



**Multi-layered
Security
Technologies**
for hyper-connected
smart cities

**D5.5: Dissemination Activities Report –
Third Year Report**

September 2021



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Multi-layered Security technologies to ensure hyper-connected smart cities with Blockchain, BigData, Cloud and IoT

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1. Introduction

This document was elaborated for the M-Sec (Multi-layered Security technologies to ensure hyper-connected smart cities with Blockchain, BigData, Cloud and IoT) project.

It corresponds to the **Deliverable 5.5 – Dissemination Activities Report – Third Year Report**, which is a report on the third year of activities (month 25 -39).

This Deliverable comes under Work Package 5: GDPR, dissemination, exploitation and sustainability. WP5 ran from Month 1 until Month 39, i.e. the whole duration of the project. In this way, the communications and dissemination activities were horizontal, touching every element of the project.

In order to ensure compliance to the objectives proposed and the respective KPIs, the main goal of this WP was to multiply the impact of the M-Sec project by collecting and disseminating its results, methodologies, technologies, learnings, and research through different formats that are accessible for multiple audiences, outside the scope of the consortium and project reviewers and to facilitate the building of a community from the stakeholders involved and with interest in the project.

Format of the report

This report follows on directly from [Deliverable 5.4 – Dissemination Activities Report – Second Year Report](#) (June 2020), and acts as the 3-year interim report of progress during the third year of the project. Therefore, in order to compare the activities planned and the activities completed, the deliverable follows a similar format:

- Tools and channels
- Dissemination and Communication Activities – Project Level
- Dissemination and Communication Activities – Partner Level
- Monitoring and evaluation
- Conclusions

Third year progress

Overall, the progress made during this period has been well-planned, executed on time, and reached the targets set. Each of the sections above-mentioned has hit the goals set in the original Outreach Plan [Deliverable 5.2. Initial Dissemination Plan \(December 2018\)](#) and new activities were added, for a higher impact, and, therefore, successfully wrapped-up the dissemination and communication activities of the whole project. The project was also able to accomplish the comments from the second review meeting regarding this WP. Almost all KPIs were achieved and project partners focused on highly impactful tasks that provided visibility to M-Sec and promoted awareness among its community, thus contributing to the successful engagement with the target audience and the showcasing of the project's results.

After two years of intense research and development, the project's first results came in its third year. The M-Sec framework was refined, the project's Use Cases were launched and implemented and the Marketplace was set up. Building up on these results, the project organized co-creation and awareness Webinars with the community to further engage on the M-Sec framework, created and disseminated videos on the Use Cases



implementation and results, improved the website with new relevant information for potential future replication of M-Sec from others, organized an Online Contest to promote the creation of new business ideas build on top of the M-Sec framework, increased its presence in social media and other community platforms to reach out to relevant stakeholders, among other activities. The majority of the work carried out in this period was, thus, dedicated to showcasing the project's results to all relevant stakeholders and engaging the M-Sec community in important activities for the project. Furthermore, connections have been fostered with external actors, such as media, online communities, other relevant projects and partner organizations, in order to mature that community, become a thought-leader in the sphere and ultimately ensure the sustainability of the project's results on the long-term.

2. Tools and channels

As defined in Deliverable 5.2 Initial Dissemination Plan (December 2018), the following are the tools and channels used to support the dissemination and communication of the M-Sec project. Updates since the submission of Deliverable 5.4 Dissemination Activities Report – Second Year Report (June 2020) are provided.

2.1 Visual identity & promotional material

The M-Sec visual identity and all its elements (project name, logo and project colours, funding information and branded templates – Word, PowerPoint, Meeting Minutes, Agenda templates, flyer/poster, business card, name tag, roll-up) have been created, made available through the project's Confluence tool and used in all external and internal communication activities. Furthermore, some of these materials have been made publicly available at M-Sec's website, through a specific webpage for Press related topics, under [“Media Kit”](#) (logo, brand book, PowerPoint, poster and postcard), in order to be used by external media actors or other disseminators. The Press Releases, English and Japanese versions of the PowerPoint template, briefly presenting M-Sec, were updated, and other relevant documents such as the M-Sec White Paper, Cookbook and Comic Book (English, Japanese and Spanish versions) were also made available.

2.2 Project website

The project's website is M-Sec's main communication tool. The website was updated regularly, as the project progressed and major updates in recent months have included:

- The view of the M-Sec architecture was revised, simplified and included in the website, and can be explored in an interactive way, together with the Functional Groups Product Sheets.
- The “About” section of the website was update with visuals for a clearer vision of the M-Sec framework and 4 individual pages were created to further explain the underlying activities behind each of the 4 M-Sec results. More concretely, the [“M-Sec IoT infrastructure”](#) showcases the simplified view of the M-Sec architecture, the video recording of the Webinars on the M-Sec layers and the Use Cases implementation. The [“M-Sec Smart City Ecosystem”](#) promotes the project's Slack community, the F6S IoT Group, the M-Sec Online Contest and showcases the project's relevant partnerships and



provides more information about the strategic objective, value proposition and key benefits of M-Sec per ecosystem player. The “[M-Sec Replication Plan](#)”, whose main goal is to further support the replication of the M-Sec approach, promotes the project’s White Paper and Cookbook and showcases the project’s and Use Cases Business Model Canvas. And finally, “[the M-Sec Marketplace](#)”, that included relevant links to the blogpost, Webinar of 8 July 2021 and Functional Group Product Sheet, as well as the link to the registration page. This link was also added to the Menu bar of the website.

