

ALIGNER D5.1

Communication Strategy and Roadmap Structure





Deliverable No.	D5.1
Work Package	WP5 Outreach and Roadmap
Dissemination Level	PU
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Due date	2022-03-31
Actual submission date	2022-11-09
Status	Final
Revision	2.0
Reviewed by (if applicable)	Full document: Lindsay Clutterbuck, Irina Marsh (CBRNE) Roadmap structure and timeline: Lee Kendrick, James McBrierty, Andrius Paškauskas (LEAAB), Michael Bour (SIEAB), Nada Milisavljevic (DG HOME)

This document has been prepared in the framework of the European project ALIGNER – Artificial Intelligence Roadmap for Policing and Law Enforcement. This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement no. 101,020,574.

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This project has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement no. 101020574.



Version history

Version	Date	Comments
1.0	2022-03-29	Originally submitted version
2.0	2022-11-09	Correction of editorial errors <ul style="list-style-type: none">p. 2, submission date & deliverable status corrected



Executive Summary

The European Commission-funded Coordination and Support Action *ALIGNER: Artificial Intelligence Roadmap for Policing and Law Enforcement* brings together European actors concerned with Artificial Intelligence, Law Enforcement, and Policing to collectively identify and discuss needs for paving the way for a more secure Europe in which Artificial Intelligence supports law enforcement agencies while simultaneously empowering, benefiting, and protecting the public.

This deliverable describes two key outcomes of ALIGNER Work Package 5 “Outreach and Roadmap”: The first part of the document contains the ALIGNER Communication and Dissemination Strategy that outlines the project’s specific aims, strategies, and measures to strengthen the overall impact of the project and to foster a quick and widespread uptake of its results. It will ensure sufficient publicity to the project activities, results, and achievements in different ways and to different target groups, to support the exploitation strategy and maximise the project’s impact. In the second major part, this document describes the initial outline and publication timeline for the ALIGNER Research Roadmap, forming a framework for the iterative creation, publication, and distribution of the roadmap results.

Updates in version 2.0 from November 2022

This second version of the deliverable was produced after the ad-hoc review of the project in July 2022 upon request of the reviewers and corrects editorial errors.



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List of Abbreviations

Abbreviation	Meaning
AI	Artificial Intelligence
LEA	Law Enforcement Agency
LEAAB	Law Enforcement Agency Advisory Board
SIEAB	Scientific, Industrial, and Ethics Advisory Board
TRL	Technology Readiness Level
WP	Work Package



1. Introduction

This deliverable has been prepared for the European Commission-funded Coordination and Support Action *ALIGNER: Artificial Intelligence Roadmap for Policing and Law Enforcement*. ALIGNER aims to bring together European actors concerned with Artificial Intelligence, Law Enforcement, and Policing to collectively identify and discuss needs for paving the way for a more secure Europe in which Artificial Intelligence (AI) supports law enforcement agencies (LEAs) while simultaneously empowering, benefiting, and protecting the public. To achieve this, ALIGNER will

- (1) facilitate communication and cooperation between actors from law enforcement, policing, policymaking, research, industry, and civil society about the changing dynamics of crime patterns relevant to the use of AI by establishing a workshop series;
- (2) identify the capability enhancement needs of European LEAs;
- (3) identify, assess, and validate AI technologies with potential for LEA capability enhancement by implementing a technology watch process that includes impact and risk assessments;
- (4) identify ethical, societal, and legal implications of the use of AI in law enforcement;
- (5) identify means and methods for preventing the criminal use of AI via the development of a taxonomy of AI-supported crime;
- (6) identify policy and research needs related to the use of AI in law enforcement by mapping practitioner needs and emerging crime patterns with identified AI technologies; and
- (7) employ the gathered insights to incrementally develop and maintain an AI research roadmap.

This deliverable describes two key outcomes of ALIGNER Work Package 5 “Outreach and Roadmap”. The first part of this document contains the ALIGNER Communication and Dissemination Strategy that outlines the project’s specific aims, strategies, and measures to strengthen the overall impact of the project and to foster a quick and widespread uptake of its results. It will ensure sufficient publicity to the project activities, results, and achievements in different ways and to different target groups, in order to support the exploitation strategy and maximise the project’s impact. In the second major part, this document describes the initial outline and publication timeline for the ALIGNER Research Roadmap, forming a framework for the iterative creation, publication, and distribution of the roadmap results.

