AVALANCHE

COMBATING TRANSNATIONAL ILLEGAL ACTIVITY THROUGH INTERNATIONAL COOPERATION

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D9.1

Initial Communication, Dissemination & Exploitation Report

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Abbreviations

Abbreviation	Definition
APC	Article Processing Charges
CEPOL	European Union Agency For Law Enforcement Training
CERIS	Community For European Research And Innovation For Security
CORDIS	Community Research And Development Information Service
D&C	Dissemination And Communication
DCE	Dissemination, Communication And Exploitation
DevOps	Development Ops (Operations)
DIH	Digital Innovation Hub
DOAJ	Directory Of Open Access Journals
EC3	European Cybercrime Centre
ECTEG	European Cybercrime Training And Education Group
F2F	Face-To-Face
FCT	Fighting Crime And Terrorism
G2M	Go-To-Market
GA	Grant Agreement
GDPR	General Data Protection Regulation
HRB	Horizon Result Booster
HRB	Horizon Result Booster
HRP	Horizon Results Platform
IP	Intellectual Property
IPR	Intellectual Property Rights
IPR	Intellectual Property Rights
KER	Key Exploitable Result
KER	Key Exploitable Result
KoM	Kick-Off Meeting
KPI	Key Performance Indicator
LEA	Law Enforcement Agencies
MLOps	Machine Learning Ops (Operations)
MVP	Minimum Viable Prototype
NCP	National Contact Point
RTO	Research And Technology Organisations
SME	Small To Medium Business
SoMe	Social Media
WP	Work Package

Executive Summary

This deliverable, titled “Initial Communication, Dissemination & Exploitation Report” is developed within Work Package (WP) 9 (EXPLOIT: Engagement, Dissemination, Communication and Exploitation) of the AVALANCHE Project, which focuses on the establishment of the project’s stakeholder engagement, dissemination, communication, project branding, business modelling and exploitation activities.

It updates, and reports on, the dissemination and communication plan and strategy for the project’s lifetime, based on the internal “Preliminary D & C plan” issued on M6, as well as on the dissemination and communication activities implemented in the first 12 months of the project, aimed at maximizing impact and stakeholder engagement.

It also includes AVALANCHE’s business planning and exploitation strategy accompanied by a detailed definition of the project’s exploitable results.

Parts of this deliverable borrow content from the report which resulted directly from the HE Results Booster Service 2.1 (Dissemination Support). AVALANCHE has made full use of this Booster service which aimed to assist us in strengthening our dissemination strategy and plan as well as carrying it out. We also received coaching and support, based on different perspectives, which we consider having positively impacted our dissemination results.

1. Introduction

1.1 Purpose of the Document

This document serves both as a report of AVALANCHE's completed dissemination, communication and exploitation (DCE) activities of the project and as a planning framework to guide future DCE activities, detailing the approach to communication and dissemination and aimed at maximizing impact and stakeholder engagement. It includes dissemination and communication strategy & goals, audience profiling, segmentation and personas, branding elements, KPIs and outreach performance monitoring, consortium roles and responsibilities, and an initial identification of relevant communication and dissemination channels to be activated. It also tackles the AVALANCHE business planning and exploitation strategy and lists its exploitable results.

1.2 Structure of the Document

D9.1 is structured into essential sections that provide a comprehensive overview the AVALANCHE DCE activities and plan. It begins with an executive summary that succinctly captures the main objectives and goals of the outreach strategy. Following this, Section 1 outlines the purpose of the document, while Section 2 delves into the outreach strategy in detail. Section 3 presents the various communication channels and measures to be employed in our efforts. Section 4 focuses on the execution of outreach activities, detailing the actions that have been taken. Section 5 addresses branding elements, including the project logo and visual identity. Sections 6 and 7 provide a detailed exploitation plan and a market impact assessment.

1.3 Intended readership

D9.1 is a public document. It is addressed to both consortium members, and external stakeholders, aiming to provide insights into the project's D&C objectives and strategies, ensuring that all relevant parties are informed and engaged.

2. Dissemination and communication strategy

2.1 Objectives

2.1.1 Introduction

The dissemination and communication activities in AVALANCHE aim to raise awareness about the project's results and engage and motivate the target audience, thus maximizing its impact. AVALANCHE will identify, "create" and support an ecosystem with significant innovation potential comprising

- **end-users**: Law Enforcement Agencies (LEAs) and crime-fighting-related organisations identified as potential future AVALANCHE adopters;
- **SMEs** and other, broader, technical and non-technical audiences looking to enter and establish themselves in Fighting Crime & Terrorism (FCT) marketplaces through technology partnerships; and
- policymakers, regulators and state agencies.

The successful organic engagement of these audiences during and, more importantly, *beyond* the end of the project, will further validate its key results and plant the seeds for its successful exploitation.

This outreach strategy comprises:

- setting the **objectives**,
- identifying the **audiences** to be targeted,
- identifying sets of specific **measures** (or activities) and **channels** to be engaged / activated,
- setting specific **KPIs** for monitoring, and
- setting **roles** and responsibilities amongst partners.

The execution of a comprehensive outreach plan based on the above will build awareness of AVALANCHE's results. The implementation of the dissemination and communication KPIs laid down in the GA (Sect 2.2.1, 2.2.2), will facilitate the best possible uptake of project outcomes and streamline its pathways towards impact.

2.1.2 Outreach objectives and principles

The project's outreach objectives may be summarized as follows:

- Raising awareness about
    - Project activities
    - Project results
- Engage and motivate individuals and organizations
- Support LEAs and the SME ecosystem
- Engage with policymakers / provide feedback on policy
- Set the groundwork for exploitation

A tabulated approach of the methodology to be applied for the implementation of the dissemination and communication activities is presented here:

Table 1: High-level approach to AVALANCHE's outreach strategy

What	When	Who	How
External outreach through a set of **measures** and **channels** to be activated against specific targeted **audiences** to be engaged	**Three distinct (3) phases** setting the timing for the execution of the dissemination and communication strategy, set by GA, Sect 2.2.	**From whom**: (a) **IDR**: dissemination and communication (T9.2) leader; (b) **IML**: stakeholder engagement (T9.1) leader (c) contributing partners **To whom**: The AVALANCHE targeted audiences as set by this report's Sect. 2.3 and further matured within the project.	A usable **outreach toolkit** leveraging digital (online) and traditional (offline) dissemination and communication **measures and channels** set by this report's Sect. 3, measured against **performance metrics** set by the GA and Sect. 2.5 and **processes** set by Sect 2.4

2.2 Which periods this report covers. DCE scheduling

This deliverable reports DCE activities up to, and including, M12, and lays down the plan for M13-M24. The progress of leading up to the completion of the AVALANCHE project, will be reported in deliverable D10.1 on M24. This deliverable (D9.1) reaffirms the outreach plan drawn at an earlier stage (M6) and fine tunes that plan for the rest of the project term (M13-M24), whilst offering more detail on activities executed in the first 12 months. Specific files evidencing different aspects of the DCE activities (e.g. stakeholders database, social media activity, event details, etc) have been shared with the partners over the project's official file repository, for everyone in the consortium to be updated regularly about the deadlines and deliverables as necessary.

In the two tables below, we present (a) a summary approach, breaking down the outreach activities in three phases for the 24-months duration of the project, discerning between completed activities (up to M12) and to-do's, and (b) a more detailed plan based on GA objectives as well as outreach intentions discussed to date, laying out the activities for the first twelve months of the project.

Table 2: High level scheduling of outreach phases in AVALANCHE

Phase	1. Brand setup (M1-M7)	2. LEA & policy outreach (M7-M18)	3. LEA, policy & market outreach (M18-M24)
Status	√ DONE	IN PROGRESS	PLANNED
Activities	Website Social media Digital flyer, press releases Newsletter Synergies with other projects and networks	Additional material; video(s), Organisation of events, workshops, hackathons Conferences Publications Press releases & newsletters Dissemination of results (initial)	Same as (2) plus: Final event / conference Scaling up of exploitation & G2M activities Dissemination of results (final)

*Table 3: Dissemination and communication activities **COMPLETED** in the first 12 months*

Task group	Task/subtask	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
KoM	Circulate KoM PR			√ DONE									
Brand kit	Logo & assets			√ DONE									
	SoMe creatives & templates			√ DONE									
	Rollup, poster, one-pager, flyer											√ DONE	
	Admin templates				√ DONE								
Website	Design & implementation			√ DONE									
	Feedback & refinements						√ DONE						
Social media	Accounts & pages setup				√ DONE								
	Content management	ONGOING											
Outreach plan	Preliminary plan								√ DONE				
	D9.1 | Y1 plan	DONE – THIS D9.1 REPORT											
Other assets	Intro project video									√ DONE			
	Stakeholder database	ONGOING											
Stakeholder mapping	Database and master file creation					√ DONE							
	Execution and monitoring			ONGOING									
Events mapping	Partners' feedback	ONGOING											
	Execution		ONGOING										
Newsletter	Design, drafting, templating								√ DONE				
	1st edition										√ DONE		
	2nd edition									√ DONE			
Events (organisation or participation)	Workshops and webinars	ONGOING											
	Conferences and trade fairs		ONGOING										
	National or EU events		ONGOING										
Publications (scientific or otherwise)	Non-scientific publications							ONGOING					
	Posters								√ DONE				
	Scientific publications							ONGOING					
	Press releases			ONGOING									
Synergies	LEAs	ONGOING											
	EU projects	ONGOING											
	Policymakers & feedback	PLANNED											

Task group	Task/subtask	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	SMEs & industry	PLANNED											

2.3 Audience profiling

AVALANCHE aspires to "take transformative steps toward developing an innovative and high-tech solution to empower LEAs to combat the evolving threats of hate speech, disinformation, and deepfakes, leveraging advanced open-source intelligence gathering, AI-driven analytics, and cross-border intelligence-sharing; and enhance the ability of LEAs to detect, analyse, track, investigate and prevent high-risk criminal networks activity, focusing on the malicious use of synthetic media, coordinated influence campaigns and online incitement-bolstering resilience". For this ambition to be realized, the whole value chain of the related FCT segments needs to be efficiently addressed through the outreach activities.

With the GA/Part B/Sec 2 as a starting point, we have elaborated the project's target audiences, covering a broad range of security and LEA/FCT communities, end-user groups, stakeholders, policy and decision makers etc. to be targeted. The particular outreach strategy, including targeting approach and means, key messaging, community building effort, channels and measures to be activated, resource allocation, etc. will be specifically tailored to each audience segment to maximize impact.

2.3.1 Audience segmentation and stakeholder mapping

A segmentation of the AVALANCHE audiences is presented below in Table 4. The project is primarily addressed to LEAs and the different user communities revolving around them, such as internal LEA buyers, engineers, developers, analysts etc., as well as external commercial entities such as SMEs and industries looking to penetrate the FCT/LEA marketplace with competitive products and services. Its key outcome: the AVALANCHE platform, is meant to counter threats in the areas of hate speech, disinformation, and deepfakes; it is thus aimed at operatives and analysts, either within LEAs or in national and international security organisations or units. The GA's impact section offers us an initial presentation of the intended target groups, with some granularity. However, these need to be revisited, verified and further segmented to serve as workable input to the outreach plan's mapping activities for the intended dissemination and communication measures and channels. The above-mentioned initial presentation will be further elaborated in the table below.

Table 4: The AVALANCHE audiences

Segment	Subsegments	Proposed approach
LEAs **Public actors**	Consortium LEAs	Driving requirements, driving use cases
	Non-consortium (external) LEAs	Awareness raising, events, workshops, webinars. Bilateral meetings to foster their engagement
	Other / FCT public actors	Participation in trials, feedback loops and user-centric development. Direct adoption of the AVALANCHE tools into everyday operations and processes

		Innovative secure data sharing and interoperability
Technologists	SMEs	Awareness raising, events, workshops, webinars Feedback into project's technical direction, ideas for services and apps Feedback into technical viability of solutions Feedback into product/market fit, UX and usability Hackathons Demos, trials and pilots
	Larger industries	
	Researchers, RTOs, technical nonprofits	
	Software engineers, AI researchers	
	Security experts	
Commercially interested parties	LEAs	Awareness raising, events, workshops, webinars Feedback into product/market fit and commercial viability Uptake of results to strengthen own product/solutions portfolio and penetrate LEA/FCT marketplaces Invitation to demos and exploitation activities
	SMEs	
	Larger industries, investors	
Synergies & networks	Technology, industry associations	Awareness raising (including jointly organised) events, workshops, webinars Co-participation in conferences (workshops, posters, etc) Participations in demos or hackathons Feedback into technical viability of solutions Feedback into product/market fit Feedback into policy Close Monitoring and feedback with project's developments Innovative secure data sharing and interoperability
	CEPOL (European Union Agency for Law Enforcement Training)	
	EUROPOL Innovation Lab, ECTEG, EC3, CERIS	
	EJN/CrimJust etc	
	H2020, HE projects synergies	
Scientists	Academia & universities RTOs, researchers	Awareness raising, events, workshops, webinars Participations in demos Feedback into technical viability of solutions
Policymakers	The EC, regulators, policymakers, observatories, etc	Feedback into social, technological, economic, environmental and political aspects

	Standardisation and certification bodies	Feedback into privacy, data protection (GDPR, etc) and responsible & ethical AI aspects (AI Act, etc) Steering standardisation activities and feedback into policy Steering research and innovation direction
General public	Civil societies, general public	Participation and feedback for a general understanding Awareness-raising, engagement and adoption of best practices, alongside tools, for countering hate speech, disinformation and deepfake-related activity

In addition to the above analysis, we also include the stakeholder mapping exercise which was part of the final report of the 2.1 DIS service of the Horizon Results Booster. This mapping is an exercise providing strategic guidance to the project dissemination, engagement and exploitation strategy, which largely overlaps with the above audience analysis, additionally providing intent and purpose. Stakeholders are defined as having both an impact on and an interest in a project result. The analysis and mapping of stakeholders provide insights on how to best leverage external organisations, enablers and players in planning the exploitation activities of each KER. In this way, dissemination activities are effectively integrated with exploitation towards impact maximization.

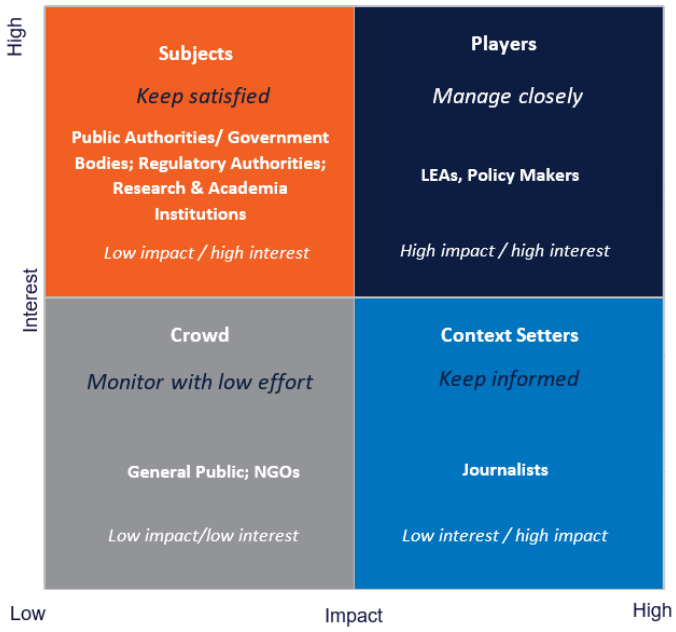


Figure 1: AVALANCHE Stakeholder mapping

Stakeholder analysis

Context setters

- Stakeholders with significant influence but limited interest in project's outcomes, or those with low capacity to engage.
- Priority of engagement: medium/high.
- Recommendation for engagement: maintain positive relationships to prevent negative consequences from their disengagement. Keep them adequately informed and maintain regular contact.

Players

- Essential stakeholders for maximizing post-project impact.
- Priority of engagement: high.
- Recommendation for engagement: actively engage, secure full support, and build partnerships. Their role is instrumental, especially for cooperation or co-development, making them a primary focus in dissemination and exploitation strategies.

Crowd

- Low levels of both interest and impact, thus not the primary focus for engagement.
- Priority of engagement: low.
- Recommendation for engagement: ensure they are well-informed and monitor their interest with minimum effort as the project unfolds and results become more tangible.

Subjects

- High interest in project's results but limited influence on the project.
- Priority of engagement: medium/low.
- Recommendation for engagement: keep them informed through regular updates and meaningful interactions. Keep in mind competition is often positioned in this quadrant.

For us to better focus on specific geographical levels towards impact maximization, Booster has also provided the geographical dimension for the stakeholders' categories in the following graph:

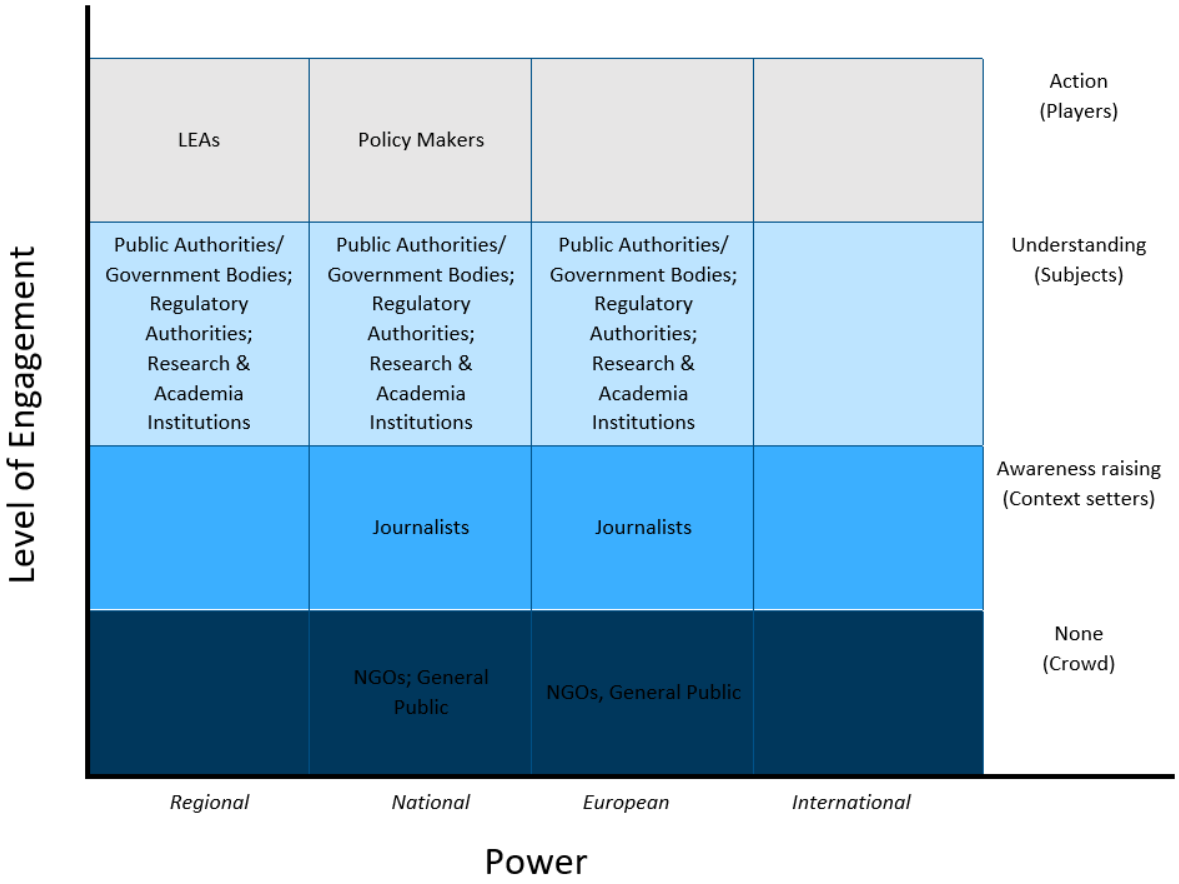


Figure 2: Stakeholders' Geographical Dimension

2.3.2 Audience personas

In marketing and communication, personas are fictional profiles that represent specific audience segments for which a product or service is tailored. These characters embody the typical needs, preferences, and behaviours of their intended groups, helping teams understand their ideal customers' lifestyles and craft relatable content. Beyond marketing, personas have proven valuable in product development, especially under agile methodologies, as they provide a clear reference throughout a project's lifecycle.

In the AVALANCHE project, personas play a critical role in shaping the communication and dissemination strategy. By developing personas for key target audiences—such as law enforcement officers combating disinformation or hate speech—the consortium can create messaging that addresses the specific priorities and concerns of these groups. Stakeholder mapping complements this approach by humanizing audience insights, ensuring that outreach efforts remain grounded in the realities of the target community.

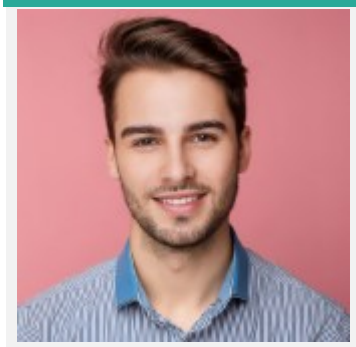
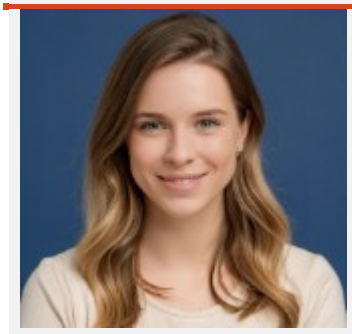
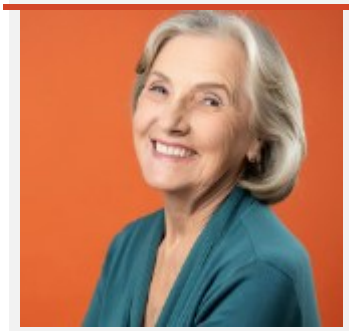
Personas also support the dissemination of project progress and outcomes by building upon earlier work. This iterative process deepens the consortium's understanding of the needs and expectations of those engaging with AVALANCHE's results. Additionally, during the exploitation phase, personas help convert target audiences into leads, collaborators, or investors by enabling precise and adaptive messaging.

Our proposed persona-based approach spans all outreach stages, from initial engagement to final dissemination, ensuring targeted, impactful communication. While each persona may blend

characteristics from multiple audience segments, these profiles are designed to guide action, not impose rigid boundaries. Examples include personas representing law enforcement with technical expertise, academics involved in collaborative EU projects, policymakers, industry stakeholders, and the informed public. Ultimately, personas enable the AVALANCHE project to refine its strategy, communicate more effectively, and deliver messages that resonate with diverse audiences, maximizing its overall impact.

The following personas illustrate examples derived from the audience segmentation outlined in 2.3.1, though they are not exact representations (i.e. there is no one-on-one mapping between a segment and a persona). Instead, they embody human traits that are essential for AVALANCHE's outreach strategy. For instance, Persona 1 combines characteristics of a law enforcement officer and a technologist, while Persona 2 reflects a researcher involved in collaborative EU projects. Persona 3 aligns with policymakers, Persona 5 represents industry stakeholders, and Persona 4 corresponds to an informed and engaged member of the public. These personas guide actions flexibly, ensuring the project effectively engages its diverse target groups.

Table 5: The AVALANCHE personas

Persona	Characteristics
	**Name**: Jack Carr **Age**: 31 **Job**: LEA analyst **Education**: Master's degree (IT) **Socials**: LinkedIn, X, Facebook, Bluesky, Mastodon, Instagram, TikTok **Attributes/other**: cybersecurity, crime prevention, crime detection, incident response, artificial intelligence, law enforcement, crime control, fake news, disinformation, hate speech, digital literacy, social media
	**Name**: Adéla Tupá **Age**: 34 **Job**: Researcher (AI and behavioural analytics) **Education**: PhD (psychology) **Socials**: LinkedIn **Attributes/other**: behavioural analytics, deep learning, artificial intelligence, predictive analytics, NLP, language models, EU research projects, grant writing, fundraising
	**Name**: Josette Brodeur **Age**: 60 **Job**: Policy Advisor at the European Cybercrime Centre (EC^3) **Education**: PhD (international studies) **Socials**: LinkedIn, Instagram **Attributes/other**: digital skills, digital literacy, personal data protection, privacy, EU AI Act, EU Cyber Resilience Act, cybersecurity policy

	**Name**: Nathan Hope **Age**: 23 **Job**: Legal intern (also a tech enthusiast with a special interest in AI apps and data protection activism) **Education**: Master's degree in law **Socials**: LinkedIn, Instagram, TikTok, Mastodon **Attributes/other**: law, data protection, privacy, GDPR, cybersecurity, technology company, political campaigns, social media, activism
	**Name**: Nicholas Witman **Age**: 66 **Job**: SME owner (directing an agency outsourcing IT talent to LEAs for software engineering and cybersecurity expertise) **Education**: University Degree in Computer Science **Socials**: LinkedIn **Attributes/other**: software engineering, developer, law enforcement, cybersecurity, entrepreneurship, public tenders

2.4 Set-up of dissemination, communication and exploitation activities

2.4.1 Management and roles

The diligent management of AVALANCHE's dissemination, stakeholder engagement, communication and exploitation / commercialisation activities is critical for the project to reach its intended objectives and achieve impact, and in this respect, it demands the close collaboration of all consortium partners.

Dissemination and communication activities are coordinated by the **Dissemination Manager of the project: IDR (IDIR Ltd)** who is responsible for managing, executing and monitoring all dissemination and communication activities during the project's lifecycle, as part of Tasks 9.2 & 10.2: "Dissemination, Communication and Project Branding" which they are leading. **Stakeholder mapping and engagement activities are coordinated by IML** (IOTAM Internet Of Things Applications And Multi Layer Development Ltd). **Exploitation activities are managed by NET** who is responsible for Business Modelling, Partnering, Channels & Route to Market within T9.3 & T10.3 while the Impact Assessment, Marketing & Commercial Exploitation task (T9.4, T10.4) is led by QAD. Concurrently, all AVALANCHE consortium members are to actively support and provide contributions to these activities.

Table 6: Partners' roles and responsibilities in the execution of the outreach plan

IDR as the Project's DM and WP9, WP10, T9.2, T10.2 leader, undertakes to (a) lead the planning of all D&C project activities and treat the resulting reports (D9.1, D10.1) as living documents and continuously update them throughout the project with current plans and developments; (b) lead project branding activities with the delivery of the associated assets (logo & brand kit, website, social media pages, digital flyer, newsletter, etc) as per the plan; (c) execute the outreach strategy and plan, identifying, and acting upon all given opportunities for raising awareness and promoting the project's results, including leveraging the channels and measures detailed in Section 3 of the present report; (d) track, monitor and analyse the performance of the dissemination and communication activities, against KPIs in the GA and in deliverables D9.1 and D10.1; (e) lay a robust foundation for the project's

standardization activities, through a successful outreach, thus ensuring the project results' sustainability.

IML is responsible for coordinating the project's stakeholder mapping and engagement activities, under Task T9.1. This includes (a) setting up a stakeholder database in the form of a master tracking file and managing partner feedback for related synergies, events, etc; (b) organising at least two project hackathons; (c) ensuring active participation in EU-funded initiatives, such as Horizon Europe Clusters (e.g., Cluster 3), etc; (c) leading efforts to connect with key stakeholders, including national and international LEAs (e.g., Europol, Interpol, KEMEA), user communities (e.g., ENLETS, I-LEAD), policy and research bodies (e.g., EMCDDA), and related EU-funded projects (e.g., PRESERVE, GANNDALF, Ceasefire etc) and clusters; (d) facilitating the dissemination of KERs to partner networks, ensuring strong engagement with relevant EU associations and communities.

