IcARUS

INNOVATING URBAN SECURITY IN EUROPE

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Deliverable 1.3

Results from Cross-Training Task

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Deliverable 1.3

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Working definitions

For the purposes of the use of a common language within the IcARUS project throughout its duration as well as the preparation of the tasks and deliverables, the consortium - under the leading guidance of the University of Leeds - has decided upon the following working definitions:

Urban Security: The actual or perceived lack of security fostered by crimes and harms that adversely impact on shared urban environments and public spaces. Urban security implies an intentional approach – through planning, design, interventions, or regulation - to enhance the safe coexistence of people in urban spaces both in the present and in the future.

Crime Prevention Strategies: Deliberate interventions that seek to reduce the likelihood of crimes occurring and their harmful effects on individuals and the society. Crime prevention strategies can be understood as interventions, mechanisms, policies, practices, plans or designs that attempt to alter 5 behaviour or the flow of events with the intention of producing outcomes that diminish the level or impact of crime, particularly those targeted at the general population or at-risk groups.

Preventing Juvenile Delinquency: Proactive or deliberate interventions that seek to prevent or reduce harm that arises from the consequence of juvenile offending and anti-social behaviour. Focus will be targeted on early interventions in the life of children and young people at risk of offending or in the developmental trajectory of behavioural problems. This will include early interventions before and at the onset of minor criminal or anti-social behaviour. It will mainly focus on developmental prevention and the pathways into and out of crime for children and young people aged under 18.

Preventing Radicalisation: Policies and programmes that seek to reduce or prevent individuals from the risk of involvement in terrorism or violent extremism. These interventions aim to divert those people susceptible to violent extremism from embarking on a path to radicalisation. These measures avoid the use of coercive and repressive means, while being directed at addressing some of the conditions that may drive individuals to terrorism.

Preventing and Reducing Organised Crime and Trafficking: Strategies and measures that seek to prevent the smuggling and delivery of illegal goods and services by organised criminal groups in urban settings. The focus will be on interventions directed at changing the criminogenic conditions allowing organised criminal groups to expand their activities within physical environments and aimed at reducing the risk factors conducive to individual involvement in or exploitation by organised criminal activities.

Managing Public Spaces: Management of an urban area or public place - regardless of its (private) ownership or control - in ways that promote openness, accessibility, inclusivity and

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conviviality for all peoples and foster the actual and perceived safety of the public through proactive regulation, design, and planning.

Executive Summary

The IcARUS project action entitled 'Innovative Approaches to Urban Security' — 'IcARUS' aims to develop, design, and deliver a global strategy and a toolkit for an integrated approach to urban security.

In this context, the project will provide a comprehensive analysis of the progress achieved as regards urban security over the last 30 years in order to identify needs, tools, and institutional barriers; it will develop an innovative toolkit to reinforce the strategic approach to urban security and implement it through demonstrations that will be organised by six municipal authorities, involved as partners in the project. The project will engage multiple local security actors aiming to contribute to the proper development of the toolkit, making knowledge accessible and transferable to a wide community of local authorities, policy-makers, and citizens.

Deliverable 1.3 presents the results from the cross-training task in Design Thinking Methodology. It constitutes the output of the training sessions that were carried out in order to familiarise the consortium partners with the Design Thinking methodology and gain practical experience on how to implement Design Thinking.

1 Introduction

In order to initiate an effective transformation in urban security policies, the IcARUS project aims to address urban security issues by proposing an integrated, evidence-based, and multi-stakeholder approach. This approach will rethink tools for urban security policy and will be based on a vision which combines prevention and sanctions aimed at enhancing social cohesion. Eventually, this vision will help shape a common approach of security in the European Union. The project will encourage local communities to become an active part of multi-sectoral governance to improve urban safety and capitalise on social and technological innovation.

The significance of the IcARUS project is highlighted by the European Agenda for Security, which has identified several multi-level security threats such as radicalisation, terrorism, organised crime, cybercrime, and trafficking. In effect, the European Commission included in the *European Urban Agenda* an urban security section for the first time in 2018. Hence, IcARUS seeks to facilitate a makeover in the application and utilisation of the knowledge base in urban security. Indeed, it will reassess existing tools to develop an adaptable toolkit to help security actors better respond to the above-mentioned urban security issues. The policies and the toolkit to be

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put to use will cover four priority areas: 1. Juvenile delinquency; 2. Trafficking and organised crime; 3. Public spaces; 4. Radicalisation.

2 Work Package 1: Innovation Methodology Adoption

Work Package 1 (WP1, months: 1-48) aims to mainstream an innovative approach throughout the duration of the project. This WP aims to define a common methodology on Design Thinking applied to urban security and crime prevention initiatives and to support the integration and adoption by local authorities of this approach in the project as well as in their everyday activities. Furthermore, it seeks to develop a based accelerator model for the exploitation of IcARUS by the project's consortium, and especially by the local partners. Milestones in this WP have been achieved with the creation of guidelines supporting Design Thinking approach in IcARUS (MS1) and with the completion of the training on adoption and familiarisation with Design Thinking methodology (MS2).

2.1 Design Thinking Methodology

Design Thinking is a methodology that permeates the whole spectrum of innovation activities with a philosophy of design, centred on people (Brown, 2008).

According to the Interaction Design Foundation Design Thinking is a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems, and create innovative solutions to prototype and test. Involving five phases—Empathise, Define, Ideate, Prototype, and Test[1]. Stanford University uses this 5-step model as well, adding, as can be seen below, a last process of assessing what has been learnt so far and how to improve and redesign solutions[2].

[1] https://www.interaction-design.org/literature/topics/design-thinking
[2] https://empathizeit.com/design-thinking-models-stanford-d-school/

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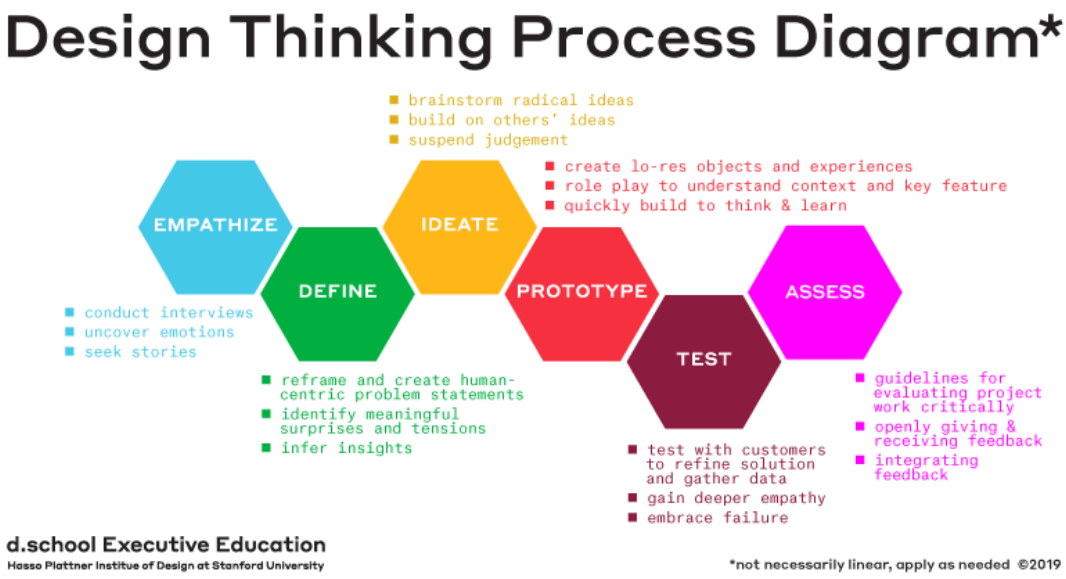

Figure 2. 1 Design Thinking Process

** Not necessarily linear, to be applied ad hoc, as needed.*

Source: Design thinking model proposed by the Hasso-Plattner Institute of Design at Stanford (d.school), at https://empathizeit.com/design-thinking-models-stanford-d-school/

To explain further the five stages, we should look at the phases more comprehensively, adding descriptive key words:

- Empathise: identify who is impacted by the problem and put oneself in their position. Work with them to fully grasp with their problem. **Self-immersion**.
- Define: pinpoint the problem by clearly articulating the user's point of view. **Description.**
- Ideate: brainstorm ideas, explore options 'out-of-the-box' and generate possible and alternative solutions. **Production**.
- Prototype: choose one of the produced to idea and transform it into a practical solution in order to have it tested. **Materialisation**.
- Test: try out the solution, get feedback, adapt/improve if necessary, and test again. **Implementation**.

Thus, the Design Thinking methodology aims at creating a novel cognitive framework pertaining to building a culture of evolving innovation.

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For Brown and Wyatt (2010)[3], Design Thinking is a methodology that taps onto capacities everyone has which are nevertheless overlooked by more conventional problem-solving practices, while – also according to Brown (2008)[4] – it is a methodology encompassing all the spectrum of innovative activities with a design philosophy focused on persons.

Design thinking is also defined as an 'analytic and creative process that engages a person in opportunities to experiment, create and prototype models, gather feedback, and redesign'[5].

In other words, Design Thinking is a process through which solutions (new products[6], policies, services) can be created and adopted by people, by utilising a human-centric prism to ensure that the solutions are beneficial for the end-users.