1.1 Gender Statement

The ALIGNER outreach documents and activities aim at supporting a wide array of stakeholders (public, private, and third sector). ALIGNER is fully committed to a balanced



participation and gender equality in all aspects of the project, including a balanced representation of men and women in management, research, dialogue, dissemination, advisory board, and outreach activities, as well as in work package / task leadership. ALIGNER will collect and give equal consideration to the views, experiences, knowledge, and suggestions of all genders. In ALIGNER's outreach activities, the measures to reach this goal include

- (1) introducing inclusive, gender-sensitive, and gender-neutral iconography in public signals and communications;
- (2) avoiding images that are exclusively linked to women or have sexist language;
- (3) encouraging equalitarian public participation processes;
- (4) designing the capacity-building activities to allow the full participation of women in accessing information and training; and
- (5) involving inter-disciplinary teams of all partners to address multiple sex and gender dimensions and complexity.

Every effort is being made to monitor gender equality addressing biases and constraints throughout all project stages. The described outreach activities, visual representations, events, modes of data gathering and analysis, and other research products will all be gender-proofed during the internal review process under and in accordance with a gender-proofing checklist described in Deliverable 1.2 "Project Handbook".

ALIGNER outreach activities aim to raise awareness of potential algorithmic biases (e.g., through the choice of suitable training data). As set out by the European Parliamentary Research Service's "Understanding algorithmic decision-making: Opportunities and challenges" [1], ALIGNER addresses the legal requirements and technical feasibility for combatting bias and discrimination in AI solutions, including based on sex and gender.

1.2 Structure of this report

The remainder of this report consists of two main parts: The ALIGNER Communication and Dissemination Strategy and the ALIGNER Roadmap Structure. Section 2, describing the Communication and Dissemination Strategy, begins with a short introduction on aims and scope (Section 2.1), followed by a statement of the communication and dissemination objectives (Section 2.2), the target audiences (Section 2.3), the key messages (Section 2.4), and the channels, products, and activities designed to communicate the key messages to the target audiences, thus fulfilling the stated objectives (Section 2.5). In addition, it sketches the key aims and scope of the yet to be developed Deliverable 5.4 "Exploitation Strategy" (Section 2.6) and concludes with a description of the communication and dissemination timeline (Section 2.7).

The second major part, Section 3, describes the ALIGNER Roadmap Structure. That section begins with a short introduction on the roadmap's aims and scope (Section 3.1), its



objectives (Section 3.2), target audiences (Section 3.3), and publication timeline (Section 3.4). Its main part (Section 3.5) describes the structure of the roadmap document itself, including some details on the individual section's content and design choices made by the consortium.

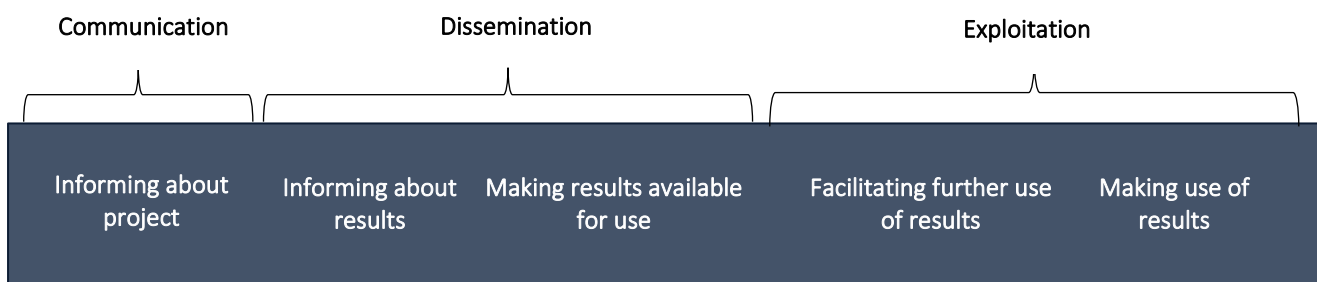


2. Communication and Dissemination Strategy

2.1 Introduction

Effective communication and dissemination are crucial to the success of the ALIGNER project's objectives and are necessary in order for the project to have a positive impact on society.

