



Sharing and Automation for  
Privacy Preserving Attack Neutralization

(H2020 833418)

## **D7.13 Dissemination Plan and Reports (M24)**

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## Executive Summary

This report is the follow-up version of previous the dissemination plan and reports D7.12. This report not only focuses on the dissemination plan and report on the current progress but also mention the plan and report of communication activities. These include, for example, communication via social media to gain the attention of the target audience for the project, without going deep into scientific or technical details.

In the previous reports the following points are covered:

- Target groups of dissemination and communication actions of SAPPAN
- Individual plans of the project partners including:
  - Conferences
  - Fairs
  - Internet presence
  - Meetings and events
  - Publications
  - Teaching
  - Workshops
- Summary of dissemination and communication goals
- Report on finished and planned dissemination activities per project partner for the first year of the project

The dissemination and communication plan of SAPPAN includes the availability of project concepts, results, news, and deliverables on the project website, publication of research results in related journals and conferences, general press and technical fairs, participation and presentation of SAPPAN results in related events, organization of workshops, as well as spreading information to target audiences via social media channels such as Twitter and YouTube. The current iteration of the deliverable is a report on updates of dissemination plans and progress of dissemination and communication activities during the second year of the project. It also includes KPIs to monitor the achievements of dissemination and communication goals. The dissemination plan and report will have the last annual updates at the end of the project.

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## 1 Introduction

Any project's progress relies on its ability to disseminate its results, and consortium members are committed to enabling it. The goal of a regular dissemination plan and report during the project life cycle is to ensure that the project's vision, activities, and outcomes are widely recognized and understood from a science, technological, and commercial perspective, as well as among potential end users. Some of the main objectives of the dissemination and communication tasks are presentations at special events such as national or international conferences, dissemination of print and digital marketing materials, the establishment of communication channels such as social media, maintenance and refinement of the project website as the key dissemination and communication channel to show the objectives and results of SAPPAN and increase the impact of the project.

This document lists the dissemination and communication plan of SAPPAN and reports on the dissemination tasks carried out during the first 24 months of the project, both for the general approach of the consortium and for each partner, separately. This report not only focuses on dissemination but also presents communication activities. Dissemination and communication are horizontal activities of the SAPPAN project to spread the concepts, vision, objectives and results of the project. This document is the second follow-up to the original dissemination plan from M3 (deliverable D7.11) and the second annual report on dissemination and communication activities after deliverable D7.12. This report will be revisited and updated for the final version of the dissemination plan and reports, which will be submitted at M36.

As follows, section 2 describes the project's general approach to dissemination and communication. Section 3 lists changes to the dissemination plan since the second version of the document at M12. Section 4 then reports on completed, ongoing, and planned activities by each partner on their current status.

## 2 General Dissemination and Communication Activities

We have documented strategies regarding dissemination and communication activities. In addition to this, we have already carried out dissemination activities, such as various in-house and public presentations about the SAPPAN project. Additionally, a joint workshop with the H2020 project SOCCRATES has been organized in conjunction with the ARES Conference 2020, for which various presentation videos have been recorded. A majority of these is still accessible online and also uploaded to the SAPPAN YouTube channel. SAPPAN is also represented in the Cyberwatching project hub, where it has been featured as the project of the week (17.08.2020 - 21.08.2020). To reach the interested public, a project website, Twitter account, and LinkedIn group have been created. Also, publishing blog posts and presenting SAPPAN results in workshops and webinars are further dissemination and communication plans to increase the visibility of the project to reach identified target groups. The first results of the project have already been peer-reviewed and published in six conference and journal papers, and further works are currently under review or planned to be published later.

## 2.1 Communication strategy

To improve our communication strategy, we require to come up with a concrete plan for the three following subjects:

1. Communication content:
  - Key messages: every communication must take this into account.
  - Content categories: these would be appropriate to break down according to the actual WP and expected results.
  - Reactive communication: this should be covered according to opportunity.
2. Communication target groups:
  - Target groups are already defined in GA and revisited in D7.11 and D7.12 deliverable.
3. Communicate channels:
  - The main communication and dissemination channel is the project website.
  - Activities such as webinars and technical blog posts on the project website can increase the visibility of the project.
  - We require to identify high impact subjects in SAPPAN for blog posts, webinars, and other communication activities.
  - The blog posts also can be shared through social networks, newsletters, or any other identified platforms.
  - We need to identify techniques to reach our target audience (E.g., more activities on personal blogs, newsletters, workshops, other projects, expert groups, forums, ...).

