DATA-PROTECTION TOOLKIT REDUCING RISKS IN HOSPITALS AND CARE CENTERS

Project Nº 826284

ProTego

D8.5 Report on the 2nd period dissemination and communication activities and results

Responsible:	KU Leuven
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Executive summary

This deliverable provides an overview of the dissemination and communication activities that were carried out by the consortium members of the ProTego project during the second project year. In September 2020, the ProTego project organised an online workshop on data protection for health care. An important number of new scientific publications have been published, and released to the general public via an open repository. In this deliverable, we will report on the following categories of dissemination and communication activities: (1) scientific, peer-reviewed publications, (2) project website, (3) social media and monthly blog posts, (4) organisation of workshops, and (5) active participation in workshops. For each of the categories, the specific actions and results will be presented. The activities discussed in this deliverable complement the dissemination and communication activities of the first project year, which were reported in deliverable D8.3. These will not be repeated in this report.

The COVID19 pandemic had a significant impact on the dissemination and communication activities of ProTego in 2020. Many exhibitions and events have been cancelled, or have been transformed into a digital (i.e. online) event. It is very likely that the impact of this world-wide crisis will continue in 2021 as well. Therefore, the ProTego consortium has decided to revise its dissemination and communication plan, including the related dissemination KPIs, taking into account the impact of the pandemic. This revised plan and KPIs will be presented in this deliverable.

We conclude this report with a progress status update of the dissemination activities in ProTego with respect to the revised KPI targets. In short, all dissemination activities are on track, and no significant deviations are monitored. Therefore, we expect to reach all the (revised) KPI targets by the end of the project.

Contributors Table

DOCUMENT SECTION	AUTHOR(S)	REVIEWER(S)
ALL	Dave Singelée	All partners

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Table of Acronyms and Definitions

Acronym	Definition
CP	Communication Plan
IoT	Internet of Things
KPI	Key Performance Indicator
R&D	Research and Development
RDP	Results Dissemination Plan
SEO	Search Engine Optimisation
WP	Work Package

I. Introduction

Communication and dissemination of the projects activities and results are important measures to create impact. Therefore, the project consortium has prepared a dissemination plan[1] and corresponding communication tools (see deliverable D8.1) to fully support these activities. The dissemination actions of the project are mainly focused around scientific fields related to cybersecurity in the health sector and IT systems. To monitor the status and progress, the dissemination activities of all project partners are tracked and continuously structured. This includes internal templates to gather all contributions of the project partners, reminders and progress reports to raise the awareness of dissemination and to provide an overview of achieved results.

Within this deliverable, an overview will be given of the current status of all dissemination and communication activities from January 2020 until the beginning of December 2020 (i.e. more or less the second project year, excluding the last 3 weeks of the year), based on these internal templates. Where necessary, some extra context will be given. A similar overview was published at the end of the first project year, and will be published at the end of the project, respectively in deliverable D8.3 and D8.7.

In the next sections of this deliverable, an overview of the different activities will be given. This overview is structured according to the specific dissemination and communication activity. These are respectively:

- Scientific publications
- Project website
- Online articles (monthly blog posts) and social media posts
- Organisation of workshops
- Active participation in workshops

After this overview, we also present a revised dissemination plan and related KPIs. This revised plan takes into account the expected impact of the COVID19 pandemic on dissemination activities in 2021, for example on conferences, workshops, industry exhibitions, etc. We will use these revised KPIs to report on the progress of the dissemination activities in the project, up to the beginning of December 2020.

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[1] This plan is revised for 2021, due to the impact of the COVID19 pandemic. More details can be found in Section VIII of this deliverable.

II. Scientific Publications

The ProTego project is a Research and Innovation Action. Therefore, peer-reviewed scientific publications are an important means to disseminate the project's research findings and outcomes to relevant stakeholders within the scientific and R&D community. Therefore, the project aims to prepare high-quality scientific publications and submit these to peer-reviewed journals and conferences. It is important to take into account that different scientific fields are tackled within the project: cybersecurity, cryptography, computer science, wireless networking, health, social sciences, etc. Therefore, one can expect that various scientific publications of the project might fit within different scientific fields. For each of these publications, one need to take into account the specifics of that scientific domain. This significantly impacts the choice of the conference or journal to submit the work to. For example, research within the cybersecurity domain is most often submitted to scientific conferences, where articles are peer-reviewed and the acceptance rate is very low. In other domains, journals are the preferred dissemination venue to have the largest scientific impact. Since researchers from these different research communities are member of the ProTego consortium, this facilitates the identification of the most suitable dissemination venue for the scientific work within ProTego. Another aspect to consider, is the time between the submission of the article and the actual publication of the article. Depending on the specific journal or conference, this can vary between a few months and more than half a year (even up to more than a year in some specific cases).

In the overview below, we present the scientific peer-reviewed publications of the ProTego project, up to December 2020. We group these publications into the following categories: (1) Published and accepted publications, (2) Submitted publications (these publications are currently being peer-reviewed, but the outcome of this evaluation process is not yet known), (3) Publications under preparation (we limit ourselves to publications that are ready to be submitted within the next 1-2 months at most). This last category also contains the articles that were not accepted for publication at a specific conference or journal, and are now being revised – based on the review comments – before resubmission to another conference or journal. All published papers can be downloaded from the ProTego project website, or from the ProTego Zenodo repository: https://zenodo.org/communities/protego/

Published and accepted publications

1. "Airtime-based Resource Allocation Modelling for Network Slicing in IEEE 802.11 RANs", Pedro Heleno Isolani, Nelson Cardona, Carlos Donato, Guillermo A. Perez, Johann Marquez-Barja, Lisandro Zambenedetti Granville, and Steven Latre. IEEE Communications Letters. pp 1077-1080. May, 2020. ISBN 1089-7798. DOI 10.1109/LCOMM.2020.2977906.

2. "An SDN-based framework for Slice Orchestration using In-Band Network Telemetry in IEEE 802.11", Pedro H Isolani, Jetmir Haxhibeqiri, Ingrid Moerman, Jeroen Hoebeke, Johann M. Marquez-Barja, Lisandro Zambenedetti Granville, Steven Latre. 6th IEEE Conference on Network Softwarization (NETSOFT2020). pp 344-356. June, 2020. Ghent, Belgium . ISBN 978-1-7281-5684-2. DOI 10.1109/NetSoft48620.2020.9165358.

3. "Enabling QoS-secured Enhanced Non-Public Network Slices for Health Environments", Henrique C. Carvalho de Resende, Joao Paulo de Brito Goncalves, Cristiano B. Both, Johann M. Marquez-Barja. 6th EAI/ACM International Conference on Smart Objects and Technologies for Social Good (GOODTECHS20). pp 18-23. September, 2020. Antwerp, Belgium . ISBN 978-1-4503-7559-7/20/09. DOI 10.1145/3411170.3411244.

4. "Db2 Event Store: A Purpose-Built IoT Database Engine", C. Garcia-Arellano, G. Gershinsky, et al. International Conference on Very Large Data Bases (VLDB), August 2020.

5. "A Framework for BYOD Continuous Authentication: Case Study with Soft-Keyboard Metrics for Healthcare Environment", Luis de-Marcos, Carlos Cilleruelo, Javier Junquera and José-Javier Martínez-Herráiz. International Conference on Applied Informatics

(ICAI2020), October 2020, pp. 347-358, Springer-Verlag. DOI 10.1007/978-3-030-61702-8_24.

6. "JBCA: Designing an Adaptive Continuous Authentication Architecture", Javier Junquera, Luis de Marcos, Carlos Cilleruelo, and José-Javier Martínez-Herráiz. 21st International Workshop of Physical Agents (WAF 2020), pp. 194-209, Springer-Verlag. DOI 10.1007/978-3-030-62579-5_14.

7. "A Service Level Agreement Verification System using Blockchains", Joao Paulo de Brito Goncalves, Roberta Lima Gomes, Rodolfo da Silva Villaca, Esteban Municio, Johann M. Marquez-Barja. 11th IEEE International Conference on Software Engineering and Service Science (ICSESS 2020). pp 541-544. October, 2020. Beijing, China . ISBN 978-1-7281-6579-0. DOI 10.1109/ICSESS49938.2020.9237735.