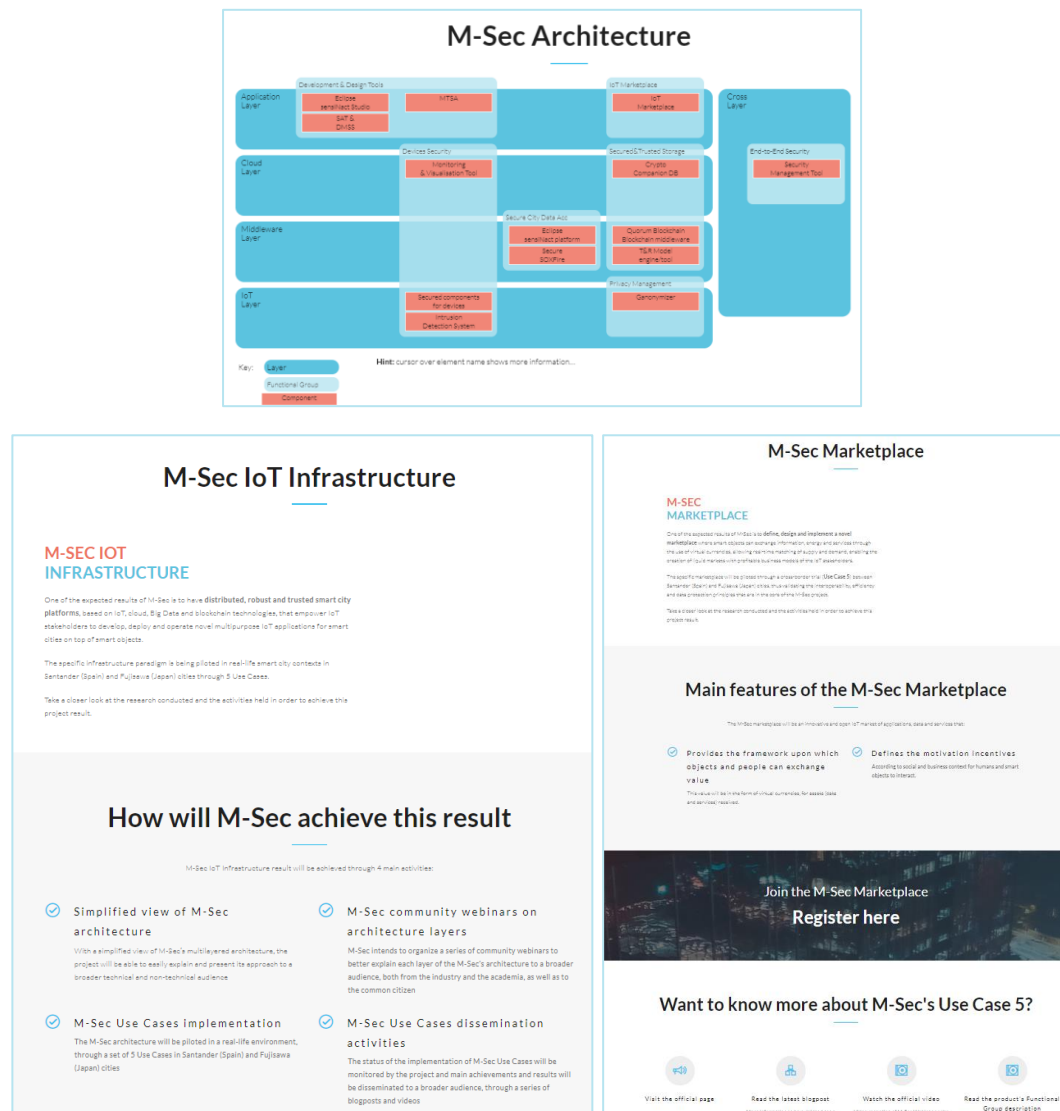


Figure 1: Screenshots of updates to the M-Sec website –M-Sec architecture (top), M-Sec page result on the IoT infrastructure (bottom left corner) and M-Sec page result on the Marketplace (bottom right corner)

- Revision and update of the Use Case pages, to include the implementation status, including product and customer analysis and business model canvas, main results and next steps, as well as the Use Case Product Sheet and video (also shared at M-Sec’s YouTube and social media channel) explaining their main goal and implementation status and exploring the feedback of end-users of those pilots.



Pilot implementation

The system relies into two different IoT devices developed within the project. One of them is a so-called **people counter** device, and it is capable of detecting Wi-Fi and BT MAC addresses and offering a figure which is an estimation of the number of people in the surroundings of that specific spot at that moment in time. This device is installed in one of the hot spots of the Las Llamas Park, just in the level below its restaurant.

The other devices are in charge of performing environmental monitoring by measuring temperature, humidity, CO₂, VOC and noise. The five locations considered for the five sensors that are deployed imply covering on the one hand the child's playground area and on the other hand a complete longitudinal section of the park, going from one side, closer to the University of Cantabria, to the other, just next to a residential area, covering the city motorway which separates this housing zone and the park itself as well.

In the search to complement the service offer, the system offers extended information about 9 specific points of the park where visitors receive specific data about what they can find there. To enable M-Sec pilot users to access this data, 9 QR codes have been distributed throughout the park. Reading these codes allows access to the web application that presents this information together with the data collected by the IoT devices, properly decrypted in the server. In the web app, which is ingrained in the M-Sec application layer, people can join the pilot through a simple registration process and thus have access to all the data offered.

Once registered, users may visit the specific sections allocated to those 9 places to visit or to the IoT devices scattered through the park, where they will be able to check the information and measurements registered and even deposit their satisfaction degree through a simple 5-star rating method that will help M-Sec partners in charge of Use Case 1 get to know how useful the service is according to its participants.

