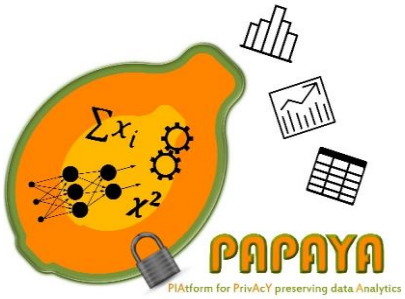

D6.3 – INTERMEDIATE DISSEMINATION AND COMMUNICATION REPORT

Work Package	WP 6, Dissemination and Exploitation
Lead Author	Melek ÖNEN (EURC)
Contributing Author(s)	Sébastien Canard (ORA), Simone Fischer-Hübner (KAU), Melek Önen (EURC), Dmitriy Pap (ATOS)
Reviewers	Simone Fischer-Hübner (KAU), Dmitriy Pap (ATOS)
Due date	31.10.2019
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Dissemination Level	PU (Public)

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Revision History

Revision	Date	Editor	Notes
0.1	13.08.2019	Melek Önen (EURC)	First ToC
0.2	06.09.2019	Simone Fischer-Hübner (KAU)	Input from KAU
0.3	25.09.2019	Melek Önen (EURC)	Input for section on Dissemination
0.4	27.09.2019	Dmitriy Pap (ATOS)	Input on web site and social media
0.5	30.09.2019	Sébastien Canard (ORA)	Input for section on Communication
0.6	03.10.2019	Melek Önen (EURC)	First complete version
0.7	11.10.2019	Melek Önen (EURC)	Second version
1.0	18.10.2019	Melek Önen (EURC)	Final version

Table of Contents

List of Tables

List of Figures

Executive Summary

This deliverable outlines the dissemination and communication activities that were implemented during the first eighteen months of the project, i.e. from May 2018 until October 2019.

The activities performed along this period are in line with the dissemination and communication strategies defined in deliverable D6.2. Accordingly, during this first eighteen months, the goal of the dissemination and communications activities were to raise awareness on the need for privacy enhancing technologies that help organisations or businesses to outsource their data analytics services to cloud server while being GDPR compliant and to promote the project's goals and achievements.

With this aim, the overall dissemination and activities can be summarized as follows:

- PAPAYA members published five scientific articles and two posters related to the project's results at international refereed conferences and workshops.
- Consortiums members also actively participated in various events with different audiences (including experts in IT, IT security, law, social science, etc.), by organizing summer schools or workshops, giving keynote talks, or attending different panels on topics related to PAPAYA.
- The PAPAYA consortium had several interactions with other EU-funded projects such as PoseID-On or DEFeND. PAPAYA was also invited to join the European GDPR Cluster and the Cyberwatching Project Hub.
- PAPAYA was also promoted through online services such as the PAPAYA web platform and the various social media accounts.

Glossary of Terms

ATOS	Atos Spain S.A.
CBMS	Symposium on Computer-Based Medical Systems
DC&E	Dissemination, Communication and Exploitation
DoA	Description of Actions
EURC	EURECOM
GDPR	General Data Protection Regulation
IBM	IBM Israel Science & Technology Ltd.
KAU	Karlstad University
M	Month
MCI	Mediaclinics Italia
O	Objective
ORA	Orange
PAPAYA	PlAtform for PrivAcY preserving data Analytics
PET	Privacy Enhancing Technology
PUT	Privacy, Usability and Transparency
R&D	Research and Development
SotA	State-of-the Art
UC	Use Case
WP	Work Package
Y	Year

1 Introduction

1.1 Purpose and Scope

The aim of this deliverable is to provide an overview of the dissemination and communication activities carried out by the PAPAYA project during the first eighteen months of the project, starting from May 1st, 2018 to October 31st, 2019 (i.e. from M1 to M18).

The document shows how the dissemination strategy defined in deliverable D6.2 is implemented. During this period, emphasis was put on scientific publications, interviews and talks to promote the project's goals and preliminary results. A particular focus was also given to the regular updates of the project's website and social media profiles. All these activities have been assessed through the Key Performance Indicators (KPIs) defined in the previous deliverable.

1.2 Document Outline

The document first starts with the description of the scientific dissemination activities including the list of publications, the various events consortium members have participated in, and the collaboration activities with other EU-funded projects (Section 2). The document further reports on the monitoring and updates of the project's website, social media accounts and other communication activities such as press releases (Section 3). Concluding remarks and a description of future actions finalize this document (Section 4).

2 Scientific Dissemination Activities

2.1 Public Deliverables

During the first eighteen months of the project, eight public deliverables (including this one) listed in the following table have been produced. These deliverables will be made openly accessible whenever they will be approved by the European Commission. All these deliverables include an executive summary which mainly informs about the main outputs of these documents and the corresponding PAPAYA results.

Table 1 PAPAYA Public Deliverables

Del. No.	Deliverable Name	WP No.	Editor	Type	Diss. Level	Due Date	Actual Delivery Date
D6.1	Public Project Website	WP6	ATOS	DEC	PU	M3	30/07/2018
D6.2	Dissemination and Communication Plan	WP6	ORA	R	PU	M6	31/10/2018
D2.1	Use case specification	WP2	MCI	R	PU	M12	30/04/2019
D2.2	Requirement Specification	WP2	KAU	R	PU	M12	30/04/2019
D3.1	Preliminary Design of Privacy preserving Data Analytics	WP3	EURC	R	PU	M12	30/04/2019
D4.1	Functional Design and Platform Architecture	WP4	IBM	R	PU	M15	31/07/2019
D3.2	Risk Management Artefacts for Increased Transparency	WP3	KAU	R	PU	M15	31/07/2019
D6.3	Intermediate Dissemination and Communication Report	WP6	EURC	R	PU	M18	31/10/2019

2.2 Research Papers and Publications

Table 2 enumerates the list of publications related to the PAPAYA project. There were five articles published in various venues including refereed conferences, workshops and journals. Among these publications, a tutorial paper on privacy preserving Neural Network classification was submitted and presented jointly by EURC, IBM, MCI and ORA. Two scientific posters were also presented and EURC received the best poster award at the Open Day for Privacy, Usability and Transparency workshop (PUT) which was held in conjunction with the Privacy Enhancing Technologies Symposium (PETS 2019).