NET is the project's Exploitation Manager, contributing an initial business model and analysis with future exploitation paths. NET, within T9.3, T10.3 will analyse stakeholders, actors and interested customer segments towards viable routes for commercialising the project's results, increasing outcomes adoption addressing different sectors' expectations. These tasks will also study the business environment of AVALANCHE, aiming to a) analyse the drivers and barriers for the adoption of technology among stakeholders of the whole value chain and b) define the project's business models.

QAD complements the exploitation work with commercialization-related activities. Within T9.4, T10.4, QAD will determine the market context for AVALANCHE results, updating all partners' market knowledge. It will produce a market-positioning study to quantify the size of the market, determine trends, and identify key competitors and substitutes from research and industry, based on AVALANCHE outputs, facilitating the design of business models (in T9.3) for future exploitation plans and an exploitation strategy to position the project on the market. In addition, T9.4/T10.4 will do Cost Effectiveness Analyses (CEA) and sensitivity analyses to identify the importance of the assumptions regarding the cost factors, revenue drivers and context parameters to those results. Finally, QAD will prepare and collate individual and joint exploitation plans of the project.

Other partners: will provide contributions when necessary and when asked for by WP9/10 task leaders. Examples of such contributions include: (a) providing **feedback** on task outcomes or tokens, such as reports, branding assets, etc; (b) providing **content** to be communicated over public channels (website, social media, print and/or digital material, etc) regarding their organisation, their work within AVALANCHE, their project tasks and their results, generic content and other contributions for social media; (c) **participation** in meetings, events, workshops etc. as necessary; (d) creating and maintaining bilateral **synergies** with external stakeholders, EU projects, etc; (e) contributions to or leadership of scientific **publications** and scientific dissemination; and (f) assisting outreach, awareness and engagement activities directed towards the general public.

Specifically, **SPP** as the sole LEA end-user partner of AVALANCHE will help amplifying the project's LEA ecosystem dynamics, with LEA networking and showcasing feasibility alongside business benefits. **UBI**, as project coordinator, will oversee the planning, delivery and monitoring of D&C activities at a high level.

2.4.2 M1-M12 activities

Since the project's start, WP9 and D&C progress and issues have been discussed on a bi-weekly basis in the project meetings online, as well as in a monthly WP9 meeting which was set up after M5. Subjects of these discussions have been, to date,

- Overall dissemination and communication planning and strategy
- a number of feedback loops on the project's initial brand kit, including logo, palette, template assets, website and social media pages, released M2-M3,
- the preparation of assets (e.g. poster) supporting events participation up to M7,
- the design and implementation of the website and social media content plans, with partners feedback,
- the fine tuning of the project statement and vision according to the early revision of the project's use cases and thematic areas, and general guidance on content strategy, tone of voice, etc.

In more detail, in the initial 6 months of AVALANCHE, the following have been delivered:

- The project's **brand and visual identity assets**: The AVALANCHE Logo, with variations and sample applications and colour palette;
- **Templates**: presentation (pptx) template, deliverable template, meeting agenda and minutes templates; social media profile and header images, and post overlay templates;
- Digital and print **material**: poster, banner and similar;
- The project's **website**;
- Setup of email automation and newsletter-related activities;
- **Social media** LinkedIn page. Initial content flow and content management strategy also underway.
- D&C and stakeholder engagement activities **monitoring spreadsheet** in the form of a master tracking file / database.
- **Initial exploration** of scientific publications, exhibitions, demo days, conferences, non-scientific publications, press releases blog posts, articles, white papers, podcasts, interviews, etc
- Progress tracking, reported at AVALANCHE's 2nd plenary meeting on M6.

Specific M1-M12 details on events organisation and/or participation will be subsequently reported (**Section 4**)

2.5 Key Impact Pathways and monitoring KPIs – current status

The monitoring of the performance of key dissemination and communication activities is key to incentivizing the involved parties and therefore steering the project towards its key impacts. The performance evaluation and validation approach underpinning such monitoring is captured in the form of the AVALANCHE dissemination and communication KPIs, brought forward from the GA and presented in Table 7 below for summarization and reference purposes.

The monitoring KPIs presented reflect the following sections of the GA/Part B:

- Sect 1.1.2 “Objectives (O), Expected Results (R) and Measurable Outputs”
- Sect 2.1.1, 2.1.2: “AVALANCHE’s Contribution towards the Expected Outcomes”
- Sect 2.2.1 “AVALANCHE Exploitation-by-Design Strategy, New Products and Commercialisation Paths”
- Sect 2.2.2 “Dissemination - Communication”
- Sect 2.3 “Summary - Impact Canvas”

The KPI table provides current (M12) status and is mapped to candidate dissemination and communication measures and channels and is additionally enriched with means of verification and timeframe, alongside the target audience definition and refinement.

The implementation of WP9/10 activities depends on the diligent work and collaboration of all project partners. Specific partners are to be assigned to specific D&C activities for which they will be responsible to execute and report back to the Dissemination Manager. For this purpose, the tracking masterfile spreadsheet has been created and uploaded to the project repository and is already being populated with content.

IDR, as dissemination & comm. manager will monitor the performance of the DC activities against the set KPIs, assess this performance regularly and report the results in the corresponding project periodic reports (D9.1/M12 and D10.1/M24).

Table 7: M12 Dissemination & communication KPIs monitoring

#	Measure or activity	Y2 goal	Y1 goal	M12 status
1	Conferences and/or workshops organised (lifetime)	**2**	**1**	**1**
2	Conferences and/or workshops attended (lifetime)	**>10**	**4**	**4**
3	Other events organised (incl. w partner networks, lifetime)	**2**	**1**	**0** 1 planned for 08/10
4	Other events attended (incl. w. partner networks, lifetime)	**>14**	**>4**	**4**
5	Common events organised w. affiliated projects (lifetime)	**2**	**1**	**2**
6	Posts in CORDIS or other EC systems about joint activities with affiliated projects	**2**	**1**	**planned**
7	Engagement workshop organised with similar projects	1 / yr	**1**	**2**
8	Total synergies with similar projects (lifetime)	6	**6**	**7**
9	Products or services resulting from AVALANCHE KERs disseminated in engagement workshops (lifetime)	4	**0**	**NSY**
10	Links/liaisons with the market, originating from partner networks (lifetime)	100	**0**	**NSY**
11	No. of AVALANCHE adopters (lifetime) through industry links	3	**0**	**NSY**
12	No. of trials or testers through industry links	14	**0**	**NSY**
13	Showcase in commercial exhibitions	1	**0**	**NSY**
14	Showcase in demo days	1	**0**	**NSY**

15	No of attendees in commercial exhibition or demo days	>300	0	NSY
16	Demos organised (per pilot)	1	0	NSY
17	Workshops organised (per pilot)	2	1	NSY
18	F2F (seminars) or online (webinar) training sessions organised (lifetime) for Non-IT/general public	1	0	NSY
19	No of attendees in above seminar or webinar	20	0	NSY
20	Open days organised for general / Non-IT audiences or hackathons	2	1	1
21	Open days, hackathons or similar events attended	2	1	**0** 1 planned for 08/10
22	No of synergies established for the uptake of MLOps and DevOps libs (with AI orgs, academia and policymakers), e.g. calls, F2F meetings, events	4	0	NSY
23	Synergies established for the uptake of network mining (EU, national, global), e.g. calls, F2F meetings, events	4	0	NSY
24	Registrations to MLOps and DevOps libs (lifetime)	130	0	NSY
25	Links to similar (e.g. MLOps and DevOps) open libraries	6	0	0
26	No of synergies established for the uptake of training & related apps	14	0	0
27	No of publications to open-access scientific journals	>2	0	0
28	No of publications to open-access conferences	>10	3	3
29	No of non-scientific publications (e.g. industry magazines)	>3	1	1

30	No of LEAs liaised with for standardisation purposes	>1	0	**0**
31	No of enterprises (industries) liaised with for standardisation purposes	>1	0	**0**
32	No of AI players liaised with for standardisation purposes	>3	0	**0**
33	No of standards organisations liaised with for standardisation	>3	0	**0**
1	Website unique visitors (lifetime)	500		**440**
2	Website blog interactions (lifetime)	250		**138**
3	MLOps/DevOps libraries portal registrations (lifetime)	150		**N/A**
4	Website blog posts OR long-form social posts OR online articles OR whitepapers (monthly)	>1 (YR1) >2 (YR2)		**1**
5	Live audience feedback or survey in online event	1 >30 responders		**0**
6	Backlinks to our website (lifetime)	>15		**7**
7	Common / joint content (articles/blog posts, lifetime)	>6		**2**
8	Production and digital dissemination of intro video	1		**1**
9	Production and digital dissemination of video per pilot/use-case	2		**0**
10	Production and digital dissemination of video related to key result (AVALANCHE platform)	3		**0**
11	Social media presence established (LinkedIn)	1		**1**
12	LinkedIn followers (lifetime)	600		64
13	LinkedIn posts (lifetime)	400		50
14	LinkedIn interactions, engagement, reactions, etc (lifetime)	3000		615
15	Production of rollup	1		**1**

16	Production of leaflet	1	**1**
17	Production of poster	1	**1**
18	Production of interim factsheet	1	1 in process
19	Production of final factsheet	1	NSY
20	Brand pack & associated material & assets (logo, palette, graphics)	1	**1**
21	Creatives and templates (presentation, deliverable, agenda, etc)	1	**1**
22	Press releases OR newsletter OR digital briefs (Y1)	2	**2**
23	Press releases OR newsletter OR digital briefs (Y2)	4	**-**
24	No of entries in stakeholders' database	Y1 1000 Y2 1500	~650

3. Dissemination and communication channels and measures

Section 3 of this report presents the communication and dissemination channels and measures prioritized by the consortium through this plan for the execution of its outreach strategy. These channels and measures encompass both traditional and digital media.

3.1 Website and blog

The AVALANCHE project website, available at https://avalancheproject.eu, is structured into clear sections and subsections to provide intuitive navigation and quick access to detailed information about the project. It is also responsive adapting to all device types and sizes, and fast, to optimise user experience.

The structure helps visitors easily find the content relevant to their interests, fostering transparency and encouraging active engagement with AVALANCHE's progress and results.

3.1.1 Structure

- **Home**: The main entry point of the website, offering a snapshot of AVALANCHE, its goals, mission, and major initiatives.
- **About**: Provides an in-depth look at the project's foundations, with the following subsections:
    - **Vision**: Describes the fundamental ideas and innovative strategies driving AVALANCHE.
    - **Consortium**: Presents the project partners,
    - **Workplan**: Details the step-by-step roadmap, including methodologies and timelines, guiding project execution.
    - **Use Cases**: Highlights AVALANCHE's use cases addressing specific, real-world LEA scenarios.
    - **Synergies**: Presents the AI4SafeEurope cluster (led by AVALANCHE) and other synergies between AVALANCHE and other projects, initiatives or organizations.
- **Library**: Presents various and diverse project material, deliverables, key outcomes, etc organised into:
    - **Deliverables**: official publishable project reports
    - **Publications**: Publicly accessible resources like articles, scientific publications, brochures, flyers, and informational content.
    - **Media**: The AVALANCHE brand kit and assorted multimedia content
- **News**: The blog section of the website keeping visitors informed about the latest project updates, upcoming events, workshops, and related conferences.

3.1.2 Website screenshots

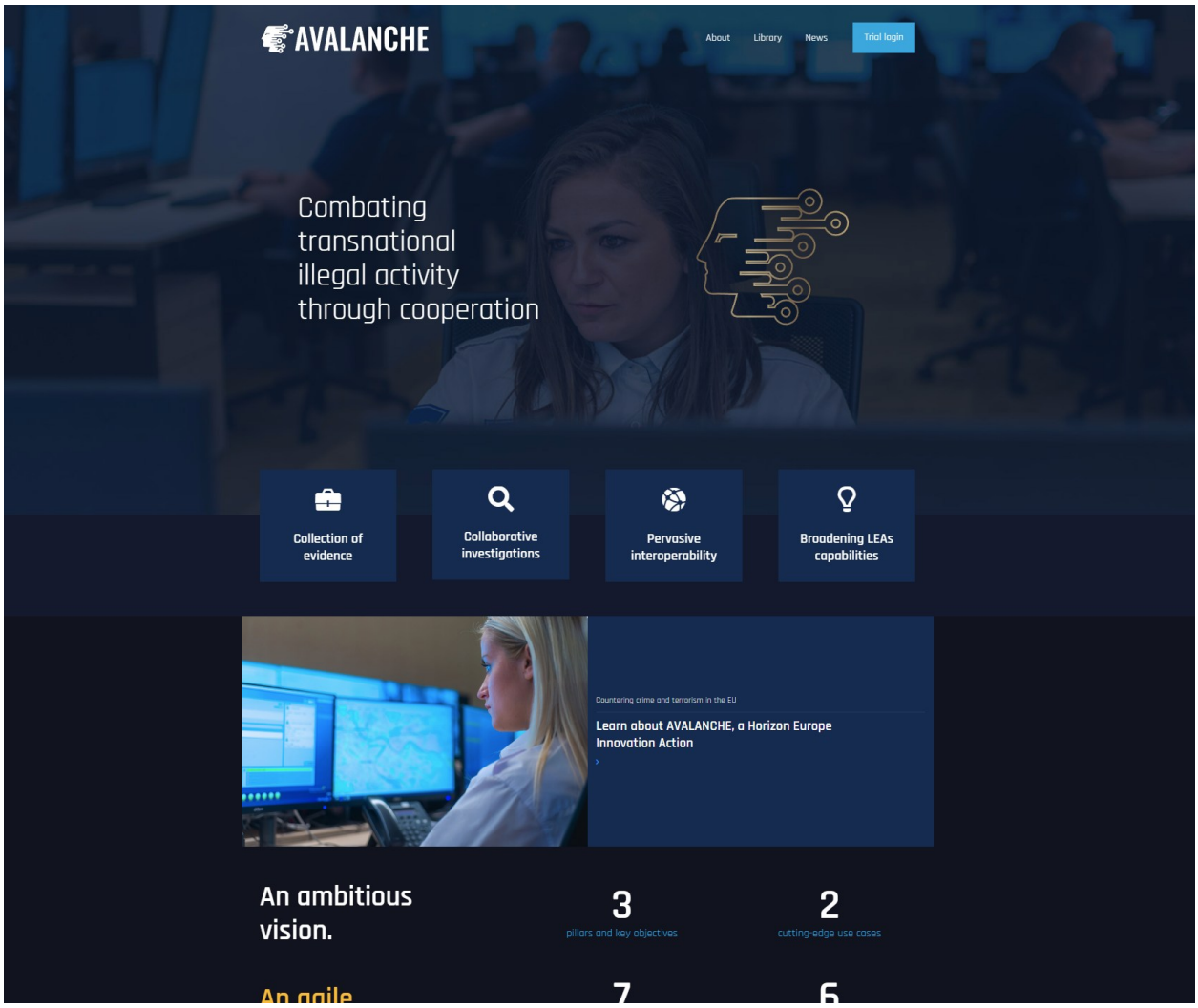
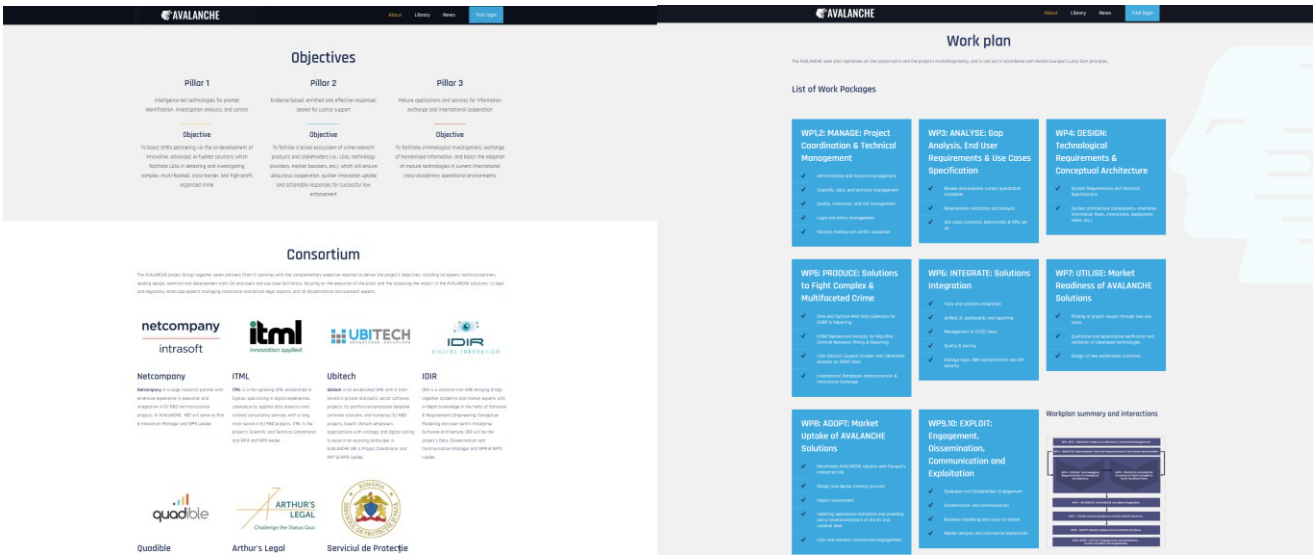


Figure 3. The AVALANCHE homepage



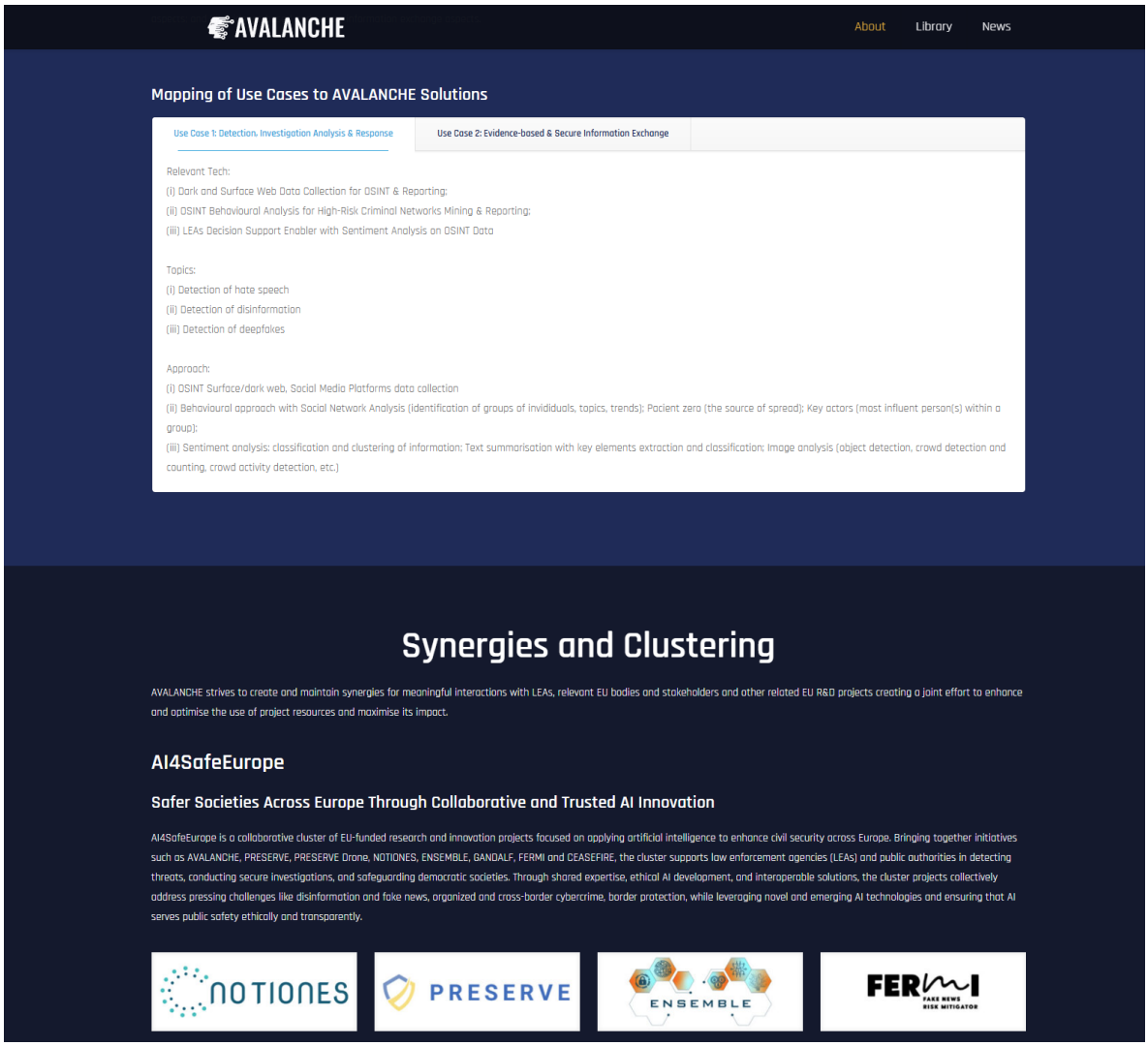


Figure 4. About sections

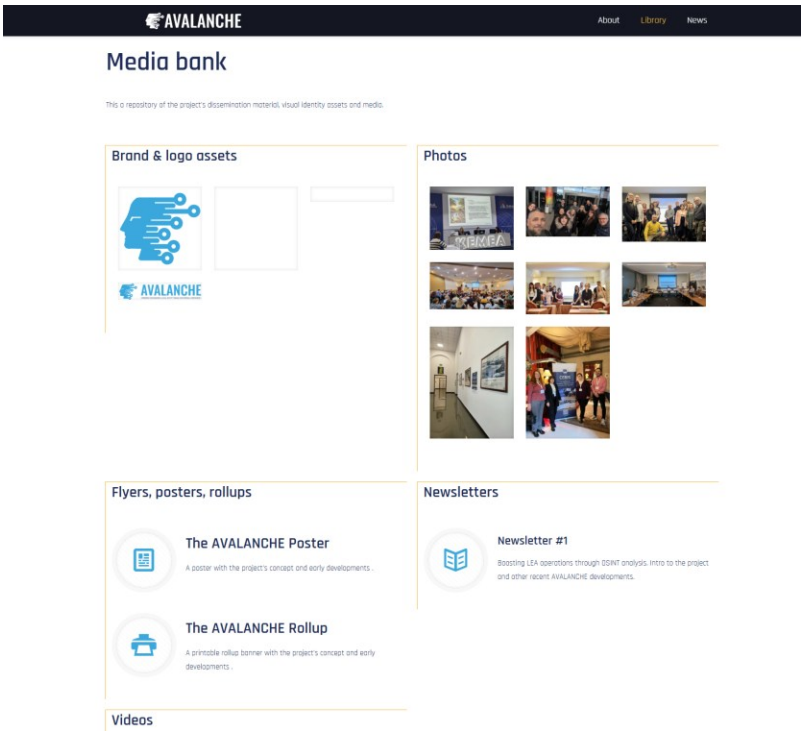


Figure 5. Library sections

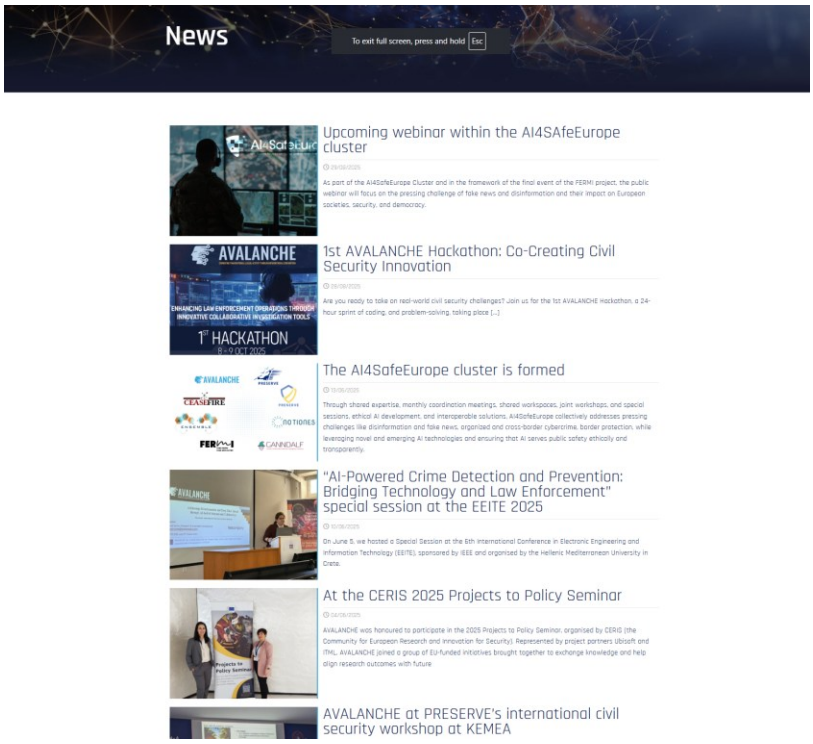


Figure 6. News and blog

3.2 Social media

AVALANCHE has established its primary social media presence on LinkedIn, selected as the most suitable platform to engage directly with its core audience of law enforcement professionals, policymakers, and industry experts. While other social media channels were considered, the focus remains on LinkedIn to ensure targeted, impactful communication.

With its emphasis on professional networking, LinkedIn provides an effective space to connect with decision-makers in law enforcement and cybersecurity policy circles. The Dissemination Manager will use this platform to share key project information, including:

- Updates on project progress and major milestones.
- Announcements about publications, events, and workshops.
- Insights and findings from project research.
- Opportunities to engage and interact with stakeholders in meaningful discussions.

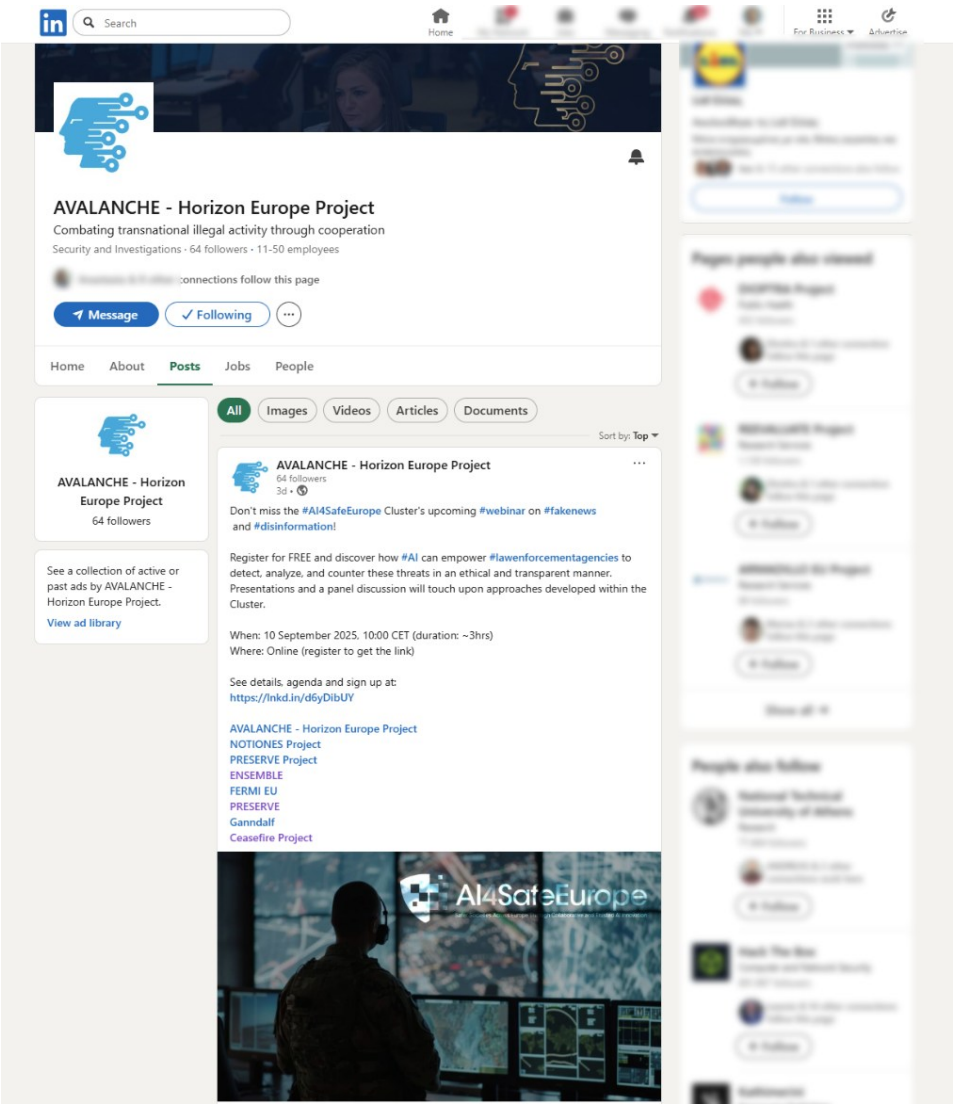


Figure 7: The AVALANCHE LinkedIn page

3.3 Email communications and newsletter

AVALANCHE places strong emphasis on email communications and newsletters as key tools for keeping stakeholders informed, engaged, and connected with the project's progress. These channels will play an essential role in delivering timely updates and building an active community around AVALANCHE's objectives.

