

engage2innovate



Innovation Management Plan

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Authors

Mariana Carola (LOBA)

Ana Luísa Correia (LOBA)



Contributors

Name	Organisation
Mariana Carola	LOBA
Ana Luísa Correia	LOBA

Peer Reviewers

Name	Organisation
Professor Caroline Davey	University of Salford
Dr Dagmar P. Heinrich	University of Salford
Professor Andrew B. Wooton	University of Salford

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Table of Abbreviations and Acronyms

Abbreviation	Meaning
CSO	Civil Society Organisation
E2i	Engage2innovate
EU	European Union
LEA	Law Enforcement Agency
RIA	Research and Innovation Action
RR&I	Responsible Research and Innovation
SDC	Student Design Challenge
SDP	Societal Development Plan
SME	Small-Medium Enterprise

1. Engage2innovate Project

1.1 General Information

Engage2innovate (E2i) is a 44-month Research and Innovation Action (RIA) funded by the Horizon Europe programme of the European Union (EU). The project is coordinated by project managers from LOBA. The University of Salford is responsible for the scientific coordination of the project. The E2i project is a collaboration of 6 partners, forming a multidisciplinary and expert consortium.

Table 1 - Engage2innovate consortium

Partner	Acronym	Location	Type of organisation
LOBA	LOBA	Portugal	SME
Bezalel Academy of Arts and Design	BEZ	Israel	University
Landeskriminalamt Niedersachsen	LKA	Germany	LEA
Deutscher Präventionstag	DPT	Germany	CSO
Associated members (non-EU countries)			
Greater Manchester Police	GMP	UK	LEA
University of Salford	USAL	UK	University

1.2 Background and Motivation

The distinction between **invention** and **innovation** was defined by the founding father of innovation theory, Josef Schumpeter, who identified

***Invention** as a novel idea for how to do things*

***Innovation** as carrying it out into practice.*

This perspective highlights the two key elements that distinguish an innovation: novelty and implementation. Novelty does not necessarily mean 'new to the world', it might also be something new to a specific group of end-users — those using the innovation. Moreover, novelty does not have to mean radically new, offering new functionalities or disrupting existing practices. It may also refer to the incremental improvement of a process, product or service. Nevertheless, the critical element of innovation that differentiates it from invention is implementation.

Despite significant investment, the uptake of innovations from the EU security research programme remains regrettably limited. Often characterised as being due to issues of 'user acceptance' (inferring the fault lies with those on the receiving end of security 'inventions'), this can be more accurately described as a problem of 'implementation' — and therefore a failing of the innovation process itself.

Decades of research into new product and service innovation in the commercial sector, together with positive results of collaborative human-centred design and innovation approaches, indicate an effective strategy for addressing this implementation shortfall. A shift is required from a focus on security 'inventions' to one on true security 'innovation' — a process that requires more meaningful engagement of end-users and citizens in security research and innovation actions.

1.3 Objectives and Outcomes

The goal of the Engage2innovate project is to strengthen EU security research and innovation through the collaborative research, design, delivery and demonstration of a E2i Security R&I Toolbox supporting Social Innovation and enabling more effective EU security innovation and solution implementation.

The project has six specific objectives:

- To investigate, understand and address barriers to implementing EU security research and innovation outputs.
- To investigate how social innovation might be used to better engage citizens, local communities and end users in the research and innovation of security solutions.
- To develop a Societal Development Plan describing the current landscape of Social Innovation and providing guidance on how the approach can strengthen EU security research and innovation.
- To co-create, design, develop and demonstrate the E2i Security R&I Toolbox to:
 - Enable adoption of Social Innovation and human-centred design approaches to engage citizens and end users in security R&I.
 - Support security R&I actions in framing and designing security solutions and outputs and optimising their acceptance and adoption.
 - Provide benchmarks, standards and quality criteria for security solutions through Responsible Research and Innovation
 - Strengthening EU security research and innovation.

- To inspire and motivate security policymakers, researchers and practitioners to implement collaborative, socially innovative and responsible approaches on their research and innovation projects.
- To build on the enthusiasm and inspiration of the next generation of researchers and design thinkers through two international Student Design Challenges.

