



KRAKEN

BROKERAGE AND MARKET PLATFORM FOR PERSONAL DATA

*D6.7 Initial Communication, dissemination and
standardization report*

www.krakenh2020.eu



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D6.7 Initial Communication, dissemination and standardization report

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List of Acronyms

Acronym	Description
Dx.y	Deliverable number y, belonging to WP number x
EC	European Commission
ETSI	European Telecommunications Standards Institute
EU	European Union
GDPR	General Data Protection Regulation
HTML	Hyper Text Markup Language
ICT	Information and communication Technologies
IEC	International Electrotechnical Commission
IETF	Internet Engineering Task Force
IoT	Internet of Things
ISO	International Organization for Standardization
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
JTC	Joint Technical Committee
KPI	Key Performance Indicator
Mx	Month 1, Month 2... of the project life
PPP	Public Private Partnership
SC	Subcommittee
Tx.y	Task x.y
WP	Work Package
Yx	(project) year 1, 2, 3

Executive Summary

KRAKEN aims to provide a trustworthy and secure platform for personal data with state-of-the-art data protection methods that ensure both metadata and query data protection. The project has the potential to become the key platform for sharing, brokering and trading sensitive personal data with a user-centric approach. It is a cloud-based and privacy-friendly platform that provides for secure storage, management and sharing of self-sovereign identity information and other personal data.

Within WP6 Business Plan, Exploitation and sustainability, the consortium supports the visibility of the project to specific and sectoral audiences with the aim of bringing the project and pilots to market. WP6 includes: Market analysis, exploitation and sustainability plan, dissemination, communication and standardization, and advisory board activities.

Although all tasks within WP6 are interrelated and coordinated, T6.3 External Communication and standardization and T6.4 Dissemination of foreground knowledge work in a particularly coordinated mode. This document reports on the project communication activities carried out so far, with a special focus on the second year of the project.

1. Introduction

1.1. Purpose of the document

This report focuses on **the communication, dissemination and standardization activities** carried out by all the partners of the consortium **from October 2020 (M11) to November 2021 (M24)** to evaluate our initial estimations and lines of work performance.

To consult those initial estimations, we recommend checking **D6.1 Public Project web presence** (February 2020), **D6.2 Initial Market Analysis** (September 2020) and **D6.6 Initial Communication Report** (September 2020), which analyzed Y1 outcomes in terms of the previously mentioned communications and disseminations coordinated actions through European countries.

Once analyzed which are KRAKEN's most efficient ways of reaching out stakeholders, potential users and general public, this document proposes specific approaches to achieve that.

1.2. Structure of the document

This document is structured as follows:

- **Section 1:** Introduction of the document (this section).
- **Section 2:** Communication Report from October 2020 (M11) to November 2021 (M24).
- **Section 3:** Dissemination report.
- **Section 4:** Standardization report.
- **Section 5:** Y3 action plan

2. Communication report

KRAKEN project is at the end of Y2, which means that the web presence for visibility was launched in February 2020, that social media presence was implemented after this communication action and that from January 2021 (M14) onwards this European funded initiative has risen awareness about its commitment and goals.

The following graphic summarizes the development and logic of the past work focusing on **enhancing the visibility of the progress of the project and generating awareness about its objectives** and the ongoing work which relates more with specific actions aiming to engage with the various targeted stakeholders and audiences which were identified at the beginning of the project.

As showed in the below visual roadmap, the next and final report is scheduled in November 2022 (M36).

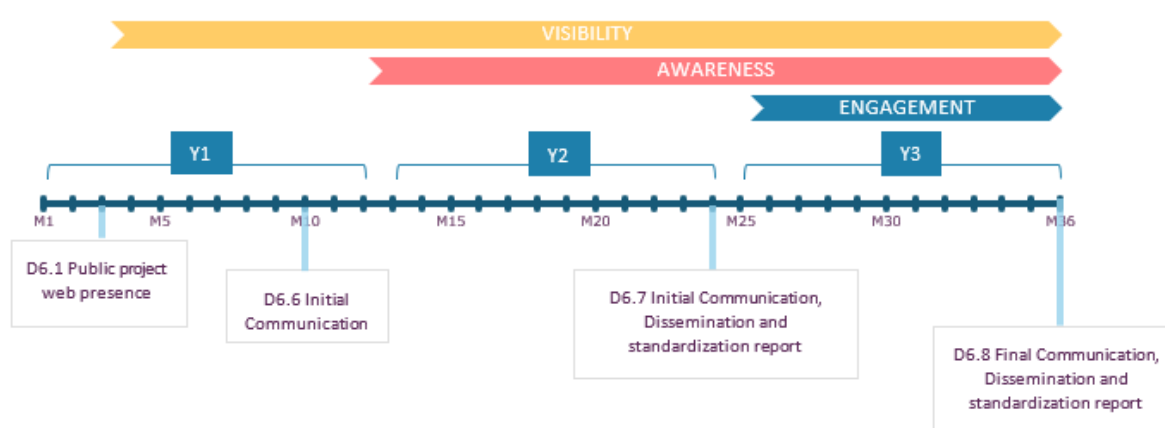


Figure 1: General Communication Plan

For this report of Y2's performance, the following road map gives perspective of the awareness' stage activities foreseen to take place in the period to increase awareness about the project:

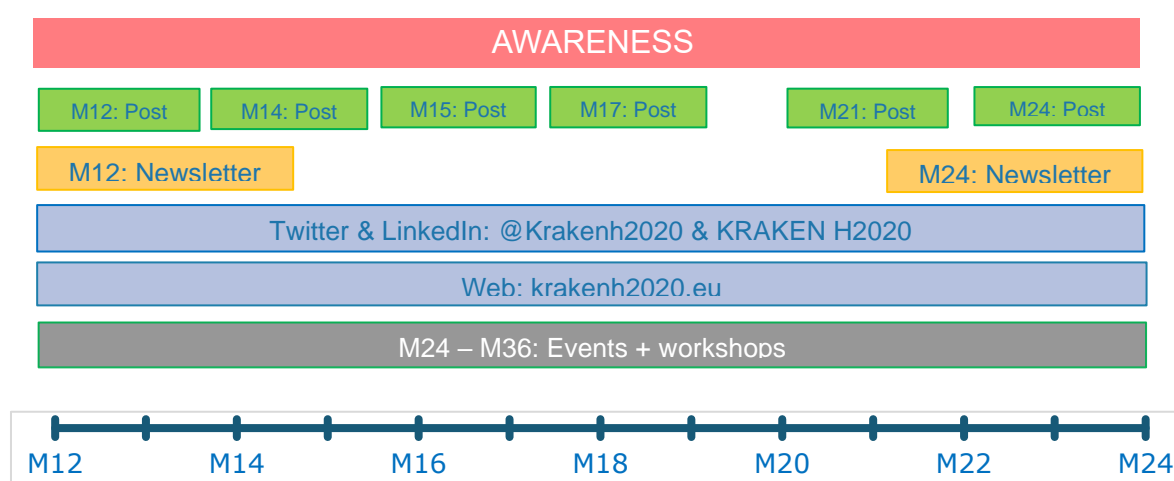


Figure 2: Y2 Communication Actions

The strategy to be followed in Y3 and the different activities that will be executed for engaging with stakeholders are detailed in Section 5 of this report.

2.1. Overview of KPIs

Most of the KPIs set for Y2 have been achieved within 12 months (November 2020 - November 2021). The following table contains the details about the concrete outcomes:

Activity	Target KPI by November 2021 NOVEMBER 2021	KPI achieved by October 2021
Social Media	>300 followers in Twitter & LinkedIn	>400 followers in Twitter & LinkedIn
	>9000 impressions in Twitter/month from M9 onwards	>4000 impressions in Twitter/month from M9 onwards
	> 3 social media channels	>3 social media channels (Twitter, LinkedIn & blog)
Non-scientific technical publications	5 publications	16 publications
Com & Promotional material	4 newsletters	2 newsletters
	1 brochure	1 brochure
Industry & Events	> 1 Exhibition attended	13 exhibitions attended
	> 2000 visitors	n/a
Whitepapers	1	13
Project website	>3,000 unique visitors	>11000 unique visitors
	<69% Bounce Rate	79,68% bounce rate

Table 1: Y2 overall performance

As the last report D6.6 Initial Communication explained, there are some KPIs which have not been achieved in this period as the pandemic uncertainty is still a global wide concern.

To understand why, it is mandatory to acknowledge that consulting news media and engaging with relatives, as reported in 'Reasons for using the Internet' 2021 DataReportal¹, were two of the most frequent activities on digital spaces. But while the number of Internet users has increased and their time on social media has grown², that did not necessarily translate into more visitors to projects like KRAKEN, which strong topics are focused on cybersecurity, self-sovereign identity and e-health from a technical perspective targeting precisely industrial and technical personalities that could be related and/or interested in KRAKEN and its results.

Considering that the pilots were in the early stages of its development disseminating its concrete results was still precipitated, the KPIs achieved indicates good advances and **the majority had exceeded the estimations, while others will be optimized in Y3.**

Despite the context, KRAKEN project has overcome this difficulty publishing content **related to COVID-19, useful** for its users and increasing the impact of its non-scientific publications, adjusting to the swift of citizens' interests. Even though this decision has given results with **more than 11,000 unique**

¹ <https://datareportal.com/reports/digital-2021-global-overview-report>

² <https://www.nytimes.com/interactive/2020/04/07/technology/coronavirus-internet-use.html>

visitors, the bounce rate is above the estimation. This report will examine in-depth how to overcome this in another part of this document.

Some considerations to be taken into account in the engagement phase of communication and dissemination strategy of KRAKEN are that the public in general and it includes KRAKEN project stakeholders (university students, recruiters, patients and health facilities etc.), **have shifted their Internet use during pandemic**: there has been a decline on smartphones dependency on demographics from 30-49 years old, according to 'Pew Research Gate'³. This same document shows a **good opportunity for KRAKEN, as Internet users above 65 years old has increased their participation** on digital spaces since 2018, from 66% to 75% in 2020.

2.2. Project website

2.2.1 Website's overall performance

Our website has improved considerably the total amount of unique visitors:

WEB TRAFFIC RESULTS			
ACTIVITY	KPI Target value	DATE	Value October 2021
Unique visitors	>3,000 unique visitors	Y2	>11000 unique visitors
Bounce rate	<69% Bounce Rate	Y2	79,68% bounce rate
Number of page views	6000	Y2	18640
Average time of user sessions	>00:02:00	Y2	0:00:48

Table 2: Website KPIs

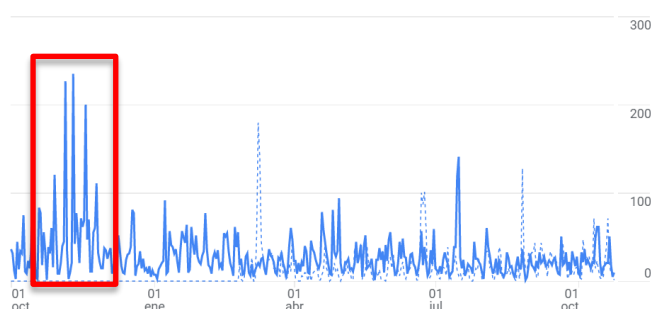


Figure 3: Number of web visitors

Kraken's website has also enlarged its page views numbers which can be interpreted as **an increasing interest from users**, a positive outcome from the efforts and the viability of the communication strategy. As this report already clarified, Kraken has adapted to the ongoing events to be accessible to the public in its awareness stage in Y2 with a series of **posts related to health and data protection**.

In November 2020, there was a peak in the website's visits, as highlighted in red in the graphic below. That could be a result from the carefully content planification, specially from a **podcast that was also recorded on YouTube as a non-perishable content**, with the participation of ATOS and TEX (two

³ <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>

project partners). This information provides valuable insights on what kind of approaches works better for upcoming communication and dissemination actions.

In July 2021 there was another peak of website's visits that shows how new content can improve the performance of this space.


















Country	Users	% Users
1.  Spain	2,178	 19.92%
2.  United States	1,478	 13.52%
3.  Italy	720	 6.59%
4.  Netherlands	616	 5.63%
5.  Austria	600	 5.49%
6.  Germany	600	 5.49%
7.  United Kingdom	594	 5.43%
8.  Finland	353	 3.23%
9.  France	326	 2.98%
10.  Greece	298	 2.73%

Table 3: Web visitors by country

Even though all KRAKEN web content is in English, most of the visitors are from Spain it is of interest to note that **13,52% of the visitors come from United States**, showing possibilities for future collaborations for KRAKEN's consortium and for the European Union states.

The third on this ranking is Italy, a country with three companies in KRAKEN's consortium. And the fifth country with the most visitors is Austria with the same number of visitors as Germany.

User Type ?	Acquisition			Behaviour		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages/Session ?	Avg. Session Duration ?
	11,063 % of Total: 100.00% (11,063)	10,913 % of Total: 100.01% (10,912)	11,697 % of Total: 100.00% (11,697)	79.92% Avg for View: 79.92% (0.00%)	1.62 Avg for View: 1.62 (0.00%)	00:00:33 Avg for View: 00:00:33 (0.00%)
1. New Visitor	11,051 (96.93%)	10,913 (100.00%)	10,913 (93.30%)	82.11%	1.26	00:00:11
2. Returning Visitor	350 (3.07%)	0 (0.00%)	784 (6.70%)	49.36%	6.53	00:05:44

Table 4: New visitors vs returning visitors Y2

In D6.6 Initial Communication, new visitors were 95,79% but in Y2 there has been a slight increase until reaching 96,93%. Returning visitors had a better performance in Y1, with 4,21% of the total visitors, but during Y2 its weight has decreased to 3,07%.

