forensic science hosted by ENFSI (European Network of Forensic Science Institutes), Europe's largest network of forensic science laboratories. The conference is organized by the National Forensic Centre of the Swedish Police Authority in Stockholm, Sweden.

#### 7.1.1 Workshop on Cross-evidence Crime Analysis

#### Facilitator: Yves Vandermeer (PHS)

The workshop will demonstrate how the output of miscellaneous digital forensic software can be homogenised, ingested, and enriched so that crime analysts can discover and validate the hypothesis using visualisation like timeline, comparisons, and cross-correlation. Based on a provided mocked crime scenario and related documentation, the workshop will start from pre-generated reports from smartphones, and computers that are part of a mocked crime scenario dataset. Participants will compare the original report with the homogenised version and add some non-IT information. Participants will then use the interactive visualisation of the data to check two investigation hypotheses with the available evidence.

#### 7.1.2 Workshop on Natural Language Processing for Social Network Analysis

#### Facilitator: Daniel Camara (GN)

In this workshop, participants will take part in the demonstration of a full data pipeline that analyses social media posts. Participants will learn the theoretical and practical aspects of how to perform

sentiment analysis to detect hate speech and radical or extremist content on forums on social media posts and measure similarities between them. In the workshop, different methods for data exploration and data analysis will also be discussed. Participants will be able to see how it works and understand different natural language processing methods that could be useful during investigative activities. In a didactic and easy-to-follow way and through a collaborative tool, participants will be able to follow and try the methods during the workshop. The objective is to provide the fundamentals of a simple, but complete, data analysis pipeline in python. Participants are not required to have advanced computer programming skills, although some basic skills would clarify how some methods work.

#### 7.1.3 INSPECTr Exhibition Booth

#### Facilitator: Robert Dowdall (UCD)

The organisers of EAFS 2022 offered the INSPECTr consortium a free exhibition booth, which was cordially accepted. The organisers have scheduled a European Day, as part of the conference program, to showcase the relevant research being conducted in EU funded projects. It will provide an excellent opportunity to demonstrate the achievements of the INSPECTr project and the benefits that the platform can provide to stakeholder attendees.

### 7.2 SRE 2022 - Shaping EU Resilience

INSPECTr Consortium Partner GN, (the French Gendarmerie), will be attending the forthcoming Security Research Event on 1-2 March 2022. The theme of the event is "Research and Innovation to face future security challenges. This will provide an excellent opportunity and audience for dissemination of some of the recent innovations in development within INSPECTr.



## 7.3 Media Articles

While our primary target for dissemination is EU LEAs, the consortium also strives to raise awareness within the general public and the scientific community about the research activities of the project.

Therefore we plan to produce a 3 page article in the EU Research magazine's 2022 summer edition. EU Research is a dissemination journal focusing on pioneering frontier research. It gets published quarterly and distribute throughout 33 countries in Europe to over 50,000 readers. The aim of the journal is to promote research projects to a relevant audience in government, the private sector as well as academia. In turn this will lead to enquiries of interest, global exposure and dissemination for the projects involved. It is hosted online indefinitely reaching a global web audience. According to the editor, it is read by the key people in national and European governments that control policy and research funding, leading scientific research institutes and major companies across many industries in the private sector.

## 7.4 LEA Dissemination Activities

In addition to the rescheduled CEPOL conference, we hope to target other stakeholders with webinars and information sessions about the project. This activity will increase this year, as the project matures and the overall solution can be demonstrated for maximum impact.

We are currently re-developing the INSPECTr brochure and plan to disseminate this through various channels, such as the ILEAnet National Contact group. As we near the end of the living lab experiments, we will also report this activity to the ILEAnet Knowledge Factory.

We are also keen to do more in collaboration with the Council of Europe, ECTEG and CEPOL; in particular with the latter, due to the success of the Showcase in January 2022.

## 8 Conclusion

As this report illustrates, our dissemination activities have increased significantly during this reporting period. Through attendance at conferences and webinars, hosting workshops and meetings, and publishing articles, blogs, and newsletters, the INSPECTr project has been introduced to a variety of internal and external stakeholders.

In dissemination period 2, through various events, outlined in previous sections, stakeholders were able to provide useful and timely interventions in the project development. LEA partners provided feedback and insights based on technical, detailed overviews, surveys, and demonstrations of the platform prototype. Conference and webinar participants were informed of progress and given the space to ask questions and raise issues for the project partners to consider. Readers of blogs and newsletters were informed about various key areas of the project including ethical issues and technological challenges in an engaging and accessible format.

For dissemination period 3, the list of planned activities, as outlined in the previous section, includes significant contributions to the EAFS conference with workshops on cross-evidence crime analysis and natural language processing for social network analysis, and an INSPECTr exhibition booth to showcase the INSPECTr platform. The upcoming Security Research Event and the publication of a comprehensive article about the project in the EU Research magazine, along with planned engagement with the Council of Europe, ECTEG, and CEPOL, ensures that the project is not only introduced to a wide and receptive audience but that relevant stakeholders will have multiple opportunities to engage with the project as it progresses further. As the project moves into the next stage of development, dissemination efforts will showcase the efficacy and relevance of the INSPECTr platform to even wider audiences in a constantly evolving cyber defence landscape.