2.1.1 Design Thinking methodology applied to Urban Security and Crime Prevention

Design Thinking methodology in crime prevention has been utilised since the 1990s[7].

In the late 1990s, the Central Saint Martin's College of Art and Design at the University of the Arts London[8] developed an approach called Design Against Crime (DAC), which aimed at:

- reducing the incidence and adverse consequences of crime through the design of products, services, communications, and environments that were 'fit for the purpose' and contextually appropriate in all other respects
- equipping design practitioners with the cognitive and practical tools and resources to create such social innovations
- proving and promoting the benefits of design to the local and national government, and society at large.
- addressing "environmental complicity" with crime in the built environment and reducing crime by applying models of "design thinking" to social problems in order to deduce the most appropriate approach to their solution.

[3] https://ssir.org/articles/entry/design_thinking_for_social_innovation
[4] Brown, T., Design Thinking, Harvard Business Review, June 2008, available online at https://readings.design/PDF/Tim%20Brown%2C%20Design%20Thinking.pdf
[5] Razzouk, Rim & Shute, Valerie. (2012). What Is Design Thinking and Why Is It Important? Review of Educational Research. 82. 330-348.
[6] See Cooper et al., 2001.
[7] https://pdfs.semanticscholar.org/256d/73c66750793457e8fd5002483a424abda3f3.pdf
[8] See http://www.designagainstcrime.com/ as well as CPTED (Crime Prevention through Environmental Design), [Crowe, 2000] and Crime Prevention through Urban Design and Planning, [Chiodi, 2016].

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According to Davey et al. (2005)[9], there are four main approaches to crime prevention that relate to design methods:

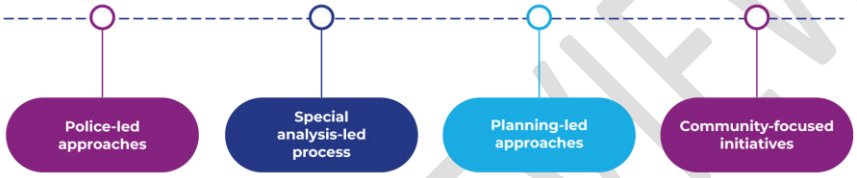

Figure 2. 2 Approaches to Crime Prevention

- police-led approaches, where theories developed by criminologists, social scientists, and urban theorists inform design decisions to reduce crime. This includes Crime Prevention Through Environmental Design (CPTED) in the US and Designing Out Crime (DAC) in Europe, as well as accreditation schemes such as SBD in the UK and police labour secured housing in the Netherlands.
- special analysis-led process, where researchers used geographic information systems (GIS) and space syntax to analyse the characteristics of urban space and its implications for crime prevention alongside a range of other factors.
- planning-led approaches, where high-level comprehensive approaches promote design forms aimed at improving the vitality and quality of the urban environment) and in so doing increasing safety for citizens)

[9] Davey, Caroline & Cooper, Rachel & Wootton, Andrew & Olson, Eric. (2005). Design Against Crime, Design leadership in the development of emotional values, as well as Davey C., Wooton A., Cooper R., and Press M., Design against crime Extending the rate of crime prevention through environmental design, Security Journal, 2005, issue 18 (2) pp. 39-5, and Wootton, Marselle, Davey, 'Design Thinking for Safer City Centres', 8th European Academy of Design Conference, 2009.

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- community focused initiatives, which aim to design opportunities for participation in community and job creation activities, sports facilities, training for employment, etc.

In the areas of **Juvenile Delinquency, Radicalisation leading to violent extremism, Public Spaces Safety, and Organised Crime,** Design Thinking manages to combine the two key elements of effective problem-solving: a structured process, with distinctive characteristics, stages, and steps, along with a creative style that fosters innovation, and keeps the end-user at the heart of the solution. These traits prove to be extremely helpful while brainstorming ideas related to tackling security issues in these four sensitive - and often inter-connected - fields.

As has been already assessed and stated in Deliverable 1.1, training increases the success of adopted measures. To this end, a multidisciplinary team of experts shall define the training content and methods, as well as the overall preparation of the stakeholders – police officers, public officials, etc. Using as a pertinent example the case of the city of Vilnius in Lithuania, implementing CPTED measures was 'hindered by a passive, alienated community and by lack of knowledge of public officers' (Saraiva et al., 2016). Police officers had not received training in CPTED, neither were they apprised of the guidelines for conducting assessments. Consequently, it becomes apparent that appropriate, formal training conducted by experts through classes, seminars, and workshops has to be the norm for teaching police personnel, municipality and other local officers, and security staff on how to apply Design Thinking in an optimal way. Further, involving all stakeholders provides circular feedback as they can draw on their actual on-the-field experience, and also helps strengthen bonds of trust between them and the community[10].

2.2 Task 1.3

Task 1.3[11], which will last from M1 to M7, pertains to the adoption of, and familiarisation with Design Thinking Methodology. It comprises sub-Tasks 1.3.1 and 1.3.2.

Task 1.3.1 involved the training preparation for design thinking sessions and its approval by project partners: it developed the outline for the adoption by the consortium of Design Thinking in the field of urban security. The training outline based on the guidelines and the material has been developed by KEMEA in collaboration with consortium partners Eurocircle and Makesense. Task 1.3.2 concerned the training implementation: It was initially planned in the GA to conduct a training during the project's KOM which was planned for M6. Nevertheless, due to both the fact that the project KOM took place in M1 and that the covid situation precluded the consortium to hold an on-site meeting, it was decided to organise the training online. Thus, the training included four sessions to get the whole consortium familiarised with the Design Thinking

[10] See Fisher et.al., 2012, as well as Cozens et al., 2008.
[11] Lead Partner: KEMEA. Partners with input: mainly EUR, Makesense, FESU, and to a lesser degree, others.

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methodology applied to urban security and crime prevention. The definition of a common language in the four areas of work (Preventing Juvenile Delinquency, Preventing Radicalisation leading to Violent Extremism, Designing and Managing Safe Public Spaces, and Preventing and Reducing Trafficking and Organised Crime) conducted in WP2, was an opportunity to apply the methodology to concrete case studies. The training was moderated by Makesense.

2.3 Deliverable 1.3 and Relation with Deliverables 1.1 and 1.2

This deliverable reports on the training sessions' outcomes. It constitutes Milestone 2 (MS2) of Work Package 1.

It complements deliverables 1.1 and 1.2 and constitutes a decisive step for the progression of the project.

Indeed, Deliverable 1.1[12] (D1.1) presented Design Thinking and its evolution. It showed how Design Thinking was developed and adapted to both private and public sectors. It analysed the advantages of implementing Design Thinking methodologies as well as possible faults and contingencies to be avoided during their implementation.

Furthermore, it produced the theoretical principles over the adoption of Design Thinking methods in urban security, thus serving as the basis for the development of Deliverable 1.2[13].

Deliverable 1.2 (D1.2) offered the essential guidelines for conducting all parts of the training sessions, as well as informing future workshops and demonstrations in Work Packages 2, 3, and 4[14].

[12] Methodology for the adoption of Design Thinking in urban security & crime prevention initiatives.
[13] Guidelines to the Design Thinking implementation in the IcARUS task.
[14] The guidelines have been developed by EUR and MakeSense with the support of USAL which had already developed a protocol on Design Lab Innovation in the framework of CCI project, and +Ethics who ensures that the methodology and guidelines respond to ethical and legal considerations. partners EFUS, IDIAP, and KEMEA have also provided feedback.

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3 Design Thinking Training Concept, Guidelines, and Methodology

3.1 The concept of cross-training in the field of crime prevention

Cross-training involves teaching practitioners, who were initially hired for a specific position and duties, new skills that pertain to other functions of the organisation to better equip them regarding the management and understanding of issues from various perspectives. Thus, employees become knowledgeable in different areas than their original field of expertise. They bring their existing capabilities, experiences, and education to these new areas, creating thus a more involved and evolved environment *vis-à-vis* resolving problems. In Design Thinking, cross-training is crucial in preparing practitioners for confronting challenges and needs. It also helps build a broader way of thinking which will – in turn – help practitioners identify novel challenges and threats dangers in urban security. In the area of crime prevention, such 'multi-skilling' will be of added value [15]. As it is, police officers and security practitioners 'wear many "hats" in their everyday duties'[16], thus a holistic approach through design thinking will aid them considerably. This cross-fertilisation[17] through cross-training will give practitioners a well-rounded grasp of their role within the overall system as well as the opportunity to view issues and threats from various perspectives[18].

3.2 Training Guidelines

The training has been compliant with the guidelines given in D1.2. The values, ways of organising, ways of collecting input and output, in-group exercises, and ways of participants' involvement have all been following the guidelines included in D1.2. Thus, the training was the first IcARUS activity to fully integrate Design Thinking methodology. Indeed, it has been indeed a prerogative for organisers and facilitators to set up the training sessions in light of the Design Thinking approach and related guidelines.

