



EU-HYBNET

FIRST SIX MONTH ACTION REPORT

DELIVERABLE 2.1

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1. INTRODUCTION

1.1 OVERVIEW

The goal of the *Empowering a Pan-European Network to Counter Hybrid Threats* (EU-HYBNET) project deliverable (D) 2.1 “*First Six Month Action Report*” in project month (M6) (October 2020) is to describe how the project has proceeded during the first six project months, (May – October 2020) according to the European Commission (EC) defined, “*three lines of action*” that are mandatory to report by the Horizon2020 Secure Societies Programme/General Matters-01-2019 funded projects. The “*three lines of action*” are:

- 1) Monitoring of research and innovation projects with a view to recommending the uptake or the industrialisation of results
- 2) Common requirements regarding innovations that could satisfy gaps and needs
- 3) Priorities regarding the increase of knowledge and performance requiring standardisation

Furthermore, D1.2 also highlights what actions and results are expected from EU-HYBNET during the next six month period (November 2020 – April 2021).

1.2 STRUCTURE OF THE DELIVERABLE

This document includes the following sections:

- Section 1. Provides an overview to the document content.
- Section 2. Describes the importance of deliverables D1.2 to the whole project and its' proceeding will be explained.
- Section 3. Describes how the project activities from months 1-6 have contributed to the EC's requested “three lines of action” activities.
- Section 4. Conclusion and next steps for the upcoming 6-month period of the project (November 2020 - April 2021).

2. SIX MONTH ACTION REPORT AND IMPACT TO THE PROJECT

2.1 CONTRIBUTION TO THE PROJECT

The EU-HYBNET deliverable (D) 2.1 “*First Six-Month Action Report*” is part of EU-HYBNET Work Package (WP) 1 «*Coordination and Project Management*» Task (T) 1.1 «*Administrative, Financial Planning and Coordination*». Generally speaking, the EU-HYBNET six-month action reports are mandatory progress reports to EC. The reports support both the EC and the project itself to estimate if the project delivers results according to the project core activities, the Grant Agreement (GA) and the Description of Action (DoA) consistently.

The EU-HYBNET six-month action reports, such as the D1.2, have no specific project objective or key performance indicator(s) (KPI) to answer. However, the importance of D1.2 is to provide a general update on how the project reaches the results mentioned in the project objectives and KPIs. We have highlighted this in the flow chart below, showing the role of WP1 to support and guide project WPs 2-4 where the main project activities take place and the core project results are achieved.

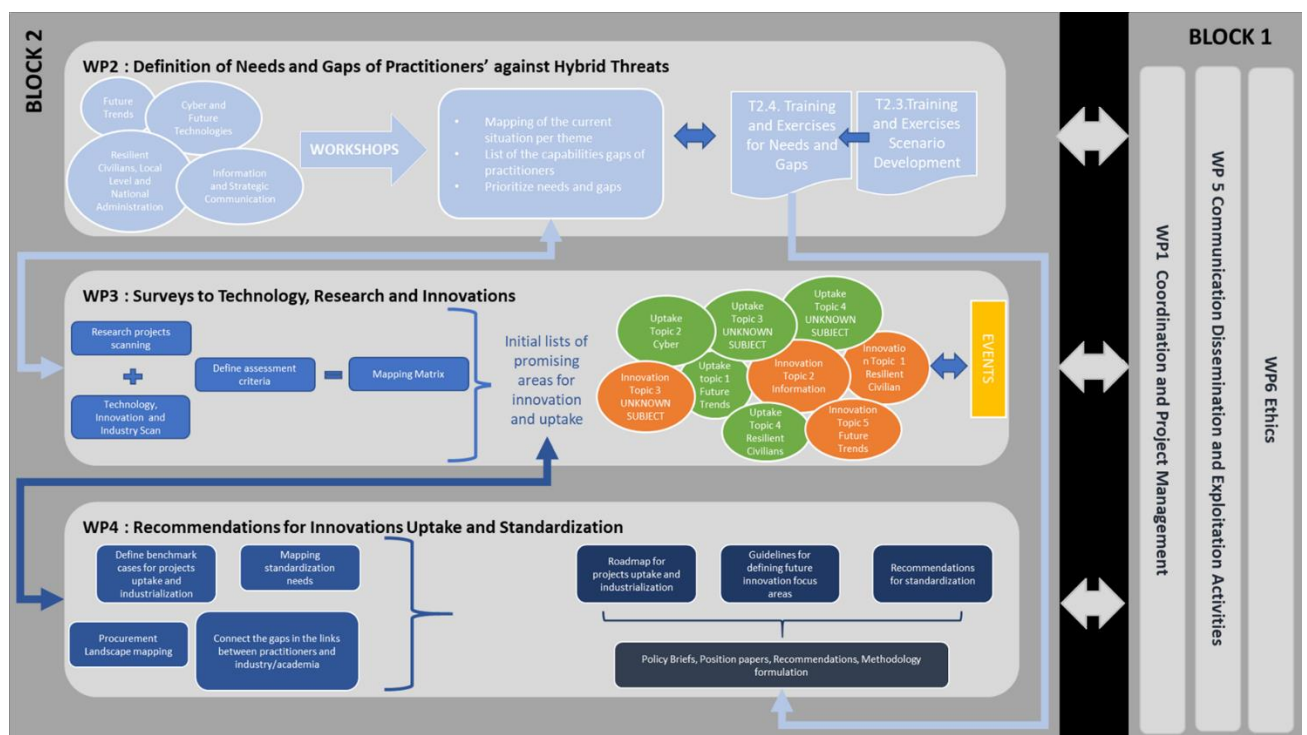


Figure 1 EU-HYBNET Structure of Work Packages and Main Activities

2.2 SIX MONTH ACTION REPORT CONTRIBUTORS

The Six-Month Action Report (D1.2) main author is Laurea, the organization responsible for the delivery of D1.2. However, EU-HYBNET work package (WP) and task (T) leaders have also provided

information on the tasks they are responsible for and have been working on during the first six-month period of the EU-HYBNET project. In addition, the EU-HYBNET Network Manager and Innovation Manager have contributed to D1.2 by describing how their work has been supporting the project to achieve results according to the three lines of action. Input from the Network Manager and Innovation Manager to the project's activities is mentioned in the DoA Part B, chapter 3.2 and their input to the three lines of action is highlighted in the upcoming subchapter 3.4.

