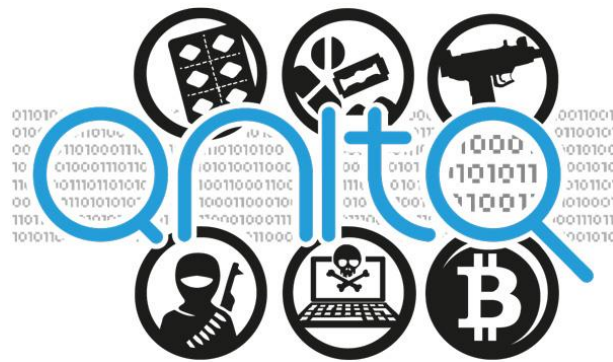




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Advanced Tools for fighting Online illegal trafficking

D11.7 – Training materials

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2	Centre for Research and Technology Hellas CERTH - ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	CERTH	RTO	GR
3	Centro Ricerche e Studi su Sicurezza e Criminalità	RISSC	RTO	IT
4	Expert System S.p.A.	EXPSYS	SME	IT
5	AIT Austrian Institute of Technology GMBH	AIT	RTO	AT
6	Fundacio Institut de BioEnginyeria de Catalunya	IBEC	RTO	ES
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17	Local Police Voorkempen	LPV	USER	BE

To the knowledge of the authors, no classified information is included in this deliverable



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Definitions, Acronyms, and Abbreviations

ACRONYMS / ABBREVIATIONS	DESCRIPTION
ANITA	Advanced Tools for fighting Online illegal trafficking
COVID-19	Coronavirus disease 2019
DoW	Description of Work
ELC	Experience learning cycle
KPI	Key Performance Indicator
LEAs	Law Enforcement Agencies
TTT	Train the Trainer Training
UC	Use Case
WP	Work Package



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Executive Summary

ANITA aims at improving the investigation capabilities of LEAs by delivering a set of tools and techniques to efficiently address online illegal trafficking of illicit drugs, New Psychoactive Substances (NPS) and medicines (use-case 1), firearms and weapons (use-case 2), and terrorist financing (use-case 3).

This can be achieved through appropriate knowledge modeling and reasoning services; discovery and monitoring of new and existing online marketplaces; resolving criminal identities in social networks and on the internet and the identification of authors of internet content; insights on criminal groups relevant and related to trafficking of illegal products; discovery and understanding of trends and behavioral patterns; revealing, tracking, and monitoring of payments and transactions in crypto-currency networks; interoperability with available relevant investigation systems already utilized by LEAs. This will support the LEAs in more effective investigation activities by using online content and information obtained under a lawful warrant.

Fundamentally, ANITA aims to design and develop a novel knowledge-based and user-centered investigation platform for addressing online illegal trafficking challenges providing operational tools for data sources and blockchain analysis, Big Data analytics, knowledge modeling and exploitation, incorporating human cognitive function in the analysis pipeline and providing user-oriented intelligence applications to support Law Enforcement officers. In this aspect, there is a need for training of LEA officers for efficient use of the platform, and in that line a need to train the trainers and transfer the knowledge to the LEAs to use it efficiently. Also, there is a need to test the platform, tools, and their efficiency of implementation in the real surrounding. Training must be created as a developing process, and, in that line, it must be developed as a revolving process with real feedback provided by skilled professionals, with a need to implement trained skills daily. In this view training is the first step of the process and pilots present normal furthering of the training with the involvement of new professionals in the loop of the theory and practice of the platform and the tools in it. The culmination of the learning curve and realization of the full implementation has its peak in the public demonstration and following workshop, where learned skills and knowledge are fully demonstrated and discussed.



1 Introduction

1.1 Objective of the Training

The main objective of the training is to present the platform, its capabilities, and operative values and provide possibilities for the trainees to comprehend, understand and implement tools and the platform itself. In that line, providing the first core crew of people capable to implement tools and the platform and transferring that knowledge to other LEA officers is the priority. The training sessions were organized and presented, in the first iteration, by the technical partners of the consortium and, in close relation and supervision by LEAs, both involved in the consortium and those in the Advisory Board of the project. This training session was the first *Train the Trainer Training* (TTT). Next training sessions were organized by technical partners and LEAs trained in the first itinerary (Table 1). Following training sessions were done by trained LEAs. The platform evolved through additional comments, public discussion about the tools presented at the focus groups and workshops, after which all the comments, proposals, and possible shortcomings were assessed, analysed, and evaluated.

What	When	Who
TTT1	December 2020	Trainers – Technical part of the consortium Trainees LEAs
TTT2	January 2021	Trainers LEAs Trainers Newbies LEAs

Table 1: Training sessions

The focus groups meetings (2 of them – March and June 2021), organized by RISSC (within the WP11), were the first public (outside consortium public) demonstration/presentation of the platform and tools, and the results of discussions and evaluation in different forms present valuable inputs for the whole training and platform evolving process. Also, the plan was to use different forms of feedback from training, those focus groups and workshops, which represent crucial demonstrational capabilities of the system and its parts, with trained professionals, which all present public and industry evaluation. Through this synergy, we have achieved not only presentation of the capabilities of the platform, tools, and investigative capabilities, but also the presentation of the training material, evolved curriculum (more about it in D11.3) for the training and by the public and industry evaluated to further strengthen the quality of the platform as LEA's tool.

1.2 Main Activities

Activities on the Training must be divided into two parts. One represents the realization of the tasks of the technical part of the consortium and their engagement with criminological and criminal analysis in a sort of practical and theoretical meeting of the capabilities, theory, and reality. In the second there is a need to practically train LEA officers to implement in real conditions platforms and tools. This part also served to collect the first feedback on the platform and the tools functioning, intending to further broaden two-way information exchange – from Consortium and achieved results and from LEA's representatives in evaluating the platform and its efficiency and usability. First training groups were planned for October 2020, but they were postponed for December 2020, and at all of them the trainees were only consortium members, planned with at least 2 at a first-round up to 5 LEA (persons) members in the second round. The training



2 Training

The training was consisted, in the first view, of several parts and modules for lesson delivery by the ANITA trainers – and the technical part of the consortium for the first train the trainer's course (TTT). Next was TTT delivered by people trained on that course. First, the initial 12 trainers received certificates of ANITA platform and tools operational capacities (Figure 1).



Figure 1: ANITA Certificate

The list of participants of TTT is the following (not all of them were trainees nor getting the certificate):

	ANITA Partner	Name
1	KWPG	Arkadiusz Radomski
2	KWPG	Łukasz Matysiak
3	NPN	Henk Meulman
4	NPN	Erik Verstraten
5	LPV	An Denis
6	LPV	Steven Heyndrickx
7	LPV	Renée Anthonissen



8	HO	Robert Stacey
9	HO	Neil Cohen
10	HO	Ed McBryde-Wilding
11	GDCOC	Svetlin Lazarov
12	GDCOC	Georgi Isaev
13	UCIPS	Vladimir Aksentijević
14	UCIPS	Milan Sreckovic
15	UCIPS	Zvonimir Ivanovic
16	DITSS	Vivian Gravenberch
17	DITSS	Jacques van Wersch
18	VIAS	Isabel Verwee
19	RISSC	Elena D'Angelo

Table 2: List of participants of the first TTT

The training was structured on the following sessions:

- Introduction to ANITA platform

The introduction covered the functionalities of the platform, the overall approach to the platform, and tools. It was shown the overall looks of the platform – and specific parts of the visual graph, icons and functional parts and buttons of the platform, capabilities of different parts of the platform, and its interconnections. After this module-specific parts of the tools and platform are also delivered as training material.

- Module-specific training – Text Analysis

In this module, all text capacities and capabilities of the tools within the platform are shown. There were shown how and when the text can be analyzed, when, and with what purpose. Integration of the module was demonstrated within the platform.

- Module-specific training – Video Analysis

In this module, all video capacities and capabilities of the tools within the platform are shown. There were shown how and when the video, image, or combinations of it can be analyzed, when, and with what purpose. Integration of the module was demonstrated within the platform.

- Module-specific training – User cognitive tools

In this module, all user cognitive tools their capacities, and capabilities within the platform were shown. There were shown how and when cognitive analysis can be done, when, and with what purpose.

- Live session

It was allowed the trainees to play and test the platform and tools. That was be done with previously prepared examples and scenarios. Also, it was being allowed for the trainees to test some of the tools in the real environment.



- Questionnaire

There has been developed a questionnaire for the trainees (in every training) to reflect on the training sessions and training material prepared for the course. The purpose of the questionnaire is to show the path which should be taken for the development of future training and training material development.

- Discussion on feedback

A discussion slot was proposed for immediate feedback to be provided by trainers, trainees, and organizers of the training.

2.1 Trainee Profile

The profiles of the trainees were established, to provide the necessary input to the training course developers, so that the most effective training curriculum possible could be designed. Due to the specific topics of the ANITA project and the high level of expertise, the ideal audience was a focused group that has experience in the specific subject matters the project deals with. More specifically, the trainees needed to be able to relate to the topics central to ANITA in their work. Taking these factors into account, it was believed that the most suitable candidates can be selected from within LEAs.