We regularly discuss these subjects to monitor the progress of communication strategy and refine it whenever that is necessary during the project lifecycle.

## 2.2 Communication activities

Communication activities, their goals and current progress are provided as follow. More details about presentation and dissemination materials are given in deliverable D7.8 which is the second year iteration of the Report on Information and Presentation Materials. Also the updates on KPIs and overview of current progress of KPIs are given in the following.

### 2.2.1 Project website

The website of the project provides a platform on which all relevant information is presented, including the goals of the project, public deliverables, promotional material, and links to events related to the project.

The website is designed and has been online since M4. It was reworked after M12 for a visual upgrade, and a more lightweight and modern design. The website is the key dissemination and communication channel of the project and has been and will be

regularly updated with information on project progress, news, events, and results. All public deliverables are available online after the EC confirmation.

### 2.2.2 Events and presentations

By participating in the events we aim to present SAPPAN results in research and business forums and other corporate events. SAPPAN overview, objectives and motivations have been presented at many in-house and external events such as the 58th TF-CSIRT meeting, the 2019 International summer school on machine learning and security, Fraunhofer FIT scientific end of the year event 2019, SAPPAN-SOCCRATES networking event, Swiss cybersecurity days, and Leuven AI law and ethics conference. Moreover, the first results of the project are presented in 5 conferences with peer-review proceedings. Further, a joint workshop NG-SOC 2020, was held with the cooperation of the H2020 project SOCCRATES. The workshop co-located with ARES 2020 conference in August 2020. The workshop's goal is to bring experts and researchers together in the field of Security Operation Centres (SOC) to identify and address major challenges and research-based solutions. The workshop will be co-organized by SAPPAN for the second consecutive year. NG-SOC 2021 will also have a peer-review publication section with publication results in the proceeding of the conference. The workshop has been registered and the call for paper for this workshop is now online. Moreover, the consortium will prepare a final event to present the results of the project. We will invite representatives from both public and private organizations, as well as EU Commission representatives. The list of presentations are given in the *Presentations and Other Dissemination Materials* sub-section.

### 2.2.3 Publications

The publication of articles and newsletters in specialized and general press about the objectives and the results of SAPPAN is one of the main communication and dissemination goals of the project. We present the results in relevant business and technological development fairs and produce scientific papers in relevant peer-reviewed journals, conferences and workshops. We currently have five publications published in high-rank conferences proceedings and one journal paper, plus we have 2 conference papers under review. All aforementioned papers are peer-reviewed and listed in the *Publication* section of this report. Also, technical blog posts and general press are and will be published regarding the results of the project. Currently, academic partners in the project finish the supervision of 17 bachelor or master theses successfully which are listed in the section *scientific publications*.

### 2.2.4 Social media

Information about the project diffuses through the principal social network accounts of the members of the consortium and specific accounts of the project, for example in LinkedIn, YouTube and Twitter. The information shared are about objectives, progress,

dissemination materials and information about events, advisory board activities or participation of end-users or any other consortium bodies. Currently we have an active Twitter account that we try to increase the audiences, a closed group in LinkedIn, and a YouTube channel to publish our videos and presentations.

### 2.3 Refinement of KPIs

We refine the communication and dissemination KPIs for two reasons. First, due to the influence of pandemic, we have changes on the dissemination plans, which is described in the section *Changes of the Dissemination Plan*. It results in the refinement of dissemination goals by adding particular indicators for remote events. Also, based on the feedback we get from the EU mid-term review, we revisit our KPIs to have more clear measures to monitor the progress of the activities, especially for website and social media presence. The following table shows the changes in KPIs in comparison to previous dissemination and communication deliverable D7.12.

Activities	Updated KPIs	Previous KPIs
<b>Availability of the SAPPAN website</b>	Website traffic statistics (Yes/No)	No specific KPI identified
	Present the goal of the project (Fully/Partially/Not available)	No specific KPI identified
	Information about project partners, advisory board, other consortium bodies (Fully/Partially/Not available)	No specific KPI identified
	Disseminate public deliverables after EC confirmation (Fully/Partially/Not available)	No specific KPI identified
	Availability of promotional materials (Fully/Partially/Not available)	No specific KPI identified
	Links to related events (Fully/Partially/Not available)	No specific KPI identified
<b>Events and presentations</b>	7+ presentations in events (including remote events)	5+ presentations in events
	2+ webinar sessions	No specific KPI identified
<b>Publications</b>	8+ scientific peer-reviewed publications	6+ scientific publications



	8+ blog posts	No specific KPI identified
<b>Active presence in Social networks</b>	100+ tweets	No specific KPI identified
	8+ YouTube videos	5+ YouTube videos

## 2.4 Overview of current KPIs

In the following table, the current progress of dissemination and communication activities regarding the measurement KPIs are given.