3. THREE LINES OF ACTION REPORTING

This chapter describes EU-HYBNET's activities, especially in Work Packages (WPs) and Tasks (T) relevant to the Three Lines of Action during the project's first six months (May – October 2020). The Three Lines of Action according to the EC's request that EU-HYBNET report are the following:

- 1) Monitoring of research and innovation projects regarding the uptake of recommendations or the industrialisation of results
- 2) Common requirements regarding innovations that could satisfy gaps and needs
- 3) Priorities regarding the increase of knowledge and performance requiring standardisation

The subchapters below describe one by one, EU-HYBNET's contribution to the each of the Three Lines of Action.

3.1 MONITORING OF RESEARCH AND INNOVATION PROJECTS WITH A VIEW TO RECOMMENDING THE UPTAKE OR THE INDUSTRIALISATION OF RESULTS

The work to define pan-European practitioners and other relevant actor's (industry, SMEs, academics) gaps, needs, and vulnerabilities to counter hybrid threats took place in WP2, "*Gaps and Needs of European Actors against Hybrid Threats*" in T2.1 "*Needs and Gaps Analysis in Knowledge and Performance*" (lead by Hybrid CoE) where the First Gaps and Needs Event was arranged in project M1. The participants of the event consisted of EU-HYBNET consortium partners, network members and the EU-HYBNET Stakeholder Group. As a result of the First Gaps and Needs Event, the project had a large variety of identified gaps and needs from pan-European practitioners' and other relevant actors', to counter hybrid threats from EU-HYBNET's four main focus areas, referred to in the project as the four Core Themes, which are: i) Future Trends of Hybrid Threats, ii) Cyber and Future Technologies, iii) Resilient Civilians, Local Level and National Administration, iv) Information and Strategic Communication. The first Gaps and Needs Event is described in deliverable (D) 2.2 «*First Gaps and Needs Event*» (led by Hybrid CoE) from M1. After the D2.2 event, T2.1 started to analyze the totality of the gaps and needs announced in the First Gaps and Needs Event to identify the primary gaps and needs, especially for the pan-European practitioners. A practitioner is defined in EU-HYBNET as the following (DoA Part B, Chapter 3.3):

A practitioner is someone who is qualified or registered to practice a particular occupation or profession in the field of security or civil protection." In addition, practitioners in the context of hybrid threats are expected to have a legal mandate to plan and take security measures, or to provide support to authorities countering hybrid threats. Accordingly, EU-HYBNET practitioners are categorized as follows: I) *ministry level* (administration), II) *local level* (cities and regions), III) *support functions to ministry and local levels* (incl. Europe's third sector).

Task 2.1 conducted analysis of the gaps and needs announced in the first gaps and needs event – the analysis is provided in D2.2 *“Longlist of defined Gaps and Needs”* (Hybrid CoE; project M2). The Long List mapped the gaps and needs according to EU-HYBNET's four core themes, and identified for each core theme the main security dynamics and challenges to which counter effects and capabilities should be envisaged. The work in WP2 which selected the most critical gaps and needs of relevant pan-European actors (particularly practitioners) was finalized during T2.2 *“Research to Support Increase of Knowledge and Performance”* (lead by JRC) who delivered D2.9 *“Deeper analysis, delivery of short list of gaps and needs”* in project M5. JRC, within D2.9 also listed their findings according to EU-HYBNET's four core themes, and identified three major needs per core theme, to be addressed throughout the EU-HYBNET project.

D2.9 signifies the starting point for the EU-HYBNET project to start mapping technical and non-technical/Human-science based innovations, solutions from existing projects and other possible sources or providers e.g. industry, to cover the identified gaps and needs.

The monitoring of research and innovation projects to find innovations that may address EU-HYBNET's identified gaps and needs, is conducted especially in WP3 *“Surveys to Technology, Research and Innovations”*, T3.3 *“Ongoing Research Projects Initiatives Watch”* (lead by L3CE). However, WP3 T3.2 *“Technology and Innovations Watch”* (lead by Satways) and T3.4 *“Innovation and Knowledge Exchange Events”* (lead by EOS) also provide material to R&I projects monitoring. Additionally, T3.1 *“Definition of Target Areas for Improvements and Innovations”* (lead by TNO) supports EU-HYBNET to focus on the most relevant research and innovation (R&I) projects' findings in order to recommend innovation uptake or industrialisation.

The relevance of T3.1, however, is even more important to the second of the Three Lines of Action, *“Common requirements as regards innovations that could fill in gaps and needs”* and is therefore discussed further in the next sub-chapter.

3.1.1 EU-HYBNET T3.3 ONGOING RESEARCH PROJECTS INITIATIVES WATCH

T3.3 has been active since M1 and focuses on gathering information about research and innovation projects which are relevant to EU-HYBNET's D2.9, *“Short List of Gaps and Needs”* and core focus areas in order to deliver material for T3.1 and finally for WP4 to compile uptake recommendations or industrialisation of innovations and standardisation. Furthermore, **T3.3** monitors research and innovation (R&I) projects e.g. via partners information exchange and gathering relevant information from available entities, organisations and RTO Networks accessible through the partners networks. This work is performed by conducting targeted surveys and where possible by exploiting existing solutions for technology driven research an innovation scanning and monitoring. The R&I projects monitoring has started and a questionnaire disseminated to consortium partners to find the most relevant projects that could deliver solutions to D2.9's identified gaps and needs. It has been observed, that there is an abundance of R&I projects and other research material (e.g. articles, journals, studies, research publications) which needs to be scanned for the most relevant solutions to satisfy the identified gaps and needs, and which can be recommend for further analysis and possibly innovation

uptake or industrialization. Due to the abundance of material related to the taxonomy of hybrid threats, the information scanning is now under development. **T3.3's** focus is especially, but not limited to human science, non-technical R&I projects and innovations, while T3.2 focuses on technology innovations. T3.3 will deliver its first findings in D3.7 "*First report on Innovation and Research Project monitoring*", (L3CE) in M7 and hence the next six month action report in M12 will describe in detail T3.3, D3.7 results.