The actions necessary to properly maximise ALIGNER's impact are classified as follows:



This ALIGNER Communication and Dissemination Strategy will ensure enough publicity to the project activities, results, and achievements in different ways and to different target groups, in order to support the exploitation strategy as well as to widen and maximise the impact. It integrates communication and dissemination in order to maximise the potential of cross-fertilisation between these two connected spheres.

The strategy combines online and offline channels as well as agreements and partnerships with relevant events and conferences and institutions, all of those addressing stakeholders and practitioners from policing and criminal justice, policy makers in local, regional, and national governments and other legislative bodies, standardisation bodies, industrial and research communities, as well as civil society.

This strategy document continues with the definition of communication and dissemination objectives and goes on to defining the target groups of ALIGNER communication and dissemination and identifying key messages that will be conveyed to them. It continues by describing ALIGNER tactics in communication and dissemination, including channels and products that will be used and activities that will be conducted. It further introduces the ALIGNER approach to exploitation, which will be defined in detail in deliverable D5.4. The document continues by outlining the timeline and targets for the communication and dissemination activities and concludes by specifying key performance indicators for their monitoring.



2.2 Communication and Dissemination Objectives

The following objectives guide the development and deployment of the ALIGNER Communication and Dissemination Strategy:

- ◆ To establish the communication, dissemination, and exploitation framework;
- ◆ To raise awareness and foster uptake of project outcomes;
- ◆ To facilitate exploitation;
- ◆ To continuously plan and monitor communication, dissemination, and exploitation actions across the project;
- ◆ To guarantee adequate visibility of ALIGNER within the R&D, practitioner, and stakeholder communities involved in the fields of law enforcement and policing, Artificial Intelligence methods, tools, solutions, and research programming, as well as in the general public; and
- ◆ To facilitate the transfer of the project results into standardisation.

2.3 Target Audiences

The ALIGNER Communication and Dissemination Strategy addresses the following target audiences:

- ◆ LEA, policing, and criminal justice practitioners, including technical staff who will directly benefit from identified AI solutions supporting their daily works as well as ways to address potential misuse of AI for criminal activities;
- ◆ policy makers in local, regional, and national governments and other legislative bodies, who are one of ALIGNER's core target groups, as one of the main aims of the project is to provide policy recommendations (including research program planning) addressing identified gaps with regard to AI solutions for law enforcement;
- ◆ standardisation bodies to advance the unification of models, methods, tools, and data related to the use of AI in law enforcement;
- ◆ the research community surrounding AI, law enforcement, and policing, as well as ethical, legal, and societal assessment, as ALIGNER will identify gaps in these areas and provide directions further research;
- ◆ the industry community surrounding AI and law enforcement who will receive directions for future developments and business opportunities; and
- ◆ the civil society as one of the main stakeholder groups affected by AI solutions for law enforcement, especially considering the ethical and societal dimension of ALIGNER's objectives and their direct and indirect impact on society.

These groups will be involved throughout the project via targeted dissemination and communication channels, products, and activities (see Section 2.5). In addition to those, ALIGNER also aims to involve participants from all target groups in its project workshops.



Besides participants from the ALIGNER Advisory Boards this will, as much as possible, also include partners from relevant other research projects and initiatives. The project workshops will be specifically aimed at engaging with the target groups to ensure that their perspectives are taken up in the policy recommendations and roadmap documents.

2.4 Key Messages

As already described in Deliverable 5.1 “Visual identity, promotional pack, and website”, the following key messages are the core concepts and takeaways to be communicated to the project’s target audiences for the objectives of the project to be able to move forward. Through effective application of the key messages in all ALIGNER communication work, the project’s audiences can arrive at a common conceptual basis. Before further investment is made in delivering information to target audiences, partners should ensure that acceptance of the key messages is established as a conceptual basis.

The described key messages also are included in the ALIGNER promotional pack to provide partners with central arguments for use in all communication work, including written material and presentations. The success of a communication activity can be assessed according to whether the audience has heard, understood, agreed with, and remembered the key messages. Discussion and feedback are an important part of this.

To use a key message, partners should build examples, elaborations and explanations around them, tailored to the target group and depending on the group's context, beliefs, and knowledge, as audiences will decode the message they receive differently depending on their context.