Table 2 PAPAYA publications

Type	Title	Authors	Venue	Date	Partners
Article	FHE-compatible Batch Normalization for Privacy Preserving Deep Learning	A. Ibarrondo, M. Önen	14TH International Workshop on Data Privacy Management (DPM)	September 2018	EURC

Extended Abstract & Poster	A Hybrid Protocol for Private Neural Network Predictions	G. Tillem, B. Bozdemir, M. Önen	8th edition of ICT.OPEN	March 2019	EURC
Article	PAPAYA: A platform for Privacy Preserving Data analytics	E. Ciceri, M. Mosconi, M. Önen, O. Ermis	ERCIM News Magazine	July 2019	EURC, MCI
Poster	Privacy Preserving Neural Network Classification (Best poster award)	B. Bozdemir, G. Tillem, M. Önen, O. Ermis	Open Day for Privacy, Usability and Transparency (PUT)	July 2019	EURC
Article	SoK: Cryptography for Neural Networks	M. Azraoui, B. Bozdemir, S. Canard, E. Ciceri, O. Ermis, M. Mosconi, M. Önen, M. Paindavoine, B. Vialla, S. Vicini, M. Bahram, B. Rozenberg, R. Masalha	Proceedings of the IFIP Summer School on Privacy and Identity Management	August 2019	EURC, IBM, MCI, ORA
Article	Interactive Focus Group GDPR-compliant Dynamic Consent Management	E. Schlehahn, S. Fischer-Hübner, R. Wenning, M. Patrick, F. Karegar	Proceedings of the IFIP Summer School on Privacy and Identity Management	August 2019	KAU
Article	Protecting different interests in big data analytics - Current trends and solutions (position paper)	T. Timan, R. Aurajo, A. Garnier, A. V. Kiousi, Z. Mann, A. Navia-Vázquez, M. Önen, Á. Palomares	BDVA (under submission)	September 2019	EURC, ATOS

2.3 Events and Networking

PAPAYA members have been actively promoting the project in many and diverse events listed in Table 3. PAPAYA members have also contributed to the organization of events. At least one of these events is jointly organized with other projects. Details about these joint efforts are given in section 2.4.

2.3.1 Event Organisation

2.3.1.1 CBMS 2019

KAU has organized a Special Track at the CBMS 2019 conference[1] on computer-based medical systems, which was held in Córdoba, Spain, on June 5-7, 2019. The topic of this special track tackles the issues of Privacy, Security and Informed Consent in healthcare, with a focus on current regulations such as the GDPR. KAU (Simone Fischer-Hübner, Lothar Fritsch, Bridget Kane and John Sören Petterson), EURC (Orhan Ermis, Melek Önen) and ORA (Monir Azraoui, Sébastien Canard) are members of the program committee.

[1] www.cbms2019.com

2.3.1.2 PUT 2019

PAPAYA has in cooperation with the H2020 EU projects PRIVACY&US and SPECIAL organised the Open Day for Privacy, Usability, and Transparency (PUT 2019[2]) on July 15 at the Royal Institute of Technology in Stockholm. PUT 2019 was held in conjunction with PETS (Privacy Enhancing Technology Symposium) 2019 and more than 150 participants from different parts of the world took part. PUT 2019 featured a mix of a short lightning talks, and a poster and demo session which aimed to attract young researchers, especially students, hackers, and activists interested in privacy, usable data protection, and transparency, including technical, societal, ethical and legal aspects around said topics. Melek Önen (EURC) and Simone Fischer-Hübner (KAU) were part of the organizing committee. A PAPAYA overview presentation was given by KAU at the beginning of PUT 2019. Another poster related to PAPAYA activities was presented by Beyza Bozdemir (EURC) and Gamze Tillem and received the best poster presentation award (see Figure 1).

Figure 1 Best Poster Award at PUT 2019 for Beyza Bozdemir (EURC) and Gamze Tillem

2.3.1.3 IFIP Summer School 2019 workshops

The IFIP Summer School 2019 on Privacy and Identity Management[3] was organized in Brugg/Windisch, Switzerland on 23rd-26th August and Melek Önen from EURECOM is one of its chairs. Simone Fisher-Hübner from Karlstad University is a member of the Steering Committee. PAPAYA is one of the technical sponsors of this project. The 80 participants of this summer school were from different universities from different disciplines including IT, social sciences and law. Within this summer school, a workshop was jointly organized with the SPECIAL and Privacy&Us EU projects on “GDPR-compliant Dynamic Consent Management.

Another workshop on “Privacy Challenges in Public and Private Organizations” was co-organized with the EU PoseID-on project. The goal of this workshop was to identify and present the privacy challenges related to data collection/analysis by public and private organisations and to

[2] https://petsymposium.org/2019/workshop.php
[3] https://www.ifip-summerschool.org/

encompass research advances in the privacy enhancing technologies that will enable privacy preserving data management and GDPR compliance. Moreover, the workshop served as a discussion environment for those familiar with cryptographic tools, and discuss possible concerns and risks when it comes to applying such tools in different areas, when data is critical and sensitive. We intended to understand and shed light on the mental models, trust factors, and the possible risks and concerns when it comes to data analysis on the encrypted data and how these discussions might be used to foster collaboration among potential privacy enhancing technology outputs of PoSeID-on and PAPAYA projects.

2.3.2 Other events

PAPAYA members have been actively promoting the project in many and diverse events listed in Table 3. Events include scientific conferences, workshops, exhibitions targeting researchers from academia and industry in different disciplines including ICT, security, law, social sciences, companies and organisations from public and private sectors, the EU commission, law makers and data protection authorities.