Download the Use Case 1 Product Sheet

And watch our latest video on Use Case 1 implementation

Business Model Canvas

KEY PARTNERS	KEY ACTIVITIES	KEY RESOURCES	CHANNELS	RELATIONSHIPS	VALUE PROPOSITIONS	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> Local authorities (Municipality of Santander) Local businesses (Restaurants, shops, etc.) Local citizens (Residents, tourists, etc.) Local universities (University of Cantabria) Local media (Newspapers, radio, etc.) Local NGOs (Environmental organizations, etc.) Local startups (Tech companies, etc.) Local investors (Venture capitalists, etc.) Local partners (Government, etc.) Local stakeholders (Community, etc.) Local ecosystem (Industry, etc.) Local network (Social media, etc.) Local platform (Marketplace, etc.) Local infrastructure (Transportation, etc.) Local services (Healthcare, education, etc.) Local culture (Traditions, etc.) Local environment (Nature, etc.) Local economy (GDP, etc.) Local society (Demographics, etc.) Local politics (Policy, etc.) Local law (Regulation, etc.) Local ethics (Values, etc.) Local identity (Culture, etc.) Local history (Traditions, etc.) Local geography (Location, etc.) Local climate (Weather, etc.) Local infrastructure (Transportation, etc.) Local services (Healthcare, education, etc.) Local culture (Traditions, etc.) Local environment (Nature, etc.) Local economy (GDP, etc.) Local society (Demographics, etc.) Local politics (Policy, etc.) Local law (Regulation, etc.) Local ethics (Values, etc.) Local identity (Culture, etc.) Local history (Traditions, etc.) Local geography (Location, etc.) Local climate (Weather, etc.) 	<ul style="list-style-type: none"> Developing and deploying IoT devices Collecting and analyzing data Providing real-time information Offering personalized services Enriching user experience Improving park management Enhancing environmental monitoring Supporting local businesses Engaging local citizens Collaborating with local authorities Partnering with local universities Working with local media Cooperating with local NGOs Supporting local startups Attracting local investors Partnering with local government Engaging local community Supporting local ecosystem Improving local infrastructure Providing local services Preserving local culture Protecting local environment Boosting local economy Improving local society Shaping local politics Enforcing local law Promoting local ethics Strengthening local identity Preserving local history Understanding local geography Adapting to local climate 	<ul style="list-style-type: none"> IoT devices (Sensors, actuators, etc.) Data (Raw, processed, etc.) Information (Real-time, historical, etc.) Services (Personalized, generic, etc.) Experience (User, system, etc.) Management (Park, environment, etc.) Monitoring (Environmental, security, etc.) Business (Local, regional, etc.) Citizens (Local, national, etc.) Authorities (Local, regional, etc.) Universities (Local, national, etc.) Media (Local, national, etc.) NGOs (Local, national, etc.) Startups (Local, national, etc.) Investors (Local, national, etc.) Government (Local, national, etc.) Community (Local, national, etc.) Ecosystem (Local, national, etc.) Infrastructure (Local, national, etc.) Services (Local, national, etc.) Culture (Local, national, etc.) Environment (Local, national, etc.) Economy (Local, national, etc.) Society (Local, national, etc.) Politics (Local, national, etc.) Law (Local, national, etc.) Ethics (Local, national, etc.) Identity (Local, national, etc.) History (Local, national, etc.) Geography (Local, national, etc.) Climate (Local, national, etc.) 	<ul style="list-style-type: none"> Mobile app (iOS, Android, etc.) Web portal (Desktop, mobile, etc.) Social media (Facebook, Twitter, etc.) Local news (Radio, TV, etc.) Local events (Festivals, etc.) Local campaigns (Awareness, etc.) Local partnerships (Collaboration, etc.) Local support (Helpdesk, etc.) Local training (Workshops, etc.) Local documentation (Manuals, etc.) Local feedback (Surveys, etc.) Local evaluation (Impact, etc.) Local reporting (Transparency, etc.) Local accountability (Responsibility, etc.) Local sustainability (Long-term, etc.) Local innovation (Creativity, etc.) Local leadership (Vision, etc.) Local governance (Structure, etc.) Local strategy (Plan, etc.) Local execution (Action, etc.) Local results (Outcomes, etc.) Local impact (Change, etc.) Local legacy (Endurance, etc.) Local reputation (Trust, etc.) Local credibility (Expertise, etc.) Local authority (Influence, etc.) Local power (Control, etc.) Local wealth (Resources, etc.) Local status (Ranking, etc.) Local honor (Respect, etc.) Local glory (Fame, etc.) Local pride (Belonging, etc.) Local love (Affection, etc.) Local loyalty (Commitment, etc.) Local devotion (Dedication, etc.) Local passion (Enthusiasm, etc.) Local energy (Vitality, etc.) Local spirit (Mentality, etc.) Local attitude (Mindset, etc.) Local behavior (Conduct, etc.) Local character (Personality, etc.) Local traits (Features, etc.) Local qualities (Attributes, etc.) Local virtues (Values, etc.) Local strengths (Advantages, etc.) Local weaknesses (Disadvantages, etc.) Local opportunities (Prospects, etc.) Local challenges (Obstacles, etc.) Local risks (Threats, etc.) Local rewards (Benefits, etc.) Local costs (Expenses, etc.) Local profits (Gains, etc.) Local losses (Setbacks, etc.) Local failures (Mistakes, etc.) Local successes (Achievements, etc.) Local milestones (Milestones, etc.) Local landmarks (Landmarks, etc.) Local icons (Icons, etc.) Local symbols (Symbols, etc.) Local signs (Signs, etc.) Local signals (Signals, etc.) Local messages (Messages, etc.) Local communications (Communications, etc.) Local interactions (Interactions, etc.) Local relationships (Relationships, etc.) Local connections (Connections, etc.) Local networks (Networks, etc.) Local platforms (Platforms, etc.) Local infrastructures (Infrastructures, etc.) Local services (Services, etc.) Local products (Products, etc.) Local offerings (Offerings, etc.) Local solutions (Solutions, etc.) Local answers (Answers, etc.) Local responses (Responses, etc.) Local reactions (Reactions, etc.) Local feelings (Feelings, etc.) Local emotions (Emotions, etc.) Local moods (Moods, etc.) Local states (States, etc.) Local conditions (Conditions, etc.) Local circumstances (Circumstances, etc.) Local situations (Situations, etc.) Local contexts (Contexts, etc.) Local environments (Environments, etc.) Local settings (Settings, etc.) Local backgrounds (Backgrounds, etc.) Local foregrounds (Foregrounds, etc.) Local middlegrounds (Middlegrounds, etc.) Local backdrops (Backdrops, etc.) Local scenes (Scenes, etc.) Local landscapes (Landscapes, etc.) Local seascapes (Seascapes, etc.) Local skiescapes (Skiescapes, etc.) Local spacescapes (Spacescapes, etc.) Local timescapes (Timescapes, etc.) Local placescapes (Placescapes, etc.) Local eventscapes (Eventscapes, etc.) Local scenescapes (Scenescapes, etc.) Local landscapes (Landscapes, etc.) Local seascapes (Seascapes, etc.) Local skiescapes (Skiescapes, etc.) Local spacescapes (Spacescapes, etc.) Local timescapes (Timescapes, etc.) Local placescapes (Placescapes, etc.) Local eventscapes (Eventscapes, etc.) Local scenescapes (Scenescapes, etc.) 	<ul style="list-style-type: none"> Local citizens (Residents, tourists, etc.) Local businesses (Restaurants, shops, etc.) Local authorities (Municipality of Santander) Local universities (University of Cantabria) Local media (Newspapers, radio, etc.) Local NGOs (Environmental organizations, etc.) Local startups (Tech companies, etc.) Local investors (Venture capitalists, etc.) Local partners (Government, etc.) Local stakeholders (Community, etc.) Local ecosystem (Industry, etc.) Local network (Social media, etc.) Local platform (Marketplace, etc.) Local infrastructure (Transportation, etc.) Local services (Healthcare, education, etc.) Local culture (Traditions, etc.) Local environment (Nature, etc.) Local economy (GDP, etc.) Local society (Demographics, etc.) Local politics (Policy, etc.) Local law (Regulation, etc.) Local ethics (Values, etc.) Local identity (Culture, etc.) Local history (Traditions, etc.) Local geography (Location, etc.) Local climate (Weather, etc.) 		