LEA staff were the ideal candidates for this training due to their experience, the challenges they face in their daily work, and their professional interest in the subject matter. Even though LEAs are the general audience category, it was important to set some basic characteristics for the trainee profiles, to make the learning procedure adaptive to the trainees' needs, and to establish a trainee profile that was of high level and able to fulfil the objectives to secure a successful outcome.

For the training designer to be informed about each candidate's previous experience, below are information that were collected from the trainees:

- Country of origin
- Organisation of work
- Organisation type (specify)
- Position in the organization
- Title
- Question: *"Have you received any previous training related to the ANITA learning topics? (if yes, please specify)"*
- Question: *"What is your knowledge level related to ANITA learning topics (choose between no knowledge at all, basic, medium, and expert)"*.

The experience factor was very important, but also it was of great importance to learn about the interest of the trainees in the topics. To be able to do that, the trainees needed to express the reasons for taking part in the training procedures and what was their desire to gain from the ANITA training. Also, good knowledge of English was considered as very important for all candidates.

The professional experience of the trainees was also a significant factor. Additionally, it was important to learn of the trainees' interest in the topics addressed by the ANITA platform. To achieve the best possible outcome, training candidates needed to convey their request for participating in the training and what they expected to gain from the training program. To ensure that the proposed candidates were suitable for training in the ANITA platform, a questionnaire was created to aid selection.



2.2 Training Modes

Ideally, training had to be conducted face to face. However, due to the ongoing COVID19 situation, it was necessary to do it remotely. It was held via the e-platform Moodle, provided and maintained by UCIPS. Problems faced with organizing of the training were in relation with the platform used – Moodle, and BigBlueButton as a plugin for this activity: there was a need for all of the participants in the training to create credentials for security reasons and authorised access to the materials and platform itself, and following training. In that way all participants were compelled to provide needed personal data (etc. e-mail and Name and Surname...) for this purpose. Material provided from the partners was adapted to the training by UCIPS team, and some of material parts were published as provided – like videos and MS Power Point presentations. The training includes theoretical and practical methods, platform performance, and utilities and tools implementation within the platform. Upon completing the course, Testing Resources & Material, Knowledge Testing, and Reports & Statistics were provided.

2.3 Training Framework

All participants in the first TTT were provided with an invitation, the address of the private room for the training in the Moodle platform, and login credentials so that no un-invited person can attend or access the training and the material. The agenda was disseminated between the participants for the training (see Table 3) Table 3: Training Agenda (3h duration max).

Training Session	Time	Who	Title	Responsible
PART I The context	5 min	ENG	Welcome and introduction (no explanation of the project will be given). Explain the purpose of train-the-trainer and relation with the 1 st round of pilot	Milan Sreckovic
	15 min	RISSC	During this session, the context of the activities will be provided	Milan Sreckovic
PART II ANITA Platform	30 min (about 5 min each)	Tools implemented in WP 5-6-7-8 AIT, CERTH, EXPSYS, JADS, IBEC	Presentations of the tools integrated into the platform + video for the tools not integrated	Vladimir Aksentijevic
	30 min	ENG	ANITA integrated platform functionalities (video)	Vladimir
Q&A	15 min	Free discussion		Andjela Pavlovic



Live session	45 min	Scenario-based step-by-step hands-on experience on the ANITA platform coordinated by ENG, aided by other partners for more details.	Live session to use the tool through a scenario	Milan Sreckovic
Questionnaire	10 min	Online activity – Survey monkey or Google forms		Andjela Pavlovic
Discussion on feedback	30 min	Open discussion between technical and LEA partners on the questionnaire results to better understand the feedback		Zvonimir Ivanovic

Table 3: Training Agenda (3h duration max)

Overall, 12 LEA trainees from 6 different LEAs were trained. Trainers for each topic were those who created tools or overall platform with also ENG and RISSC representatives in the introduction and overall role of the platform and tools. AIT, CERTH, EXPSYS, JADS, IBEC were in charge of delivering training on individual tools. Not all tools were covered at first training, just selected by trainers.

The selected platform was Moodle (+ BigBlueButton add-on for the live virtual classroom). Material and presentations were uploaded there and shared with the technical team UCIPS by December 3rd.

2.4 Internal Planning

To engage all possible partners in effective and accurate planning there were involved firstly technical partners, mainly CERTH as technical group leader, but also RISSC and ENG along with LEAs which were involved and the leader of LEA group within the consortium, DITSS. While planning was underway also the first draft material for the training in the form of .ppt and .pdf datasets or files was created from the previously prepared templates. The planning was developed in the following steps with deadlines (see Table 4).

Task ID	Task description	Responsible	Deadline
1	List of participants and availability	DITSS	27/11/2020
2	Presentation template creation and content request. (2 slides per tool, 5mins per WP, focus on functionalities and highlight of the value-added of the tools from the SoA (e.g. how tools will improve the work and make it faster))	CERTH All technical partners	2/12/2020



3	Contact AIT to understand the availability of content and integration until the training.	CERTH	27/11/2020
4	Training document with the format of the day and questionnaire finalized	UCIPS (with support from DITSS)	2/12/2020
5	Scenario for the live session to be drafted	ENG, CERTH, AIT, RISSC	2/11/2020
6	Scenario for the live session to be finalized and tried out	CERTH, ENG, RISSC	9/12/2020
7	Presentations and video to be prepared and uploaded on the platform	AIT, CERTH, EXPSYS, JADS, IBEC, SYSTRAN	3/12/2020
8	Questionnaire uploaded on an online platform (e.g. google or SurveyMonkey)	DITSS/UCIPS	7/12/2020
9	Training day (morning)	ALL	11-14/12/2020
10	Fix final date/send doodle to technical partner	CERTH	2/12/2020
11	Certificates' preparation Attendees list prepared, a digital signature of the Project Manager (PM), the signature of WP 11 Manager, logos, and overall look of the certificate acknowledged by PM	UCIPS/ENG	13/12/2020
12	Certificates' dissemination	UCIPS	15/12/2020
13	Planning of the additional training for pilots' preparation	UCIPS/DITSS/Technical partners	27/01/2021
14	Execution of the additional training	UCIPS/DITSS/RISSC/ Technical partners	27/01/2021
15	Pilots' execution	LEAs/DITSS/RISSC/Technical partners	2-12.02.2021
16	Preparation of the workshops	All partners	February 2021

Table 4: Overall internal planning

All following activities (analysis of evaluation forms for the training, training material, feedback done after the training and the pilots) were intended to be used as inputs for further refinements on the tools and the platform itself, training material and approaches in the training methodology. Results were disseminated to the Coordinating institution and technical and LEA leading institution of the Consortium (in the form of the training plan) in order to accumulate findings on the whole concept of the platform and tools. Also, PDF draft version of the training material was disseminated for the purpose of the first training was developed as collated presentations sent by technical partners. Furthermore, a draft version in pdf format was updated after the training and pilots with feedback provided through evaluation and answers collated from the questionnaire, but also from the oral and personal feedback gained within the timeslot of discussion



immediately after the hands-on testing of the platform and learned skills and gained knowledge. The result from this was the creation of the first version of a training manual for the training – it was published in digital PDF format after further evaluations by the partners. Those were planned steps for further development of the training material and along with the curricula development done by partners within the task T11.3 of the WP11, it provided more thorough coverage of the technical, practical, and scientific areas of the ANITA platform and tools.

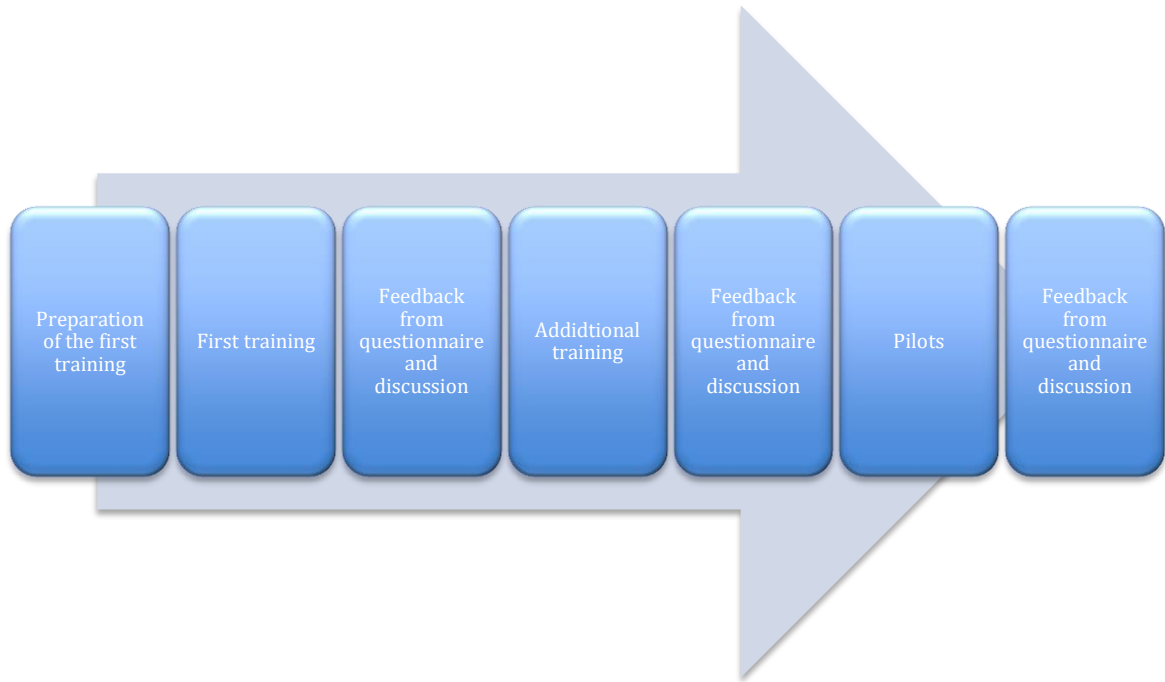


Figure 2: Process of training and material evolving

All partners got reports and feedbacks through dissemination and this report has the purpose not only to fill in reporting demands of the continuous reporting of H2020 projects but also to serve as self-building material for upgrading training and material following it.