8. "Securing E-Health Networks by applying NetworkSlicing and Blockchain Techniques", Joao Paulo de Brito Goncalves, Henrique Carvalho de Resende, Esteban Municio, Rodolfo Villaca, and Johann M. Marquez-Barja. IEEE Consumer Communications & Networking Conference (CCNC 2021), 4 pages, January 2021.

Submitted publications (under review)

1. SAKE+: Strengthened Symmetric-Key Authenticated Key Exchange with Perfect Forward Secrecy for IoT. (submitted to: CT-RSA 2021)
2. Secure and Practical Key Establishment for New Generations of Implantable Medical Devices. (submitted to: ACNS 2021)
3. MLS-ABAC: Lightweight Multi-Level Security Attribute-Based Access Control scheme (submitted to: ACNS 2021)
4. Securing E-Health Networks by applying Network Slicing and Blockchain Techniques. (submitted to: IEEE Consumer Communications & Networking Conference 2021)
5. Comparing Machine Learning Classifiers for Continuous Authentication on Mobile Devices by Keystroke Dynamics. (submitted to: Wireless Communications and Mobile Computing)
6. Systematic Literature Review in Continuous Authentication. (submitted to: Journal of Network and Computer Applications)
7. Distributed Network Slicing Management Using Blockchains in E-Health Environments (submitted to: Mobile Networks and Applications journal)

Planned publications

1. Deceiving software developers through software libraries.
2. Mobile keystroke dynamics as behavioural biometrics: a cross-session and cross-device study.

III. Project Website

An important dissemination and communication tool of the ProTego project is the project website. This is obviously not the sole environment to provide information about the project results and activities to relevant stakeholders (see rest of this deliverable). Nevertheless, the project website is regularly updated and maintained to provide as much up-to-date information about the project to all target stakeholders, and is most likely for many stakeholders the most important source of information about the ProTego project.

The ProTego website is available on the following link:

https://protego-project.eu/

More information about the design of the website can be found in Deliverable D8.1.

Below, we will give an overview of some statistics related to the ProTego project website. Note that we will use exactly the same statistics as mentioned in Deliverable D8.3, to allow to compare the statistics of the first and second project year.

III.1. Statistics

To monitor the website statistics and support the reporting, we have enabled Google Analytics in the ProTego project website. The statistics disccued below are all derived from the available dashboards, and show the results from December 2019 up to November 2019.

III.1.1. Total number of visitors

The first statistic that we monitored, is the total number of visitors of the ProTego website. Figure 1 shows some general statistics related to the ProTego website, including the number of new users and the number of page views.
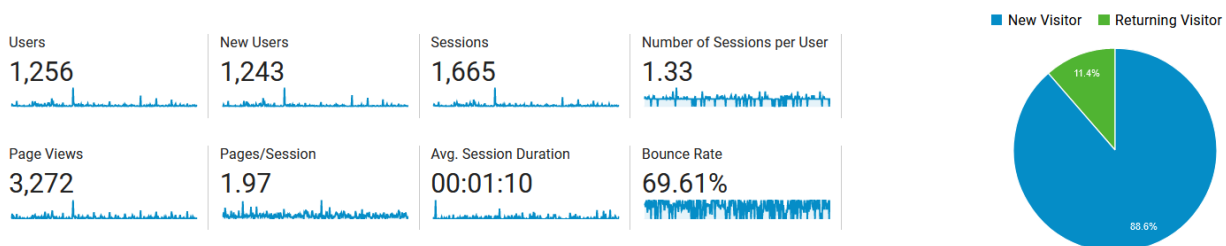
Figure 1. Number of visitors of the ProTego website

In the last year, the website has been visited by 1256 unique users. This is more than double compared to the number of visitors from the first year of the project (655 visitors). The Pie Chart on the right in Figure 1 shows that 88.6% of the visitors to the website are new visitors, and 11.4% are returning visitors. This percentage is very similar to the number of last year.

Another observation in Figure 1 is that, similar to last year, the bounce rate is relatively high. This means that +/- 69% of the visitors specifically visit the website for certain information, for example the newest blog post, and then leave the website again. This is also reflected by the number of pages that are visited per session, which is relatively low (just below 2 pages). Note that the number of page views per session has decreased slightly compared to last year (2.25 in 2019 vs 1.97 now), but this decrease is not significant. These statistics again show that users visit the website to obtain very specific information about the project.
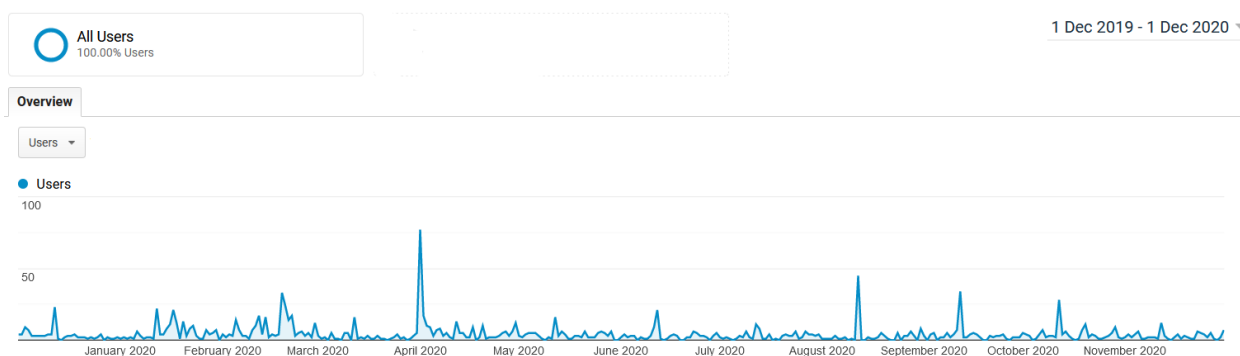
Figure 2. Evolution of the number of visitors (Dec 2019 – November 2020)

The figure above shows the evolution of the number of visitors over the last year, on a daily basis. In the next section, we will zoom in more on the number of visitors per month. However, it is interesting to notice that one can clearly observe several peaks in the number of users visiting the website. Some of these peaks coincide with the publication of a monthly blog post on the website, an observation we also made last year. This confirms again the value of publishing monthly blog posts on the project website. Some other peaks in the daily visits, particularly these in August and September 2020, are probably related to the ProTego workshop that was organised on September 16 this year (more details on this workshop can be found in Section V of this deliverable).

III.1.2. Visitors per month

We can now zoom in a little bit more and study the evolution of the number of visitors per month. Below are the montly statistics, showing the number of visitors for each month in the last year:

- December 2019: 89
- January 2020: 145
- February 2020: 212
- March 2020: 65
- April 2020: 196
- May 2020: 95
- June 2020: 83
- July 2020: 79
- August 2020: 96
- September 2020: 94
- October 2020: 112
- November 2020: 74

If we compare these numbers with the ones from last year, one can make several observations:

- The numbers vary more compared to last year. One possible reason could be the impact of the start of the COVID19 crisis in Europe, which might explain the clear drop in number of visits in the month March (compared to February and April).

- The number of visits in most months is rather similar to the number of visits in the 2nd half of 2019, when the website was up and running and getting more visibility (compared to the launch of the website). This is an important observation, as it shows that the website still regularly attracts new and recurring visitors (i.e. there is no downwards trend).

- However, in some of the months, particularly February and April 2020, the number of visits is significantly higher than all the other months so far, and almost the double of the highest number of visits that was achieved in 2019.
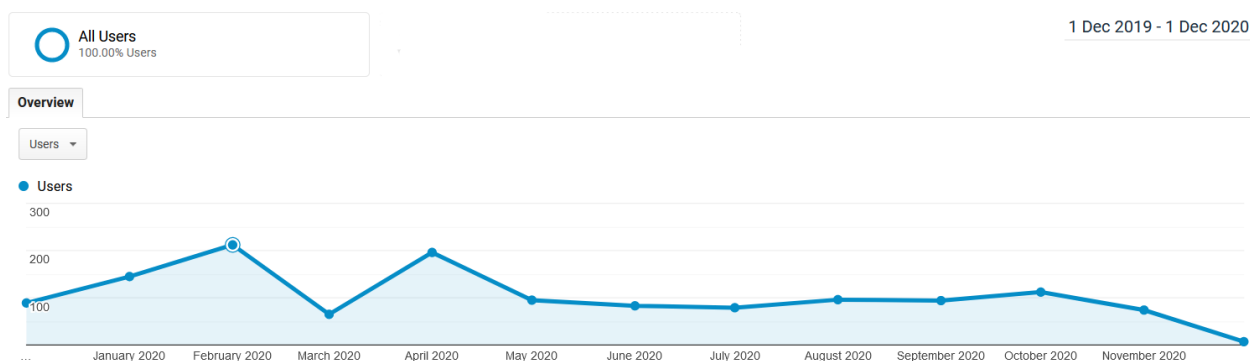
Figure 3. Evolution of the number of visitors on a monthly basis

III.1.3. Country statistics

The next question we investigated, is where the visitors are coming from. In this section, we looked at the country of origin. Later in this report, we will also investigate how users arrived on the ProTego website (e.g. via a search engine or a refferal from another website).