1.4 Target Groups

E2i addresses eight target groups across the quadruple helix:

- **Security researchers** – that design and deliver security research projects (universities, institutes)
- **Security practitioners** – that develop, deliver and promote security services and solutions (including police officers, managers, civilian, crime prevention staff, analysts and trainers; Emergency services responsible for responding to terrorist attacks, disasters, etc.; Cybersecurity experts, providers of digital services and infrastructure; Organisations responsible for developing and managing urban environments, etc.)
- **Citizens and civil society representatives** – widely engaged through civil society organisations (CSOs) that are involved in the delivery of security R&I actions
- **Training providers and professional bodies** – LEAs (Law Enforcement Agencies) representatives (such as police training colleges, police associations)
- **Security policymakers** and other stakeholder groups that work in partnership (such as local authorities, city managers, government ministries)
- **Private sector organisations** – involved in developing and/or using security research and innovation (technology provider, industry representatives)
- **EU level organisations** – involved in security research, practice (EU Networks of Practitioners) and policymaking (such as CERIS, CEPOL, EUROPOL; etc), as well as liaising with EU member states
- **Experts in ELSA (Ethical, Legal and Social Aspects)** – End users responsible for assessing the fulfilment of societal, legal and ethical requirements in relation to security research outputs.

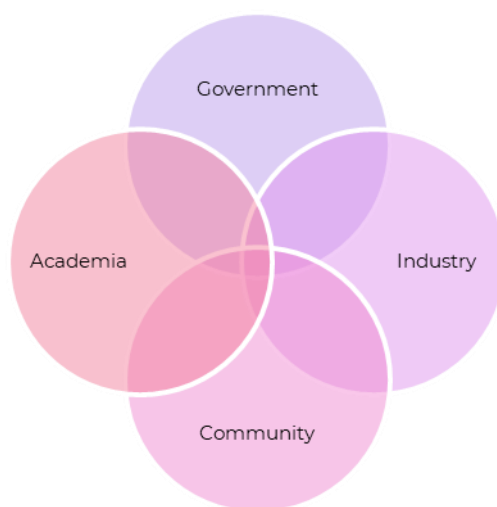


Figure 1 - Quadruple Helix representation

2. Innovation within E2i

Based on a human-centred approach, E2i aims to analyse and identify in what ways the project might better support the individuals responsible for researching, developing, implementing and promoting the security outputs generated from EU-funded security projects.

The E2i aims to strengthen EU Security research through collaborative Research and Innovation (R&I), including:

- Innovation frameworks, processes and protocols related to the E2i DesignLabs, enabling co-creation of product and service concepts
- Conceptual models (2D and 3D) enabling sharing and discussion around complex topics like Social Innovation
- New solution concepts generated via Social Innovation for the two E2i Student Design Challenges
- New communication designs – for example, interactive, web-enabled methods to support tool sharing, dissemination and implementation
- Demonstration of the E2i Toolbox in two contexts (DE and UK).

Tools, processes and procedures are required to address factors hindering innovation uptake and to support those responsible for delivery of EU-funded projects. The E2i project will co-design, develop, demonstrate and deliver the **E2i Security R&I Toolbox**, tailored to the needs of stakeholders and target groups. This resource will comprise:

- Process protocols
- Guidance and support tools
- Benchmarks and quality standards for R&I project delivery
- Research policy briefs
- Relevant reference material

To ensure acceptance, each E2i tool will be tailored to the needs and operational context of its end users.

‘End user’ is a design term for the individuals or groups that will actually use and interact with a product or service. In the context of European security, end users are likely to be security researchers, practitioners (law enforcement; emergency services; border control; etc.), policymakers (local authorities; EU agencies; etc), industry (system manufactures; technology

companies; etc) or civil society organisations (victim support; civil rights; disaster response; etc.).

E2i will achieve its objectives through a structured process of engagement, research, innovation and demonstration, as follows:

2.1. WP1: Review of social innovation literature and security practice, collaborative analysis and cocreation of conceptual model

To ensure a shared understanding of key concepts amongst the consortium, partners will review and develop a critical synthesis of empirical and theoretical literature on social innovation, Responsible Research and Innovation (RR&I) and citizen and end-user engagement. The analysis and synthesis of the qualitative research will be done with the support of security policymakers, practitioners and researchers in E2i Symposium 1. Through the DesignLab1, the target groups will be involved in the co-creation of a conceptual model of Social Innovation as an enabler of security solutions.

2.2. WP2: Mapping of social innovation undertaken in two Focus Areas

Through WP2, partners will identify, select and conduct in-depth research, mapping and analysis of social innovation practices in Focus Area 1 (Security and security behaviour in public places, public transport or mobility – Greater Manchester Police, UK) and Focus Area 2 (Radicalisation, dis-integration in local communities and social media – LKA Lower Saxony, DE).