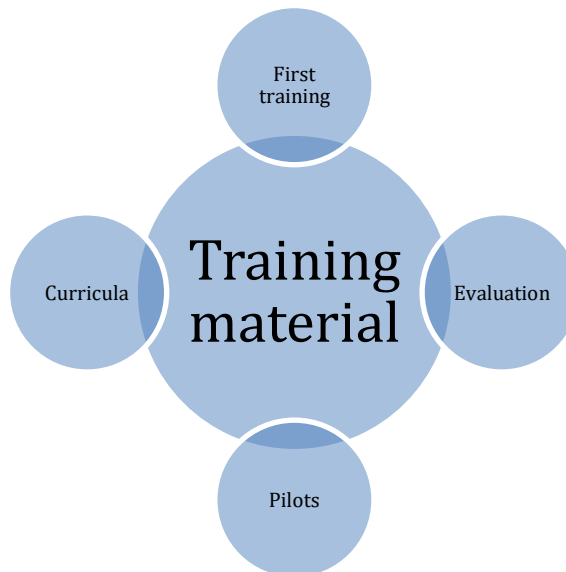


Figure 3: Development of the training material and manual



For the live sessions of training planned for October 2020 (later postponed for December) and workshops (Workshop 1 – April 2021, Workshop 2 – 12 October 2021), plans were made to provide participants with some dissemination material and useful tools. In that line there was planned to create writing pads - notepapers, office paper folders, laptop stickers, tea mugs, and ballpoint pens for all trainers, trainees, and workshop attendees. For that purpose, there was organized a public procurement by UCIPS to find the best public offer for dissemination material creation (Folders – 200 pieces, Notepapers – 200 pieces, Ballpoint pens – 200, Mugs/Cups – 200, Laptop stickers – 300 pieces.). All pieces of dissemination material included the logo of the project. This material was disseminated until the end of the project by physical mail to all consortium members.

2.5 Experience learning cycle (ELC) and learning curve

Kolb’s experiential learning style theory¹ is typically represented by a four-stage learning cycle in which the learner 'touches all the bases' (Figure 4: Experience Learning Cycle (ELC)):

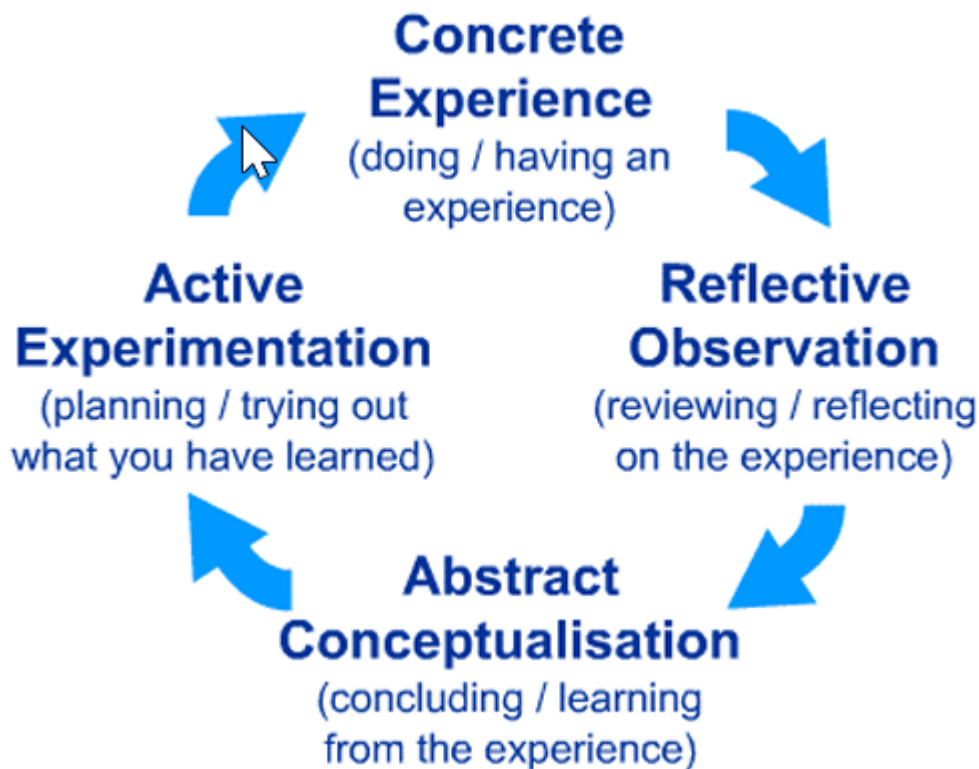


Figure 4: Experience Learning Cycle (ELC), Kolb

Kolb’s ELC is manifested in the following stages:

1. Concrete Experience - a new experience or situation is encountered, or a reinterpretation of existing experience.

¹ McCarthy, M. (2010). Experiential Learning Theory: From Theory To Practice. Journal of Business & Economics Research (JBER), 8(5). <https://doi.org/10.19030/jber.v8i5.725>



2. Reflective Observation of the New Experience - of particular importance are any inconsistencies between experience and understanding.
3. Abstract Conceptualization - reflection gives rise to a new idea or a modification of an existing abstract concept (the person has learned from their experience).
4. Active Experimentation - the learner applies their idea(s) to the world around them to see what happens.

Effective learning is seen when a person progresses through a cycle of four stages: (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test the hypothesis in future situations, resulting in new experiences.

This grounding is presented during the whole process of evolving training material where all partners were involved. Training report was created by UCIPS and disseminated to the partners with analysis of the questionnaire and respondents' comments of which a good part is also a part of this deliverable.

Learning curve is also present in the analysis of the training result – where real achievements of the trainees were tested in the real surrounding with experience with the platform and tools at TTT1, and at TTT2 with concrete tasks to be fulfilled and measuring their results, followed with similar, concrete but more demanding tasks in the pilots.



3 Training material creation

Training material discussion is consisting of several parts and modules for lesson delivery by the ANITA trainers – and the technical part of the consortium for the first train the trainers' course (TTT) which agenda was discussed earlier in the deliverable. Next is the TTT delivered by people trained on that course. First, in the initial training in total 12 trainers (up to two from each LEA in the consortium) have received certificates of ANITA platform and tools operational capacities. All further training has involved certificates of completion of the training and attendance (for the pilots). First training material included:

- Welcome and Introduction to ANITA platform

The introduction covered the functionalities of the platform, the overall approach to the platform, and tools, main functions, and capabilities. It was shown the overall looks of the platform – and specific parts of the visual graph, icons and functional parts and buttons of the platform, capabilities of different parts of the platform, and its interconnections. After this module-specific parts of the tools and platform are also delivered as training material.

- Module-specific training – Text Analysis

In this module, all text capacities and capabilities of the tools within the platform are included. Particularly, it was shown how and when the text can be analyzed, and with what purpose. Integration of the module was demonstrated within the platform.

- Module-specific training – Video Analysis

In this module, all video capacities, and capabilities of the tools within the platform are included. Particularly, it was shown how and when the video, image, or combinations of it can be analyzed, and with what purpose. Integration of the module, also, was demonstrated within the platform.

- Module-specific training – User cognitive tools

In this module, all user cognitive tools their capacities, and capabilities within the platform are included. Particularly, it was shown how and when cognitive analysis can be done, and with what purpose.

- Live session

It was allowed the trainees to play and test the platform and tools. That was done with previously prepared examples and scenarios. Also, it allowed to the trainees to test some of the tools in the real environment.

- Questionnaire

A questionnaire for the trainees to reflect on the training sessions and training material prepared for the course was prepared. The purpose of the questionnaire was to show the path which should be taken for the development of future training and training material development.

- Discussion on feedback

A discussion slot was proposed for immediate feedback to be provided by trainers, trainees, and organizers of the training.