(left click the picture for a better view)

Main results and next steps

Sensors deployed at Las Llamas park are currently generating data that is being made publicly available through the marketplace allowing interested stakeholders to buy the data generated in the pilot.

Besides, taking advantage of the scalability achieved with the M-Sec framework new deployments in other relevant areas, not only of the city of Santander, but also in villages in the region and in relevant mid-size cities nearby (e.g., Gijón, León) will be possible.

Figure 2: Screenshot of Use Case 1 page at M-Sec website, with the new updates

- Creation of a new page dedicated to the [M-Sec Online Contest](#), explaining the goal, challenges, timeline, awards and providing the link to the application form, the guidelines for applicants and other relevant documents and templates to potential future applicants. It also included a short teaser (also shared at M-Sec's YouTube and social media channels) After the Online Contest, the top 3 winners per challenge were also added to this page, for further visibility of the awarded business ideas and teams, as well as the [wrap-up video](#) with feedback from cities and challenge participants. For more information regarding the Online Contest, please refer to Deliverable 5.10 M-Sec Online Contest Event (September 2021).
- The drafting and publication of 44 blogposts in the "News" webpage, M-Sec's blog & events section, that provides a major opportunity to disseminate the project's upcoming events and initiatives (i.e., e-consultation survey, White Paper, Cookbook, M-Sec Online Contest, partnerships, etc.), follow-up on them and promote the main results of M-Sec and of its Use Cases, alongside interviews to partners' role in the project.
- Revision and update of the Japanese part of the website, to ensure relevant and up to date information regarding the M-Sec project reached the Japanese audience, which included, among others, the M-Sec Use Case pages and videos, the PowerPoint presentation, etc.
- Other regular updates to the Newsletters section in "News", "scientific publications", "Deliverables" and "Press Coverage" pages, to make sure the information displayed was up to date. The "Relevant Initiatives" webpage was also reviewed and partners have agreed that it should showcase only relevant partnerships established between M-Sec and relevant ecosystem players, such as



standardization bodies, other H2020 projects, media, etc. Additionally, the “Get involved” section (as well as throughout the website) was updated to include the M-Sec Slack channel.

Website statistics are provided in section 3 – Dissemination and Communication Activities – Project Level of this report and are also part of section 5 – Monitoring and Evaluation, as part of the project’s dissemination and communication KPIs.

2.3 Social media & online communities

M-Sec was present on [Twitter](#), [LinkedIn](#), [YouTube](#) and [Slack](#). These were the main social media accounts used to disseminate the project and its results, as well as raise awareness of the project’s activities and main achievements. A description of the organic media activity implemented to date is provided in section 3 – Dissemination and Communication Activities – Project Level of this report. In addition to the project’s social media accounts, M-Sec made use of its partners’ presence on social media, and each partner was responsible for interacting on social media by following the M-Sec social media guidelines provided in Deliverable 5.2 Initial Dissemination Plan (December 2018), which included following M-Sec and sharing the content provided.

M-Sec heavily relied on the use of social media marketing to boost brand awareness by driving up engagement (comments, likes, shares and re-posts) and foster genuine conversations with the target audience and lasting relationships with key stakeholders, namely with those with which an informal cooperation was established (see “[Relevant Initiatives](#)” at M-Sec’s website), as well as learn from parallel initiatives/projects, among other reasons. Moreover, to ensure the biggest impact, the project made sure that its social media activities were always aligned with M-Sec’s broader communication objectives and values, effectively considering the needs of our target audience, as well as nuances between different social media platforms. Furthermore, the project also sought to demonstrate the personality behind the M-Sec brand (i.e., sharing of partners’ interviews) and its unique value proposition (i.e., sharing of Webinars on M-Sec layers and the Marketplace, Use Case videos and product sheets, functional groups product sheets, etc.).

