EU-HYBNET

TRAINING AND EXERCISES LESSONS LEARNED REPORT

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1   INTRODUCTION

1.1   OVERVIEW

This final Training and Exercise Lessons Learned report concerns the results of the 3rd exercise organized as part of the project Pan-European Network to Counter Hybrid Threats (EU-HYBNET) on 18th-19th of January in Vilnius, Lithuania. The exercise is part of the project's Work Package (WP) number 2, *Gaps and needs of European actors against hybrid threats*. The work in this WP starts with mapping and analysing the most crucial gaps and needs. It then continues in producing of research articles on these identified gaps and needs and ends in scenario writing and scenario-based exercise. The lessons drawn from this exercise are used by the WP number 3, *Surveys to technology, research and innovations*, and the WP number 4, *Recommendations for innovations uptake and standardization*, in support of defining the innovation potential, needs for standardization and recommendations for uptake.

The exercises contribute to enhancing the knowledge and performance of European actors in their understanding of and abilities to counter hybrid threats. As in the previous exercises the chosen game format for this project cycle was a Disruptive Technology Assessment Game (DTAG)[1], developed by EU-HYBNET partner TNO. The DTAG methodology was adjusted to EU-HYBNET Core themes with the goal to reflect experiences, and Lessons Learned from the first two cycles. The DTAG is a seminar type wargame used to assess potential innovations and their impact on the operating environment, in this instance, a hybrid campaign. The DTAG essentially allows for the employment of innovations, or so-called **Ideas of Systems**[2] (IoSs), to address problems contained in the gameplay. The Ideas of Systems are ideas of varying degrees of abstraction which could contribute to reducing European societies' vulnerability to hybrid threats. Together, those Ideas of Systems are meant as indicators of what could be done throughout policies aimed at addressing the challenges of hybrid threats across the domains of the conceptual model. While EU-HYBNET aims to highlight new Ideas of Systems, an essential part of the added value of the project is to spot and link those applications and systems already in use which would provide a benefit in addressing the challenges of hybrid threats.

1.2   EXERCISES AND EU-HYBNET PROJECT

The exercise is a product of task (T) number 2.4 *Training and exercises for needs and solutions for gaps*. The goal of this task, according to the project Description of Action (DoA), is to enhance knowledge and performance of European Actors against hybrid threats and to test promising innovations. T2.4 describes:

> **T2.4 Training and Exercises for Needs and Solutions for Gaps (M6-M51)**
>
> T2.4 will arrange and deliver training and exercises (knowledge exchange event) in the project (M12, M29, M46) according to the WP2 cycles and to the gaps and needs defined critical to

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[1] The EU-HYBNET T2.3 "Training and Exercises Scenario Development" describes the training methodology, training scenario and the Vignette descriptions.

[2] The goal with Ideas of Systems is to develop new ideas on how to combine new technologies to solve challenges. More information: Ideas of Systems - deftech | Defence Future Technologies.

cover (T2.1-T2.2) in order to enhance European actors' capacity, knowledge and competence on measures against hybrid threats. The training and exercises focus on the four project core themes based on the scenarios created in T2.3. The method of the training or exercise in T2.4 will be lecturing format including gamification (there is also possibility for webinars). Furthermore, T2.4 will analyse training and exercise programmes at different EU MSs and organisations to avoid delivery of overlapping scenarios and training and delivery of overlapping training material. The goal in T2.4 is to deliver training and exercises to participants (c.30-40 persons) with various background (mainly practitioners, industry, and academic actors) to gain new knowledge and skills to enhance their measures against hybrid threats.

In T2.4 also possible innovations to enhance European actors' measures against hybrid threats will be tested in order to provide information for WP3 and WP4 to define the innovations potential, needs for standardisation and to compile recommendations of innovations uptake (incl. industrialisation). This information will be part of the Lessons Learned (LL) document provided in T2.4 (M14, M31, M48). T2.4 will evaluate the training or exercise (knowledge exchange event) events and the scenario used. Besides events on site, part of the training will be delivered in a lecture format (M17, M34, M51) that can be shared for the EU-HYBNET extended network members and to be utilized in next WP2 cycles and in all of its tasks (T2.1-2.4) if seen necessary and supportive in the next cycles and progress of the project. Eventually the goal in T2.4 is to enhance knowledge and performance of European actors against hybrid threats; increase the number of members in the European network against hybrid threats; more efficient use of investments made across Europe in demonstration, testing, and training facilities. T2.4 contributes strongly to the GM-01 call medium term impact no: 3.

In addition, T2.4 provides an arena to test innovations selected by EU-HYBNET WP3 T3.1, T3.2 and T3.3 to the identified gaps and needs in WP2. It contributes to the expected medium-term impact of the project (to make more efficient use of investments made across Europe in training facilities) by testing the innovations identified in the project cycle (specifically in task 3.1, *Definition of target areas for improvement and innovations*).