Figure 4 shows the top 10 of countries from which users visited the ProTego website. Not surprisingly, the countries from the consortium partners of the project are well represented in this graph. Nevertheless, some other countries are high in these charts, for example Ireland and the US. The top 4 of the countries in the graph cover about half of the total number of visitors. Compared to last year, the top 6 of countries is the same as last year, although in a different order. Spain has dropped two places in the ranking, and the number of visits from the United States has significantly increased. The number of visits from the top 6 countries is also clearly higher than the visits from other countries.

Country	Users		Users
1. Ireland	191		15.09%
2. United States	177		13.98%
3. Spain	167		13.19%
4. Belgium	111		8.77%
5. Italy	91		7.19%
6. United Kingdom	90		7.11%
7. Brazil	39		3.08%
8. India	34		2.69%
9. (not set)	31		2.45%
10. Netherlands	26		2.05%

Figure 4. Country of website visitors (statistics)

Figure 5 shows similar data, but then graphically depicted on a map of the world. Compared to last year, more regions in the world are now covered. However, not surprisingly, given that the ProTego project is a European R&D project, the largest numbers of users are from European countries, as was also already shown in Figure 4.
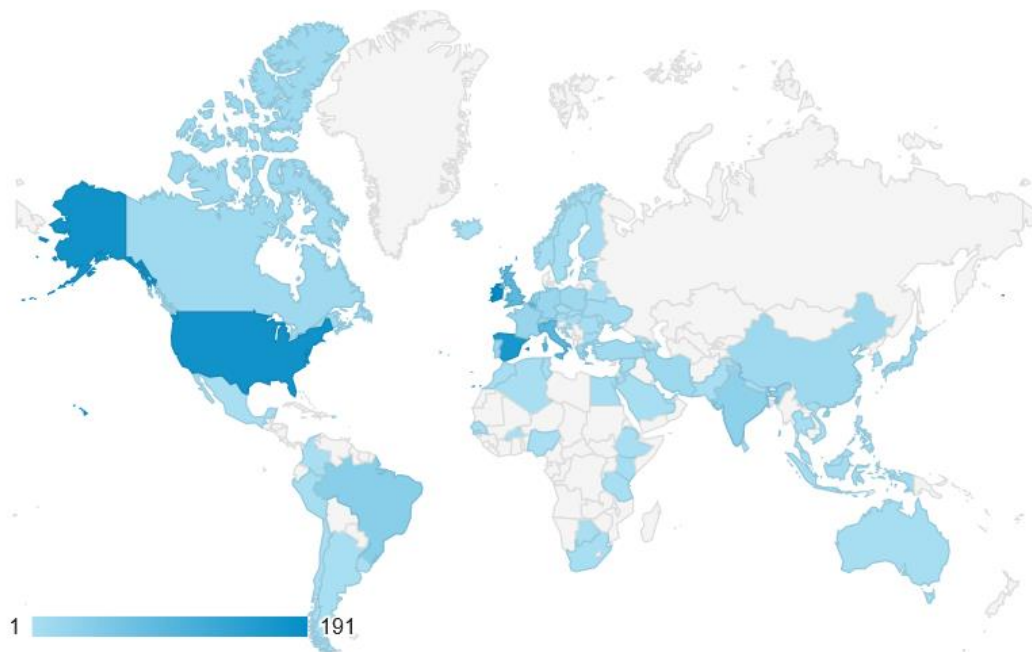
Figure 5. Country of website visitors (map)

III.1.4. Language statistics

Figure 6 below shows the language statistics of the visitors to the ProTego website. These statistics are obviously strongly linked to the country statistics discussed above.

Language	Users	% Users	
1. en-us	666		52.77%
2. en-gb	143		11.33%
3. es-es	96		7.61%
4. it-it	63		4.99%
5. nl-nl	38		3.01%
6. es	26		2.06%
7. en	19		1.51%
8. "en-us"	16		1.27%
9. nl-be	16		1.27%
10. fr-fr	12		0.95%

Figure 6. Default language of visitors of the ProTego website

III.1.5. Page views

The total number of page views on the website, from December 2019 until the end of November 2020, is 3272 - as was already shown in Figure 1. This is almost the double of page views of the first year. This can be explained by the increase in number of visitors (double compared to last year), as was already discussed before. Below one can find an overview of the number of page views per month.

- December 2019: 222

- January 2020: 299

- February 2020: 468

- March 2020: 181

- April 2020: 433

- May 2020: 277

- June 2020: 233

- July 2020: 240

- August 2020: 181

- September 2020: 258

- October 2020: 277

- November 2020: 193

These numbers are strongly related to the number of visitors per month. Both statistics have a strong correlation and follow the same trend. This can also be seen in Figure 7 below, which shows the evolution of the page views per month. Because of this strong correlation, the observations that can be made when comparing the number of visitors in 2019 and 2020, also apply to the comparison of the number of page views in 2019 vs the number of page views in 2020. Therefore, this discussion will not be repeated here.
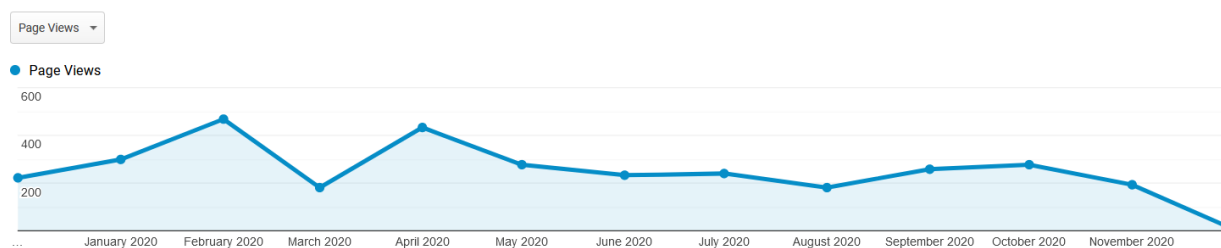
Figure 7. Page views per month.

III.1.6. Most visited pages

The top 4 of the most visited pages is: (1) home page, (2) monthly blogs, (3) the monthly blog post of February 2020, and (4) the project summary. More details can be found in Figure 8 below. These most visited pages are very similar to the most visited pages of last year, the only difference is the blog post of February 2020. The statistics again underline the value of publishing a monthly blog post on the website, an observation that was also made last year. Another recurring observation is that two blog mosts are within the top 10 of most visited pages, one even in the top 3. In these cases, the visitors directly visited this blog post on the website, and did not first click on the 'monthly blog'-tab. Most likely, the users were directed to this blog post via social media posts or via an online search query.

In 2019, about 40% of the users visited the home page of the project website. This year, this number has decreased to 33%. Also the relative number of people that visit the monthly blog page has slightly decreased, which can be explained by the fact that several blog posts received a large number of visits. However, if we combine all visits to the monthly blog pages (so both the main pages as well as the individual blog posts), then the relative statistics are very similar to last year.