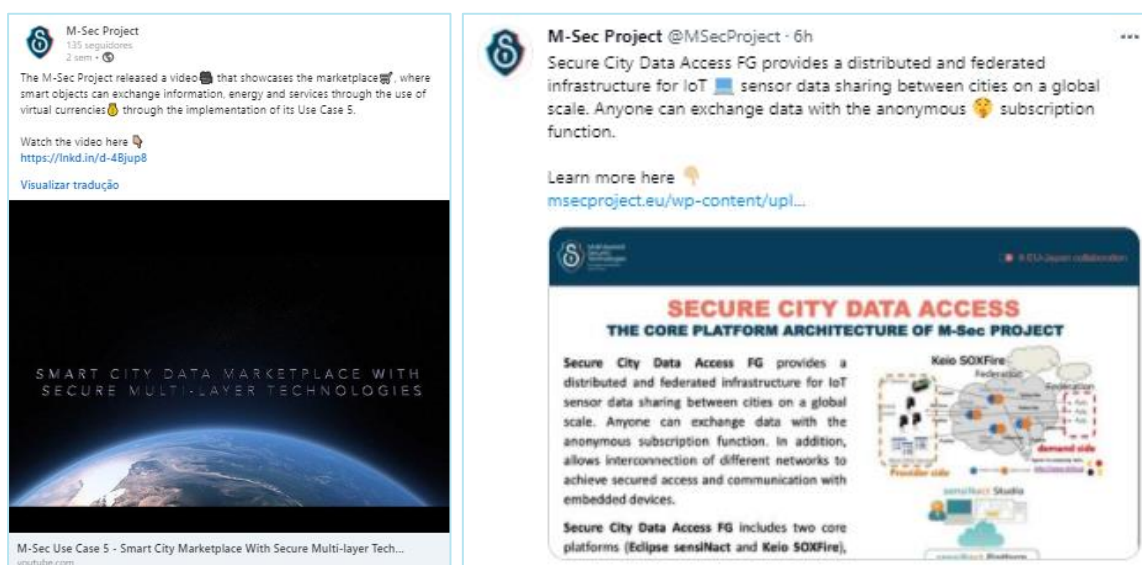


Figure 3: Examples of LinkedIn (left) and Twitter (right) posts with information on the added value of M-Sec

Apart from social channels, M-Sec has also tried to build and nurture an ecosystem surrounding the project. For that, it has actively posted content at the [F6S IoT Group](#), the F6S community of IoT startups and SMEs,



regarding the project's achievements and initiatives and it has also created a channel on the [F6S platform](#) to increase its presence in this community and showcase relevant events and the Online Contest. Additionally, project partners have also decided to create a Slack channel, for a closer engagement with the M-Sec community, which currently has more than 80 members. The Slack channel allowed project partners to disseminate relevant information regarding M-Sec topics, directly engage with Use Case end-users and other stakeholders interested in the project and its results (i.e., teams participating at the M-Sec Online Contest). Other relevant information such as events, initiatives, reports, studies, etc., related with M-Sec topics were also exchanged.

Finally, M-Sec regularly updated its YouTube channel to give more visibility to the video recordings of its organized events (i.e., Webinars), as well as to the videos that were created to promote the Use Cases and the Online Contest.

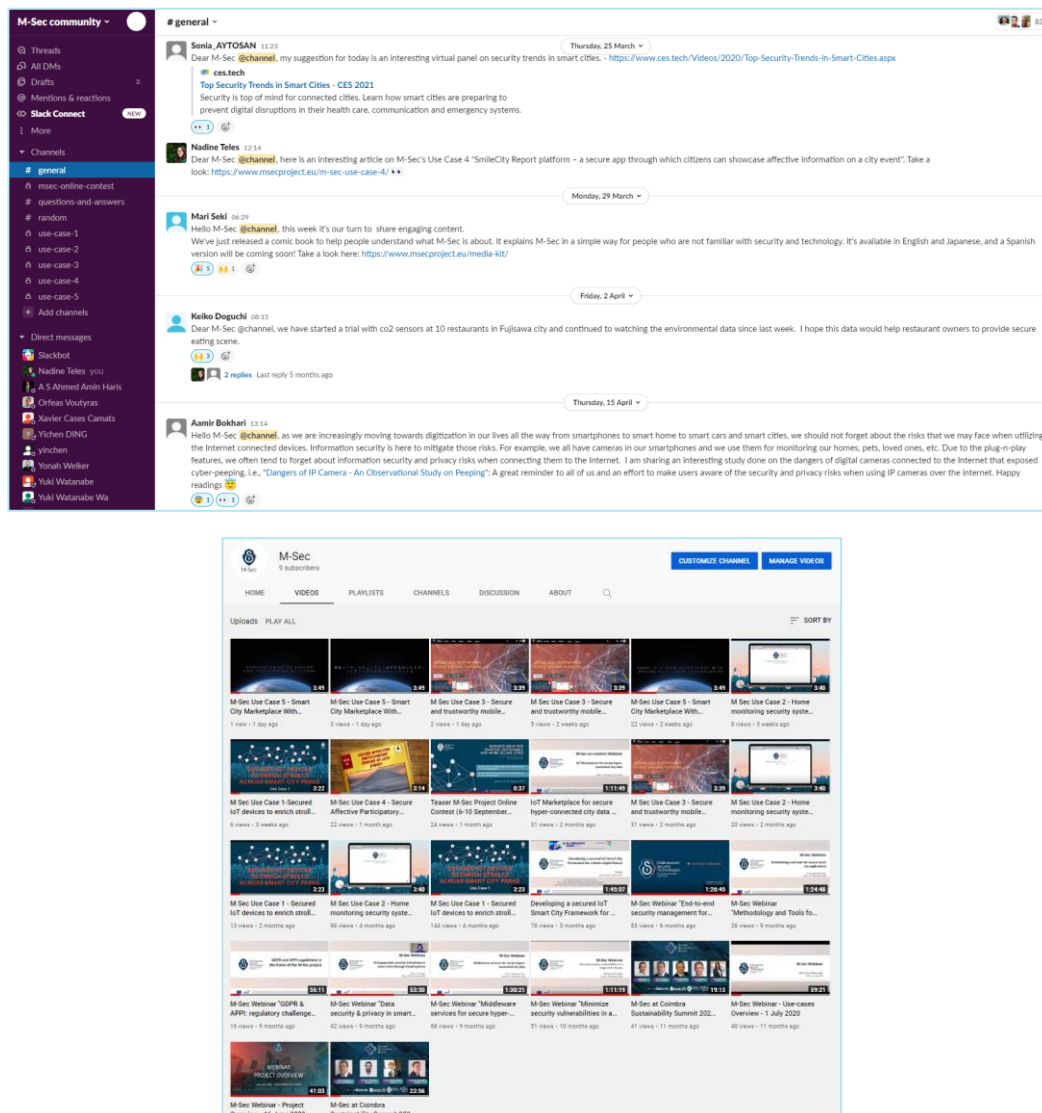


Figure 4: Screenshot of M-Sec's Slack (left) and YouTube (right) channels



2.4 Offline communication and marketing

Various channels have been used to publish news about the project, apart from social media. These include the following:

- Blogposts drafted by M-Sec, included in the “News” section of the project’s webpage, and shared in the project’s social media channels.
- Press Releases drafted by M-Sec, included in the “Media Kit” section of the project’s webpage, and shared with the project’s media partners and other relevant disseminators.
- M-Sec Newsletters, released on a regular basis through Mailchimp, that communicated the essential pieces of information about M-Sec, and news from its ecosystem, included in the “News” section of the project’s website.
- External articles about M-Sec from well known magazines, periodicals, and newsletters of EU, Japanese and other national associations and networks, namely regarding the dissemination of the project’s results and events, listed in the [“Press Coverage”](#) section of the M-Sec website.