3.1.2 EU-HYBNET T3.2 TECHNOLOGY AND INNOVATIONS WATCH

Similar to T3.3, **T3.2** has been active since M1 and conducts research to find innovations which provide solutions to identified gaps and needs and that could be recommended for innovation uptake or industrialization. The focus of T3.2, however, is not only for R&I projects as in T3.3, but also to assess the technological innovations developed initially by the European private sector and secondly, to investigate related innovative products from countries outside Europe to identify possibly related innovative approaches. The assessment will be based initially on the information provided by contacted companies and secondly from f2f discussions with companies that will be invited to present their solutions in the framework of T3.4 "*Innovation and Knowledge Exchange Events*" activities.

T3.2 will consider and analyse the findings of WP2's D2.9 "Short List of Gaps and Needs", as well as the future needs assessment of T3.1 and will try to map and identify which of those demands are covered by the private sector's efforts. The findings of these studies will be presented through the EU-HYBNET Innovation Arena platform delivered via D5.9 in M5.

At the moment, T3.2's scanning of technological innovations developed from the European private sector is underway and the results will be presented in D3.3 "*First report on Improvement and innovations*" (Satways) in M7, hence further details will be available in the next Six Month Action Report in M12.

3.1.3 EU-HYBNET T3.4 INNOVATION AND KNOWLEDGE EXCHANGE EVENTS

T3.4. "Innovation and Knowledge Exchange Events" (Lead by EOS) supports T3.3 and T3.2 in R&I projects monitoring and finding possible innovations to be recommended for uptake and industrialization, by arranging "The First Knowledge Exchange workshop". A program of the workshop is in ANNEX III. The Workshop, which will take place in M9, introduces the EU-HYBNET project and existing network as an innovation exchange arena for the extended network. It also allows practitioners to become aware of the innovation possibilities via the EU-HYBNET project and network activities. The output from T3.1-3.3 will be used in T3.4 events, in particular, the mapping matrix of gaps/needs and research/innovations from T3.1.

The core of the Knowledge Exchange workshops is to notice the project four core themes and to facilitate the continuous mapping of needs, monitoring of solutions, and providing a forum where

practitioners can engage with innovation providers (industry, SMEs, academics). Innovation providers will be invited to explain and demonstrate their innovative solutions that match with the event theme and to interact with practitioners. Key personnel from organisations involved in countering hybrid threats will be invited to the events. To summarize, the Knowledge Exchange events provide interaction with industry, academia and other providers of innovative solutions (technical and social) outside of the consortium to assess the feasibility of the EU-HYBNET project activities and findings.

The First “Knowledge Exchange workshop” will take place in M9, and as such, work in T3.4 has begun and an action plan has been drafted. It should be mentioned that while the first Knowledge and Exchange event is to introduce the EU-HYBNET project and the first cycle of gaps and needs and possibilities for innovations, the next event might open its floor to the other research and innovation projects as well. Therefore, T3.4’s contribution to R&I projects monitoring with a view to recommending the uptake or the industrialisation of results can be explained in further details and results in the next Six Month Action Report in M12.

3.1.4 EU-HYBNET T3.1 DEFINITION OF TARGET AREAS FOR IMPROVEMENTS AND INNOVATIONS

EU-HYBNET T3.1 “*Definition of Target Areas for Improvement and Innovation*” has since M1, focused on defining target areas for improvement and innovation by conducting research. The areas for improvement and innovation will cover especially the project’s four core themes based on the output of WP2 D2.9/“*Short List of Gaps and Needs*”. Because D2.9 was submitted in M5, T3.1 has just started characterizing and clustering these main pan-European practitioners and other relevant actors’ gaps and needs and is awaiting results from T3.3, T3.2 and T3.4 to produce a mapping and clustering overview of the gaps and needs, and promising research and innovations in the area of hybrid threats.

Because T3.2-T3.3 will deliver results in M7, recommendations on the R&I projects and other innovations uptake or industrialization of results will wait until M16 when T3.1 delivers D3.1, “First interim-report mapped on gaps and needs”. However, on 30/10/2020, T3.1 and WP2 leader Hybrid CoE will provide, for the EU-HYBNET consortium an Innovation Mapping to Gaps and Needs presentation which highlights the first insights which support the general understanding of key innovations that the project will focus on.

Because T3.1 has the main contribution to the second of the Three lines of Action, “Common requirements regarding innovations that could fill in gaps and needs” more about T3.1 contribution to the matter in chapter 3.2.

3.1.5 OTHER ACTIONS

The EU-HYBNET project includes activities that indirectly support key project tasks; T3.1-3.4, from the First of Three lines of Action, “*Monitoring of research and innovation projects with a view to recommending the uptake or the industrialisation of results*”.