Hence, Deliverable 1.2 offered the core guidelines that were not only presented and used throughout the training sessions, but which will also be applied in future workshops, in which

[15] Nicholas, J. 2011. Lean Production for Competitive Advantage: A Comprehensive Guide to Lean Methodologies and Management Practices (Boca Raton, Fla.: CRC Press): 326.
[16] Susan M. Hilal and David Squier Jones, "A Package Deal: Police, Fire, and EMS All in One," The Police Chief 81 (September 2014): web-only article.
[17] https://aspe.hhs.gov/report/coordinated-community-responses-domestic-violence-six-communities-beyond-justice-system/cross-training
[18] Ibid.

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the trainees of the current training sessions will become the future trainers and the stakeholders who will be involved in the workshops will become the next trainees.

The guidelines were divided into three categories:

- **Guidelines for end-user engagement**

The aim of the end users' engagement is to build communication between participants to understand users' needs, viewpoints, and identify main problems from their daily routine and professional journey. Undeniably, the Design Thinking approach holds the end-user, as well as the beneficiaries (social groups, citizens at large), at its core, during all stages, from empathising to testing innovative solutions. To this end, a crucial focal point of the training sessions was to create and maintain communication with the participants in three different timeframes: before, during, and after the sessions. Under this spectrum, three key goals were central to the training: developing values, collecting input, and ensuring end-users' viewpoint.

- **Guidelines for fruitful co-creation of innovative solutions**

The aim of these guidelines is the collaboration of a diverse team of participants to understand issues, ideate solutions, and deliver innovations.

The guiding points for successful co-creation during the training sessions are achieved by transparency, collaboration, and making every participant's voice count equally.

- **Guidelines for effective sessions' management**

These guidelines refer to the main aspects of the workshops' setup and organisation. Their aim was to efficiently construct the training and workshop sessions envisioned in the IcARUS project. They involve the preparation of all pertinent tools for the sessions, information sharing and transparency in order to foster trust, mapping the challenges of the topics and the proposed solutions in the long-term, and gathering feedback for the assessment of the success of the workshop post-sessions.

For a visual representation of how the guidelines are interconnected, see the chart below, originally designed and presented in Deliverable 1.2.

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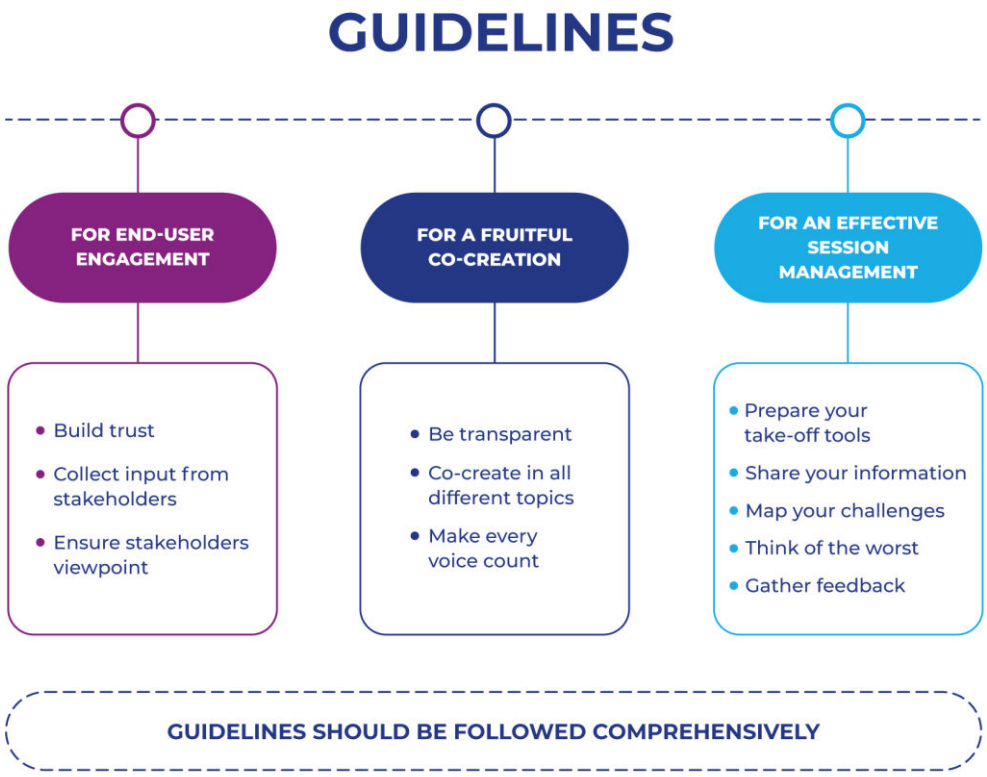

Figure 2. 3 Training Guidelines

3.3 Training methodology

A methodology (Figure 2.1) has been developed for the purposes of this particular training, consisting of the following five (5) stages:

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Figure 2. 4 Training methodology

4 Design Thinking Training Implementation

4.1 Training Preparation Activities

A number of preparatory steps were taken to organise the training sessions and formulate the corpus of the training content and methodology. A visual depiction of the stages concluded before the actual Design Thinking workshop took place, is presented below.

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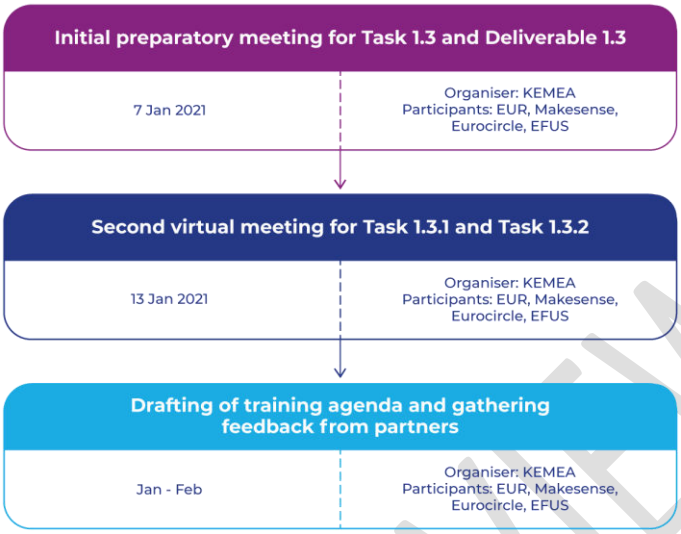

Figure 2. 5 Training Preparation Activities

After concluding the above-mentioned preparatory tasks, further actions were discussed and decided upon:

- Organisational specifics
- Delegation of tasks
- Gathering material
- Agreeing upon feedback from participants

The Work Package Leader (EUR) presented the theory around Design Thinking Methodology in D1.1 and consequently the guidelines that would be the basis of the training content, in D1.2.

Project partners Makesense and Eurocircle drafted an initial agenda of the training sessions after receiving the above-mentioned guidelines, so that it would be possible to make informed decisions regarding:

  - The content of the sessions
  - The form of the assessment/feedback by the trainees at the end of training
  - The sub-objectives of the training (keeping in mind that the key objective is familiarization with the Design Thinking methodology)
  - The duration/days-hours/dates of the training

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The consortium's coordination meeting which took place mid-February, was an opportunity to receive more specific input by the partners. Indeed, partners were asked about their pressing current urban security challenges, so as to incorporate their experiences said examples as case studies in the training sessions. These case studies and practical examples were not aimed to point to certain solutions, but rather to prompt the partners to think in a new methodological framework through concrete cases/exercises (for example understand/identify, and gather stakeholders). Emphasis was thus placed on ensuring the interactive nature of the training.

KEMEA and Makesense reviewed the training content before two Train the Trainers sessions, which were carried out by Makesense.

4.2 Identification of Training Participants/Stakeholders

The training was addressed to all Consortium partners, as per the project's layout. The main stakeholders were the partner cities of the consortium, since they have to tackle security challenges on a daily basis. Thus, for the purposes of exemplifying and customising the training, the cities selected their main current problem, as depicted below.

Table 1: Partner Cities' Choices

City	Urban Security Challenge
Turin	juvenile delinquency, group violence among youth
Riga	safety of public spaces
Stuttgart	Prevention of violent radicalisation
Nice	radicalisation (and securing public spaces)
Lisbon	juvenile delinquency (and public spaces)
Rotterdam	Security in public spaces

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4.3 Training Values and Security Framework

The consortium had already identified several key values that the training should embody. In the table below, a visual depiction of said values, along with the ways utilised to ensure them, is presented:

Table 2: Values identified by the Consortium

Participation/collaboration	○ Four Subgroups with contributions by the participants ○ Participative facilitation (asking questions before giving the answers for example) ○ Frameworks and care to facilitate input
Inclusion	○ Review of informed consent at the start of each session ○ Giving time and guidance to trainees to get familiarised with the virtual meeting tools beforehand ○ Provision of adapted video and training material for those who could not attend the sessions ○ The facilitators guaranteed the distribution of the floor and the respectful nature of the exchanges ○ Inclusion circles
Specificity and directness	○ Case studies directly linked to the trainees' reality ○ Training based on the cities' challenges ○ Peer-to-peer exchanges of insight and experience

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Dynamism, energy, enjoyable experience	○ Short sequences ensured the dynamic nature of the training ○ Facilitators maintained energy levels in the groups by engaging trainees ○ Moments of pause and breathers when necessary ○ Icebreakers
Solidarity/trust	○ Validation of values at the beginning of the training ○ Reminder of the rules of contribution /collaboration ○ Facilitators ensured the participative flow of the subgroups

Using as a basis the consortium's collaborative sessions and the questionnaire sent out to gather feedback from the trainees, the expectations of the participants regarding the content and the overall style of the sessions were meticulously mapped out and incorporated into the training.