2.5 Events

Organizing, co-organizing and being present at events and conferences has been one of the main platforms to disseminate the M-Sec project. Since the project started, M-Sec partners have raised awareness of the project’s activities and main results in a significant number of events, which are listed and further detailed in section 3 – Dissemination and Communication Activities – Project Level of this report. 2 types of M-Sec events have been held during this third year period, serving different purposes:

- External events: participation in events for presenting the M-Sec results, such as presentation in international, national or local conferences, summits or events or at international scientific conferences and demonstration/booths in exhibitions.
- Internal events: organization of events for providing tangible experiences on the results, such as the organization of an hackathon/ideathon (i.e., M-Sec Online Contest, held between 6 and 10 September 2021), training workshops for the engagement of stakeholders such as developers and users (i.e., co-creation Webinars on the M-Sec layers) and the co-organization of international conferences and workshops, including in collaboration with similar projects and initiatives (i.e., Urban Technology Alliance Global Smart City Trends, held between 8 and 10 December 2020).

Apart from M-Sec events, M-Sec partners have also actively contributed to several events of interest at regional, national and international level, such as meetings, workshops, conferences, etc., with the aim of further promote M-Sec’s activities and results. By the end of the project, the M-Sec team has been involved in +/- 70 relevant events across the continent, either as one of the organizers and/or one of the speakers. A more detailed explanation is provided in section 3 – Dissemination and Communication Activities – Project Level.

2.6 Scientific publications

Scientific publications are a relevant channel to share important scientific breakthroughs regarding the research conducted in the scope of the M-Sec project. The M-Sec scientific publications are open access to



comply with the general principle of H2020 and to boost knowledge and competitiveness on the M-Sec technologies in Europe and Japan. A more detailed explanation is provided in section 3 – Dissemination and Communication Activities – Project level. Moreover, the public technical Deliverables of M-Sec which have also been made available at Zenodo (that integrates OpenAire and Github publications) and OpenAire, free and open access repositories for research publications, Deliverables, etc.

2.7 Networks and liaison with other relevant initiatives and projects and standardization efforts

To ensure a scalable impact of the project's achievements and results, M-Sec has explored complementarities and exploited synergies with other relevant initiatives and H2020 projects addressing similar issues (i.e., smart cities, security and privacy of data, etc.). This resulted in collaborations such as the participation at events (i.e., Shaping the future of cybersecurity - Priorities, challenges and funding opportunities for a more resilient Europe, held on 14 July 2021 and organized by Cyberwatching.eu), the co-organization of events (i.e., joint final event M-Sec & Fed4IoT, held on 29 September 2021, online), the involvement of representatives of such initiatives in the M-Sec project and vice versa (i.e., technical collaboration between M-Sec and Fed4IoT on the M-Sec Marketplace), sharing knowledge and best practices (i.e., M-Sec participation at 3 thematic groups of StandICT.eu European Observatory for ICT Standardization, sharing its main results), and the cross-promotion of activities and results, for an increased outreach of the project outcomes (i.e., M-Sec as "Project of the Week" in March 2021, an initiative promoted by Cyberwatching.eu).

In addition, M-Sec has identified opportunities to promote the M-Sec results and to influence standardization organizations and alliances, most of which the M-Sec partners were already active in. Since the partners involvement in each standardization body was different, it was decided that the standardization efforts should be reviewed on a case-by-case basis and internal KPIs were defined to harmonize those efforts and keep track of the main activities held in their scope.

Table 1: KPI monitoring of M-Sec engagement with standardization bodies

KPI	Description
Meetings	Number of regular meetings of the standardization body in which M-Sec partners participate as members or that organization (excludes M-Sec presentation)
M-Sec presentations	Number of meetings of the standardization body in which M-Sec partners were invited to present the M-Sec project to other members of the organization
Contribution to discussions	Participation in Technical Working Groups, Task Forces or other relevant groups, dedicated to specific topics, within a given standardization body
Participation in other type of activities	Articles, papers, reports, other technical contributions in which M-Sec partners were called to participate and the M-Sec Project was referred as example



Cross-communication/dissemination activities	Dissemination of M-Sec initiatives and events (after an initial M-Sec presentation in a meeting) and/or dissemination of initiatives and events of the standardization body by M-Sec
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3. Dissemination and Communication Activities – Project Level

In the last year of the project, various dissemination and communication activities have been implemented at project level, according to the Action Plan set in Deliverable 5.2 Initial Dissemination Plan (December 2018) and [Deliverable 5.9 Community Building Plan](#) (June 2019). A comprehensive description of the relevant dissemination and communication activities implemented in the third year of the project is provided below.

3.1 Project website

As previously stated, the project's website has been M-Sec's main communication tool during the whole duration of the project. Since the beginning, it has suffered major changes and regular updates which have been thoroughly described in section 2 – Tools and channels. Some statistics are presented below, corresponding to the period between July 2020 and September 2021 (the time of this report).

Table 2: M-Sec website statistics

Data point	Results (as time of report)
Total page views	19.297
Average reads per month	1378
Average time on page	01:43
Most visited pages	Homepage, Latest News, Resources
Bounce rate	22.95%
Mobile/Desktop/Tablet use	70.17% desktop, 28.55% mobile, 1.28% tablet
Top referral countries	Japan, United States, Spain, Portugal and Germany

In the figure below, the average number of visits per day can be seen. The first spike that can be seen in October 2021 corresponds to the launch of the M-Sec co-creation Webinars presenting the layers of the M-Sec framework. Furthermore, a noticeable spike can also be observed in April 2021, due to the launch of the M-Sec Use Case videos. This shows the importance of new content and website updates regarding the



project's upcoming events and dissemination of results. Finally, a 3rd spike was recorded in August 2021, with the dissemination and communication campaign of the M-Sec Online Contest, with deadline for applications on the 26 August 2021 (for more information, please refer to Deliverable 5.10 M-Sec Online Contest Event).