- **Regular Newsletters**

  Periodic newsletters will provide stakeholders with summaries of the latest project developments, achievements, and upcoming activities.

  Two (2) newsletters have been disseminated by the submission of this report (M12)

  Each issue will spotlight milestones, project outputs, and updates to our outreach approach.

  The D&C Leader will monitor newsletter distribution and frequency to maintain engagement and ensure consistent communication of progress.

  Newsletters will be delivered as rich HTML email campaigns using an automation platform (e.g., Mailchimp), offering:

  a) Sign-up forms integrated into the AVALANCHE website.

  b) GDPR compliance, with personalised consent and preference management.

  c) Audience segmentation for tailored content delivery.

  d) Comprehensive performance tracking (see point 4).

- **Targeted Email Campaigns**

  Tailored emails will address specific audience groups, including consortium partners, prospective collaborators, and other relevant stakeholders. Explicit consent for such communications has been secured via either a) email; b) webform checkbox or c) written notice. The consent is recorded in the stakeholder engagement monitoring sheet (master file).

  These campaigns will promote events such as webinars, workshops, and share important publications and project outcomes.

  Like newsletters, they will use an HTML format and automation tools for effective delivery and performance monitoring.

- **Integration with Social Media**

  Emails and newsletters will incorporate links to AVALANCHE's social media channels (LinkedIn), boosting visibility and encouraging multi-platform engagement.

  Highlighting social media snippets within newsletters will help drive traffic and interaction across platforms.

- **Performance monitoring**

  The impact of our email campaigns will be evaluated using metrics such as open rates, click-through rates, and engagement statistics.

These insights will be shared with the consortium to help refine KPIs and align content with stakeholder interests.

Monthly monitoring of website traffic and social media performance (followers, engagement, shares, profile views) will help us continuously improve online presence and visibility. IDR (D&C manager) will oversee this monitoring and share key findings with the consortium and D&C&E reports: D9.1, D10.1.

Following this approach, AVALANCHE aims to maximise stakeholder engagement and keep all partners informed of progress and achievements. Regular email updates, targeted outreach, and seamless integration with social media will enable a dynamic communication ecosystem.

3.4 Publications and open access

3.4.1 Introduction

Project findings and results will be disseminated through various channels, primarily publications. Publications will be a collaborative effort, spread equally amongst project partners throughout the project's lifetime. These entail:

- **Scientific Publications**: Publication of peer-reviewed articles in impactful scientific journals and conferences.
- **Awareness publications**: AVALANCHE will produce and distribute accessible, non-scientific publications aimed at engaging a broader audience beyond the research community. These materials will include articles, whitepapers, blog posts, and fact sheets that clearly explain the project's goals, approaches, and outcomes in plain language. To maximise reach, these publications will be shared across multiple channels, including AVALANCHE's social media platforms, the official LinkedIn profiles of consortium partners, the project website, and through regular newsletters.

In all publications, the D&C manager will enforce adherence to the EU guidelines on communication, dissemination, and visibility.

3.4.2 Booster feedback on dissemination channels

The final report of the 2.1 DIS service of the Horizon Results Booster has provided specific advice on dissemination channels and formats to be pursued, based on assessments and prioritization of target audiences. Specifically, **regarding dissemination channels for storage and Open Access**, a multi-channel distribution strategy, including different types of magazines, platforms and media is prescribed to make results and dissemination formats broadly available for further use and acceptance.

A non-exhaustive list of thematic EU platforms, information multipliers and magazines suggested for AVALANCHE is provided below from the DIS 2.1 final report:

- **Information Multipliers and thematic magazines**: AlphaGalileo, ScienceX, Science Daily, EurekAlert Horizon Magazine, European Law Enforcement Research Bulletin, European Security and Defence Union Magazine, Infosecurity magazine, Euractiv.
- **EU thematic platforms**: European Digital Media Observatory (EDMO), CERIS, ENLETS, EU DisingoLab, data.europa.eu

3.4.3 Open access

Regarding Open Access, the following routes have been proposed by Booster:

Green Road

- it consists of "self-archiving", or deposit in digital archives, and is always at zero cost for the author, who can continue to publish in his own traditional magazines of reference.
- The electronic version permitted by the publisher is deposited in an Open Access archive (disciplinary and/or institutional, for example IRIS or arXiv)
- The Jisc database (previously SHERPA-RoMEO) allows you to verify the copyright policies of publishers, i.e. which version can be deposited (generally the postprint) and any embargo.
- The green road does not require changing the editorial location (this allows compliance with any research evaluation criteria)

Gold Road

- It consists of publication in journals that adopt the Open Access model, registered in the Directory of Open Access Journals (DOAJ). Only 29% of magazines provide for the payment of “Article Processing Charges” (APC) to cover management costs

Diamond Road

- identifies Open journals that do not require any financial contribution, either from readers (subscription) or from authors
- this choice is considered as a sustainable path to open access, which puts the control of scientific communication back into the hands of researchers

A non-exhaustive list of trusted and transparent open access platforms and repositories, applying the **Open Review process** (being the recommended process in Horizon Europe), are included in **Directory of Open Access Journals (DOAJ)** and include, for instance, **Open Research Europe** or platforms applying FAIR principles to data accessibility (such as, **Zenodo**). In addition, the use of Academic social media (such as, Academia.eu, Research Gate) can be considered, with the following in mind:

- They offer the possibility to upload, publish and share with platform members
- It is necessary that the author of a content has maintained the right to share (as the exclusive owner of the rights of publication, reproduction, distribution and diffusion of his/her work; or because the content is unpublished or because it has been explicitly released with an Open license Access or public domain).
- If the rights have been assigned to a publisher, any method of dissemination of the content must always be agreed with them

Finally, the DIS service has strongly recommended utilising the **Horizon Results Platform (HRP)**, specifically for publicising / uploading our Key Exploitable Results, to enable stakeholders to engage with beneficiaries, directly or through NCP, and for the EC to learn from project results. HRP provides a resource for projects and their partners to showcase results, network and forge partnerships, and be discovered by investors seeking opportunities, and where policymakers can get valuable insights, and it improves project exploitation opportunities, proactively promoting projects.

3.5 Meetings and events

3.5.1 Key European and international events

The AVALANCHE consortium will strategically identify and participate in key European and international events to maximize the reach and impact of AVALANCHE. The schedule and format of these events will depend on the project's progress, available resources, and target audience. Conferences offer a valuable platform for showcasing AVALANCHE's research and connecting with key stakeholders that align with our focus areas, including hate speech, disinformation, deepfake detection, and secure information exchange.

3.5.2 Bilateral and LEA meetings

Bilateral meetings will be strategically organised to strengthen relationships with key stakeholders, with a particular emphasis on engaging LEAs. Priority will be given to connecting with LEAs to enhance collaboration and ensure effective dissemination of AVALANCHE’s outcomes.

AVALANCHE is supported by LEA partner SPP, in initiating and managing such strategic LEA meetings. These exchanges between LEAs will play a crucial role in expanding the project’s network and involving police forces beyond the consortium. Proactive outreach to external LEAs, particularly their cyber units, will support our goal of building a robust, collaborative ecosystem to combat hate speech, disinformation, and related digitally enabled crimes.

3.5.3 Other

In addition to conferences, and bilateral LEA-to-LEA visits, other event formats are explored to enhance the project's outreach. These may include webinars, workshops, and training sessions designed to target specific audiences and address their unique needs. The final selection of events and their formats will be determined based on careful consideration of the project's objectives and resources.

4. Execution up to M12

4.1 Assets' set-up

- **Branding and Visual Identity**: AVALANCHE's visual identity was developed and delivered in M3. It includes logo, colour scheme, brand guidelines, and templates for presentations, deliverables, and social media content. This ensures a consistent and recognisable image for the project across all communication channels.
- **Website Launch**: The AVALANCHE project website was designed, implemented, and published. Serving as the central information hub, the site provides updates on project developments, events, news, and publications, helping to reach a broad audience.
- **Social Media Activation**: AVALANCHE's LinkedIn profile is active, with initial content planning and management processes in place. This platform will support ongoing engagement with stakeholders and the wider professional community.
- **Monitoring of Dissemination and Stakeholder Engagement**: A master tracking sheet was created and shared across the consortium; this master file helps monitor and log dissemination activities across various channels and KPIs, with a strong focus on expanding AVALANCHE's stakeholder network. Consortium partners use this tool to document outreach efforts, types of activities conducted, and the audience reached, supporting both transparent reporting and effective evaluation of communication impact.
- **Additional assets developed by M12**: Rollup banner, One-pager, Poster, Project introductory video, supporting social media assets and templates.

4.2 Reporting of Y1 activities

4.2.1 Meetings, conferences and events

In Y1, several key dissemination and communication activities were carried out by consortium partners, summarised below:

- **Kick-off Meeting** — Athens (October 2024): The AVALANCHE project officially launched with its kick-off meeting in Athens, gathering all partners to align on objectives and set the stage for the 24-month journey ahead. The meeting marked the start of collaborative efforts toward developing advanced solutions for combating cybercrime and strengthening secure information exchange among law enforcement agencies.

- **CERIS Event** (January 2025): AVALANCHE was prominently represented by UBITECH at the CERIS event, hosted by DG HOME. This engagement provided an excellent platform to connect with policymakers, practitioners, and local authorities, promoting AVALANCHE's mission and exploring synergies with other initiatives in the EU's security and resilience landscape.

- **CEPOL Research & Science Conference** (April 2025): AVALANCHE was presented at the CEPOL Research & Science Conference in Ostia, Italy, engaging with law enforcement trainers and researchers across Europe. UBI showcased AVALANCHE's approach to empowering LEAs with advanced tools, while ensuring secure and trustworthy information exchange.

- **Plenary meeting in Amsterdam** (March 2025): AVALANCHE had its first plenary meeting, after its kick-off, in Amsterdam, NL. Project activities up to M6 were presented and technical issues, with a particular focus on requirements elicitation and analysis, discussed.

- **PRESERVE International Workshop on Civil Security & Proactive Threat Detection** (April 2025): AVALANCHE was actively represented by UBITECH and ITML at the PRESERVE International Workshop, hosted by KEMEA in Athens, engaging in dynamic discussions on civil security and proactive threat detection. The team presented AVALANCHE's innovative solutions and explored future collaboration and joint dissemination opportunities.

- **CERIS 2025 Projects to Policy Seminar** (June 2025): AVALANCHE was present in the 2025 Projects to Policy Seminar, organised by CERIS (the Community for European Research and Innovation for Security). Represented by project partners Ubisoft and ITML, AVALANCHE joined a group of EU-funded initiatives brought together to exchange knowledge and help align research outcomes with future EU security policy priorities. It was a valuable opportunity for projects, like AVALANCHE, to engage with policymakers, fellow researchers, and practitioners from law enforcement and justice communities.

- **Special Session at the 6th International Conference in Electronic Engineering and Information Technology (EEITE)** (June 2025): On June 5, AVALANCHE organised and hosted a Special Session at the 6th International Conference in Electronic Engineering and Information Technology (EEITE) in Chania, Crete, sponsored by IEEE and organised by the Hellenic Mediterranean University. The session was titled "AI-Powered Crime Detection and Prevention: Bridging Technology and Law Enforcement", and chaired by Eleni Veroni from Netcompany-Intrasoft, who also presented the paper "Addressing disinformation and deep fakes spread through AI-fuelled international collaboration", introducing AVALANCHE to the audience. In total, 5 papers by 5 EU-funded projects were presented during the session.

- [joint event] **4th NOTIONES Conference** (June 2025): AVALANCHE was present in the 4th NOTIONES conference which took place in Rome. It underscored the expanding role of Artificial Intelligence (AI) in security, emphasizing its transformative impact across various domains. A key objective was to facilitate knowledge-sharing among security professionals, providing insights into their recent experiences with AI-driven advancements in their respective fields.

- **Plenary meeting in Dublin** (September 2025): AVALANCHE has its third plenary meeting, in Dublin, Ireland. Project activities up to M12 are presented and technical issues, with a particular focus on the ongoing technical work towards the AVALANCHE MVP (within WPs4-5) discussed.

- [joint event] **AI4SAfeEurope cluster webinar** (September 2025): AVALANCHE organised and coordinated the 1st public webinar of the AI4SAfeEurope cluster in September. The webinar presented the cluster projects to the audience and ventured to explore how artificial intelligence, and advanced investigative tools can empower LEAs, policymakers, and civil society to detect, analyse, and counter these threats in an ethical and transparent manner, in a thematic discussion panel. 4 approaches were presented, by the AVALANCHE, FERMI, NOTIONES and GANNDALF projects, followed by a discussion roundtable. The webinar had 24 participants.

4.2.2 Formation of the AI4SafeEurope Cluster

Since M3, AVALANCHE has initiated a number of strategic synergies with similar European-funded projects addressing challenges in law enforcement, cyber and civil security. The result was the formation of the **AI4SafeEurope Cluster.**

AI4SafeEurope brings together some of the most innovative Horizon Europe projects working at the intersection of **AI, security, and law enforcement**. United by a shared mission to support LEAs,

policymakers, and security stakeholders across Europe, the cluster fosters collaboration, joint dissemination, and strategic alignment among eight cutting-edge initiatives.

AI4SafeEurope leverages the **Booster** EU-funded initiative to amplify its collective impact, share knowledge and tools, and support a coordinated outreach.

Initiated, created and coordinated by **AVALANCHE**, this cluster, *aside from AVALANCHE*, comprises the following projects (8 projects total):

- **CEASEFIRE**: Fights illicit firearms trafficking with AI-based tools for online monitoring, in-field detection, and cross-border intelligence sharing.
- **ENSEMBLE**: Tackles cross-border cybercrime using explainable AI, collaborative investigation tools, and real-time threat monitoring.
- **FERMI**: Develops tools for understanding and mitigating offline risks stemming from online disinformation, radicalisation, and fake news.
- **GANNDALF**: Enhances cybercrime detection and investigation with modular decision-support tools, secure data-sharing, and cyber hygiene resources.
- **NOTIONES**: Establishes a practitioner–researcher network to monitor and assess emerging intelligence and security technologies.
- **PRESERVE**: Builds privacy-aware AI tools for proactive threat detection and behavioural risk analysis to support LEAs.
- **PRESERVE C-UAS**: Delivers a counter-UAS platform enabling police authorities to detect and manage drone-based threats in public spaces.

The cluster projects are united by common themes, particularly in (a) detecting threats & disinformation by monitoring online narratives, malicious content, and emerging risks; (b) conducting secure investigations with AI-driven, forensically sound, and cross-border collaboration tools; (c) protecting borders & societies by countering hybrid threats, organised crime, and safeguarding democracy; (d) tackling cyber & organised crime; and (e) ensuring ethical & trusted AI deployment and usage.

To operationalize this cluster:

- A **dedicated SharePoint folder** was created within AVALANCHE's workspace to facilitate knowledge sharing and to align efforts across projects.
- **Monthly telcos** were established, where projects discuss upcoming events, collaborative opportunities, and track progress on joint actions.
- AVALANCHE applied to and was accepted for BOOSTER **Service 3.2 – Portfolio Analysis**, which is currently supporting the cluster's coordination and strategy design. After the HRB-supported period ends, IML (Task Leader of T9.1) will assume ongoing coordination of the cluster.
- IML also prepared **shared templates and KPI tracking files** to ensure consistency in documenting joint activities, publications, events, and stakeholder engagements.
- A Cluster brand pack and visual identity was developed with the help of Booster, including the official logo and presentation template illustrated below (*Figure 7, Figure 8*).

- Joint content and publications are pursued to maximise knowledge and results sharing. Our first AI4SafeEurope joint newsletter has already been published and disseminated.
- Joint events & collaboration in the form of co-organised webinars, workshops, conferences, for maximising visibility and influence, including in digital Presence, e.g., in project websites, social media, tools, etc. Joint D&C material and calendar. The latest cluster event was the **AI4SAfeEurope cluster webinar**, which was organised and coordinated by AVALANCHE.

Figure 8: The official AI4SafeEurope logo, developed as part of the cluster's brand identity with support from the Horizon Results Booster

Figure 9: The opening slide of the AI4SafeEurope presentation, showcasing the visual identity applied in cluster communication and dissemination material

These actions mark the beginning of a structured, long-term collaboration across complementary initiatives, maximizing dissemination impact, knowledge exchange, and uptake of project results in civil security operations.

4.3 Planned Y2 activities

- **[upcoming] 1st AVALANCHE Hackathon: Co-Creating Civil Security Innovation** (8-9 October 2025): AVALANCHE organises its first 24-hour sprint of coding, and domain-related problem-solving, scheduled to take place on 8–9 October 2025, and extends an open invitation to developers, data scientists, researchers, and tech-savvy security experts to collaborate. A unique challenge has already been agreed upon to form the basis for the hackathon, inspired by AVALANCHE's core themes. It will be disclosed to the participants on the first day of the event.
- **[upcoming] Presentation of AVALANCHE to the EU Innovation Hub for Internal Security** (14 October 2025): AVALANCHE will be presented to the Hub Team in one of the regular Hub Team meetings. The Hub Team is composed of representatives of EU Justice and Home Affairs Agencies, who deal with research and innovation.
- **[upcoming] ACM MM Dublin 2025 - DHOW Workshop** (27-31 October 2025): AVALANCHE will participate in the "Diffusion of Harmful Content on Online Web" workshop of the 33rd ACM International Conference on Multimedia (ACM MM) that will take place on 27-31 October 2025 in Dublin, Ireland. ACM MM is the premier international conference dedicated to advancing research and applications across diverse multimedia fields. Mariza Konidi from UBITECH will present a paper titled "A Perturbation-Theoretic Model for Fact-Checker Deployment in Dynamic Disinformation Networks".
- **Joint Online Workshop, planned with Hybrid Threats Cluster** (planned for Q4 2025)
- **AI4SafeEurope Cluster Coordination & BOOSTER Support (Ongoing):** Following the successful application to BOOSTER Service 3.2 (Portfolio Dissemination), AVALANCHE (via IML) will coordinate monthly virtual telcos, maintain a shared collaboration folder on SharePoint, and align upcoming events and joint outputs. Once BOOSTER coordination support ends, IML will assume responsibility for managing the AI4SafeEurope cluster.
- **Joint AI4SafeEurope Cluster Activities**
    - Co-organisation of hackathons and demonstration events.
    - Joint white papers and scientific publications.
    - Common sessions at EU-level conferences (e.g., CEPOL, CERIS, AI4EU).
    - Contribution to standardisation and policy alignment efforts with LEAs.
    - Participation in EU Clusters (e.g., Cluster 3 initiatives).
- **Cross-dissemination of AVALANCHE & Cluster Results:** Shared promotion via each project's communication channels (social media, newsletters, events), including uploading public outcomes to platforms like Innovation Radar and the Horizon Results Platform.

4.4 Branding

Project branding is essential in any funded R&D initiative since it provides a positive visual and psychological wrapping to project messaging and helps relatability by stakeholders.

It also helps to differentiate the project from competition and convey key messages in an attractive way. Finally, it builds trust, helping stakeholders associate the project with visually pleasing and quality work.

Section 5 of this internal report presents AVALANCHE's visual identity and its associated creative assets in the form of a 'brand kit'. This comprehensive creative approach is to be followed throughout all of the project's digital presence, and printed media, including the website, social media, newsletters, dissemination and promotional material, communications, publications and more.

4.4.1 Logo and visual identity

In this section we will present the contents of the brand kit developed during the first six months for AVALANCHE.

Figure 10: The AVALANCHE logo

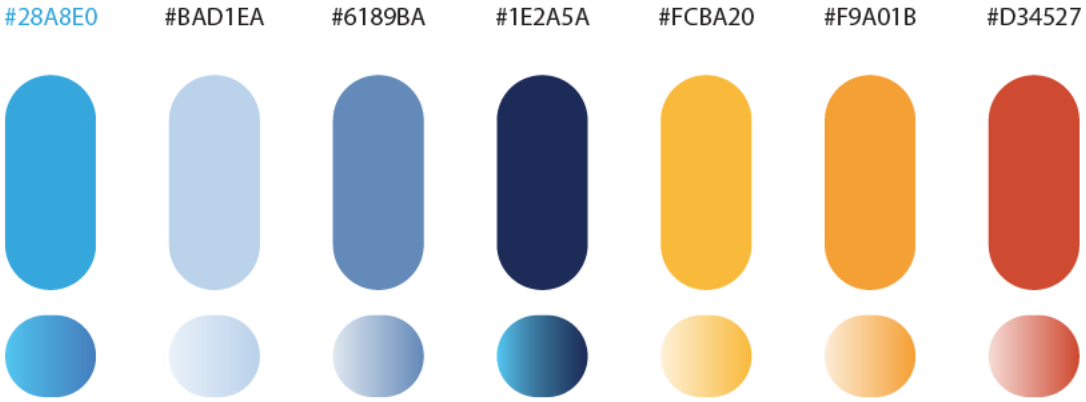


Figure 11: The AVALANCHE colour palette

Figure 12: Inverted colours logo

Figure 13: Initial proposed logos (not selected)

4.4.2 Print material

Figure 14: Indicative print applications

Figure 15: AVALANCHE poster

Figure 16: AVALANCHE rollup

4.4.3 Supporting assets and templates

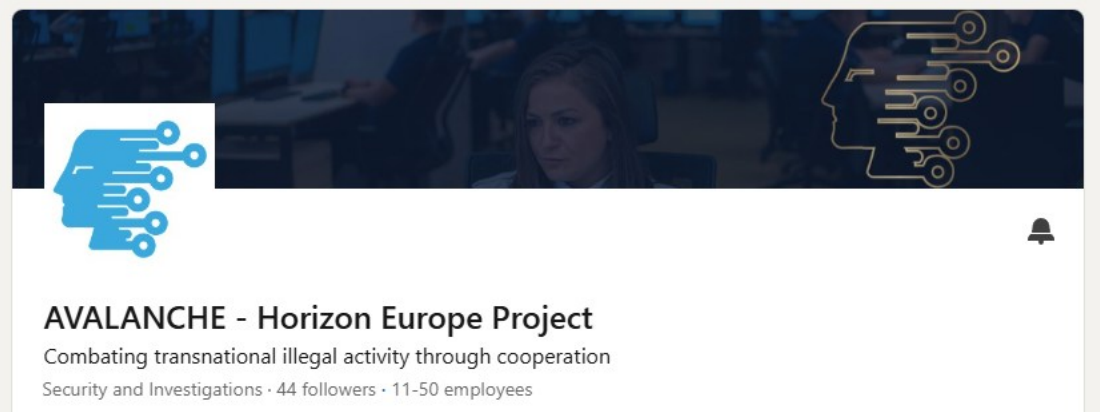
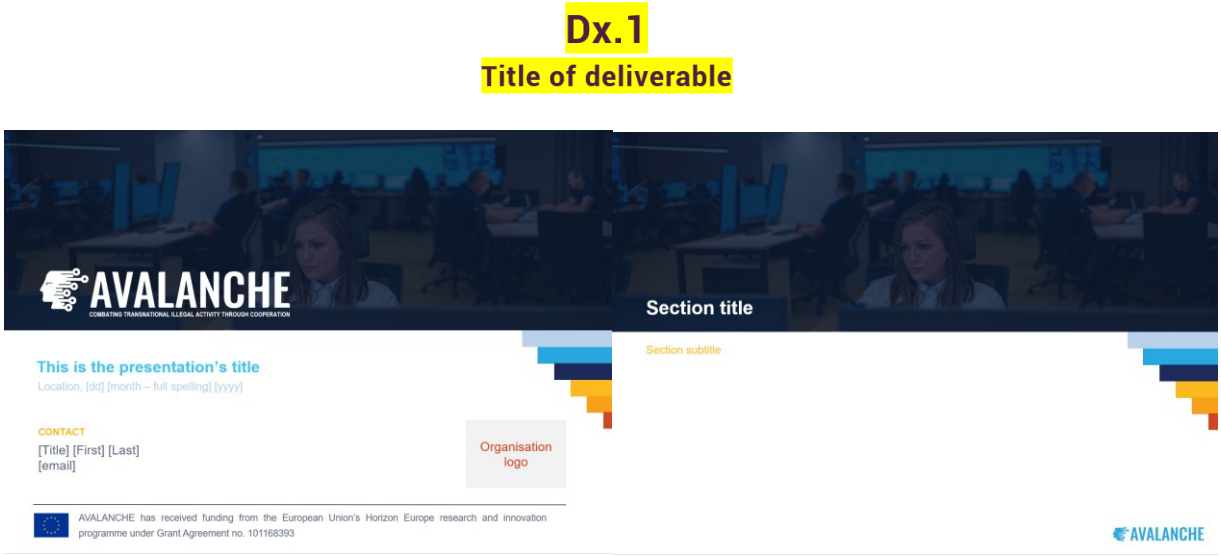


Figure 17: Social media profile pictures and header images



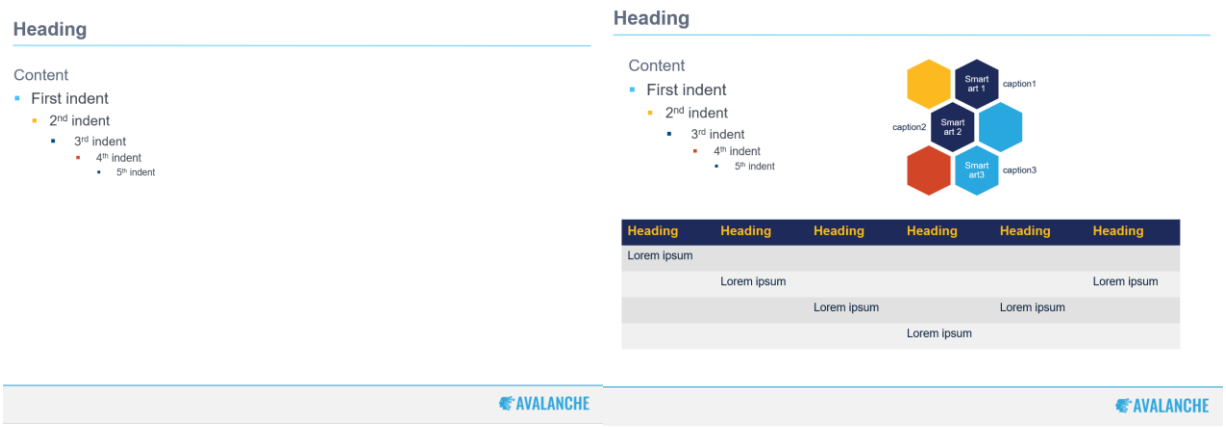


Figure 18: Deliverable and PPTx templates

Also delivered:

- Meeting agenda digital document template
- Meeting minutes digital document template

5. Results of the Booster Dissemination Support (DIS) service

5.1 Introduction

AVALANCHE has made full use of the Horizon Results Booster, and particularly Service 2.1 (Dissemination Support / DIS) which coincides with the submission of D9.1. This service has assisted us in strengthening our dissemination strategy and plan as well as carrying it out. We also received coaching and support, based on different perspectives, which we consider having positively impacted our dissemination results.

