PATHWAYS TO MARKET REPORT 01

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ENACT.
European Network Against
Crime and Terrorism

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About ENACT

ENACT is a knowledge network focused on the fight against crime and terrorism (FCT). The network is funded under the Horizon Europe Framework Programme in Cluster 3 – Civil Security for Society. The project addresses the call topic HORIZON-CL3-2022-SSRI-01-02 'Knowledge Networks for Security Research & Innovation', aiming to collect, aggregate, process, disseminate and make the most of the existing knowledge in the FCT area.

The project aims to satisfy two major ambitions,

- Provide evidence-based support to the decision-makers in the EU research and innovation (R&I) ecosystem in the FCT domain, targeted explicitly at enabling more effective and efficient programming of EU-funded R&I for the fight against crime and terrorism.

- Act as a catalyst for the uptake of innovation by enhancing the visibility and reliability of innovative FCT security solutions.

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EXECUTIVE SUMMARY

The ENACT Pathways to Market (PtM) report serves as a comprehensive framework designed to support Fighting Crime & Terrorism (FCT) Research & Innovation (R&I) projects in their journey from validation to market implementation. This report outlines the methodology and processes developed to assist projects in identifying viable commercialisation routes and enhance their market potential. The PtM reports represent a crucial component of ENACT's validation facility, implemented under the Task (T)8.3/Task 9.3/Task 10.3 "External Cooperation Activities" throughout the project's cycles. The PtM reports evaluate the validation facility and provide actionable recommendations for market uptake and exploitation.

The methodology combines expert validation through structured surveys with project self-assessment tools, creating a dual perspective on market opportunities and challenges. By leveraging the European Union Civil Security (EUCS) taxonomy and operational validity assessments, the process ensures a comprehensive evaluation of each solution's market readiness and potential. This systematic approach enables the identification of both barriers and accelerators to market entry, while also highlighting standardisation and certification opportunities.

The report establishes a standardised framework for future PtM analyses, ensuring consistency and measurable value across all validated projects. This methodology will continue to evolve based on practical implementation experiences, maintaining its relevance and effectiveness in supporting the successful commercialisation of civil security innovations.

ENACT Validation Facility is opened to EU current and past-projects. To participate to the Facility, fill out the following survey:

https://ec.europa.eu/eusurvey/runner/ENACTProjectInterest

ENACT is also looking for end-users such as LEAs to evaluate the submitted solutions. To participate as an evaluator, please fill in the following survey:

https://ec.europa.eu/eusurvey/runner/ENACTEvaluatorForm

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INTRODUCTION

The Pathways to market reports and studies are ENACT products that the project will offer to other FCT R&I projects that enter the validation facility as a part of T8.3/T9.3/T10.3. The reports will support these projects by providing recommendations for further marketability, identifying (innovative) pathways to uptake, and even providing recommendations based on the validation results of the solutions conducted by the ENACT pool of experts. These reports will be delivered to the projects before the end of their project in order to allow them to implement the recommendations made into their exploitation plans and actions.

In addition to the ENACT Validation Facility, the pathways to market reports (PtM) make up part of the T8.2/T9.2/T10.2 on exploitation. These project-specific pathways to marketability and innovation uptake will help to feed into the Impact Reports' section on exploitation, which will extrapolate the trends and insights from these PtMs. In addition to the exploitation task, these reports will feed into the Market Observatory's work on analysing standardisation, uptake and certification opportunities, as well as any insights to the civil security market writ large.

Finally, as the Validation Facility has not yet fully gone through the process with an FCT R&I project, this first PtM acts as a guideline document that will develop in detail the methodology of the PtM, allowing for consistent results that all have the same scope and added value.

RELATION WITH ENACT'S DESCRIPTION OF ACTION / OBJECTIVES

Exploitation - ENACT's vision for exploitation has a dual purpose: firstly, to ensure that the results of the project are exploited by the Security R&I community for policy, programming and implementation and, secondly, to ensure that these exploitable products provide the groundwork and opportunities for organizations and projects within the FCT community to maximize the exploitation of their own results. Therefore, ENACT's measurement of success for exploitation focuses on direct exploitation but over the long-term (and likely beyond the life of the initial project) the impact ENACT has had on market and innovation uptake within the FCT R&I community.