2.4.1 Overarching Key Messages

- ◆ Enabling law enforcement and policing to use Artificial Intelligence is of crucial significance for a safer Europe.
- ◆ Societal, ethical, and legal implications should be the basis for guiding application, policymaking, and research in the field of Artificial Intelligence for law enforcement.
- ◆ Technological advances are rapidly and radically changing human society. These developments in the fields of data availability and Artificial Intelligence technologies present even greater challenges for law enforcement and policing, while simultaneously opening huge opportunities.
- ◆ The ALIGNER project team will identify challenges and opportunities for the use of Artificial Intelligence in law enforcement and policing.
- ◆ ALIGNER’s process for identifying needs, challenges, opportunities, and risks is open, and interested stakeholders can contribute.



2.4.2 Key Messages for Law Enforcement and Policing Practitioners

- ◆ Artificial Intelligence offers the possibility for a step-change in law enforcement practice.
- ◆ Collaboration with diverse stakeholders is needed to ensure that ethical, legal, and social implications of the use of Artificial Intelligence in law enforcement are fully understood and to identify corresponding solutions.

2.4.3 Key Messages for Industry Professionals

- ◆ Existing and emerging Artificial Intelligence technologies often do not account enough for the needs and capabilities of law enforcement agencies and police departments.
- ◆ Collaboration with diverse stakeholders is needed to ensure that ethical, legal, and social implications of the use of Artificial Intelligence in law enforcement are fully understood and to identify corresponding solutions.

2.4.4 Key Messages for Researchers and the Academic Community

- ◆ Artificial Intelligence technologies need to be more applicable in the daily work of law enforcement agency and police departments.
- ◆ Collaboration with diverse stakeholders is needed to ensure that ethical, legal, and social implications of the use of Artificial Intelligence in law enforcement are fully understood and to identify corresponding solutions.

2.4.5 Key Messages for Policymakers

- ◆ While Artificial Intelligence technologies can pose a risk in the hands of criminals, they can provide a significant step-change for law enforcement.
- ◆ Framework conditions need to balance the needs of law enforcement agencies with the societal, ethical, and legal requirements.



2.5 Tactics: Channels, Products, and Activities

2.5.1 Channels for reaching target audiences

The ALIGNER consortium will establish a number of project-specific communication and dissemination channels. Additionally, the individual partners will utilize their channels to promote the project and its results.

2.5.1.1 Project channels

- ◆ ALIGNER website [2] (general project information, announcements, and results)
- ◆ ALIGNER ResearchGate project [3] (research publications)
- ◆ ALIGNER newsletter mailing list [4] (regular updates for subscribers)
- ◆ ALIGNER LinkedIn page [5] (professional networking with target audiences)
- ◆ Event series: Stakeholder workshops (physical/online meetings)

2.5.1.2 Individual partners' channels

An overview of the communication and dissemination channels that are available to the project partners and that they plan to utilise was prepared and shared in the internal project management system Confluence. That overview was drafted based on the information provided by all project partners.

2.5.2 Communication and Dissemination Products

Planned ARCH dissemination and communication products include:

- ◆ Project flyer (in English, French, German, Italian, Spanish, Swedish)
- ◆ Master presentation including scientific details by project partners as well as information about the participating stakeholders
- ◆ Locally adapted handouts in local languages
- ◆ Business card-sized handouts with ALIGNER URL, QR code and logo
- ◆ A promotional video
- ◆ A newsletter
- ◆ A project poster
- ◆ Press releases and/or news articles published in the framework of media partnerships

2.5.3 Dissemination Activities

ALIGNER will use a combination of dissemination channels for to address different target groups:



Target Group	Channels	Product	Desired Outcomes
Stakeholders and practitioners	Website, digital and print media, local events, project workshops	Online articles and interviews, printed articles in newspapers and industry publications, presentations at conferences and workshops, newsletters	Uptake of applicable results; improved knowledge of research needs regarding AI solutions for law enforcement; greater cooperation between LEA practitioners, researchers, industry, policymakers, and civil society
Local and (inter-) national expert communities and professional bodies	Website, digital and print media, conferences, project workshops	Online articles and interviews, videos, printed articles in newspapers and industry publications, presentations at conferences and workshops, newsletters, contributions to online communities to which these groups belong	Furthering state of the art; uptake of results; guiding public policy
Research community	Conferences, project workshops, scientific journals, newsletters, university communication channels, articles in digital and print media	Poster presentations, conference presentations, scientific publications, lectures at universities, posts in relevant online media and industry magazines	Inform further research and refer to ALIGNER research in peer-reviewed journals; use of ALIGNER results in teaching

Table 1: ALIGNER Dissemination Activities

2.5.4 Communication Activities

ALIGNER’s communication activities complement the project’s dissemination and exploitation activities by providing universally understandable information about the project and its results to the European general public. They specifically aim at both increasing the visibility of Horizon 2020 and Horizon Europe in general and highlighting the project’s contribution to meeting the societal challenges of the framework programs.