5.2 Key findings and summary

Based on the actions carried out by the DIS service delivery team together with AVALANCHE, the following findings were highlighted in the service's final report:

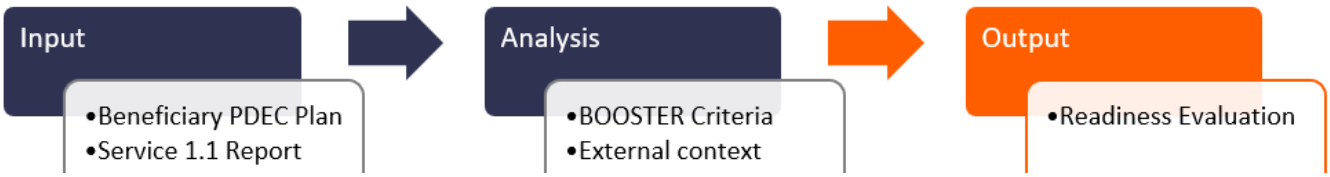
- **Stakeholder database**: an initial database and tracker for stakeholders has been created, otherwise a support in enhancing the project's network and engagement with a focus on LEAs, SMEs, Researcher, Policy Makers, Standardisation and certification bodies to leverage external networks is needed.
- **Mobilisation of Associations/Networks/Platforms**: An initial mapping of relevant networks and platforms from other similar projects has been started; however, further refinement is needed to optimise matchmaking, organise events, and joint ones, and leverage dissemination opportunities.
- **Targeted dissemination formats**: The project requires support in identifying which communication channels use (Newsletter, SoMes, website), or tailored outreach strategies, to enhance engagement with target audience and to reach adopters/customers.

According to the report, the above findings lead to the following overall assessment by the DIS service: **AVALANCHE is an IA (type), H2020 (HORIZON-CL3-2023-SSRI-01-02) with TRL 7-8 and maturity level 1**. Moreover, the DIS service delivery team suggest implementing the following actionable recommendations to maximise the Booster effect:

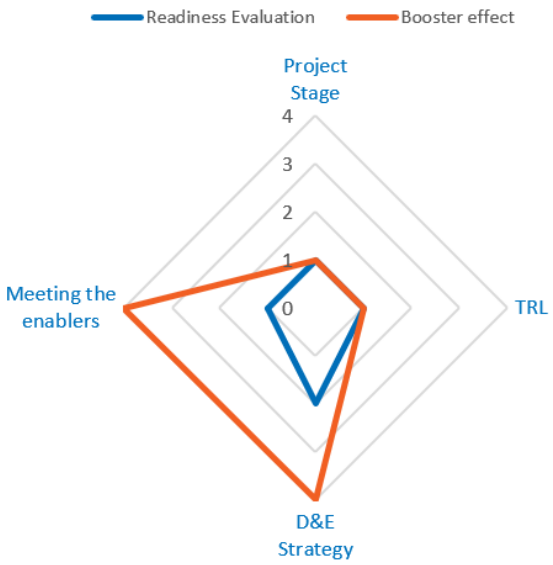
(a) Identification of relevant targets
(b) Planning and strategic improvement
(c) Review of the D&E activities
(d) Supports in meeting the enablers
(e) Execution

5.3 Dissemination Readiness Assessment

The final 2.1 DIS service report conducted a Dissemination Readiness Assessment for AVALANCHE, where the Booster team identified and evaluated the gaps and points of improvement of our dissemination plan. The Booster will support and coach us based on this assessment and its prioritised areas. The process followed is outlined in the following graph:



The visual representation of the analysis which displays the readiness assessment carried out for AVALANCHE is shown below, in juxtaposition to the projected effect of the Booster services, on the prioritised areas of improvement:



Out of this assessment and, considering the exchanges with the Booster team, the following considerations are drawn in the DIS final report:

High Priority Criteria

- **Stakeholder Database**: Main target audiences have been identified at the project level, but further refinement is required to better align dissemination and exploitation of Key Exploitable Results (KERs) with those audiences.
- **Link to Policy Context**: There is a need to develop concise, targeted messaging that effectively maps AVALANCHE's KERs to key EU security policies and strategies (e.g. organised crime, cybersecurity, digital sovereignty) to enhance policy relevance and support joint policy briefs.
- **Open Access Strategy**: Open access KPIs are clearly included in the Dissemination Plan, including those related to OA journals. However, more strategic use and monitoring of these indicators could enhance compliance and visibility.
- **Events Participation**: A strategic event calendar is needed to prioritise high-impact opportunities. Greater focus is required on selecting events that align with the project's target audiences and can boost dissemination impact.
- **Mobilisation of Associations/Networks/Platforms**: Initial mapping has been completed but requires further development to strengthen engagement with key networks and platforms relevant to the project's domain.

Medium Priority Criteria

- **Targeted Dissemination Formats**: Support is needed to further develop tailored dissemination items and formats to effectively reach and engage identified audiences.
- **IP Measures Identified**: Assessment of KERs for dissemination purposes needs improvement, particularly as the project is still in its early stages.

- **Multi-Channel Approach**: The current approach lacks a structured dissemination plan across channels. A more strategic framework is required to coordinate messaging and maximise outreach across multiple platforms.
- **Clustering**: A named project group is already in place and joint activities have begun. Continued efforts are needed to ensure consistency and added value from clustering and cross-project collaboration.
- **Pitching/Public Speaking**: There is an intention to build capacity in this area, particularly in the context of clustering. Concrete actions to improve public speaking and presentation of the project would strengthen outreach.

5.4 Recommendations for improvement

In its final report, the DIS Booster service delivery team, together with us, have identified the following D&E activities as with High priority level for AVALANCHE to receive support and recommendations for further improvements. The table below provides with recommendations and guidelines for AVALANCHE to improve its D&E strategy.

Technical Criteria	Priority	Readiness score	Booster Effect score	Recommendations
D&E Strategy Outline				
Stakeholder database	High	3	4	✓ Expand the database with a particular emphasis on identifying and including key stakeholders within LEAs, public authorities, and governmental bodies. This approach ensures that the database reflects the full spectrum of relevant institutional actors, thereby enhancing the strategic reach and operational relevance of the initiative. ✓ Leverage external networks by making use of the NET service, including established connections with governmental associations, in order to identify appropriate and high-value contacts. This will facilitate more targeted outreach and strengthen the overall ecosystem of collaboration. ✓ Make effective use of LinkedIn and participation in sector-specific events to validate existing entries and further enrich the database. This will help ensure that the most relevant individuals are being engaged and that the database remains current, accurate, and aligned with strategic objectives.
Link to Policy Context	High	2	3	✓ Expand AVALANCHE's presence at relevant policy-focused and cyber-terrorism or cybersecurity events, including conferences and workshops. This increased visibility will not only raise awareness of the project's objectives and outcomes but also facilitate direct engagement with influential stakeholders and decision-makers within the field.

				✓ Conduct targeted matchmaking activities in collaboration with sector-specific associations, as these will offer valuable opportunities to access new and strategically relevant stakeholders. Such efforts can support the development of meaningful partnerships and enhance the project's impact within specialised communities.
Targeted dissemination formats	Medium	3	4	✓ Invest in the creation of high-quality multimedia content—such as short explainer videos, informative presentations, and clear infographics—to communicate complex concepts in a more accessible and engaging manner. This approach will support broader understanding across diverse audiences, facilitating wider dissemination of key messages and outcomes. ✓ Develop targeted communication materials that are specifically tailored to the needs, interests, and levels of expertise of each stakeholder group. By aligning content with the priorities of different audiences, this strategy will enhance relevance, increase engagement, and improve the effectiveness of stakeholder outreach.
Open Access Strategy	High	1	2	✓ Ensure that the AVALANCHE strategy remains dynamic and continues to evolve throughout the entire project lifecycle, adapting to emerging needs, challenges, and opportunities. Furthermore, provisions should be made to maintain and actively implement this strategy beyond the project's conclusion, in order to maximise the long-term visibility, uptake, and sustained impact of its results. ✓ Establish a mechanism for periodic review and stakeholder feedback to inform strategic adjustments over time. This will support ongoing relevance, foster stronger stakeholder alignment, and enable the strategy to remain responsive to both internal developments and the broader policy and technological landscape.
Meeting the enablers				
Multi-channel approach	Medium	3	4	✓ Emails and newsletters should include clearly visible links to AVALANCHE's official social media channels, such as LinkedIn and X, in order to enhance visibility and foster cross-platform engagement. This integrated approach will encourage recipients to connect with the project across multiple communication streams, strengthening outreach and audience retention.

				✓ Address different type of stakeholders based on the channel used. This will help to produce different type of contents and engage the users accordingly. ✓ Incorporating selected social media snippets or highlights directly within newsletters will serve to draw attention to key updates and encourage readers to engage further on social platforms. This strategy is intended to increase traffic, stimulate interaction, and reinforce consistent messaging across all channels.
Clustering	Medium	4	5	✓ Strengthen and formalise the initial clustering efforts by advancing collaboration with the identified projects — FERMI, GANNDALF, CEASEFIRE, ENSEMBLE, NOTIONES, and the two PRESERVE initiatives. This should include the co-design of joint dissemination activities, alignment of policy engagement opportunities, and the definition of shared objectives to ensure meaningful and sustained knowledge exchange across initiatives addressing complementary domains. ✓ Amplifying Cluster Visibility: AVALANCHE leads the AI4SafeEurope Cluster, comprising 8 Horizon Europe projects. We seek support in developing a common narrative and visual identity for this cluster, enhancing joint visibility through shared newsletters, events, and publications. ✓ Proceeding with Service 3.2 and evolving the current cluster webpage to feature more results-oriented content, including information on participating projects and their Key Exploitable Results (KERs). Organise joint webinars or events to further reinforce cluster visibility and promote collaborative outcomes.
Pitching/Public speaking	Medium	1	2	✓ Strengthening AVALANCHE's pitching capabilities is essential for effectively communicating its value proposition, thereby increasing the likelihood of securing strategic partnerships and additional funding opportunities. This includes refining messaging, tailoring presentations to diverse audiences, and ensuring that all communication materials clearly convey the project's impact, innovation, and relevance within the broader security and policy landscape. ✓ Consider developing a set of adaptable pitch decks and briefing materials tailored to specific stakeholder types—such as policymakers, investors, research institutions, and private-sector partners—to support more targeted and persuasive outreach efforts. This will enable the project to present itself with clarity and

				confidence in varied contexts, reinforcing credibility and alignment with stakeholder priorities.
Events participation	High	3	4	✓ Expanding AVALANCHE's presence at relevant policy-oriented and cyber-terrorism or cybersecurity events, conferences, and workshops—such as the Notions Conference, the 8th AAAI/ACM Conference on AI, Ethics, and Society (AIES 2025), and the European Conference on Artificial Intelligence (ECAI 2025)—will facilitate direct engagement with potential adopters of the platform. Active participation in these high-level forums will not only raise the project's visibility among influential audiences but also provide valuable opportunities to showcase AVALANCHE's innovations, build credibility, and foster relationships with stakeholders who are well-positioned to support uptake and implementation.
Mobilisation of Associations/Networks/ Platforms	High	2	3	✓ AVALANCHE can significantly enhance its outreach efforts by proactively engaging with pertinent law enforcement and EU policy networks, including EMPACT, Interpol, and various LEAs. These established platforms offer valuable opportunities for facilitating matchmaking activities, organising joint events, and conducting coordinated dissemination efforts. Through such collaboration, AVALANCHE can effectively increase awareness of its innovations and promote broader adoption across relevant institutional and operational contexts.

6. Exploitation Plan

The AVALANCHE Exploitation plan is designed to guarantee the effective protection, accessibility, and potential commercialization of the project's results. It is presented in the following subsections.

6.1 Introduction

To ensure that the project's technological innovations, tools, and methodologies are effectively transitioned from research outputs into operational use, particularly among LEAs and other security-focused stakeholders, we have developed an exploitation and innovation management plan from the project's inception. We focus not only on the identification of Key Exploitable Results (KERs) but also on the alignment of these results with the real-world commercial needs of targeted end users.

6.1.1 Objectives

The purpose of the strategy is to facilitate the successful innovation of exploitable results and generate value. The key objectives are as follows:

- **Identify and Analyse Exploitation Results**: We will assess the AVALANCHE Key Exploitable Results (KERs) to determine their maturity, commercial relevance, and alignment with existing or emerging market needs across law enforcement, cybersecurity, and digital investigation domains.
- **Develop Business Models for the Integrated Platform and Key Exploitable Results**: We will define business models that are customized for the AVALANCHE platform and its individual components. These models will include options such as licensing, commercial service offerings, joint ventures, or spin-offs.
- **Define the Exploitation Intentions per AVALANCHE Partner**: Along with the business models per Key Exploitable Result, NET also will identify, structure and present the individual exploitation intentions of each AVALANCHE partner based on their respective roles, capacities and strategic interests.
- **Define the Exploitation Strategy for the AVALANCHE Platform**: NET will offer a detailed plan on how the AVALANCHE platform will be used, including which results will be commercialized by which partners, potential pathways for technology transfer and methods to ensure long-term sustainability. This procedure also includes the coordination and integration of the IPR Strategy, to ensure clarity on background/ foreground rights and future access.

6.1.2 The Horizon Result Booster service

In addition to our internal exploitation efforts, we applied in April 2025 for the Horizon Result Booster service, which is funded by the European Commission and aims to increase the exploitation potential of EU-funded Research & Innovation projects. When the Key Exploitable Results are more mature and prepared for a structured exploitation planning and market alignments, the Go-to-Market service (SP3) will be launched during the project's next phase, which is expected to begin in March 2026.

This support will include:

- Exploitation Planning Meetings led by a dedicated HRB expert
- Structured templates and tools (see Figure 19) provided by HRB to record exploitation intentions and partner-specific strategies
- Exploitation Strategy Webinars and Coaching Sessions
- Guidance on developing potential joint exploitation strategies among project partners

Exploitation intentions table

Project Acronym	AVALANCHE
HRBOOSTER Expert	PAOLA AMATO

Version	Date	Elaborated by	Notes
V0	04/04/2025	PAOLA AMATO	BOOSTER TEMPLATE (10/03/2025)
V1			
V2			

To be filled in for each of the proposed KERs (Please use a single document for ALL KERs and do not split in separate word files)

KER name:	Input from the Beneficiary
Description	*[Describe in a few lines what your KER and/or solution is (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple words, avoid acronyms.*
Target market/ end users	*[Describe the market in which your product/service will be used/can "compete by", answering the following questions:* *- What is the target market?* *- Who are the customers/end-users?]*
Competitive advantages	*[Describe the competitive advantages of your KER: how much better does your KER solve the end-users' needs/problems compared to competition?* *What distinguishes the KER from the competition/current solutions?]*
Use model	*[Explain how the KER will be put into use (E.g.: manufacturing of a new product, provision of a service, technology transfer, licensing, contract research, publications, standards, etc.* *Note: training is a service). Specify who are the early adopters/customers]*
Partners	*[List the partner(s) willing to exploit the KER after the end of the project]*
Timing	*[What is the time to market?]*
IP status	*[Is IP management relevant for the KER? Is there an agreed strategy for this?]*

Figure 19. Exploitation Intentions Table HRB Template

The Go-to-Market service will help NET, and the AVALANCHE consortium in general, in strengthening the exploitation part of the project. More specifically, through expert guidance and their structured tools, we will refine and prioritize the most likely Key Exploitable Results (KERs), aligning them with real-world needs in both the private and public sectors. The HRB expert will guide the partners on how to develop targeted business plans and clear exploitation roadmaps that are tailored to the market potential and characteristics of each result.

The HRB process is important because it will make sure that all planning for exploitation follows European Commission standards and policy expectations. It will also help with long-term sustainability by making clear who owns what, who has access to it, and how the results will be kept up when the project is over.

Overall, this organized, and expert-driven support will improve the project's ability to move from technical validation to practical and real-world impact, enabling AVALANCHE results to reach relevant stakeholders in a meaningful and actionable way.

6.1.3 AVALANCHE Exploitation Phases

The exploitation of AVALANCHE results is organized into phases (see Figure 20) designed to systematically identify, assess and prepare Key Exploitable Results (KERs) for real-world applications. This approach helps not only each partner, but also the whole consortium, to make decisions that have long-lasting effects.

During the first phase, we aim to map the AVALANCHE exploitable results, identifying and documenting the project results that could have exploitation potential. This procedure is supported by the AVALANCHE Innovation Management Log, a living document maintained by NET and WP Leaders, that we use to capture up-to-date progress on exploitable results, including leading partners, IP protection type, and target customers, among others. Using the Innovation Management Log, the Task leaders analyse activities within technical tasks to spot innovations and create a comprehensive record.

Following the AVALANCHE results identification phase, we move on to defining paths for both joint and individual exploitation. At this phase, we utilize the results from the internal exploitation survey, which gathers strategic interests, preferred exploitation models, and partner intentions. The survey results are analysed in order to distinguish between KERs that are suitable for individual exploitation and those that may benefit from joint or collaborative approaches across consortium. All AVALANCHE partners must design their individual exploitation paths, while NET will coordinate the updating of business views per exploitable result. These activities will be facilitated by the IPR Management Log (which will be further analysed in the AVALANCHE Methodology and Business Tools section), along with ad-hoc communications and teleconferences to define potential market roadmaps based on partners' business goals and resources. Based on the log inputs and the survey results, NET will develop tailored business models per KER and per partner. These models focus on specific customer segments, target markets, value propositions, and potential revenue streams. Each business model is partner-customized since it depends on the type of product, the intended users, and the partner's strategic role.

The next phase focuses on the overall Exploitation Strategy definition. This includes the integration of both joint and individual exploitation plans into a unified and clear structure. This way, all partners are aligned while also respecting the specific goals and constraints of each organization involved

During the next phase, we will utilize the Horizon Results Booster (HRB) service to further refine the AVALANCHE Exploitation Strategy. As mentioned in the dedicated section (see The Horizon Result Booster service section), the service includes coaching from experts on topics including intellectual property positioning, market readiness, and go-to-market strategy.

Finally, all exploitation-related activities end with the creation of a Sustainability Strategy. In this phase, all the validated results, business models, and exploitation intentions are combined into a final roadmap, that will be documented in Deliverable D10.1 - Final Communication, Dissemination & Exploitation Report (M24). This roadmap will be used as a guide for continuing, expanding, or moving the AVALANCHE results beyond the project's end.

Figure 20 - AVALANCHE Exploitation Phases

6.1.4 Potential Exploitation Paths

Exploitation in EU-funded projects refers to the process of turning the project results into impactful and long-lasting outcomes, such as knowledge, databases, processes and tools. These outcomes could have commercial, scientific, technological or societal value. As the lead for exploitation activities, NET will make sure that all AVALANCHE partners will define their own exploitation strategies. To facilitate this procedure, we will assess some of the most typical potential exploitation paths that are presented below and are the most recognized ones under the Horizon Europe frameworks and innovation best practices:

- **Market**: The partner wishes/offers the opportunity to sell the asset by using their pre-existing sales channels to promote it to potential client networks. (Ownership of the asset is unnecessary; the partner may request permission to sell someone else's asset through a license agreement, etc.) This is a commercial intention of selling an investment.
- **Technical Creation**: The partner wishes to produce the asset with their expertise (regardless of whether they will sell it later). This is a technical development intention.
- **Use and Upgrade**: Use and upgrade this asset (as a part) towards the creation of a new product or service that will use parts of it, and after entering the partner's portfolio of offered solutions, will be sold or promoted for free to stakeholders for beneficial impact (after the project's end).
- **Open Solution**: Partner intends to publish/post the software/solution for free use. Either as open-source code, as freeware (free to use but with no source code included), as "Freemium" (free to use with limited functionalities and a potential paid version with upgraded features later), or as other "similar" open type.
- **License**: Partner wishes to consider opportunities to License/Assign their asset or knowledge on the asset to 3rd parties that want to exploit it for an agreed fee (typical for Universities and Non-profit Organizations that do not have a Sales Force).
- **Internal**: The partner foresees opportunities for internal use and expansion or replication in the future. For example, more studies and trials (more profound, more comprehensive, etc.) are typical for Pilots, Trials, Demonstrations, industries offering infrastructure, etc. Example: We might create new internal processes based on what we learned.
- **Research Further**: Journal/Conference Publications/ other research initiatives/ participation in new Horizon Europe projects, etc.

- **Publish and Promote**: Publish and promote (other non-scientific Publications) Handbooks, Best Practices, Guidelines, Presentations, Multimedia/ Videos, Books, Charts, etc.
- **Dataset**: Partner would like to exploit the datasets of a particular result or pilot trial through online marketplaces for new experiments, further research, consulting services, etc.
- **Training**: Due to their deep knowledge of the asset, the partner wishes to produce Training Material and offer related Training Services/Methods (online test, webinar, printed, etc.)
- **Services**: The partner is willing to provide Services and even get paid for their person-hours, if possible (complementing the asset), such as Consulting, Lectures, Technical Integration, Support, Maintenance, or other Added-Value Services around the main asset.
- **Governmental/ Sectoral**: The partner has links and can promote the result to Governmental/ EC Policy Recommendations or contribute to Standardization Bodies and Associations. This can also be in clusters and associations working around the project subject (for example, AIOTI, BDVA, ETSI, DIH digital innovation hubs, etc.)
- **Network**: Create new methodologies, frameworks, best practices, guidelines, optimizations and improvements in methods that will be promoted and distributed accordingly to adopters and recipients who can benefit from them after the project. Also, the partner wishes to expand the "network and community" around the asset. Example: attract more users or data providers around it or within a Marketplace, Association, Innovation Hub, online community, etc.

6.2 AVALANCHE Innovation and IPR Management Strategy

6.2.1 IP Awareness

In the early stage of the project, it is important to ensure that all partners understand well the AVALANCHE-specific IP details. The IP understanding includes all the crucial IP provisions that were outlined in both the Grant Agreement and the Consortium Agreement, regarding each partner's responsibilities, IP ownership and access rights. In order to reduce the potential of IP conflicts, this phase attempts to create a common framework for IP management among all partners. The consortium will have a common basis thanks to the well-defined IP terms, which will promote productive cooperation and reduce the potential of IP disputes.

Access Rights

The AVALANCHE Consortium Agreement provides a detailed definition of access rights. This deliverable just emphasizes a few of the most important definitions that are relevant to access rights in Horizon Europe programs for both Background and Foreground IP during and after the project. This does not in any way replace the Consortium Agreement.

Access to Background IP

During Project

Implementation

Granted as required for project implementation, subject to any pre-established limitations set in Attachment 1 of the Consortium Agreement. Such access is royalty-free unless otherwise agreed.

Post-Project

Commercial Exploitation

Depending on prior arrangements, licensing terms for commercial exploitation involving Background IP after the project may include royalty-based or royalty-free agreements and must be negotiated between the involved parties.

Internal Research and Teaching Activities

Use of background IP for internal research or teaching activities post-project is generally allowed under fair and reasonable terms, under appropriate recognition and compliance with any requirements specified in the CA.

Access to Foreground IP

During Project

Implementation

Granted to all partners for completing their project-related activities, ensuring efficient collaboration and innovation development.

Post-Project

Commercial Exploitation

Access rights to another partner's Foreground IP for commercial exploitation purposes after the project can be granted under fair and reasonable terms. Such agreements may include licensing arrangements with appropriate compensation.

Internal Research and Training Activities

Unless agreed otherwise, each joint owner may conduct non-commercial research and teaching activities that involve jointly owned results on a royalty-free basis, without the need for prior consent from the other joint owners.

Third-Party IP Management

When third-party IP is included in foreground IP, partners must:

- Disclose dependencies and limitations on derivative works
- Comply with data security and confidentiality agreements
- Ensure adherence to license agreements that cover third-party IP contributions

6.2.2 IP Portfolio

After the initial phase of IP understanding, NET will develop the AVALANCHE IP Portfolio using the Innovation Management Log methodology to create a catalogue for the project's results. For this process we will use this log that is a structured tool designed to systematically record and monitor each partner's contributions, identify Background and Foreground IP and Exploitable Result (see section Innovation Management Log for additional information). The Innovation Management Log aims to collaborative decision-making over shared ownership and use of intellectual property. This will be a continuous exercise, with all partners identifying IPR-protectable results during the project, under WP 9 progress analysis, utilizing the AVALANCHE Innovation Management Log.

AVALANCHE Methodology and Business Tools

The methodology we followed to identify, monitor and assess the AVALANCHE Exploitable Results (ERs) and Key Exploitable Results (KERs), as well as the tools and principles applied throughout the process are based on a series of world-renowned tools on business planning, marketing and strategic plans. This integrated approach utilizes digital tools and strategic processes to guarantee that the development, ownership and exploitation potential of project results are consistently and transparently monitored throughout the consortium.

This methodology relies on dedicated tools for systematic management and assessment: the Innovation Management Log ensures collaborative and organized documentation and tracking of Background IP and Exploitable Results, while the Online Exploitation Survey collects strategic input from partners to

guide exploitation intentions and commercialization paths. NET combines these tools to efficiently support the decision-making process, maximize the commercial and strategic value of Exploitable Results and promote synergies among partners.

Innovation Management Log

The Innovation Management Log serves as the primary collaborative tool for managing Innovation Property Rights within the AVALANCHE project. This dynamic online document enables all partners to record, monitor and update information on Background IP, Exploitable Results and their ownership, and ensures transparency through continuous documentation of all IP-related changes, providing visibility on IP creation, ownership, usage rights, and licensing conditions.

The Log is updated every six months to capture the latest project developments and ensure that the IP portfolio appropriately represents the current status. It enables collaborative decision-making by offering a unified platform for all partners to achieve consensus on joint ownership and exploitation strategies. Additionally, it ensures that the project's intellectual property is used in a fair and legal way, with licenses selected to protect the IP while allowing collaboration between the partners. In other words, the Innovation Management Log is one of the key tools for managing AVALANCHE IP and maximizing the project's valuable results, both presently and in the future.

Log Structure

The log is divided into two main and two secondary tabs (see Figure 21), each of which contains specific columns that are intended to capture pertinent information. Detailed descriptions of each tab and column are provided below:

Main Tabs

Background IP: Captures detailed information regarding the Intellectual Property (IP) brought into the project, including its classification, ownership, and potential for further exploitation.

AVALANCHE Exploitation Template: This tab documents the exploitable results produced during the project, classifying them based on the exploitation models and providing the necessary information for their utilization.

Secondary Tabs

Definitions: This tab serves as a reference guide for users to guarantee consistency and clarity in interpretation by providing foundational definitions and explanations of key terms utilized throughout the log.

Exploitation Models: Provides a comprehensive list of potential exploitation approaches, classified by type, to assist users in identifying appropriate strategies for leveraging project results.