4 Organization of the Training

4.1 Plan for the training

For the training planned for October 2020 as an alive event, but circumstances dictated it to be postponed and done preferably online as a live event (that was planned to be on the Moodle platform with BigBlueButton active plugin) with the participation of LEAs (from the consortium at least two representatives from each of LEA partners) and for the second train the trainer course it was done also with LEAs from the consortium (with at least five of representatives of each partner LEA). At the first moment, the plan for the TTT was done on material provided by the technical part of the consortium and ENG and RISSC. All technical partners who developed their tools had a task to prepare at least 3-5 slides on each of the modules and parts planned for the session on the agenda of the first TTT. Trainees for the TTT also provided feedback on the material and lesson deliveries of the trainers to provide trainers third-party view on the material and performance of the training. After that collating and analyzing of the material was done of presentations provided by the technical partners on the Consortium. This was done with the consent of the authors. The first version of the material was published on the platform Moodle of ANITA training in servicing and maintenance of the UCIPS technical staff. All presentations were also provided and were accessible by trainers and trainees on the same platform. This first material was published by UCIPS as a pdf document collated from the ppt presentations and additional comments provided by UCIPS team. Publication of the material was done on the platform Moodle, to be used by trainees, during the training, but it was also awarded with COBIS.RS and ISSN numbers, and published within the publication process in the scientific community in the Republic of Serbia (Figure 5). This material is still posted at the following link <https://www.kpu.edu.rs/cms/nauka/ustanova/aktuelni-projekti>

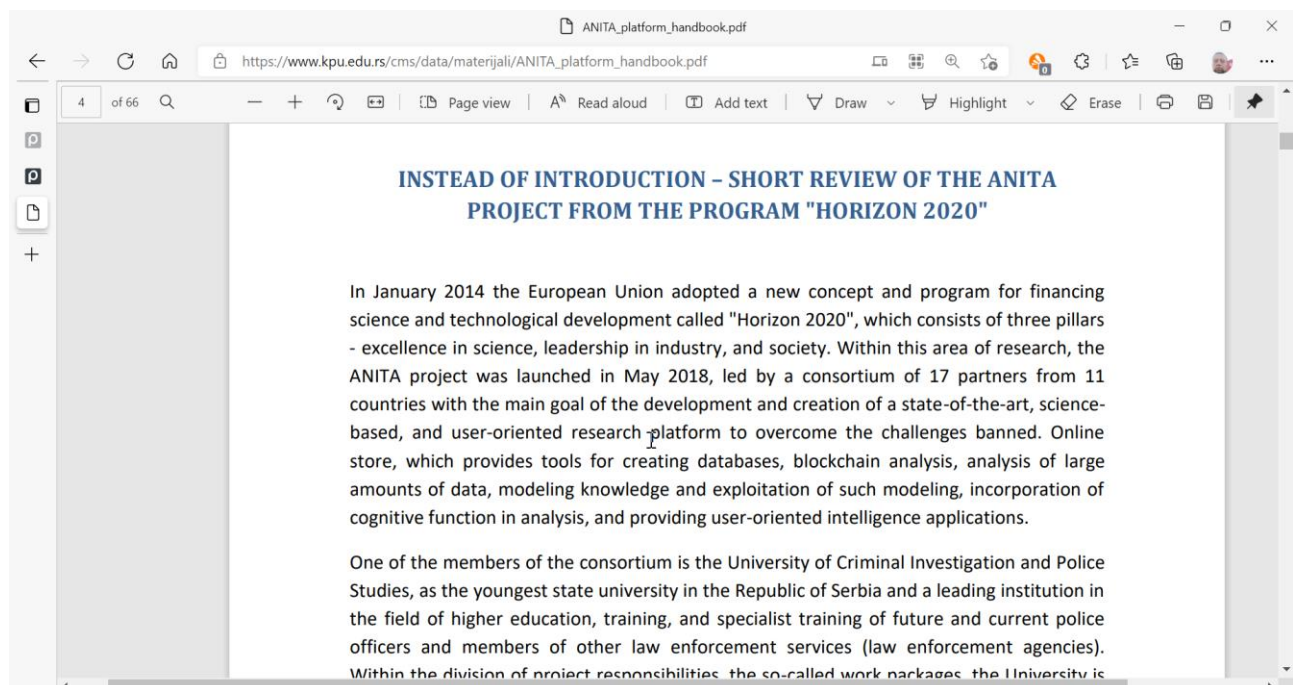


Figure 5: ANITA training handbook



The training was evaluated through a questionnaire delivered to the trainees. The first section of the questionnaire below was divided into key categories: Presentation, Content, and Impact relating to the ANITA train-the-trainer training. The second part of the questionnaire focused on the user experience of each of the ANITA platform's modules.

For each category, a set of questions were provided. Trainees were asked to grade their answer to each question by selecting the appropriate number, concerning the following scale:

1 = Strongly disagree

2 = Disagree

3 = Neither agree or disagree

4 = Agree

5 = Strongly agree

Should they wished to add a further comment, trainees used the “Additional Comments” column for the relevant question.

Responses of the trainees included their job titles which included: Senior researcher, Operational specialist, Assistant Chief Operations Officer, Police Officer – expert, Associate professor, Web administrator, Policy support officer, IT Admin, Officer in Cybercrime unit, Detective, Project Assistant, Intelligence officer.

In the evaluation the following aspects were assessed:

- presentation, (pace, clear content, opportunity to interact with the trainer and evaluation of the practical live sessions)
- content
- Resource Analyses (text, image/ video, audio),
- Financial transaction explorer, search internal/ external sources, knowledge browsing and validation, and source monitoring (clarity and relevance of the presentation content, given the background subject knowledge, the training content was evaluated in relevancy and useful additional information about the topics),
- impact of the presentation and the presenters, (could the training sessions efficiently assist trainer in coaching their colleagues to use the ANITA platform. ANITA platform can assist trainees to improve efficiency)
- but, also, ANITAs functionality in investigation management (the cluster’s functionality was understandable, easy to learn, meets the operational expectations, fulfils its core functionality as explained in the training, is reliable, provides efficiency and practicality of use, performs reasonably).

Part 3 of the questionnaire aimed to provide insights into the question of “What was the most valuable aspect of the train-the-trainer training?”. Some of the respondents provided the answer through which we could infer that **getting to know more about the ANITA tools was the most valuable aspect of the training**. Few answers were determining that all aspects were valuable, but few of those emphasized that the Demo session was most valuable. Some of the trainees mentioned that it was certainly interesting to get a theoretical explanation first and then the practical part. When evaluating the presentations trainees waded that they were quite clear (although determining it as a little bit theoretical), and also that trainers were motivated to explain everything. One of the respondents said; “I liked the video from ENG to show the different functionalities”. Some of the respondents accepted that the most valuable aspect was that the training finally started, since it was postponed because of pandemics and delayed for explained period. Also, some of the respondents emphasized the functionality of the platform as a very valuable aspect. To that, it was added similarly "the fact that you see the whole application working". Particularly "the



explanation of the operation of the functionality in the system" was very much praised, following with "The opportunity to practice with the system, the possibility to see the overall aspect of the platform and separate tools which are combined in one platform. Checking how an investigator can take advantage of different tools in one investigation". One specific comment suggested to improve the video presented by ENG by adding a voice-over to it and including a link to a clear practice scenario". Some of the comments shed the light on valuable input about the general information of the Project and practice time, followed by detailed information about modules. Practical aspects of the training emphasized the trying or the testing of the software prototype.

On the question of "What should be done for the sessions to be improved?", it was suggested to providing specific tasks to participants of the training and better distribute the time across the different sessions. There were also suggestions in improving the Introduction session by providing information about the ANITA reason's why: i.e. why is this developed? What is the purpose of ANITA for an LEA? How can this improve police investigations? what is the added value of ANITA concerning the state of the art? Also, some suggestions to improve the overall visualisation of ANITA with all its modules in one slide, to be presented every time a new module starts to be explained would have made everything more clear.

Comments included also stating that the practical part was quite individual, so some things were not clear to trainees. Some proposed a practical exercise together with a live session as an additional option, and also that a more interactive approach might have been better than the one presented.

One comment included critiques that the session was quite long and it contained a lot of 'listening'. Proposal for solving that was: *"It would have been good if we could have 'played' with the platform a little bit more. This could have been very interesting in a small group, so you could 'play' with a scenario for example, and get to know how to use all the functionalities. I missed this now, it was interesting to explore the ANITA platform, but it is difficult to get to know this all by yourself. I think it would be better to explore it in small groups."* One of the proposals went by: *"it could be improved by concrete activities and more practical applications and less theoretical approaches"*. One of the very important suggestions was to improve training by splitting the theoretical session and the practical session, which would provide the possibility that the basic knowledge of the system could be understood and there would be more time to practice.

Another very important suggestion included a proposal where one or two guided cases should be prepared in the system, so that could be performed a "guided" tour providing realistic results and actions as if performing an investigation. The trainee can oversee the case building and knowledge upon the case growth.

Some of the trainees have reported that there were some technical problems with the connection but blamed it on google. That was looked upon, and all issues were covered, but nothing was found as unsolved. One of the respondents asked: *"I would've liked to see a clear practice scenario with some easy quick assignments that were thought of before the training. Also, maybe start with a quick video of the clusters and options, so nonexperts have a quick intro. Make the training, in general, a bit more dynamic and playful maybe. Also, it was very hard to maintain my focus for three hours, so some breaks in the form of an informal video or active participation part are good to maintain the trainees' focus"*. This was covered in the new training cycle. Some of the respondents asked for more step-by-step practical clicking and focused on the empirical approach.