Task 2.2, “*Research to Support Increase of Knowledge and Performance*” and its’ activity to conduct research (articles) on the main gaps and needs identified in D2.9 on a yearly basis is especially relevant. T2.2 will identify new gaps and investigate what could be done for a specific gap according to each of the project’s four core themes (a so-called state-of-the-art review that goes further). The research activities of T2.2 are conducted together with EU-HYBNET consortium members, interested EU-HYBNET Stakeholder Board members and extended network members. The aim of T2.2 is to produce recommendations and guidelines for practitioners, policy makers and other EU-HYBNET stakeholders to ensure the increase of the EU-HYBNET network and the most wide dissemination base in Europe regarding its research activities. In addition, T2.2 may also focus on R&I projects and their results and hence deliver information that supports the other EU-HYBNET tasks, esp. WP3 and WP4 to proceed in the innovation recommendations for uptake or industrialization.

Laurea as the EU-HYBNET coordinator also supports the delivery of information on possible R&I projects that could provide possible innovations to the identified gaps and needs which may eventually lead to EU-HYBNET’s recommendations on innovations uptake and industrialization of results. Laurea does this work by sharing information on research articles and initiatives that Laurea or any other consortium partners sees fruitful to be shared among the consortium and the EU-HYBNET network to increase the general understanding of hybrid threats and latest research findings and solutions to counter them.

Furthermore, EU-HYBNET WP4, “*Recommendations for Innovations Uptake and Standardization*” T4.1 “*Mapping on the EU Procurement Landscape*”, and T4.2 “*Strategy for Innovation uptake and industrialization*” are seen to contribute to the first of the Three lines of Action but this will be reported in the next Six Month Action Report/ D1.3 (M12) because T4.1 and T4.2 will be active from M7.

3.2 COMMON REQUIREMENTS AS REGARDS INNOVATIONS THAT COULD FILL IN GAPS AND NEEDS

As mentioned in chapter 3.1 the primary contribution to the second of the “Three Lines of Action”, “*Common requirements as regards innovations that could fill in gaps and needs*”, is delivered by T3.1 “*Definition of Target Areas for Improvements and Innovations*”. However, T2.1-T2.4 and T3.2-3.4, WP4 and WP5 also have their input to T3.1’s proceeding because they deliver material and support for T3.1 analyses.

3.2.1 EU-HYBNET T3.1 DEFINITION OF TARGET AREAS FOR IMPROVEMENTS AND INNOVATIONS

EU-HYBNET Task 3.1 “*Definition of Target Areas for Improvements and Innovations*”, (lead by TNO) has since M1 been the main EU-HYBNET project Task to contribute to the second of the Three Lines of Action. The progress and results from T3.1 are the following:

The starting point of T3.1, to define target areas for improvement and innovations and to develop a mapping methodology, has been finalized. See Mapping Methodology in ANNEX III. The objective of the mapping methodology was to identify and relate useful combinations of gaps and needs (from WP2/ D2.1 and D2.9) and potential solutions (identified by T3.2 and 3.3/ work ongoing until M7) that can cover these needs, at least partly. The methodology comprises three steps and includes an assessment of all identified potential solutions based on a set of criteria. This assessment leads to categories of mappings, varying from very promising to less promising (target areas) that will be fed into WP4's *"Recommendations for Innovations Uptake and Standardization"*, to categories that needed further refinement and examination, and finally the graveyard category, which represents potential solutions, that after assessment do not contribute to covering the identified gaps and needs. A figure will be produced that will show and illustrate the mapping between gaps and needs from various domains and the solutions related to the 4 core themes. This mapping matrix/table will be further developed based on different perspectives (domains, current/future, disciplines, etc.

Furthermore, in T3.1, the mapping methodology is an essential part of the templates used for potential solutions. In order to perform a proper mapping and assessment, the potential solutions must be described in a structured way and need to provide essential information. As such, an extensive template including a description about the use of it has been developed. See template in ANNEX III. In addition, the ease and feasibility of its use has been tested through three cases of potential (and illustrative) innovations.

3.2.2 EU-HYBNET T2.4 TRAINING AND EXERCISES FOR NEEDS AND GAPS

In the EU-HYBNET innovation mapping, an input to define common requirements regarding innovations that could fill gaps and needs is also provided by **Task 2.4. "Training and Exercises for Needs and Gaps"** (lead by L3CE) from M6. In short, T2.4 arranges trainings and exercises mainly for practitioners, industry and academic actors (c.30-40 participants in total) to gain new knowledge and skills to enhance their ability to counter hybrid threats. In addition, a key part of the trainings and exercises is to test the most lucrative and promising innovative solutions (technical and non-technical/ Social science based) for the primary gaps and needs to counter hybrid threats. The trainings and exercises will be evaluated and as such, deliver information pertaining to the frames for *Common requirements as regards innovations that could fill in gaps and needs* for WP3 and WP4 to further analyze.

Because T2.4 arranges the first training and exercise event in M12 the evaluation results will be delivered in D2.23 *"Training and exercises Lessons Learned report"* during M14. Therefore, the input of T2.4 to the Three Lines of Action will be described in more detail in the third Six Month Action Report in M18.

3.2.3 OTHER ACTIONS

EU-HYBNET Task 5.2 *“Dissemination and Communication Material and Measures”* (lead byPPHS) from M1, provides support to the *“Common requirements as regards innovations that could fill in gaps and needs”* in the form of the **Innovation Arena (IA) platform**. The IA platform is developed by Laurea and provided during M5, the users of IA platform are EU-HYBNET consortium partners and network members. The IA serves as a platform to announce new gaps and needs to counter hybrid threats, and also to announce innovations that may address the gaps and needs to counter hybrid threats. The IA will be used during EU-HYBNET events to gather information from pan-European practitioners and other relevant actors (Industry, SMEs, academia) regarding gaps and needs to successfully counter hybrid threats and possible solutions to them. This information will be then analyzed in EU-HYBNET WPs, especially in WP3/ T3.1 and then further on in WP2/ T2.3-2.4 and WP4/ T4.1.-T4.3.