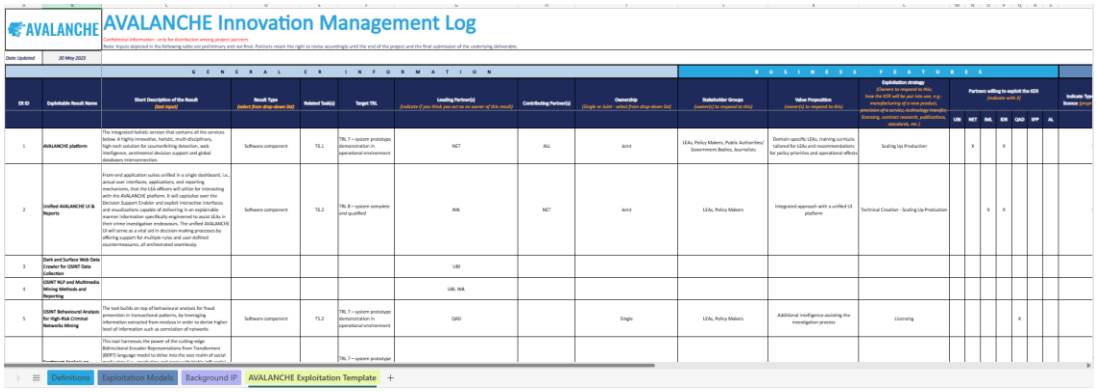


Figure 21. AVALANCHE Innovation Management Log

The log tabs have been designed with an easy-to-use layout to support tasks like filtering, sorting, and searching. This structure ensures that all important data is organized systematically for efficient access and decision-making. This organization makes it easy to keep track of innovation assets and plan their effective utilization within and outside of project constraints.

Key Log Definitions

Background IP

Any knowledge, data, or technology (including patents, software, or trade secrets) that a consortium partner owns prior to the project's start and contributes to the project. Background IP remains the property of the original owner but may be shared under agreed conditions.

BG IP ID

A unique identifier for each background IP entry.

Background (BG) IP Name

The name of the background IP.

BG IP Description

A brief description of the background IP.

BG IP Type

The type of background IP (e.g., data, know-how, information, integration, components, etc.)

Leading Partner(s)

The primary organization(s) responsible for the development and management of a specific Background/ Foreground IP or Exploitable Result.

Indicate type of protection/ license

Details on any licenses or protection measures in place for the background IP.

Condition of use within the project by the rest of the partners

Specifies the terms under which other partners can access and use the result during the project, such as free use, licensed access, or restricted use.

Specific restrictions and/ or conditions for Exploitation

Defines any legal, contractual, ethical, or technical limitations that may affect how the result can be exploited outside the project.

Other Relevant Info

Any additional relevant information about the background IP.

Date of Last Update

The date when any entry was last updated.

Foreground IP

Intellectual property and results generated during the project's execution. Foreground IP can include new technologies, software, methodologies, and datasets developed as part of MOSAICO. Ownership of Foreground IP follows the terms set in the Consortium Agreement.

Exploitable Results (ER; Use)

Outcomes of the project that have commercial, social, or academic relevance and can be commercialized or exploited as standalone results.

ER ID

A unique identifier for each exploitable result.

Exploitable Result Name

The name of the exploitable result.

Short Description of the Result

A description of the result in 3-5 sentences max.

Result Type

The type of the result (e.g., AI Algorithm/ Agent, ML method, software component/ standalone, datasets, etc.)

Related Task(s)

The specific project tasks associated with the development or generation of this result.

Target TRL

The expected Technology Readiness Level (TRL) of the result by the end of the project, indicating its maturity and readiness for deployment.

Contributing Partner(s)

Partners providing support in the development of an exploitable result.

Ownership Type

Indicates whether the project result is owned by a single partner or jointly by multiple partners, based on contributions and IPR agreements.

Stakeholder Groups

The specific groups of entities or individuals who influence, support, or are affected by the project results, including policymakers, regulators, researchers, and industry bodies.

Value Proposition

The unique value or benefit that the project result offers to its target customers or stakeholders, addressing specific needs, challenges, or opportunities.

Exploitation Strategy

The planned approach for utilizing and leveraging the project results to achieve commercial, societal, or academic impact.

Partners willing to exploit the KER

The project partners who intend to use, commercialize, or build upon the Key Exploitable Result after the project's completion.

Indicative Type of Protection

The type of intellectual property protection applied to this result, such as copyrights, patents, trade secrets, or utility models.

Conditions to use the result after the end of the project

Specifies the access rights, licensing terms, or other conditions under which the result can be used by partners or third parties after the project concludes.

Updating the Innovation Management Log

Frequency of updates

- Every six months, all AVALANCHE partners should review and, if needed, update the log.
- Additionally, (ad-hoc) updates should be made whenever a new Foreground IP is generated.

Process for updating

- As a Task Leader, identify any new background or foreground IP, including new technical components that need to be recorded, on a Task-level basis.
- Use the AVALANCHE Innovation Management Log .xlsx file located on the project's SharePoint. Complete the necessary details in the designated tab and columns. Not all columns might apply to all. Verify that all information is complete and accurate.
- Partners should inform NET (by email) of their updates for review.
- NET will manage the process, coordinate with partners, and integrate the updates.

Partner Responsibilities

- **AVALANCHE IPR Manager (NET)**: Oversees IPR management and facilitates updates to the Innovation Management Log.
- **All Partners**:
  - Review/ update the Innovation Management Log biannually to log new IP and ownership status
  - Collaborate on edits and validate entries to ensure consensus
  - Formalize approvals via email-based reviews coordinated by the IPR Manager
  - Use the AVALANCHE SharePoint to document new IP and technical components (name, description, owners, tasks, etc.)
- **Project Closure**: The IPR Manager compiles a Results Ownership List (ROL) for final reporting, definitively recording IP ownership post-project.

Online Exploitation Survey

The Online Exploitation Survey was created and conducted by NET for all partners not only to complement the continuous tracking provided by the Innovation Management Log, but also to gather structured input regarding partners' exploitation intentions, project results value propositions and possible commercialization paths.

During the survey, partners were requested to evaluate all Exploitable Results based on their expected exploitation or commercial values, regardless of their direct involvement with those results. The intended uses of the results, including internal deployment, commercial use and open-source distribution, were also identified by the survey. Additionally, it helped find opportunities for joint exploitation by highlighting where partners had similar interests and could collaborate.

NET structured this survey based on business planning, marketing and strategic principles to make sure that all partner profiles could understand and answer the questions. Also, its online format allowed partners to answer carefully and thoughtfully at their own pace.

The survey results, along with the ongoing updates from the Innovation Management Log give a complete and up-to-date overview of the exploitable results. This combination approach makes the basis for informed exploitation planning even stronger and promotes successful project results.

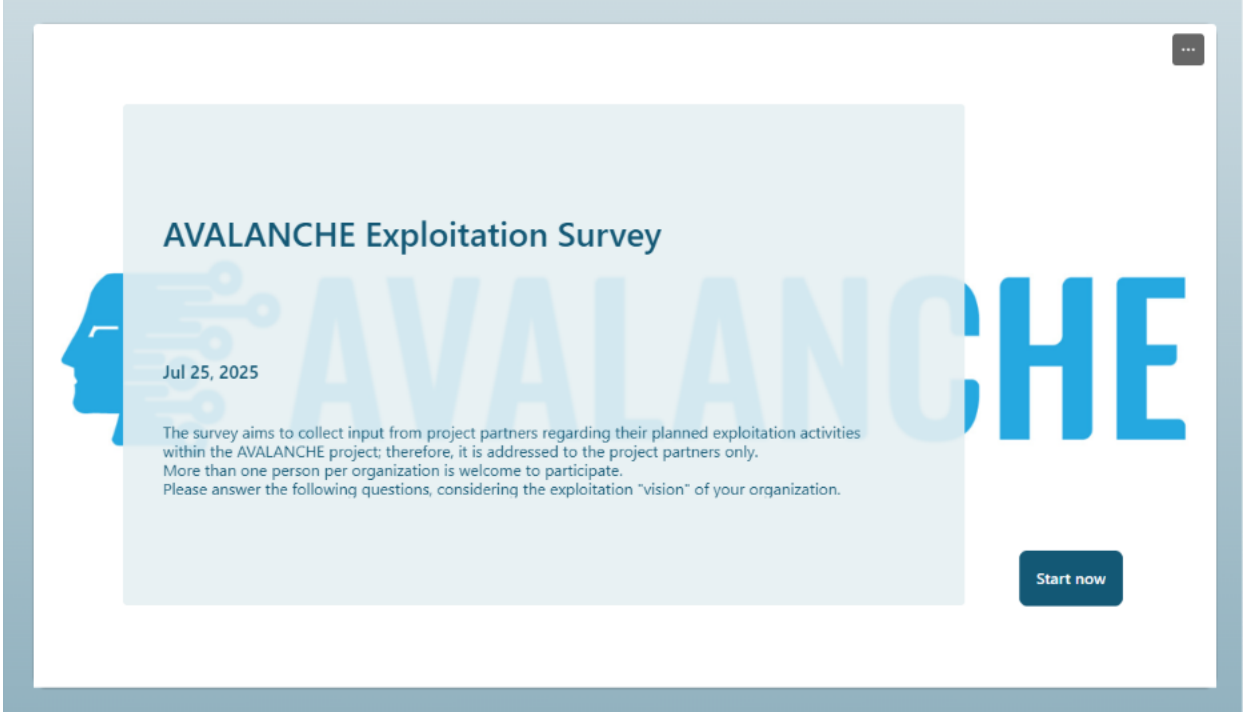


Figure 22 - AVALANCHE Exploitation Survey

Survey Format and Structure

The AVALANCHE exploitation survey was hosted on Microsoft Forms, a secure and user-friendly online platform, and included:

- 33 questions in total (31 mandatory, ensuring completeness)
- A combination of multiple-choice, open-text, and ranking questions
- Organization-level responses only (no personal data collected, encouraging openness while allowing analysis per partner)

We divided the survey into the following six thematic sections, in order to ensure a logical flow, reduce respondent fatigue, and capture various levels of exploitation intentions:

1. **Respondent's Information**: gathering general information about the organization of the respondent
2. **Identifying Key Exploitable Results (KERs)**: Ranking of all AVALANCHE Exploitable Results to define which are considered as most valuable (Key Exploitable Results definition)
3. **AVALANCHE Platform – THE Key Exploitable Result**: A dedicated section focusing on exploitation-related questions regarding the project's central and most impactful result, the AVALANCHE Platform
4. **Partner-Specific Exploitation Strategy**: A section focusing on each partner's preferred results and their exploitation intentions
5. **Market & Competition**: Questions investigating market dynamics, potential adopters, competitors, and pricing models
6. **Beyond the Project**: A short last section that identifies partners' long-term goals and project sustainability factors.

Partner Participation

All partners have participated and contributed to the online survey, providing at least one answer per organization (see Figure 23). It's important to highlight that the methodology we followed required us to collect input "per person" basis, rather than "per partner". The reasoning behind this is that a different person within each organization might have a different viewpoint, or valuable ideas and we wanted to capture them all. For example, an individual who is more technically inclined will have very different perspective and exploitation ideas compared to a more business driven individual within the same organization.

Figure 23 - Survey Question No. 1 "Please select your organization from the list below"

The survey was anonymous (see Figure 24), and the only personal data collected was the organization of each participant in order to ensure that all partners were sufficiently represented. This question also served as a filtering mechanism so that we can derive the "per partner" responses and have "per partner" exploitation intentions.

1. Please select your organization from the list below:

11 Responses

ID ↑	Name	Responses
1	anonymous	UBI
2	anonymous	NET
3	anonymous	IDR
4	anonymous	UBI
5	anonymous	NET
6	anonymous	SPP
7	anonymous	SPP
8	anonymous	QAD
9	anonymous	IML
10	anonymous	AL
11	anonymous	IDR

Figure 24 - Survey Anonymity

6.2.3 IP Assessment

The AVALANCHE project focuses on assessment and protection of the intellectual property assets that have been identified in the IP Portfolio. This includes the identification of any conflicting IP that could potentially pose legal or operational risks, as well as the management of dependencies on third-party tools or software. To mitigate risks of unauthorized use or reproduction of project results, appropriate IP protection measures will be selected, such as copyrights, trade secrets, among others. During this phase, we aim to choose licenses that balance the need for collaboration and innovation, while also they respect the protection of IPR.

IP Protection Strategy

The nature of the project results and their potential for commercialization will determine AVALANCHE IP protection measures. Below are some key protection measures that we could consider:

- Copyright protection for software, documentation, and algorithms
- Trade secrets and confidentiality agreements for proprietary methodologies not intended for public disclosure

Each IP protection mechanism will be determined based on innovation levels, market opportunities, and regulatory compliance.

IP Risks and Mitigation Strategies

At AVALANCHE, we have not yet encountered any conflicts related to IPR. However, we have implemented proactive measures to address and resolve any potential disputes. The Innovation Management Log will be our primary tool to clarify ownership and facilitate quick resolutions, while the IPR Manager will guide partners to define Foreground IP/ Exploitable Results, manage access rights, and resolve any confidentiality concerns. In case any conflicts arise, we will comply with Article 11.8 of the Consortium Agreement ("Settlement of disputes"). Additionally, the dispute may be escalated to internal mediation if necessary, and if it remains unresolved, formal mediation under the WIPO Mediation Rules may be considered.

6.2.4 IP Valorisation

In the context of AVALANCHE IP Valorisation, we aim to enhance the Foreground IPs generated during the project, aligning them with the project's dissemination and exploitation activities. A licensing plan will be developed for the Foreground IPs, assessing the adoption of proprietary and open-source models in accordance with the specific outcomes and the consortium's strategic objectives. This will support both commercial and research-focused exploitation of project results beyond the project's duration. The valorisation efforts will be aligned with the individual exploitation strategies of the partners, which will be developed within the exploitation Task.

Licensing Strategy

The licensing framework for AVALANCHE will be customized according to the type of Foreground IP and the intended exploitation approach. The licensing strategy for each AVALANCHE results will be established during the project based on a) partners' business perspectives and b) the AVALANCHE Description of Action (DoA). This process will be conducted using the AVALANCHE Innovation Management Log, where each partner will identify the result(s) for which they own the license (proprietary/ open source).

Licensing of Software Components

AVALANCHE-developed software will be subject to proprietary or open-source licensing, depending on exploitation goals:

- Proprietary licenses: Restrict usage and commercial access, ensuring revenue-generating opportunities for partners
- Open-source licenses (e.g., Apache 2., GPL, MIT): Enable wider dissemination, fostering innovation and collaborative development within the research community

Licensing of Datasets

Licensing models will guarantee responsible access and data protection for datasets produced within the project:

- Restricted proprietary licenses: Applied where datasets contain sensitive information, requiring controlled access via NDAs or anonymization protocols.
- Open-access licenses (e.g., CC-BY 4.0): Used when datasets can be shared publicly for broader research impact, subject to GDPR compliance and data anonymization standards.

NET will conduct regular evaluations of licensing options to ensure alignment with project objectives and business friendliness, documented in the AVALANCHE Innovation Management Log

6.3 AVALANCHE Exploitable and Key Exploitable Results

6.3.1 AVALANCHE Background IP

Based on the current status of technical activities, ongoing partner contributions, and the entries recorded in the Innovation Management Log, the AVALANCHE Background IP (BG IP) list (see Table 8 below) has been updated. In order to better represent the project's actual implementation needs, some of the BG IP items that were first listed in the Grant Agreement (GA) have been removed or updated.

Table 8 - AVALANCHE Background IP List

Background (BG) IP Name	BG IP Description	Lead	Conditions of use within the project by the rest of the partners	Specific restrictions and/ or conditions for Exploitation
SCORE (Security Capability-Oriented Requirements Engineering) methodology	A Requirements Engineering methodology, know-how, and software toolkit, developed by IDIR. SCORE supports the elicitation and analysis of system and user requirements leveraging a robust conceptual modelling paradigm whereby a formal connection between user requirements and system components and their automated support is facilitated.	IDR	Free access for the duration of the project's implementation.	Access to SCORE for exploitation or commercialisation purposes is to be negotiated under fair and reasonable terms with the consortium.
MEDUSA https://ubitech.eu/solutions/cyber-intelligence/	The Web Intelligence suite constitutes a sophisticated, modular, highly configurable and scalable Web mining and intelligence platform that benefits from Artificial Intelligence and Big Data technologies so as to provide intelligence and real-time insights to non-IT domain experts, satisfying the multi-disciplinary needs of end-user organizations that require advanced Web crawling, processing and analytics services. It will be exploited in T5.1 of AVALANCHE	UBI	No restrictions	No restrictions
Keyword-based Web Crawling and Data Collection	It is highly configurable surface and dark web crawling engine that facilitates full crawl control, configuring one or more seed URL(s), the overall crawl size and depth, the	UBI	No restrictions	No restrictions

	location of servers, the URLs patterns, as well as the targeted content type and language automated expansion of crawling in all variations of the seed URLs using other available “Top Level Domains” (TLDs) that derive using hacking alphabets, such as Leet (1337), and more. It also enables the configuration of the politeness (aggressiveness) policy of crawling, so as to remain stealth and avoid detection; the configuration of the revisit policy for each target website so as to capture its dynamic nature (including any creations, updates or deletions), enabling the continuous monitoring of the target; the utilization of custom headers and/or cookies during crawling to impersonate real users or agents; the anonymous crawling of Dark Web via the Tor network, with the transparent usage of a totally integrated Tor proxy; and the capturing and fetching of all objects and requests of the crawled website, including HTML, XML, CSS, JavaScript, binaries, images, videos. It will be exploited in T5.1 of AVALANCHE.			
Sentiment Analysis module	This tool harnesses the power of the cutting-edge Bidirectional Encoder Representations from Transformers (BERT) language model to delve into the vast realm of social media data (i.e., graph data and posts with highly influential nodes spreading information). Its capabilities extend beyond social media alone, encompassing a wide array of English text sources such as online comments, emails, chat logs, and witness statements. It will be exploited in T5.3 of AVALANCHE during crime investigations in several ways by providing additional insights and evidence collection that could aid in crime prevention.	IML	No restrictions	No restrictions
ubi:fedquery **https://ubitech.eu/solutions/distributed-databases-federation/**	ubi:fedquery promotes the real-time aggregation and federation of data coming from geographically distributed, heterogeneous data sources. Creating a federated central	UBI		

	repository of aggregated data, ubi:fedquery provides access to distributed data sources as they are part of a single data repository and deploys several mechanisms that allow the almost real-time update of the aggregated data from the respective primary records available through the geographically distributed databases and repositories. It will be exploited in T5.4 of AVALANCHE.			
Decision Support Enabler	An advanced module fortified by AI and rule-based capabilities that exploits interactive interfaces and visualizations capable of delivering in an explainable manner information specifically engineered to assist LEAs in their crime investigation endeavours. This module serves as a vital aid in decision-making processes by offering support for multiple rules and user-defined countermeasures, all orchestrated seamlessly. Furthermore, it boasts a comprehensive conditions editor that empowers users to establish a plethora of conditions on predefined crime related fields/parameters for each rule. It will be exploited in T5.3 of AVALANCHE.	IML	No restrictions	No restrictions
MAGNET	A production-level platform that supports the development & testing workflows. A CI/CD stack composed of the tools that support the entire software lifecycle processes up to the release of fully tested and deployed operational systems. It will be exploited in T6.1 of AVALANCHE.	NET		
Data Fusion Bus (DFB) https://itml.gr/data-fusion-platform/	It is a customizable product for data fusion for multiple modality data streams. It uses a modality processing pipeline to transform heterogeneous data in real time by reducing the granularity from the signal/raw level to a semantic level. The DFB includes autonomous fusion agents that are activated during the execution of the modality processing pipeline to perform modality fusion techniques on the data under transformation. It will be exploited in T6.1 of AVALANCHE.	IML	No restrictions	No restrictions

The list of Background IP is a living document as part of the Innovation Management Log and it may be updated as the project evolves, in accordance with the Consortium Agreement (CA). Technical developments, partner reassessments, or changing exploitation strategies could all cause changes. Any such modifications will continue to be transparently documented and tracked via the Innovation Management Log to guarantee alignment with the project's implementation and IPR strategy.

6.3.2 AVALANCHE Exploitable Results

Based on the present technical development stage, implementation progress, and partner input, the partners identified on the Innovation Management Log 9 results across Integrated Solutions, Software Components, and Protocols and Specifications as having clear exploitation potential.

Exploitable Result #1: AVALANCHE platform

Exploitable Result Name (#1)	**AVALANCHE platform**
Description	The integrated-holistic version that contains all the services below. A highly innovative, holistic, multi-disciplinary, high-tech solution for counterfeiting detection, web intelligence, sentimental decision support and global databases interconnection.
Result Type	Integrated Solution
Related Task(s)	T6.1
Target TRL	TRL 7 – system prototype demonstration in operational environment
Leading Partner(s)	NET
Ownership Type	Joint
Stakeholders Group	LEAs, Policy Makers, Public Authorities/ Government Bodies, Journalists
Value Proposition	Domain-specific LEAs, training curricula tailored for LEAs and recommendations for policy priorities and operational effects.
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

Exploitable Result #2: Unified AVALANCHE UI & Reports

Exploitable Result Name (#2)	**Unified AVALANCHE UI & Reports**
Description	Front-end application suites unified in a single dashboard, i.e., actual user interfaces, applications, and reporting mechanisms, that the LEA officers will utilize for interacting with the AVALANCHE platform. It will capitalize over the Decision Support Enabler and exploit interactive interfaces and visualizations capable of delivering in an explainable manner information specifically engineered to assist LEAs in their crime investigation endeavours. The unified AVALANCHE UI will serve as a vital aid in decision-making processes by offering support for multiple rules and user-defined countermeasures, all orchestrated seamlessly.
Result Type	Software component
Related Task(s)	T6.2
Target TRL	TRL 8 – system complete and qualified
Leading Partner(s)	IML
Ownership Type	Joint
Stakeholders Group	LEAs, Policy Makers
Value Proposition	Integrated approach with a unified UI platform
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

Exploitable Result #3: Dark and Surface Web Data Crawler for OSINT Data Collection

Exploitable Result Name (#3)	**Dark and Surface Web Data Crawler for OSINT Data Collection**
Description	This tool facilitates full crawl control, configuring one or more seed URL(s), the overall crawl size and depth, the URLs patterns, as well as the targeted content type and automated expansion of crawling in all variations of the seed URLs using other available “Top Level Domains” (TLDs) that derive using hacking alphabets, such as Leet (1337), and more. It also enables the configuration of the politeness (aggressiveness) policy of crawling, so as to remain stealth and avoid detection; the

	configuration of the follow mode of the crawler — whether to stay within the path, remain within the domain, or follow every discovered link — enabling flexible navigation strategies across targets; the utilization of custom headers and/or cookies during crawling to impersonate real users or agents; the anonymous crawling of Dark Web via the Tor network, with the transparent usage of a totally integrated Tor proxy; and the capturing and fetching of all objects and requests of the crawled website, including HTML, XML, CSS, JavaScript, binaries, images, videos.
Result Type	Software component
Related Task(s)	T5.1
Target TRL	TRL 8 – system complete and qualified
Leading Partner(s)	UBI
Ownership Type	Single
Stakeholders Group	LEAs, Policy Makers
Value Proposition	Intelligence gathering assisting the investigation process
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	Through a licensing model

Exploitable Result #4: OSINT NLP and Multimedia Mining Methods and Reporting

Exploitable Result Name (#4)	**OSINT NLP and Multimedia Mining Methods and Reporting**
Description	This tool delivers the solution of a highly configurable, semantically aware and multi-threaded web intelligence system for harmonizing and generating analytics from the collected OSINT data. Visual data analytics will be implemented by means of reports for detecting entities and keywords of interest in images and videos crawled from the web. Technologies for in depth analysis of textual sources for natural language processing (NLP) and analytics, including text clustering and similarity, classification, differential analysis, etc. will be developed by using Transformers (e.g., Hugging Face for LLMs, GPT3 or latest) and well-known NLP libraries such as AllenNLP, Trax, spaCy, etc. Intuitive analytics in the form of reports will be delivered including: (i) semantically-enriched indexing, faceting and categorization of all data fetched from the crawled websites, allowing free-text search, keyword search, entity classification/correlation -based search, phrase search, complex search, geospatial search, term boosting, spell correction, auto-completion, etc.; (ii) automated query expansion, using an unsupervised neural network model that identifies words that occur in similar contexts and/or are also similar in meaning, enabling the natural

	representation of analogies with “human-like” semantic awareness; (iii) graphical query designer that allows the creation of complex queries in an easy, user-friendly way using Large Language Models (LLMs) and ChatGPT for improving the efficiency and effectiveness of complex and/or repetitive operations; (iv) automated real-time diff analysis, spotting additions, modifications and deletions, among to consecutive visits (crawls) of the same target website; and (v) neural networks for concept / object extraction, allowing multiple objects detection and recognition, in real-time, in digital images and videos. Detection of patterns, correlations and other critical information cues in transactional graphs for various commonly met types of cryptocurrencies (e.g., bitcoin, monero ethereum, etc.), using advanced data mining and analytics techniques will be implemented in the frame of cryptocurrency analysis and tracking of financial flows of illicit profits.
Result Type	Software component
Related Task(s)	T5.1
Target TRL	TRL 7 – system prototype demonstration in operational environment
Leading Partner(s)	UBI, IML
Ownership Type	Joint
Stakeholders Group	LEAs, Policy Makers
Value Proposition	Intelligence analysis assisting the investigation process
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	Through a licensing model

Exploitable Result #5: OSINT Behavioural Analysis for High-Risk Criminal Networks Mining

Exploitable Result Name (#5)	**OSINT Behavioural Analysis for High-Risk Criminal Networks Mining**
Description	The tool builds on top of behavioural analysis for fraud prevention in transactional patterns, by leveraging information extracted from medusa in order to derive higher level of information such as correlation of networks.
Result Type	Software component
Related Task(s)	T5.2
Target TRL	TRL 7 – system prototype demonstration in operational environment
Leading Partner(s)	QAD
Ownership Type	Single

Stakeholders Group	LEAs, Policy Makers
Value Proposition	Additional intelligence assisting the investigation process
Protection Type/ License	Trade Secret
Conditions to use the result after the end of the project	Through a licensing model

Exploitable Result #6: Sentiment Analysis on OSINT

Exploitable Result Name (#6)	**Sentiment Analysis on OSINT**
Description	This tool harnesses the power of the cutting-edge Bidirectional Encoder Representations from Transformers (BERT) language model to delve into the vast realm of social media data (i.e., graph data and posts with highly influential nodes spreading information). Its capabilities extend beyond social media alone, encompassing a wide array of English text sources such as online comments, emails, chat logs, and witness statements.
Result Type	Software component
Related Task(s)	T5.3
Target TRL	TRL 7 – system prototype demonstration in operational environment
Leading Partner(s)	IML
Ownership Type	Single
Stakeholders Group	LEAs, Policy Makers
Value Proposition	Domain specific LEAs
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

Exploitable Result #7: Interconnection with International Databases

Exploitable Result Name (#7)	**Interconnection with International Databases**
Description	A proof-of-concept approach will be implemented within AVALANCHE, to support overall semantic interoperability across international LEA- and FCT-related databases and services, based on the Schengen Information System (SIS II) data exchange model, as specified by the European Commission. This data schema will be adapted and extended to accommodate additional data types and operational nuances specific to AVALANCHE's scope.