Concerning the content, the training sessions addressed the following trainees' expectations:

- Facing real issues and quantifiable cases
- Learning clear and simple tools
- Experiencing new ways of collaborating and means for co-creation
- Learning methods to more effectively engage people
- Putting theory into practice
- Gaining new insight, perspective, and exchange best practices
- Focusing on the four main IcARUS areas (*i.e.* Preventing Juvenile Delinquency, Designing and Managing Safe Public Spaces, Preventing Radicalisation Leading to Violent Extremism, and Preventing and Reducing Trafficking and Organised Crime).

For the overall training approach, the trainees' needs were mapped out and were in absolute sync with the values of the project and the training session. More specifically, the participants

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had shared their expectations and ideas before the start of the sessions, which were, indicatively:

- inclusivity
- the need for fostering cooperation and a sense of community within the group
- having an entertaining, positive, and encouraging training experience
- building trust with transparency and traceability; transpiration of clarity and specificity throughout the sessions
- encouraging interaction
- promoting the difference of perspectives and opinions without judgment.

To that effect, the training process respected and incorporated all the above, while also defining the eight overarching values of the training as follows:

- Respect (for different opinions and perspectives)
- Confidentiality
- Deep (i.e. engaged) listening
- Participation
- Concrete and practical trainings
- Co-responsibility regarding the achievement of the objectives
- Trust in the process
- Intention.

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4.4 Training sessions on implementing DT, agendas, content, objectives, and goals

Providing first a visual representation of the training, the training sessions are presented below, at a glance:

Table 3: The Training Sessions at a glance

4 sessions (4th was optional)	3,5 hours/session	Trainees: all consortium partners (56 participants)

Dates/sessions	Objectives
Session 1, March 3rd, 2021: Introduction and familiarisation with Design Thinking Methodology (3h30) 10.00 – 13.30 pm	To familiarise the audience with the Design Thinking Methodology offering practical examples and engage the participants through specific guidelines to bring along situations related to the four IcARUS focus areas from their daily work routine, in order to design the Design Thinking process in the next session
Session 2, March 8th, 2021: Experimenting & Designing the Design Thinking Process (3h30) 10.00 – 13.30 pm	To co-work, co-create, co-design and experiment the Design Thinking process on real case studies in the four areas of interest.
Session 3 & 4, March 10-11, 2021: Strengthen Design Thinking competences (3h30) 10.00 – 13.30 pm	To focus on the reinforcement of the competences needed for successfully implementing Design Thinking Methodology. Four competences were chosen, based on the answers to the questionnaires and the needs highlighted by the participants pre-session. The chosen competences were: empathy, experimentalism, creativity, and collaboration.

Utilising the guidelines generated in Task 1.2, the training sessions were divided in three main sections/days:

- the first day aimed to introduce and familiarise the trainees with the Design Thinking Methodology. This was achieved using practical examples, while engaging the

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participants through specific guidelines to bring along situations related to the four IcARUS focus areas from their daily work routine, in order to design the Design Thinking process in the next session/training day.

- the second day's goal was to Experiment and Design the Design Thinking Process. Emphasis was placed on co-creating, co-designing, and 'experimenting' with the Design Thinking process on real case studies in the four areas of interest.
- the third day (as well as the optional fourth) intended to strengthen the Design Thinking competences of the trainees. It focused on the reinforcement of the capabilities needed for successfully implementing the Methodology. Four competences were chosen, based on the answers to the questionnaires sent out beforehand, and the needs highlighted by participants. (chosen competences: empathy, experimentalism, creativity, collaboration).

An overarching aim of the sessions was to effectively demonstrate the five Design Thinking stages while trying to co-create an innovative ecosystem. To that effect, the trainees were given insight on when, how, and why to apply the Design Thinking approach, the pros of generating ideas through empathy, ways to determine and understand stakeholders, how to create the strategies necessary to address a problem, when to prototype and test them, and even comparing and contrasting produced ideas, so as to decide on the optimal, functional solution.

- Training Day 1

First, the trainees were briefly apprised of the purpose of the training and were reminded of certain aspects of the sessions, and in particular:

What the training sessions set out to accomplish, i.e.:

- ✓ Start learning how to design urban security policies in a way to reach goals
- ✓ Keeping in mind that the optimal way is to engage local communities in terms of urban security policies as active co-producers rather than as passive recipients of public services to deliver beneficial urban safety outcomes.

How to approach this goal:

- ➢ The past decades of research and effort (evidence, results, and outcomes) should not go to waste but utilised to design even more effective solutions
- ➢ Rethinking (and not throwing away altogether) existing tools for urban security policy and crime prevention, and possibly repurpose them for novel challenges
- ➢ Through IcARUS we will integrate social and technological innovations to strengthen the strategic approach to urban security

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Why change now our past policies to start applying Design Thinking:

- Design is a transformational force that helps create solutions that resonate with people
- Develop creative thinking skills to tackle new forms of urban security challenges

The short-term goals after the training:

- ✓ Equip the trainees with a methodology to put design thinking into action
- ✓ Transform their mindset and think creatively
- ✓ Training was infused with case studies and practical examples – ideal to see application of Design Thinking in real-life situations
- ✓ Gain insight into empathy and the user-centred (or human-centred) approach
- ✓ Understand problems from a human perspective, so as to search for purpose behind any innovation
- ✓ Think outside the box to meet citizens' needs.

The long-term goals of the training:

- Achieve Organisational Transformation, step-by-step:
  - Facilitate change and adaptation in our respective organisations by using Design Thinking to achieve a more innovation-driven culture
  - Cultivate a new cognitive framework, to make a difference.

Although the different partners of the consortium had different experiences in Designing policies, the goal was to find themselves on the same page at the end of the training sessions, concerning the following key points:

- To aim for innovation/shift in perspective for alternative solutions
- To understand how important it is to pinpoint and address the right problem in order to find the right solution. To that effect, the clearer the problem, the easier it will be to discuss solutions and to see opportunities that were hidden before
- To find specific solutions to solve root problems instead of dealing with common symptoms with standardised solutions.

The trainees took part in a main plenary session where ideas were discussed in a common forum. Afterwards, they were divided into four parallel sub-groups, where a distinct specific challenge was presented to each group. Said challenges were actual issues that the partner-cities face, for which a number of steps was carried out:

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- presentation of the challenge by the trainee
- enquiring of the challenge's specifics so as to get to the root of the problem
- defining objectives and constraints to tackle said issue.

For context, the four sub-groups presented the following challenges, which also form part of the IcARUS' project main areas:

- Sub-group 1: Challenges that relate to the citizens' trust in the local authorities or police
- Sub-group 2: Building safe public spaces
- Sub-group 3: Radicalisation and polarisation especially in the covid-19 era (lack of awareness and denying facts)
- Sub-group 4: Addressing feelings of lack of safety and security on the part of the residents of specific skid row areas by making public spaces more secure using intelligent ways of creating a pleasant environment for people to spend time in.

The trainees chose themselves the sub-group they wished to participate in. Interaction, communication, and circular feedback were highly encouraged by the facilitators in all sub-groups, and lively discussions ensued. Issues that were addressed related to the nature of the problem, its ecosystem, and the reasons why it has become a predicament.

Training Day 2

The second Training Session was centred around Experimenting and Designing the Design Thinking Process for the challenges already presented during the previous session. To achieve the optimal engagement for this task, the idea was to keep the four parallel groups of the first session and dive more deeply into the challenges they had to manage by co-working the Design Thinking process. In Training Session 1, the framework of the Design Thinking methodology was set, examples were given on how this process has been used to implement different solutions in cities facing similar challenges. The session concluded in deciding upon a common goal in each sub-group, along with pertinent objectives and constraints. To this end, the focus of day 2 was on the mapping of the stakeholders involved in the presented examples as well as the definition of the profiles of the end-users. To do so, the trainees were encouraged to visualise their end goals, the needs and expectations of their end-users, and the pertinent ecosystem: the context, the stakes, and the optimal paths to manage each conundrum.

Having analysed the challenges presented by the cities in Training Day 1, the trainees were asked to define the range of stakeholders be it beneficiaries, partners, or end-users. In this light, specific questions were aimed at mobilising the participants to think holistically about the situation, and most importantly:

- the actors who would influence the final solution/decision

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- the beneficiaries' preferences and outlook
- the actors empowered to ensuring that the solution will be successful
- potential partners and potential opponents of the solution
- funding and those who may provide it.

Then the focus turned on the 'personas', *i.e.* the fictitious actors that might be approached and mobilised in order to gather support in favour of a solution. For the personas, the trainees were asked to:

- define their profile, composure, and characteristics
- understand who might influence their opinions/behaviours
- imagine their communication styles and spare time
- come up with ways to convince them to come on board
- find tools and ways to mobilise them into action.