Utilising the partners' in-house multi-media experts, an integrated communication campaign will be designed and launched by the ALIGNER consortium. As detailed in Deliverable 5.1 "Visual identity, promotional pack, and website", a project logo and visual identity was developed, and a publicly accessible website has been set up describing the project, its goals and activities as well as providing access to public deliverables and other project results. The communication campaign will include a variety of other instruments to communicate the project's success stories, audio-visual material and comprehensive information packages.

The ARCH communication instruments include:

- ◆ the project's website <https://www.aligner-h2020.eu/>;
- ◆ regular national and international press releases at newsworthy moments of the project's lifetime such as project outset, newsworthy final and intermediate outcomes, news articles for online channels and publications regarding project findings and events, as well as interviews with partners and stakeholders, newsletters, videos, and other activities aimed to outreach to popular media channels with a diverse audience;
- ◆ social media activities both through the project social media accounts and partners' accounts, news portals, podcast interviews, e-magazines, blogs, and web TV channels;
- ◆ regular outreach using suitable EU communication channels (e.g. Horizon Magazine, CORDIS Wire or [research*eu](http://research.eu));
- ◆ face-to-face contacts (particularly to practitioners, researchers, and other stakeholders) and targeted briefings to stakeholders, policymakers, and others;
- ◆ participation and presentation of the project and its results in innovation and networking events, start-up community workshops, technological fairs, and exhibitions;
- ◆ participation and presentation of the project in other networks and groups, not directly linked to the project, to which the consortium partners have strong links and involvement;
- ◆ presentations and brainstorming sessions with existing clients and collaborators to further extend ALIGNER's solutions to other domains and markets; and
- ◆ ALIGNER flyers, brochures, posters, and project presentations.

The ALIGNER website will be one of the main communication tools. The public areas of the project website aim at communicating the outcomes, raising awareness among the public and private sectors, and facilitating communication within the multi-disciplinary community and with related practitioners and stakeholders, including providing them with information in local languages. The website will be regularly updated and will reflect the final and interim project results (publications, public deliverables, promotional



material, press echo, etc.), but will also work as a central information platform for all interested parties in the topics of ALIGNER.

2.6 Exploitation

In co-creation with practitioners, the ALIGNER consortium will develop a detailed exploitation strategy, to be detailed in Deliverable 5.4 “Exploitation Strategy”. The strategy will explore opportunities for both fostering the use of ALIGNER results and assets in the respective communities and continual use and further development of ALIGNER results by the consortium partners. Also, the strategy will identify opportunities and ideas for commercial and scientific exploitation of ALIGNER results and knowledge.

Topics and descriptions in the exploitation strategy will take into consideration the EC “Innovation Radar 3” (which aims at identifying and supporting high-potential exploitable results). Exploitable results and exploitation channels will be identified in the exploitation strategy, across four categories:

- 1) commercialization, including business models and consultancy service portfolios based on the project tools;
- 2) research and teaching, including follow-up research, citations by project-external researchers, and use of project research findings in teaching and training, and informing further research;
- 3) influencing policy; and
- 4) standardization.

As part of strategy development, an analysis of the competition and exploitation environment will be carried out, based on an inventory of the central services and products currently in use by the project’s target groups.

The following table shows the potential exploitation routes for the main exploitable results identified thus far.