The previous table shows that the standard duration of each session has not improved as returning visitors usually spend more time on the website, with high numbers such as 5 minutes and 44 seconds. New visitors spend less time on website (in each session), while returning visitors spend more time checking out details and exploring its different sections and content.

Source/Medium ?	Acquisition			Behaviour		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages/Session ?	Avg. Session Duration ?
	11,063 % of Total: 100.00% (11,063)	10,913 % of Total: 100.01% (10,912)	11,697 % of Total: 100.00% (11,697)	79.92% Avg for View: 79.92% (0.00%)	1.62 Avg for View: 1.62 (0.00%)	00:00:33 Avg for View: 00:00:33 (0.00%)
1. (direct) / (none)	7,581 (68.23%)	7,581 (69.47%)	7,897 (67.51%)	78.09%	1.67	00:00:30
2. google / organic	2,475 (22.28%)	2,357 (21.60%)	2,622 (22.42%)	84.17%	1.43	00:00:30
3. t.co / referral	232 (2.09%)	219 (2.01%)	265 (2.27%)	84.15%	1.42	00:01:08
4. linkedin.com / referral	111 (1.00%)	104 (0.95%)	130 (1.11%)	83.08%	1.78	00:01:24
5. baidu / organic	90 (0.81%)	85 (0.78%)	90 (0.77%)	98.89%	1.01	<00:00:01
6. ifly-drones.eu / referral	63 (0.57%)	41 (0.38%)	82 (0.70%)	65.85%	3.23	00:03:08
7. bing / organic	54 (0.49%)	51 (0.47%)	56 (0.48%)	76.79%	2.05	00:00:53
8. eudatasharing.eu / referral	37 (0.33%)	35 (0.32%)	39 (0.33%)	92.31%	1.08	00:00:02
9. qubit.hu / referral	33 (0.30%)	33 (0.30%)	34 (0.29%)	91.18%	1.06	00:00:16
10. atos.net / referral	32 (0.29%)	29 (0.27%)	33 (0.28%)	78.79%	1.12	00:00:55

Table 5: Traffic sources Y2

The analysis of KRAKEN website performance indicates where the visitors come from. If the reader of this report checks the above table, there are two sites that stand out from the rest of the list if we look at the average session duration.

The number fourth on the ranking shows that users spent one minute and twenty-four seconds per session, meaning that **not only that visitors read the information available but possibly consulted other online materials** before quitting the website.

It is interesting to look at the numbers for 'referral', term that includes social media channels, with one minute and eight seconds per sessions, followed by LinkedIn professional platform, with one minute and twenty-four seconds.

Default Channel Grouping	Acquisition		
	Sessions ? ↓	% New Sessions ?	New Users ?
	5.66% ↓ 11,697 vs 12,399	26.41% ↑ 93.29% vs 73.80%	19.26% ↑ 10,912 vs 9,150
1. Direct	88.88% ↑ 7,897 vs 4,181	15.10% ↑ 96.00% vs 83.40%	117.41% ↑ 7,581 vs 3,487
2. Organic Search	-60.14% ↓ 2,809 vs 7,048	21.03% ↑ 90.17% vs 74.50%	-51.76% ↓ 2,533 vs 5,251

Table 6: Traffic sources Y2 direct vs organic

The table above shows how the number of sessions opened from direct sources, other than social media or campaigns, has increased, which is another positive outcome but in the organic searches, meaning that KRAKEN was one of the first results for some query, there has been a decrease.

Page ?	Page Views ?	Unique Page Views ?	Avg. Time on Page ?
	18,903 % of Total: 100.00% (18,903)	15,046 % of Total: 100.00% (15,046)	00:00:54 Avg for View: 00:00:54 (0.00%)
1. /	4,328 (22.90%)	3,547 (23.57%)	00:01:14
2. /the_project/overview	1,601 (8.47%)	1,483 (9.86%)	00:01:08
3. /the_project/consortium	838 (4.43%)	798 (5.30%)	00:01:13
4. /advanced-uav-it-services	818 (4.33%)	542 (3.60%)	00:00:30
5. /news_and_events	721 (3.81%)	539 (3.58%)	00:00:33
6. /blog	568 (3.00%)	391 (2.60%)	00:00:44
7. /estilo-2-style-2	472 (2.50%)	11 (0.07%)	00:00:33
8. /pilots/health	443 (2.34%)	415 (2.76%)	00:01:01
9. /resources/publications	411 (2.17%)	332 (2.21%)	00:00:13
10. /the_project/objectives	401 (2.12%)	383 (2.55%)	00:01:24

Table 7: Most visited pages Y2

For a better understanding of the website performance in Y2, the ranking of the most visited pages showed above can provide some insights on the values that should be enhanced in Y3. The project objectives, the project overview and the project consortium pages are the ones that maintained users' attention for more time.

The health pilot page was also one topic that kept users engaged, which is a useful insight for Y3 website planification.

2.2.2 KRAKEN website updates

KRAKEN has enriched users' experience with interactive and proactive content. The external website of '[Alice&Bob](#)' is displayed at the main page of KRAKEN's website with an informative approach.

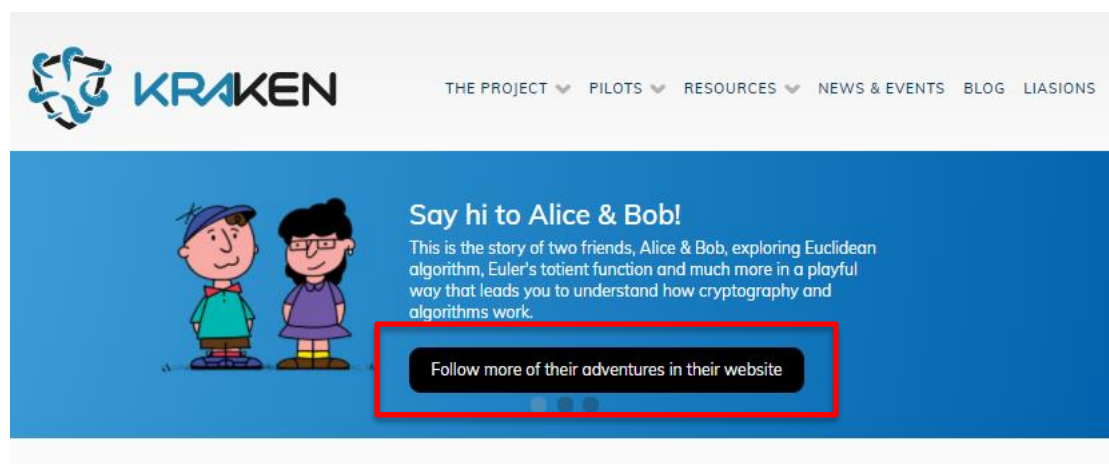


Figure 4: 'Alice & Bob' in KRAKEN's website

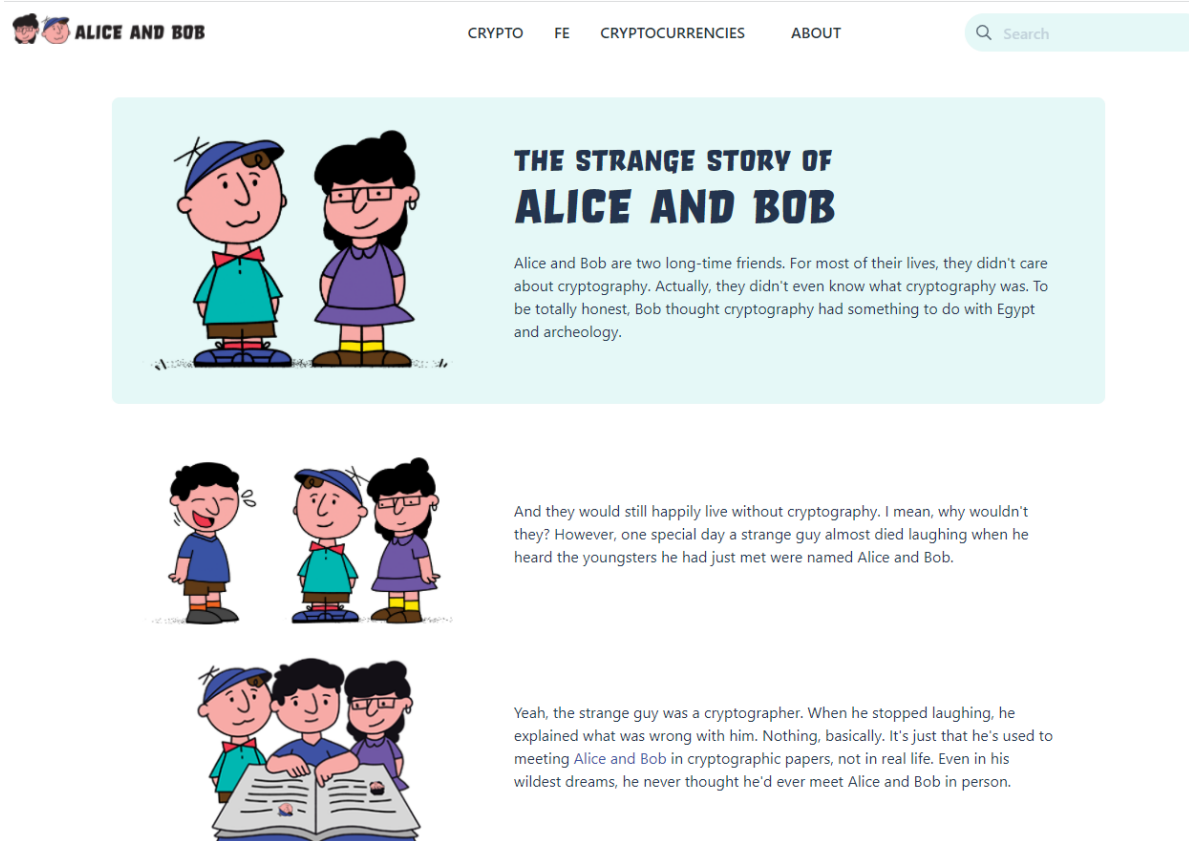


Figure 5: 'Alice & Bob' main page

This website was developed by the XLAB cryptography team and it will include KRAKEN's results the next months. This collaboration gives to KRAKEN the possibility to enlarge its scope and reach different audiences.

KRAKEN's website also included at the very top of the main page a button to subscribe to the biannual newsletter:

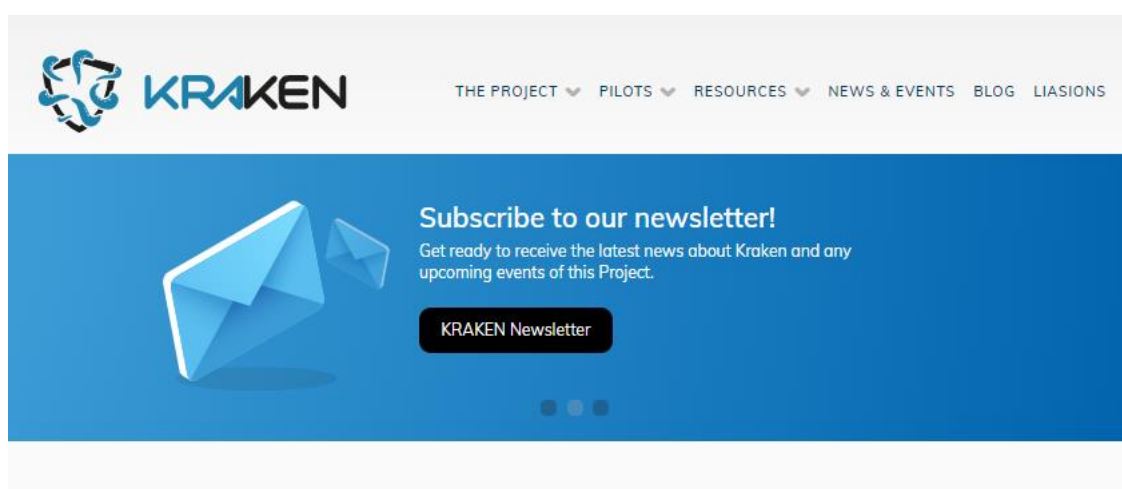


Figure 6: Call to action to subscribe on the web's main page

As well as a survey webform to know more about possible stakeholders' interests for the final stage of the project:

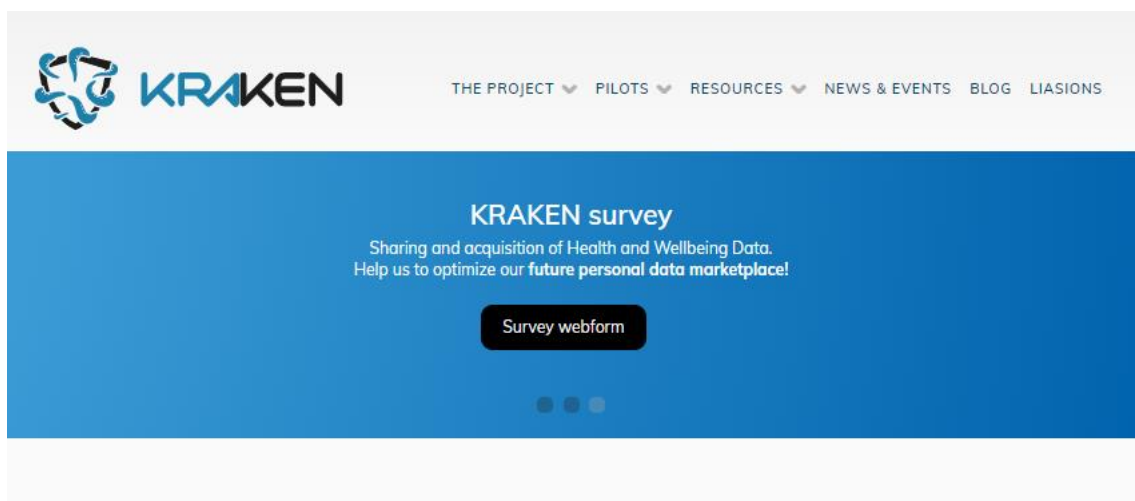


Figure 7: Call to action to KRAKEN's survey

During Y2, we added to the project web a new section 'Liaisons' with information about the external collaborations and cooperation initiatives, visible on the main page which also includes information about the advisory board.