Result Type	Software component
Related Task(s)	T5.4
Target TRL	TRL 4 – technology validated in lab
Leading Partner(s)	IDR
Ownership Type	Joint
Stakeholders Group	LEAs
Value Proposition	A showcase of AVALANCHE being able to share data by extending common LEA data models or schemas.
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

Exploitable Result #8: Secure Information Exchange

Exploitable Result Name (#8)	**Secure Information Exchange**
Description	This “component” is a technical specificaltion which, as part of AVALANCHE's architecture, will enable the secure aggregation and invocation of data endpoints between data sources and data consumers (e.g. LEA or judicial domain users), while respecting schema boundaries, access permissions, and provenance. It will feature a centralized mechanism to combine schemas and a gateway to serve data consumers over secure APIs.
Result Type	Protocols and Specifications
Related Task(s)	T5.4
Target TRL	TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
Leading Partner(s)	IDR
Ownership Type	Joint
Stakeholders Group	LEAs
Value Proposition	The ability to request, and get, up-to-date information from a variety of external sources over a unified schema, or to share results or reports selectively and securely with third parties.
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

Exploitable Result #9: LEAs Decision Support Enabler

Exploitable Result Name (#9)	**LEAs Decision Support Enabler**
Description	An advanced module fortified by AI and rule-based capabilities that exploits interactive interfaces and visualizations capable of delivering in an explainable manner information specifically engineered to assist LEAs in their crime investigation endeavours. This module serves as a vital aid in decision-making processes by offering support for multiple rules and user-defined countermeasures, all orchestrated seamlessly.
Result Type	Software component
Related Task(s)	T5.3, T6.2
Target TRL	TRL 7 – system prototype demonstration in operational environment
Leading Partner(s)	IML
Ownership Type	Single
Stakeholders Group	LEAs, Policy Makers
Value Proposition	Integrated approach with a unified UI platform
Protection Type/ License	Trade Secret and Partnership
Conditions to use the result after the end of the project	NDA and Restrictions

The Exploitation Results list is regarded as a living record, just like the Background IP list and the other elements of the Innovation Management Log. During the project, it will continue to be updated to reflect evolving technical developments, validation outcomes, and changing exploitation intentions. Any future updates will be documented in the Innovation Management Log to ensure consistency and transparency across the partner's exploitation planning.

6.3.3 AVALANCHE Key Exploitable Results

The Key Exploitable Results (KERs) of the AVALANCHE project were identified through structured partners' input collected via the Online Exploitation Survey. More particularly, we asked all partners to rank the full list of Exploitable Results regardless of their direct involvement in these results, based on their perceived exploitable or commercial value. Thus, we achieved a cross-consortium prioritization of results reflecting strategic interest and potential for future use. The results that showed the highest ranking across the consortium were as follows, as determined by the survey results (see Figure 25 and Figure 26). Due to the tie in third place, we have 4 Key Exploitable Results, each one with a high-potential result that is strongly relevant to future exploitation paths across partners. However, since the Reporting and Unified AVALANCHE UI & Reports is platform-dependent result, we will analyse it in combination with the AVALANCHE platform, and we will assume that we have **3 Key Exploitable Results**:

1. 1st position: **Dark and Surface Web Data Crawler for OSINT Data Collection**
2. 2nd position: **AVALANCHE Platform**
3. 3rd position: **OSINT NLP and Multimedia Mining Methods** and **Reporting and Unified AVALANCHE UI & Reports**

Figure 25 - AVALANCHE Key Exploitable Results

Key Exploitable Result #1 - Dark and Surface Web Data Crawler for OSINT Data Collection

This tool offers detailed and adaptable management of web crawling operations, such as the configuration of seed URLs, crawl depth, URL patterns, and content types. It enables anonymous access to the Dark Web through an integrated Tor proxy, advanced navigation options and silent crawling to prevent detection. The crawler can capture a wide variety of data types, including multimedia, scripts, and HTML, which supports the collection of complete, precise and covert open-source intelligence that is suitable for a variety of OSINT requirements.

Therefore, it is a valuable asset for law enforcement and private sector use in variety of cybersecurity and investigative applications post-project due to its advanced crawling capabilities, which enable scalable and stealthy intelligence gathering.

Key Exploitable Result #2 - AVALANCHE Platform and Reporting and Unified AVALANCHE UI & Reports

Despite its 2nd position in the ranking, the AVALANCHE platform is the most complete and fundamental deliverable of the project, as it integrates a variety of advanced services into a holistic, multidisciplinary solution. It combines state-of-the-art technologies for the detection of counterfeiting, web intelligence, sentiment analysis, decision support, and global database interconnection within a single operational environment. It is the strategic basis for future commercialization in the security and intelligence sectors due to its integrated nature, which enhances usability and exploitation potential. In other words, this platform has the potential to be widely adopted by security and intelligence agencies and deployed commercially, resulting in long-term impact and improved cross-sector collaboration beyond the project.

Central to this integrated system are the Reporting and Unified AVALANCHE UI & Reports which guarantee that users can interact with the platform in a seamless manner, access consolidated interfaces, and generate structured outputs that are customized to meet operational requirements. This combination improves the platform's usability, operational efficiency, and adoption potential, positioning the platform as the strategic part of AVALANCHE's long-term exploitation strategy.

Key Exploitable Results #3 - OSINT NLP and Multimedia Mining Methods

OSINT NLP and Multimedia Mining Methods and Reporting provide advanced semantic analysis of textual and multimedia data by utilizing cutting-edge NLP technologies, including Transformers and Large Language Models. It supports real-time detection of content changes, advances querying, and the recognition of objects in images and videos using neural networks. This tool also enables the identification of illicit financial flows through cryptocurrency transaction analysis. The combination of these features enables the efficient processing of substantial OSINT datasets by LEAs, resulting in the generation of reports that are both actionable and intuitive.

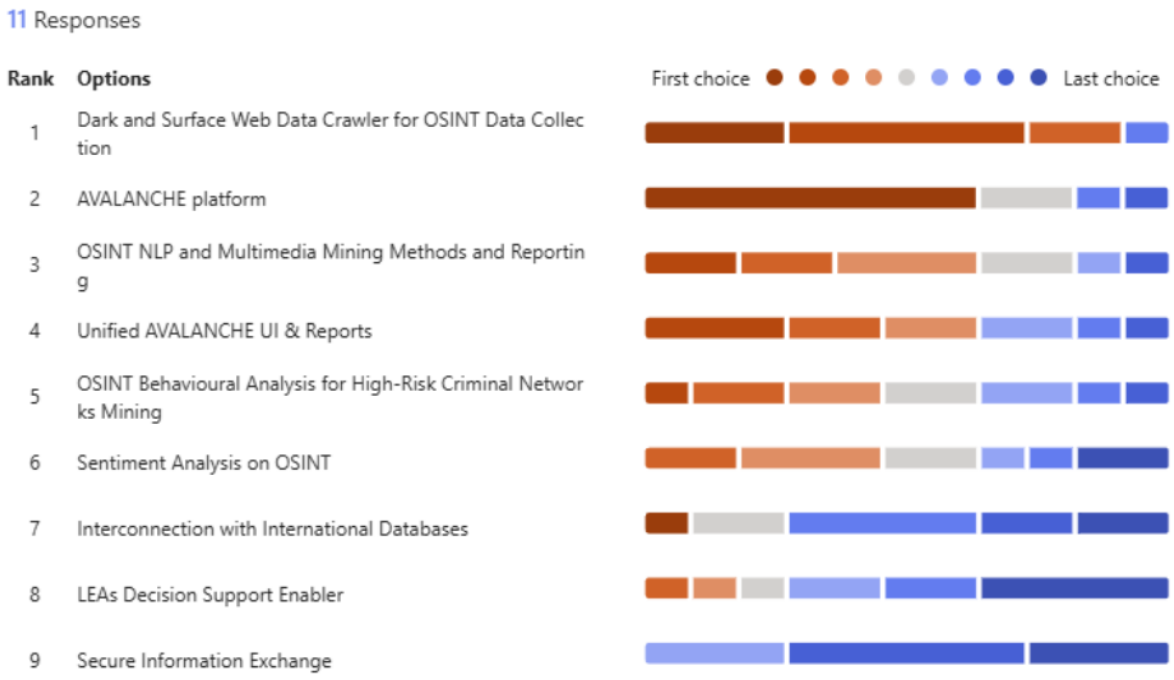


Figure 26 - Exploitable Results Ranking

The three chosen KERs will serve as the primary tools of the AVALANCHE project communicated to stakeholders, including customers, collaborators and investors. NET aims to utilize the Horizon Results Booster service for these KERs to enhance the project's visibility, ensuring the exploitation activities will closely align with dissemination efforts.

KER Benefits

Answering the survey question "What is the main benefit of your Exploitation Result? What will the customer or adopter gain by adopting, buying, or using it?" the participants gave valuable information regarding the benefits that the Key Exploitable Results may offer.

The most acknowledged benefit of the **AVALANCHE platform** is its promising ability to completely transform and modernize law enforcement operations via an integrated, AI-driven framework. The platform integrates innovative technologies, including AI, machine learning, NLP, and advanced web intelligence to run precise investigations, enhance cross-border collaboration, and improve the overall crime prevention and response efforts. The main operational benefits include, among others, seamless interoperability with existing systems, data protection standards compliance (e.g., GDPR), high reliability and resilience needed in mission-critical environments.

The integrated **dark web crawler** adds to the platform value by providing up-to-date and complete intelligence from sources that would not normally be available by automatically collecting and analyzing data to reduce work, improve accuracy and speed up threat detection. In other words, the platform combines separate investigation methods into a single, intelligence-driven system. This makes it easier to deal with complicated, cross-border, and digitally organized crimes.

The **Unified AVALANCHE UI & Reports** builds on this and simplifies the way that the users interact with the system. Its single, easy-to-use design brings together all of the platform's features, making it easier to use, requiring less training, and allowing law enforcement to adopt it more quickly.

OSINT NLP and Multimedia Mining Methods reduce the human effort needed to extract important content from open sources. As a result, the law enforcement's capacity to more effectively identify hate speech, disinformation, and deepfake situations is strengthened. Therefore, the key benefit of OSINT NLP and Multimedia Mining Methods emphasizes automation and analytical depth.

6.4 Initial Business Modelling and Route to Market for the AVALANCHE Platform

This section presents an initial overview of the business modelling and potential routes to market for the AVALANCHE platform, as derived primarily from the consolidated responses of the Online AVALANCHE Exploitation Survey. The AVALANCHE Platform, which is the most strategic Key Exploitable Result of the project, was the focus of a dedicated section in the survey. The feedback collected from partners, which includes technical, legal, business, and end-user perspectives, is the basis for mapping relevant stakeholders, identifying preferred exploitation paths, evaluating key success factors and developing an initial exploitation strategy

6.4.1 Stakeholders Analysis

As indicated by partner responses to the Online Exploitation Survey, the AVALANCHE platform's primary target customers and stakeholders are LEAs operating at local, national, and international levels. These include both direct end consumers of the platform and broader institutional actors who are involved in crime prevention, investigation, and data analysis.

Through the survey, we identified the following key stakeholder groups:

- **Law Enforcement Agencies (LEAs)**

  The investigation, intelligence gathering, situational awareness and decision-support functionalities of the platform are primarily utilized by LEAs. This expands to both operational and analytical sections within local, national, and cross-border law enforcement organizations.

- **EU Institutions and International Organizations**

  The platform could be adopted or promoted by stakeholders such as Europol, INTERPOL and CEPOL, as well as other EU and international actors involved in security coordination, in order to enhance cross-border collaboration and intelligence sharing.

- **National and Regional Government Authorities**

  Public sector organizations responsible for internal security, justice, anti-fraud measures, border control, and cybercrime prevention were identified as potential adopters or investors, including ministries and security agencies.

- **Public Safety and Crisis Management Agencies**

  Organizations engaged in emergency response, homeland security, and crisis management may also benefit from AVALANCHE's integration and decision-support functionalities.

- **Financial Institutions and Customs Agencies**

  AVALANCHE's OSINT and behavioural analysis features place organizations focused on fraud detection, anti-money laundering and product authenticity, such as banks and customs authorities, as potential niche adopters.

- **Established Technology Providers and System Integrators**

  Some partners proposed that AVALANCHE components might be integrated into the products of existing LEA providers, therefore possibly allowing indirect commercialization paths through licensing or bundling.

- **Innovation Clusters, Academia and Researchers**

  Although these groups do not directly target customers, they may contribute to or benefit from additional development, standardization and knowledge sharing related to the platform.

- **A broader range of public stakeholders**

  Citizens, software developers, and NGOs that specialize in digital safety, misinformation or hate speech were also identified as potential beneficiaries of the platform's outcomes, despite their less central roles.

In summary, the survey suggested that public security programs, EU internal security funds and collaboration with specialized technology providers in the public safety domain may be potential exploitation paths

6.4.2 Exploitation Paths for the AVALANCHE Platform

The AVALANCHE Exploitation Survey demonstrated a strong, common interest in ensuring the platform's sustainability beyond the project's duration. 6 out of the 11 participants of the survey voted on the AVALANCHE platform as the main result of their exploitation intentions (see Figure 27).

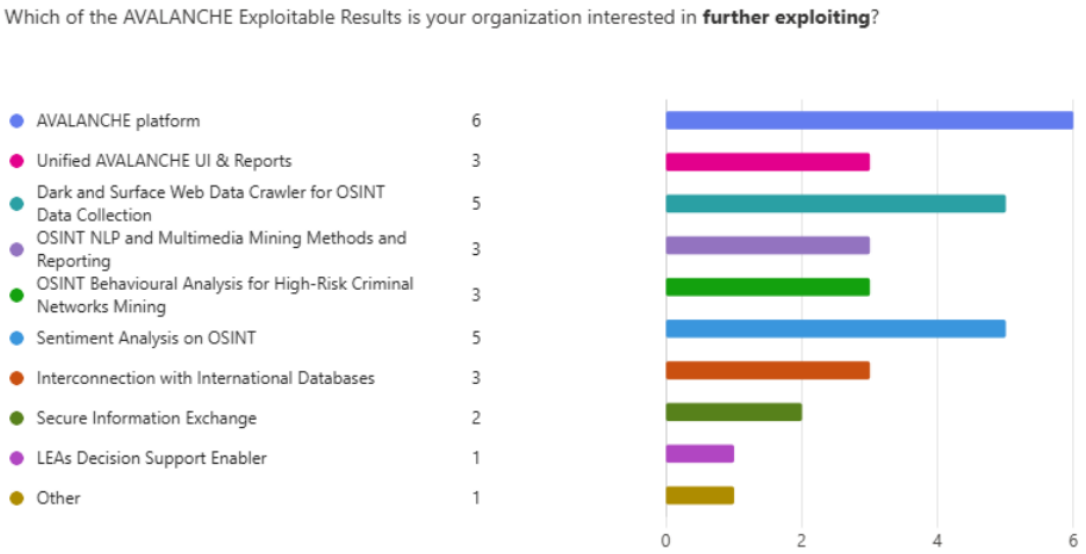


Figure 27 - Partners' Exploitation Intentions Graph

Partners expect a variety of complementary exploitation paths, including collaborative, technical, service-based, and institutional strategies, that were consistent with their strategic objectives, technical contributions, and responsibilities. Although some organizations intend to take over technical ownership and platform management, others plan to promote adoption among public-sector stakeholders, offer services, or support joint exploitation models.

The Exploitation Paths presented in Table 9 based on partners' responses are the most prominent:

Table 9 - AVALANCHE Platform Exploitation Paths

Potential Exploitation Path	Partners
Technical Operation and Sustainability	**NET** intends to play a critical role in the technical and strategic support of the platform, ensuring it remains operational and scalable. This includes the administration of vulnerabilities, the integration of emerging technologies, software updates, and platform monitoring. **ITML** is dedicated to providing long-term technical support, with a particular emphasis on sentiment analysis modules, user interface development, and decision-support tools for LEAs. Additionally, they intend to offer assistance with community engagement, documentation, and training.
Joint Exploitation and Shared Administration	**UBI**, **IDR**, and other partners prioritized joint exploitation through a shared business model and administration plan, regardless of whether external funding would be available. The objective is to guarantee

	sustainability by coordinating roles and responsibilities. **UBI** highlighted the importance of collaborating with market-connected partners to expand the reach of the promotion. **IDR** specifically expressed their interest in developing joint business plan and value proposition.
Market and Service-Based Exploitation	**NET** intends to provide public clients, particularly LEAs, with integration, customization, support, and maintenance services around the platform. We will also contribute to standardization initiatives, policy alignment, and training as part of our strategy. **UBI** expressed interest in non-profit exploitation models and the facilitation of access through collaborative outreach to diverse user communities. **IDR** identified the potential for market adoption through existing or new sales channels, particularly when these channels are combined with SCORE methodology tools or secure information exchange services.
Component-Level Reuse and Licensing	As part of broader service or software offerings, some partners plan to take advantage of specific components (e.g., data collectors, AI modules, interfaces). **NET** also is interested in licensing individual components to relevant third parties or public authorities in order to facilitate sustainable deployment.
Public Sector Engagement, Standards, and Policy	Promotion through governmental, policy, and standardization channels is also an entry point for exploitation, with the goal of ensuring long-term institutional adoption. The objective of partners such as **NET** is to ensure that platform features are in accordance with national and EU-level digital transformation and compliance initiatives.

The potential exploitation paths of the AVALANCHE platform seemed to be as multifaceted, reflecting the result's multi-domain relevance and the partners' diverse capabilities. The combination of technical management, market-facing services and joint administration builds a strong basis for long-term sustainability and impact.

6.4.3 AVALANCHE Platform Key Success Factors

The AVALANCHE Platform's future commercialization and effective use are based on a variety of linked success factors that the survey participants identified through the Online Exploitation Survey. These factors combine both technical and non-technical aspects, and together they outline the requirements to unlick the platform's full potential and support its sustainable adoption.

The key success factors of the AVALANCHE platform include:

- **End-User Alignment and Strong Market Demand**

The platform guarantees that it meets the real operational requirements of its primary users, who are primarily LEAs, through co-creation, early involvement, and ongoing feedback channels.

- **Strategic Collaborations and Partnerships**

  Developing partnerships with public institutions, technology providers, security firms, and industry leaders to facilitate technical advancement, credibility, and market expansion.

- **Sustainable Funding Models**

  Achieving external funding to support ongoing maintenance, updates, and exploitation activities beyond the project lifecycle, such as public funding or joint investments.

- **Regulatory Compliance**

  Ensuring trust, reducing risks, and enhancing readiness for public-sector adoption by adhering to legal and ethical standards (e.g. GDPR, ISO security standards, etc.)

- **Community Engagement and Awareness**

  Promoting the platform through targeted awareness campaigns within established LEA networks, pilot demonstrations, and participation in relevant events and forums to generate interest and demand.

- **Operational Capacity and Skilled Personnel**

  Ensuring the availability of technical teams and trained personnel that can customize, integrate, and deploy the platform for a variety of operational scenarios.

- **Interoperability, Modularity, and Scalability**

  Building a platform with a flexible architecture that can be easily integrated with existing LEA systems, scaled or adapted to meet the changing needs of users, and interoperable with national and EU-level data infrastructures.

- **Continuous Innovation**

  Investing in R&D and continuous feature-development, particularly in areas such as OSINT, multimedia analysis, and threat detection, to ensure that the platform remains in alignment with emergent threats and technologies.

6.4.4 Initial Exploitation Strategy for the Integrated AVALANCHE Platform

This section provides a structured view on the platform's positioning, protection, promotion, and sustainability in the post-project phase, based on the partners' input gathered through the Online Exploitation Survey. The initial exploitation strategy puts the platform as a strategic public safety asset. This approach could be possibly jointly promoted by multiple partners through service offerings (e.g. integration, support, consulting), policy influence, and participation in new R&D activities.

Offering Overview

The AVALANCHE platform stands as the most complete, integrated and cross-cutting outcome of the project. This result integrates a variety of state-of-the-art components, such as OSINT data collection, multimedia analysis, decision-support, sentiment detection, and database interconnection, into a unified operational environment that is specifically designed for public security and LEAs. The platform is

designed with scalability and adaptability in mind, enabling public sector bodies to customize workflows, select pertinent modules, and integrate it with existing systems.

Intellectual Property Considerations of the Platform

The AVALANCHE platform is the project's primary integrated outcome, combining a variety of high-value technical components that will be developed collaboratively by the consortium. Its potential for exploitation is closely linked to the strategic management, administration, and clarity of intellectual property (IP) rights.

Ownership and Integration Model

This result is a fully operational solution that is jointly owned and implemented, with NET serving as the leading partner for its development and future exploitation coordination. The platform integrates a variety of software components and services that will be developed by several technical partners-collaborators. Although each component may have its own leading developer and ownership arrangement, the integrated solution is governed by joint ownership, requiring collaboration for future use, licensing, or commercialization.

The integration leadership is coordinated by NET, and all technical collaborators contribute either software components, interoperability protocols or backend/ frontend functionalities. The integration will be guided by clear architectural planning, security standards, and interface alignment to guarantee component cohesion.

Component Overview and Protection Strategy

Non-Disclosure Agreements (NDAs) and specific post-project usage restrictions are applicable to each component of the AVALANCHE platform, which is protected under a trade secret and partnership model. In many cases, licensing models will be investigated for results that are single owned.

Table 10, which derives from the Innovation Management Log, shows the IP status for each primary component of the integrated AVALANCHE platform, that are also individual exploitable results:

Table 10 - P Status of the AVALANCHE platform components

Exploitable Result Name	Result Type	Leading Partner(s)	Contributing Partner(s)	Ownership	Protection	Post-Project Use
AVALANCHE platform	Integrated solution	NET	ALL	Joint	Trade Secret and Partnership	NDA and restrictions
Unified AVALANCHE UI & Reports	Software component	IML	NET	Joint	Trade Secret and Partnership	NDA and restrictions
Dark and Surface Web Data Crawler for OSINT Data Collection	Software component	UBI	N/A	Single	Trade Secret and Partnership	Through a licensing model
OSINT NLP and Multimedia Mining Methods and Reporting	Software component	UBI, IML	N/A	Joint	Trade Secret and Partnership	Through a licensing model
OSINT Behavioural Analysis for High-Risk Criminal Networks Mining	Software component	QAD	N/A	Single	Trade secret	Through a licensing model
Sentiment Analysis on OSINT	Software component	IML	N/A	Single	Trade Secret and Partnership	NDA and restrictions
Interconnection with International Databases	Software component	IDR	UBI	Joint	Trade Secret and Partnership	NDA and restrictions
Secure Information Exchange	Protocols and specifications	IDR	UBI, IML	Joint	Trade Secret and Partnership	NDA and restrictions
LEAs Decision Support Enabler	Software component	IML	N/A	Single	Trade Secret and Partnership	NDA and restrictions

Leadership in Platform Management and Exploitation

The AVALANCHE platform's post-project management will be guided by NET, the exploitation and integration leader, with contributions from other partners as determined by their technical expertise and ownership. The consortium will discuss the implementation of a management structure to oversee access, licensing, requests, maintenance, and future roadmap decisions. His may include bilateral or multilateral agreements for usage, particularly for single-owned components that are licensed.

Licensing Strategy

At this stage of the project, the platform as a whole is not intended to be open source. Although some subcomponents may be considered for open dissemination in future research or policy contexts, no component is currently released under an open-source license. Based on both the Innovation Management Log and the survey results, the partners' preferred licensing models include:

- Licensing models for standalone components (mostly for UBI's crawler and QAD's behavioural models)
- Non-commercial sharing under an NDA and controlled use through partnership agreements
- Service-based exploitation, in which partners provide support, customization, and integration services instead of direct software licensing
- Long-term flexibility to modify licensing models in accordance with the interests of partners, the type of customer (e.g., public LEAs compared to integrators), and the availability of additional funding or research extensions

Marketing Strategy and Promotion of the Platform

One of our goals, as Exploitation Manager of the project, is to ensure that the AVALANCHE platform is adopted by the appropriate stakeholders, particularly those in the public safety and law enforcement sectors, through its dissemination and promotion. Using the online survey, we collected input from partners regarding the most promising channels to promote or sell the platform to potential users and beneficiaries in order to develop a practical and stakeholder-aligned go-to-market strategy. Figure 28 presents the priority promotional channels identified by the survey participants:

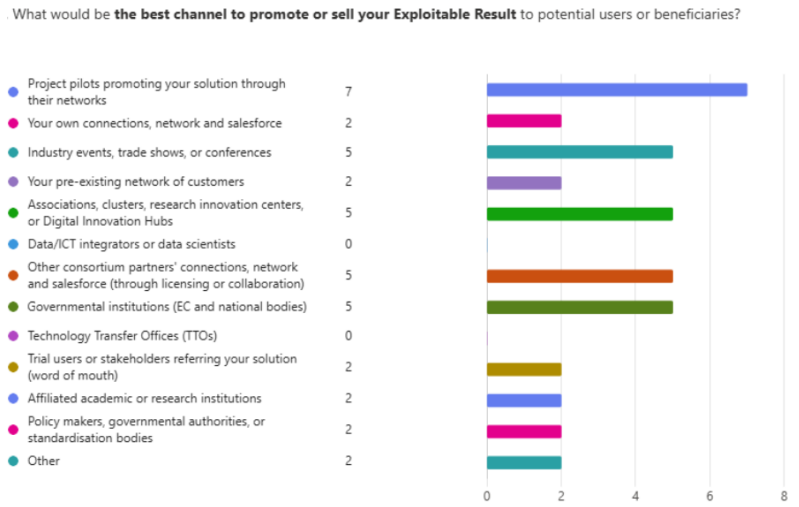


Figure 28 - Promotional Channel Prioritization

- **Project Pilots Promoting the Platform via their Networks (18%)**

  Based on the participants' responses, the existing pilot users and demonstration sites are the most effective promotional paths. These real-world environments could serve as effective references, strengthening the credibility of the platform and supporting its dissemination through word of mouth, peer endorsement, and visibility in practitioner communities.

- **Industry Events, Trade Shows, or Conferences (13%)**

  Engagement in industry-specific events, including law enforcement, cybersecurity, artificial intelligence, and public administration exhibitions is regarded as an important channel to reach key decision-makers and showcase the platform's functionalities in real-time. These venues provide opportunities for matchmaking, feedback, and stakeholder interaction.

- **Associations, Clusters, Innovation Centres, and Digital Innovation Hubs (13%)**

  The participants also highly recommended leveraging the existing networks, including European security and AI clusters, research associations, and Digital Innovation Hubs (DIHs). These environments give access to buyers from the public, integrators, and regional funding tools.

- **Consortium Partners' Networks and Salesforce (13%)**

  Several partners highlighted the importance of utilizing commercial networks within and between partners, such as through licensing agreements or collaborative promotion. This multi-partner method of marketing could help reach more people and decrease time-to-market.

- **Governmental Institutions (13%)**

  Organizations such as national ministries, EU agencies, and public procurement bodies are key promotional stakeholders, serving both as potential adopters and as multipliers. Focusing on these organizations may also aid in policy alignment, regulatory approval, and funding.

In combination, these promotional strategies suggest a multi-channel marketing strategy that integrates peer endorsements form pilot users with active participation in sector events and leverages on both institutional and partner-driven promotional capabilities. The AVALANCHE platform's strategic positioning as a mission-critical, interoperable, and modular solution makes it well-suited for these channels, particularly in public-sector oriented ecosystems.

Additional marketing initiatives may include:

- Workshops or webinars that are jointly organized by pilot sites and partners
- Participation in European Commission-level platforms such as CORDIS or EC law enforcement communities
- Exhibiting at events co-organized with clusters or innovation hubs (e.g., BDVA, ECSO)

This strategy is designed to enhance visibility, trust and credibility of a complex solution like AVALANCHE, which are essential for promoting it to conservative and sensitive adopters like LEAs.

Future Revenue Streams and Pricing Schema for the AVALANCHE platform

Partners identified several complementary future revenue streams and as you can see in the Figure 29. From a given list in the survey, they chose the most promising ones in supporting the long-term sustainability of the AVALANCHE platform. Participation in new research-funded projects is the most common expected pathway that will lead to the continuation of development, testing, and deployment under future Horizon Europe or similar funding schemes. Also, licensing or royalty agreements seemed to be an attractive alternative, enabling the consortium to expand its market reach without the need for major internal sales investment. Such agreements allow third parties to exploit or promote the platform on behalf of the consortium.