<b>Activities</b>	<b>key performance indicators (KPIs) for measurement of results</b>	<b>Current Progress</b>
<b>Availability of the SAPPAN web site</b>	Online Since M4 (Yes/No)	Yes
	Present the goal of the project (Fully/Partially/Not available)	Partially available
	Information about project partners, advisory board, other consortium bodies (Fully/Partially/Not available)	Fully available
	Disseminate public deliverables after EC confirmation (Fully/Partially/Not available)	Fully available
	Availability of promotional materials (Fully/Partially/Not available)	Partially available
	Links to related events (Fully/Partially/Not available)	Fully available
	Website traffic statistics (Yes/No)	Trial investigation
<b>Events and presentations</b>	7+ presentations in events (including remote events)	5
	2+ webinar sessions	0
	Organizing a final event	Not applicable yet
<b>Publications</b>	8+ scientific peer-reviewed publications	6
	2+ general press	1

	4+ technical fairs	0
	8+ blog posts	2
<b>Active presence in Social networks</b>	500+ twitter followers	125
	100+ tweets	48
	200+ LinkedIn Group members	18
	8+ YouTube videos	4
	Availability of GitHub repository to maintain open source developments (Yes/ No)	No

## 2.5 Scientific Publications

In this section, the scientific peer-reviewed publications of SAPPAN results are listed in the following table. Also, ongoing publications are listed in the *Submitted Papers* and finished and ongoing bachelor and master theses are recorded as follows in the *Bachelor and Master Theses* table.

### 2.5.1 Published Papers

Type of scientific publication	Title of the scientific publication	DOI	Authors	Title of the journal or equivalent	Publisher	Year of publication	Peer review	Open Access?
Scientific paper	Analyzing the Real-World Applicability of DGA Classifiers	10.1145/3407023.3407030	Arthur Drichel (RWTH), Ulrike Meyer (RWTH), Samuel Schüppen (Siemens CERT), Domink Teubert (Siemens CERT)	The 15th International Conference on Availability, Reliability and Security (ARES 2020)	ACM	2020	Yes	Yes
Scientific paper	Making Use of NXt to Nothing: Effect of Class Imbalances on DGA Detection Classifiers	10.1145/3407023.3409190	Arthur Drichel (RWTH), Ulrike Meyer (RWTH), Samuel Schüppen (Siemens CERT), Domink Teubert (Siemens CERT)	3rd International Workshop on Cyber Threat Intelligence Management (CyberTIM 2020)	ACM	2020	Yes	Yes
Scientific paper	Interpretable Visualizations of Deep Neural Networks for Domain Generation Algorithm Detection		Franziska Becker (USTUTT), Arthur Drichel (RWTH), Christoph Müller (USTUTT), Thomas Ertl (USTUTT)	2020 IEEE Symposium on Visualization for Cyber Security (VizSec)	IEEE	2020	Yes	Yes

Scientific paper	DoH Insight: Detecting DNS over HTTPS by Machine Learning	10.1145/3407023.3409192	Dmitrii Vekshin (FIT CTU), Karel Hynek (CESNET), Tomas Cejka (CESNET)	CyberTIM 2020	ACM	2020	Yes	Yes
Scientific paper	Privacy Illusion: Beware of Unpadded DoH		Karel Hynek (CESNET), Tomas Cejka (CESNET)	IEMCON2020	IEEE	2020	Yes	Yes
Scientific journal paper	Host Behavior in Computer Network: One-Year Study	10.1109/TNSM.2020.3036528	Tomas Jirsik (MU) and Petr Velan (MU)	IEEE Transactions on Network and Service Management	IEEE	2021	Yes	Yes

## 2.5.2 Submitted Papers

The table below list the publications that are already submitted to high-ranked conferences with peer-reviewed proceedings. The publications are still under review.

Name	Authors	Submitted to	Status
First Step Towards EXPLAINable DGA Multiclass Classification	Arthur Drichel, Nils Faerber, Ulrike Meyer (RWTH)	ARES2021	submitted, currently under review
Finding Phish in a Haystack: A Pipeline for Phishing Classification on Certificate Transparency Logs	Arthur Drichel, Vincent Drury, Justus von Brandt, Ulrike Meyer (RWTH)	ARES2021	submitted, currently under review

## 2.5.3 Bachelor and Master Theses

The table below list all the finished and ongoing bachelor and master theses related to the SAPPAN project supervised by academic partners.