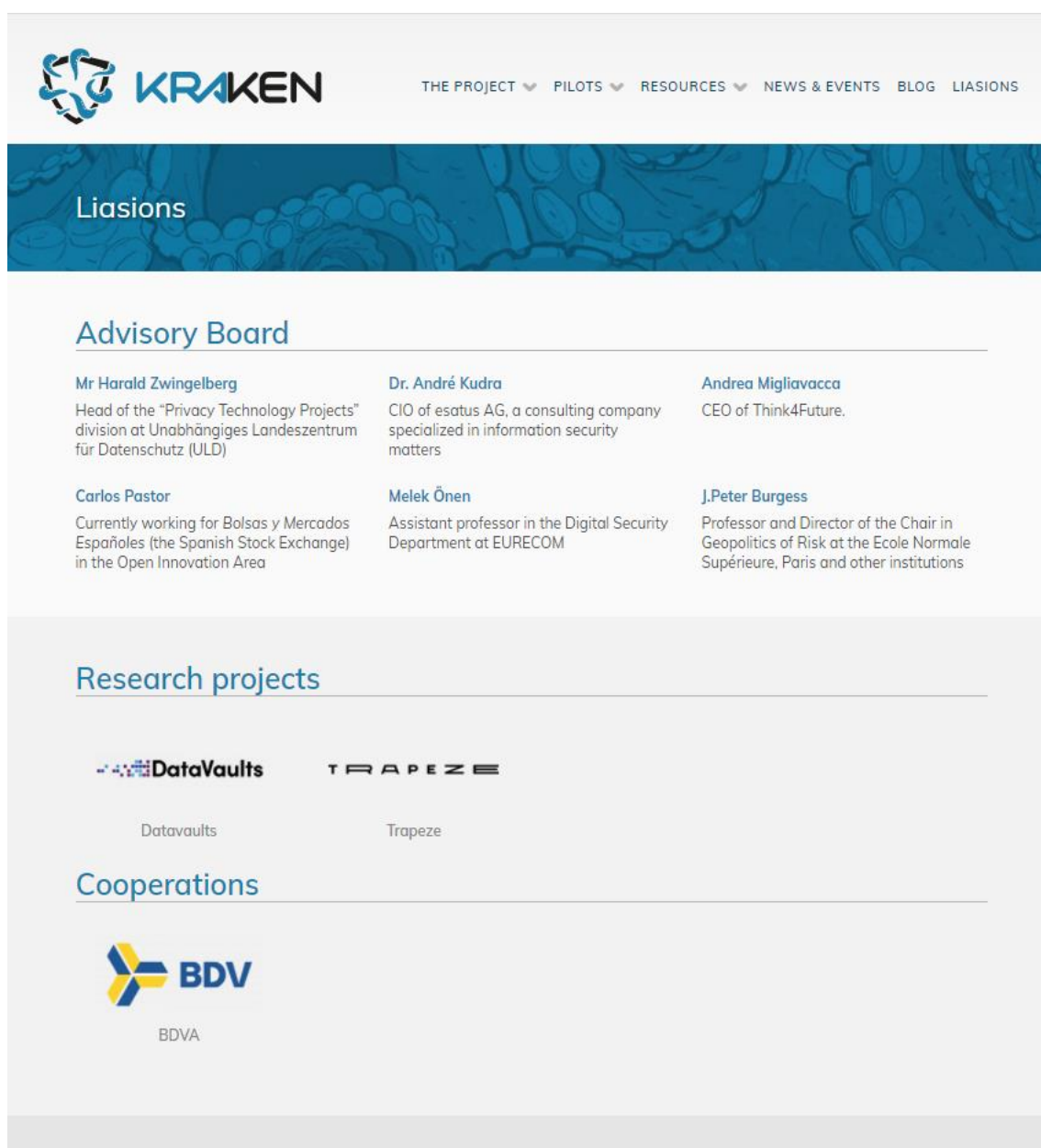


Figure 8: Liaisons

2.3. Social Networks

	Twitter impressions	Twitter Engagement rate	LinkedIn impressions	LinkedIn engagement
M11 = OCT 2020	15778	3.30%	670.00	69
M12 = NOV 2020	33800	1.40%	300.00	43
M13 = DEC 2020	16000	2.40%	234.00	32
M14 = JAN 2021	6800	1.80%	79	31
M15 = FEB 2021	6600	1.40%	49.00	22
M16 = MAR 2021	8300	1.40%	163.00	65
M17 = APRIL 2021	3800	1.70%	47.00	22
M18 = MAY 2021	3000	0.40%	74.00	28

M19 = JUNE 2021	2000	0.30%	100.00	42
M20 = JULY 2021	1500	1.10%	9.00	5
M21 = AUG 2021	1400	0.10%	20.00	8
M22 = SEP 2021	890	0.40%	51.00	22
M23 = OCT 2021	2300	4.90%	23	12
TOTAL Y2	38578	1.58%	1717.00	401

Table 8: Social Media Overview

This overview of the presence of KRAKEN in social networks demonstrates that **October Cybersecurity Awareness Month** influenced on the number of LinkedIn impressions and engagement and how KRAKEN's video, launched in March 2021, had a **direct effect on LinkedIn engagement**.

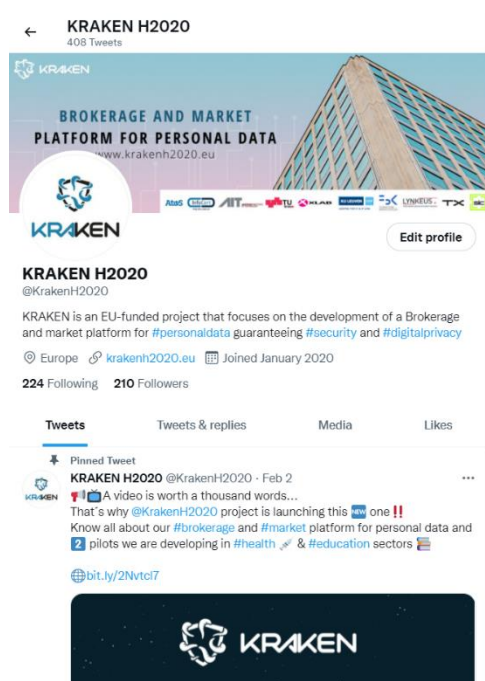


Figure 9: KRAKEN's Twitter profile

To understand why in M13, December 2020, there was a peak in Twitter impressions, KRAKEN analysis highlights two contents: **one about the health pilot and another one about 'Streamr technology central to EU data sharing initiative'**.

2.3.1. Twitter

Figure 10: Twitter Performance on Impressions & Engagement' gives a broad overview of the performance of KRAKEN in Twitter during the last 12 months with peaks in December 2020 (M13) and March 2020 (M16).

Another milestone that is convenient to point out is that even though the number of impressions in August 2021 (M21) was low, there has been a **pronounced increase in Twitter engagement ratio**, with nearly 5% and above all the previous content shared in this social media platform, **almost doubling the past tweets** in September and October.

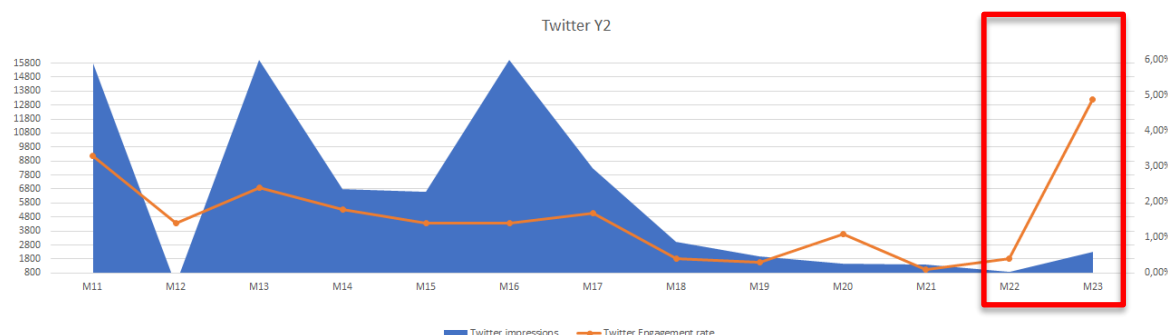


Figure 10: Twitter Performance on Impressions & Engagement

The contribution of ARI Marcomm, Atos Research & Innovation hub communication department, also helped to amplify the message, to spread news about the project in the networks and increase users engagement.

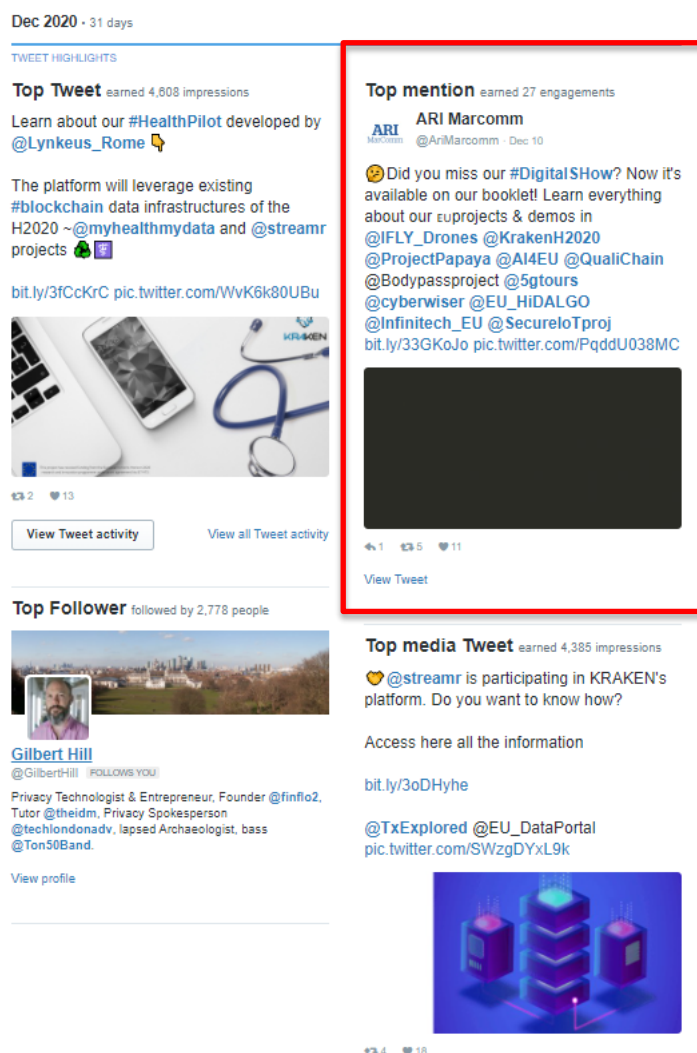


Figure 11: Top Tweets in December 2020, M13 of the project

In March 2021, as already stated on the preliminary paragraph of this section, **KRAKEN launched a promotional video** explaining its objectives. It was the content with the greatest number of impressions in Twitter in that month.

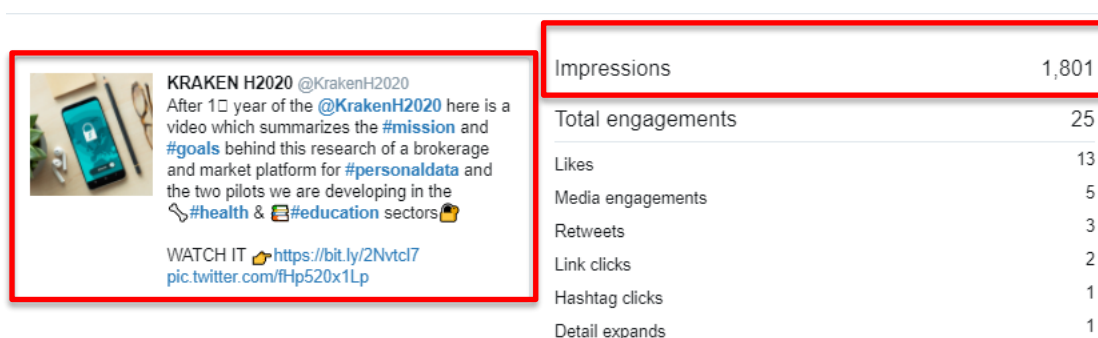


Figure 12: Kraken's promotional video in Twitter performance

KRAKEN communications style and format have been adjusted to Twitter by actively **using a visual language and images** to catch users' attention in their timeline, as well as mentioning key profiles that are related to the project or topics that can interest its followers.