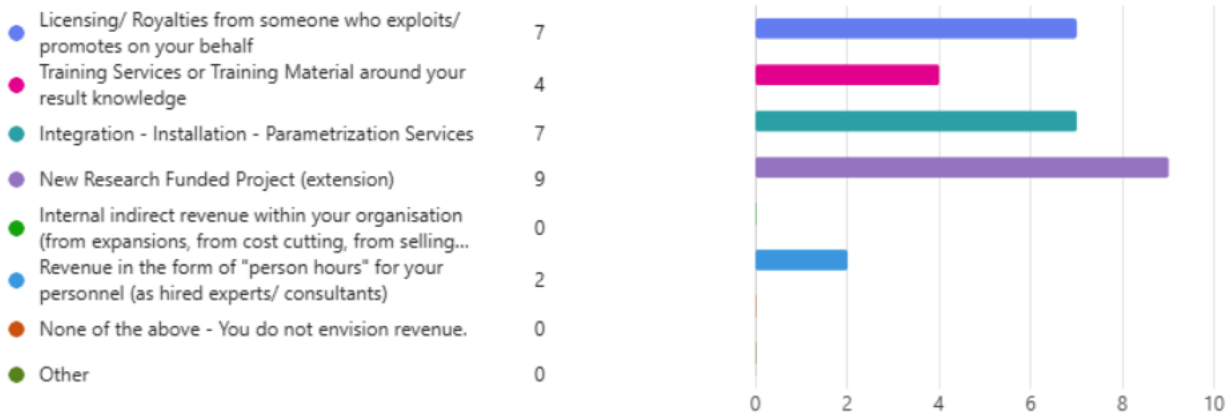


Figure 29 - Future Revenue Streams for the AVALANCHE platform

An additional potential revenue stream option is to offer value-added services, including parametrization, installation, and integration, to assist adopters in customizing the platform to their unique operational requirements. Training services and the development of the relative training materials were also identified as another revenue opportunity, guaranteeing that end-users can optimize the platform's capabilities. Some few participants also recognized the potential for revenue development through consultancy or expert services. Consortium members could be contracted to provide their expertise, knowledge and support.

The participants also asked what the most appropriate combination schema of pricing would be in case the AVALANCHE platform is sold for profit. As you can see in Figure 30, there is a clear preference for sustainable and adaptable pricing models and the most popular option among the participants was a subscription-based pricing schema. This approach is indicative of a desire for consistent service provision and predictable revenue.

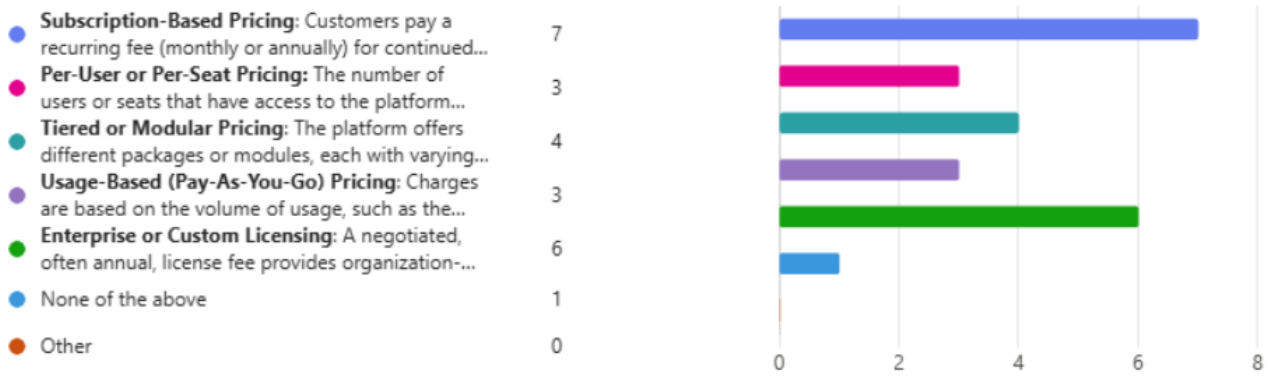


Figure 30 - Potential Pricing Schemas for the AVALANCHE platform

Enterprise or custom licensing was also highly regarded, as it allows for the creation of customized agreements for large organizations or consortia. Tiered or modular pricing was the third most popular option among the participants, due to its adaptability, which enables customers to select packages or feature sets that are in accordance with their unique operational needs.

Potential Barriers of the AVALANCHE Platform Adoption

Through the online survey, the participants were also requested to select some of the potential barriers that they think could make the adoption of the AVALANCHE platform difficult. As you can see in Figure 31, the complexity of public sector procurement is the most significant challenge anticipated for the adoption of the platform. Selling to law enforcement and other governmental agencies frequently requires extensive procedures, tough compliance regulations, and in some cases a preference for national or already established options.

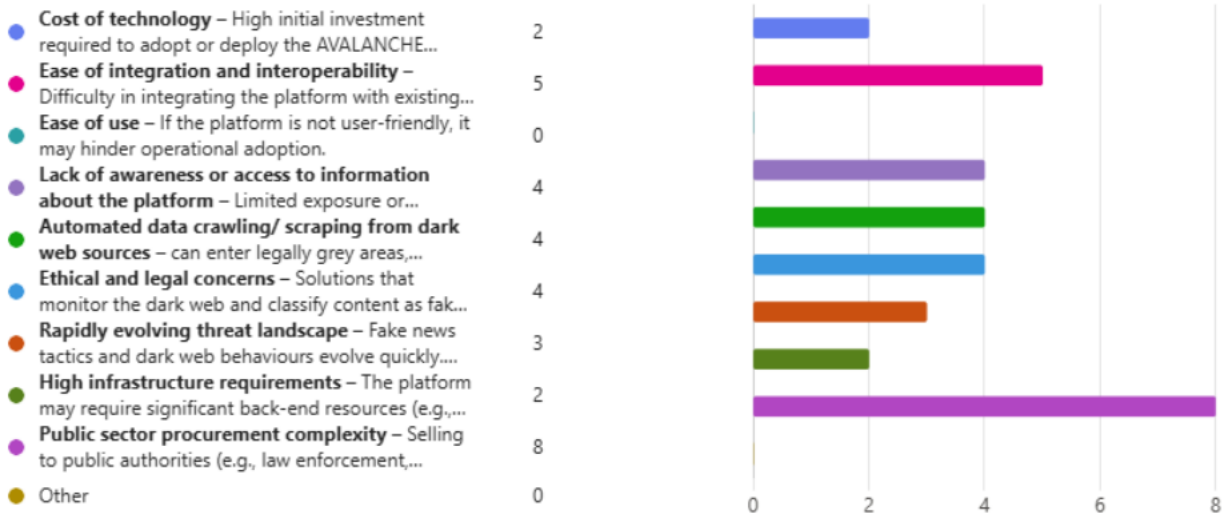


Figure 31 - AVALANCHE Platform Potential Barriers results

Partners also believe that technical problems may arise, mainly in the context of ensuring easy integration and interoperability with existing systems, that is an important condition for operational acceptance. Lack of awareness or access to information is also one of the partners' concerns requiring targeted communication and outreach to spread platform's value. The participants also stressed the

importance of legal and ethical challenges, especially when it comes to the automated crawling of dark web sources that might require going into areas that aren't clear-cut legally, and in content classification, where bias or lack in AI-driven procedures could cause trust issues. Also, the relevance of the platform must be maintained by consistently updating and adapting to the rapidly evolving landscape of online threats. Even though cost and infrastructure requirements are expected as less critical barriers, they may still have an impact on the adoption of smaller agencies or organizations with low technical resources.

AVALANCHE Regulatory and Standards Framework

Based on the participants' input, the adoption of the AVALANCHE platform requires several standards, regulations, and ethical frameworks.

Due to its potential use in law enforcement contexts and its processing of sensitive data, strict compliance with the EU General Data Protection Regulation (GDPR) and, where applicable, the Law Enforcement Directive (EU Directive 2016/680), is required. In accordance with these regulations, processing must be lawful, limited to what is necessary, and respectful of data subjects' rights.

Further frameworks, including the EU Cybersecurity Act, ISO/IEC 27001 (information security management), and ISO/IEC 27017 (cloud security management), may be applicable, depending on the operational environment.

Ethical compliance is no less important, particularly regarding transparency, explainability, and human surveillance. The same importance is shared for prospective future obligations under the EU AI Act and alignment with the EU Ethics Guidelines for Trustworthy AI.

The survey results also highlight that it is also necessary to consider the legal issues that may arise when data is collected, mainly when it comes to protected or sensitive sources, to ensure that the platform is used responsibly and in a lawful way.

Long-Term Sustainability Considerations

The AVALANCHE platform's long-term sustainability and impact beyond the project's duration are a shared priority among partners. Through the Online Exploitation Survey, partners were requested to prioritize key actions that could support sustainability and expansion of AVALANCHE. Figure 32 below depicts the ranked results considered the most strategic areas for ensuring the project's continuity.

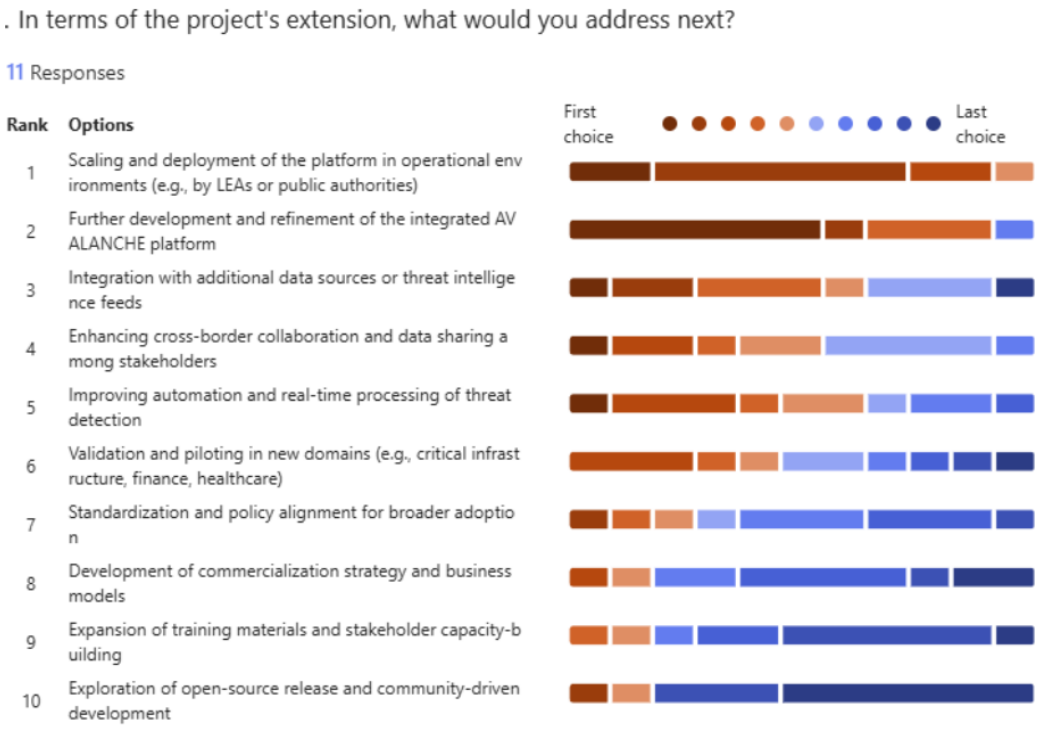


Figure 32 - Ranked Priorities for Long-Term Sustainability of AVALANCHE

The top two strategic priorities for AVALANCHE's long-term sustainability are: a) scaling the platform into operational environments, particularly within LEAs and public authorities, and b) its technical refinement to meet evolving requirements.

Partners also highlighted the importance of enhancing cross-border collaboration, integrating additional data sources, and enhancing real-time automation capabilities. These priorities reflect the partners' commitment to maintaining the platform's relevance and operational value beyond the project's scope.

Some lower-ranked but still important options are piloting in new domains (e.g., finance, critical infrastructure), supporting standardization and policy alignment, developing commercialization strategies, building user training programs, and exploring open-source models for broader community uptake.
All these insights support a double vision: operational deployment in the real world and ongoing development to make sure that the platform will be adaptable and impactful.

6.5 Partner-Specific Exploitation Interests

Some partners also indicated that they are interested in further exploiting not only the integrated AVALANCHE platform, but also other results. The survey served as an important exercise since it was the tool to investigate partners' preferred exploitation plans per Exploitable Result.

The underlying intentions are presented in the following tables:

6.5.1 UBI's Exploitation Interests

Exploitation Plans	• UBI will exploit AVALANCHE results promoting them to diverse markets and stakeholders, supporting sustainability via joint non-profit and SME governance, and collaborating with partners on targeted business plans for long-term impact. • We intend to license the dark web crawler technology to third parties, such as cybersecurity firms, LEAs, or private investigators, who wish to integrate or deploy the tool within their own operations. Licensing allows these organizations to legally use and adapt the crawler while providing our organization with a revenue stream without the need for direct sales or extensive distribution channels. • Building on the project results, we plan to continue research efforts to improve the crawler's capabilities, including better data extraction methods, enhanced analysis algorithms, and expanding coverage of emerging dark web sources. This will involve pursuing new research grants, academic collaborations, and participation in future Horizon Europe or similar projects to maintain technological leadership and innovation. • We aim to exploit the datasets collected by the crawler by offering controlled access to anonymized and processed data for further research, threat intelligence, or security analysis. This could include subscription-based access models or partnerships with organizations interested in using the data for investigative or analytical purposes, ensuring compliance with legal and ethical standards.
Innovation Level of Result	Highly innovative, combining AI, open-source intelligence, and interoperability in a unified platform. More particularly, the AVALANCHE platform's dark web crawler is innovative because it combines advanced automated data collection with sophisticated analysis tailored specifically for law enforcement and cybersecurity applications. Unlike many existing tools that focus only on surface web data or require extensive manual intervention, our crawler can efficiently navigate and extract intelligence from complex, often hidden dark web sources. Additionally, the integration of customizable services, licensing options, and data exploitation pathways provides a flexible model that adapts to different user needs, making it more accessible and practical for a wide range of stakeholders.
Need/ Problem to be addressed	Fragmentation of investigative tools and lack of cross-border cooperation in the disinformation, deepfakes and hate speech areas: The main need our exploitable result addresses is the lack of efficient, automated tools for law enforcement and cybersecurity agencies to monitor and gather actionable intelligence from the dark web. Current solutions often struggle with the complexity, anonymity, and hidden nature of dark web sources, leaving critical threats and illegal activities under-detected. Our platform fills this gap by providing a robust, scalable crawler that

	can access and analyse these obscure sources, enabling faster, more informed decision-making and improving public safety efforts.
Wants/ desired experiences when using the Result	User-friendly, secure, and interoperable platform that enhances investigation efficiency, supports real-time collaboration, ensures data privacy, and delivers actionable, explainable insights. Our target customers, primarily law enforcement and cybersecurity agencies, want a solution that is easy to use and integrates smoothly with their existing systems. They expect high performance in terms of speed and accuracy of data crawling and analysis, as well as reliability to ensure consistent operation without downtime. Cost-effectiveness is important, as agencies often work with limited budgets, so they desire a tool that delivers strong value for investment. Additionally, customers seek ongoing technical support and training to maximize the platform's benefits. Innovation in adapting to evolving dark web environments and maintaining compliance with legal standards is also a key expectation.
Best Promotional Channels	• Project pilots promoting your solution through their networks • Our own connections, network and salesforce • Industry events, trade shows, or conferences • Associations, clusters, research innovation centres, or Digital Innovation Hubs • Other consortium partners' connections, network and salesforce (through licensing or collaboration) • Governmental institutions (EC and national bodies) • Affiliated academic or research institutions
How the Result Will Be Put Into Use	Development of a new product, technology transfer, licensing, publications, contribution to standards: We intend to put the AVALANCHE dark web crawler into use primarily through licensing agreements with law enforcement and cybersecurity organizations, offering the platform at a competitive price that reflects its advanced capabilities and support services. Alongside licensing, we could provide paid training, technical support, and consulting services to help clients effectively implement and maintain the tool. Ongoing development and research will ensure continuous improvement and adaptation to new threats.
Additional Resources needed from other partners	SPP as an end user for real-world validation. To successfully implement our exploitable result, we require expertise from partners specializing in cybersecurity, data analytics, and legal compliance to enhance the crawler's functionality and ensure ethical use. Access to relevant datasets and threat intelligence from consortium members would improve the accuracy and coverage of the platform. Support with market access and connections to LEAs or industry stakeholders is also essential for wider adoption. Finally, financial support or joint funding opportunities would help sustain ongoing development and maintenance efforts.
Estimated Time to Implementation	2-3 years
Route to Market	We will need help from more market-connected consortium partners (collaborative/joint effort)

6.5.2 NET's Exploitation Interests

Exploitation Plans	Netcompany-Intrasoft (NET) intends to exploit the AVALANCHE platform primarily through the provision of high-value services such as technical integration, customization, support, and maintenance for public sector clients, particularly LEAs. We also foresee contributing to policy alignment, training, and future public-sector adoption by promoting the platform through governmental channels, standardization bodies, and digital transformation initiatives. Additionally, we are open to participating in future research projects and licensing components where appropriate to ensure sustainable, long-term impact.
Innovation Level of Result	Cutting-edge Technologies by leveraging the latest technologies, such as AI, machine learning, NLP, DevOps to provide superior analytical capabilities. The AVALANCHE Platform introduces a holistic, interoperable, and intelligence-driven system for LEAs that moves far beyond existing fragmented solutions. Its ability to collect, analyse, and contextualize data across borders using explainable AI, while ensuring compliance with EU legal and ethical standards, makes it a first-of-its-kind integrated solution for tackling complex, digitally coordinated criminal activities. NET brings a unique value by combining: a) Deep experience in public-sector digital transformation with, b) Enterprise-grade delivery of secure, large-scale platforms and, c) A strong focus on operational sustainability and compliance.
Need/ Problem to be addressed	Provide a highly scalable, resilient and integrated platform as a unified solution and bring together the AI tools used, the results extracted and offer an overview using insightful dashboards. The fragmentation and lack of interoperability in digital tools used by LEAs to investigate and prevent complex, cross-border criminal activities.
Wants/ desired experiences when using the Result	User-Friendly Interface: Customers desire intuitive, easy-to-navigate interfaces that allow them to access complex functionalities without extensive training. This includes clear visualizations, dashboards, and reports that simplify decision-making processes. Customization: The ability to tailor the platform to specific operational needs or preferences, including customizable dashboards and reports, is highly valued. High Availability and Resilience: Users expect the platform to be reliable, with minimal downtime and robust performance, even under high-load scenarios. Accuracy and Precision: Precise data analysis and actionable insights are crucial, with users relying on the platform for accurate intelligence and decision support. Data Protection: Ensuring data security and compliance with relevant regulations (e.g., GDPR) is a top priority, as users handle sensitive information. Robust Security Features: Customers want advanced security measures to safeguard against cyber threats and unauthorized access. Cutting-edge Technologies: Users are attracted to platforms that leverage the latest technologies, such as AI, machine learning, and NLP, to provide superior analytical capabilities. Measurable Results: Users want clear indicators of how the platform improves their operations, whether through enhanced security, better intelligence, or more efficient processes.

	Operational efficiency (faster and more accurate investigations, intelligent automation), ease of use and integration, security and legal compliance (compliance with GDPR, national data protection laws, and law enforcement-specific data handling rules - assurance that the platform's operation respects ethical, legal, and procedural standards), practical impact and real-world usability, training & support
Best Promotional Channels	• Project pilots promoting your solution through their networks • Industry events, trade shows, or conferences • Governmental institutions (EC and national bodies) • Trial users or stakeholders referring your solution (word of mouth) • Policy makers, governmental authorities, or standardisation bodies • Associations, clusters, research innovation centres, or Digital Innovation Hubs • Other consortium partners' connections, network and salesforce (through licensing or collaboration) • Affiliated academic or research institutions
How the Result Will Be Put Into Use	Development of a new product, technology transfer, licensing, publications, contribution to standards. NET plans to deploy the AVALANCHE platform as an interoperable solution that can seamlessly connect with national and international law enforcement databases and tools. NET will enable LEAs to utilize AVALANCHE's semi-automatic evidence collection, explainable intelligence-led analysis, and contextual-aware action gleaning capabilities. Through AVALANCHE's standardized data exchange and interoperability features, NET intends to facilitate real-time, cross-border collaboration among LEAs. Also, we will work with partners to deliver comprehensive training curricula tailored to practitioners' needs, ensuring end-users are proficient with the platform's features and can fully exploit its potential in operational settings.
Additional Resources needed from other partners	We will need the tools and crawlers for the dark web, the AI tools for the sentiment analysis and the interfaces that visualize the extracted results. NET requires detailed operational insights from partners specialized in key crime areas such as migrant smuggling, terrorism, child exploitation, cybercrime, and firearms trafficking. This knowledge will help NET refine the intelligence-led, context-aware features of the platform. Also, NET needs policy guidance from partners versed in EU regulations, privacy laws, and international law enforcement frameworks.
Estimated Time to Implementation	2-3 years
Route to Market	We will need help from more market-connected consortium partners (collaborative/joint effort)

6.5.3 IDR's Exploitation Interests

Exploitation Plans	• Market: JOINT exploitation for the platform as a whole. Joint commercial exploitation leveraging existing or newly established sales channels.

	• Technical Creation: (SCORE methodology automation, International Databases Interconnection, Secure Information Exchange)
Innovation Level of Result	The innovation lies in the deployment of specific AI techniques over regular and scheduled OSINT crawling and data collection for processing.
Need/ Problem to be addressed	Lowering the amount of work that currently required from LEA operatives to extract meaningful content, material or even evidence from OSINT sources. Automation of crawling and analysis, for online hate speech, disinformation and deepfakes scenario.
Wants/ desired experiences when using the Result	Get trustworthy results fast, efficiently and effortlessly. Analyse large amounts of OSINT online content regularly and with AI analysis to glean useful results.
Best Promotional Channels	• Project pilots promoting your solution through their networks • Industry events, trade shows, or conferences • Other consortium partners' connections, network and salesforce (through licensing or collaboration) • Trial users or stakeholders referring your solution (word of mouth)
How the Result Will Be Put Into Use	Licensing, for joint exploitation of shared outcomes (AVALANCHE platform) Scientific and Academic Publications
Additional Resources needed from other partners	Collaboration for the 1) shared technical developments in the platform, 2) the development and deployment of the work related to the International Databases Interconnections and the Secure Information Exchange.
Estimated Time to Implementation	2-3 years
Route to Market	We will need help from more market-connected consortium partners (collaborative/joint effort)

6.5.4 SPP's Exploitation Interests

Exploitation Plans	• We plan to integrate OSINT outputs into our existing workflows, risk assessments and operational efficiency. • As a LEA, our intended exploitation pathway involves integrating the AVALANCHE platform into our daily operational workflows to enhance intelligence gathering, threat analysis, and incident response. We plan to pilot the platform in specific units to demonstrate its value, then scale its use agency-wide through tailored training and continuous feedback loops. • Collaboration with technology partners and other LEAs will help us refine the platform and promote interoperability across jurisdictions. • We will also seek funding through public security grants and EU programs to support long-term adoption and maintenance. Ultimately, our goal is to embed AVALANCHE as a core tool that strengthens law enforcement capabilities and public safety outcomes.
Best Promotional Channels	Governmental institutions (EC and national bodies)
Estimated Time to Implementation	2-3 years

Route to Market	We have the resources and network to do it alone

6.5.5 QAD's Exploitation Interests

Exploitation Plans	QAD will explore potential collaboration with external stakeholders such as integrators and solution providers in order to sell to LEAs.
Innovation Level of Result	It leverages data from surface and dark web in order to perform behavioural analysis in order to detect disinformation, hate speech and deep fake detection.
Need/ Problem to be addressed	The main problem is the detection of the spread of disinformation and finding the origin of spread which is quite difficult.
Wants/ desired experiences when using the Result	The primary desired experience relates to the performance of the detection and analysis, which is the initial target and following is ease of use. The performance includes reliability.
Best Promotional Channels	• Project pilots promoting your solution through their networks • Other consortium partners' connections, network and salesforce (through licensing or collaboration)
How the Result Will Be Put Into Use	Through the development of a new product that offers the capabilities required by the LEAs.
Additional Resources needed from other partners	The access to the market is a core part in order to overcome the barrier of entering the particular market.
Estimated Time to Implementation	2-3 years
Route to Market	We will need help from more market-connected consortium partners (collaborative/joint effort)

6.5.6 IML's Exploitation Interests

Exploitation Plans	ITML will scale up the **Unified AVALANCHE UI & Reports** as a core front-end component of the AVALANCHE platform. This user interface suite consolidates investigation tools, visualizations, and reporting mechanisms into a unified dashboard designed specifically for LEAs. ITML intends to further develop the UI's customizability and integration with decision support tools, enabling seamless filtering, rule-based workflows, and explainable outputs. Beyond AVALANCHE, this component will be adapted and demonstrated in other internal platforms and security-focused pilot projects, while also being used in targeted collaborations with LEAs. Additional refinements will stem from ongoing usability testing, with an emphasis on accessibility, efficiency, and operational relevance in real-world investigative environments. The **Sentiment Analysis** module will be further developed and integrated into ITML's portfolio of analytics and monitoring tools. It leverages advanced NLP models (e.g., BERT) to detect emotional tone, polarity, and risk indicators across diverse OSINT sources - including social media content, forums, chat logs, and textual reports. ITML plans to extend the module's coverage to additional domains and languages and embed it in decision-support workflows for public safety and intelligence. Its application will focus on

	supporting situational awareness, early threat detection, and behavioural trend analysis for LEAs. The tool will be used both in future collaborative projects and internal experimentation to continuously improve its precision and domain adaptability. The **Decision Support Enabler** will be maintained and scaled as a high-value investigation module that combines AI analytics, rule engines, and interactive visualizations tailored to LEA workflows. ITML's exploitation plan includes adapting the component for integration into security operation centres, investigation dashboards, and monitoring platforms across different sectors. Future developments will emphasize configurability, transparency, and human-in-the-loop decision-making, aligning with upcoming EU policy and AI regulation requirements. Internally, ITML will use the component to support other use cases requiring risk modelling and explainable intelligence. It will also serve as a technological asset in joint exploitation efforts and innovation-driven research initiatives.
Innovation Level of Result	**Unified AVALANCHE UI & Reports**: What sets it apart is the explainability-by-design approach, ensuring that complex AI-driven insights are presented in a user-friendly, interpretable manner for law enforcement professionals. The system supports multiple rules and user-defined countermeasures within one interface, significantly enhancing usability and situational awareness for LEA officers during investigations. **Sentiment Analysis on OSINT**: Its key differentiator lies in its domain-specific adaptation to the needs of law enforcement, focusing not only on general sentiment but also on detecting radicalization cues, threat escalation, and behavioural triggers. It goes beyond standard social media sentiment tools by incorporating graph-based influence detection and multilingual capability, making it suitable for complex, cross-border investigations. **LEAs Decision Support Enabler**: Unlike existing tools that often operate in silos or lack adaptability, this module provides customizable decision workflows and visual analytics tailored to specific use cases. It emphasizes human-in-the-loop functionality, offering recommendations while allowing LEAs to define and update rules based on evolving threat patterns or procedural needs.
Need/ Problem to be addressed	**Unified AVALANCHE UI & Reports**: The main problem this result addresses is the fragmentation of tools and user interfaces currently used by LEAs for crime investigation and intelligence analysis. Often, officers must switch between multiple disconnected systems, which hinders situational awareness and decision-making. This component solves that by providing a unified, intuitive front-end environment that aggregates data, analysis tools, and visual reporting in one dashboard - streamlining workflows and enhancing the usability of complex AI-driven systems. **Sentiment Analysis on OSINT**: This result addresses the challenge of identifying early warning signals and threat indicators in massive volumes of unstructured, multilingual, and fast-evolving open-source data. Traditional methods fall short in detecting emotional tone, radicalization cues, or behavioural shifts in online discourse. The sentiment analysis tool fills this gap by applying advanced NLP to extract actionable insights from diverse OSINT sources, helping LEAs to detect social tensions, misinformation trends, and potential risks before they escalate.