Under this spectrum, the participants were called to put the five main stages of the Design Thinking process into action: empathise with end-users, define the actual problems while keeping an open mind, interview the people involved and ideate/brainstorm possible solutions. This approach set the foundations for the next phases of the methodology, namely prototyping and testing, which were analysed and experienced using interactive role playing and brainstorming, for example by using 'The Six Thinking Hats'[19]. These interactive techniques edged the trainees on exploring concrete facts and differentiating them from opinions, think pre-emptively to better prepare for negative contingencies, brainstorm innovative ideas while examining the optimal organisational structure and processes for their solution, etc.

Again, the fact that the trainees were split into four distinct groups, meant that each had the opportunity, the time, and the encouragement to speak up, brainstorm on the task at hand and come up with their own tactics to move forward.

[19] The 'Six Thinking Hats', also known as Bono's hats, is an approach for parallel brainstorming as a tool for teams to think comprehensive of a possible solution without leaving any important aspects out of the equation. With each coloured hat the trainees explored certain aspects of the issue at hand, namely the objective facts of the case, its constraints, the possibilities and opportunities that might arise, creative ideas, motions and feelings, and the structure, processes, and organisation of a possible solution.

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5 Training Sessions Regarding Skills and Competences in DT

There are five aspects envisaged for the profile of a designer (Brown, 2008). The last two training days (Sessions 3 and 4) were designed around the first four, while the fifth one, 'optimism' transpired the other four throughout the sessions:

- **Empathy**: To be able to conceive the world from a variety of viewpoints.
- **Experimentalism**: To understand that great achievements are not met through small changes, but through a process leading to totally new directions. In light of the iterative process of the approach, to experiment means also to test ideas and evaluate their implementation, adapt them accordingly, and eventually start over.
- **Creative Integrative Thinking** (thinking outside the box): To not rely solely upon analytical processes for implementing measures that go far beyond conventional solutions. To break out thinking patterns, to reframe issues, and to construct different thinking paths for generating an original idea.
- **Collaboration**: To understand that the complexity of plights can be untangled only via an interdisciplinary approach, thus including cooperation with diverse designers.
- **Optimism**: To always assume that there is at least one solution which is better than the existing options.

➢ Training Days-Sessions 3 and 4

While the first two sessions were focused on the Design Thinking process, the last two were dedicated to the competences and characteristics needed for the successful utilisation of Design Thinking Methodology. Emphasis was particularly given on the importance of empathy, experimentalism, thinking outside the box, creativity, respect, and open-minded collaboration. Consequently, a central idea behind sessions 3 and 4 was to have the participants work on certain attributes deemed crucial in successfully applying the Design Thinking Methodology. These attributes were already agreed upon with the trainees, who had previously indicated which characteristics they would like to focus on while they were filling in the pre-session questionnaires. The four competences that were selected for the trainees to creatively explore were the following:

- Empathy and trust building (inclusiveness, welcoming posture, positive atmosphere, explanation of the process of going from one context to another, solidarity)
- Experimentalism and Problem Solving (adaptation, problem solving, better perception of social challenges)
- Creativity (thinking outside the box)
- Collaboration (cooperation, communication, sharing, ability to inspire people)

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For each competence, after an introduction and theoretical overview, focus was placed on their practical application through specific tools. Once again, the trainees - having already, as was mentioned above, chosen the competence they wanted to focus on – exchanged fruitful observations, shared experiences, and dove more profoundly into the areas they deemed more necessary for their work. The breaking down of each competence is presented below:

5.1 Empathy & Trust Building

After being encouraged collectively to share experiences of empathy and fostering trust, the definition and theoretical overview of these skills were presented to the sub-group. Empathy was defined as the ability to share someone else's feelings or experiences by imagining what it would be like to be in another person's situation. The discussion that followed focused on having the trainees think how this skill might be helpful in the context of Design Thinking, while also understanding the root causes that prevent them from being more oriented towards building trust. Questions that were asked in order to mobilise the participants to think of their own strengths and weaknesses regarding empathy and trust, focused on the following topics:

- Qualities of people they already trust
- Tone that can be used to foster trust
- Understanding who influences the opinions of others
- Possible processes to ensure a trusting relationship
- Fostering transparency

Role playing related to building trust involved the following aspects:

- Engagement of trusted members of the community in the project design
- Facilitate communication by going to meet them instead of having them come to the participants
- Taking the time to build the set of values of the project and involve them in it
- Communicating with them after an interview to keep them updated and engaged on what is happening

An example of a set of values that may be utilised so as to make people feel safe in a meeting or an interview was then presented and discussed:

- Respect (for different opinions and perspectives)
- Confidentiality
- Active and Engaged Listening

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- Participation
- Concrete and practical communication
- Co-responsibility regarding the achievement of the objectives
- Trust in the process
- Clear Intentions.

Building trust in the long run is crucial in developing empathy, the latter being a central stage and notion of Design Thinking. To that effect, the subsequent key points were made and analysed by the facilitator and the trainees:

- Presence and active listening: taking the time to fully listen to someone when they are talking, makes a real difference to them. Listening means not doing something else at the same time, not preparing answers or comebacks.
- Humility and non-judgment: while feeling empathetic towards someone, the objective is not to save the situation or to make the person feel better. One can trust that the person is capable of dealing with their problem on their own and not share judgment, but focus on staying connected to them.
- Responsibility and authenticity: Being attentive and transparent to what is going on.
- Tools to develop empathy in 3 steps were then mentioned:
  - Auto empathy: connect with what one feels
  - Empathetic listening: listen to the person with empathy, engaged listening
  - Authentic expression: talk with authenticity.

After this overview, the trainer proceeded to a set of practical exercises pertaining to the skill at hand. The trainees were asked to exercise active and empathetic listening on a topic that is part of their work, so that they can later on practice that when talking with or interviewing their end-user. The general question of the exercise was to think of which difficulties they face while working on the topics of criminality, radicalisation, and insecurity. Before starting to interview one of the participants of the session on the topic, the participants were asked to practice self-empathy, feel, and name their own emotions. This step was important to do before listening, so that they wouldn't dive into what the other person is feeling but maintain objectivity.

Before closing this session, the trainees were asked to share with the rest of the group what they will remember from the session. Afterwards, the participants shared with each other resources on the topic in order to go a bit further and more at depth into the competence.

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5.2 Experimentalism and Problem Solving

After the group collectively brainstormed on what it means to experiment in the context of problem-solving and how important such a skill might be, the definition and theoretical overview of these competences were presented by the trainer.

Experimentalism, or experimentation, was defined as the fondness for experimenting, or for new experiences, procedures, etc, whereas problem solving was defined as the process or act of finding a solution to a problem. In the discussion that ensued, a few common errors were pinpointed in the process of finding innovative solutions. Changing one's frame of mind and looking at problems holistically is a key factor in deciding on the optimal path. As an example, the group was presented with the problem of a collapsed bridge. The first question that comes to mind is how to rebuild the bridge. Thinking outside of the box, the real problem might lie elsewhere: how to get goods and people from one side to the other. Understanding the root problem helps to find better, less costly, and more effective and adaptable solutions. For example, there are alternatives to building an expensive bridge: the obvious use of other methods of transportation. Here, a few more factors have to be taken into account: whether the people that decide on the rebuilding of the bridge are biased (if an engineer is asked, he will provide a solution pertaining to what he knows best, *i.e.* his profession); if the person in charge of deciding projects their own needs on the solution while forgetting the end-user's needs; whether the notion of excellence – inherent in many cultures – is stopping those responsible of resolving the situation from asking questions, testing several ideas, and changing courses if an idea does not seem to work.

The key concept of experimentation is that there are no mistakes, only testing. Teams and individuals should work with hypotheses, and then try to validate or invalidate them. Under this spectrum, invalidating a hypothesis is not a mistake, but a valuable experience that provides knowledge – and therefore - a win. Besides, time is one of the most valuable assets, thus, ideas should be put to test as quickly in the process as possible. In this context, trainees were encouraged to always plan ahead moments to collect, gather thoughts, and analyse their data, so as to be able to give specific answers to decisive questions: what they learned, what was validated or invalidated after testing, whether more input is needed. Assessing the experimentations that took place is the important step that should not be discarded before going on to a new project.

In the practical example of this sub-group, the trainees were each asked to provide an idea they would like to test at the workplace, brainstorm on constraints, alternatives, and testing.

5.3 Creativity

As an ice-breaker to start of the session, participants were first asked to build a tower with personal items, to get creative through a fun exercise that also served to put the training into perspective. Then the definition of creativity was given, as the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device,

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or a new artistic object or form. In the design thinking methodology, creativity is a crucial attribute that can be helped and brought to the surface by utilising creative facilitation and brainstorming sessions. Thus, the purpose of this sub-group was to facilitate the participants in being more creative through a set of pertinent questions and exercises.

In particular, the trainees were asked to use empathy, and to link the situation at hand with similar ones so as to draw useful comparisons. Another way to foster creativity was using a picture to get the participants to react to a certain topic by a free association of ideas.

A cluster of tricks and tips was then brought to the attention of the trainees: exaggeration of the problem; utopian, unrealistic solutions; playing with constraints by lifting or multiplying them and rejecting the optimal idea they came up with in order to look for alternative solutions.

The trainer also presented the trainees with specific tips to ensure a creative meeting: keeping it vital and dynamic; explaining the rules; asking questions one at a time; letting people reply without first asking for permission; maintaining eye-contact; being reactive and improvising; facilitating all participants to speak without feeling judged.