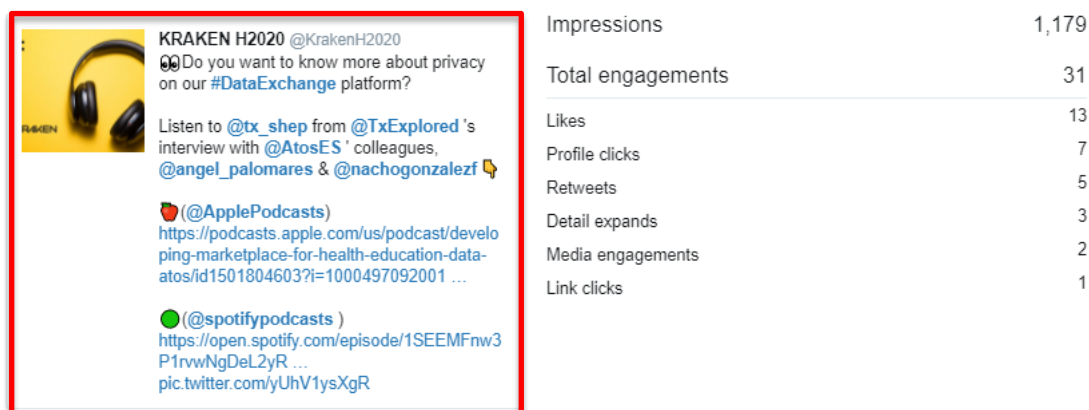


Figure 13: Podcast promotion in Twitter with an attractive message and calls to action

This strategy has proved to be right as the following examples consistently show strong engagement ratios:

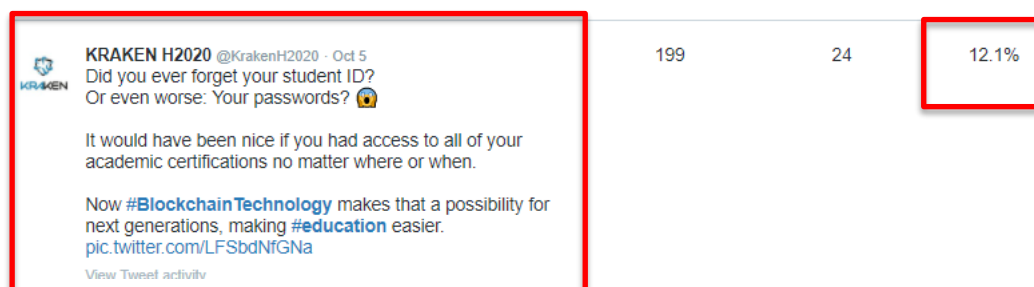


Figure 14: Tweet on October 5th, 2021

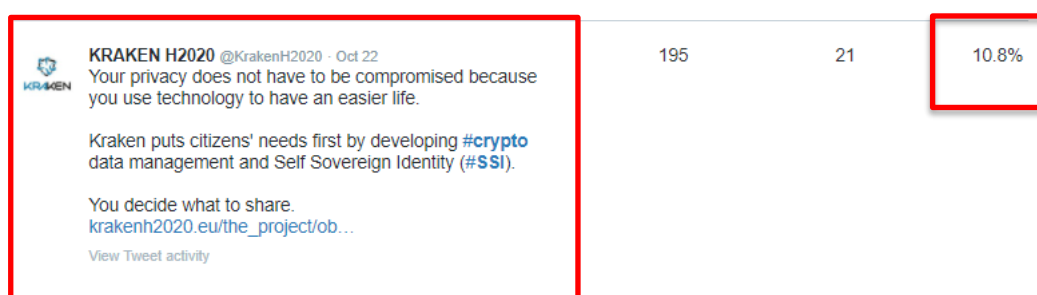


Figure 15: Tweet on October 22nd, 2021

The use of **key hashtags** has also boosted tweets' impact on social media, and it is essential for Y3 to keep this same strategy.

Over October 2020 – October 2021 it is possible to use another indicator to measure KRAKEN's Twitter performance, as some followers open to other spaces of future alliances and collaborations:

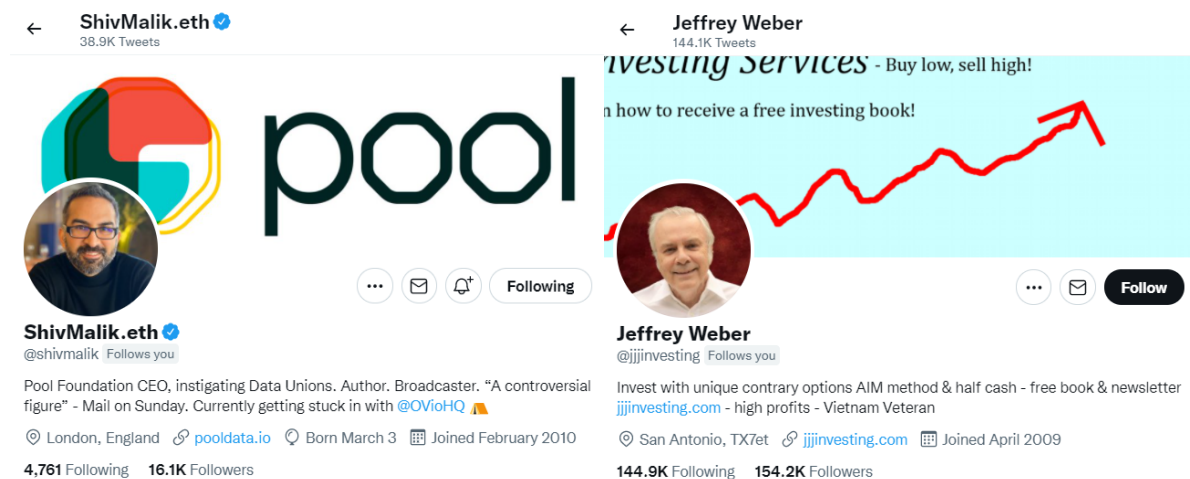


Figure 16: Top followers in KRAKEN's Twitter profile

2.3.1. LinkedIn



Figure 17: KRAKEN's LinkedIn Profile

2.3.2.1 LinkedIn's overall performance

In Y1, the profile of KRAKEN in Linked was low, its presence in this network was discreet due to the more professional and formal communication in this platform. In Y2, as the project has advanced on its core values and with more content to attract attention, there has been one peak in March 2021, with the release of the promotional video.

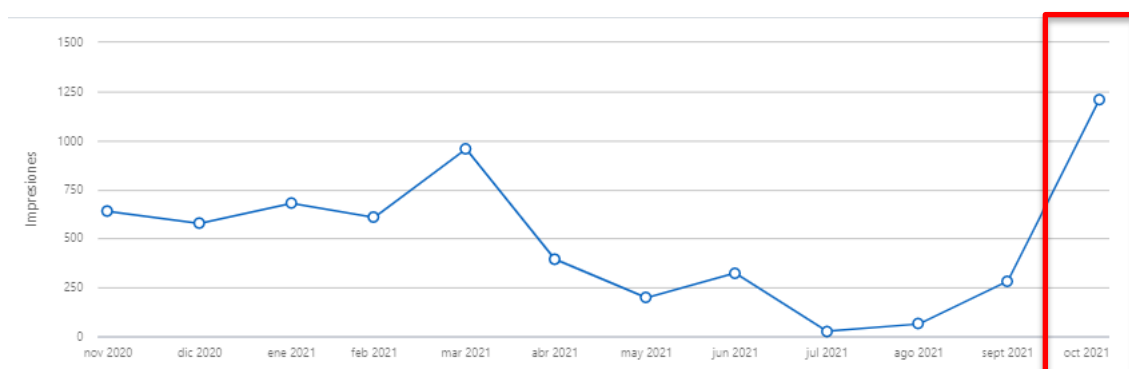


Figure 18: LinkedIn impressions' performance in Y2

As seen in the graphic, **summer has impacted in LinkedIn's impressions** due to the holidays season. In September and October 2021, the activity returned to normal levels even exceeding the previous data with a clear increasing.

Even though KRAKEN had an overall strong performance in LinkedIn, the interaction rate has decreased in September and October 2021 compared with the previous months. We will overcome this in Y3, the planning is explained at the end of this report.

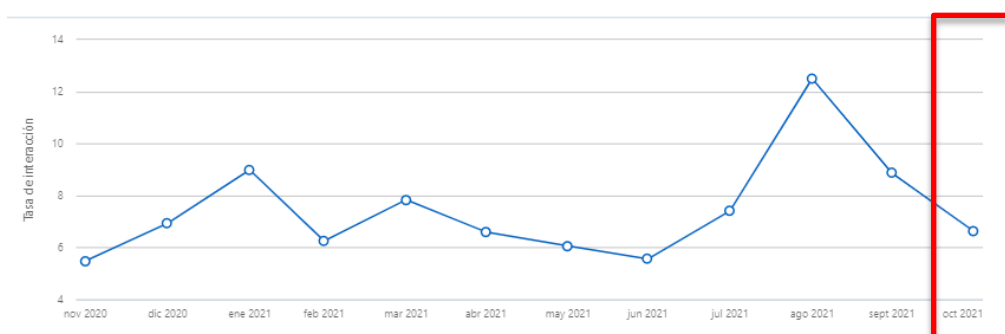


Figure 19: Interaction Rate M11-M23

It is also important to highlight that the number of followers of KRAKEN's LinkedIn has also been affected by holidays and is returning to its previous increasing tendency since September 2021, with **an increase of 43% in October 2021**.

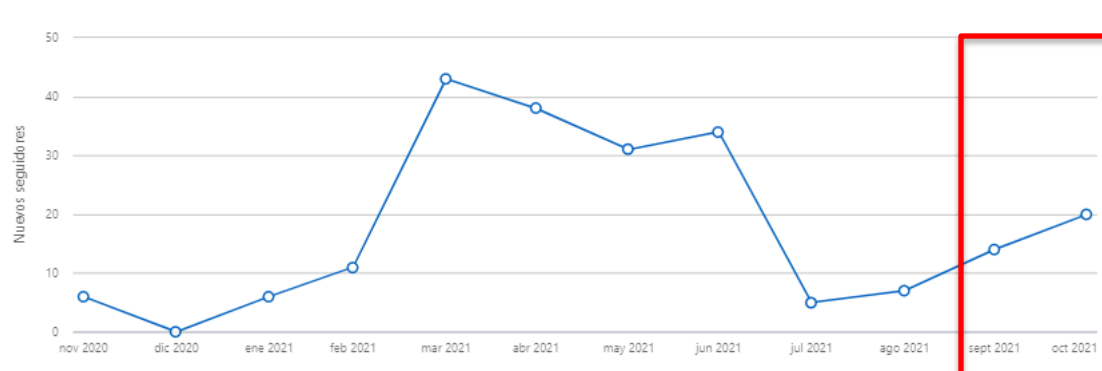


Figure 20: LinkedIn's followers Y2

About the nationalities or locations of LinkedIn's followers, there is a **dominance of those from Helsinki area**:

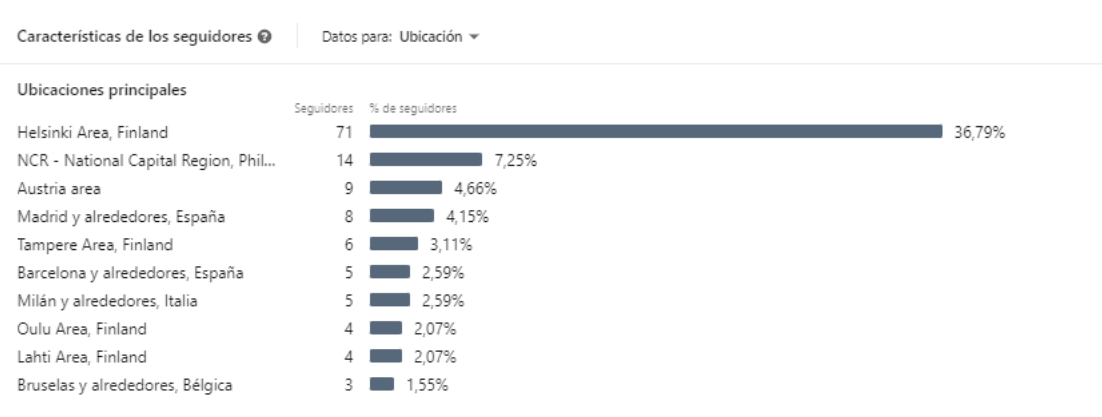
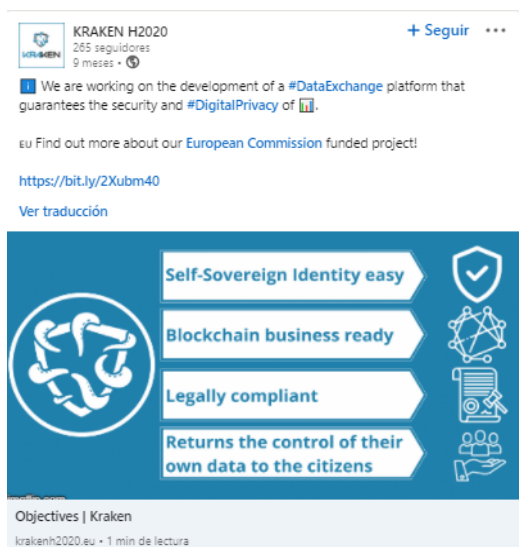


Figure 21: LinkedIn followers' locations

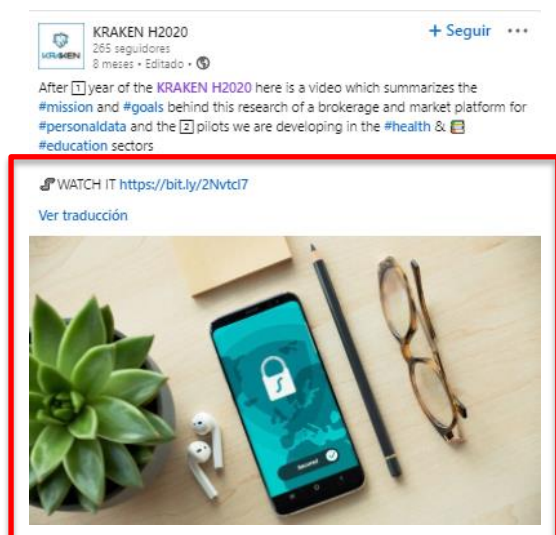
2.3.2.2 LinkedIn's best outcomes



Getting into more detailed results, **there have been steady outcomes** on this period, specially three posts had the highest interaction rate. The first one is a post about Self-Sovereign Identity and blockchain. See picture on the lefts.