This report aims at supporting the determination of the innovative solutions that can be fed into the EC procurement process. This is a key performance indicator under project objective 2, which is to define common requirements that can fill knowledge gaps, deal with performance needs, and enhance capabilities of research, innovation and training endeavours concerning hybrid threats. Towards this objective, the Lessons Learned Report may also support defining future focus areas for research articles under the four core themes.

1.3   STRUCTURE OF THE DELIVERABLE

This deliverable includes the following chapters:

- **Section 1:** Introduces the exercise, structure of the deliverable, and the methodology used to assess the event.
- **Section 2:** Describes the lessons identified from the previous and current iterations; target audience and participants; scenario and situation; innovations and solutions assessed.
- **Section 3:** Provides conclusions drawn from the assessment.
- **Section 4:** Offers food for thought for future work.

1.4   METHODOLOGY

The present Lessons Learned report (D2.25) contains reflections and practical advises on the purpose and scope of the kind of training events EU-HYBNET could hold with a view to ensuring the relevance of the project to European priorities as well as readability to external audiences to the project. This deliverable has considered the relevant training event report D2.22, the third "Training and exercises delivery on up-to-date topics", that delivered not just the evaluation of the final event, but also an evaluation of the two prior EU-HYBNET training events. In addition, D2.21, "Training and exercises delivery on up-to-date topics" and D2.23 "1st Training and Exercises Lessons Learned" reports have been valuable sources.

As the 3rd Training and Exercise event in Vilnius was the last one in this project and as the project is now progressing towards the end, this Lessons Learned report also entails a critical look at the events overall.

The cyclical nature of the EU-HYBNET project give the possibility to identify things that work as well as things that work less optimally and enable their revision. It is important that a sound and transparent lessons learned process be possible in this project to openly improve working methods.

The analysis and suggestions presented are meant as a starting point to steer debate and to continue the discussion on improvements for future events.

2   LESSONS IDENTIFIED FROM THE PREVIOUS CYCLES

2.1   SUMMARY OF THE 1ST AND 2ND CYCLES

This section aims to provide a summary of the previous training events. The Lessons Learned report for the first cycle described the caveats and action points per vignettes. Feedback received suggested that the consortium should:

1. Arrange the training on site instead of running it online,
2. Simplify the scenario and the use of vignettes,
3. Consider that innovation providers are invited to introduce their solutions,
4. Demonstrate innovations value and role in the Hybrid Threats landscape in the next EU-HYBNET training event, and
5. Continue to use competent moderators during the events.

The second cycle feedback was very similar to the first one. In addition to the previously mentioned considerations, it was also recommended to include more practitioners into future discussions and to make sure that the focus on creating added value to them is maintained, continue to simplify the scenarios and to provide descriptions of the innovations in order to effectively understand the innovation's potential and its future uptake possibilities. In addition, the second Lessons Learned report further highlighted other aspects of the training event such as the training objectives, target audience, and scenario and suggested to consider the following recommendations:

1. Whether the scenario play is the best way to learn.

2. Given the diversity of participants background, some consideration could be given to the possible challenges to reach the underlying pedagogical or educational objectives of the training events.

3. In the future, trainings could be more explorative and assessment based. For example, a knowledge delivery event via lecturing or a proper innovations assessment event, or a reasonable compromise between the two options.

4. Clarifying the objectives of the training event and the scenario work would also help to gain a better understanding of which target audience to prioritize auditors for a lecture and game format; or assessors' type of audience, knowing that the training event is also an innovations assessment event.

5. If not offering a lecture format training, the scenario and situation presented should be as concise and rigorous as possible and present enough dilemmas relevant to the landscape of hybrid threats to better facilitate knowledge transfer on present and future cases.

6. That the four core themes of the project are not taken as rigid categories along which to structure the scenario. Dividing the scenario into parts while associating innovations to respective parts could be considered to improve readability and narrative flow.

7. When designing scenario play, identified innovations could either be considered against more adequate and realistic situations and be clearly defined themselves (the list at present mixes research projects, broad ideas, concepts, and sometimes technical solutions).

3 LESSONS IDENTIFIED FROM THE THIRD CYCLE

This section identifies a series of lessons learned by assessing the observed practices in the third training event with consideration of the objectives laid out in the Description of Action (DoA). In this deliverable, the lessons are identified by the following four categories: objectives of the event, target audience and participants, scenario and situation, and innovation solution possibilities. This structure is the same as was used in the second "Training and Exercises Lessons Learned report" D2.24 structure.