Table 3 Events at which PAPAYA was presented by the PAPAYA consortium members

Name of Event	Date	Place	Audience	Partner	Comment
DPM 2018	September 7, 2018	Barcelona, Spain	EURC	Technical audience	Presentation of the paper during the session “Privacy and Cryptography”
AMUSEC Forum Aix-Marseille de la cybersécurité	October 11, 2019	Marseille, France	EURC	Business, Government, ICT security professionals, academia	Melek Önen gave a keynote speech.
Smau International: Meet the Made in Italy Innovation	October 23-24-25, 2018	Milan, Italy	MCI	Business, Professionals, Startups and ICT	MCI presented its new products whose development is related to the PAPAYA use cases
Digital Identity - Privacy threats and business opportunities, will the technology fix everything?	October 25, 2018	Rome, Italy	EURC	EC, business, government	Melek Önen gave an overview of PAPAYA. Event organized by H2020 project PoseID-on.
ISSE (Information Security Solutions Europe) conference	November 6-7, 2018	Brussels, Belgium	ATOS	ICT security professionals, governments and legal communities	Alberto Crespo promoted the project at this event organized by EEMA (independent European association for e-identity and security).
European Big Data Value Forum (EBDVF'18)	November 12-14, 2018	Vienna, Austria	ATOS	Industry professionals, business developers,	Alberto Crespo participated to the workshop entitled "From data protection and privacy to fairness and

				researchers, and policy makers	trust: the way forward" and gave an overview of the PAPAYA use cases.
AEGIS cyber Round Table (side event of ICT 2018, one of the most important research and innovation events in Europe)[4]	December 5, 2018	Vienna, Austria	ATOS	Industry professionals, business developers, researchers, and policy makers	ATOS participated to the round table of "Aegis Cyber", about interaction between technology and policy in the area of data privacy, and promoted PAPAYA.
EURECOM scientific council	February 8, 2019	Sophia-Antipolis, France	EURC	Business, academia, ICT professionals	PAPAYA's preliminary results were presented during EURECOM's scientific council.
Swedish Forum of Data Protection	February 19, 2019	Stockholm, Sweden	KAU	Public sector, industry and academia	Simone Fischer-Hübner gave a talk at a seminar of the Swedish "Forum för Dataskydd"/Forum for Data Protection with 50 participants. Topic: Security & Privacy Requirements for the Cloud. The work by PAPAYA was mentioned on one slide including a logo and reference to its website.
ICT.OPEN2019	March 20, 2019	Hilversum, Netherlands	EURC	Scientific audience. Research and professionals from ICT.	EURC presented their paper in the session "Security & Privacy".
Community of Users Thematic Group – Cluster meeting on GDPR compliance	March 29, 2019	Brussels, Belgium	MCI	Public sector, industry and academia	MCI team presented a poster on PAPAYA activities in relation with the GDPR.
Salon de la Recherche	April 2-5, 2019	Châtillon, France	ORA	ICT researchers and professionals. Orange business partners	ORA presented their preliminary solution of ECG analysis (FHE based neural network) for PAPAYA.
Forum 5i	May 15, 2019	Grenoble, France	ORA	Industry, startups, key players of the AI community	ORA presented their preliminary solution for PAPAYA (privacy preserving ECG classification based on neural networks ans fully homomorphic encryption).

[4] After this event, PAPAYA is briefly mentioned in AEGIS's deliverable D1.5 https://tssg.org/wp-content/uploads/2019/03/AEGIS_deliverable_D1.5_v1.pdf

Workshop on Privacy, Data Protection and Digital Identity	11 July 2019	Coimbra, Portugal	EURC	Researchers, EU project members, EU commission	EURC presented PAPAYA results.
Open Day on Privacy, Usability and Transparency	July 15 2019	Stockholm, Sweden	KAU, EURC	Industry, Researchers	A PAPAYA overview presentation was given by KAU at the beginning of PUT 2019 and a PAPAYA poster was presented by EURECOM and received the best poster presentation award.
Cyberwatching Webinar on GDPR compliance in the age of emerging technologies	18 July 2019	Webinar	KAU, EURC	Industry, Researchers, EU projects	Bridget Kane gave a talk on protecting privacy in the context of third party analytical services.
IFIP Summer School on Privacy and Identity Management	August 23-25 2019	Brugg/Windish , Switzerland	KAU, EURC	Public sector, industry, academia. Experts on law, social sciences, computer science and cryptography	Melek Önen is chairing this event. EURC presented the problem of privacy preserving Neural Network classification and overviewed relevant PAPAYA solutions.
Artificial Intelligence for Assessment(AI FORA) workshop	September 2, 2019	Berlin, Germany	KAU	Researchers. NGOs, Government	Simone Fischer-Hübner gave a talk about TETS and PETs for AI, in which also PAPAYA solutions were presented as PET examples.
Harmonic Innovation	September 16, 2019	Castrolibero, Italy	MCI	Innovation experts, startups, industry	MCI presented the PAPAYA project as part of the R&D projects the company is involved in.
Smart City Now	September 26, 2019	Milan, Italy	MCI	Public administrators, SMEs	MCI presented PAPAYA and the health-related use cases.
Banking mini-exhibition	September 26, 2019	Montreuil, France	ORA	OrangeBank business partners	ORA presented its work on privacy-preserving AI, using encrypted data, and its relation with the banking world.

2.4 Collaboration with R&D projects

The PAPAYA consortium has already started to network with other initiatives and in particular, other EU H2020 Innovation Action projects and exchange knowledge and technologies, hence establishing synergies with current actions made to address the challenges tackled by PAPAYA. Such interactions contribute to maximizing the impact of dissemination activities.

A list of related EU projects that PAPAYA members are already in contact with, can be found in Table 4 with some details on the actual collaborations.

Table 4 Collaborations with other EU projects

Project name	Collaboration Details
PoseID-on	Melek Önen (EURC) and Tobias Pulls (KAU) had a first interaction (a telco) with the PoseID-on project on June 26th, 2018. During this telco, the participants had the opportunity to present their respective project. It appears from the discussions that the dashboard and the PAPAYA privacy preserving analytics primitives are the points of interest of the interactions between PAPAYA and PoseID-on. PAPAYA was invited to two events organized by PoseID-on (see Table 2). Besides, PoseID-on and PAPAYA co-organized a workshop on Privacy for Public and Private organisations.
PROMETHEUS, FutureTPM, ASTRID	On the initiative of Sébastien Canard (ORA), who is also the Technical Manager of H2020 project PROMETHEUS , the projects PAPAYA, PROMETHEUS and FutureTPM teams have got in touch during a telco, held on November 29, 2018. The teams introduced their respective projects and discussed about the interests they share and the potential fruitful collaborations. It appeared during the telco that security and privacy in data analytics is a shared topic between the projects. The parties agreed that this collaboration could be a good opportunity for dissemination and exploitation for the three projects. Hence, the parties defined a possible line of collaboration by means of the organization of a joint workshop. A fourth H2020 project, ASTRID , has been included in the collaboration. All projects collaborated in organizing a new workshop named Cyber-Security Arms Race (CYSARM) which will be held on November 15th, 2019 in London in conjunction with the 26th ACM Conference on Computer and Communications Security.
TRUSTEE	TRUSTEE (daTa pRivacy and cloUd SecuriTy clustEr Europe) is a cluster of European projects (H2020 and FP7), which stemmed from the Common Dissemination Booster initiative . TRUSTEE is coordinated by the CREDENTIAL project and is dedicated to develop a portfolio of commons results and solutions in the field of security and privacy for cloud services. After some interactions between PAPAYA's and CREDENTIAL's coordinating teams, PAPAYA is now a member of the TRUSTEE cluster.
CyberSec4Europe	During the third General Meeting in Madrid, we discussed possible synergies with the new pilot project CyberSec4Europe , in which both ATOS and KAU are involved. Simone Fischer-Hübner suggested that potential collaboration could be sparked with the upcoming IFIP Summer Schools. Both projects co-organised the IFIP Summer School in 2019.
Privacy&Us and SPECIAL	PAPAYA collaborated with the EU H2020 Big Data PPP project SPECIAL (Scalable Policy-aware Linked Data Architecture For Privacy, Transparency and Compliance) and the EU H2020 MSCA TN Privacy&Us (Privacy & Usability),