2.3. WP3: Research, collaborative design and development of E2i Toolbox for use by EU-funded security researchers and system developers

Partners will undertake requirements capture research for tools / processes to support strengthened EU security research and innovation actions, using appropriate research methods. Security researchers and system developers will be engaged in the collaborative design and development of support tools / processes using human-centred Social Innovation methods. Partners will design and prototype the E2i Security R&I Toolbox with policymakers, practitioners, researchers and system developers.

2.4. WP4: Demonstrate developed E2i Toolbox in operational context, refine design and produce final E2i Toolbox

The E2i Toolbox will be demonstrated in an operational context in both Focus Areas. This will support partners in consolidating the developed benchmarks, standards and quality criteria developed in WP5 as well as

refine and validate the structure and content of the E2i Security R&I Toolbox with end-users. The demonstration will support the consortium in finalising, producing and launching the E2i Security R&I Toolbox.

2.5. WP5: Define benchmarks, standards and quality criteria for developing security solutions through Responsible Research and Innovation

In WP5, partners will review and analyse relevant benchmarks, standards and quality criteria for RR&I and co-create appropriate benchmarks, standards and quality criteria for security solutions with end-users in DesignLab3. These will be validated with stakeholders in Symposium 3 so that they can be finalised and integrated into the E2i Toolbox.

2.6. WP6: Development of Societal Development Plan for human-centred social innovation in security research and innovation

The consortium will co-design and develop a Societal Development Plan for human-centred Social Innovation in the security research domain, in collaboration with end-users and stakeholders.

2.7. WP7: Engagement with all parts of the quadruple helix, including security policymakers, practitioners, researchers and innovators

To maximise effective engagement with CERIS, relevant EU agencies and the wider European research and innovation community, E2i will design, organise and deliver three E2i Symposia, three E2i DesignLabs and two E2i Design Challenge competitions, which will be further explained in the next section.

2.8. WP8: Communication, dissemination and exploitation

To maximise effective engagement with policymakers, practitioners and researchers, project findings and tools will be disseminated through participation in events for practitioners and international conferences, and via a website specially designed for end-users. Policy briefings will support implementation and transfer at a European and international level of the E2i Toolbox.

3. Innovation Management Approach

Engage2innovate aims to incorporate an innovation management approach through a set of Symposia, DesignLabs and Design Challenge competitions, so that stakeholders and end-users can be directly involved in the project activities.

3.1. Symposia

Three E2i Symposia will be held in months 9, 21 and 36. Each Symposium will begin with a keynote presentation from a high-profile security policymaker, practitioner or researcher relevant to the Symposium focus. A review of the three Symposia will be published in deliverable D7.2.

- **Symposium 1**

Symposium 1 (month 9) will focus on human-centred Social Innovation as an enabler of security solutions, and the development of a conceptual model that accurately describes this. Presentations of initial results of the research, mapping and analysis of Social Innovation in E2i Focus Areas 1 and 2 will be delivered. Symposium 1 will also include group discussion and workshop activities on tools for researchers and system developers to support strengthened EU Security R&I.

- **Symposium 2**

Symposium 2 (month 24) will focus on human-centred methods, tools and processes for use by EU security researchers and system developers to enable strengthened EU security R&I. Presentation and Q&A sessions will be provided by relevant sister projects in the SSRI thematic area, as well as those in other EU areas. Symposium 2 will also host the exhibition of entries and final judging of the first student Student Design Challenge.

- **Symposium 3**

Symposium 3 (month 36) will focus on benchmarks, standards and quality criteria for developing security solutions through Responsible Research and Innovation. A collaborative workshop session will validate the proposed conceptual framework for the E2i Societal Development Plan for human-centre Social Innovation in security research and innovation. Symposium 3 will also host the exhibition of entries and judging of the second student Student Design Challenge.

3.2. DesignLabs

DesignLab sessions guide participants through a structured, collaborative innovation and concept generation process, including ideation and initial feasibility testing of concepts. The three E2i DesignLabs will ensure development of E2i outputs is evidence-based and end-user-led, maximising acceptance and the successful implementation and impact of results.

3.2.1 DesignLab1

DesignLab1 will be held on the second day of E2i Symposium 1. The focus will be the co-creation of a conceptual model of human-centred Social Innovation as an enabler of security solutions. DesignLab1 will also facilitate requirements capture and needs analysis for tools to support strengthened EU security R&I.