Page	Page Views	Unique Page Views	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	3,272 % of Total: 100.00% (3,272)	2,717 % of Total: 100.00% (2,717)	00:01:13 Avg for View: 00:01:13 (0.00%)	1,665 % of Total: 100.00% (1,665)	69.61% Avg for View: 69.61% (0.00%)	50.89% Avg for View: 50.89% (0.00%)	US$0.00 % of Total: 0.00% (US$0.00)
1. /	1,090 (33.31%)	901 (33.16%)	00:01:23	869 (52.19%)	64.79%	59.45%	US$0.00 (0.00%)
2. /blog/	236 (7.21%)	162 (5.96%)	00:01:12	59 (3.54%)	54.24%	27.12%	US$0.00 (0.00%)
3. /2020/02/covid-19s-impact-on-cybersecurity/	234 (7.15%)	190 (6.99%)	00:04:39	173 (10.39%)	82.66%	76.07%	US$0.00 (0.00%)
4. /project-summary/	195 (5.96%)	166 (6.11%)	00:01:13	35 (2.10%)	60.00%	40.51%	US$0.00 (0.00%)
5. /deliverables/	181 (5.53%)	130 (4.78%)	00:01:58	42 (2.52%)	59.52%	45.86%	US$0.00 (0.00%)
6. /publications/	158 (4.83%)	137 (5.04%)	00:00:40	41 (2.46%)	73.17%	36.71%	US$0.00 (0.00%)
7. /news/	145 (4.43%)	113 (4.16%)	00:00:22	23 (1.38%)	52.17%	21.38%	US$0.00 (0.00%)
8. /calendar/	112 (3.42%)	92 (3.39%)	00:00:15	23 (1.38%)	73.91%	25.00%	US$0.00 (0.00%)
9. /links/	106 (3.24%)	97 (3.57%)	00:01:04	26 (1.56%)	69.23%	39.62%	US$0.00 (0.00%)
10. /2019/05/using-network-slicing-to-enhance-security-in-e-health-use-cases/	85 (2.60%)	74 (2.72%)	00:02:37	65 (3.90%)	80.00%	74.12%	US$0.00 (0.00%)

Figure 8. Most visited pages from the ProTego website

III.1.7. Traffic origin

Probably one of the most interesting stastics is the origin of the traffic to the ProTego website; i.e. did visitors directly enter the url of the website (https://protego-project.eu/) or did they enter via other means? For example, users could be redirected to the ProTego website via another site, such as a search engine.

If we have a look to the statistics, we can observe that most visitors go directly to the ProTego website (more than 47%). About 40% of the visitors find the ProTego website via search engines, and less than 4% are redirected to the website via social media. About 9% of the traffic is redirected to the ProTego website via other means. These statistics can be seen in Figure 9 below.

		1,256 % of Total: 100.00% (1,256)
1.	Direct	608 (47.17%)
2.	Organic Search	512 (39.72%)
3.	Referral	117 (9.08%)
4.	Social	52 (4.03%)

Figure 9. Origin of the traffic to the ProTego website (statistics)

Compared to last year, more traffic originates from search engines, although there are still slightly more visitors that direct go to the ProTego website. To leverage on this trend, we have recently further optimised the SEO (*Search Engine Optimisation*) settings of the website. More information can be found below, in Section III.2 of this report.

The absolute number of visitors from social media is almost similar to last year. However, since the number of visitors has doubled, the relative importance of social media, with respect to the origin of the traffic, has decreased. As a remediation, we plan to increase our social media activity in 2021. Let us now zoom in on the social media traffic. Figure 10 shows that most of these visits come from Twitter (more than 65%). This is not a surprise, as ProTego has its own Twitter account. The account is used to announce updates on the website, such as new montly blog posts. The ProTego project does not have its own LinkedIn page or Facebook page, so these visits originate from social media posts published by one of the consortium partners. In 2021, the ProTego project aims to leverage more on the use of LinkedIn, as it allows to target more easily specific groups of stakeholders, for example people from the health or cybersecurity industry.

	52 % of Total: 4.14% (1,256)	
1.	Twitter	**34** (65.38%)
2.	Facebook	**10** (19.23%)
3.	LinkedIn	**8** (15.38%)

Figure 10. Website visitors originating from social media

III.1.8. Mobile vs desktop

Figure 11 shows that about 18% of the traffic to the ProTego website comes from mobile devices. The ProTego website is designed to be mobile-friendly, so that also mobile users can navigate the site effortlessly. Compared to last year, the balance between mobile and desktop traffic has not changed.

	Device Category	Acquisition			Behaviour			Conversions		
		Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
		1,256 % of Total: 100.00% (1,256)	1,243 % of Total: 100.00% (1,243)	1,665 % of Total: 100.00% (1,665)	69.61% Avg for View: 69.61% (0.00%)	1.97 Avg for View: 1.97 (0.00%)	00:01:10 Avg for View: 00:01:10 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	US$0.00 % of Total: 0.00% (US$0.00)
☐	1. desktop	1,032 (82.17%)	1,020 (82.06%)	1,368 (82.16%)	68.06%	2.07	00:01:14	0.00%	0 (0.00%)	US$0.00 (0.00%)
☐	2. mobile	213 (16.96%)	212 (17.06%)	281 (16.88%)	78.29%	1.46	00:00:53	0.00%	0 (0.00%)	US$0.00 (0.00%)
☐	3. tablet	11 (0.88%)	11 (0.88%)	16 (0.96%)	50.00%	2.19	00:01:13	0.00%	0 (0.00%)	US$0.00 (0.00%)

Figure 11. Mobile vs desktop traffic

III.1.9. Analysis

The statistics obtained via Google Analytics, which were presented in the previous section, give some insights in the effectiveness of distributing project updates and results via the ProTego website. These statistics should not be over-analyzed, but nevertheless show some interesting insights. We already discussed most of the statistics in the section above. That is why we will only highlight a few conclusions:

1. The number of monthly visitors has doubled compared to last year. A similar trend can obviously be observed in the number of page views. This means that the upwards trend, which was already observed last year, continued in 2020. This is a good evolution, since it means that our results and project progress are disseminated to more people.

2. The relative importance of traffic originating from search engines has increased. This share is almost equal to the portion of users visiting the website directly. Search Engine Optimisation has been applied to further increase the visibility of the website via search engines. The visits from social media are relatively low, so the impact of the social media activity of ProTego should be further increased in 2021, particularly given the increase of online dissemination activities due to COVID19.

3. Most users visiting the ProTego website search for general project information, ProTego publications and deliverables, and particularly the monthly blogs. The positive impact of publishing monthly blogs on the website was also observed in 2019, and gets again confirmed in this year's statistics. This activity will continue in 2021.

III.2. Search Engine Optimisation

An important population of the visitors to the ProTego website comes from search engines. To improve the visibility of the website and attract more visitors from, we have installed the Yoast SEO (Search Engine Optimisation) plugin:

https://yoast.com/wordpress/plugins/seo/

More specifically, the free version of Yoast SEO has been used for ProTego. This free SEO plugin has the following features:

- One can enter the keyword or keyphrase one would like a post or page to rank for in the search results. The plugin also checks the content to check whether the keywords are used enough in the content. It also takes into account variations of the keyword or phrase.

- Preview the page in Google: i.e. how does the page or post look like in Google search results.

- Perform a readability scan and compute a score on how easy it is to read the content.

- Set a primary category for a post, and determine the taxonomy for every single page on the website.

- Ease the website development and maintenance. The plugin edits the robots.txt and .htaccess files, cleans up the URLs and generates and updates the sitemaps.

- Ensure that the website is optimized for Google's most recent version of its algorithm.

More information on the plugin can be found on the Yoast website.

IV. Press releases and posts

Below, we discuss the communication activities in the categories of online and social media posts. These are respectively (1) articles posted on the project website (i.e. blog posts), and (2) posts on social media.

IV.1. Montly Blog

The consortium partners of the ProTego project have committed themselves to publish at least one blog post per month. By default, this blog post is posted on the project website. However, if it has been published on an external website (e.g. medium.com), a link to this blog post is added to the ProTego website. The monthly blog posts discuss various topics related to ProTego. To spread the workload, each month a different consortium partner is responsible for writing the blog posts. Another advantage of this approach is that it automatically increases the variability in topics that are discussed.

A new blog post is typically added to the website by the end of each month, although there are a few exceptions. For example, a few blog posts have been slightly shifted in time, resulting in a few months without new blog posts and other months with more than one new blog post. However, these shifts in time are exceptions, as the default frequency is one new blog post per month.

Below one can find an overview of the blog posts from December 2019 to November 2020. As can be seen, 10 monthly blog posts have been produced during this time period. One more blog post is expected at the end of December 2020, and 14 blog posts are planned to be published in the last project year. This will bring the total number of blog posts (already published + planned for the next 13 months) to a total of 36 blog posts, i.e. corresponding to exactly an average of 1 blog post per month.