Name	Author	Type	Institute	Supervisor/Advisor	Status
Local Differential Privacy Preserving Intrusion Detection Systems	Melanie Martini	Master thesis	FIT	Stefan Decker, Benjamin Heitmann	Finished
A Condensation-based Anonymization Approach for Intrusion Detection	Jonas Rülfig	Master thesis	FIT	Stefan Decker, Benjamin Heitmann	Finished
Machine Learning for Phishing URL Detection	Juraj Smeriga	Bachelor thesis	MU	Tomas Jirsik	Finished
Hardening of Domain Generation Algorithm Classifiers	Mike Lorang	Master thesis	RWTH	Ulrike Meyer, Arthur Drichel	Finished

Multiclass Classification of DGAs using Classical Machine Learning Approaches	Nils Faerber	Bachelor thesis	RWTH	Ulrike Meyer, Arthur Drichel	Finished
DGA Detection on Encrypted DNS Traffic using Machine Learning	Markus Baumgart	Master thesis	RWTH	Ulrike Meyer, Arthur Drichel	Finished
A Study of Model Inversion Defenses in Deep Learning	Benedikt Holmes	Master thesis	RWTH	Ulrike Meyer, Arthur Drichel	Finished
Utilizing Adversarial Attacks for Iterative Hardening of DGA Classifiers	Nils Eberhardt	Bachelor thesis	RWTH	Ulrike Meyer, Arthur Drichel	Finished
A Privacy-Preserving Machine Learning Approach for DGA Detection	Tim Amelung	Master thesis	RWTH/FIT	Ulrike Meyer, Arthur Drichel and Mehdi Akbari Gurabi	Finished
Laying Ground Truth in Network-based Software Fingerprinting	Olav Lamberts	Bachelor thesis	RWTH	Ulrike Meyer, Sebastian Schäfer	Finished
Software specific network traffic generation by automation of the graphical user interface	Frederik Basels	Bachelor thesis	RWTH	Ulrike Meyer, Sebastian Schäfer	Finished
Application of Process Mining in Software Fingerprinting	Christian van Sloun	Master thesis	RWTH	Ulrike Meyer, Sebastian Schäfer	Finished
Application Fingerprinting based on System Events using Process Mining	Nicolas Heinen	Master thesis	RWTH	Ulrike Meyer, Sebastian Schäfer	Finished
Visual Comparison of Classifications from Different Machine Learning Models	Komail Mohammadi	Bachelor thesis	USTUTT	Franziska Becker, Christoph Müller	Finished
Visual Correlation of Network Flows and Host-Based Data	Carlos Moreno Sanchez	Master thesis	USTUTT	Christoph Müller, Franziska Becker	Finished
Applying Privacy Preserving Data Mining to Intrusion Detection Systems	Clemens Frank	Master thesis	FIT	Stefan Decker, Benjamin Heitmann	Finished
Machine Learning based Handling of Cyber Security Incidents	Marc Burian	Master thesis	FIT	Stefan Decker, Benjamin Heitmann	Finished

## 2.6 Presentations and Other Dissemination Materials

In this section, all the presentations and technical posts regarding the SAPPAN dissemination are listed. This includes the introduction and motivational talks about SAPPAN, presenting preliminary project results in NG-SOC 2020 workshop, organization of a motivational workshop in Girls Day 2021 in Germany, panel talk in Leuven AI Law

and Ethics Conference, and SAPPAN related technical blog posts on partners websites and dissemination channels.