Area	Business models	Consulting	Research and teaching	Policy	Standardisation
AI technology impact assessment		x	x	x	x
AI risk assessment	x	x	x	x	
AI cybersecurity requirements		x		x	x
AI ethical, legal, and societal impact assessment	x	x	x	x	
Taxonomy of AI-supported crime			x	x	

Table 2: ALIGNER Exploitation Routes

2.7 Timeline, Targets, and Next Steps

2.7.1 Timeline

The following table shows the communication and dissemination timeline as well as targets per project year:



Communication and dissemination objectives	Year one	Year two	Year three
Create project identity and branding	Create project branding and identity. Finalise logo and colour scheme. Produce visual identity guidelines and guidelines for use of EU funding acknowledgement and EU emblem.	Produce further visual materials as needed, monitor and ensure consistency of adherence to branding guidelines.	Produce further visual materials as needed, monitor and ensure consistency of adherence to branding guidelines
Digital dissemination material	Create dissemination materials including giveaways, leaflets, brochure, poster, and other materials.	Update materials according to project feedback and progress. Create versions in other languages where possible with project partners.	Update materials according to project feedback and progress. Create versions in other languages where possible with project partners.
Create project website	Take project website live including information about consortium members and project function.	Update the website with news on events and development of the results as well as related news.	Update the website with news on events and development of the results as well as related news.
Networking events and workshops	Attend and/or host up to one relevant networking events or workshops addressing the target communities, stakeholders, and users.	Attend and/or host up to two relevant networking events or workshops addressing the target communities, stakeholders, and users.	Attend and/or host up to two relevant networking events or workshops addressing the target communities, stakeholders, and users.
Generative positive media coverage	One newsletter	Two newsletters	Two newsletters
Project publication	Two project publications (articles, papers, presentations)	Two project publications (articles, papers, presentations)	Two project publications (articles, papers, presentations)
Cluster with relevant projects and global level initiatives	Cluster with one relevant project or global initiative.	Cluster with three relevant project or global initiative.	Cluster with four relevant project or global initiative.

Table 3: Communication and Dissemination Timeline



The table below outlines the key areas on which the communication and dissemination activities and their ability to connect effectively with their target stakeholders will be judged:

Measures	Evaluation criteria	Means of approval/verification
Project branding	Level of positive identification of logo/branding with the core functions and aims	Approved consensually by dedicated project communication board, where each WP is represented
Project website	<ul style="list-style-type: none"> • Web analytics data to record the number of unique visitors per month • Number of users engaged in site activity • Number of through-feeds to ARCH disaster risk management platform • Average visit duration • Number of searches • Number of downloads 	On an annual basis: <ul style="list-style-type: none"> • Number of visits, number of unique visitors • Average visit in minutes • Number of page views • Number of countries visitors come from
Blog activity	<ul style="list-style-type: none"> • Entries • Reach 	<ul style="list-style-type: none"> • Number of blog entries per year • Acquired audience
Newsletter	Number of circulations	Number of readers
Press releases	Rates of coverage and general news interest	Number of appearances
Publications	Number of articles and or/papers	Number of publications
National and international events attended/organised	Events attended/organised	Number of workshops or other events attended/organised

Table 4: Measures and evaluation criteria of ALIGNER communication work

2.7.2 Monitoring

Communication and dissemination activities are collected centrally through the ALIGNER online dissemination tool. Partners can find a shortcut to this tool in the internal project management system Confluence.

2.7.3 Key Performance Indicators (KPI)

The following table shows the general KPIs and their targets that will be applied by ALIGNER.



Type	Key Performance Indicator	Target
Scientific excellence of research activities	Number of scientific publications (cumulative)	6
	Number of invited speeches/keynotes (cumulative)	15
Level of visibility at EU and global levels	Average monthly visits to the project website	900
	Total number of documents downloaded from the project website	300
	Number of attended events on European level	15
Community Engagement	Number of attendees at the project workshops (per workshop)	30
	Number of liaisons with projects and institutions working on similar themes	10
Progress on exploitation and business models	Number of new business models identified and documented (filled Business Model Canvas forms)	3

Table 5: ALIGNER Communication and Dissemination Key Performance Indicators

2.7.4 Next Steps

The following activities were identified as the next steps in ALIGNER’s communication and dissemination work and will be prioritised in the upcoming months:

- ◆ establishing collaboration with the press offices of the ALIGNER partners;
- ◆ updates of the ALIGNER website;
- ◆ social media activities;
- ◆ translating the project flyer to French, German, Spanish, Swedish.