One key factor that helped to achieve a 15,56% interaction ratio, resulting from comments, reactions, shares, new followers, recommendations and clicks divided by impressions, was incorporating a GIF to catch users' attention. It also had a high number of clicks, **redirecting traffic to KRAKEN's website.**

Figure 22: LinkedIn Post I



The second-best LinkedIn's post performance in interaction rate was the following post with the project video. In this case, **the use of a photograph gave to the post a neat and clear claim** for the users' eyes. There were key hashtags to place the content such as #PersonalData and a clear call to action at the very end of the post, 'WATCH IT'. **The results: 13,95% of interaction rate with 7,75% of clicks rate.**

Figure 23: LinkedIn Post II

The third-best LinkedIn's post performance in interaction rate was the following post:

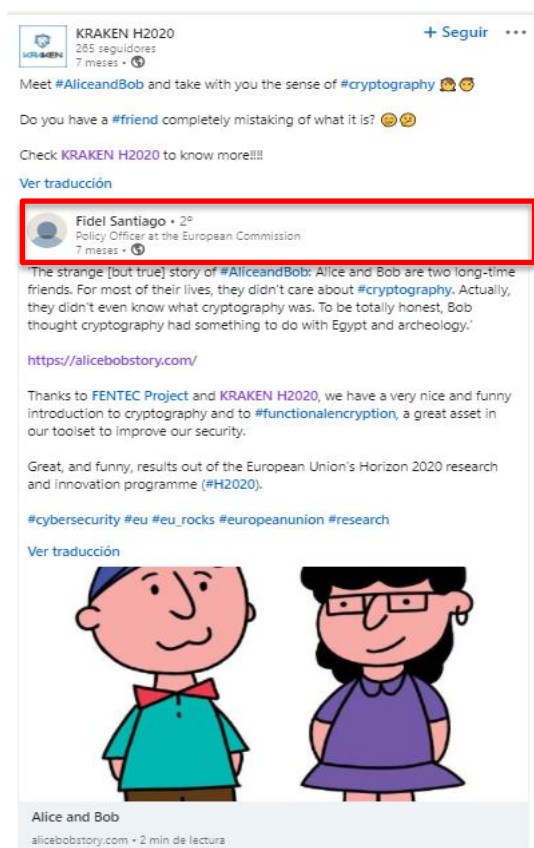


Figure 24: LinkedIn Post III

It is important to point out that Alice&Bob project incorporated the gamification concept and showed a storyline friendly to every user. Also, that it had the support from a key institutional speaker, Fidel Santiago, Policy Officer at the European Commission, with specific and strong hashtags that placed KRAKEN for future marketplaces such as #FunctionalEncryption assets but also #Cybersecurity and #Cryptography.

The results: **12,35% of interaction rate** with 8,64% of clicks percentage.

2.4. Non-scientific technical publications

2.4.1. Blog

D6.6 Initial Communication report. proposed these content planification for the non-scientific publications:

YEAR	MONTH	PARTNER	TOPIC
✓ 2020	jun-20	Atos	Data protection in COVID times
✓ 2020	jul-20	ICERT	Healthcare challenge in COVID times
✓ 2020	aug-20	TX	Pharmaceutical Data Economies
✓ 2020	oct-20	KUL	Legal framework in COVID times (series of articles published during the month)
✓ 2020	dec-20	TX	Blockchain & SSI (podcast)
✓ 2021	feb-21	FBK	Data protection conversation on Social Networks
✓ 2021	apr-21	AIT	Cryptography*
✓ 2021	jun-21	SIC	Marketplace
2021	sep-21	Lynkeus	Health pilot
2021	nov-21	TUG	Education pilot

Table 9: Post publications schedule Y2

The contents that were published as scheduled have a green icon, while those which have not yet been published are without green icons. They are expected to be released in near future.

The final non-scientific publications are listed on the following table:

	YEAR	PARTNER	TOPIC
M7 = JUNE 2020	2020	Atos	Data protection and digital privacy in the age of the coronavirus'
M8 = JULY 2020	2020	INFOCERT S.p.A.	The healthcare challenge: balancing data security & sharing'
M9 = AUG 2020	2020	TX Technology Exploration	Pharmaceutical Data Economies and KRAKEN platform'
TOTAL Y1	3		
M11 = OCT 2020	2020	KU Leuven Centre for IP & IT Law	Privacy and data protection aspects of COVID-19 tracing and warning apps' Chapter 1
			Privacy and data protection aspects of COVID-19 tracing and warning apps' - Chapter 2
M12 = NOV 2020	2020	TX Technology Exploration	TX Podcast: Developing a marketplace for health and education data with Atos
M14 = JAN 2021	2021	TX Technology Exploration	Recap of the year 2020 in KRAKEN
M15 = FEB 2021	2021	Fondazione Bruno Kessler	The design challenge: key drivers of consumers' adoption of data sharing platforms
M17 = APRIL 2021	2021	AIT	Secure computation on sensitive data in KRAKEN
M21 = AUG 2021	2021	KU Leuven Centre for IP & IT Law	Privacy and data protection aspects of COVID-19 tracing and warning apps' - Chapter 3
TOTAL Y2	8		
TOTAL	11		

Table 10: Published posts in Y2

2.5. Marketing material

2.5.1.Video



Figure 25: KRAKEN's video launch

[KRAKEN's video](#) introduced viewers to the project objectives, technologies and concepts: privacy, self-sovereignty, cryptography, marketplace and pilots -education and health- as well as target stakeholders such as insurance companies, public authorities and wellbeing services providers. This audiovisual material was promoted in different digital channels, as mentioned on previous sections:

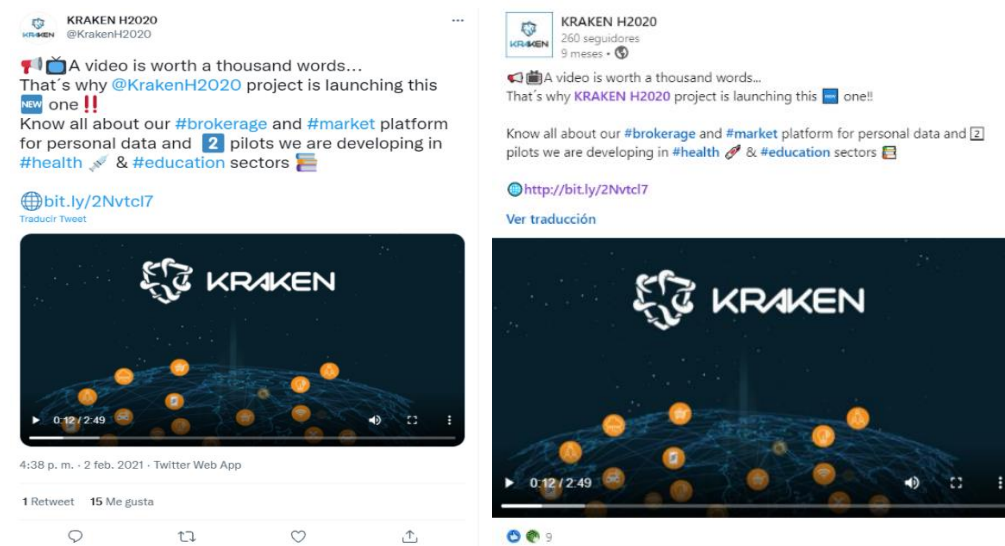


Figure 26: Kraken's video promotion in Twitter (left) and LinkedIn (right)

To boost this marketing action, Kraken's social media profiles pinned the original post as the first one to consult on its timeline and accounts.

It was also promoted via KRAKEN's newsletter:

Communication & Dissemination Materials

A picture is worth a thousand words, it is said. The official KRAKEN **video** has been launched this year. It explains in a very visual way everything about our **brokerage and market platform for personal data** and the two pilots we are developing in the health and education sectors. **Click** on the preview and **download** the video:



Figure 27: Video launch in the newsletter

As previously explained, **the video has proven to be an effective approach to users** on social media, making KRAKEN project to be known in the awareness stage of the communication and dissemination strategy.

2.5.2. Newsletter

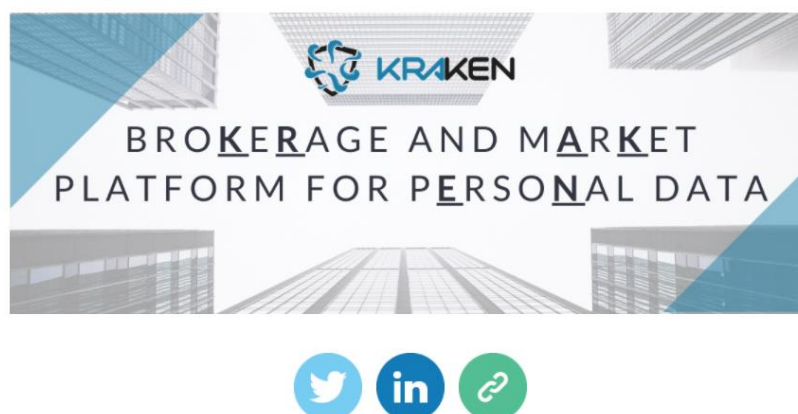


Figure 28: Newsletter headline

Despite what was proposed in D6.6., **KRAKEN has released two newsletters instead of the initial four.** The reason is that given the disperse attention of the digital users, the amount of uncertainty caused by the pandemic and the ongoing advances of the project, the communication strategy was reevaluated, and it was decided that it would be more efficient and logical to space the newsletter frequency in order to **maximize its communication potential**. Therefore, the newsletter will be launched twice a year, being June/July and December/January the preferred months and sent to the subscribers according to the progress and other activities taking place within KRAKEN.


 A graphic showing the table of contents for the newsletter. It has a dark blue background with a light blue abstract pattern on the left. The text "TABLE OF CONTENTS" is written vertically in white. To the right, the following sections are listed in white: OVERVIEW, KRAKEN STATUS, PILOTS EVOLUTION (with sub-items HEALTH PILOT and EDUCATION PILOT), COMMUNICATION & DISSEMINATION (with sub-items BRAND & MARKETING MATERIAL, SOCIAL NETWORKS, and PUBLICATIONS), and NEXT STEPS.

The structure of the newsletter is:

- Overview: A summary of the latest advances.
- KRAKEN's pillars: Explaining Kraken's core values.
- Architecture Performance / Pilots performances.
- Communication & dissemination material.
- Next steps.

Figure 29: Newsletter table of content

To catch the attention of the audience, **KRAKEN's newsletter includes visual material** helping to understand its technical content.

We have adopted Scrum as the **agile framework** of KRAKEN. It is an empirical and iterative approach that best fits for a complex context like an innovation project.

Scrum is based on three pillars: transparency, inspection, and frequent adaptation. It is also iterative and strictly time-boxed.

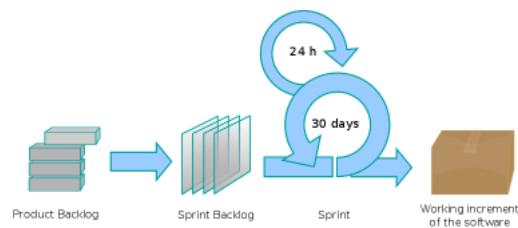


Figure 30: Newsletter's legal framework

An overview of **KRAKEN's newsletter landing page** shows the behavior of the recipients with 162 visits, 83 clicks and 50 subscribers in Y2 .