3.2.2 DesignLab2

DesignLab2 will focus on the collaborative design of concept support tools / processes for prototyping and design development.

3.2.3 DesignLab3

DesignLab3 will focus on the co-creation of benchmarks, standards and quality criteria and the development of a concept Societal Development Plan for human-centred social innovation in security.

3.3. Student Design Challenge

3.3.1 Student Design Challenge 1

The E2i Student Design Challenge 1 will be launched in or before Month 9, with the final awards and exhibition of finalists taking place at Symposium 2 in M21.

3.3.2 Student Design Challenge 2

E2i Student Design Challenge 2 will be launched in or before Month 22, with the final awards and exhibition of finalists taking place at Symposium 3 in M36.

All these innovative activities are interconnected, with the results in one activity being used or validated in the next activity. Table 2 reflects the timeline of E2i activities.

Table 2 E2i innovative actions timeline

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Symposia											X													X													X							
DesignLabs											X							X															X											
SDC																							X														X							

4. Expected Impact on Stakeholders

E2i's main output will be a demonstrated E2i Security R&I Toolbox that supports and enables R&I actions in optimising security solutions and outputs to be adopted by end-users. The E2i Toolbox will be tested and validated with stakeholders to ensure it meets their needs, values and expectations.

In addition, the project will contribute to the development of a Societal Development Plan that: (i) builds upon a human-centred approach; (ii) describes the current outlook for Social Innovations on security; and (iii) shows how the approach strengthens Security R&I.

The human-centred innovation approach of the project is rooted in integrating stakeholders and end-users throughout the whole project implementation, through their participation in Symposia, DesignLabs and Student Design Challenges.

4.1. Monitoring metrics

In order to better keep track of the performance of the project, a set of monitoring metrics have been set for the various reporting periods, i.e., from M1 to M14 (reporting period 1), from M15 to M28 (reporting period 2) and from M29 to M44 (reporting period 3).

The monitoring metrics were divided into quantitative and qualitative metrics. The quantitative were then split into two categories:

- **Project monitoring:** Focuses on tracking the progress and performance of a project throughout its lifecycle. It helps ensure that the project stays on track with respect to its scope, timeline, and budget. It's about ensuring that the project is being executed according to plan and detecting any issues early.
 - *Number of deliverables submitted:* Tracks the total number of project deliverables completed and submitted on schedule.
 - *Number of milestones achieved:* Measures how many project milestones have been reached by the specified project phase.
- **Impact:** Measure the long-term outcomes or effects of a project. They assess whether the project achieved its intended goals or if it made a

significant change. These metrics often focus on the results delivered by the project.

- *Number of followers across social media:* Tracks the number of people following the project's official social media accounts (Instagram, LinkedIn and Facebook).
- *Number of social media posts:* Measures the total number of posts made on the project's social media platforms during the defined period.
- *Number of newsletter subscribers:* Measures the number of individuals who have subscribed to the project's newsletter, receiving updates and information.
- *Number of downloads:* Measures the number of downloads users made of the project's outcomes from the official website.
- *Individuals engaged through organised events/initiatives:* Tracks the number of people actively participating in events, workshops, and initiatives organised by the project.
- *Number of events attended:* Counts the number of events (conferences, seminars, webinars, etc.) the project team attends to showcase results, network, or collaborate.
- *Number of policy briefings developed:* Tracks the number of policy briefings developed based on the project's findings.
- *Number of partnerships established with other projects:* Counts the number of strategic partnerships formed with other projects or initiatives that help scale the project's results or facilitate collaboration.
- *Number of tools developed within the E2i Security R&I Toolbox:* Tracks the number of tools, frameworks, or resources created as part of the project's E2i Security R&I Toolbox.

The qualitative metrics will be assessed based on surveys sent out to users, to evaluate the effectiveness of the project's outcomes in measurable ways.

- **User engagement and satisfaction:** Measures the satisfaction rate of users in regards to the tools.
 - *User satisfaction rate:* The satisfaction will be assessed through a 1-5 scale, from which the 4 or 5 rates correspond to the satisfied users.
- **Long-term sustainability:** Measures the percentage of users reporting they will keep using the project outcomes.