	and jointly organized PUT 2019 and a workshop at the IFIP Summer School 2019 (see Table 2).
DEFeND	PAPAYA was contacted by the EU H2020 DEFeND project in order to identify some potential collaboration/synergy opportunities regarding the improvements to the CNIL PIA tool. A first meeting was held on September 23rd, 2019 in which Tobias Pulls (KAU) and Elena Gonzalez (ATOS) were involved. The two porjects are working on complementary topics. Both projects will share documentation and source code links.
GDPR Cluster Projects	PAPAYA is a member of the GDPR cluster and regularly attends to the meetings which are usually organized monthly. Eleonora Ciceri and Marco Mosconi presented PAPAYA during the physical meeting on March 2019.
Cyberwatching	PAPAYA frequently participates to the events organized by the Cyberwatching.eu PROJECT HUB. Bridget Kane presented PAPAYA results during a webinar organized on July 18th, 2019. PAPAYA is also presented in the Cyberwatching.eu website.

3 Communication Activities

3.1 PAPAYA website

3.1.1 Website design and maintenance activities

The PAPAYA website is the visible face of the project and one of the key channels for dissemination and communication activities. The website was released in the second month of the project lifetime (June 2018) and acquired the domain: https://www.papaya-project.eu/

The initial communication and dissemination plan described in deliverable D6.2 has established the key objectives regarding the website such as:

- Website as a center of the information and initial delivery channel focused on communication and promotion of the project results;
- Website as the tool for the diffusion of goals and objectives, using the key messages to the potential target audiences;
- Website as the key element to build the user's community;
- Website as the place of all updates related to the project activities including deliverables, scientific publications past and future events, and additional material focused on the PAPAYA project.

Some detailed information about the website has also been included in deliverable D6.1 (released at M3) that explains the original design, structure and technical issues. This deliverable and all public documents of the project will be available on the project website. The design of the website and in particular the menu bar are illustrated in Figure 2.

Figure 2 PAPAYA project website

In order to provide information efficiently and convey the tasks and goals, the initial structure of the website consists of five main menus whereby each menu is divided into several submenus as follows:

- **Menu "Home"**
  - ***Latest News*** – describes all latest news related to the project
  - ***Objectives*** – describes the six main objectives of the project, namely: multi-setting data processing protocols, efficient privacy-preserving big data analytics, integrated big data analytics platform, risk management, and user-centric dashboard, end-to-end use case validation, dissemination and exploitation.
- **Menu "About PAPAYA"**
  - ***About PAPAYA*** – provides information and facts about the project
  - ***Concept*** – enumerates the four requirements defined in the description of action, namely: privacy by design, integrated platform, usability, and transparency, auditability
  - ***Use Case Scenarios*** – gives details on PAPAYA's four use case scenarios
  - ***Technical Approach*** – describes the five phases of the project
- **Menu "Dissemination"**
  - ***Deliverables*** – enumerates the project deliverables
  - ***Publications*** – provides the list of scientific publications
  - ***Graphic Material*** – shows the dissemination and communication materials
- **Menu "Partners"**
  - ***Partners*** – presents the six partners of the project consortium
- **Menu "News"**
  - ***News*** – publishes the relevant news

The "**Home**" page illustrates the subsection of "**Latest News**" which is constantly updated according to the project's needs: The frequently updated menus are new publications, relevant events, and other outputs. This part of the website regroups information about all dissemination and communication activities with social media networks; the content published on the website is shared on our social media accounts.

At M6, the consortium has decided to add a new section entitled "**Related Projects**" (see Figure 3 Webpage on Related Projects): This section includes the list of relevant projects with which the project and its consortium members have started some collaborations. The dedicated page provides the short description of each project, its logo, and the link to the corresponding website.

Additionally, our team has analyzed how to use digital marketing techniques to help with the position of the PAPAYA website for a particular search. Using the numerous techniques that have been described in D6.2, we continue with the initial plan and periodically review the actual status of the website: With the help of SEO services, we continuously improve our results.

Finally, the website also integrates the social media tolls buttons such as Twitter and LinkedIn to share and promote all relevant information about the project.