3.1 TRAINING EVENT OBJECTIVES

3.1.1 DESCRIPTION OF ACTION

The objectives of the training events in EU-HYBNET are encapsulated within project objective 6.4. to "empower European practitioners, industry, SME and academic actors' capacity to counter hybrid threats by offering relevant trainings and materials". Other relevant objectives are OB 2. KPI 2.2. to "define innovations that can overcome the identified gaps and needs in certain focus areas in order to enhance practitioners (priority), industry, SME and academic actors' capabilities"; OB 7. 7.1 "to share information on EU-HYBNET activities and training possibilities among European stakeholders".

The task description mentions providing lectures and gamification formats but also testing selected innovations through training events. The DoA included statements about delivering ready results to external participants and about being one of the evaluating steps of the innovation solution possibilities. This is done by providing a testing ground to explore the feasibility of the main findings of

the EU-HYBNET project so that the reflections of the training participants can constitute a stepping stone in assessing the potential for innovation solution possibilities.

3.1.2 ASSESSMENT

The objective of the final training and exercise event was to test innovations against a scenario play. Based on the feedback received from the previous cycles, the scenario was further simplified and many of the recommendations (listed on page 6) were considered. Overall, the training and exercise event received good feedback from the participants, including positive feedback about how the training event was planned.

As this training and exercise event was the final one in the EU-HYBNET project, the following suggestions could support the planning of future Training and Exercise (T&E) events targeted to participants outside of the EU-HYBNET project. The purpose of these suggestions is to support consortium partners in their work.

First, it was suggested that the training objectives vis-à-vis the target audience are clarified. If this type of T&E event will be organised in the future as one of the main project outcomes, it would be worth considering organising tailored events for targeted audiences. Secondly, the current EU-HYBNET event format could be simplified. The four core themes are an integral part of the EU-HYBNET project structure to support discussions, but their relevance as part of the future T&E designs may be less meaningful and purposeful. Thirdly, a future T&E events could provide one key takeaway (such as skill, knowledge etc.) for participants. This would clarify the training objectives. Targeted audiences would also benefit from tailored lectures, videos, etc., as suggested in the previous Lessons Learned reports. In addition, event organizer(s) could request, for example, topical themes from the target audience prior to planning the T&E event. This would allow for the training to directly respond to the audience's needs.

3.2 TARGET AUDIENCE AND PARTICIPANTS

3.2.1 DESCRIPTION OF ACTION

The DoA T2.4 description mentions the provision of training to participants (approximatively 30-40 people) to gain new knowledge on issues and best practices. On the other hand, according to Objective 6. KPI 6.4 every training event should have at a minimum 60 participants on site and via webinar for others. The DoA does not imply that the training event is exclusively for the consortium partners, but it can also be expanded to include external stakeholders and newer network members in the context of network extension. The aim of the training event is not to gather the whole consortium, as it supposed to reflect the findings of the project itself in a lecture format that includes interactivity. The DoA provides some additional clarity regarding target audience which could help assessing the objectives of the training event and therefore recalibrate participation.

3.2.2 ASSESSMENT

The third training event was organised in a hybrid format. A total of 50 participants registered to the event and 30 participants attended the event, most of them on-site. According to the OB 6 KPI 6.4.

objective, the attendance of the event was not met, but when following the DoA, the number of participants met the indicated provision.

As notified in the D2.22, "Training and exercises delivery on up-to-date topics" report, the reasons for not attending the event are varied, such as schedule changes, etc., and this is often challenging to overcome when organizing events. This was also the case during previous events.

Like in previous cycles, the training was organised with a focus on EU-HYBNET consortium partners and network members, representing a wide range of stakeholder groups (academy, RTO, industry, SMS, and end-user organizations). Overall, the attendance at the third event was higher than in previous cycles, and the event gathered participants from diverse backgrounds.

Pre-reading materials were sent to participants seven days before the event took place. Although the pre-reading materials contained only the D2.19. "Training and Exercise, Scenario Delivery" report, the report itself contained unnecessary information for participants, such as report overview, definitions, structure of the deliverable, concepts, and methodology for measuring the training impact. In the future, it is suggested that a separate document is created that contains only the necessary information about the scenario, how to play it, and what innovations (1-2) are discussed.

3.3 SCENARIO AND SITUATION

3.3.1 DESCRIPTION OF ACTION

One of the DoA WP2 objectives is to facilitate the knowledge transfer on present and future cases through dedicated training, exercises, and lectures that are seen as likely to enhance European stakeholders' measures against hybrid threats and to provide material that supports the consideration of their possible uptake.

Additionally, the DoA T2.3 text prescribes that the scenario will focus on innovations to fill gaps and needs identified in T2.2. On the other hand, the T2.3. command that the scenario and training event will be about testing possible innovations. T2.4. on the contrary is not mandating nor restricting the scope of the training event.