2.8 References

- [1] European Parliamentary Research Service: Understanding algorithmic decision-making: Opportunities and challenges, 2019, [https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU\(2019\)624261](https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2019)624261)
- [2] ALIGNER Website, www.aligner-h2020.eu
- [3] ALIGNER ResearchGate project, <https://www.researchgate.net/project/ALIGNER>
- [4] ALIGNER newsletter mailing list, e-mail address will be published soon
- [5] ALIGNER LinkedIn page, <https://www.linkedin.com/company/aligner-h2020>



3. Roadmap Structure

3.1 Introduction

This section gives an overview of the structure of Deliverable 5.3 “Research roadmap for AI in support of law enforcement and policing”. That document, initially published in M12 and subsequently updated every six months, will compile all (intermediate) results and information gathered from WPs 2, 3, and 4. It will be targeted at police, LEAs, policymakers, funding agencies, and researchers and provide them with information on gaps, challenges, and opportunities related to artificial intelligence solutions for police and LEAs. This section also includes information on the roadmap’s objectives, its target audiences, and a preliminary publication timeline.

3.2 Objectives

The research roadmap significantly contributes to accomplishing a number of ALIGNER’s specific objectives:

- ◆ Identify the capability enhancement needs of European LEAs
- ◆ Identify means and methods for preventing the criminal use of AI
- ◆ Identify policy and research needs related to the use of AI in law enforcement
- ◆ Employ the gathered insights in order to incrementally develop and maintain an AI research roadmap meeting the operational, cooperative, and collaborative needs of police and LEAs

In addition, the roadmap will identify and discuss ethical, legal, and societal aspects. With each iterative publication of the research roadmap, ALIGNER continually develops its scientifically driven strategy to provide a roadmap for long-term research programming by institutions and individuals and to guide the effective and efficient allocation of resources.

3.3 Target Audiences

ALIGNER’s research roadmap addresses a well-defined community of stakeholders, including:

- ◆ LEA, policing, and criminal justice practitioners, including technical staff who are interested in applying, adapting, or co-creating research upcoming results
- ◆ research programmers and policy makers in local, regional, and national governments and other legislative bodies, who are interested in policy recommendations addressing identified gaps with regard to AI solutions for law enforcement



- ◆ standardisation bodies to advance the unification of models, methods, tools, and data related to the use of AI in law enforcement
- ◆ the research community surrounding artificial intelligence, law enforcement and policing, as well as ethical, legal, and societal assessment, as the roadmap document identifies gaps in these areas and provides directions for further research
- ◆ the industry community surrounding artificial intelligence and law enforcement who will receive directions for future developments and business opportunities

3.4 Publication Timeline

The research roadmap will be iteratively published starting in September 2022, first focusing on one single scenario in order to 'get everything right' and will then be extended and updated twice a year until ALIGNER's conclusion. This iterative schedule also allows adapting to changing needs and makes better use of the available resources for all partners.

When	What
March 2022	Roadmap structure validated and published
Sep 2022	<ul style="list-style-type: none">◆ Scenario 1:<ul style="list-style-type: none">○ Scenario narrative○ Initial set of practitioner needs○ Initial set of AI technologies◆ General ethical & legal considerations◆ Additional general capability enhancement needs◆ Initial mapping of projects
Mar 2023	<ul style="list-style-type: none">◆ Scenario 1:<ul style="list-style-type: none">○ Update to set of AI technologies○ Results of impact assessment for initial set of AI technologies○ Related challenges & unintended consequences (technical, ethical, legal)◆ Identification of relevant policy / research processes / strategies◆ Set of policy recommendations
Sept 2023	<ul style="list-style-type: none">◆ Scenario 1 (if necessary):<ul style="list-style-type: none">○ Updated impact assessment○ Updated challenges & unintended consequences◆ Scenarios 2, 3, 4:<ul style="list-style-type: none">○ Scenario narratives



- Practitioner needs
- Sets of AI technologies
- Challenges and potential unintended consequences
- Results of impact assessments for related set of AI technologies
- ◆ Updated set of policy / research process / strategies and policy recommendations
- ◆ Initial taxonomy of AI supported crime
- ◆ Update to project mapping

Mar 2024

- ◆ **For all scenarios**
 - Final set of AI technologies
 - Updated challenges & consequences
 - Updated impact assessments
- ◆ Preliminary set of cybersecurity requirements
- ◆ Initial set of desirable approaches to overcome challenges & unintended consequences

Sep 2024

- ◆ Gap analysis
- ◆ Final policy recommendations
- ◆ Final set of cybersecurity requirements
- ◆ Final impact assessments for all scenarios
- ◆ Final taxonomy
- ◆ Final project mapping

3.5 Structure

The following subsections describe the planned structure of the roadmap document itself.