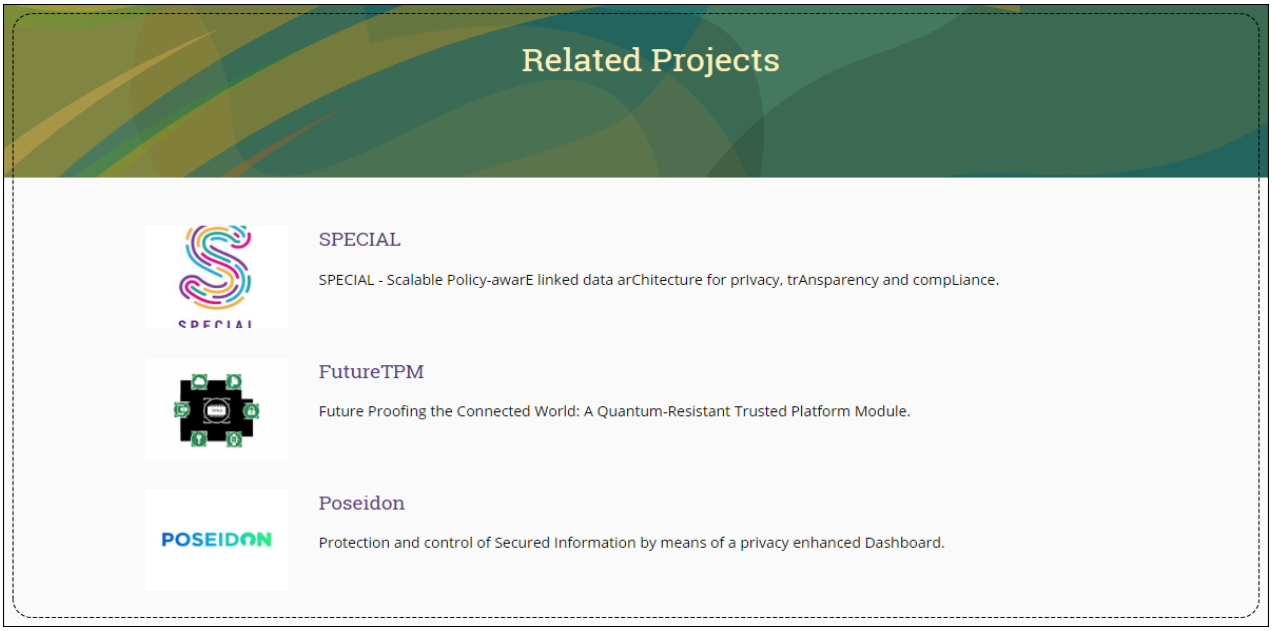

Figure 3 Webpage on Related Projects

3.1.2 Website analytics

The PAPAYA website uses the Google Analytics service (with the privacy-friendly IP Anonymisation option). This tool, offered by Google, facilitates the collection of some analytics regarding:

- The total number of users and the number of pages viewed
- The numbers of first-time users and sessions
- Some additional information focused on demographics, interest, traffic channels, and system aspects.

Figure 4 shows metrics on users' activities for PAPAYA's website from 01/09/2018 until 24/09/2019. The "Users" metrics illustrate how many users engaged our website weekly throughout the year.

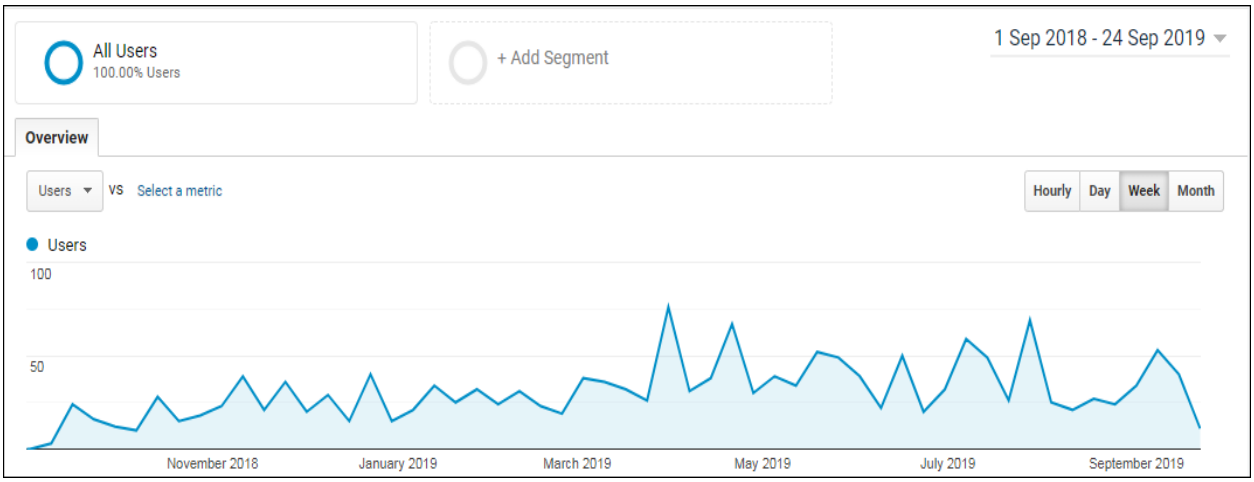

Figure 4 Google analytics results for PAPAYA's website

Detailed information related to the audience are shown in Figure 5 whereby:

- **Users** correspond to the number of visitors;
- **New Users** corresponds to the number of first-time visitors;
- **Sessions** correspond to the number of sessions within the actual period;
- **Page Views** corresponds to the total number of pages viewed, including repeated views;
- **Average Session Duration** corresponds to the time length of a session.

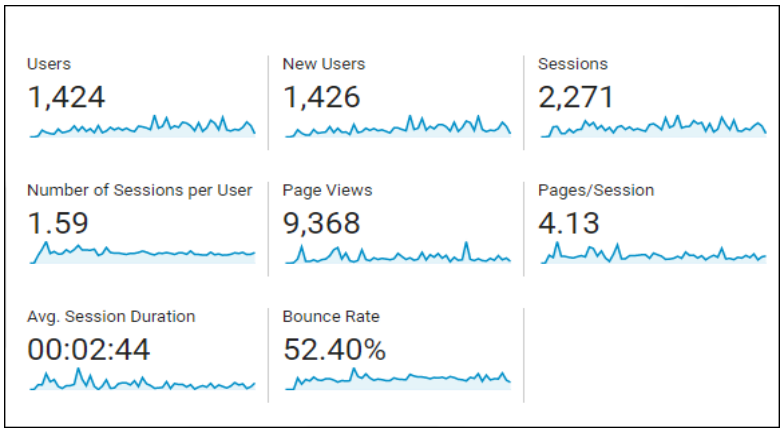

Figure 5 PAPAYA's Website Audience Overview

Figure 6 shows the **top channels** metrics:

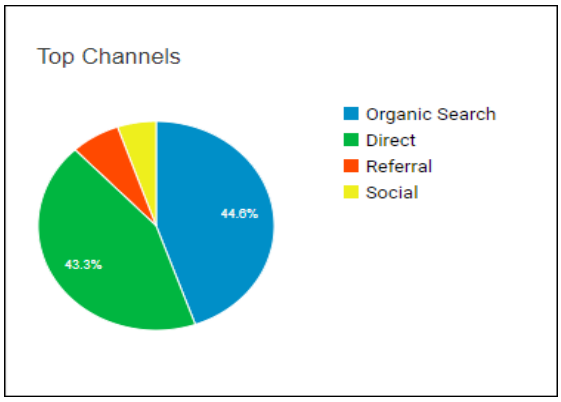

Figure 6 PAPAYA's website analytics - Top channels

- **Organic Search (44.6%)** corresponds to the percentage of users' visits from unpaid search results;
- **Direct (43.3%)** corresponds to the percentage of users who navigated directly to the website URL;
- **Referral (6.7%)** corresponds to the percentage of users who clicked a link from another site;
- **Social (5.3%)** corresponds to the percentage of users from social networks.