	LEAs Decision Support Enabler: The primary needs this module addresses are the lack of structured, explainable decision support in dynamic and high-pressure investigation environments. LEAs often struggle to make timely, data-driven decisions when faced with fragmented data and limited operational intelligence. This enabler offers real-time, rule-based and AI-enhanced recommendations to guide investigators, improving both the speed and quality of decision-making. It empowers LEAs with explainable insights while maintaining user control and adaptability to evolving crime patterns.
Wants/ desired experiences when using the Result	**Unified AVALANCHE UI & Reports** • Wants: A seamless, easy-to-navigate interface that consolidates various tools and data into one centralized platform. Operational simplicity without sacrificing analytical depth. Fast and reliable access to customizable, actionable reports. • Desired experience: Users expect an intuitive and responsive UI that allows them to efficiently manage investigations, monitor real-time developments, and access relevant visualizations or historical data without needing to switch between disconnected systems. They want a single-entry point to coordinate operations, communicate findings, and track case progress effortlessly. **Sentiment Analysis on OSINT** • Wants: Early warning capabilities to detect public unrest, disinformation trends, or radicalization indicators. The ability to process vast, multilingual datasets from social media and other online platforms automatically. Insights that are both timely and contextually relevant. • Desired experience: LEAs want to experience confidence in prediction and awareness, through dashboards or reports that translate noisy OSINT data into clear, domain-specific risk indicators. They expect a tool that highlights where to look and why, enabling pre-emptive responses to online threats with minimal manual intervention. **LEAs Decision Support Enabler** • Wants: Trustworthy, explainable AI-driven guidance that supports complex decision-making. The ability to simulate response scenarios and evaluate outcomes based on real-time and historical intelligence. A system that respects legal boundaries while providing operational autonomy and flexibility. • Desired experience: Users desire a decision-support tool that feels like an intelligent partner—capable of surfacing insights, flagging anomalies, and helping prioritize investigative actions. They want to be empowered, not replaced, by technology, with full transparency into how recommendations are generated.
Best Promotional Channels	• Our own connections, network and salesforce • Project pilots promoting your solution through their networks • Industry events, trade shows, or conferences
How the Result Will Be Put Into Use	**Unified AVALANCHE UI & Reports**: ITML intends to put this result into use by continuing its technical development and integration into the broader AVALANCHE framework. The component will be maintained and adapted internally for demonstration purposes and to support follow-up initiatives in the security

	domain. **Sentiment Analysis on OSINT**: This result will be further developed and validated internally through pilot studies and usability demonstrations with relevant LEA stakeholders. The tool will remain part of ITML's internal toolkit for advanced analytics in the law enforcement and OSINT domain, allowing ITML to use its capabilities in ongoing R&D and Horizon Europe collaborations. **LEAs Decision Support Enabler**: This AI-enabled module will be retained by ITML for internal R&D and integration efforts, helping expand the decision-support capabilities in ongoing or future security-focused initiatives. The tool will be updated and reused in consortium-based projects where crime investigation and situational awareness are relevant.
Additional Resources needed from other partners	**Unified AVALANCHE UI & Reports**: To ensure successful implementation and future uptake of the Unified UI & Reports component, ITML will require: a) Continuous feedback from pilot partners and LEAs in the consortium to validate usability, interface intuitiveness, and decision-making functionality during real-world testing scenarios, b) Financial support and strategic collaboration through participation in future EU-funded R&D proposals, which will allow the further adaptation, expansion, and operational deployment of the component across additional use cases and environments. **Sentiment Analysis on OSINT**: The implementation and further refinement of the Sentiment Analysis module will benefit from: a) Input and operational validation from pilot partners and domain experts, especially regarding the contextual accuracy of sentiment detection in real investigation environments, b) Participation in future European R&D initiatives, which will provide financial and technical continuity, enabling ITML to scale the tool and integrate it into broader LEA intelligence workflows. **LEAs Decision Support Enabler**: To maximise the impact and operational deployment of the Decision Support Enabler, ITML will depend on: a) Feedback from pilot users and LEAs to validate rules, countermeasure logic, and explainability features under real conditions, b) Sustained financial and collaborative support via future EU-funded projects, which will help further develop, integrate, and promote the Enabler as part of AI-driven investigation platforms.
Estimated Time to Implementation	<1 year
Route to Market	We have the resources and network to do it alone

6.5.7 AL's Exploitation Interests

Exploitation Plans	Arthur's Legal will pursue its exploitation pathway through Research, Training, Services, Governmental/Sectoral, and Network activities. As a law firm, ALBV will not commercialise products but will contribute by leveraging its legal, strategic, and regulatory expertise to support policy-shaping, deliver legal training and consulting services, and engage with public bodies, EU institutions, and standardisation organisations.
Best Promotional Channels	• Governmental institutions (EC and national bodies) • Associations, clusters, research innovation centres, or Digital Innovation Hubs

	• Our pre-existing network of customers • Exploitable results understood as expertise.
How the Result Will Be Put Into Use	Our contribution is legal consultancy and knowledge, which evolves during the project and supports the ecosystem through improved legal, ethical, and regulatory insight.
Estimated Time to Implementation	<1 year
Route to Market	• We will need help from more market-connected consortium partners (collaborative/joint effort) • We have the resources and network to do it alone

7. Market Impact Assessment & Commercial Exploitation

This section outlines the strategic approach for evaluating market effects and planning the commercial exploitation of the AVALANCHE platform and its components. The primary aim is to connect research and innovation with their successful entry into the market. This methodology will ensure that the project remains a sustainable implementation and continues to have an impact even after the funding period ends. Through this analysis, in which the technological accomplishments of the project are translated into a feasible business plan, which is headed by the exploitation leader and is based on the combined expertise and ideas of the whole AVALANCHE consortium. The subsequent sections also will provide a comprehensive overview of the market analysis conducted, highlighting the most advantageous and significant findings that can be leveraged. Additionally, a preliminary business plan and intellectual property strategy will be outlined. As a result, AVALANCHE now has a well-defined strategy for delivering its solutions to local governments and other interested parties.

7.1 Market Analysis

This part presents an extensive look at the market conditions for the AVALANCHE platform. The analysis is based on primary data collected directly from the consortium members, who have a thorough understanding of the technical and domain-specific aspects of their innovations. Furthermore, research was conducted with respect to the targeted markets to understand the trends, the market size, key players, as well as related information in order to conduct an up-to-date market analysis. This approach ensures that the evaluation is not only thorough but also accurately represents the distinctive value proposition and market potential of each AVALANCHE component.

7.1.1 Objectives

The market analysis was conducted with the following primary objectives:

- **Identify Target Markets and Segments:** The effective identification and definition of the main target markets and customer groups for the integrated AVALANCHE platform and its various tools includes recognizing and describing the main target markets, customer groups and segments.
- **Analyse End-User Needs:** Take an in-depth look at the basic requirements, as well as the possible challenges and expected results of upcoming end-users, focusing specifically on LEAs.
- **Evaluate Barriers to Adoption:** Evaluate possible barriers to adoption, including those that are technical, regulatory, financial, and organizational in nature, and carefully investigate them.
- **Determine Critical Success Factors:** It is vital to identify the critical success elements and enablers that are required for the effective dissemination of the results.
- **Inform Go-to-Market Strategy:** Acquire the initial details for the commercialization strategy, which should include the targeted channels of promotion, timetables for implementation, and revenue models that are feasible.

7.1.2 Methodology

The market analysis methodology was developed to be systematic and collaborative, thereby guaranteeing a thorough assessment of the commercial potential of the AVALANCHE initiative. The process brings together information from several tasks in WP9. For example, it connects the identification of exploitable assets (an input from T9.2, "Innovation Management") with the creation of a strategic business plan (a major output for T9.3, "Business and exploitation planning"). The main aspect of this strategy was making and carrying out a complete "Exploitation Survey" for all of the consortium partners. This survey was designed to obtain critical market-related insights for each KER and served as the

primary data collection instrument. The following critical information was captured by segmenting the survey:

- **Target Audience Identification:** Partners were requested to specify the ideal client profile, including important stakeholders and main recipients for their particular exploitable outcomes.
- **Market Need & Value Proposition:** The contributors were motivated to highlight the exact challenge that their invention resolves as well as the unique benefits it offers to the end user.
- **Market Dynamics**: Questions were included to identify potential barriers to market entry and the critical success factors required for successful adoption and commercialization.
- **Go-to-Market Strategy:** The research collected initial data on the most successful promotional and sales channels, predicted implementation timetables, and potential income models.

Following the completion of this survey, all qualitative and quantitative responses were thoroughly examined and compiled accordingly. This analysis provides the empirical foundation for the market assessment in this section, establishing a data-driven basis for the commercial exploitation methods detailed in T9.3. This approach ensures that the AVALANCHE exploitation plan is both practical and strategically efficient by systematically transforming the expert knowledge of the consortium partners into organized market intelligence, along with the information retrieved from the market research conducted.

7.1.3 Market Positioning & Competitors Analysis

The size of the worldwide Law Enforcement Software Market was valued at $20.25 billion in 2025 and is expected to reach $32.96 billion by 2030. This represents a compound annual growth rate (CAGR) of 10.2% during the forecast period from 2025 to 2030. The core technologies developed through the platform of the AVALANCHE will encompass solutions in Artificial Intelligence (AI), Machine Learning (ML), and Big Data. These innovations support the development of advanced, data-driven systems that enhance real-time decision-making, predictive policing, and efficient resource management. The market size for the exploitable results of AVALANCHE is considered large, as most partners rate it between 4 and 5 on a scale indicating significant market potential. This rate also reveals the awareness of the necessity for highly developed law enforcement and cybersecurity high-developed solutions. The difficulties that must be overcome are many across various sectors and jurisdictions, the most common are dark web intelligence, AI-driven crime detection and decision-support systems. The heatmap below shows the individual responses from partner participants regarding the market size, accessibility and profitability of the project's exploitable results. The colour intensity corresponds to the 5-point rating scale.

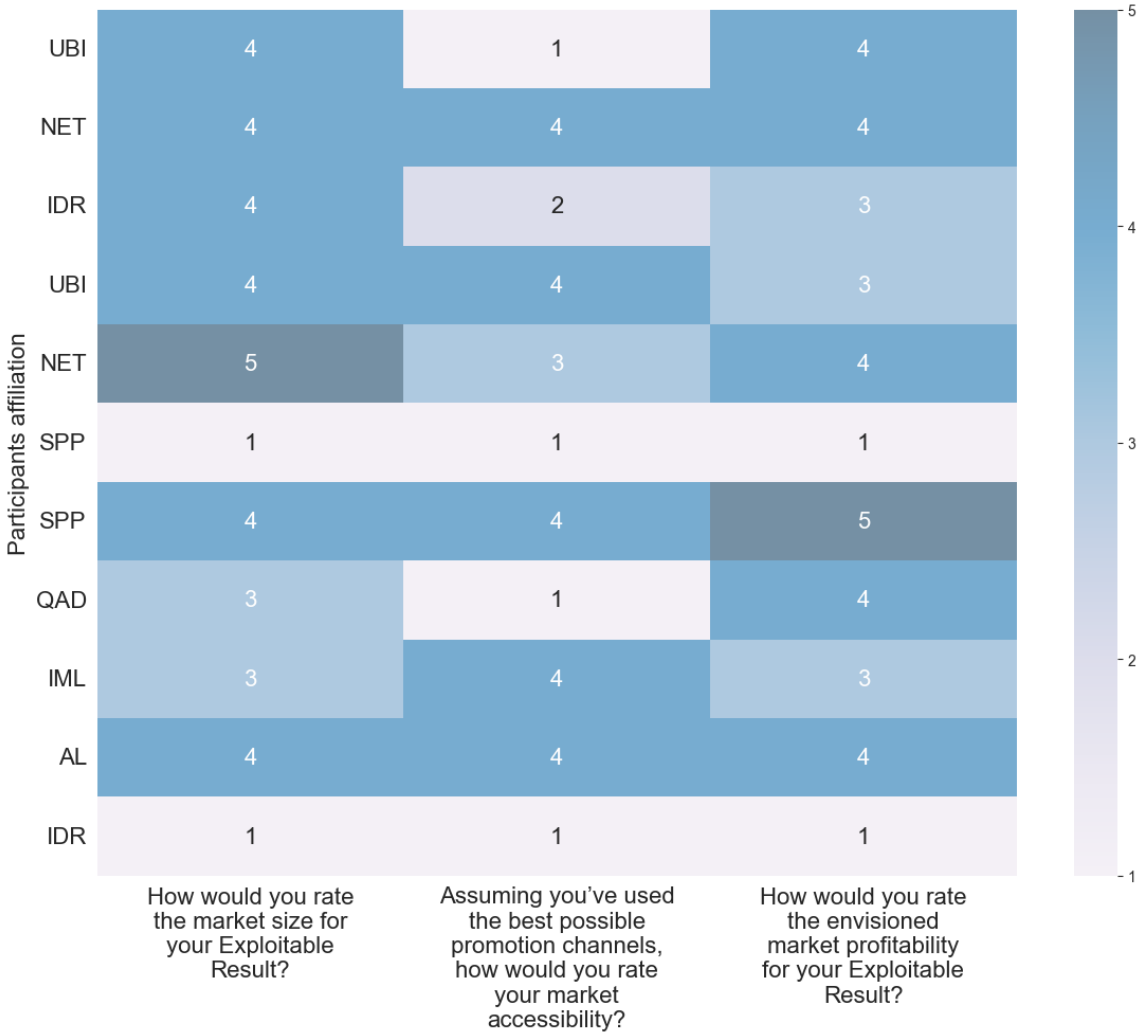


Figure 33 - Market size, accessibility and profitability of the project's exploitable results heatmap

Regarding the segmentation market of the AVALANCHE, the involved stakeholder organizations are local, national & international LEAs, e.g., Europol, Interpol. Government authorities that are related to national security, anti-fraud, border control and cybercrime prevention are also part of the market, as well as financial institutions that are at high risk for fraud and laundering activities. Furthermore, other related stakeholders that can make use of the AVALANCHE are crisis management agencies, technology providers, research clusters, and academic organizations. It is clearly evident that all the aforementioned stakeholders represent different segments of the total pie.

Considering the current market size, the results are promising in a triplet of size-accessibility-profitability. The peculiar thing here is that while the market size score is high enough (4 and above), the accessibility rating is particularly fluctuating, ranging from 1 to 4. This is mainly affected by the public sector procurement complexity and difficulties in integrating such systems in the current technological landscape. In terms of profitability, the majority of the ratings are around 3–4, leading to an optimistic perspective, although there is a plethora of issues such as technical scalability and compliance with the current regulatory frameworks. In addition, the competitive environment surrounding AVALANCHE

might be described as mature but gapful. For instance, DarkOwl[1], Recorded Future[2] and Flashpoint[3] do operate in the cybersecurity domain by promoting computer intelligence, especially in the Dark Web. However, according to the conducted market analysis survey, the solutions provided either by research projects or industry/SMEs are mature or fragmented across platforms and projects. To that end, AVALANCHE comes to fill this gap by providing an integrated approach combining detection and analysis of disinformation, hate speech identification and deepfake detection, all-in-one into a unified platform. Also, it's necessary to mention that the integration of all of them into a single platform fully complies with LEAs line of work, in contrast with current solutions that are not capable of being fully compliant.

7.1.4 PESTLE Context for AVALANCHE

The PESTLE analysis evaluates the political, economic, social, technological, legal, and ethical factors that may influence the AVALANCHE project. This strategic tool plays an essential part in the commercial exploitation strategy by identifying potential threats and opportunities within the market. Through a systematic examination of these areas, the AVALANCHE consortium is positioned to enhance its ability to predict market changes, address regulatory challenges, and ensure that the development and positioning of the platform align with broader social and technological trends. This will enhance the reliability and authenticity of the go-to-market plan.

7.1.5 AVALANCHE PESTLE Analysis

An extensive PESTLE analysis indicates how difficult and challenging the environment is for the AVALANCHE platform to operate.

Politically and legally, the platform has a double mission: the improvement of national security while defending and protecting fundamental rights, as define by the GDPR and other regulatory frameworks, both emerging and already in effect, such as the Data Act and the AI Act. From an economic perspective, it is essential for AVALANCHE to showcase the effectiveness and efficiency that will make a return on investment by improving the operational efficiency for LEAs. However, the expanding market for threat intelligence offers a considerable economic prospect. There is increasing public examination regarding surveillance technologies, particularly from social and ethical perspectives. In order to foster trust and the social acceptance, it is essential to implement a strategy that prioritizes privacy from the outset. The initial phase of the platform involves establishing a solid oversight and governance frameworks, particularly concerning potential algorithmic bias and the associated risks of misuse.

In terms of technology, the latest developments in machine learning and AI tools, leverages the AVALANCHE but on the other hand, adversaries create a dangerous landscape by using the same technologies to produce advanced deepfakes and disinformation. This technological competition requires ongoing innovation and flexibility.

Overall, the implications from all the above factors are crucial to the positioning and risk management of the AVALANCHE. It is a good opportunity for the platform to be introduced not only as strong and useful investigative tool, but also as an approach that complies all the legal regulations, respects the ethical obligations but ta the same time be able to withstand technological challenges. In conclusion, the primary approach to risk management should be forward-thinking, emphasizing the navigation of regulatory intricacies, fostering public trust through transparency, and guaranteeing the effectiveness of AVALANCHE platform in the face of advancing technological challenges.

[1] DarkOwl: https://www.darkowl.com/
[2] Recorded Future: https://www.recordedfuture.com/
[3] Flashpoint: https://flashpoint.io/

7.1.6 Standards, Regulations & Market Readiness

The AVALANCHE platform and the associated systems combine public security, law enforcement and innovative AI. The widespread acceptance of accomplishments requires a rigorous commitment to relevant standards, regulatory guidelines, and market readiness considerations. Those steps will facilitate the successful and long-term adoption.

The regulations play an important role for the successful entrance of the AVALANCHE platform in the market. A successful entry also depends on compliance, which is an essential factor for building trust with LEAs and other government organizations. From all the above, it's clear enough that the platform is required to respect the EU's data protection framework, encompassing the General Data Protection Regulation and the Law Enforcement Directive. The AI Act will also set new standards for AI governance, this means that AVALANCHE will have to make sure that its algorithms are clear, understandable, and overseen by humans. Thus, by adding these legal and ethical requirements to the AVALANCHE platform will be a big selling point and a crucial part of its value proposition.

Additionally, technical standardizations are as important as regulations for market readiness. The AVALANCHE platform is following internationally accepted privacy and security standards, including ISO/IEC 27001 for information security management systems and ISO/IEC 27017, which emphasizes cloud security management. Following through with these standards ensures not only an excellent safety design but also connectivity with the various and frequently fragmented previous IT systems utilized by LEAs throughout Europe. Furthermore, a fundamental aspect of the project is the seamless integration and secure information sharing. In order to achieve this goal, the AVALANCHE platform must be compliant with established data transmission protocols and API standards. The results of this commitment are multiple, such as minimizing adoption friction, decreasing integration expenses for end-users and establishing the platform as a collaborative tool instead of an independent solution.

To summarize, market readiness ultimately depends on how advanced technology is and how much the end-users are willing to adapt. The AVALANCHE project is focused on enhancing the most valuable exploitable outcomes to a notable TRL, demonstrating their resilience but, most importantly, their reliability in real-world scenarios. However, there are certain difficulties regarding the readiness of the market, as indicated by the outcomes of the exploitation survey. Among the difficulties that must be addressed are the long and complex public procurement cycles, the necessity for specialized training for LEAs personnel and the potential for organizational resistance to the adoption of new technologies. Consequently, the market entry strategy should prioritize user training, capacity enhancement, and pilot implementations to showcase concrete value and minimize risks associated with the adoption process for public authorities.

7.2 AVALANCHE Cost-Effectiveness Assessment

This section presents an initial assessment of the cost-effectiveness of the AVALANCHE platform, analysing the expected costs in relation to the anticipated benefits for end-users and the general population. This analysis is necessary for understanding the future viability and adaptability of the results. The costs related to the AVALANCHE platform can be divided into two main categories: the initial investment and continuous operational expenses. It is important to note that all the initial costs are associated with research, development and integration and are significantly supported by Horizon Europe funding. Post-project, operational expenses will involve the maintenance of software, regular updates in order to address emerging threats, data storage and processing infrastructures, as well as human resources dedicated to training and technical support. Moreover, organizations such as LEAs will incur costs associated with the integration of the AVALANCHE platform into their current operations, the training of the employees as highlighted before and the maintenance of internal guidelines regarding data governance. This constitutes an essential investment to realize the platform's considerable operational and societal advantages. Regarding the societal and operational outcomes, the project illustrates another aspect of the price-effectiveness model, for example, the platform is expected to provide significant

productivity improvements for LEAs since the previously time-consuming procedures of data collection and analysis from various websites are totally transformed into fully automated tasks. As a result, professional investigators will perform faster and more effective investigations because there will be enough time earned from manual data collection to spend on concentration and essential decision-making. The impact on society is substantial, although measuring it accurately may be more challenging. The AVALANCHE platform will enhance the safety of citizens, defend the democracy, and improve the resilience of society by tackling online extremism, hate speech and disinformation. From all the above, the results represent a notable societal reward for the investment. Moreover, the implications concerning sustainability and scalability are significant. The platform's sustainability depends on an established business framework that ensures the value delivered to end users consistently offsets the operational expenses necessary for its continuous operation. If the platform can help LEAs deal with important problems, it may be easier to use business models like licensing or subscription services, which would be a very appealing value proposition. Furthermore, the modular design of AVALANCHE enhances scalability, enabling businesses of different sizes and budgets to adopt it in a phased manner. The implementation of a cloud-native architecture will enhance the platform's capacity to dynamically adjust resources in response to varying demand levels. Finally, this will ensure that the platform can be deployed efficiently at both national and international levels while maintaining cost-effectiveness. This is the element that will yield the most significant long-term impact.

7.3 Consolidated Exploitation Planning of Partners

Following on the detailed market analysis carried out earlier, this part shifts from an overarching market evaluation to the targeted exploitation strategies from each consortium partner. This section connects the broader market analysis to the specific plans each partner has for their AVALANCHE innovations. By bringing these individual strategies together, we can ensure that every partner's plan supports the long-term sustainability of the platform and contributes to its overall success. Also, the subsequent subsections will outline the distinct intentions of each partner, assess their alignment with the sustainability objectives of the project, and present an overview of the planned commercial, research, and internal use pathways for the exploitable results

7.3.1 Partner Exploitation Intentions

Interlink with T9.3 Business Modelling and Exploitation Paths

The partners of AVALANCHE have diverse strategies regarding the utilization of the project. This is entirely normal and expected considering that the consortium consists of small and medium-sized enterprises (SME), top executives, and end-user organizations. The results of the exploitation survey reveal that such objectives can be classified into three main areas: commercial, research, and internal. A lot of partners who are interested in technology want to make profit from the project, either by selling new products and services that come from it or by implementing AVALANCHE developments to their existing business portfolios. Conversely several partners are interested in leveraging the project's outcomes to advance their research and development efforts, as a foundation for innovation initiatives or to improve their scientific and technological capabilities. Lastly, the end-user partners, especially the LEAs, prefer to utilize the AVALANCHE tools in their daily duties, with the aim of improving their investigative skills. All the previously mentioned aims could work together without any issues, provide further elaboration on these aspects and formalize them accordingly. The document will explain the various methods every partner can use the information to their greatest advantage.

7.3.2 Alignment with AVALANCHE Sustainability Goals

It is crucial to ensure the sustainability of the AVALANCHE tools beyond the funding period. The collaborative strategies of the various partners are designed to create a flexible and adaptable plan of action, for example, selling the tools for money helps pay for ongoing support and new updates. Furthermore, keeping up with research keeps the technology up-to-date and able to fight new threats, but the most important factor is when police partners use the tools in their own work, it shows how useful AVALANCHE is and builds a core group of users who can vouch for the platform. The AVALANCHE platform doesn't rely on just one way to succeed because combining sales, research, and real-world use will ensure that AVALANCHE has a lasting effect.

7.3.3 Overview of Commercial, Research, and Internal Use Plans

Starting with the initial data gathered from the consortium, we present an overview outlining the particular methods for utilizing the results of AVALANCHE:
Partners seeking revenue opportunities are exploring various avenues, with a strong preference for subscription-based services (SaaS) and direct licensing fees. This approach ensures a consistent revenue stream and aligns with prevailing trends in the software industry. The primary clientele for these services consists primarily of local, regional and national LEAs and all civil security / safety organisations; secondarily: education and legal organisations or agencies. Subsequently, private enterprises engaged in cybersecurity and threat intelligence emerge as the next key clientele. However, the implementation of these commercial products is projected to take approximately one to two years following the completion of the project, because the duration that is required for productization, marketing, and sales cycles is the primary reason for this. In terms of research, for partners who are interested, the most important results from AVALANCHE will be used to write new research proposals, as well as academic papers and conference presentations. The aim is to continuously enhance the TRL of the innovations, explore their application in new domains, and maintain a leading position in OSINT, AI, and disinformation analysis. The above approach confirms that the results will reliably deliver value and promote learning opportunities for participants

On the other hand, the LEAs partners intend to integrate the AVALANCHE platform and its tools into their daily operations. The adoption and the initiative are both significant signs of the success and provide us insightful data for future versions. The very first operation is projected to concentrate on specialized units that deal with cybercrime and do online investigations. To summarize, this direct use by end-users is the most effective way to make a difference in society, and it is an excellent reason for other public safety groups to follow the same path.

8. Conclusions

D9.1 has set out the channels and strategies which have been guiding AVALANCHE's dissemination and communication since its start, while also reporting on Y1 activities. From a monitoring perspective, KPIs have been edited and updated for M12. The only remaining DCE monitoring deliverable is D10.1 (M24) which will lay down the final status of the project. The D9.1 plan presented herein aims to foster engagement and transparency amongst stakeholders through an organized framework applicable in outreach activities.

The project website, social media and other public comm channels will be continuously updated with new materials and relevant information, ensuring that all stakeholders have access to the latest developments. These channels and the related strategy and content will be continuously refined to maintain relevant and impactful communication as the project progresses in Y2.

IDR has been managing the D&C activities and material, from posters to blog posts, to newsletters, ensuring it remains aligned with AVALANCHE's objectives and branding. By integrating links to the website and social media pages in promotional materials, the consortium enhances visibility and engagement with key audiences, ultimately aiding the successful exploitation of the project's outcomes. The overall outreach strategy has evolved since the preliminary M6 planning and is continuously updated. This commitment to an efficient communication and dissemination strategy will help ensure stakeholders remain engaged with the AVALANCHE project and its results.

Regarding exploitation, NET has been guiding the AVALANCHE consortium to carry out a wide range of activities in order to guarantee that the project's exploitable results are methodically identified, evaluated and ready for future adoption. As exploitation leader, NET has set a strong basis for exploitation planning by first continuously documenting and tracking Background IPs and Exploitable Results using the Innovation Management Log. Also, NET created and carried out the AVALANCHE Online Exploitation Survey that was organized around internationally accepted business and strategic tools and effectively collected feedback from all partners. This survey enabled ranking Key Exploitable Results, defining stakeholders, potential exploitation pathways, success factors, barriers and revenue models, as well as providing insights into long-term sustainability, considering the view of each partner when making initial business models, planning how to get to market, and making decisions about intellectual property. This way, both technical and non-technical aspects are addressed. All of these activities show that the consortium is committed to making a clear, realistic, and actionable exploitation roadmap for the AVALANCHE platform and its components. This will help them be adopted, further developed and have a long-term impact even after the project is over.