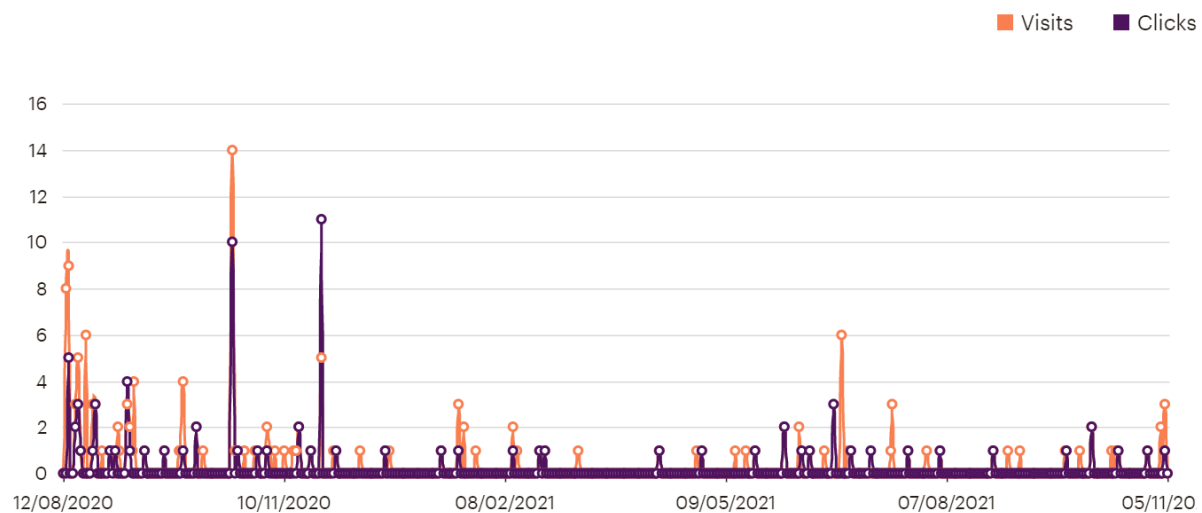


Figure 31: Newsletter's performance from M5 to M12

The first welcome message was sent to 44 subscribers who completed the subscription process giving the consent to receive emails from KRAKEN.

As for the results of the first formal newsletter in October 2020, there were 101 email openings and two clicks to two links that redirected traffic to KRAKEN's website. Those links led to KRAKEN marketing material and KRAKEN's resources page.

As for the best hour time to send the email, the first newsletter shows that early in the morning is the best option:

24-hour performance

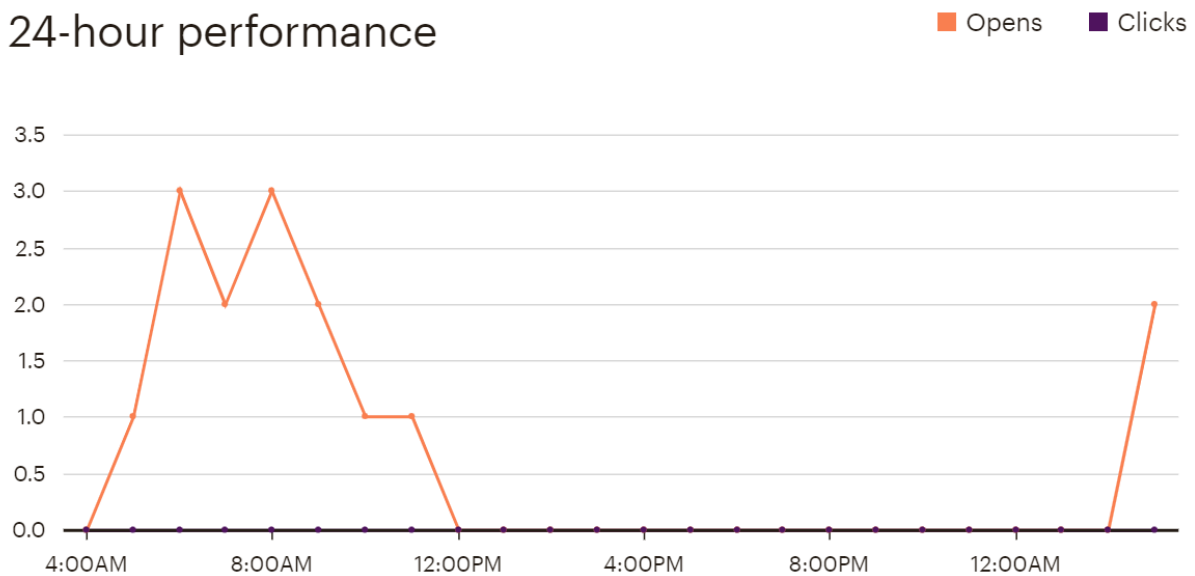





Figure 32: Newsletter performance by hour

It is also important to notice that most of the visitors come from Finland:

Top locations by opens

	Finland	27	27.0%
	USA	20	20.0%
	Italy	17	17.0%
	Austria	11	11.0%
	Germany	10	10.0%

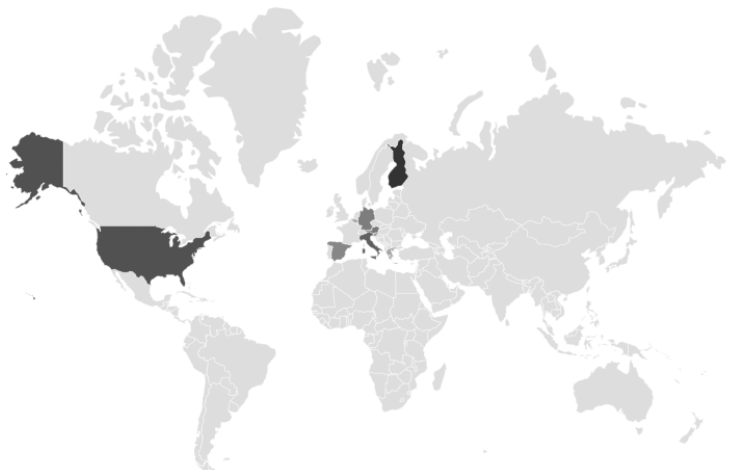


Figure 33: Newsletter's visitors by country

Due to technical incidences, KRAKEN has not been able to rescue data from its second newsletter's performance. However, [we include here a link](#) to the newsletter



Figure 34: KRAKEN's newsletter 2 Final Image

Information about events and workshops but also about cryptotechnologies and analytics was incorporated to the last project newsletter, informing to subscribers about the latest advances.

2.5. Events & workshops

Industrial events			
	Date	PARTNER	Title of the conference
M5 = APRIL 2020	04/20/2020	Sebastian Ramacher (AIT)	The 3rd ZKProof Workshop, home edition
M6 = MAY 2020	05/20/2020	Markku Nousiainen (TX)	HIMSS Europe Conference
	8/5/2020	Juan Carlos Pérez (Atos)	Big Data PPP Personal Data Platforms: Empowering Citizens Leveraging their Data Power
M10 = SEP 2020	09/29/2020	Linkeus	Connect University Autumn School 2020
TOTAL Y1	4		
M11 = OCT 2020	10/21/2020	Linkeus	Atelier Blockchain pour la Santé
M12 = NOV 2020	11/11/2020	Juan Carlos Pérez (Atos)	EBDVF 2020
	11/26/2020	Ángel Palomares (Atos)	Digital Show Atos
	11/09/2020 - 11/13/2020	Sebastian Ramacher (AIT)	ACM Conference on Computer and Communications (CCS) 2020
	9/11/2020	Lukas Alber, Stefan More, Sebastian Ramacher (AIT, TUG)	CCSW 2020: The ACM Cloud Computing Security Workshop
	11/27/2020	Stefan More (TUG) Juan Carlos Pérez (Atos) Ángel Palomares (Atos)	Webinar on project synergies
M16 = MAR 2021	03/01/2021 - 03/05/2021	Sebastian Ramacher (AIT)	Financial Crypto 2021
M19 = JUNE 2021	06/01/2021 - 06/02/2021	Stefan More (TUG)	Open Identity Summit
	06/22/2021 - 06/24/2021	Stefan More (TUG)	IFIP Sec
M22 = SEP 2021	09/30/2021	Stephan Krenn (AIT)	FITCE Congress for ICT Professionals

M23 = OCT 2021	10/18/2021	Stephan Krenn (AIT)	ECSEL Austria Conference 2021
M24 - NOV 2021	11/29/2021	Silvia Gabrielli (FBK), Javier Presa Cordero (Atos), Davide Zaccagnini (Linkeus), Sebastian Ramacher (AIT)	EBDVF 2021
TOTAL Y2	11		
TOTAL	15		

Table 11: Industrial Events

Given the circumstances, and as previously stated in D6.6., most of the events were online. KRAKEN has exceeded its estimations and has had an active and successful participation in many activities.

KRAKEN's paper "**Fine-Grained Forward Secrecy: Allow-List/Deny-List Encryption and Applications**" was presented by AIT at **Financial Cryptography and Data Security 2021**, as explained in KRAKEN's second newsletter. Financial Cryptography and Data Security 2021 is an international conference covering all aspects of information assurance, securing transactions and systems. The conference brings security and cryptography researchers and practitioners together with economists, bankers, implementers, and policymakers. **The video of the talk is available on YouTube [here](#).** More information on puncturable encryption and its applications are also available in a 3-part blog series.

Also, on April 22nd and 23rd, BDVA/DAIRO organized its **Activity Group (AG44)" meeting**, where KRAKEN was presented. It was during Session 2: "Data space reference architecture standards at ISO", with more than 80 participants from other different projects and organizations.

With the goal of **sharing ideas** and lessons learned, finding how to collaborate together and **identifying potential synergies**, representatives of three projects met in November 2020 in a workshop with QualiChain and DE4A. Fruitful discussion during the meeting led to discover common key areas where the 3 projects are working: **decentralized approaches** for sharing and verifying individual credential based on privacy by design.

As explained in KRAKEN's second newsletter, QualiChain and DE4A will conduct pilots over their solutions and they will be in close communication to the share their results:

QualiChain targets the creation and piloting of a decentralized platform for storing, sharing and verifying education and employment qualifications and focuses on the assessment of the potential of blockchain technology, algorithmic techniques and computational intelligence for disrupting the domain of public education.

DE4A will validate in 3 pilots a comprehensive, holistic, flexible, EU-scalable approach to develop the potential and benefits of securely sharing relevant-only data once-only across digital-by-default, giving users access to public services online, making online public services more trustworthy and secure.

2.6. Partners' contributions

Atos Research & Innovation

Atos has contributed to KRAKEN communication activities during Y2 by being active in social media and the web as listed on the below table

Communication activities					
Date	Medium	URL	Type	Title	Also shared via...
10/11/2020	Booklet ARI	https://booklet.atosresearch.eu/event/papaya-fentec-and-kraken-ebdvf-event	Blog article	Title session: "Privacy-preserving technologies - a key enabler of big data for AI"	Twitter: https://twitter.com/KrakenH2020/status/1317071002543730688?s=20 https://twitter.com/AriMarcomm/status/1323905321346191361?s=20 https://twitter.com/AriMarcomm/status/1323918430546907137?s=20 https://twitter.com/AriMarcomm/status/1321451662016393216?s=20 https://twitter.com/AriMarcomm/status/1323222069522403330?s=20 https://twitter.com/AriMarcomm/status/1337063272365821953?s=20 https://twitter.com/AriMarcomm/status/1321451662016393216?s=20
05/06/2021	Booklet ARI	https://booklet.atosresearch.eu/pre-releases/kraken-project-innovating-personal-data-protection	Blog article	Brokerage and market platform for personal data	
10/31/2020	ARI Newsletter #41 Nov	Internal link	Newsletter	Parallel Session on Privacy-preserving technologies – a key enabler of big data for AI	Twitter: https://twitter.com/AriMarcomm/status/1331990861744365575?s=20 https://twitter.com/AriMarcomm/status/1330813088279396353?s=20

Table 12: Overview of Atos communication activities



Moreover, the Twitter profile of Atos Research and Innovation provided continuous support by sharing content and retweeting KRAKEN's Twitter account.

Figure 35: Twitter support from ARI-Marcomm

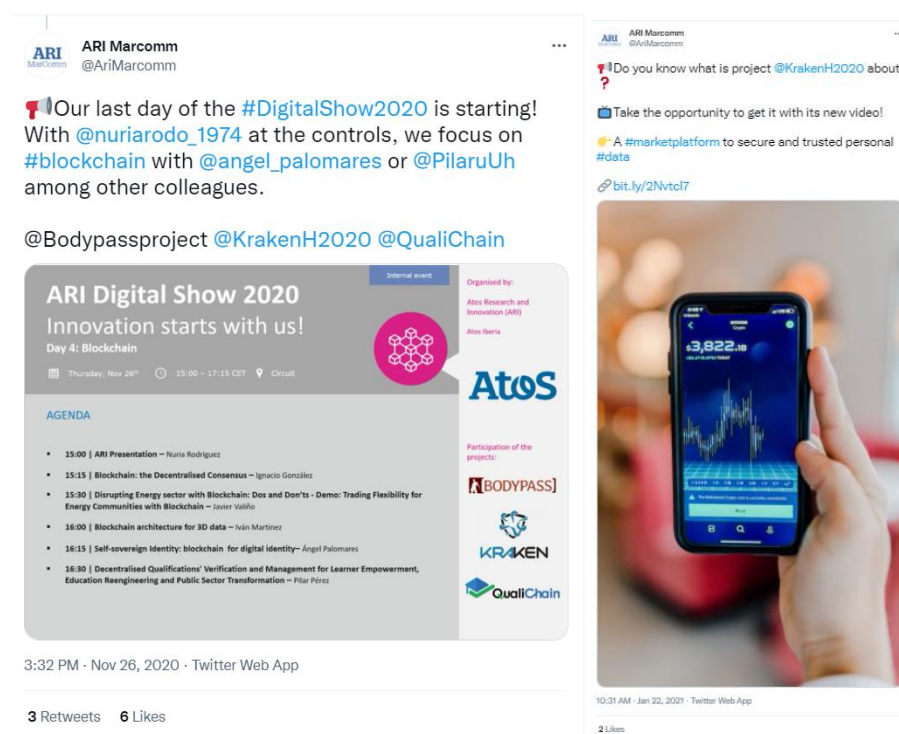


Figure 36: Twitter support from ARI-Marcomm II

TX – Technology Exploration Oy

TEX has published three in-depth blog articles on its own company blog during November 2020–November 2021, one of which was an overview of KRAKEN project activities during the previous year, while two articles dealt with specific research topics (How to overcome the challenge of privacy with MPC; What are the service and UX design challenges in privacy preserving marketplaces). TEX also participated in writing a scientific conference paper about the MPC technology, published on several research portals. These publications were shared in the company's social media channels along with several status updates about the KRAKEN project.