5.4 Collaboration

The collaborative session started out with a collaborative game: each participant contributed one sentence, passing then the floor to another participant, so as to create a short story after all trainees had spoken.

Then, the definition of collaboration was given: to participate in a work with others.

The key question in this sub-group was to find optimal ways to foster collaboration in a team, or on a specific project. Various directions were given, as presented below:

- Fostering an equal relationship. In order to effectively collaborate, it is necessary to understand that each person is capable of making informed decisions for the common good, if given the time to learn. It is hence necessary to hold the conviction that each individual's experience is valuable. Further, the diversity of experience, education, and knowledge is an asset to a group. Under this light, to effectively collaborate signifies that there will be no formal hierarchy, just people having different responsibilities. A practical tip is to hold meetings in circles. It allows to demonstrate that everyone is considered equal and that their opinions matter.
- Listening with attention. Active listening, where everyone respects and listens to each other without interruptions helps people express themselves and feel safe and heard.
- Speaking with intention. Taking accountability and responsibility for what one says is encouraged by using ‘I’ instead of ‘we’ when voicing an opinion.
- Showing kindness, respect, trust. A collaborative session should always be a safe space, where no judgment takes place.

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- Framing and defining the collaboration, as well as a security framework. Another important factor is to clearly communicate the collectively held vision and mission of the team. Moreover, it is essential to have a security framework for the group work, that everyone abides by and is responsible for.
- Encouraging feedback. Feedback is vitally helpful in a group, whether it be interpersonal or group feedback. Positive feedback motivates people, whereas negative feedback, presented in a constructive, respectful way, helps them improve.
- Having facilitators. Facilitators are the people dedicated to help out collaborative efforts and meetings. Their role can be crucial in expediting the process and focusing on what matters.

Putting all those ideas and suggestions to action, more interactive exercises were carried out in the group. By exploring the 'Bono's hat' (also known as the 'six thinking hats', as was already mentioned in a previous section) as a collaborative tool, the group practiced on the supposed creation of a community of cities using the IcARUS project's Design Thinking Methodology. Each participant had to present different aspects of the issue with the final aim to make the group align with a solution by voting on the best path to choose.

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6 Feedback, lessons learnt, and recommendations

Training was one of the critical issues and the common denominator of the needs and expectations declared in almost all types of interactions the project had. This deliverable aimed at the evaluation of the training content, the learning methods; effectiveness and the knowledge delivery mechanisms, as described in the previous sections.

The overall purpose of this initial set of training sessions was to aid the trainees in getting familiar with the concept of the Design Thinking methodology and its various process steps, while thinking in a novel - or even different - way regarding handling challenges faced in urban areas. To that effect, the participants were asked to pinpoint and define if these objectives had been achieved. Their answers demonstrated that they had been accomplished. The partners indicated various aspects of how they were helped in this regard.

Apart from the evaluation provided by the participants, feedback and recommendations were also collected in a form of short reports filled after the sessions by the trainers who facilitated the sub-group sessions.

6.1 Feedback and lessons learnt from the participants

The feedback from the participants was collected in three stages: Prior to the training sessions to identify their needs, expectations, and skills, during the sessions in an interactive mode, and after the sessions with the aid of online questionnaire forms (see templates in the Appendices).

The idea behind having the participants fill in questionnaires beforehand was twofold. Following the Design Thinking guidelines set out in D1.2, the reasons were on the on hand to find out their (the participants') level of knowledge of the subject to tailor-make the training sessions to fit their needs and experiences, and on the other, to foster co-production and co-designing of the sessions, which is a core element of Design Thinking. During the sessions, the knowledge imparted to the participants was tested and evaluated by concrete case studies and exercises that required the application of the Design Thinking tools.

Feedback by the trainees was also gathered post-session, in the form of a second questionnaire sent out to them a day after the final training. The overall sentiment, as was imprinted in their answers, remained similar to what had been observed in the virtual 'classes'. The training was thought to be informative in an entertaining, yet insightful, way and the participants considered themselves more apprised of the Design Thinking methodology and of novel approaches in communication and problem-solving . Largely, they felt they were familiarised with concepts they were not comfortable with beforehand (*e.g.* the importance of prototyping and testing while deciding upon an optimal solution). Also, they delved more deeply into concepts they were already acquainted with, namely empathy and fostering trust, by learning how to use the proper tools and methods to further develop them. At a glance, the trainees were feeling significantly more familiarised with Design Thinking after participating in the training sessions and sub-

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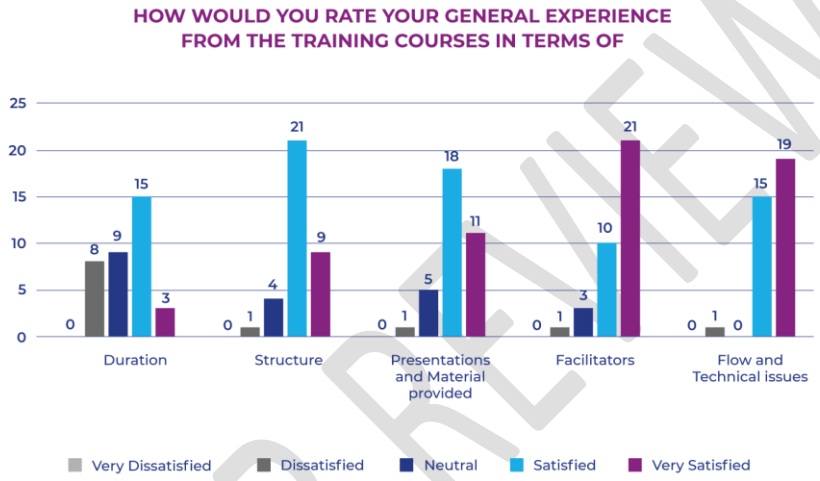
groups, and more confident in applying their newly acquired tools to their everyday work life. Further, the partners expressed their eagerness to take part in future training workshops as well, where Design Thinking will be even more delved into. The graph below represents the participants' rating on a one-to-five scale. It is based on the answers of the thirty-five trainees' questionnaires.

Figure 2. 6 Trainees' Rating of the Sessions



The partners mainly stated that the training sessions were pivotal in having them think outside the box, getting to know new perspectives, learning new and structured methods to focus on analysing the challenges with alternative techniques. They also professed that by exchanging views and practicing engaged listening in their interactions with the municipalities, their empathy outlook was vastly enhanced.

The following graph demonstrates in detail the level of post-sessions familiarity with the Design Thinking steps and processes.

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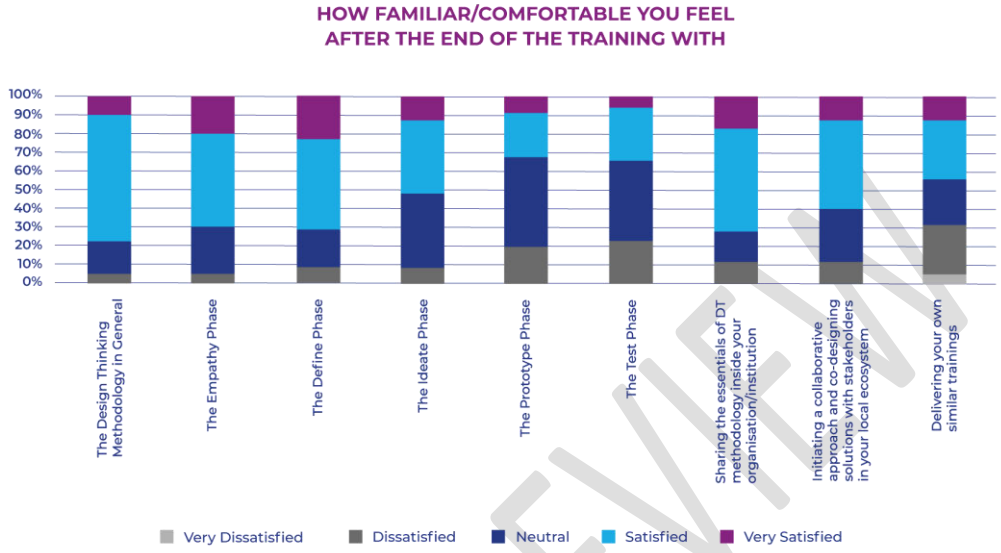
Figure 2. 7 Trainees' Familiarity with the DT Methodology, post-sessions



The feedback also showed a difference of opinions regarding the duration of the sessions. Whereas some trainees found the duration long, others wished there were more training days so as to become even more accustomed with Design Thinking. This will be easily resolved in future workshops: the consortium will be provided with ample opportunity to submerge themselves into the practical aspects of the methodology in the workshops planned in the next Work Packages.

6.2 Feedback and recommendations from the facilitators

According to the feedback gathered by the facilitators/trainers during the sessions, a few points were made, pertinent to the results of the training: The four sub-groups were well managed, and trust was visibly increasing from one session to the next, as participants felt all the more comfortable.

More specifically, the four facilitators found the sessions particularly interesting in several ways. The four online sessions of three and a half hours each originally seemed like a challenge. Yet, it turned out to be a fruitful collective experience, from which the facilitators left with the feeling that they managed to build trust, cohesion, and connections amongst participants.