In a separate question for soliciting suggestions of the trainees to make better training with a more trainee centered approach, one answer was to provide more balanced training with a 50-50 approach of theoretical and practical input, inputting that training was a little bit too theoretical without pragmatic value and possibility for the LEAs to see the real value of the platform and tools. One of the valuable comments was that there was a lot of useful information, but to keep an end-user's attention, a more



practical approach is needed - where people can test something instead of just listening. Also, the comment was made regarding the suggestion to let trainees use the platform a little bit longer, after the sessions that it was very good, but that it was needed to have a kind of supervision by the trainers, and that there is a need to provide trainees with more practical exercises. Further, there was a suggestion for the schedule for presenting that it should be maintained better and leave plenty of time to practice.

Furthermore, it was said that it would be good if the platform is left available after the training, so the trainees can practice some more with the application.

Great interest proposed that it should be added step by step investigation creation with the use of each module. One of the comments was extremely valuable that the training is upside down. The intention was to train the users to use the system and its results properly, not to explain all the beautiful things the technical people have done to make this possible. This was very seriously understood by creators of the training material and the whole training after, and the concept was changed in the following training. The next valuable suggestion was as following: *“working on the platform seems to be an essential matter of the project so to my mind such training should be performed regularly”*. Many of the comments were that the training and the platform with the tools were very good, but essential were those with critics, proposals, and suggestions.

Those suggestions and comments were done by participants and the valuable part of that is that it was shared with the consortium in a manner of the crude report with a graphical representation of provided insights, answers, and comments. This provided for changes in the approach in training material creation and it was asked from of the consortium – technical part to dive into the comments and create a different approach and different material than the first time to go with the comments and suggestions done by trainees. It was done by a consortium

Next, TTT was planned for January 2021, with LEA trained trainers of each partner LEA. Those trainings were planned to be with a minimum of 5 participants of each LEA in whole number 30 of participants were trained. Many of the previous comments were seriously analyzed and embedded in the future material for the training. That was comprehended as a living material, and this is done until the end of the project, and even further.

Changes were made and it can be seen even from the Agenda for that TTT, it was following:

Training Session	Time	Who	Title	Responsible
PART I The context	5 min	Zvonimir Ivanovic	Welcome and introduction (no explanation of the project will be given). Explain the purpose of train-the-trainer and relation with the 2 nd round of pilot	Milan Sreckovic
	15 min	Vuk Kulic	During this session, the context of the activities will be provided	Milan Sreckovic



PART II ANITA Platform	30 min (about 5 min each)	Tools implemented in WP 5-6-7-8 AIT, CERTH, EXPSYS, JADS, IBEC Zvonimir Ivanovicf, and Vuk Kulic	Presentations of the tools integrated into the platform + video for the tools not integrated	Vladimir Aksentijevic
	30 min	Zvonimir Ivanovic	ANITA integrated platform functionalities (video)	Vladimir
Q&A	15 min	Free discussion		Andjela Pavlovic
Live session	45 min	Scenario-based step-by-step hands-on experience on the ANITA platform coordinated by ENG, aided by other partners for more details.	Live session to use the tool through a scenario	Milan Sreckovic
Questionnaire	10 min	Online activity – Survey monkey or Google forms		Andjela Pavlovic
Discussion on feedback	30 min	Open discussion between technical and LEA partners on the questionnaire results to better understand the feedback		Zvonimir Ivanovic

Table 5: TTT Agenda

The training material was posted on the Moodle platform, many comments were implemented in the embedded material. Also, two focus meetings were created (March and May 2021) by the RISSC where the curricula development as a part of task T11.3 was discussed and many of those contributions were used as a guideline in the creation of the upgrading of the material.

The training material was divided into the following parts, each of them prepared by a different partner: general introduction by ENG, criminological aspects and knowledge generation by RISSC, crawlers and blockchain analysis by AIT, analysis tools by CERTH with the support of EXPSYS, TIU-JADS and SYSTRAN, and unconscious user feedback inclusion by IBEC. This was clearly indicated on the Moodle platform. Also, under the comments of the participants, material related to a closed scenario to take as example for training and testing purposes was prepared by ENG and RISSC. This was disseminated and stored on the Moodle platform at the same place where the other material was posted – so that it can be used by trainers and trainees.

The video was also created, in the new iteration of training with audio already recorded before, for the 2nd Train-the-trainers training by ENG. This video material was updated few times during the training courses, and especially after in following pilots. All materials are also uploaded on the internal ANITA platform.



Material and training were both discussed both in scientific papers published by members of the consortium, but also on the relevant blogs (for instance zyber.com) and the international scientific conferences².

After the training, the new questionnaire was disseminated between participants with the same questions. Now the answers were more positive than in the first, and there were new comments.

As for feedback from trainees through a questionnaire, 12 of 19 trainees gave their impressions. Results are shown in the graphics below.

Organisation:

12 одговора

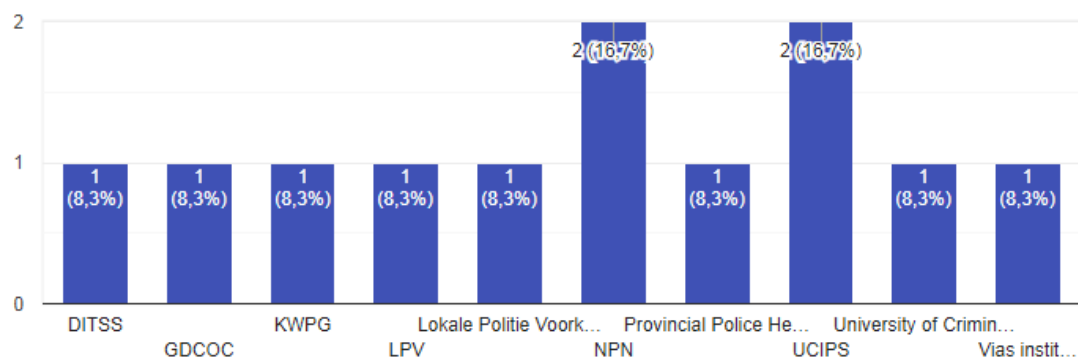


Figure 6: Institutional responses shown as a percentage

Results show few discrepancies and a few institutions were differently written in the questionnaire so that they did not appear fully uniformly stated. This was due to a lack of instruction to input only conventional titles of the partners, nevertheless, it was possible to infer from those and such answers.

The graphs shown in the following chapter show the results of the training evaluation.

² <https://www.anita-project.eu/publications.html>



5 Questionnaire Part 1: the Training

Below is reported a summary of answers related to the 1st part of the questionnaire about the training activities. Full questions and following answers are provided in Annex 2.

Presentation

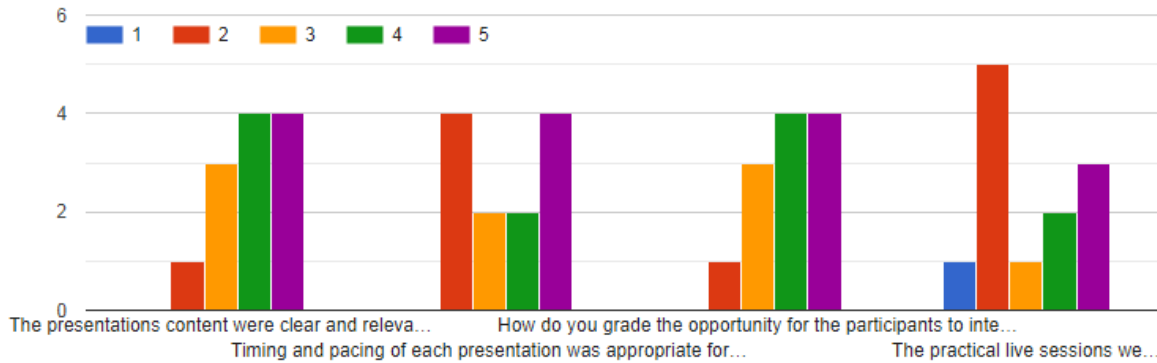


Figure 7: Presentation

The presentation of the trainers was commented mainly in clarity and relevance but the very small percentage also commented about the possibilities for the participants to interact with the platform and tools. Main recommendations and suggestions were about practical live sessions. A very important result was that there were no negative grades or evaluation marks.

Content

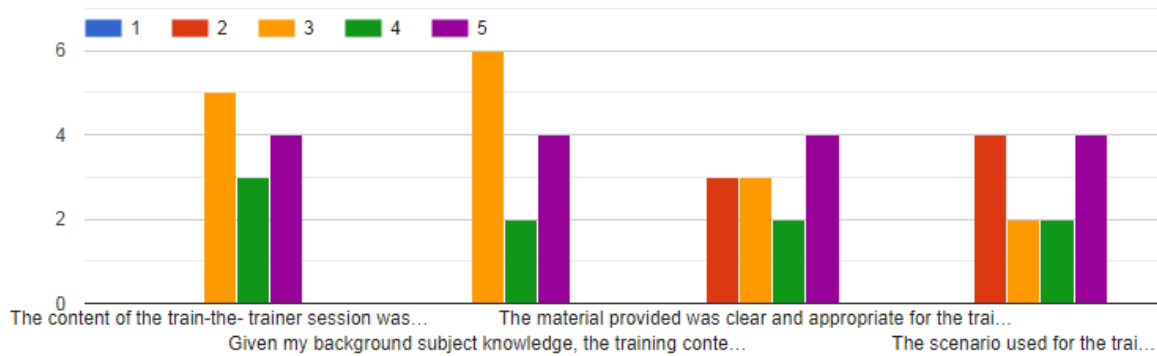


Figure 8: Content



The content of the presentation was evaluated with very positive grades and marks. The main recommendation was referred to the scenario and the content used for the training which was then improved in the second round of training and pilots.