Much of the methods of the ENACT Network are geared towards delivering products that can immediately be exploited by all levels of the Security R&I community; therefore, exploitation is embedded within the whole approach of the project. Nonetheless, T8.2 is specifically dedicated to identifying and maximising innovation uptake and defining available exploitation pathways both at the national and European levels. ENACT will take the following steps to capitalize on project outcomes and results and transform them into sustainable and exploitable assets:

- An **Exploitation Plan** (delivered within the public deliverable ((D)8.1) to concretely define an approach to exploitation within the project and the first action steps for delivery
- An I**nnovation Uptake Plan** (also included within D8.1) to set out at an early stage a process for identifying proposed and additional exploitable assets within ENACT and eventually the management of the associated Intellectual Property Rights (IPR), if necessary. The plan will also propose the assessment of the impact and integration of innovations captured and identified from other FCT R&I projects into ENACT's Knowledge base.
- Three **Impact Reports** (D8.1, D9.1 and D10.1) concretely identify exploitable assets, activities, pathways and opportunities at the end of each implementation cycle.
- **Pathways to Market Reports and Studies** for supporting FCT R&I projects and promising technologies in their own innovation and market uptake supported by the FCT capability maps and validation guidelines.
- **FCT R&I Results Validation Guidelines** will also be produced and disseminated among the R&I community and Law Enforcement Agencies (LEAs) in order to ease the validation and potential uptake of R&I results.

Within the framework of these ENACT results/products there are 3 different innovation uptake and exploitation pathway groups defined:

The Project Wide Pathway - This project wide exploitation pathway leans solely on the activities as defined in T8.1 and T8.3 of the ENACT project. All dissemination and communication activities are related to exploiting the ENACT results. The same goes for the external cooperation activities as listed in T8.3. Within the D8.1 this is reflected in Chapter 3 and 5.

Joint European Pathway - All ENACT results are aiming at facilitating and sharing knowledge about the FCT Research & Innovation domain. ENACT intends to share these results primarily with EU LEAs and other EU security practitioners' knowledge hubs and organisations. In the ENACT Stakeholder Map the knowledge hubs/organisations are identified and targeted to exploit and uptake the ENACT results. Other important group relevant for the European pathway are the EU policy makers and the International Non-EU LEA/Police organisations. Within the ENACT Stakeholder map the consortium has appointed an ENACT partner to act as single point of contact. These persons should inform these knowledge hubs/organisations about the existence, activities and progress about the ENACT results/products.

The Individual National Pathway - This National pathway description has not been addressed in the first 12 months of the ENACT project. It will be added in D9.1 Impact Report v2.

As ENACT is expected to be a highly visible and active project within the Security R&I community, the turnaround time between ENACT's research activities and their visibility within the community should be as short as possible. Crucial to the effective exploitation of the project's results will be making them available through as many routes as possible – firstly through the project's own D&C channels, then through open access scientific publications, the Horizon Results Platform and the Open Research Europe Publishing Platform, but notably through the channels enabled by the Community for European Research & Innovation for Security (CERIS) towards all the participating entities from the policy, LEA, industrial, research and societal spheres. Furthermore, all partners and the Security R&I community will exploit the results through their own research activities, ability to enhance to go-to-market pathway for available solutions and for LEAs to better validate and evaluate how FCT solutions can be integrated into their operational setting.

KER7: Pathways to Market Reports: addressing both recommendations for the standardisation of given functionalities (as indexed in the Security taxonomy) as well as a means for the further marketability and innovation uptake of the specific tech solutions validated and pilot tested in the framework of ENACT and reported in end user validation guidelines, reports and portfolio of validated solutions (KER6).

KPI: KPI.4.8: Innovative pathways reported for market uptake reported in Pathways to market study: >10.

PATHWAYS TO MARKET - METHODOLOGY

The PtM reports follow a simple but effective methodology, using various information sources to explore potential ways to bring a validated technology to market. It then analyses the best routes and actions for successful adoption. In short, the goal is to find the most practical and effective path to commercialization.

Validation Guidelines Survey to the Validators

The validators that are drawn from the pool of experts will act as the primary source of information for defining potential exploitation routes. To collect the necessary information to approve the technology, these experts are given validation guidelines which will include questions to assess the barriers and accelerators of the given technology/solution. For each project that goes through the validation facility, [DV1] the validators will all be given the same guidelines in order to ensure uniform evaluation across the facility throughout the project lifetime. These guidelines take the form of a survey (EUSurvey) that allow the validator to measure various aspects of the solution (see Appendix A) . The first section of the guidelines survey allows for the validator to map the solution/technology to the EUCS taxonomy, which is vital to the ENACT project's overall methodology. Mapping the solution/technology via the EUCS taxonomy will allow for ENACT to understand where it fits within the civil security market and better provide tailored recommendations for potential paths and actors to focus on when it comes to exploitation.