Sessions were designed to give the space necessary to the participants to speak, discuss, debate, or share their concerns. Hence, that was how connections were really built. The feedback facilitators received from members of the consortium was that they were inspired

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by the facilitation and would be eager to use some of the facilitation techniques they had experienced in future sessions they might themselves host.

According to the facilitators, the main factors that led to the success of the trainings were threefold:

- Adopting a pedagogical approach focused on consortium members testing parts of the design thinking process rather than just hearing about it
- Ensuring a training environment where participants were encouraged to suspend their judgement (including self-judgement) and,
- Avoiding over-formality.

As a result, the sessions really create an easy-flowing group dynamic within the consortium, which was obvious in both the collective sessions and the sub-groups where a sense of intimacy and comfort was largely apparent.

The icebreakers and interactivity of the sessions clearly helped members to feel comfortable and to connect more with fellow consortium members. A shared notion within the trainees was the training presented them with the opportunity to actually get to know the partners and participate in team-building. The lively facilitation style helped not only enhance this atmosphere but also allowed the trainees to stay focused and communicate with each other in a more efficient way.

Particularly in the small groups, participants were able to better exchange views and experiences. This has been very beneficial in order to establish a 'safe and comfortable' space for everyone to contribute. It allowed for everyone to speak, and especially those comfortable sharing in larger groups. To that effect, most of the participants were actively engaged throughout the training in an energetic pace. This was a key moment to create a bond between the different partners. Hence, it is recommended to encourage these exchanges in the future, organise meetings between the members of the consortium, and allow for events where they may be able to share their interest in the project.

The participants were receptive to the facilitation methods, which made the experience very enjoyable. The practical exercises highlighted the potential but also the limits of each approach. Productive discussions on the relevance of the methods and available tools took place, as well as the need for more in depth training going forward, having the sessions held as a solid foundation and a compass.

Facilitators also received a lot of positive feedback from the participants (in private) sharing their satisfaction with the facilitation and the group dynamics. As some of the training sessions were condensed, the energy level of the participants was sometimes a challenge and it is recommended continuing to prioritise breaks taking into account everyone's attention span. In some situations, lack of time didn't help participants to deeply understand the approach so they

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recommended to dedicate more time to the first part of the training, related to the identification and analysis of the root challenge.

For future steps of the project, facilitators suggested to organise additional shorter sessions specifically dedicated to the analysis of concrete challenges and the exchange of best practices within the partnership.

7 Summary and Conclusions

Summing up, the training was met with enthusiasm on the part of the trainees, proven by their active participation and fruitful exchanges. It has provided the foundations of the DT Methodology, the guidelines, the co-creation and co-design framework, the values, the competences and skills needed, and a compass for the rest of the workshops in a way as to engage the trainees and make them feel invested in the process.

In particular, the training preparation activities developed by the training sessions' organisers and facilitators' team, together with the collection of the answers from the delivered questionnaires to the trainees prior to the training sessions, helped to identify in advance the needs, the expectations, the existing knowledge, skills and competences of the trainees and prepare the appropriate training material, examples, and exercises for the training sessions accordingly.

Furthermore, the icebreakers at the start of the sessions and sub-groups were not only entertaining and dynamic, but also related – even in subtle ways – to the topic of each training.

All sessions were fully interactive, with the sub-group sessions being the most highly so, due to their smaller number of members and the focused problem-solving topics, tailor-made for each competence. The chat tool in the Zoom meeting platform proved to be a useful way for all trainees to participate, regardless of their level of talkativeness or extroversion.

A focal point of the sessions' success was that it managed to build trust, connections, and a clear bond among the different members of the consortium. The participants communicated their feelings of being inspired by the classes and satisfied with the group dynamic that was created among all partners. Although the energy level of the participants was sometimes a challenge, they were receptive to the facilitation methods, which in turn made the experience very enjoyable for everyone involved.

A few points need to be taken into account for the next workshops, so that improvements can be made. First, the wording/phrasing of the questions would need to be even clearer so that trainees do not feel that they need to ask for clarifications more than once. Hence, a strong suggestion for future workshops and trainings is enhancing clarity. In addition, while the canvas (see Appendix 3) seems to be a useful collaborative instrument, it was not utilised to its maximum potential. However, the virtual nature of the training sessions did not favour co-creating on a common canvas as a real-life meeting would. This of course constitutes a strong

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recommendation for future IcARUS sessions, where partners will be able to visualise and manage (online or offline) their ideas.

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8 Bibliography and references

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Online courses on DT

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https://www.edx.org/course/design-thinking-and-creativity-for-innovation

https://www.insead.edu/executive-education/open-online-programmes/design-thinking-creativity-business

https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=20693

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9 Annexes

9.1 Appendix 1: Questionnaire for Trainees pre-sessions

ICARUS TRAINING SESSIONS

Information Sheet, Consent Form, Registration Form and Questionnaire for the participants of the Training Sessions

Section 1

Participant Information Sheet (Page 1)

WORK PACKAGE: WP1 Innovation Methodology Adoption ACTIVITY: Task 1.3, adoption and familiarisation with Design Thinking methodology PARTNER LEADING ACTIVITY AND COLLECTING CONSENT: KEMEA You are about to take part in a research activity for the IcARUS EU H2020 project. IcARUS is coordinated by the European Forum for Urban Security (France). Project description The IcARUS project aims to learn from past experiences in urban security policies and practices throughout Europe. The project's main objective is to rethink, redesign and adapt existing tools and methods to help local security actors anticipate and better respond to security challenges. The project will review and reassess past and present urban security policies to provide socially and technologically innovative strategies and tools adaptable to specific local contexts. IcARUS will focus on four areas that have been identified by local and regional authorities as enduring security challenges: preventing juvenile delinquency; preventing radicalisation leading to violent extremism; designing and managing safe public spaces; preventing and reducing trafficking and organised crime at the local level. These will also be examined in the light of four cross-cutting issues of: governance and diversification of actors, technological change, gender approaches, as well as internationalisation and cross border issues. IcARUS will develop custom-made solutions to security challenges, which will incorporate social as well as technological innovations. The tools will be designed through a constant process of testing, evaluation and adaptation by local and regional authorities. These stakeholders will be supported in the integration of a strategic foresight approach to their crime prevention policy, a process that will ensure that these tools are effective and meet the collective needs of citizens. Why have I been approached? As a member of the IcARUS consortium, in order to participate in the training sessions regarding Design Thinking Methodology. Right to withdraw and to data protection You do not have to take part in this research if you do not want to. Likewise, you may change your mind about your participation later on and withdraw after taking part in the training sessions organised within WP1 without needing to provide a reason. In this case, your input will be securely deleted from our records and servers. If you wish to withdraw, ask questions or make use of your data protection rights (access, rectification, deletion, information, limitation and portability), you may contact the Data Protection Officer (DPO) for this project: Adrien Steck, email steck@urbansecurity.org What will I be asked to do if I take part

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in this research activity? If you decide to take part, you will be asked to participate in the Training Sessions for three days, with an optional fourth. According to the Grant Agreement the project kick-off will include training to get the consortium familiarised with the Design Thinking methodology applied to urban security and crime prevention. The definition of a common language in the four areas of work (Juvenile Delinquency, radicalisation, public spaces issues and organised crime) will be an opportunity to apply the methodology to concrete case studies. The training will be moderated by Makesense. KEMEA and EC will report on the session and will constitute MS2 of the WP. When contributing to the training sessions with your expertise you may want to share real-life experiences or cases you are or have worked on. Please be aware that this is sensitive information, and you should do your best to not share personal details of anyone involved in such use cases. General details can and should be shared, but those involved must be protected. If you happen to mention specific people, their names will be deleted from any project materials.

Section 2

Participant Information Sheet (Page 2)

Will my data be Identifiable? When providing your opinions, only your answers will be recorded, and this information will only be processed by project partners, held on the personal, and protected, computer drive of the researcher, and kept separate from the interview material. Therefore, your opinions will not be linked to your name or any other direct identifiers, and opinions that may identify you will not be made public in any case. Any security sensitive information will also be discarded for publication. Additionally, researchers use secure network servers to exchange information between project partners, and any e-mails inviting experts or discussing the research with participants will be deleted after the research is compiled into the relevant reports. Any data labelled as personal data will be deleted at the end of the project (year 2024). Audio recordings Audio of the session/s which you will participate will be recorded. They will be deleted once the transcripts and/or project reports have been completed. Transcripts will eliminate any information that would enable you to be identified (names, locations, etc.) directly, by inference or by association. This anonymisation will be complete and irreversible as the original audios will be destroyed. Video recordings Videos of the session/s which you will participate will be recorded. You can opt-out of video recording by stating it in the consent form. If you agree to video recording, your image and opinions may be used in project materials and dissemination activities, but not reused for research purposes. What will happen to the results? The research results will be confidential and only accessible to other project partners and the EU Commission Services. However, project partners may use project results in specialised publications. In no case will these materials include information that could identify you or your opinions. Anonymised direct quotations from your contributions may be used in these reports and publications, but your name or other directly-identifying information will not be included. What are the risks and benefits of my participation? Your expertise and knowledge may benefit the IcARUS project as a whole so as to create a culture of utilising the

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tools provided by the Design Thinking Methodology in the field of Urban Security and Crime Prevention. Before starting, you should know that your participation may entail the following risks: 1. Incidental findings: During the session, researchers may discover something they were not looking for. These unexpected findings are not directly related to the research, but may reveal important information about a willing participant. 2. Stigmatisation: It is possible that the conclusions of the session may have a stigmatising aspect for some collectives. 3. Offence: It is possible that the comments of other participants may offend your feelings. To try to avoid and mitigate these risks, ethical management and privacy policies have been established at IcARUS. Who is responsible for the research? The project has been funded by the EU Horizon 2020 and is coordinated by the European Forum for Urban Security (https://efus.eu/). The Deputy Director of EU Programmes is Carla Napolano (napolano@efus.eu) and the Project Manager is Sarah Diemu-Trémolières (diemu-tremolieres@urbansecurity.org). Further information on the project can be found on www.icarus-innovation.eu Thank you for taking the time to read this information sheet. You can keep this document.