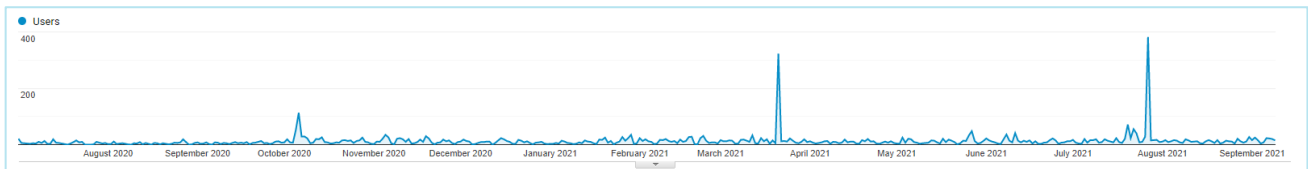


Figure 5: Average number of visits per day to the M-Sec website

3.2 Social media & online communities

As previously stated, the M-Sec project has two project accounts, on LinkedIn and Twitter. In terms of community building, it is also present at F6S through the participation at the IoT Group with a dedicated page, that includes the registration pages of the M-Sec events and the application form and Q&A section of the M-Sec Online Contest, and has also created a Slack channel. It also maintained its YouTube account for video recordings of the project. Some statistics are presented below, corresponding to the period between July 2020 and September 2021 (the time of this report).

Table 3: M-Sec social media channels

Channel	Account name	Followers
Twitter	@msecproject	781
LinkedIn	M-Sec Project	135

Regarding M-Sec Slack community, the project has 83 members at the time of this report. As planned, the social media channels are attended on a weekly basis and postings are sent at optimal times for each platform. As set out in Deliverable 5.2 Initial Dissemination Plan (December 2018), and as previously explained in section 2 – Tools and channels, the content posted covers M-Sec project blogposts, events, and results (i.e., product sheets, functional group sheets, Use Cases, Use Cases videos, Comic Book, etc.). This activity has been useful to tag other entities and draw their attention to our channels, and in doing so, demonstrate that M-Sec is a thought-leader in this sphere. In fact, the project has received very good online feedback regarding its activities, which can be seen by the steady growth in the number of M-Sec re-tweets and sharing of posts.

Over the last year, the M-Sec project channels grew at a healthy rate. The number of engagements and impressions for each post continued to grow incrementally, month by month. The table below demonstrates some statistics related to the accounts, including engagement rate and follower increase rate between July 2020 and September 2021.

To build up the number of followers on social media channels, a number of actions have been put in place over the course of the project's third year, such as the strategic following of other accounts (e.g., other H2020 projects, smart cities and security & privacy promotion initiatives, etc.), tagging in new publications and when relevant M-Sec consortium partners, so that these could share with their organization's networks, posting of content every week, including sharing news in the field of M-Sec's activities, and a paid advertisement on both



Twitter and LinkedIn to support the project with the promotion of the M-Sec e-consultation survey, ultimately trying to trigger call for action for answers to the survey. In total, both adds ran for 4 weeks and achieved a total of +49.000 impressions.

Table 4: M-Sec social media channels statistics

Data point	Twitter			LinkedIn		
	1 st Year	2 nd Year	3 rd Year	1 st Year	2 nd Year	3 rd Year
Monthly impressions	12,000	4,900	10,331	300	197	2,216
Monthly engagements	150	103	157	20	197	51
Average engagements per post	25	22	13	5	33	3,7
Follower rate	110% more	1% more	6% more	37% more	33% less	148% more
Engagement rate	180% more	3,49% more	1,46% more	130% more	10,64% more	2,3% more



Figure 6: Screenshot of LinkedIn (left) and Twitter (right) paid campaign posts



3.3 News and articles

Blogposts

As previously explained in section 2 – Tools and channels, the M-Sec “News” section features the project news articles and events section. Overall, 72 blogposts have been written and published on the project’s website. These blogposts provided a major opportunity to disseminate the project’s upcoming events and initiatives (e.g., Webinars on the M-Sec layers, external events, the M-Sec Online Contest, etc.), follow-up on them and provide more information on M-Sec major achievements and results (e.g., interviews with project partners, update on Use Cases’ implementation, preliminary results of the e-consultation survey, etc.). These were also shared on the project’s social media channels, to increase visibility and call to action potential users and other stakeholders.