N°	Publication date	Title of blog post
1	December 2019	Cybersecurity Awareness Of Hospital Employees
2	January 2020	Cybersecurity challenges in serverless computing
3	February 2020	COVID-19's impact on Cybersecurity
4	April 2020	ProTego engagement in the Research Data Alliance (RDA)
5	May 2020	Integrating ProTego – A CI/CD Approach for Security
6	June 2020	Apache Parquet for HL7 FHIR
7	June 2020	BYOD and health sector
8	July 2020	How to Secure E-health Networks?
9	August 2020	Who can access the EHRs in Healthcare Information Systems?
10	November 2020	Evolution of ransomware and health care data

Table 1. Overview of monthly blog posts

IV.2. Social media posts

The main social media communication channel of ProTego is Twitter. The goal of using Twitter within the ProTego project is twofold. First, it is used to announce short news items – for example

a ProTego technical meeting or workshop that took place – so that people can stay up to date of the latest status of the project. Second, it is also used to trigger people to visit the project website, for example by announcing some small teasers (e.g. when a new blog post has been published on the project website).

In total, 35 tweets have been posted on the ProTego Twitter feed from December 2019 until November 2020. Among others, these tweets were related to:

- New blog posts that were posted on the ProTego website.

- Project status updates of ProTego, for example the online technical meeting that took place in May 2020.

- Dissemination activities of the ProTego project, for example participation in healthcare or cybersecurity workshops/conferences.

- Scientific publications of the ProTego project that are accepted and/or published.

- ProTego deliverables that are released to the public.

- New researchers joining the ProTego project.

- News items that are related to data protection and cybersecurity in healthcare.

- The data protection workshop that was organised by ProTego in September 2020.

The number of Twitter followers of the ProTego project is currently 60, as can be seen in Figure 12. This is about twice the number of Twitter followers at the end of 2019. Although this doubling of followers is a good evolution, the effectiveness of redirecting people from Twitter to the project website should be further increased in the next project year. In addition, the ambition is also to further increase the number of followers in 2021, hence improving the visibility of the ProTego project. However, in this entire process, the top priority is the quality of the content (i.e. quality above quantity), for example by publishing Tweets on new research results of the ProTego project.

In short, it is not the goal to increase the number of Tweets in 2021 (+/- 3 Tweets per month is already a good average), but rather to increase the efficacy of our social media campaign. There is also an opportunity for more targeted communication via social media, for example by using additional social media channels, such as LinkedIn.

Figure 12. Screenshot ProTego Twitter

V. Organisation of Workshops

V.1. ProTego workshop

On the16th of September 2020, the ProTego project organised a workshop on 'Data Protection for Health Care'[2]. This half-day workshop was held in conjunction with the GoodTechs Conference. Originally, both the GoodTechs conference and the ProTego workshop were planned to take place in Antwerp (Belgium). However, due to the COVID19 crisis, both events were transformed into an all-digital (i.e. online) event.

The program of the workshop was as follows:
- **14:00h**: Workshop opening, welcome message (Dave Singelée – KU Leuven)
- **14:05h**: KEYNOTE: ProTego – Data-protection Toolkit Reducing Risks in Hospitals and Care Centers (Luis Carrascal Crespo – GFI)
- **14:45h**: Safeguarding Health Data Exchange with CUREX (Christos Xenakis – University of Piraeus)
- **15:10h**: Q&A
- **15:30h**: Break
- **16:00h**: DP-3T: Decentralized Privacy-Preserving Proximity Tracing (Carmela Troncoso – EPFL)
- **16:25h**: Open COVID Data Sharing and the FAPESP COVID-19 DataSharing/BR Repository (Claudia Bauzer Medeiros – University of Campinas)
- **16:50h**: Q&A
- **17:10h**: Closing of the workshop

There was no registration fee to attend the workshop, i.e. all interested people could attend the workshop for free. This was a deliberate decision of the project, to ensure that everybody who was interested, could attend. The small cost of organising the online workshop, was completely covered by ProTego itself.

Figure 13. Youtube stream of the ProTego workshop on September 16, 2020

All presentations were pre-recorded, and shown on Youtube according to the time schedule shown above. The Youtube stream of the GoodTechs conference and the ProTego workshop

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[2] https://goodtechs.eai-conferences.org/2020/data-protection-workshop/

were combined, i.e. the stream of the workshop was appended to the morning talks of the GoodTechs conference. A screenshot of the Youtube stream, taken on the day of the workshop itself, is shown in Figure 13. The advantage of using Youtube to show the workshop talks, is that people can also view the presentations after the workshop has ended (i.e. not live, but delayed). Moreover, the stream was also accessible to people that did not register for the workshop.

The Q&A and discussion sessions were organised via a dedicated Slack channel that was set up. All registered attendees received the invitation to join this Slack channel and participate in the discussions. Interesting discussions took place, for example identifying synergies between the CUREX and ProTego projects, and on topics related to cybersecurity and privacy in the health sector, which is very relevant within the context of ProTego. Figures 14 and 15 show screenshots of some online discussions on Slack during the workshop.
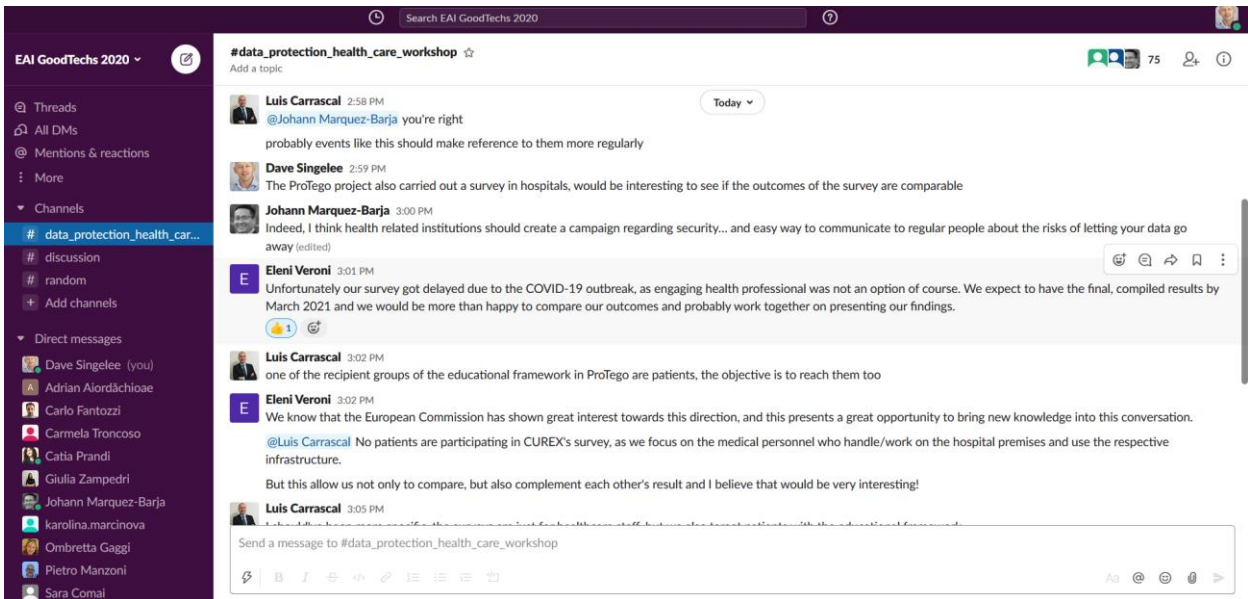
Figure 14. Slack channel to facilitate discussions during the ProTego workshop (1)
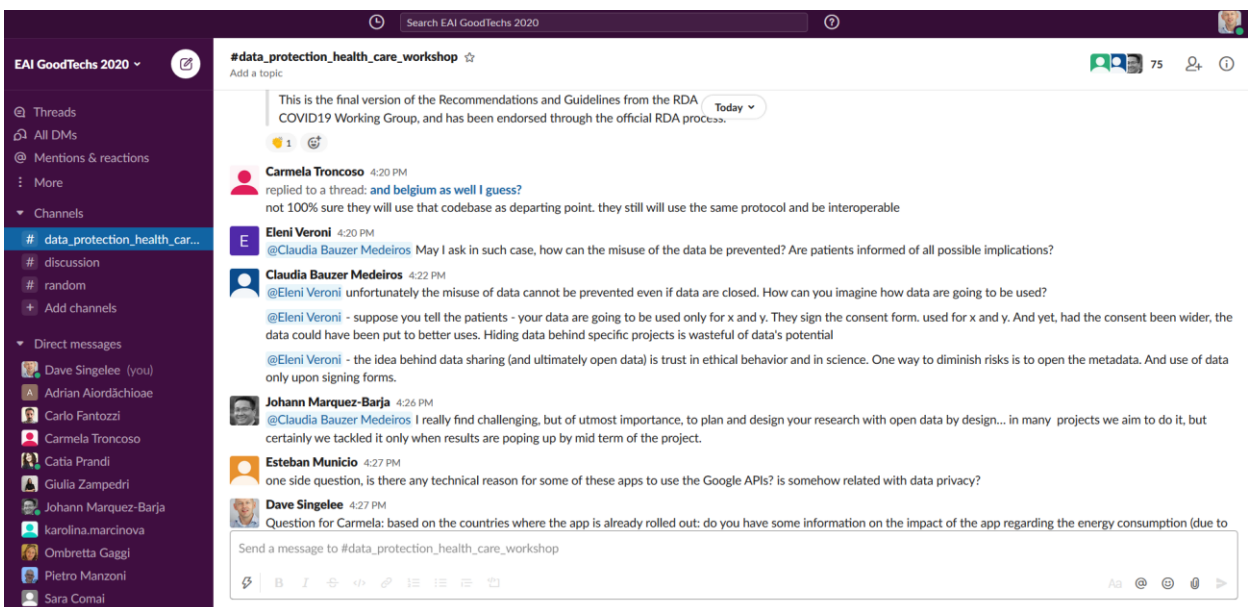
Figure 15. Slack channel to facilitate discussions during the ProTego workshop (2)