Name	Presenter	Event
Overview of the SAPPAN project, DGA detection and similarity preserving anonymization techniques	Sarka Pekarova, Mischa Obrecht (DL)	Event of ISC2 chapter Switzerland, 16th of March 2021
Organizing a workshop in Girls Day 2021 at the university of Stuttgart	Franziska Becker, Robert Rapp (USTUTT)	Girls Day 2021 at USTUTT
"AI for resilience and collaborative mitigation strategies for AI-driven response to cyber threats" panel	Alexey Kirichenko (FSC)	LAILEC 2021 - Leuven AI Law & Ethics Conference, 25-26 March 2021, <a href="https://www.law.kuleuven.be/citip/en/citip-conferences/lailec/lailec-2021">https://www.law.kuleuven.be/citip/en/citip-conferences/lailec/lailec-2021</a>
Phishing is here to stay	Adam Pilkey (FSC)	F-Secure's blog: <a href="https://blog.f-secure.com/phishing-is-here-to-stay/">https://blog.f-secure.com/phishing-is-here-to-stay/</a>
Fast and Scalable Cybersecurity Data Processing	Gabriela Aumayr (HPE)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
The SAPPAN Project: Overview and Objectives	Avikarsha Mandal (FIT)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Leveraging Machine Learning for DGA Detection	Arthur Drichel (RWTH)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Reputation Management Techniques for IP addresses, domains, and mail	Mischa Obrecht, Jeroen van Meeuwen (DL)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Host and Application Behaviour Modelling	Tomas Jirsik (MU), Sebastian Schäfer (RWTH)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Visual Analytics for Cyber Security Data	Christoph Müller, Franziska Becker (USTUTT)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Knowledge Management and Anonymization Techniques in Cyber-Threat Intelligence	Lasse Nitz, Mehdi Akbari Gurabi (FIT)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Process Launch Distribution Model	Dmitry Komashinskiy, David Karpuk, Samuel Marshal, Alexey Kirichenko (FSC)	ARES, NG-SOC, August 25 – August 28, 2020, <a href="https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/">https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2020/</a>
Overview of the SAPPAN project	Lasse Nitz (FIT)	Fraunhofer FIT Scientific End of the Year Event, Dec. 16, 2019

Data sharing in SAPPAN	Mehdi Akbari Gurabi (FIT)	Fraunhofer FIT Scientific End of the Year Event 2019, Dec, 16, 2019
Main ideas of SAPPAN	Sebastian Schäfer (RWTH)	Summer School Machine Learning and Security, Sep. 9- Sep. 13, 2019
Sharing and Automation for Privacy Preserving Attack Neutralization	Tomas Jirsik (MU)	58th TF-CSIRT Meeting, Sep. 16- Sep. 17, 2019

## 2.7 Categorizing dissemination and communication activities

In the table below, we categorise our dissemination and communication activities into different types. Also, we give an estimation of the number of target audience reached by those activities in the next table.

Type of dissemination and communication activities	Number	List of items
Organisation of a Conference	0	-
Organisation of a Workshop	1	ARES NG-SOC 2020
Press release	1	SAPPAN presence at cyberwatching.eu
Non-scientific and non-peer-reviewed publication (popularised publication)	3	<ul style="list-style-type: none"> <li>• A whitepaper on the Blackfin</li> <li>• 2 blog posts in F-Secure's Security Blog: Phishing is here to stay &amp; Project Blackfin has launched</li> </ul>
Exhibition	0	-
Flyer	0	-
Training	0	-
Social Media	3	<ul style="list-style-type: none"> <li>• Twitter</li> <li>• LinkedIn</li> <li>• YouTube</li> </ul>
Website	1	Project website: <a href="https://sappan-project.eu/">https://sappan-project.eu/</a>
Communication Campaign (e.g. Radio, TV)	0	-
Participation to a Conference	6	<ul style="list-style-type: none"> <li>• Presentation of 5 conference papers</li> <li>• Leuven AI Law &amp; Ethics Conference</li> </ul>
Participation to a Workshop	1	<ul style="list-style-type: none"> <li>• ARES NG-SOC 2020</li> </ul>

Participation to an Event other than a Conference or a Workshop	7	<ul style="list-style-type: none"> <li>• The talk at Slush 2019 by Mikko Hyppönen (21.–22.11.2019).</li> <li>• 58th TF-CSIRT Meeting</li> <li>• Machine learning Summer school</li> <li>• Fraunhofer FIT Scientific End of the Year Event 2019</li> <li>• Swiss cyber security days</li> <li>• Girls Day 2021 at USTUTT</li> <li>• ISC2 chapter Switzerland, 2021</li> </ul>
Video/Film	8	8 NG-SOC 2020 presentations
Brokerage Event	0	
Pitch Event	5	<ul style="list-style-type: none"> <li>• ARES 2020</li> <li>• TF-CSIRT</li> <li>• SAPPAN-SOCCRATES networking event</li> <li>• ML Summer School</li> <li>• Fraunhofer FIT end of the year event</li> </ul>
Trade Fair	0	-
Participation in activities organized jointly with other EU project(s)	4	<ul style="list-style-type: none"> <li>• Joint remote meeting with SPARTA project and its Arbitrage Group</li> <li>• SAPPAN-SOCCRATES networking event in Helsinki</li> <li>• Joint Standardization Workshop of Dynamic countering of cyber-attacks projects</li> <li>• ARES 2020</li> </ul>
Other	3	<ul style="list-style-type: none"> <li>• Cyberwatching.eu Project Hub</li> <li>• SAPPAN as Project of the week from Cyberwatching Project Hub</li> <li>• Submitting IPFIXcol Kafka plugin with policer as docker images into git</li> </ul>