The IA platform provides material especially to T3.1 because the information in IA can be described in a similar fashion as is planned for the T3.1 mapping matrix. In short, the IA supports T3.1 to analyse the announced innovations on the basis of a set criteria (e.g. high impact, low effort, short term etc) defined in T3.1. This being said, the IA is a tool for T3.1 to map the new innovations announced in IA according to the defined EU-HYBNET common requirements regarding innovations that could fill gaps and needs.

3.3 PRIORITIES AS REGARDS OF INCREASING KNOWLEDGE AND PERFORMANCE REQUIRING STANDARDISATION

The main contribution to the last of the Three Lines of Action, *“Priorities as regards of increasing knowledge and performance requiring standardization”*, is derived primarily from Tasks in WP4 *“Recommendations for Innovations Uptake and Standardization”*, however, WP2 T2.4 (training and exercises for gaps and need) and T2.3 (training and exercises for scenario development) also support the project to deliver results.

3.3.1 EU-HYBNET T2.3 AND T2.4 TRAININGS, EXERCISES AND SCENARIOS

EU-HYBNET **Task 2.3, “Training and Exercises Scenario Development”** (lead by KEMEA) from M6 has started to analyze D2.9 *“Short List of Gaps and Needs”* in order to build a methodology and compile scenarios for the EU-HYBNET training and exercise activities taking place in T2.4 *“Training and Exercises for Needs and Gaps”* during M12. As an outcome of the training activities, knowledge of the participants on the topics that will be selected for the training and exercises will be increased. Therefore, it is T2.3 and T2.4 together that will contribute to the Three Lines of Action, *“Priorities regarding the increase of knowledge and performance requiring standardization”*. After all, the trainings, exercises and their evaluations will deliver information regarding the areas of knowledge and performance that need to be prioritized and are seen to require standardization among pan-European practitioners and other relevant actors to empower them to counter hybrid threats.

Because T2.3 delivers the first training and exercise scenario in M10, D2.26 *“Training and exercises scenario& training material”* and T2.4 arranges the first training and exercise in M12, and thereafter, the evaluation results will be delivered during M14 from D2.23 *“Training and exercises Lessons Learned report”*. Therefore, the input of T2.3 and T2.4 to the Three Lines of Action will be described in more detail in the next Six Month Action Report.

3.3.3 EU-HYBNET T4.3 RECOMMENDATIONS FOR STANDARDIZATION

Three Lines of Action *“Priorities as regards of increasing knowledge and performance requiring standardization”* is a special focus of EU-HYBNET Task 4.3 *“Recommendations for Standardization”* (lead by PPHS).

T4.3 will build its activities based on the information delivered by WP3 and WP2. First, T4.3 will map the current status of innovations and second, T4.3 will identify the needs of pan-European practitioners and other relevant actors for innovations. In addition, T4.3 will study the possibilities for the most prioritized innovation’s standardization and finally, all of this information will be analyzed with relevant EU-HYBNET stakeholders. T4.3 activities include workshops where the goal is to find and define all the needs and possibilities of key practitioners for innovations that support countering hybrid threats. The results of the workshops are key to creating further standardisation possibilities. Ongoing analysis of this information supports T4.3 to determine which of the needs and possibilities of standardisation are most relevant for practitioners, and which are the most feasible for implementation in the short, medium and long term (taking into account the long and complex process of developing standards).

From M1, T4.3 has been working to create a specific methodology for its activities on the basis of the D2.1/ *“Long List of Gaps and Needs”* and D2.9/ *“Short List of Gaps and Needs”*. The creation of this methodology will continue and the first deliverable from T4.3, D4.8 *“1st Report for standardisation recommendations”* will be available during M19. Therefore, more information on T4.3 activities, setting up priorities regarding the increase of knowledge and performance requiring standardization, will be delivered in the forthcoming Six Month Action reports.

T4.3 activities are also related to other Three Lines of Action, namely *“common requirements as regards innovations that could fill in gaps and needs”*. Specifically, delivering common requirements (standardization perspective) of pan-European practitioners and other relevant actors regarding innovations that could fill their gaps and needs. The input from T4.3 to the other Three Lines of Action will be reported in the future Six Month Action Reports.

3.4 OTHER CONTRIBUTION TO THE THREE LINES OF ACTION

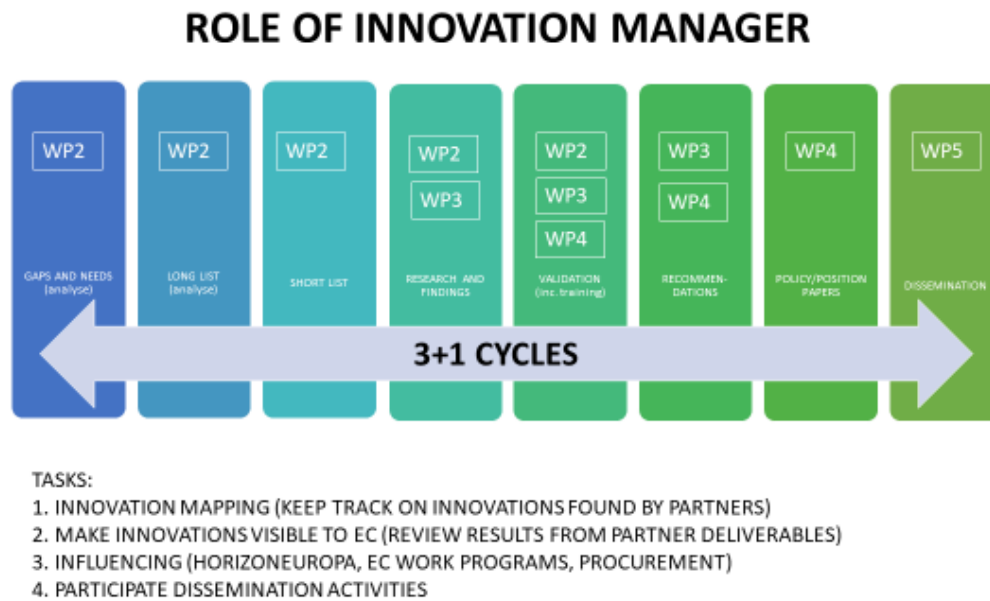
EU-HYBNET Innovation Manager

The EU-HYBNET project includes an **Innovation Manager (IM)** position held by Laurea/ Mr. Isto Mattila. The Innovation Manager is expected to contribute together with Project Coordinator, Project Manager and Network Manager to the success of the project. The IM has made a set of plans which support the project and the whole consortium to fulfill its activities while keeping in line with the Three Lines of Action. The role and support from the IM is described below.