3.3.2 ASSESSMENT

The scenario was further simplified for the last iteration, and this was also one of the key recommendations from the previous cycles. Each group was asked to develop a plan to structure the reaction to the situations described in the vignettes in the context of the general scenario. In the second phase, selected innovations were introduced to participants and followed by discussions. The organisers gave special attention to the *red team* component, whose goal was to challenge the plans that each team came up with. Each group was asked to freely discuss the challenges and dilemmas faced with the scenario vignettes and how the selected innovations per group could support the challenges encountered.

Listed in D2.22, one of the main findings was the difficulty of using vignettes properly during T&E because the complexity of hybrid threats was easily lost. The scenario and vignettes required

additional explanations and discussions during the event. For future T&E, it is suggested to create a simple scenario, consider not add vignettes, and to provide detailed instructions. If innovations are included in T&E, it is then suggested to give an explicit description of each innovation and how to use them.

Another option for future T&E is to build, for example, a dilemma-type game that is also applicable to real-life situations with critical threats and/or challenges.

3.4   INNOVATIONS AND SOLUTIONS ASSESSED

3.4.1   DESCRIPTION OF ACTION

T2.3. mentions that the scenario will include elements to test innovations. It also provides an impact to be measured while not defining what is the relevant impact. It was understood for this training event that different parts of the scenario should be considered against a pre-selected set of innovations.

3.4.2   ASSESSMENT

The number of innovations to be tested was reduced for the third cycle (March 2023 – August 2024) training event. However, finding No. 4 in the D2.22 "Training and exercises delivery on up-to-date topics" report stated that the participants were lacking explicit descriptions of the innovations in order to effectively understand the innovation's potential and their future uptake possibilities. This was noticed, especially with low TRL[3] or non-technological innovations. Despite the improvements made after the feedback from the second cycle (October 2021 – February 2023) event, the participants still seemed to have difficulties assessing innovations.

If innovations are part of the future T&E designs, for clarity, it is recommended to choose a maximum of 1-2 innovations per training session. This would give the opportunity to concentrate on a few selected innovations at a time and highlight these solutions instead of the scenario itself. It is recommended that enough time is allocated to go through the selected innovations with clear descriptions and explain their role in the scenario play.

Further, it was not always clear how some of the selected innovations matched the context and landscape of hybrid threats, although they seemed to make sense in the overall scenario. For example, it was difficult to understand how the EU-funded SMIDGE project, which explores the impact of extremist narratives on the middle-aged population, could be played. Some innovations raised more concerns about their utility. One of these kinds of innovations was the WeVerify video plugin to debunk fake videos on social media, which was still highly ranked.

It should be acknowledged here that it is probably not easy to collect a list of social or technological innovations, research projects, etc. to match the gaps and needs, especially when the gaps and needs

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[3] Technology Readiness Level.

results are very diverse in the first place. Another challenge is to create a scenario that is realistic and matches the selected innovations. This is rather a structural challenge in the project that can be difficult to overcome. Despite this challenge, participants were keen to play the scenario and had a lot of discussions, which became evident given the high score from the feedback form after the T&E.

4 OVERALL CONCLUSIONS FROM THE PAST EVENTS AND THE WAY FORWARD

This Lessons Learned report has assessed the third cycle event with the aim of providing suggestions especially for future T&E as a project outcome. The report also recognises the improved work carried out since the first event with simplified scenario play, clarifying the type of situation, inviting innovation providers to demonstrate the added value, and organising the events both on site and online.

If consortium partners are to run T&E events in the future after the project ends, it is suggested that they:

- Have a clear understanding of the objectives and nature of the event at the onset: a training event, a lecture event, or, for example, an innovation assessment event.
- Provide a clear description of training and exercise objectives, scenarios, and selected innovations, with at least one key takeaway.
- Define the target audiences very clearly. One option could be to organise several types of T&E for targeted groups.
- Simplify the scenario setting without vignettes and project structure pillars such as core themes.
- Choose 1-2 innovations maximum that are at the core of the training instead of scenarios.

5 BIBLIOGRAPHY

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6   ANNEX I. GLOSSARY AND ACRONYMS

1.   Acronyms used in the report.

Term	Definition / Description
D	Deliverable
DoA	Description of Action
DTAG	Disruptive Technology Assessment Game
EC	European Commission
EU	European Union
EU-HYBNET	Pan-European Network to Counter Hybrid Threats
H2020, Horizon2020	European Commission Horizon 2020 Project Funding Program
Hybrid CoE	European Centre of Excellence for Countering Hybrid Threats
IoS	Ideas of Systems
KPI	Key Performance Indicators
Laurea	Laurea University of Applied Sciences
L3CE	Lietuvos Kibenetiniu Nusikaltimu Kompetenciju ir Tyrimu Centras
M	Month
OB	Project objective
RTO	Research and Technology organization
SME	Small and medium-sized enterprises
T	Task
T&E	Training and Exercise
TNO	TNO is an independent not-for-profit research organisation
TRL	Technology Readiness Level
WP	Work Package