### Target groups that were reached

Type of audience reached (In the context of all dissemination & communication activities)	Estimated number of persons reached
Scientific Community (Higher Education, Research)	250+
Industry	250+
Civil Society	-
General Public	-
Policy Makers	-

Media	150+
Investors	-
Customers	-
Other	80+

### 3 Changes of the Dissemination Plan

In this section, all changes to the dissemination plan since its most recent iteration (Deliverable D7.12) are listed with a brief justification of why the change has been done.

#### 3.1 Influence of the Pandemic on dissemination

Due to the SARS-CoV-2 pandemic, many potential target events for dissemination activities (such as commercial fairs, workshops, and meetings) have either been cancelled or took place remotely. Mainly, all dissemination activities that required physical presence have been compromised. The consortium focuses on identifying remote dissemination events and publication of individual results (such as publication in IEEE TNSM and other relevant conferences, presentation at ARES and webinars, and creating blog posts) to adjust this circumstance. The COVID-19 restrictions also resulted in lower spendings from the dissemination-related budgets. We tried to find alternative possibilities to disseminate the results, for instance, by more cooperation with other EU projects.

#### 3.2 Blog posts and webinars

As we revisit the formulation of the dissemination strategy of the SAPPAN project to increase the visibility of the project via more publications and remote events, we decided to push for regular blog posts based on our deliverables and project results. These blog posts aim to target more general audiences than the technical deliverables. The goal is to have at least 8 blog posts until the end of the SAPPAN project.

Organizing joint webinars with other EU projects is another goal that we need to fulfill in the third year of the project. Currently, we are analyzing the possibilities for cooperation in joint events after our successful experiences, such as the NG-SOC 2020 workshop and the joint standardization workshop of dynamic countering of cyber-attacks projects. The goal is to organize at least 2 webinar sessions in the next year of the project.



## 4 Organization-specific Report of Dissemination Activities (M13-M24)

In this section, we list the dissemination activities achieved by each organization in the second year of the project. In addition, the ongoing activities and planned works are listed for each organization. However, each organization in SAPPAN will try to fulfill their dissemination goals as they identified at the beginning and refined during the project. Therefore, there will be more dissemination activities in the third year of the project, and the planned future activities in this report, include only the activities that we already have a particular plan to make happen.

### 4.1 CESNET

#### Finished dissemination activities:

- Joint remote meetings with SPARTA project
- Presentation of R&D results at ARES conference 2020
- Submitting IPFIXcol Kafka plugin and policer as docker images into SAPPAN git
- Participating in CyberSANE workshop and discussing possibility of cooperation about representation of playbooks in MISIP
- Publishing two scientific peer-reviewed conference papers
- Promoting SAPPAN activities through CESNET twitter account

#### Work done in the current reporting period for future dissemination activities:

- Proposal to affiliate more SAPPAN innovations with SPARTA project and its Arbitrage Group
- Analyzing the possibility to join standardization body OASIS, namely, CACAO technical committee

#### Planned future dissemination activities:

- Plan to present the SAPPAN work in ARES 2021
- Plan to join standardization body OASIS, namely, CACAO technical committee

### 4.2 Dreamlab Technologies

#### Finished dissemination activities:

- Participation at the ARES Conference in 2020 with a specific talk on intelligence services
- Publishing the result of ARES 2020 conference through it's blog: <https://dreamlab.net/en/news/article/dreamlabs-participation-at-ares-international-conference-on-availability-reliability-and-security/>

- Using DL's contacts to ISC2 chapter Switzerland to present SAPPAN to an audience of managers and information security professionals and pitched for participation in SAPPAN's end user committee
- Spreading the word on SAPPAN in informal meetings during the Swiss Cyber Security Days in March 2021. (Link: <https://swisscybersecuritydays.ch/>)

#### **Work done in the current reporting period for future dissemination activities:**

Dreamlab is cultivating its various channels and connections in Switzerland's and the international cybersecurity community to look for opportunities to promote SAPPAN:

- The Swiss Cyber Security Days in 2022 (Link: <https://swisscybersecurity-days.ch/>)
- Giving a selection of cyber security related courses at Swiss universities, where aspects of SAPPAN will be used as examples

#### **Planned future dissemination activities:**

- Followup on presentation at ISC2 chapter switzerland
- Plan to present the SAPPAN work in ARES 2021