The Innovation manager work is related to following EU-HYBNET objectives and goals:

1. To strengthen European capabilities in detection, reaction and response in confronting hybrid threats by leveraging collaborative network efforts
2. To define innovations that can overcome the identified gaps and needs in certain focus areas in order to enhance practitioners, industry, SME and academic actors capabilities
3. To develop a roadmap of the requirements for on-going research and innovation necessary to build the preferred system of the future for confronting hybrid threats
4. To monitor significant developments in research areas and activities in order to define and recommend solutions for European actors
5. To monitor significant developments in technology that will lead to recommending solutions for European actors' gaps and needs
6. To compile recommendations for uptake/industrialisation of innovation outputs (incl. social/non-technical); and provide opportunities for greater involvement from public procurement bodies upstream in the innovation cycle
7. To deliver a strategy for innovation uptake and industrialisation based on innovation standardisation needs among practitioners in the same discipline
8. To develop a mapping matrix connecting gaps and needs of European actors to areas that highlight the most promising innovations
9. To facilitate policy dialogues on future European research and innovation focus areas supporting innovation uptake
10. To establish a platform for information exchange through an Innovation Arena, along with an associated website
11. To set up community forums that will empower the European network to engage in productive exchanges on research and innovation, needs/gaps, uptake, policy issues, standardization
12. To empower European practitioners, industry, SME and academic actors to recognise important innovations/trends

In addition, the main contribution of the Innovation Manager to the specific EU-HYBNET Work Packages (WP) is listed below alike the four core activities in this position.



Furthermore, the contributions of the IM to project progress of the past six months includes the following:

- Participation to the planning of the established EU-HYBNET Network Platform and Innovation Arena
- Author of “Innovation Manager Tasks” – Presentation
- Activating partners for innovation activities and reminding role of Innovation Manager (emails)
- Active participation to Gaps and Needs Event (T2.1 M1)

EU-HYBNET dissemination, communication and exploitation activities

In addition to the general EU-HYBNET project management and managers’ work, also EU-HYBNET project’s dissemination, communication and exploitation activities provided by **WP5** supports the project to fulfill its activities according to the Three Lines of Action lines. Especially D5.1 “*Dissemination, Communication and Exploitation Plan*” (delivered by EOS in M3) which set up the entire dissemination, communication and exploitation plan. The document guides the consortium to work in a manner in which the EU-HYBNET stakeholders’ contribution would be gained for the project proceeding in its core activities. This Plan will be updated twice within the frame of the project following a strick impact assessment provided by an EU-HYBNET partner, University of Rey Juan Carlos (URJC).

4. CONCLUSION

4.1 SUMMARY

We have now described how the EU-HYBNET project activities from the first six project months (May - October 2020) contributed to the Three Lines of Action activities. In addition, the document has highlighted what kind of results EU-HYBNET is expected to achieve in the Three Lines of Action during the next six months (the next Six Month Action Report reporting period).

In Section 2. we explained the importance of the Six Month Action Report to the project proceeding and quality control. In addition, we gave a short description of the contributors to the Six Month Action Report.

In Section 3. we showed how the EU-HYBNET project tasks and project actors have contributed and will in the next six months contribute to the Three Lines of Action lines in order to reach the set project results.

In Section 4. we provided a summary of the deliverables, and explain its importance to the project's proceeding and what are the next actions to follow.

Finally, it is worth highlighting that the Six Month Action Report reporting takes place in the project in every six months and according to the EC's set Three Lines of Action and hence the Six Month Action Reports will provide sound way to follow the project's progress and achievements.

4.2 FUTURE WORK

Most EU-HYBNET project tasks have stated their work and their contribution to the Three Lines of Action lines. During the next six month project period (November 2020 – April 2021) the rest of the EU-HYBNET project tasks will also start their work - the tasks (T) are T4.1 "*Mapping on the EU Procurement Landscape*" (month 7) and T4.2 "*Strategy for Innovation uptake and industrialization*" (month 7). The next Six Month Action Report (month 12/ April 2021) will describe these tasks contribution to the Three Lines of Action alike the rest, already mentioned project tasks' results as well.

During the next project period, the following twelve (12) deliverables and ten (10) milestones will be delivered:

Deliverables (D):

Task (T) 3.2 "Technology and Innovations Watch"

- Deliverable (D) 3.3 "First report on Improvement and innovations" (Satways), month (M) 7

T3.3 "Ongoing Research Projects Initiatives Watch"

- D3.7 “First report on Innovation and Research Project monitoring” (L3CE), M7

T1.2 “Project Management, Quality Control, Ethics and Risk Management”

- D1.6 “List of Board& Group members and memo of their first meeting” (Laurea), M8

T1.3 “EU-HYBNET Community Extension”

- D1.7 “Definition of the eligibility criteria for new actors” (Hybrid CoE), M8

T1.3 “EU-HYBNET Community Extension”

- D1.8 “EU-HYBNET Network Sustainability Plan” (Laurea), M8

T2.3 “Training and Exercises Scenario Development”

- D2.17 “Training and Exercise, Scenario delivery” (KEMEA), M10

T3.4 “Innovation and Knowledge Exchange Events”

- D3.11 “1st Innovation and Knowledge exchange events report” (EOS), M10

T2.4 “Training and Exercises for Needs and Gaps”