	Country	Users	% Users
1.	United States	347	23.83%
2.	France	165	11.33%
3.	Spain	94	6.46%
4.	Italy	79	5.43%
5.	India	77	5.29%
6.	Germany	76	5.22%
7.	United Kingdom	68	4.67%
8.	Sweden	57	3.91%
9.	Greece	42	2.88%
10.	Austria	35	2.40%

Figure 7 shows the information of **geographical dimensions** as the list of countries of our users.

	Country	Users	% Users
1.	United States	347	23.83%
2.	France	165	11.33%
3.	Spain	94	6.46%
4.	Italy	79	5.43%
5.	India	77	5.29%
6.	Germany	76	5.22%
7.	United Kingdom	68	4.67%
8.	Sweden	57	3.91%
9.	Greece	42	2.88%
10.	Austria	35	2.40%

Figure 7 PAPAYA's website visitors - Geographical Overview

From this figure, we observe that more than 20% percent of users are from the USA and 42% are from the eight EU countries. More than half of our users are English speakers, then Spanish, French, Dutch and Italian with a total engagement of 15%.

3.1.3 Action Plan

The PAPAYA website will continue in the same line, maintaining to be the visible part of the project. The website will provide all relevant information related to the project's results and information focused on the latest news, events, conferences and new materials. For the upcoming eighteen months, our team has the plan to provide numerous updates related to the design and the introduction of new sections such as blogs and publication of new dissemination and communication material.

3.2 Project leaflet

The PAPAYA leaflet is one of the main communication materials that is frequently used by the consortium to promote the project to a large audience. The leaflet illustrated in Figure 8 provides an overview of the project and highlights its objectives, the two use case umbrellas, the website link, the social media profiles (Twitter and LinkedIn) and some contact details.

These leaflets were mainly distributed during events that the consortium members attended, including as conferences, summer schools, industrial events and meetings.

This first version of the leaflet will be updated and include some information on the current PAPAYA results, the actual innovation assets and the ongoing work.

Figure 8 - PAPAYA leaflet

3.3 Social media

Social media networks are very important dissemination tools for the PAPAYA project. These are considered as another channel for engaging stakeholders and promoting PAPAYA results and the next steps. PAPAYA's team has decided and established all the graphic elements which were used in creating the social media accounts. With this purpose, the graphic identity was agreed to be followed in all publications to maintain the brand identity of PAPAYA project. The project has accounts in Twitter and LinkedIn which can be accessed through the following links:

- https://twitter.com/ProjectPapaya

- https://www.linkedin.com/company/papaya-project-eu-h2020

In order to perform successful social media communication, the consortium has established the main principles to be followed during the project lifetime:

- Be relevant: the content should be interesting;
- Be concise: the messages should be concreated, short and include the appropriate hangtags;
- Be visual: the publications should be adapted with the presence of visual aspects;
- Be active: the material should be published actively, with the frequency and regularity;
- Be involved: the partners should collaborate to generate the content, share the publications, interact with other partners and mention the project in meetings and events.

The content on each of the social media accounts has been published in parallel, adapting the needs and format in each case.

3.3.1 Twitter

The project's Twitter account (illustrated in Figure 9) was established as one of the main tools in order to inform and promote the project findings and the last updates. The initial account was created at M2 (June 2018). From this period the actual statistics and numbers as follows:

- Project Account: PAPAYA Project
- Key Hashtags: #PAPAYA, #H2020, Privacy, #DataPrivacy, #Analytics, #DataAnalytics
- Key Related Accounts: @EU_H2020, @EU_Commission
- Followers: 200
- Number of Tweets: 147