Section 3

CONSENT FORM

WORK PACKAGE: WP1, Innovation Methodology Adoption ACTIVITY: Task 1.3, Adoption and familiarisation with Design Thinking methodology PARTNER LEADING ACTIVITY AND COLLECTING CONSENT: KEMEA DPO/DP Manager Ms. Vassiliki Zomenou, email address: dpo@kemea-research.gr

1.I have been informed of the project aims and goals.

- ○ Yes
- ○ No

2.I have been provided with an Information Sheet

- ◉ Yes
- ○ No

3.I consent to my participation in the research

- ○ Yes
- ○ No

4.I understand that I have the right to withdraw from the research at any time without providing a reason

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- Yes
- No

5.I understand that I should not share personal details of persons involved in real-life use cases.

- Yes
- No

6.I understand that my personal data will be deleted after the completion of the project in 2024.

- Yes
- No

7.I consent to my data being used in the future for research purposes only

- Yes
- No

8.I consent to the voice recording of my contributions in the research

- Yes
- No

9.I consent to the video recording of my participation in the research

- Yes
- No

10.I have been provided with the contact details of the DPO

- Yes
- No

11.I have been provided with the contact details of the project coordinator

- Yes
- No

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12.Name Surname

Section 4

REGISTRATION FORM

Thank you for taking the time to complete this consent form. Please provide the following information for your registration in the training sessions.

13.Having given my consent in the previous section I would like to register for the following Training Sessions: Session 1: March 3rd 10.00-13.30 Session 2: March 8th 10.00-13.30 Session 3: March 10th 10.00-13.30 Optional Session 4: March 11th 10.00-13.30.

- Yes
- No

14.PARTNER

15.EMAIL

Section 5

QUESTIONNAIRE

Contributing to the organization of our training sessions please fill the following questionnaire.

16.How comfortable are you with the Design Thinking methodology?

- Not At All
- Somewhat comfortable
- Neither comfortable nor uncomfortable
- Very comfortable
- Expert

17.From your professional/academic point of view/experience what challenges do you think cities face that can be solved by design thinking?

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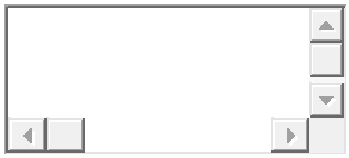


18.Would you say that you are familiarized with one of the 4 focus areas ? Do you have an experience that you could share with the consortium on one of these topics? A. Prevent juvenile delinquency B. Prevent radicalisation leading to violent extremism C. Design and manage safe public spaces D. Prevent and reduce trafficking and organised crime.

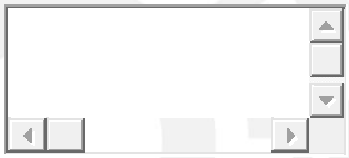
- Yes
- No

19.If possible/relevant, could you give us an example of a challenge/case study you're facing for which Design Thinking could help you find better solutions in one of those areas: A. Prevent juvenile delinquency B. Prevent radicalisation leading to violent extremism C. Design and manage safe public spaces D. Prevent and reduce trafficking and organised crime.

20.How comfortable would you feel to present one of these challenges to a small group during the training in order for them to practice the design thinking methodology?

- Very uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Very comfortable

21.What stakeholders/social groups in the local ecosystem are the hardest to engage to initiate a collaborative approach and co-build solution to the 4 IcARUS areas?



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22.Which social groups do you feel are rarely listened to when thinking of and implementing solutions at the city level?

23.Which of the following phases of the Design Thinking process do you feel the least comfortable with?

- Empathize
- Define
- Ideate
- Prototype
- Test

24.Which of the following phases of the Design Thinking process do you feel the most comfortable with?

- Empathize
- Define
- Ideate
- Prototype
- Test

25.If you had to choose three skills to develop to better lead your projects, which would they be?

- Empathy
- Experimentalism
- Creativity
- Collaboration

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- [ ] Communication
- [ ] Thinking outside the box
- [ ] Trust Building
- [ ] Adaptation

26.Having to add one not mentioned above, which would it be ?

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9.2 Appendix 2: Questionnaire for Trainees' feedback post-sessions

IcARUS WP1. Task 1.3.2 Training Sessions - Questionnaire for Feedback

1.Which session(s) and competences did you attend (please check all that apply)

- ☐ Session 1, March 3
- ☐ Session 2, March 8
- ☐ Session 3, March 10
- ☐ Session 4, March 11
- ☐ Empathy and Trust Building
- ☐ Experimentalism
- ☐ Creativity
- ☐ Collaboration

2.How would you rate your general experience from the training courses in terms of.... ((Please use the following rating scale: 1-Very Dissatisfied, 2- Dissatisfied, 3- Neutral, 4- Satisfied, 5- Very Satisfied)

	1	2	3	4	5
Duration	○	○	○	○	○
Structure	○	○	○	○	○
Presentations and Material provided	○	○	○	○	○
Facilitators	○	○	○	○	○
Flow and Technical issues	○	○	○	○	○

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3.How familiar/comfortable you feel after the end of the training with ..... (1-Not Familiar/Comfortable at all, 2- Not very Familiar/Comfortable, 3 – Neutral, 4 – Somehow Familiar/Comfortable, 5 – Very Familiar / Comfortable))

	1	2	3	4	5
The Design Thinking Methodology in General	○	○	○	○	○
The Empathy Phase	○	○	○	○	○
The Define Phase	○	○	○	○	○
The Ideate Phase	○	○	○	○	○
The Prototype Phase	○	○	○	○	○
The Test Phase	○	○	○	○	○
Sharing the essentials of Design Thinking methodology inside your organisation/institution	○	○	○	○	○
Initiating a collaborative approach and co-designing solutions with stakeholders in your local ecosystem	○	○	○	○	○
Delivering your own similar trainings	○	○	○	○	○

4.Have the training sessions helped you think in a new way of a challenge faced by cities? If yes, how?

5.Which part of the training was the most useful to you?

6.Which part of the training was the least useful to you?

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7.Is there any methodology/approach from the training sessions that you will use in your daily work? If yes, which one(s)

8.Are there any additional questions/points that need to be further clarified regarding the Design Thinking methodology that this training raised?

9.Is there any group exercise you would prefer NOT to repeat in future workshops or trainings?

10.What else/more/less do you believe should exist in future trainings (e.g. in terms of content, duration, etc.)

11.Please feel free to add any additional thoughts/comments

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9.3 Appendix 3: Canvas filled in by the trainees for each challenge/competence

Understand the situation

1 _Prepare interview — 5 minutes

2 _Interview the challenge holder — 15 minutes

Question 1

Why :

Why :

Why :

Why :

Why :

Deep root of the problem identified:

Question 2

Why :

Why :

Why :

Why :

Why :

Deep root of the problem identified:

Question 3

Why :

Why :

Why :

Why :

Why :

Deep root of the problem identified:

Question 4

Why :

Why :

Why :

Why :

Why :

Deep root of the problem identified:

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Prioritize one challenge

1 _Challenge holder prioritizes challenges

5 minutes

The challenge holder reads the different challenges and prioritizes the challenge that seems the most relevant.

Challenge we should focus on for the training :

Frame the challenge

1 _Interview of the challenge holder

15 minutes

Open questions to the challenge holder to better understand the objective (defining the end user for the solution, the needs to meet...) and the constraints(timing,budget, specificityof the enduser...)

Notes from the interview :

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Frame the challenge

2 _Collectively decide the objectives

5 minutes

Objective 1

Objective 2

Objective 3

2 _Collectively decide the constraints

5 minutes

Constraint 1

Constraint 2

Constraint 3

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Recap of the challenge

Issue we are trying to solve

Objectives

1.
2.
3.

Constraints

1.
2.
3.

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IcARUS

INNOVATIVE APPROACHES TO URBAN SECURITY

CONSORTIUM

European Forum for Urban Security (Efus)

Fachhochschule Salzburg (FHS) Salzburg University of Applied Sciences

Plus Ethics

Erasmus University Rotterdam (EUR)

Laboratory of Urban Criminology / Panteion University of Social and Political Sciences (Panteion)

University of Salford

University of Leeds

Landeshauptstadt Stuttgart Municipality of Stuttgart

Riga Municipal Police (RMP)

City of Rotterdam

City of Nice

Lisbon Municipal Police / Lisbon Municipality (LMP/CML)

Local Police of Turin (PLTO)

makesense

Eurocircle

Idiap Research Institute

KEMEA

LOBA

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