Communication activities					
Date	Medium	URL	Type	Title	Also shared via...
09/06/2021	TX Blog	https://tx.company/blog/kraken-overcoming-the-challenge-of-privacy-in-data-marketplaces-with-mpc/	Blog article	KRAKEN: Overcoming the challenge of privacy in data marketplaces with MPC	LinkedIn, Twitter, Facebook
26/05/2021	TX Blog	https://tx.company/blog/making-personal-data-accessible-while-strictly-private/	Blog article	Making personal data accessible while strictly private – Design challenges in the KRAKEN project	LinkedIn, Twitter, Facebook
19/01/2021	TX Blog	https://tx.company/blog/kraken-2020-recap/	Blog article	Recap of 2020 in the KRAKEN project	LinkedIn, Twitter, Facebook

Table 13: Overview of TEX communication activities**INFOCERT**

Communication activities					
Date	Medium	URL	Type	Title	Also shared via...
9.10.2020	WEB	https://www.datamanager.it/2020/04/infocert-digital-transformation-la-chiave-e-la-firma/	On line press	InfoCert: digital transformation, la chiave è la firma	
8.07.2020	WEB	https://www.krakenh2020.eu/blog/healthcare-challenge-balancing-data-security-sharing	Article	The healthcare challenge: balancing data security & sharing	
01.02.2021	WEB	https://www.linkedin.com/feed/update/urn:li:activity:6762667750826487809	News on LinkedIn	KRAKEN	
15.07.2020	WEB	https://twitter.com/InfoCert_it/status/1283432760401711104	News on Twitter	How to unlock the potential of health data guarantying	

				security and privacy?
15/01/2019	WEB	https://infocert.digital/research-development/	InfoCert Website	KRAKEN - Secure, share and trade personal data within blockchain

Table 14: Overview of INFOCERT communication activities**FBK**

Communication activities					
Date	Via	URL	Type	Title	Also shared via...
29.11.2021	Online	https://european-big-data-value-forum.b2match.io/agenda	Sponsored session	KRAKEN. User engagement with privacy-preserving data sharing platforms: challenges and opportunities	Emails to partners and contacts

Table 15: Overview of FBK communication activities**AIT**

During the second project year, AIT actively participated in various dissemination, standardization (cf. also Sections 3 and 4) and communication activities of the project, including joint activities with other partners (cf., e.g., FBK) and the project's blog (cf. Section 2.4.1).

The following list provides a non-exhaustive overview of communication activities to industry partners and policy makers performed by AIT during the second project year of KRAKEN.

Communication activities					
Date	Medium	URL	Type	Title	Also shared via...
30.09.2021	FITCE Congress for ICT Professionals	https://www.fitce.org/congress/	Invited talk	Secure Multi Party Computation and Privacy-Preserving DataMarkets	
18.10.2021	ECSEL Austria Conference	https://www.ecsel-austria.net/news-events/news/news-detail/ecsel-austria-conference-sustainable-	Invited talk	European Digital Sovereignty and Global Competitiveness by Secure Mobile Working and Smart Data Sharing	

	rence 2021	society-move-data-not- people-positioning-europe			
29.11.2021	Online	https://european-big-data-value-forum.b2match.io/agenda	Sponsored session	KRAKEN. User engagement with privacy-preserving data sharing platforms: challenges and opportunities	Emails to partners and contacts

Table 16: Overview of AIT communication activities

KULEUVEN

Communication activities					
Date	Medium	URL	Type	Title	Also shared via...
15/09/2020	Website	https://www.law.kuleuven.be/citip/blog/shopping-for-data-the-emergence-of-privacy-aware-data-marketplaces-in-the-eu/	Blog	Shopping for data: the emergence of privacy-aware data marketplaces in the EU	

Table 17: Overview of KULEUVEN communication activities

3. Dissemination report

The following section provides an overview of the project's activities carried out to disseminate the project's foreground knowledge. For a detailed overview of KRAKEN's target audience and venues, we refer to D6.6 Initial Communication report, delivered in September 2020.

3.1. Collaboration with Related Research Initiatives

Over the first two years of the project, KRAKEN has collaborated with other research initiatives in order to leverage synergies and to avoid duplication of work and research efforts. The following table provides a summary of joint previous and ongoing activities.

Collaboration with Related R&D Initiatives		
Project	Link	Type of collaboration
CyberSec4Europe	https://cybersec4europe.eu/	The collaboration with this pilot project for a European Cybersecurity Competence Network has led to joint publications as well as joint standardization activities within ISO/IEC JTC1/SC27.
PROFET	https://profet.at/	The collaboration with this national Austrian research initiative on cryptographic foundations for a future-proof Internet has led to joint publications.
FlexProd	https://flexprod.at/	Joint activities with FlexProd are mainly centered around the development of platform for secure and integrity-preserving multi-party computation, and standardization of such technologies.
SECREDas	https://secredas-project.eu/	The collaboration with this ECSEL joint undertaking has led to joint publications on cryptographic building blocks
Comp4Drones	https://www.comp4drones.eu/	The collaboration with this ECSEL joint undertaking has led to joint publications on cryptographic building blocks
Safe-DEED	https://safe-deed.eu/	The collaboration with this H2020 project has led to joint publications on cryptographic building blocks.
CREDENTIAL	https://credential.eu/	KRAKEN leverages parts of the results of the CREDENTIAL data exchange platform, and thus keeps close contact.
MyHealthMyData	https://myhealthmydata.eu/	The KRAKEN consortium is in close contact with the MHMD consortium in order to leverage their platforms and results for the envisioned marketplace.
SlotMachine	https://www.frequentis.com/en/research/projects/slotmachine	Joint activities with SlotMachine are mainly centered around the development of platform for secure and integrity-preserving multi-

		party computation, and standardization of such technologies.
CyberWatching	https://cyberwatching.eu/	KRAKEN has participated in the meeting of privacy projects held by Cyberwatching in order to find synergies and collaboration between European projects.

Table 18: Overview of collaboration with other R&D initiatives

3.2. Target KPIs

In the following table we give an overview of the dissemination key performance indicators for the first two years of the project as specified in the project proposal and provide concrete results up to October 2021.

Dissemination Key Performance Indicators		
Scientific publications	Number of peer-reviewed conference and journal publications	15 (+3 more accepted for publication)
	Proportion of joint publications of private and public consortium partners	28%
	Number of partners per publication ⁴	1.67
Interconnections with other projects	Number of liaisons with other R&D activities	10
	Number of joint publications with other research activities	>50%

Table 19: Dissemination KPI overview

3.3. Publications

In the following table we provide an overview of all scientific publications produced by KRAKEN project since the beginning of the project until the end of October 2021. Note that due to the usual publication timelines, some of these accepted papers will only be published in the following weeks and months.

As a publication highlight, we would like to emphasize the paper “An Attack on Some Signature Schemes Constructed From Five-Pass Identification Schemes” which received the **Best Paper Award** at Cryptology and Network Security – CANS 2020.

Scientific Publications			
Title	Authors	Beneficiaries	Venue
Publication in Y1			
Short-Lived Forward-Secure Delegation for TLS	Lukas Alber, Stefan More, Sebastian Ramacher	TUG, AIT	Cloud Computing Security Workshop – CCSW 2020

⁴ not counting project-external co-authors

Lift-and-Shift: Obtaining Simulation Extractable Subversion and Updatable SNARKs Generically	Behzad Abdolmaleki, Sebastian Ramacher, Daniel Slamanig	AIT	ACM SIGSAC Conference on Computer and Communications Security – ACM CCS 2020
Privacy-preserving Analytics for Data Markets using MPC	Karl Koch, Stephan Krenn, Donato Pellegrino, Sebastian Ramacher	TUG, AIT, TX	Privacy and Identity Management 2020
Publication in Y2			
CCA-Secure (Puncturable) KEMs from Encryption With Non-Negligible Decryption Errors	Valerio Cini, Sebastian Ramacher, Daniel Slamanig, Christoph Striecks	AIT	Advances in Cryptology - ASIACRYPT 2020
Trust Me If You Can: Trusted Transformation Between (JSON) Schemas to Support Global Authentication of Education Credentials	Stefan More, Peter Grassberger, Felix Hörandner, Andreas Abraham, Lukas Daniel Klausner	TUG	IFIP Advances in Information and Communication Technology – IFIP SEC 2021
An Attack on Some Signature Schemes Constructed From Five-Pass Identification Schemes	Daniel Kales, Greg Zaverucha	TUG	Cryptology and Network Security – CANS 2020
The recent case law of the CJEU on (joint) controllership: have we lost the purpose of ‘purpose’?	Charlotte Ducuing, Jessica Schroers	KUL	Computerrecht: Tijdschrift voor Informatica, Telecommunicatie en Recht
Fine-Grained Forward Secrecy: Allow-List/Deny-List Encryption and Applications	David Derler, Sebastian Ramacher, Daniel Slamanig, Christoph Striecks	AIT	Financial Crypto – FC 2021
Updatable Signatures and Message Authentication Codes	Valerio Cini, Sebastian Ramacher, Daniel Slamanig, Christoph Striecks, Erkan Tairi	AIT	Public-Key Cryptography – PKC 2021
Multi-Party Revocation in Sovrin: Performance through Distributed Trust	Lukas Helminger, Daniel Kales, Sebastian Ramacher, Roman Walch	AIT, TUG	Topics in Cryptology – CT-RSA 2021
Banquet: Short and Fast Signatures from AES	Carsten Baum, Cyprien Delpach de Saint Guilhem, Daniel Kales, Emmanuela Orsini, Peter Scholl, Greg Zaverucha	TUG	Public-Key Cryptography – PKC 2021

SSI Strong Authentication using a Mobile-Phone Identity Wallet	Andreas Abraham, Christopher Schinnerl, Stefan More	TUG	Security and Cryptography – SeCrypt 2021
Adapting the TPL Trust Policy Language for a Self-Sovereign Identity World	Stefan More, Lukas Alber, Sebastian Mödersheim, Anders Schlichtkrull	TUG	Open Identity Summit 2021
Privacy-Preserving eID Derivation to Self-Sovereign Identity Systems with Offline Revocation	Andreas Abraham, Karl Koch, Stefan More, Sebastian Ramacher, Miha Stopar	AIT, TUG, XLAB	Trust, Security and Privacy in Computing and Communications – TrustCom 2021
KRAKEN - Brokerage and Market Platform for Personal data	Andreas Abraham, Juan Carlos Perez Braun, Sebastian Ramacher	TUG, Atos, AIT	ERCIM NEWS
Publication scheduled in Y3			
Issuer-Hiding Attribute-Based Credentials	Jan Bobolz, Fabian Eidens, Stephan Krenn, Sebastian Ramacher, Kai Samelin	AIT	Cryptology and Network Security – CANS 2021
Updatable Trapdoor SPHFs: Modular Construction of Updatable Zero-Knowledge Arguments and More	Behzad Abdolmaleki, Daniel Slamanig	AIT	Australasian Conference on Information Security and Privacy – ACISP 2021
KRAKEN: a secure, trusted, regulatory compliant and privacy-preserving data sharing platform	Silvia Gabrielli, Stephan Krenn, Donato Pellegrino, Juan Carlos Pérez Baún, Pilar Pérez Berganza, Sebastian Ramacher, Wim Vandeveld	FBK, ATOS, AIT, TX, KUL	<i>BDVA Book chapter on Data Platforms</i>

Table 20: KRAKEN Scientific publications

4. Standardization report

4.1. Overview of Standardization Bodies

In this section, we give an overview of standardization bodies monitored for potential relations to the KRAKEN project. The KRAKEN consortium continuously monitors the state of the project, the precise results suitable for standardization, as well as ongoing standardization activities in these bodies, in order to select the best-suited standardization bodies to approach. Furthermore, KRAKEN partners are closely following ongoing standardization efforts in order to use them in the KRAKEN development to ensure the highest level of compatibility possible. The

- **ISO/IEC:** The International Organization for Standardization/International Electrotechnical Commission is one of the most renowned standardization bodies worldwide. The two involved bodies seamlessly fit together and complement each other in terms of covered areas: while ISO is primarily focusing on guidelines to ensure, e.g., that materials, products, or processes fit their purpose, IEC is focusing on electro-technology. International standards produced by ISO/IEC are often used as key references for national but also European standards.

For KRAKEN, we identified ISO/IEC JTC1/SC27 on “Information security, cybersecurity and privacy protection” as a relevant committee.

- **ETSI:** The European Telecommunications Standards Institute has members from more than 60 countries, and is publishing more than 2’500 standards annually, promoting a greater harmonization of (European) telecommunication systems.