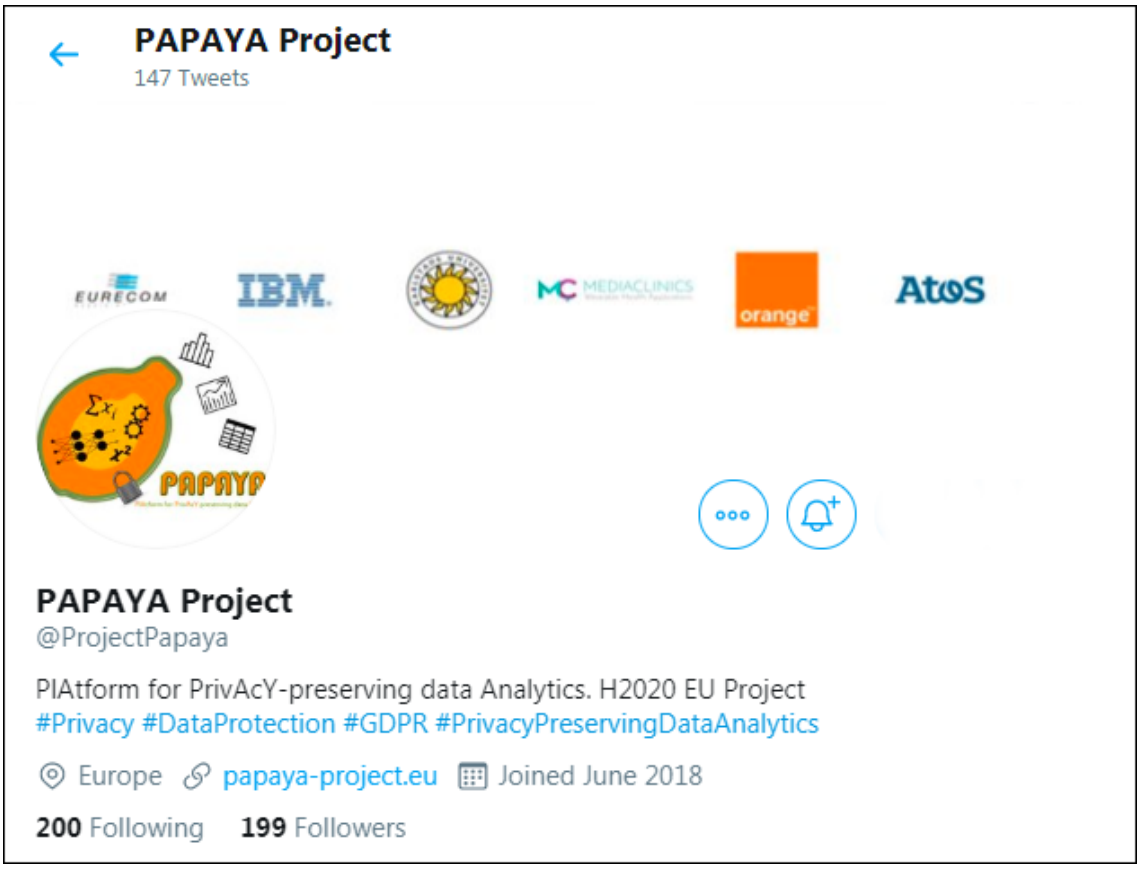

Figure 9 PAPAYA's Twitter Account

3.3.2 Linkedin Account

For the LinkedIn account, the consortium has decided to create a company page with a purpose to increase page visibility engaging more professional audiences with business and technical interest. The LinkedIn account was created at M5 (September 2018) following the same stylistic aspects as the twitter account and include all branding elements (logo, cover image, hashtags). Figure 10 illustrates the LinkedIn account with the actual numbers:

Figure 10 PAPAYA's Linkedin Account

The account status at M18 is the following:

- Project Account: PAPAYA project
- Key Hashtags: #PAPAYA, #H2020, Privacy, #DataPrivacy, #Analytics, #DataAnalytics
- Key Related Accounts: @EU_H2020, @EU_Commission
- Followers: 64
- Number of Posts: 33
- Number of Views: 558

In the same way as Twitter, to analyze our results we use the LinkedIn Analytics tools that provide the reporting activity more easily and accurately. Figure 11 shows the detailed information provided for every publication.

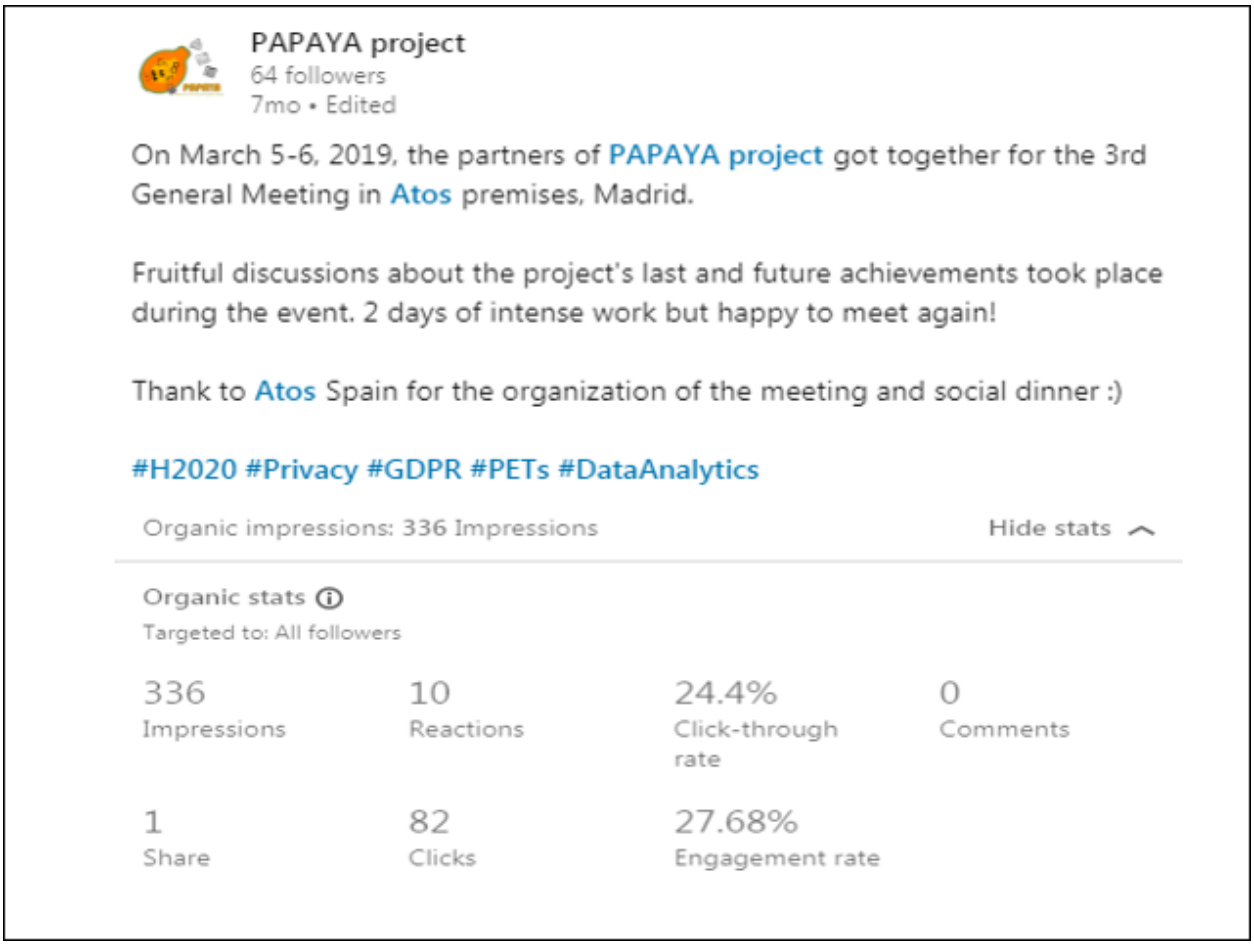

Figure 11 Analytics for PAPAYA's LinkedIn Account

3.3.3 Action plan

The PAPAYA project will continue to have proactive participation in social media, taking advantage of existing channels. For the second half period of the project, we plan to implement the social media calendar with different types of posts. For maximizing the results, we also plan to use social media platforms with an idea to manage our content and measure the social media results.