- D2.26 “Training and exercises scenario& training material” (KEMEA), M10

T1.3 “EU-HYBNET Community Extension”

- D1.19 “List of actors to the extended EU-HYBNET Network” (Hybrid CoE), M11

T1.1 “Administrative and Financial Planning and Coordination”

- D1.3 “2nd Six Month Action Report” (Laurea), M12

T2.4 “Training and Exercises for Needs and Gaps”

- D2.20 “Training and exercises delivery on up-to-date topics” (L3CE), M12

T2.2 “Research to Support Increase of Knowledge and Performance”

- D2.12 “Articles and publications on themes and measures” (UiT), M12

Milestones (MS):

- Milestone (MS)2 “All EU-HYBNET project boards and groups are established”, month (M) 8
- MS3 “Definition of eligibility criteria for new extended EU-HYBNET Network actors”, M8
- MS4 “Compilation of the EU-HYBNET Network Sustainability Plan”, M8
- MS21 “Cycle of Innovation and Knowledge exchange events is started”, M9
- MS16 “First cycle of mapping gaps and needs on the innovations and research completed and shortlist of solutions handed over to WP4”, M11
- MS5 “1st EU HYBNET Project Management Board Meeting”, M12

- MS19 “Taxonomy for innovations monitoring has been developed”, M12
- MS20 “Taxonomy for innovations and research projects monitoring has been developed”, M12
- MS22 “Cycle of Future Trends Workshops is started”, M12
- MS34 “First Annual Workshop”, M12

As the deliverables and milestones highlight, the EU-HYBNET project will deliver many more results to the Three Lines of Action in the forthcoming six months. The aim and value of the Six Months Action reports is to track the results and to highlight their importance to empower the pan-European measures and extension of the pan-European network to counter hybrid threats.

ANNEX I. GLOSSARY AND ACRONYMS

Table 1 Glossary and Acronyms

Term	Definition / Description
EU-HYBNET	Empowering a Pan-European Network to Counter Hybrid Threat –project, No. 883054
EC	European Commission
PO	European Commission, DG HOME, EU-HYBNET Project Officer
GA	Grant Agreement
DoA	Description of Action Part A and B
D	Deliverable
WP	Work Package
T	Task
M	Month
R&I	Research and innovations
IM	Innovation Manager
NM	Network Manager
PMB	EU-HYBNET project Project Management Board
ScAG	EU-HYBNET project internal Scientific Advisory Group
TNO	Nederlandse Organisatie voor Toegepast Natuurswetenschappelijk Onderzoek, EU-HYBNET partner
JRC	Joint Research Centre/ European Commission, EU-HYBNET partner
EOS	European Organization for Security, EU-HYBNET partner
Hybrid CoE	The European Centre of Excellence for Countering Hybrid Threats, EU-HYBNET partner
Maldita	Maldita, EU-HYBNET partner
L3CE	Lietuvos Kibernetiniu Nusikaltimu Kompetenciju ir Tyrimu Centras, EU-HYBNET partner
PPHS	Polish Platform for Homeland Security, EU-HYBNET partner
KEMEA	Kentro Meleton Asfaleias, EU-HYBNET partner
RIA	Estonian Information System Authority, EU-HYBNET partner
ABW	Polish Internal Security Agency, EU-HYBNET partner
COMTESSA	Universität der Bundeswehr München/ Bundeswehr University
URJC	Univeristy of Rey Juan Carlos, EU-HYBNET partner
Laurea	Laurea University of Applied Sciences, EU-HYBNET coordinator

ANNEX II. REFERENCES

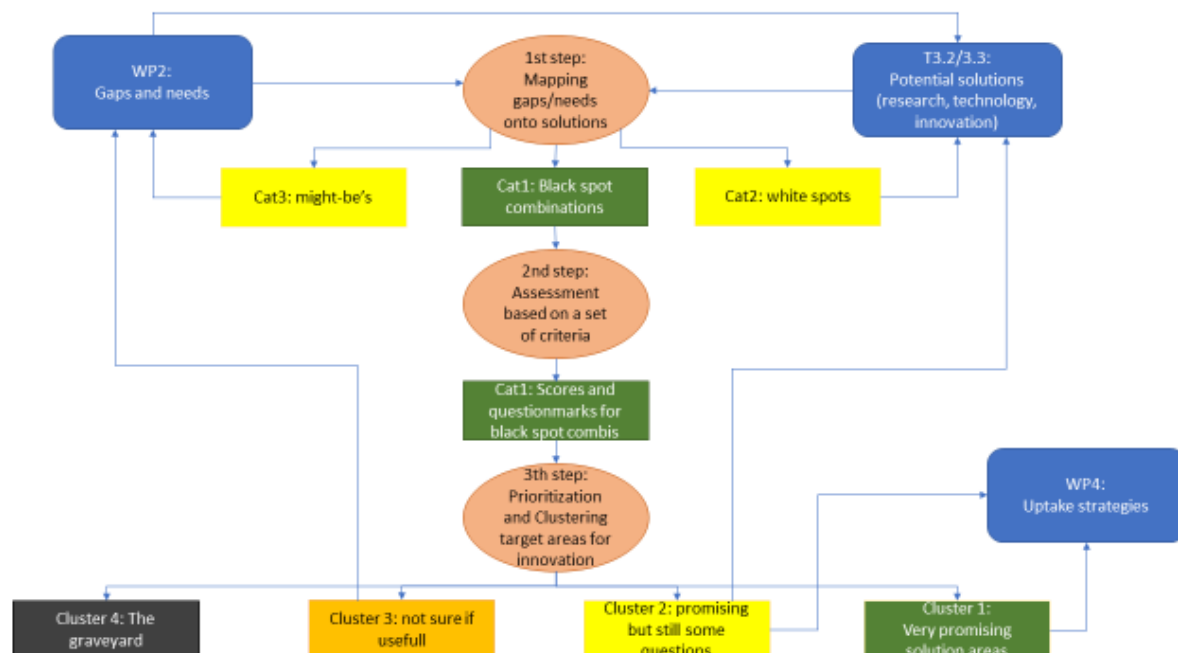
- [1] European Commission Decision C (2014)4995 of 22 July 2014.
- [2] Communicating EU Research & Innovation (A guide for project participants), European Commission, Directorate-General for Research and Innovation, Directorate A, Unit A.1 — External & Internal Communication, 2012, ISBN 978-92-79-25639-4, doi:10.2777/7985.