As can be seen in the figures above, about 75 people who registered to the conference and workshop, also registered to the dedicated Slack channel. The Youtube stream of the ProTego workshop is currently viewed 168 times in total (statistic measured on December 3, 2020); most of these views took place during the day of the workshop itself (see screenshot in Figure 13).

The goal of organising this workshop was threefold: (1) The GoodTechs conference targets a diverse audience, interested in the design, implementation, deployment, operation and evaluation of smart objects and technologies for the social good. Therefore, the keynote presentation of the workshop – which gave an overview of the ProTego project – was an interesting opportunity to raise the awareness of the project among this diverse audience. (2) The program of the workshop deliberately covered a broader range of topics related to data protection in health care than these that are specifically tackled within the ProTego project. This allows to position the ProTego project towards other initiatives taking place in the healthcare and cybersecurity domain. (3) Other European R&D projects active in the same call as ProTego were invited to participate in the workshop. The goal was to identify synergies between the projects and potentially explore new opportunities for collaboration. The CUREX project[3] accepted this invitation and gave an overview of the activities taking place in their project. During the Q&A session on Slack, some interesting opportunities were explored, for example comparing outcomes of the surveys that both projects conducted to health professionals. These will be further explored in 2021 (see also the revised dissemination plan that is presented later in this deliverable).

V.2. Cybersecurity day at the University of Alcalá

On the 22nd and 23rd of January 2020, the University of Alcalá (UAH) organised a two-day event on cybersecurity[4]. The objective of this workshop is the promotion and dissemination of topics related to security and cyber defense in the university environment. To this end, a set of talks related to topics of interest in this area and a special open session have been scheduled for UAH students and researchers to disseminate their activities in this area.

The workshop was free to attend, and covered various aspects related to cybersecurity. The program of the two-day workshop was as follows:

Day 1 (22/01/2020)

Plenary session:

- **08:30h**: Workshop opening, welcome message (Miguel Ángel Ballesteros Martín)
- **09:00h**: Memoirs of a Forensic Computer Expert (Lorenzo Martínez)
- **10:00h:** DefCon2: anti-terrorist machine learning (Carlos Loureiro)
- **11:00h**: Break
- **11:30h:** The work of SoC (Marta López)
- **12:30h:** Reality surpasses fiction: The evolution of social engineering (Pablo González)
- **13:30h**: Lunch
- **15:30h:** APTualizador: The malware that updates your system (Javier Rascón and Roberto Santos)
- **16:30h:** Arms trade on the darknet ... alone we do nothing (Adriana María Tostón Díez)
- **17:30h**: UAH Session: Talks by Students

Day 2 (23/01/2020)

Parallel technical sessions and talks from industry:

- **10:00h**: Static malware analysis (SmartHC)
- **10:00h**: Cyber intelligence - Obtaining and monitoring exposed assets using OSINT (EY)
- **10:00h**: Creation, implementation and certification of a SoC (Eulen Seguridad)
- **10:00h**: Cyber incident resolution workshop (Entelgy Innotec Security)
- **12:00h**: The Triple Threat: Emotet, Trickbot and Ryuk (Telefonica)
- **12:00h**: Computer threats and approach to their analysis (Everis)
- **12:00h**: From zero to SIEM Elastically (GFI - ProTego)

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[3] https://curex-project.eu/

[4] https://ciberseg.uah.es/

- **12:00h**: Introduction to Boot2Root challenges for beginners with HackTheBox (Deloitte)
- **12:00h**: Password cracking (ISDEFE)

The workshop was attended by local students, researchers, people from industry and policy makers. Figure 16 below shows a picture taken during the presentation of the ProTego project, given by Luis Carrascal Crespo (GFI), on the 2nd day of the workshop.

Figure 16. ProTego presentation at the Cybersecurity Day at the University of Alcalá

VI. Active participation in workshops

During the second year of the project, the consortium partners actively participated to 10 workshops that were relevant for the ProTego project. At these events, results and concepts of the ProTego project were presented to the other participants. The details of these activities are given below (in chronological order):

1. **Cybersecurity day at the University of Alcalá**

   - Date and Location: 23/01/2020, Alcalá de Henares (Spain)

   - Title of presentation: From zero to SIEM Elastically

   - URL: https://ciberseg.uah.es/

   - Context: In January 2020, the University of Alcalá organised a two-day event on cybersecurity. More information on this event can be found in the previous section. On the second day of the workshop, Luis Carrascal Crespo (GFI) gave a technical presentation on the SIEM (Security Information & Event Management). The SIEM is one of the technical components in the ProTego toolkit and the research focus of WP4 of the project.

2. **RootedCON 2020**

   - Date and Location: 07/03/2020, Madrid (Spain)

   - Title of presentation: The day I ruled the world: Deceiving software developers through open source software dependencies

   - URL: https://www.rootedcon.com/index/

   - Context: The computer security conference RootedCON was born with the purpose of promoting the exchange of knowledge between members of the security community. The 2020 edition of the event got attended by more than 2500 people active the cybersecurity domain. UAH (University of Alcalá) presented their research within ProTego at this conference, which took place in Madrid (Spain) in 2020.

3. **NETSOFT 2020**

   - Date and Location: 01/07/2020, online

   - Title of presentation: An SDN-based framework for Slice Orchestration using In-Band Network Telemetry in IEEE 802.11

   - URL: https://netsoft2020.ieee-netsoft.org/

   - Context: Netsoft is a scientific conference that tackles the latest research and innovations in the domain of softwarized networks, including topics such as Software-Defined Networking (SDN), Network Function Virtualization (NFV) and Cloud-Edge-Fog Computing. The 2020 edition of the conference was scheduled to take place in Ghent (Belgium), but was transformed into an online event. Researchers from imec presented their research results from the ProTego project on network slicing at this conference.

4. **VLDB 2020**

   - Date and Location: 01/09/2020, online

   - Title of presentation: Db2 Event Store: A Purpose-Built IoT Database Engine

   - URL: https://vldb2020.org/

   - Context: The VLDB conference is a premier annual international forum for data management and database researchers, vendors, practitioners, application developers, and users. It is one of the most international (in terms of participation,

technical content, organization, and location) among all comparable events. The 2020 edition of the conference was scheduled to take place in Tokyo (Japan), but was transformed into an online event. At this conference, researchers from IBM Research presented their research results from the ProTego project on the Data Gateway, which is one of the technical components in the Protego data protection toolkit.

5. **UK Innovation Strategy Development Workshop**

- <u>Date and Location:</u> 07/09/2020, Online

- <u>Title of presentation:</u> N/A (online panel discussion)

- <u>URL:</u> N/A (invitation only)

- <u>Context</u>: ICE (Information Catalyst) was invited to participate in this online workshop. The goal of the workshop was to discuss the challenges and opportunities in technological innovation from concept to commercialisation.