### **4.3 Fraunhofer FIT**

#### **Finished dissemination activities:**

- Co-organizing the NG-SOC 2020 workshop in conjunction with ARES 2020
- Chairing a session on the NG-SOC 2020
- Presenting SAPPAN overview and objectives on the NG-SOC 2020
- Two presentations based on SAPPAN results in a shared time slot on the NG-SOC 2020
- Supervision of 5 finished master theses
- Updating the website layout to look more appealing
- Continuous update on SAPPAN social media accounts
- Promoting SAPPAN project through Fraunhofer FIT Twitter and LinkedIn accounts
- Press release to disseminate SAPPAN overview and objectives via Cyberwatching.eu when SAPPAN has been introduced as project-of-the-week: <https://cyberwatching.eu/projects/1807/sappan/news-events/sappan-european-approach-enable-privacy-preserving-federation-cybersecurity-incident-detection-and-handling>
- Participation in Cyberwatching Networking Event
- Participation in Joint Standardization Workshop of Dynamic countering of cyber-attacks projects with other EU projects

#### **Work done in the current reporting period for future dissemination activities:**

- First steps for the organization of the NG-SOC 2021 workshop have already been taken
  - The workshop is registered

- The call-for-papers is live for peer review paper submission
- Analyzing the possibility to join standardization body OASIS, namely, CACAO technical committee
- Knowledge formalization, vocabulary and capturing tool development for response and recovery actions as the main contents for scientific publications
- Agreement for a joint webinar on DGA topic with SOCCRATES project
- Continuous discussions on the dissemination strategy of the SAPPAN project

#### **Planned future dissemination activities:**

- Co-organize and participating in NG-SOC 2021 workshop in conjunction with ARES 2021. Link: <https://www.ares-conference.eu/workshops-eu-symposium/ng-soc-2021/>
- Organizing joint webinars with other EU projects
- Plan to start SAPPAN newsletter
- Continuous updates on website and presence in social media with information on the project progress, events, and materials
- Plan to increase SAPPAN determinations with regular blog posts
- Plan to join standardization body OASIS, namely, CACAO technical committee
- Scientific publications based on knowledge formalization, vocabulary development and developed approach for response and recovery actions
- Supervision of new master/bachelor theses

#### **4.4 F-Secure**

##### **Finished dissemination activities:**

- A blog post in F-Secure's Security Blog on phishing which mentions the SAPPAN research: <https://blog.f-secure.com/phishing-is-here-to-stay/>
- This blog post was prepared as a part of the European Cyber Security Organisation (ECSO) public outreach activities and is referred at: <https://ecs-org.eu/documents/uploads/awareness-calendar-january.pdf>
- Alexey Kirichenko was invited as a panelist to LAILEC 2021 - Leuven AI Law & Ethics Conference, 25-26 March 2021. (Link: <https://www.law.kuleuven.be/citip/en/citip-conferences/lailec/lailec-2021>)
- A talk about benefits and challenges of intelligence sharing in cybersecurity and how privacy-preserving Machine Learning could alleviate some of the concerns, in the "AI for resilience and collaborative mitigation strategies for AI-driven response to cyber threats" session in LAILEC 2021.

##### **Work done in the current reporting period for future dissemination activities:**

- New anomaly detection models supporting attack detection in the distributed / federated fashion are under development

##### **Planned future dissemination activities:**

- Plan to present the SAPPAN work in F-Secure's virtual events for the partners and customers.

- Plan to present the SAPPAN work in ARES 2021.
- Plan to continue disseminating the SAPPAN efforts and results through the ECSO activities.
- Plan to present SAPPAN results in blog posts

#### 4.5 Hewlett Packard Enterprise

##### Finished dissemination activities:

- Presented WP3 work at the NG-SOC workshop in conjunction with ARES conference, August 25 – August 28, 2020

##### Work done in the current reporting period for future dissemination activities:

- Not applicable

##### Planned future dissemination activities:

- Participating as an industry partner in a national project called 'CodePlus' in 2021 and 2022. This project is addressed to secondary-level school girls with the aim of encouraging girls to pursue a technical higher education.
- Co-organizing webinars and (virtual) company visits to provide an environment for girls to engage with IT female professionals
- Plan to present at high-level our work in SAPPAN as well as privacy-related issues in online activities to secondary-level school girls in the webinars

#### 4.6 Masaryk University

##### Finished dissemination activities:

The following dissemination activities were finished in the current reporting period:

- Proposal of the new design of the SAPPAN project web presentation
- Co-organization of the joint workshop with SOCCRATES project NG-SOC 2020
- Presentation of R&D results at the ARES conference 2020 on the joint workshop NG-SOC 2020
- Chairing the panel and a session on the NG-SOC 2020
- Promoting SAPPAN project through CSIRT-MU Twitter and LinkedIn accounts
- Bachelor thesis Machine Learning for Phishing URL Detection by Juraj Smeriga (received Dean's Award for an Outstanding Final Thesis) - thesis publicly available at <https://is.muni.cz/th/zc77p/?lang=en;setlang=en>
- Interview with Ili Ko to promote woman's role in the research
- Co-organization of the joint workshop with SOCCRATES project NG-SOC 2021
- Co-organization of the planned webinar with SOCCRATES
- Accepted publication to IEEE Transactions on Network and Service Management journal

**Work done in the current reporting period for future dissemination activities:**

- Active cooperation with the TF-CSIRT community
- Co-organization of the ARES NG-SOC workshop
- Close cooperation with the CSIRT-MU's PR department
- Active participation in the formulation of the dissemination strategy of the SAPPAN project

**Planned future dissemination activities:**

The following dissemination activities are planned for the future:

- Presentation of the SAPPAN project's results on the TF-CSIRT Meeting
- Presentation of the SAPPAN project's results on the ARES NG-SOC 2021
- Several tweets on the events happening in the SAPPAN project
- Proposal of an experiment for application monitoring using host- and network-based data that is planned to be published in relevant scientific forums
- Plan to present SAPPAN results in blog posts and webinars

**4.7 RWTH Aachen University****Finished dissemination activities:**

- Three accepted scientific peer-reviewed conference papers
- Two submitted conference paper currently under peer-review
- Supervision of 4 finished bachelor theses
- Supervision of 6 finished master theses
- Two Talks on International Workshop on Next Generation Security Operations Centers (NG-SOC 2020)

**Work done in the current reporting period for future dissemination activities:**

- Conducted first experiments covering tasks T5.1-T5.3 for DGA detection (applying different collaborative approaches to build global models)
- Analyzed different approaches for privacy-preserving sharing and conducted first experiments in the context of DGA detection

**Planned future dissemination activities:**

- Preparation of scientific papers for the dissemination of the results obtained within the SAPPAN project.
- Supervision of 3 new/ongoing master theses
- Supervision of 2 new/ongoing bachelor theses
- Plan to present SAPPAN results in blog posts and webinars

**4.8 University of Stuttgart****Finished dissemination activities:**

- Supervision of 1 finished bachelor thesis
- Supervision of 1 finished master thesis
- Presentation of SAPPAN results at the ARES conference 2020 on the joint workshop NG-SOC 2020
- One accepted scientific peer-reviewed conference papers
- Organization of a workshop for high school girls on Girls day 2021 in Germany with the aim of encouraging girls to pursue a STEM higher education

**Work done in the current reporting period for future dissemination activities:**

- Preparing user studies and planning paper revisions for future dissemination activities

**Planned future dissemination activities:**

- Revising a submission originally submitted to Eurovis 2021 to be accepted for the CGF fast-track
- Plan to use results of future experiments and visualisation implementations from the SAPPAN project for future publications
- Plan to present SAPPAN results in blog posts

## 5 Conclusion

This report is a follow-up to D7.12 at M12, and it includes dissemination activities completed during the project's second 12-month cycle.

Communication activities are included in the dissemination plan and report. The progress of the general dissemination and communication activities is presented in this report.

The communication activities based on the plan are categorized into four groups: project website, events and presentations, publications, and social media activities. The SAPPAN-related presentations at ARES 2020, panel talk at LAILEC 2021, organizing a workshop at Germany Girls Day 2021, spreading information about SAPPAN in SWISS Cyber Security Days 2021, and Participation in Joint Standardization Workshop of Dynamic countering of cyber-attacks projects with other EU projects were the main communication activities done in the second year of the project. Also, the project website, Twitter account, and LinkedIn group have been updated continuously due to the dissemination of project concepts, news, and results. Besides, research works lead to 6 published and 2 submitted scientific publications, as well as, 17 successfully supervised bachelor and master theses so far.

Furthermore, refinements on dissemination and communication KPIs and any changes in the dissemination plan and its reasons are listed in this dissemination report which will be extended in the future iterations of the document. There are changes regarding the dissemination strategy due to the influence of the SARS-CoV-2 pandemic. In the last section, dissemination activities in the second year of the project from each organization are reported.