3.3.4 Social Media KPIs

This section presents the actual KPIs for the social media that were defined in the initial Dissemination and Communication Plan presented in deliverable D6.2. All numbers are obtained with the help of official analytics platforms which offer us the full view and evaluation of several metrics such as several tweets, followers and total engagement. The current KPIs are also revised

and modified according to the project's evolution during the first half of the project period. Table 5 shows the actual status with the ultimate updates and expected numbers for M24 and M30.

Table 5 Social Media KPIs for PAPAYA

Indicators	Actual Status	M24	M36
Number of Twitter followers	✓ **200**	250	300
Number of tweets (accumulated)	✓ **147**	200	250
Number of engagements per tweet	✓ **20 likes and retweets***		
Number of LinkedIn followers	✓ **64**	80	100
Number of LinkedIn updates (accumulated)	✓ **33**	50	70
Number of engagements per tweet	✓ **10 likes and retweets***		

3.4 Press Releases and Communication Campaigns

Table 6 lists the main press releases and other communication campaigns that complement the list of events provided in Table 3.

Table 6 Press releases and Communication Campaigns

Type of communication	Description
Announcement letter (ORA, EURC)	At M3, ORA, with the help of EURC, produced an announcement letter (Figure 8) which communicates about the project start. The letter outlines the project context, objectives, approaches and use cases. It has been published in the PAPAYA website and social platforms.
Interview in the l'MTech blog[5] (EURC)	Melek Önen gave an interview at M2 to the l'MTech blog, the blog of the Institut Mines-Télécom, a group of French research schools, which EURC belongs to. The transcript of the interview is available both in French and in English, in the blog.
Applied Crypto Group webpage[6] (ORA)	PAPAYA is mentioned in ORA's Applied Crypto Group webpage. Most of the people of the ORA team involved in PAPAYA is a member of this group. The page is in English.
MCI's webpage[7] (MCI)	PAPAYA project is described in the Research section of MCI website. The webpage, which is available in both English and Italian, outlines the context of the project, its challenges and its use cases.

[5] Interview in French: https://blogrecherche.wp.imt.fr/2018/06/18/papaya-plateforme-analyse-donnees-confidentielles/ and later translated in English: https://blogrecherche.wp.imt.fr/en/2018/10/25/papaya-data-analysis-platform/
[6] Applied Crypto Group webpage; https://crypto.orange-labs.fr/projects/
[7] MCI's webpage in English: http://www.mediaclinics.it/en/papaya-2/.

ATOS Research and Innovation website[8] (ATOS)	PAPAYA appears in ATOS's Research and Innovation website. The page provides the key aspects of the project.
Press release and interview[9] (KAU)	Simone Fischer-Hübner and Tobias Pulls were interviewed at M7 for a press release, which gives the context of the project and outlines in clear and simple words the use cases we develop in the project. This press release is available both in English and in Swedish.
Interview at a Swedish radio (KAU)	Tobias Pulls gave at M7 an interview to a Swedish radio[10] (link to the interview is not provided) which lasted ten minutes about PAPAYA scope and expected results.

In Italian: http://www.mediaclinics.it/it/papaya/

[8] ATOS Research and Innovation website: http://booklet.atosresearch.eu/node/1907

[9] KAU's press release in English: https://www.kau.se/en/cs/news/researchers-contribute-using-cloud-services-more-securely. In Swedish, the interview appears in two websites (with different texts): https://www.voister.se/artikel/2018/11/forskning-for-sakrare-moln/ and http://www.mynewsdesk.com/se/karlstads_universitet/pressreleases/forskare-ska-bidra-till-saekrare-anvaendning-av-molntjaenster-2797396.

[10] Swedish radio: https://sverigesradio.se/p4

4 Conclusions and Next Steps

Along these first eighteen months, dissemination and communication activities mainly consisted of promoting the goals of the PAPAYA project and the preliminary results through various events targeting some mixed audience both from academia and industry including experts from IT, IT security, law, social sciences. Table 7 summarizes all these activities and regroups them according to the KPIs defined in the dissemination and communication plan (see deliverable D6.2).

Table 7 Summary of Dissemination and Communications Activities

KPI	Planned			Actual status
	M12	M24	M36	M18
Dissemination and Communication activities				
Scientific Publications	-	-	10	- 5 articles in refereed conferences and workshops - 2 posters: One of them received an award **Total 7 publications**
Number of attended events	5	5	10	- 3 workshop organisations - 1 summer school organisations - 11 industrial events - 5 scientific/research events **Total: Attendance to 20 events**
Number of presentations	5	5	5	- 4 technical speeches - 3 demonstrations - 14 presentations of PAPAYA and related topics **Total: 21 presentations**
Website analytics				
Sessions	2000	4000	6000	**2271**
Users	1500	3000	4000	**1424**
Average Session Duration	2 min			**2.44 min**
% New visitors	85%			**100%**
Social media analytics				
Number of Twitter followers	100	150	200	**200**
Number of tweets (accumulated)	50	100	150	**147**
Number of engagements per tweet	30 likes and retweets			**20**

Number of Linkedin followers	50	150	200	**64**
Number of Linkedin updates (accumulated)	20	40	60	**33**
Number of engagements per update	10 clicks and actions			**10**
Number of views in Youtube videos	100			**0**

During the second half of the project period, we plan to have more concrete results related to WP3, WP4, and WP5 activities and hence showcase demonstrators of the individual PAPAYA privacy preserving analytics primitives and the integrated platform in a number of events with industrial audience from various sectors including the health, telecommunication and finance sector. These activities will also be complemented with additional scientific publications. Several technical reports are currently under submission and these will be reported in the final deliverable (D6.5) on dissemination and communication activities. Furthermore, we will also keep on collaborating with other EU-funded projects such as PoseID-on and DEFeND and contribute to the related events such as the GDPR cluster. Finally, we also foresee updates on the website and plan to continuously reflect the evolution in the project. These online activities will also be supported with the project's presence in social media platforms such as Twitter and Linkedin. The foreseen KPIs for dissemination and communication activities during the second half of the project period are indicated in Table 8.

Table 8 Tentative Dissemination and Communication Activities for M36

Tentative Future Dissemination Activities	
Web Platform	Update the content with more information on current PAPAYA results, add some new blog entries on the components and the architecture
Social Media	Continue the dissemination of activities through these channels.
Project Leaflet	1 new leaflet at M24 and 1 Leaflet at M30
Scientific Publications	at least 3 more publications
Number of attended events & presentations	Participate in at least 10 events with presentations including demonstrations of PAPAYA primitives.