3.5.1 Section 1: Introduction

This section gives a general introduction to the concept of the roadmap and its structure, gives an overview of the intended publication timeline and provides any other general information about the roadmap and the project.

It includes two sub-sections:

- ◆ Section 1.1: Publishing Timeline: An overview (and, if necessary, an update) on the publishing schedule for the roadmap document.
- ◆ Section 1.2: What's New in This Version? A concise overview describing updates to existing and previously published sections and iterations, and highlights on the inclusion of new sections and principal content.



3.5.2 Section 2: Scenarios and capabilities

Section 2 describes in outline the four scenarios ALIGNER is focusing on, the capability needs LEAs would need to function effectively and efficiently under the described scenarios, as well as a taxonomy of existing and potential AI-supported criminal activities.

- ◆ Section 2.1: Scenarios & emerging crime patterns: A description of the four scenarios of potential future development of AI usage in criminal activities and in law enforcement.
- ◆ Section 2.2: Practitioner capability enhancement needs: A general description of LEA capabilities needed to address potential future criminal activity described in the scenarios, as well as for each scenario a description of potential capability enhancement needs.
- ◆ Section 2.3: Taxonomy of AI-supported crime: The identification of potential (future) AI-supported crimes, serving as an “early warning system” for LEA professionals, policy makers, research programmers, and researchers.

3.5.3 Section 3: Challenges and opportunities

This section gives a more general and technology-independent overview on a number of key aspects of the application of AI in law enforcement. The section is divided in two sub-sections:

- ◆ Section 3.1: Ethical, societal & legal aspects: This sub-section gives an introduction of relevant ethical, societal, and legal aspects, both more generally and specific to the scenarios developed in Section 2 of the roadmap document.
- ◆ Section 3.2: Technical & organisational aspects: This sub-section focuses on technical and organisational aspects and related challenges, including scenario-specific issues, potential unintended consequences, and cybersecurity requirements for the use of AI in law enforcement and policing.

3.5.4 Section 4: Policy and Research Recommendations

This section is one of the main focuses of the research roadmap document. It includes three sub-sections on policies and research frameworks, a gap analysis between these frameworks and the capability enhancement needs as well as scenarios identified before, as well as a set of recommendations on how to address these gaps.

- ◆ Section 4.1: Mapping of Relevant Policy and Research Frameworks and Processes: This sub-section identifies important recent and current research frameworks and processes.
- ◆ Section 4.2: Gap Analysis Between Frameworks and Processes and Capability Enhancement Needs as well as Scenarios: This sub-section presents an analysis on goals, targets, and topics covered by research frameworks and processes, all linked to capability enhancement needs and scenarios identified above.



- ◆ **Section 4.3: Recommendations:** This sub-section contains a continuously updated set of recommendations, split into general recommendations addressed to all of ALIGNER's target audiences and specific recommendations to policymakers, funding agencies, researchers, industry, as well as LEAs. In addition, this section will cover recommended approaches to challenges and unintended consequences. While this section of the roadmap provides an easy to digest format for the recommendations, with the specific aim of enabling intermediate updates to the policy recommendations, the deliverables produced by the strongly linked ALIGNER Work Package 2 will be based on them and provide an opportunity to present and discuss them in more detail.

3.5.5 Section 5: AI Technology Catalogue

This section provides a catalogue of "fact sheets" for the identified AI technologies. It includes two sub-sections:

- ◆ **Section 5.1: Index of AI Technologies:** This sub-section gives a brief overview of all the AI technologies in the catalogue, including information on the type of technology, intended use and end-user, and technology readiness level (TRL).
- ◆ **Section 5.2: AI Technologies:** This sub-section contains the catalogue of fact sheets itself, including more comprehensive information on the type, intended use, and provider of the technology, its TLR, a mapping of relevant scenarios, as well as an impact assessment concerning those scenarios.

3.5.6 Annex: Projects and Initiatives Mapping

This annex includes short descriptions of finished and ongoing research projects linked to the topics of ALIGNER.