ANNEX III. ATTACHMENTS

T3.4 The First Knowledge Exchange workshop - program

Time	Topic	Speaker(s)
10.00-10.10	Opening remarks	Mr. Paolo Venturoni, CEO, EOS
10.10-10.30	Welcome & Introduction	Dr. Päivi Mattila, the Director of Security Research Program Laurea, EU-HYBNET Coordinator
10.30-11.00	Intervention on the EU policy framework on hybrid threats	Mr. Max Brandt, Policy Officer, DG HOME, European Commission Mr. Maciej Szymański, Policy Officer, DG DEFIS, European Commission
11.00-11.40	The extension of the European Network against hybrid threats and its sustainability Q&A	Dr. Hanna Smith, Director of Research and Analysis Hybrid CoE
11.40-11.50	Break	
11.40-12.00	Critical gaps and needs in knowledge and performance in relation to innovations Q&A	Dr. Rick Meessen, Principal Advisor Defence, Safety and Security, TNO <i>TBC</i>
12.00-13.00	Lunch	
13.00-14.30	Roundtable I <i>Industry view to innovations answering Pan-European practitioners and other relevant stakeholders' needs countering hybrid threats, in relation to:</i> <ul style="list-style-type: none"> • Resilient civilians, local level, and administration • Cyber and future technologies • Information and strategic communications • Future trends of Hybrid Threats 	Moderator: Ms. Maria Chiara Properzi, Policy Manager, EOS Speakers: <ul style="list-style-type: none"> • Antoine-Tristan Mocilnikar, General Mining Engineer, (Ministère de la Transition, écologique, France) <i>TBC</i> • Radu Pop, Head of Infrastructures and Frontier Security Solutions Sales, (Airbus) • Dr. Shahid Raza, Director of Cybersecurity Unit, (Research Institutes of Sweden – RISE) <i>TBC</i>
14.30-14.40	Break	
14.40-16.10	Roundtable II <i>Unknown threats and low-technology threats – status of the art, and future challenges, in relation to:</i> <ul style="list-style-type: none"> • Resilient civilians, local level, and administration • Cyber and future technologies • Information and strategic communications • Future trends of Hybrid Threats 	Moderator: Ms. Elodie Reuge, Crisis Management Project Manager Speakers: <ul style="list-style-type: none"> • Ms Maria Kampa, Research Associate, Kentro Meleton Asfaleias (KEMEA) <i>TBC</i> • Mr. Vito Morreale, Director of the Industry and Security Technology, Research, and Innovation (IS3) Lab, (Engineering), <i>TBC</i> • Dr. Rubén Arcos Martín, Risk Lecturer and researcher of Communication sciences, (Universidad Rey Juan Carlos)
16.10-16.20	Break	
16.20-17.00	Closing remarks & Wrap Up	Isto Mattila, RDI director Laurea, EU-HYBNET Innovation Manager

T3.1 Mapping methodology (TNO)



T3.1 Mapping methodology - templates for potential solutions. (TNO)

NAME OF THE IDEA DESCRIPTION OF THE IDEA	
REFERENCE TO CAPABILITY GAP/NEED - Describe the use of the solution in reference to the gap/need - Applicable JRC domains as stated by the gaps/needs: - Applicable core theme(s) as stated by the gap/need:	TYPE OF SOLUTION - Technical - Social/Human - Organizational/Process
PRACTITIONERS - Provide applicable JRC domains for which the solution is valuable: - Provide the level of practitioners in the same discipline: <ul style="list-style-type: none"> ○ I) <i>ministry level</i> (administration): ○ II) <i>local level</i> (cities and regions): 	

<ul style="list-style-type: none"> ○ III) support functions to ministry and local levels (incl. Europe's third sector): - Provide the expected end-users of the idea (such as NGO's, private citizens, private companies, media outlets, police, firefighting departments) 	
<p align="center">STATE OF THE ART</p> <ul style="list-style-type: none"> - Indication of Technology Readiness Level (TRL 1-9 index): - In which stage is the idea (research, technology, available innovation, proven innovation): - Expected time to TRL-9. - Expected time to market. 	
<p align="center">DESCRIPTION OF USE CASE(S)</p>	
<p align="center">IMPACT ON COUNTERING HYBRID THREATS</p> <ul style="list-style-type: none"> - Describe how the idea contributes to countering hybrid threats; relate this to one or more capability gaps and needs. - Resilience/defensive/offensive 	
<p align="center">ENABLING TECHNOLOGY</p> <ul style="list-style-type: none"> - Which technologies are critical in fielding the idea? 	<p align="center">RESTRICTIONS FOR USE</p> <ul style="list-style-type: none"> - Are there any restrictions with respect to using the solutions, e.g.: legal, ethical, security, etc.?
<p align="center">COSTS</p> <ul style="list-style-type: none"> - Indication of costs. Differentiate if possible in development, procurement and exploitation. 	<p align="center">COUNTERMEASURES</p> <ul style="list-style-type: none"> - Are there any potential countermeasures that could degrade the effectiveness of the solution? - How durable is the idea (how long is the idea expected to be effective/useful?)
<p align="center">MISCELLANEOUS</p> <p>Any additional remarks/disclaimers/comments/information you might want to provide</p>	