- *User adoption rate*: The adoption rate will be assessed through a 1-5 scale, from which the 4 or 5 rates correspond to the users that report they will keep using the outcomes.
- **Community and public impact**: Measures the increase in public awareness and understanding of the tools' impact and utility in the community.
 - *Increase in public awareness*: The increase in public awareness will be assessed through survey distributed to users before and after the outcomes are finalised, to assess their knowledge and awareness (Annex 1 and Annex 2). The percentage of improvement is calculated based on the responses.

The table below highlights some of these metrics, while further information is provided in D8.2 Plan for Project Dissemination and Exploitation (including Communication Activities).

Note: D9.4 was submitted in January 2024 and updated and reuploaded in December 2024. Therefore, Table 3 corresponds to the update on the initial deliverable submitted. Table 3 will be considered in future reference of monitoring metrics.

Type of metric	Metric	M1 – M14	M15 – M28	M29 – M44
Quantitative metrics				
Project monitoring	Number of deliverables submitted	19	6	23
	Number of milestones achieved	2	1	4
Outreach	Number of followers across social media	450	1100	1500
	Number of social media posts	100	200	300
	Number of downloads	50	100	200
	Number of newsletter subscribers	80	200	300
	Individuals engaged through organised events/ initiatives	100	180	200
	Number of events attended	18	18	20
	Number of policy briefings developed	1	1	2
	Number of partnerships established with other projects	2	4	6
	Number of tools developed within the E2i Security R&I Toolbox	0	0	6
Qualitative metrics				
User engagement & satisfaction	User satisfaction rate	NA	NA	>80%
Long-term sustainability	User adoption rate	NA	NA	>75%
Community & public impact	Increase in public awareness	NA	NA	>50%

Table 3. Monitoring metrics

5. Exploitation of Results

Practitioners — Law Enforcement Agencies (LEAs) and their local authority security policy makers partners — are central to E2i Security R&I Toolbox development, demonstration and exploitation. The LEAs will apply the E2i Toolbox to a real-world scenario. The LKA is at the forefront of security research and policing practice in Germany and is shaping European practice through development of tools and initiatives, as well as participation in work to promote European standards. Greater Manchester Police is a pioneer in Crime Prevention through Urban Design and Planning (CP-UDP). DPT is a network of practitioners and will ensure engagement with practitioners, local authorities and civil society across Europe. Reach across Europe is being achieved through E2i consortium partner networks and Advisory Board members comprising: civil society networks; security practitioner networks; and security technology experts.

E2i outputs will be fully accessible after full approval by the EU Commission – i.e. after periodic and final review – and for a minimum of 5 years after the project end date. This is to ensure dissemination and wider exploitation of E2i tools by end users and other interested parties. Tool exploitation will be facilitated through the E2i website, which will be specially designed for this purpose and through the CORDIS database. Outputs will also be accessible through a University Research Data Repository (USIR) at the University of Salford. E2i will develop an exploitation, innovation and IPR management plan that will be extended and updated during project delivery.

5.1. Exploitation routes for the main project results

5.1.1 E2i Security R&I Toolbox

The exploitation of the E2i Toolbox will involve target groups using it to:

- Ensure developed innovations are in line with the needs, values and expectations of end-users and wider society
- Increase the acceptance of security solutions by local communities
- Improve the uptake of outputs resulting from the Horizon Europe security research and innovation programme
- Evidence and improve standards of security R&I
- Support R&I in the two 'social spheres' identified by E2i.

The Toolbox will be exploited at the E2i Final Conference, the project's website and via videos explaining the value and purpose of the tools. Through their

contacts and wider networks, E2i partners and Advisory Board members will play a key role in maximising impact.

5.2.2 Societal Development Plan

Routes to maximise impact will involve using the Societal Development Plan (SDP) to guide and sustain action towards social innovation approaches and Responsible Research and Innovation. Exploitation will be maximised through:

- Co-design in DesignLab3
- Semi-structured phone / video interviews with security policymakers, practitioners and researchers to refine and validate the plan
- Validation at Symposium 3.

The Societal Development Plan will be exploited via the conceptual framework flyer for Symposium 3 attendees, presentation at the E2i Final Conference and production of a video explaining the SDP concept. E2i partners and Advisory Board will collaborate with CERIS in promoting exploitation of the SDP.

5.2.3 Policy briefings

Routes to maximise impact will also involve using policy briefs to support implementation and transfer of the E2i Security R&I Toolbox. E2i partners will work with practitioner networks to promote

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info@engage2innovate.eu
www.engage2innovate.eu

Consortium

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