Impact

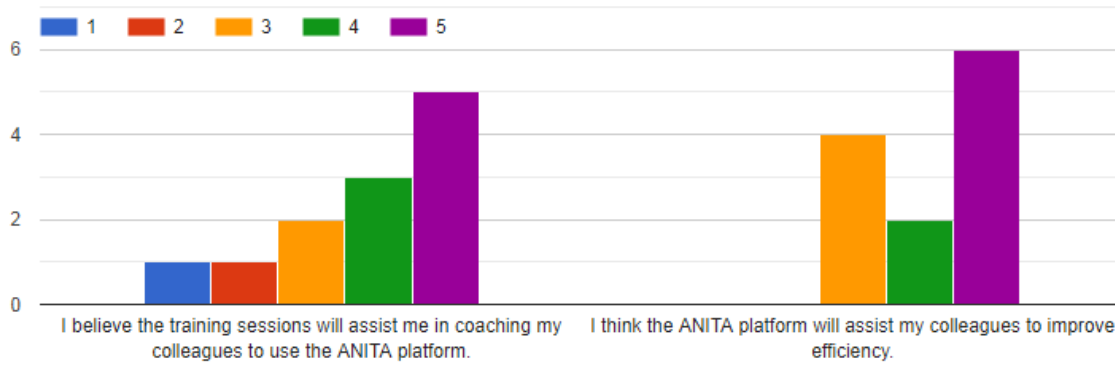


Figure 9: Impact

As for the impact of the training, participants suggested to improve the training material in terms of knowledge and capacities for the trainees for future training. This was addressed, and it was disseminated to all participants of the training material creation process and implemented in ELC of future training, and in that way the material for following activities TTT2, workshops were changed. Other evaluation marks were positive.



6 Questionnaire Part 2: ANITA Functionalities

Below is reported a summary of answers related to the 2nd part of the questionnaire about the ANITA functionalities. Full questions and following answers are provided in Annex 2.

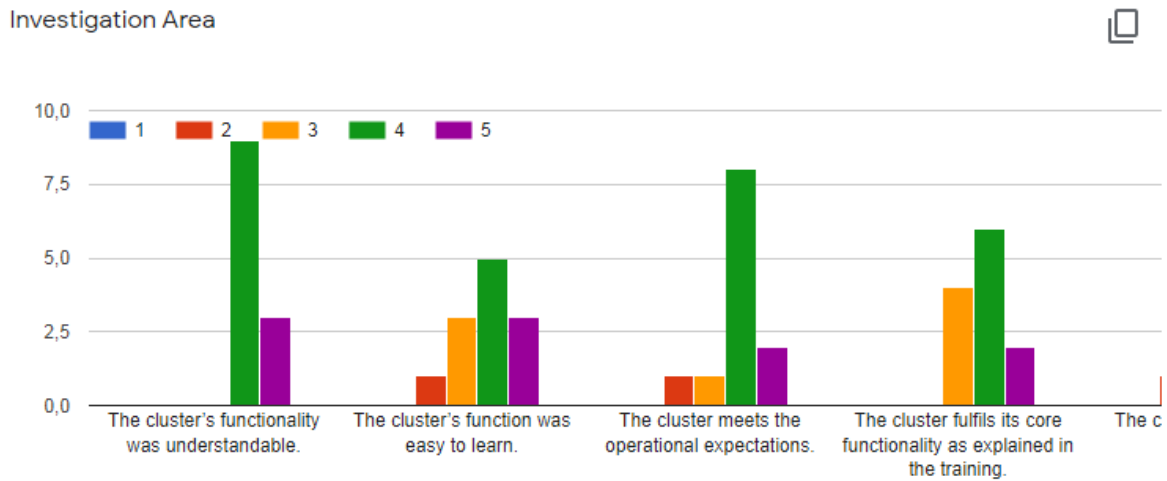


Figure 10: Investigation area

The investigation area was very positively taken by the trainees, and it was perceived as understandable, easy to learn, which meets operational expectations, it is reliable, provides efficiency and practicality of use, and fulfils core functionalities with that it also performs reasonably. Those positive remarks uphold the value that lies in the platform.

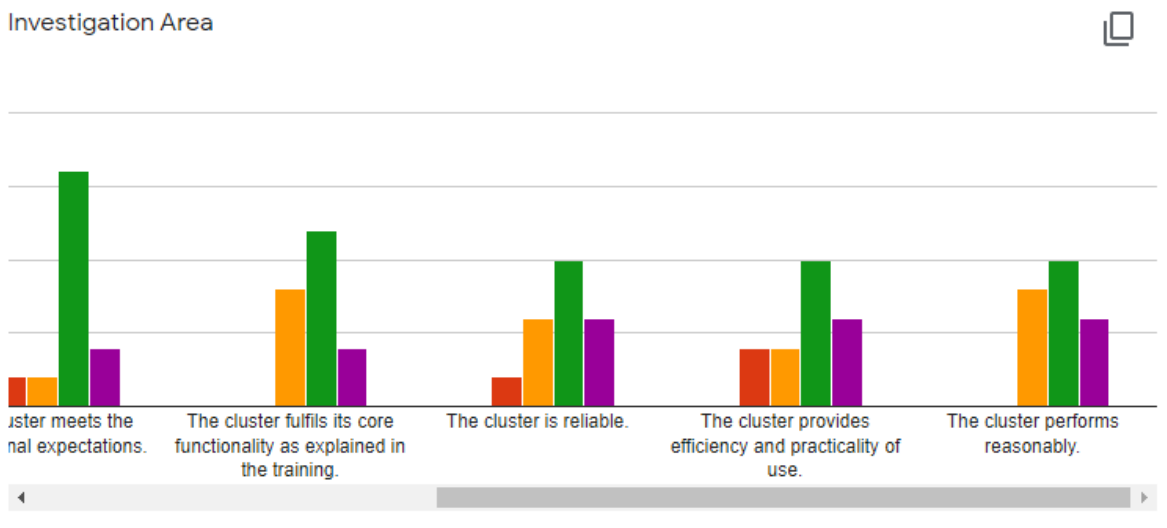


Figure 11: Investigation area part 2



6.1 Source Monitoring

Source Monitoring

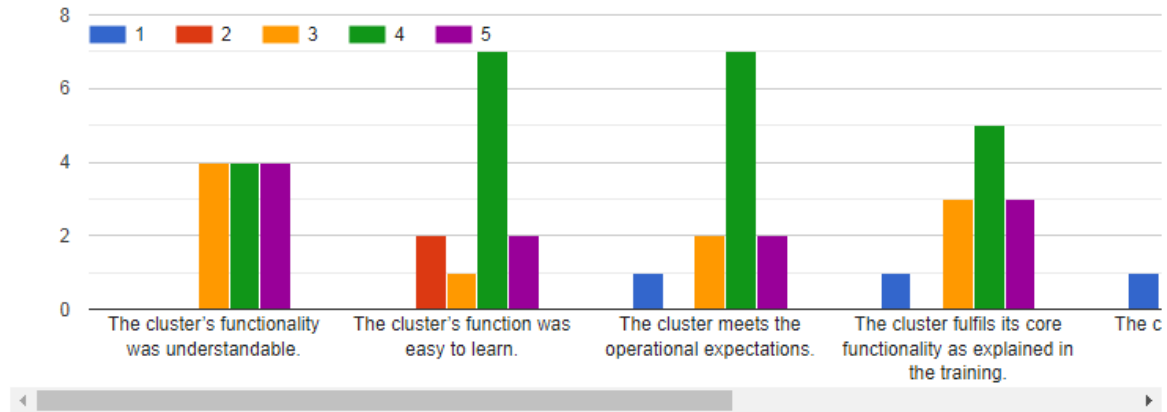


Figure 12: Source monitoring

Source monitoring evaluation is mainly positively marked. Some doubts emerged by the trainees about meeting the operational expectations, fulfilment of the core functionalities, reliability, and reasonable performance. Nevertheless, TTT2 has shown that the operation expectations, the fulfilment of the core functionalities, reliability, and reasonable performance were finally met. All of these received a lower score only in a small percentage, but they were taken into consideration in the changing of TTT material.

Source Monitoring



Figure 13: Source monitoring part 2



6.2 Resource Analysis

Resource Analyses (text, image/ video, audio)



Figure 14: Resource analysis part 1 (text, image/video, audio)

Resource Analyses (text, image/video, audio) were very positively evaluated and only a few were marked with 2 – cluster function easiness of learning (only one of respondents), meeting with operational expectance and core functionality, fulfilment of core functionality, efficiency and practicality of use.