6. **GoodTechs Conference**

- <u>Date and Location:</u> 14/09/2020, online

- <u>Title of presentation:</u> Enabling QoS-secured Enhanced Non-Public Network Slices for Health Environments

- <u>URL:</u> https://goodtechs.eai-conferences.org/2020/

- <u>Context</u>: The GoodTechs conference tackles all topics related to the design, implementation, deployment, operation and evaluation of smart objects and technologies for the social good. The conference was originally planned to take place in Antwerp, but was transformed into an online event. Researchers from imec presented their research results on network slicing at this conference. Network slicing is one of the technical components in the Protego data protection toolkit.

7. **ProTego workshop on 'Data Protection for Health Care'**

- <u>Date and Location:</u> 16/09/2020, online

- <u>Title of presentation:</u> ProTego – Data-protection Toolkit Reducing Risks in Hospitals and Care Centers

- <u>URL:</u> https://goodtechs.eai-conferences.org/2020/data-protection-workshop/

- <u>Context</u>: The ProTego consortium organised a workshop on data protection for health care in conjunction with the GoodTechs Conference. The workshop was originally planned to take place in Antwerp (Belgium), but was transformed into an online event. More information on this workshop can be found in the previous section. The keynote presentation at this workshop was given by Luis Carrascal Crespo (GFI), who gave an overview of the research objectives and results of the ProTego project.

8. **11th International Conference on Software Engineering and Service Science (ICSESS)**

- <u>Date and Location:</u> 16/10/2020, online

- <u>Title of presentation:</u> A Service Level Agreement Verification System using Blockchains

- <u>URL:</u> http://www.icsess.org/

- <u>Context</u>: ICSESS is an international conference that brings together researchers working on all disciplines related to software engineering. The conference was originally planned to take place in Bejing (China), but was transformed into an

online event. Researchers from imec presented their latest research results on network slicing at this conference.

9. **Third International Conference on Applied Informatics (ICAI)**

- Date and Location: 29/10/2020, online

- Title of presentation: A Framework for BYOD Continuous Authentication: Case Study with Soft-Keyboard Metrics for Healthcare Environment

- URL: https://icai.itiud.org/2020/

- Context: The Third International Conference on Applied Informatics (ICAI) aims to bring together researchers and practitioners working in different domains in the field of informatics in order to exchange their expertise and to discuss the perspectives of development and collaboration. This scientific conference was initially planned to take place in Ota (Nigeria), but was transformed into an online event. UAH (University of Alcalá) presented their research result on continuous authentication at this workshop.

10. **21st International Workshop of Physical Agents (WAF)**

- Date and Location: 19/11/2020, online

- Title of presentation: JBCA: Designing an Adaptive Continuous Authentication Architecture

- URL: http://waf2020.uah.es/

- Context: This year, the 21st edition of the International Workshop of Physical Agents (WAF) was planned to take place in Alcalá de Henares (Spain), but was transformed into an online event. It is a scientific forum for information exchange in different areas regarding the concept of agents on physical environments, especially applied to the control and coordination of autonomous systems robots, mobile robots, industrial processes or complex systems. UAH (University of Alcalá) presented their latest research result on continuous authentication at this workshop.

VII. OPEN ACCESS

Open access provides world-wide and immediate online access to research outputs at no cost to the reader, including the right to fully use these outputs digitally. Open access prevents duplication, fosters knowledge and technological transfer and promotes innovation. Therefore, it is an important aspect to be considered in all dissemination and communication actions.

VII.1.1. ProTego commitment

The ProTego project commits to fully support the open access policy. Therefore, the project consortium will publish all public research outcomes of the project under the terms of open access. More details can be found in the next subsection of this deliverable.

The consortium is convinced that open access can be a win-win situation. Thanks to open access, research results are distributed more quickly and are freely accessible through the Internet. Therefore, the general public gets access to research and can see the result of funded research projects like ProTego. However, an additional benefit is that open access allows to increase the visibility of the research, and hence the likelihood of research results being used by other researchers and stakeholders. Therefore, open access could be a leverage to the valorization and exploitation strategy of the project.

VII.1.2. ProTego actions towards Open Access in 2020

Several actions have been taken by ProTego in 2020 towards supporting the open access policy.

All public research reports and deliverables are made available to the public via the project website of ProTego. Many conferences and journals have at least green open access, meaning that self-archiving is allowed. Therefore, all published articles and papers will be provided on the project website of ProTego. Moreover, the ProTego project also uses an Open Access repository to publish all its research articles. More specifically, a repository on Zenodo has been created for the ProTego project:

https://zenodo.org/communities/protego/

This Zenodo repository further improves the visibility of the ProTego project, and ensures that the research articles are as widely accessible as possible. By default, each new publication is added simultaneously to the ProTego website and the Zenodo repository.

VIII. Revised Dissemination Plan and KPI

VIII.1. Context

At the start of the project, a communication and dissemination plan has been set up, based on the vision and objectives of ProTego. This plan has been described in D8.1 'Marketing material, website, RDP and CP'. To manage and monitor the progress of all dissemination and communication activities, an initial set of dissemination and communication KPIs have been defined during the proposal writing, and further refined at the start of the project. These initial KPIs can be found in Table 2 below.

In all reporting activities of the project, this set of dissemination KPIs has been used as a benchmark to monitor the progress of the dissemination activities within ProTego. Moreover, this progress is also continuously tracked in WP8 of the project, and all new dissemination activities are documented using tools on the project's internal communication platform (Sharepoint).

Table 2. Original dissemination KPIs (outdated from 2021 onwards)

Dissemination channel	Target
Brochures and leaflets	Distributed in at least 20 events
Scientific publications	At least 20 publications
White papers	At least 4
Posters / banners	Used in at least 10 events / locations
Participation in events	At least 20 events
Organization of scientific events or seminars	At least 5
Press releases	At least 10
Project showcases and videos	At least 2
Monthly blog posts	On average, at least 1 per month

During the definition of the KPIs, we assumed that most events and activities would require physical presence, and that only a minor part of the events would be online. This assumption obviously no longer holds in 2020. However, during the initial definition of these KPIs, we had already envisioned that the list of KPIs might undergo further modifications during the execution of the project, for example when new opportunities may rise.

Until now, there was no need yet for a revision of the dissemination plan and KPIs. However due to the current COVID19 pandemic, all dissemination activities are significantly impacted, and there is now a clear need for a new dissemination plan and related KPIs in 2021. However, it is not required to radically change the entire plan. Whenever possible, we opt to keep the new dissemination plan and KPI similar to the original plan, and only consider making changes – taking into account 'the new reality' – when needed. Below, we will give an overview of the updates that will be made to the plan and KPIs. Everything that is not mentioned explicitly in the overview below, has not been changed.

VIII.2. Updates to the dissemination plan

Before we start this overview, it is important to stress that the impact of the pandemic on the nature of dissemination activities (i.e. solely online events taking place) should not necessarily be considered as something exclusively negative, as it also brings new opportunities for the dissemination of the project's research outcomes. Compared to 2019 and before, people are now more used to attend online events. These type of events have several advantages: they are easier and less costly to organise, there are less obstacles for interested participants (no travel needed, lower or no participation costs, etc.), it does not always require live participation (for example when video recordings are made public on channels such as Youtube), and in theory there is no

limit to the number of participants. However, some of these advantages are at the same time also pitfalls. Since online events are relatively easy to set up, there is definitely a risk for an oversupply of online events, making it harder to attract relevant stakeholders. A second obstacle is that it is harder to engage with the audience during online events, and thus to make sure that the main message of a presentation/talk is brought across to the participants. In that respect, it will often be better to organise activities with a short duration (e.g. 1 hour or less), and make the events as interactive as possible, when applicable.

Let us now focus on the updates that are made to the dissemination plan, that will become the new reference for dissemination activities in the project from 2021 onwards.

VIII.2.1. Social media

An important dissemination means that will be used more in 2021, is social media. It is a reality that social media are still getting more popular, and can be used to digitally interact with different groups of stakeholders and communities, for example important customers. Although many social media channels are used for personal entertainment and social interactions, they also have a role within 'professional activities'. We believe that a dedicated social media campaign can help to bring across key findings of the ProTego project to the right audience, and stand out between all the digital information that can be found online. A second goal is to increase the visibility of events that will be organised or where there will be an important participation of the ProTego consortium. This could inspire other people to attend these events as well, or at least follow up these activities.