Following this mapping the operational validity of the technology/solution is analysed by the validator on behalf of ENACT. This will allow for ENACT partners and the validator to assess whether or not the technology/solution is able to perform in an operational setting, how easy the technology/solution is for the end-user, and potential areas for further development. These insights will play a crucial role in the final analysis.

Pathways to Market Survey to the Projects

Similar to the Validation Guidelines, a survey will be shared with the projects that are participating in the validation facility to understand what barriers and accelerators have already been identified by the project (see Appendix B). The questions will be the same asked as those in the validation guidelines, and will measure how the project views what needs to be done in order to reach successful exploitation.

Additionally, the preliminary exploitation plan can be uploaded by the projects for ENACT to review, in order to better understand the KERs, their owners, and any potential standardisation/certification opportunities already underway.

In addition to the above survey, structured interviews with the project may be undertaken to better understand the project's existing exploitation plans.

Analysis & Production of Pathways to Market Report

Once the technology/solution has gone through the validation facility, the ENACT partners in charge of T8.2/T9.2/T10.2 and T8.3/9.3/10.3, namely the Netherlands Police and European Organisation for Security (EOS), can begin analysing the outcomes. The first step in analysing the results of both surveys will be to compare the answers regarding the pathways to market and measuring the levels of congruence. In the case that the answers align, then the Netherlands Police and EOS will be able to define accurately the focus areas for the projects to successfully exploit their technology/solution based on the common results. Additionally, the Netherlands police and EOS will be able to use the answers to the technologies and functions areas validators questionnaires to identify any trend suggesting one or more specific areas (Functions areas level 2) or technologies face development and deployment issues.

In the case that the answers are not congruent, then the ENACT partners will prioritise the answers from the validators, ensuring that the end-user feedback lays the groundwork for the pathways to market. For example, they would need to isolate the new needs from the results, potentially find out more details to have a clear vision. This could be done through interviews with the experts. With the new information, adjustments would take place to better suit the technology to the needs of the end users. It would be important to ensure changes are documented. A shift in direction will lead to a more successful and useful final product.

These conclusions could enable the identification of the key areas for increased support and the definition of the most suitable supporting scheme.

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CONCLUSIONS & FUTURE WORK

This report has introduced a comprehensive methodology for ENACT's Pathways to Market initiative, which aims to guide FCT R&I projects through their innovation uptake journey. The methodology consists of three key components:

1) Expert Validation Process:
- Structured surveys conducted by qualified validators from the expert pool
- Assessment of operational validity and market readiness
- Mapping solutions to the EUCS taxonomy for precise market positioning
- Evaluation of technical performance and user experience

2) Project Self-Assessment Framework:
- Detailed questionnaires for project teams to identify barriers and opportunities
- Integration of preliminary exploitation plans (if available)
- Structured interviews for deeper insights into commercialization strategies
- Analysis of KERs and their potential impact

The Methodology's Dual Perspective Approach Enables:
- Comprehensive market opportunity assessment
- Identification of potential commercialization/uptake challenges
- Strategic alignment with industry standards and certifications
- Clear pathways for market entry and growth

3) Continuous Improvement Strategy:
As ENACT implements this framework within the ENACT validation facility, ENACT will continuously refine our approach based on real-world feedback and results. This iterative process ensures our methodology remains current and effective in supporting civil security innovations. These continuous improvement iterations, throughout the course of the ENACT project phases, will lead to a final guidance document for all projects/solutions based on the ENACT findings with respect to the Pathways to Market and the Innovation uptake process.

Future Development Priorities:
- Enhancement of survey instruments with detailed validation metrics
- Development of comprehensive assessment guidelines to address validator-project perspective gaps
- Implementation of quantitative impact measurement systems
- Creation of an extensive database documenting successful market entry strategies
- Integration of market trend analysis tools
- Development of standardised reporting templates

APPENDIX A: VALIDATION GUIDELINES SURVEY

This survey can be accessed through the EU Survey Platform by clicking the link below:

https://ec.europa.eu/eusurvey/runner/22ca9423-96d8-4454-dc2b-51cebd43d3ae

APPENDIX B: PROJECT SURVEY

This survey can be accessed through the EU Survey Platform by clicking the link below:

https://ec.europa.eu/eusurvey/runner/2ef3a482-46d1-6f4d-75c6-5cb9ad42ac0a

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