Resource Analyses (text, image/ video, audio)



Figure 15: Resource Analyses part 2 (text, image/video, audio)



Financial transaction explorer

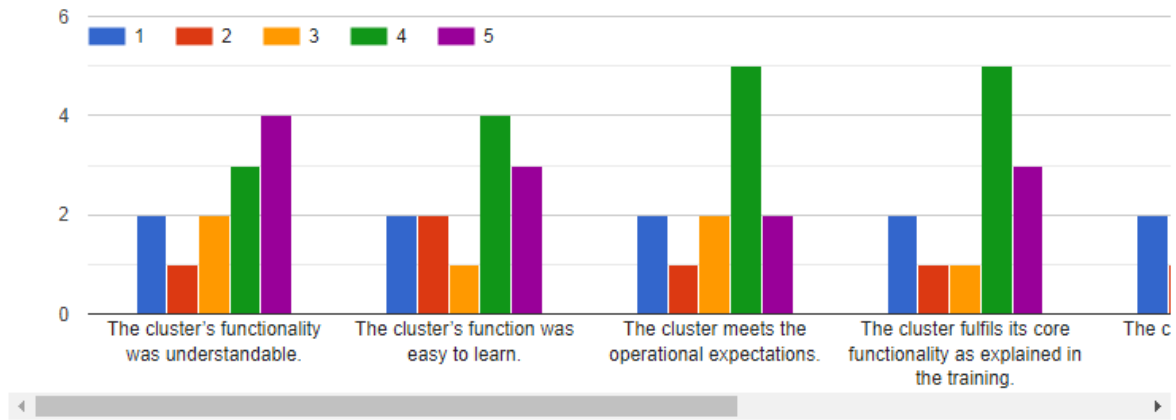


Figure 16: Financial transaction explorer part 1

Financial transaction explorer received initially a lower evaluation than other clusters. After full integration those evaluated aspects were taken very thoroughly and very seriously in consideration in the development of the cluster and its integration.

Financial transaction explorer



Figure 17: Financial transaction explorer part 2



Search internal/ external sources



Figure 18: Search internal/external sources

6.3 Search Internal / external sources

Search internal/external sources had more positive evaluation marks.

Search internal/ external sources



Figure 19: Search internal/external sources part 2



6.4 Knowledge browsing and validation

Knowledge browsing and validation

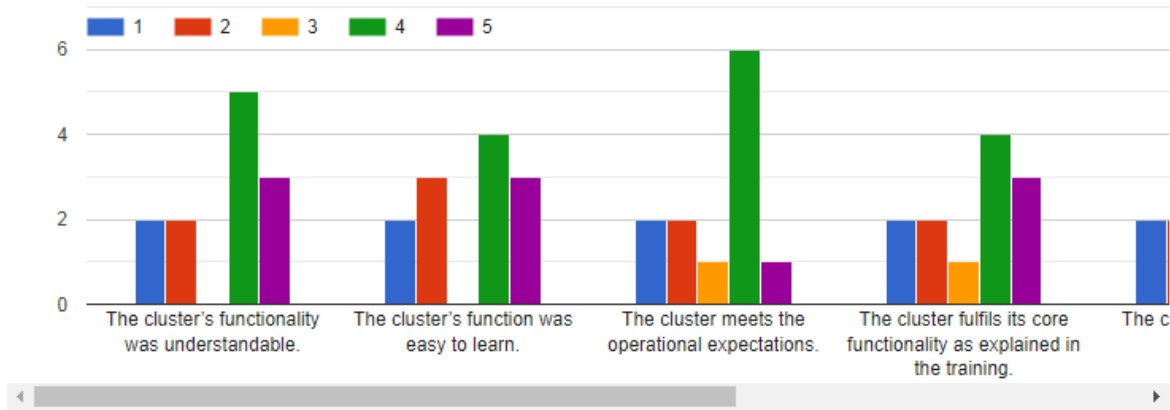


Figure 20: Knowledge browsing and validation

Knowledge browsing and validation, similarly to the financial transaction explorer, initially received lower evaluation than other clusters. This was taken into serious consideration within further incorporation and refinement of the functionalities inside the platform but also in training.

Knowledge browsing and validation



Figure 21: Knowledge browsing and validation part 2



Besides overall positive reactions, we gathered new insights comments, and suggestions. On the question: “What was the most valuable aspect of the train-the-trainer training?” We got the following responses: “new use case for the pilot”, “getting of new knowledge”, “chance to learn something new”, “the trainer was clear and answered questions fully as he went through the presentations”. So, the trainees perceived training as a living thing which could be upgraded and saw their role in it. The vast majority of comments for additional value were in the area of new additional knowledge, and also for the trainer attitude and openness to the trainees. Additionally, it was highlighted how the platform was modified as a result of the 1st pilot and TTT, and this possibly encouraged LEAs to make further recommendations. Some of the trainers believed that it's very valuable that they get this training to improve their qualities as trainers. The interaction was assessed as very good, that there were possibilities (for the trainees) to immediately ask questions if something was unclear. Some of the answers were also that valuable was the chance to see the tools in action in the practice. Input from the trainer was also very much appreciated and assessed as valuable.

Presentation

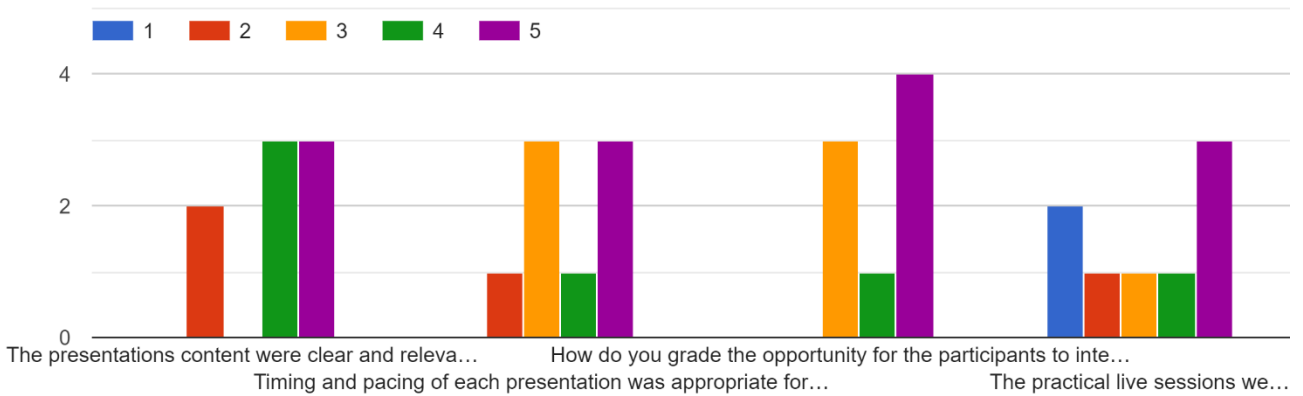


Figure 22: One of the evaluation sheets regarding the presentations



Impact

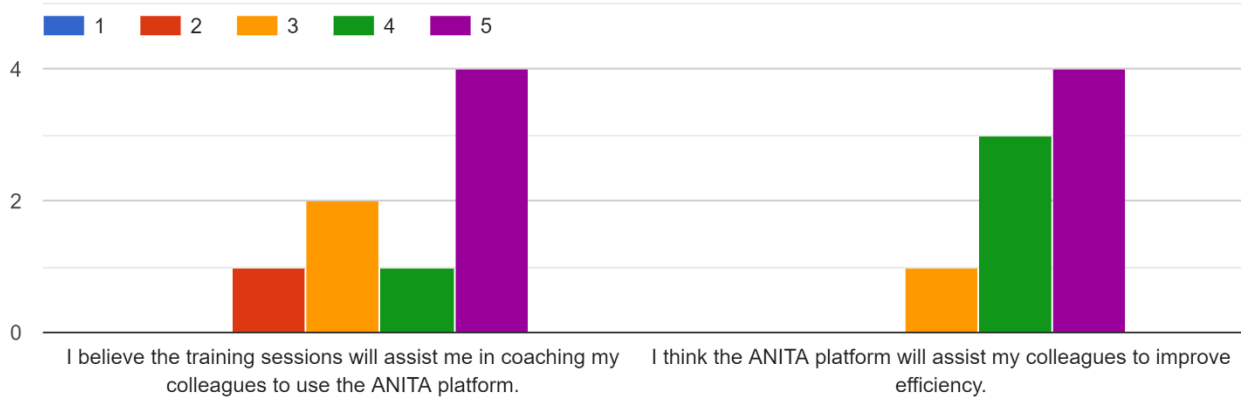


Figure 23: Evaluation graph regarding the impact of training presentations

Content

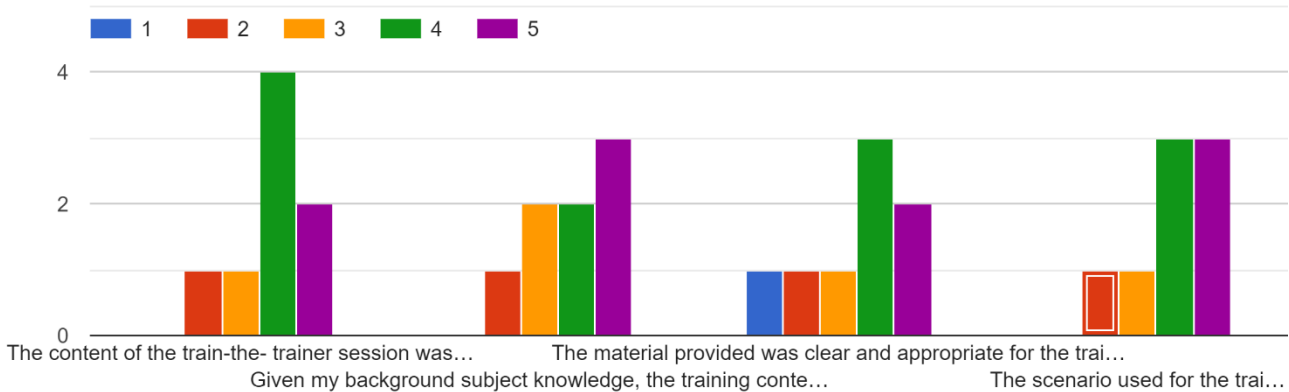


Figure 24: Evaluation graph regarding the impact of the Content

On the question: “How could the sessions be improved?” There were the following responses:

According to one opinion, it should have been a train the trainer session for preparation the LEA-trainers to lead the pilot sessions. This was followed with reflections on the previous TTT, it was said that the session was very good, with better timing, and that was well appreciated but also, some things were less appreciated like that some of the information appeared to require updating. Overall, it was said that better communications should be used in training on what is expected at the end. The presentations should be updated regularly and there should be added questions at the end of presentations.



On the question for any other comments, suggestions, or information to add, we have got the following responses. There was expressed a need to provide the local trainer, from each LEA with a script and slide pack to ensure consistent training is rolled out across the consortium. This was very seriously considered by the consortium in the following activities and changes were done in that direction.

One of the comments was that sometimes it was hard to keep attention to the TTT because of some technical issues (the shared screen that kept disappearing, etc.).

There was planning of the training before pilots' sessions and all those answers and suggestions were embedded in the material for the pilots, and as it was already said, it is considered to be a living thing. But about that more is elaborated in the deliverable D10.4.

While preparing for pilots within WP10 training sessions were performed before the 2nd pilots session and within this session, many things about training feedback of trainees and the trainers were implemented in this planning and the results of analysis of pilots speak in that line. For instance, scenarios for the pilots were especially developed and prepared by partners RISSC and ENG which combines the 3 ANITA Use Case topics: Drugs, weapons, and terrorist funding (see horizontal scenarios description in D10.4).



7 Conclusions and recommendations

As already discussed earlier in the text TTT no.1. has met the expected level of dissemination activities since the KPIs predicted by the Grant agreement have been reached – more than 3 national training WSs (~30 attendees) were met. In addition, ANITA produced a training and dissemination program for LEAs intending to improve investigators' capabilities (T11.4), which were apprehended and very welcomed by the LEA trainees. Generally, already commented answers provide the following conclusions. The training and material accompanying the training were very interesting, covering extremely relevant areas of policy interests and in a very demanding field. Many of our participants are directly related to operative actions and investigations so the platform with tools itself is directly targeting those focus groups. Impact on them was very positive as can be seen from their direct interest in the Demo session, practical demonstration, and usefulness in the investigation. ELC and the learning curve can be analyzed as achieved through different examples, but one of them really "catches the eye", and can be understood as completion of the task for the evolvement of the material through the ELC. The evolution of the demo session was done in the following manner:

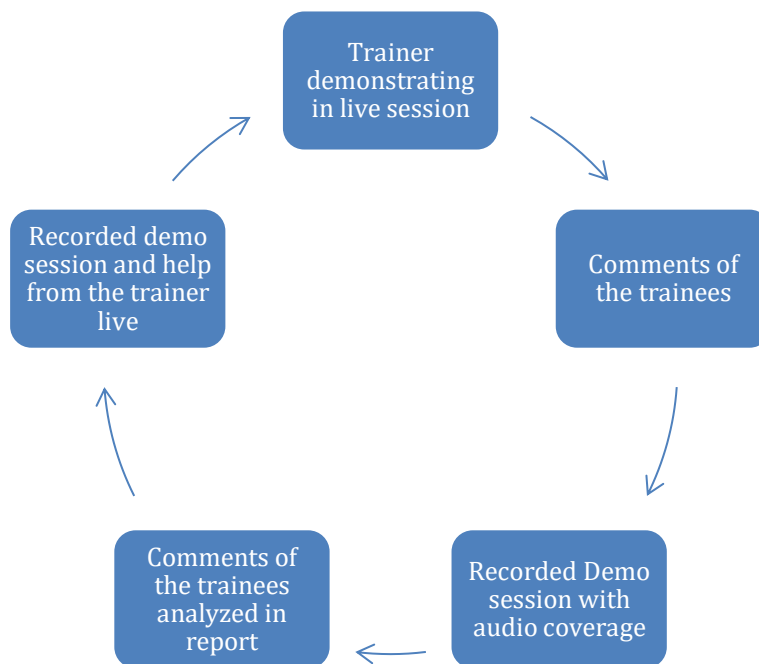


Figure 25: ELC practical result

Material created for the training was updated for every session of newly trained trainees and was uploaded on the platform of the project, Moodle platform maintained by UCIPS.



ANNEX 1 - Questionnaire for participants – introduction part



INFORMATION ABOUT RESPONDENT:

Job Title: _____

Please note that the questionnaire is anonymous, only a composite analysis of your answers will be used within the context of the project.

INSTRUCTIONS

Thank you for your participation in the Project ANITA public demonstration, unfortunately, due to the ongoing COVID–19 situation, it has been necessary to conduct the public demonstration session remotely. Please, take a few minutes to complete this evaluation form. Your comments are an important contribution and will help us evaluate and improve the content, approach, and general organization of future aspects of the project, platform, tolls, and its background.

The table below is divided into key categories: Presentation, Content, and Impact.

For each category, a set of questions are provided. Please grade your answer to each question by circling the appropriate number in the table regarding the following scale:

1: Strongly disagree

2: Disagree

3: Neither agree nor disagree

4: Agree

5: Strongly agree

Should you wish to add a further comment, please use the **Additional Notes** column for the relevant question.



ANNEX 2 - Questionnaire

Presentation	Grade	Additional Notes
<i>Presentations were clear and targeted to the audience</i>	1 2 3 4 5	
<i>The timing and pacing of each presentation were appropriate for the audience</i>	1 2 3 4 5	
<i>During the session, the participants could interact and discuss the contents presented</i>	1 2 3 4 5	
<i>The practical exercises were clearly explained, and the time allocated to run the requested tasks was enough</i>	1 2 3 4 5	
Content	Grade	Additional Notes
<i>The contents of the Training were relevant to my job</i>	1 2 3 4 5	
<i>Given my background knowledge on the subject, the training contents were specific enough & provided me with relevant and useful additional information about the topics</i>	1 2 3 4 5	
<i>Presentations offered new insights and/or knowledge</i>	1 2 3 4 5	
<i>The materials provided are clear and appropriate for the audience</i>	1 2 3 4 5	
<i>The contents of training provided regarding the practical activity were</i>	1 2 3 4 5	



<i>appropriate</i>		
Impact	Grade	Additional Notes
<i>I believe the training sessions will have a positive impact on my work</i>	1 2 3 4 5	
<i>I gained usable skills that I think I will be able to apply to my daily work</i>	1 2 3 4 5	
<i>I believe that a joined attendance of different Law Enforcement Units is an added value</i>	1 2 3 4 5	

Part 2: QUESTIONNAIRE: ANITA FUNCTIONALITY (for all parts)³

<i>The cluster’s functionality was understandable.</i>	1 2 3 4 5	
<i>The cluster’s function was easy to learn.</i>	1 2 3 4 5	
<i>The cluster meets the operational expectations.</i>	1 2 3 4 5	
<i>The cluster fulfils its core functionality as explained in the training.</i>	1 2 3 4 5	
<i>The cluster is reliable.</i>	1 2 3 4 5	

³ - Resource Analyses (text, image/ video, audio),
 - Financial transaction explorer, search internal/ external sources, knowledge browsing and validation, and source monitoring (clarity and relevance of the presentation content, given the background subject knowledge, the training content was evaluated in relevancy and useful additional information about the topics),
 - impact of the presentation and the presenters, (could the training sessions efficiently assist trainer in coaching their colleagues to use the ANITA platform. ANITA platform can assist trainees to improve efficiency)
 - but, also, ANITAs functionality in investigation management (the cluster’s functionality was understandable, easy to learn, meets the operational expectations, fulfils its core functionality as explained in the training, is reliable, provides efficiency and practicality of use, performs reasonably).



The cluster provides efficiency and practicality of use.	1 2 3 4 5	
The cluster performs reasonably.	1 2 3 4 5	

All sections had open answer questions for the trainees to add something that they wanted as additional comments

Third part was QUESTIONNAIRE: OVERALL

Please, use the lines provided under each question below to complete this evaluation form:

1. What was the most valuable aspect of the public demonstration?

2. How can we improve these sessions?

3. Do you have any other comments, suggestions, or information to add?