With relevance to KRAKEN, ETSI is also developing guidelines on personally identifiable information protection, or requirements on data protection and privacy, all addressed within the Security and the Interoperability clusters of ETSI.

- **ITU-T:** The International Telecommunication Union - Telecommunication Standardization Sector is covering numerous fields within telecommunication and information technology. Given ITU’s nature as a specialized agency of the United Nations, standards developed by the ITU-T gain significant international attention.

Relevant groups for KRAKEN contain, among others, the ITU-T Study Group 17: Security on privacy in cloud computing.

- **IETF:** The Internet Engineering Task Force is an open standards organization, developing and promoting voluntary and open Internet standards. All developments and contributions are carried out by volunteers on a non-profit basis.

IETF standards could in particular be of interest to KRAKEN because of their Security working group, which is in particular addressing secure authentication and authorization mechanisms.

- **W3C:** The World Wide Web Consortium (W3C) is developing standards for the World Wide Web. The organization has more than 450 members, including commercial, educational and governmental entities. Of particular interest to KRAKEN are the standards on decentralized identifiers (DIDs), verifiable credentials (VC), and the ongoing projects on DID Communication and VC-Wallets.

- **ZKProof:** This community initiative to define standards related to zero-knowledge proofs of knowledge is of particular interest for the parts of KRAKEN related to end-to-end authenticity and verifiability.

Further standardization bodies include, e.g., OASIS (Organization for the Advancement of Structured Information Standards), CSA (Cloud Security Alliance), EuroCloud, or the OpenID Foundation, as well as national standardization organizations and mirror committees. However, after an initial internal assessment regarding suitability and alignment with the project’s contents, these are currently not under closer observation by the consortium.

4.2. Standardization Activities

The following table provides an overview of active ongoing contributions to international standardization efforts. All listed activities are aiming at standardizing the cryptographic building blocks used within KRAKEN in order to increase compatibility and overcome implementation and integration obstacles of such enhanced techniques into real-world systems.

It is worth noting that all standardization activities listed in the following are to be understood as joint initiatives with other R&D projects, such as CyberSec4Europe, CREDENTIAL, FlexProd, or SlotMachine. Furthermore, collaboration with numerous project-external partners and entities is necessary to reach the mandatory consensus in either of the working groups.

Standardization Activities				
Body	Committee	Standard identifier	Name	Type of contribution
ISO/IEC	JTC1/SC27	ISO/IEC 4922-1	Information security — Secure multiparty computation — Part 1: General	Editor; initiated together with different national bodies, etc.; Current status: committee draft.
ISO/IEC	JTC1/SC27	ISO/IEC 4922-2	Information security — Secure multiparty computation — Part 2: Mechanisms based on secret sharing	Co-editor; initiated together with different national bodies, etc.; Current status: working draft.
ISO/IEC	JTC1/SC27	ISO/IEC 20008-3	Information technology — Security techniques — Anonymous digital signatures — Part 3: Mechanisms using multiple public keys	Contributor; Current status: working draft
ISO/IEC	JTC1/SC27	ISO/IEC 20009-3	Information security — Anonymous entity authentication — Part 3: Mechanisms based on blind signatures	Editor; Current status: Final draft international standard. Publication expected soon
ISO/IEC	JTC1/SC27	ISO/IEC 20008-2/AMD2	Information technology — Security techniques — Anonymous digital signatures — Part 2: Mechanisms using a group public key — Amendment 2	Co-editor; Current status: committee draft.
ZKProof	n/a		Working group on Sigma-protocols	Co-initiator and co-editor of the working group.

Table 15 Standardization activities by M23

5. Y3 Action plan

For Y3, as engagement is the main objective, KRAKEN will implement multiple communication actions to reach stakeholders, potential users, citizens and institutions through different channels:

ROAD MAP M24-M36

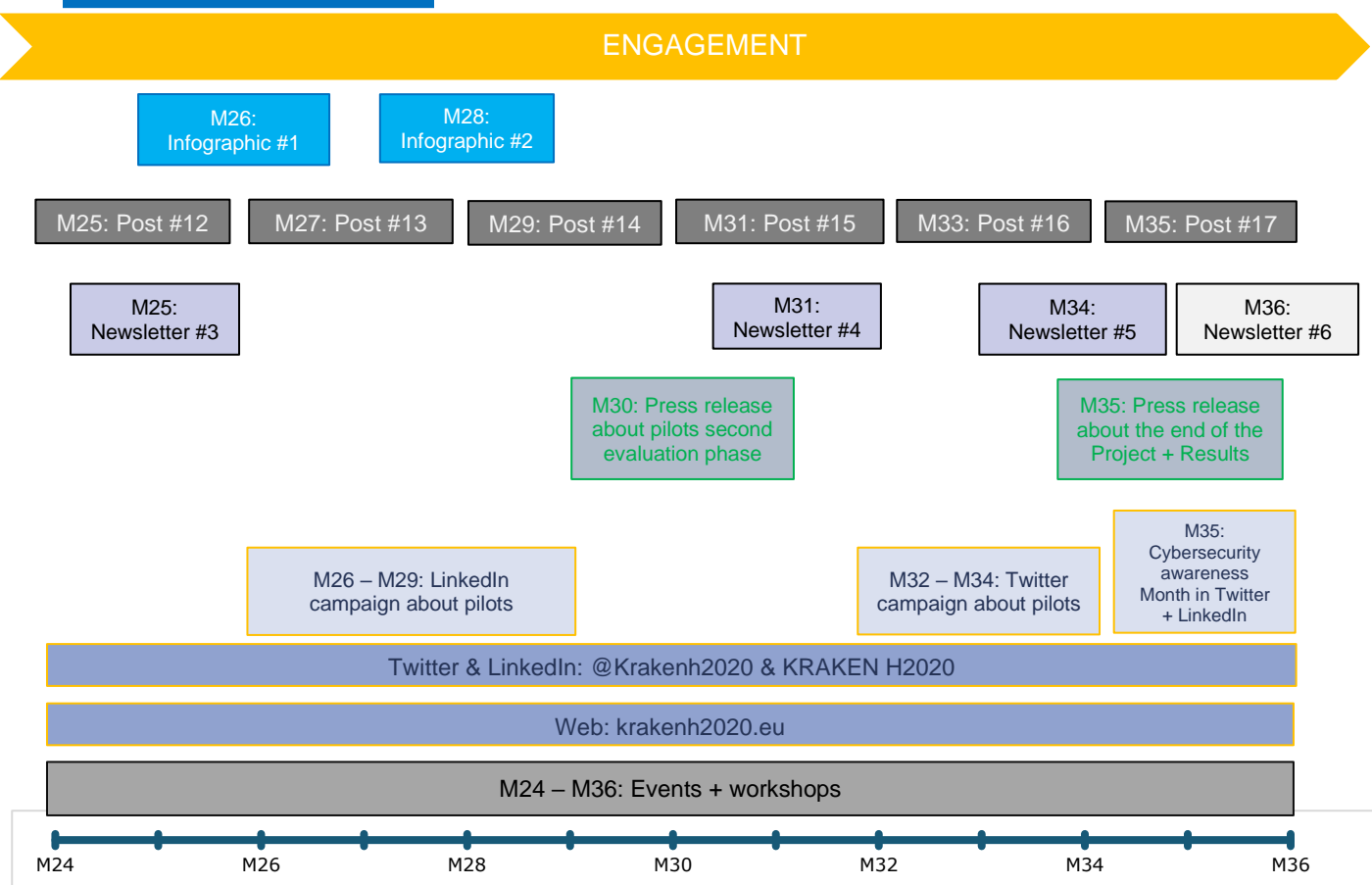


Figure 37: Y3 Dissemination and Communication plan

5.2. Digital marketing & communication actions

5.2.1. Website

KRAKEN will continue to monitor its website performance, as well as to propose the necessary adjustments on the following months. Thanks to the content planification and communication activities, **the website will have updated value to offer**.

We will supervise possible changes to optimize the user experience and make sure that updated information about the project performance and results is published. One of the main challenges is to reduce the bounce rate by creating an open, amicable space to the eyes, as exposed before on this same report. **Making the website easier and simpler will be a priority** to reduce loading times and distractions to engage and increase the standard time per visitor and to take into account returning visitors and how to highlight for them new content.

5.2.2.Social Media

In Y3 there will be three work lines on social media:

- **LinkedIn campaign for the pilots** to attract stakeholders plus alliances.
- **Twitter campaign for the pilots** to attract citizens, communities and users.
- **Twitter + LinkedIn campaigns in October 2022** to engage with broad audiences from all kind of profiles, but mostly technical and professionals undertone.

The frequency of the posts will be as stated below:

- Three posts per week in LinkedIn.
- Five posts per week in Twitter.

KRAKEN will make sure to consider its previous efforts such as ‘Alice&Bob’ related website and also the previous marketing materials such as the promotional video about the purposes and goals of the project to keep on sharing it through our digital channels.

Moreover, **KRAKEN will keep coordinating within the consortium** to boost the impact of these actions that will develop alongside Y3 to make sure engagement is stablished and nurtured.

5.2.3.Non-scientific technical publications

KRAKEN will publish a post every two months on its website with explanations about its advances in the pilots, architecture updates, core technologies, as well as sustainability perspectives and responsibilities.

5.2.4.Media

There will be two press releases, one to promote pilots advances and another one to promote the project as a whole, at the very end of it. KRAKEN will monitor which news outlets and spaces are better suited for these objectives and will update its data base to assure enlarging its public presence and reputation. The commitment and contribution of partners to publish the press release and issue it to media outlets will be fundamental to maximize the impact.

5.2.5.Newsletter

KRAKEN estimation are four newsletters until the end of the project:

- **M25 #3 Newsletter** Education Pilot advances.
- **M31 #4 Newsletter** Health Pilot advances.
- **M34: #5 Newsletter** Special edition centered on Cybersecurity Awareness Month.
- **M35: #6 Newsletter** Recap of Kraken’s achievements and milestones.

5.3. Events & materials

To attract industrial stakeholders but also to be used in future events, KRAKEN will produce two infographics focused on its two pilots that will be delivered and validated between July 2022 and October 2022.

Moreover, KRAKEN will continue to look for opportunities to arrange future participations on workshops, meetings, talks and industrial encounters in Y3, despite the context and mostly online.

5.4. KPIs Y3

After the analysis of the first months of work and the results achieved, the previous strategy has been elaborated and the following KPIs have been established.

About the last section, whitepapers, KRAKEN's project considers those documents which are technical and practical solutions proposals from any partner of the consortium. Given that KRAKEN's website has had non-scientific publications and the high level of presentations in events, KRAKEN considers this aspect has been covered but will make sure to have two whitepapers for internal or public publication in order to contribute to a better share of knowledge.

Activity	KPI's Y1	Achieved M10	KPI's Y2	Achieved M23	Expected vs Total M1-M23	KPI's Y3	Total expected by End of the Project
Project Website	>1,000 unique visitors/year <65% Bounce Rate /Y1	2,912 64,96%	>3,000 unique visitors <69% Bounce Rate	11.000 79,68%	4.000 / 13.912 67% / 72.32%	>6,000 unique visitors Y3 <70% Bounce Rate	>10,000 unique visitors < 72% average bounce rate Y1-Y3
Social Media	>200 Followers/M12 >9,000 Twitter Impressions Y1 >3 social media channels	149 32,885 3	>300 followers >9,000 Twitter impressions Y2 >3 social media channels	400 4000 3	300 / 400 9000 / 36.885 3 / 3	>100 followers >4000 impressions Y3 >3 social media channels	>500 Followers >22.000 impressions >3 social media channels
Non-scientific technical publications	2 publications/M12	3	5 publications	8	7 / 11	8 publications	15 publications
Comm & promotional material	1 press release / Y1 2 newsletters / Y1 1 video / M10 First posters & brochures M4	1 1 1 3	4 newsletters 1 brochure	2 1	1 / 1 4 / 3 1/1 4/4	2 press releases 3 newsletters 2 infographics	3 press releases 6 newsletters 1 video 6 graphic material created (brochure, flyer, infographics, etc)
Industry events	>1 Industry exhibition attended / M12 >2,000 visitors / M12	3 n/a	> 1 Exhibition attended >2,000 visitors	13 n/a	2/16 1720	> 1 Exhibition attended >2,000 visitors	>3 Exhibitions attended >5.000 visitors
White Papers	Activity after M12	n/a	1	0	1/0	0	2

Table 21: Y3 Target KPIs

6. Conclusions

This deliverable gives a summary of communication, dissemination and standardisation activities carried out by the KRAKEN consortium up until November 2021 (M24), with a focus on the second year of the project. It thereby presents an update of **D6.6 Initial Communication Report** and will be followed and updated by **D6.8 Final Communication, dissemination and standardization report**, due in November 2022.

Despite the still ongoing global Covid-19 crisis, with its significant impact on travel, face-to-face events, and direct dissemination and communication activities, the consortium has not only achieved but also clearly exceeded most of the defined dissemination and communication KPIs for the period. Nevertheless, the still ongoing uncertainty of the current situation is a significant challenge for the implementation of project activities, which the KRAKEN team will continue to overcome by exploring new ways of communication and exploit digital channels.

While Y1 of the project was dedicated to **visibility**, the second year focussed on raising project **awareness** to make it recognizable for stakeholders and potential customers. The last year of the project will focus on interactive **engagement**, by generating interactions with stakeholders and potential customers, in order to support the successful and sustainable exploitation of KRAKEN's findings also after the end of project.



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