It is important to find an appropriate balance between the resources spent on this social media campaign vs the objectives mentioned above. Therefore, we will explicitly focus on merely two social media channels, each with a specific objective.

- Twitter: This communication channel is already widely used in the project. It is not the goal to increase the number of Tweets, but rather to increase their visibility, including the number of followers. The advantage of Twitter is that you publish short, to-the-point messages. As before, it will be mainly used to announce new monthly blogs, new scientific publications that are accepted or published, to report on the progress of the report, or to announce new events. The target is to publish at least 30 Tweets in the upcoming year.

- LinkedIn: A social media channel that is underexplored within ProTego until now, is LinkedIn. The advantage of LinkedIn is that it helps to target specific professional communities, for example in the healthcare and security domain. Since the consortium partners are already active in these domains, they have already established contacts to stakeholders that could be interesting for the ProTego project. Therefore, the goal is to report at important milestones, for example a whitepaper that has been published, on LinkedIn. One of the consortium partners can prepare this social media post, and all other consortium partners can reshare this post, to maximise the visibility. Since we will only use LinkedIn at very specific stages during the project, to target is to create 5 different ProTego-specific LinkedIn posts during 2021.

VIII.2.2. Banners and brochures

Although it can be expected that the impact of the pandemic will slighly reduce in 2021, it is unlikely that there will be many physical events in the upcoming year. At this stage, it is impossible to predict if there will no physical events at all, or if these type of events will reappear later in 2021 (for example in the 2nd half of the year). Therefore, due to this uncertainty, it does not make sense to have a dedicated KPI related to the number of events where the ProTego leaflet will be distributed, or where a ProTego poster/banner will be displayed. As a result, there will be no longer a KPI related to these activities. If consortium members of the ProTego project would attend physical (i.e. not online) events in 2021, then they will distribute leaflets and show a ProTego banner at best effort. In that case, these activities will be reported in the upcoming deliverable D8.7, and the next periodic report.

VIII.2.3. Organisation of events, workshops, trainings and seminars

The ProTego project will continue its efforts to disseminate the project's outcomes via events, workshops, trainings and seminars organised by one or more consortium members of ProTego. The difference with the initial vision, is that these events will be online now. Therefore, online workshops, webinars and online trainings will be organised during the rest of the project. Some of these dissemination events will be open to anybody interested. Other events will be closed and for invited people only. The ProTego project aims to increase its ambition and now target a total of 7 (online) events, workshops, trainings and seminars that will be organised by the project.

VIII.2.4. Project showcases and videos

The ambition of ProTego to disseminate findings via a video or a showcase has not changed, and the related KPI will not be revised. The only thing that most likely will change, is the format of such a showcase. Probably at least 1 of these activities will be transformed into an online tutorial or demonstrator. This dissemination activity might be combined with an online workshop, but it is not absolutely necessary – i.e. it could also be a stand-alone event. Most likely, these activities will mostly take place towards the end of the project.

VIII.2.5. Explore synergies with related projects

During the ProTego workshop, some potential synergies with the CUREX project were briefly explored. The goal is to continue this activity in 2021 and reach out to at least 2 related projects, and explore ways to exchange information, organise joint events, engage interactions, etc. The list of projects can still be further refined or modified, but currently the following two projects have been identified as potential candidates:

- CUREX project
- CyberKit4SME[5]

Some of the research results and activities of these projects might be relevant for the ProTego project, and vice versa.

VIII.3. Revised dissemination KPIs

Based on the discussions above, the dissemination KPIs have been revised. An overview of the new dissemination KPIs can be seen in the Table below. We will also use this new table as a benchmark for the progress of all dissemination activities in this report (see next section), and at the end of next year (see upcoming deliverable D8.7).

Table 3. New dissemination KPIs

Dissemination channel	Target
Scientific publications	At least 20 publications
White papers	At least 4
Participation in events	At least 20 events
Organization of scientific events or seminars	At least 7
Press releases	At least 10
Project showcases and videos	At least 2
Monthly blog posts	On average, at least 1 per month
Social media posts	At least 30 Tweets and 5 LinkedIn posts in 2021
Explore synergies with other projects	At least 2 projects in 2021

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[5] https://cordis.europa.eu/project/id/883188

IX. Conclusion

IX.1. **Summary**

In this deliverable, an overview has been provided of the dissemination and communication activities that were carried out by the consortium members of the ProTego project during the second project year (excluding December 2020). These activities included:

- Maintenance of a public project website
- Social media and monthly blog posts
- Active participation in conferences and workshops
- Organisation of two workshops
- Dissemination of the project through scientific research papers

The main dissemination channel is the project website, which contains all the project information. The website statistics – based on Google Analytics – show that the positive trends observed in 2019 still hold for 2020 as well. The total number of visitors over the last year has doubled compared to the first year of the project. This also resulting in a doubling of the page views. The most popular items on the website are the ProTego deliverables, publications, and particularly the monthly blog posts.

Two workshops were organised by the ProTego consortium: the Cybersecurity day at the University of Alcalá, and the ProTego workshop. The latter is an online workshop on data protection for health care that was organised by ProTego in September 2020. This workshop was used to disseminate information on ProTego to a diverse audience. Moreover, we invited other related initiatives and projects to present their work.

At the end of the 2nd project year, 8 scientific publications have been accepted and published, 7 publications are currently under peer-review, and 2 scientific publications are being prepared for submission with the next 1-2 months. This brings the total of scientific, peer-reviewed ProTego publications currently to a total of 17 publications.

A revised dissemination plan and related KPI have been presented, to take into account the expected impact of COVID19 on dissemination activities in 2021. Most of the dissemination targets will be reused, although some activities and KPIs needed to be modified. The KPIs related to the distribution of leaflets and showing a project banner during events have been deleted, as there is too much uncertainty whether physical events can even take place yet in 2021. A new target specific to the use of social media has been added to the list of dissemination KPI. Third, the target number of events to be organised by ProTego, has been increased from 5 to 7. Moreover, these will be mostly online events, webinars and workshops. This focus on online dissemination is also particularly relevant for the planned project showcases and videos, which will now be transformed into online tutorials or showcases. Finally, synergies with related European projects will be explored, and interactions between the respective consortia will be initiated.

IX.2. **Status update dissemination KPIs**

The status update of the dissemination activities at the beginning of December 2020, with respect to the new/revised KPIs, is shown in Table 4 below. If one zooms in on these dissemination results, then one can observe that the number of scientific publications and the number of press releases are both already close to their target value. The number of events in which the ProTego consortium actively participated has reached 75% of its target value, and therefore is expected to exceed the KPI target of 20 events at the end of the project. During most of the 23 first months of the projects, at least one blog post was published, with the exception of two months. This brings the current total number[6] of blog posts to 21. In the last project year, 14 blog posts are planned to be published. Although the number of whitepapers is currently still relatively low, these publications are mostly planned to be produced towards the end of the project (using the research findings of ProTego), and therefore this activity is still on track. This also holds for the project showcases and videos, which only make sense to take place in the last stage of the project.

In conclusion, all dissemination activities are on track, and we expect to reach all the KPI targets by the end of the project. No important deviations can be observed.

Table 4. Status dissemination targets on 1st of December 2020 (M23 of the project)

Dissemination channel	Result	Target
Scientific publications	8+9	At least 20 publications
White papers	1	At least 4
Participation in events	15	At least 20 events
Organization of scientific events or seminars	4	At least 7
Press releases	7	At least 10
Project showcases and videos	0	At least 2
Monthly blog posts	21 posts	On average, at least 1 per month
Social media posts	N/A[7]	At least 30 Tweets and 5 LinkedIn posts in 2021
Explore synergies with other projects	N/A[8]	At least 2 projects in 2021

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[6] Note that one blog post is still scheduled for the end of December 2020. This will appear in the next overview of dissemination activities, presented in D8.7.

[7] The KPI related to social media posts is specifically targeted towards 2021, and therefore not applicable at this moment.

[8] The KPI related to interactions with other related projects is is specifically targeted towards 2021, and therefore not applicable at this moment.

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Date: 01/01/2021

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