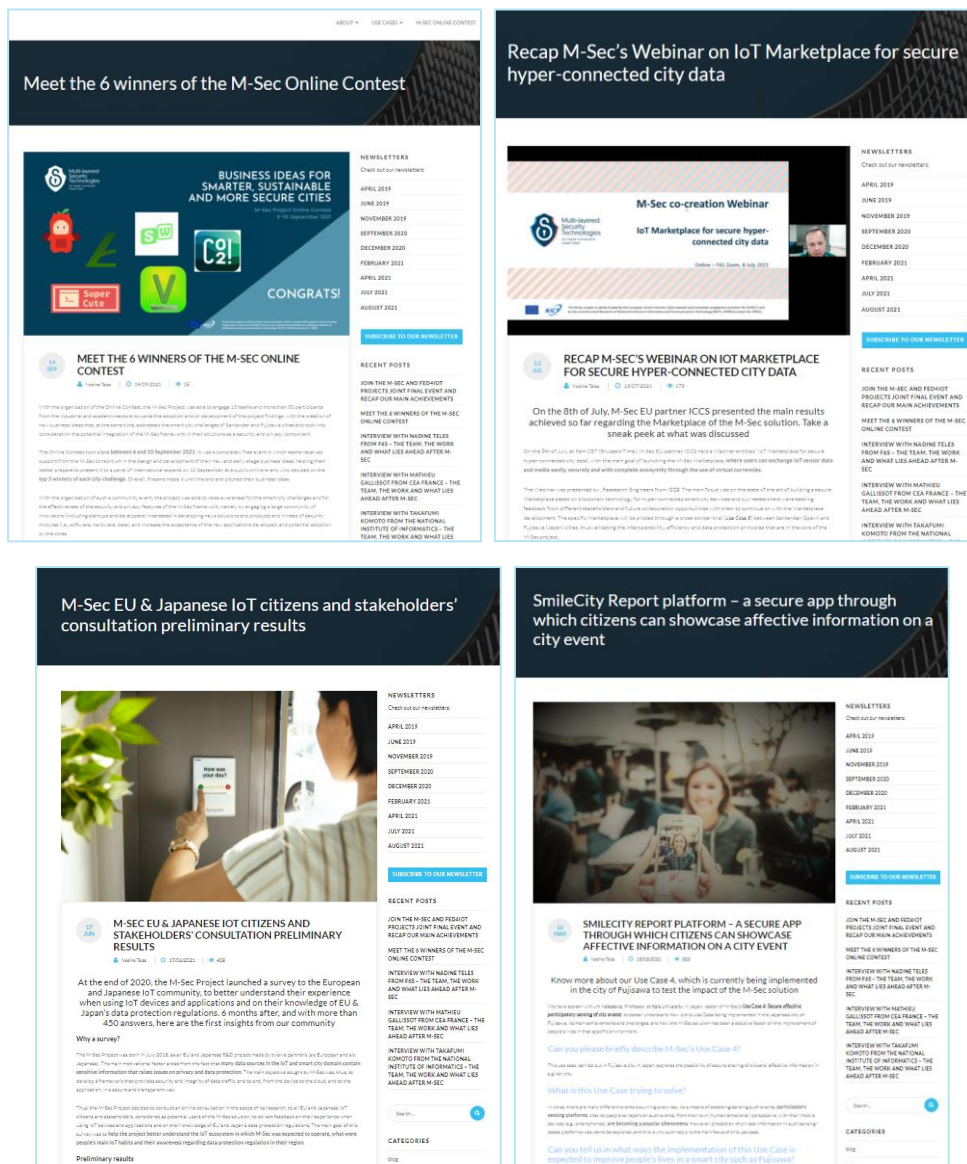


Figure 7: Screenshots with examples of M-Sec blogposts





External articles

In total, +60 articles have referred M-Sec and have been posted on the “[Press Coverage](#)” of M-Sec’s website. Externally published articles ensured that wide audiences were made aware of the project, both in the circles of M-Sec partners and in the wider research/developers communities. The majority of these articles related with the dissemination of M-Sec main achievements and results (more concretely, related with developments regarding the Use Cases), as well as the project’s events and initiatives and its dissemination strategy intensified in the last of the project, as more results were able to be showcased.

The articles regarding the project’s 3rd Year report will be further detailed in section 4 – Dissemination and Communication Activities – Partners Level. Below there are some examples of externally published articles on behalf of the M-Sec consortium.



Figure 8: Screenshots with examples of externally published articles

Press Releases

M-Sec has drafted 7 Press Releases, that are available in the “Media Kit” section of the website. Partners were also asked to share the M-Sec Press Releases in their channels and networks, and these have also been sent to M-Sec’s list of external actors and disseminators. The 7 Press Releases are as follows:

- [Designing the smart cities of the future: M-Sec project creates EU-Japan innovations to improve well-being, cleanliness, water, social and transport for citizens](#) (2019)
- [M-Sec partners meet in Fujisawa: a look into project progress, with a view of Mount Fuji](#) (2019)





- [お知らせ「欧州との連携によるハイパーコネクテッド社会のための セキュリティ技術」の共同研究開発を開始](#) (M-Sec Press Release in Japanese) (2019)
- [How can the innovative solution offered by M-Sec help solve current IoT security issues in hyper-connected smart cities?](#) (October 2020)
- [M-Sec Cookbook – a practical guide for IoT developers](#) (February 2021)
- [M-Sec EU and Japanese IoT citizens and stakeholder’s consultation](#) (March 2021)
- [M-Sec Project Online Contest - Business ideas for smarter, sustainable, and more secure cities](#) (July 2021)



Figure 9: Examples of M-Sec Press Releases

Newsletters

Overall, 10 Newsletters have been developed disseminating the project’s news by using the Mailchimp tool to a total of 124 subscribers. To draw attention to the Newsletters and their value, the website pop-up was maintained, to encourage website users to sign-up, as well as regular social media posts advertising the launch of each new Newsletter, tagging external organization, in order to let a wider audience know about these publications. Newsletters were updated in the “News” section of the M-Sec website.

The 10 Newsletters are as follows:

- [Newsletter 1](#), April 2019
- [Newsletter 2](#), June 2019
- [Newsletter 3](#), November 2019





- [Newsletter 4](#), September 2020
- [Newsletter 5](#), December 2020
- [Newsletter 6](#), February 2021
- [Newsletter 7](#), April 2021
- [Newsletter 8](#), July 2021
- [Newsletter 9](#), August 2021
- Newsletter 10¹, September 2021



Figure 10: Screenshot with a Newsletter example

3.4 Visual identity & promotional material

As previously stated, M-Sec's visual identity and all its elements have been used throughout the whole duration of the project, namely in all external and internal communication activities. During the 3rd year of the project, the consortium has decided to create other types of promotional materials, more focused on the results and achievements of the projects, which include, among others:

- The [M-Sec Comic Book](#) in English, Spanish and Japanese versions, that showcases concrete real-life examples based on the M-Sec Use Cases of how the M-Sec framework can improve the security and privacy of data traffic and, at the same time, citizens' quality of life. The Comic Book was drafted for

¹ Since this Newsletter will wrap-up the project, it will be launched after the current report is submitted.





people with non-technical expertise for a wider range, and disseminated in M-Sec's website ("Media Kit" webpage) and social media channels.

- The M-Sec Use Cases videos² in English, Spanish and Japanese versions, that provide a more visual approach of the Use Cases implementation and results and makes use of end-users testimonials. The videos have been uploaded at M-Sec's YouTube channel and have been included in each individual Use Case page, at M-Sec's website (including the Japanese version), apart from being promoted at M-Sec's social media channels and other online communities.
- The M-Sec project wrap-up video, that summarizes the results and the added-value of the project after 3 years of duration, which was disseminated through M-Sec's communication channels (e.g., newsletter, social media, website, etc.).

The pictures below provide some examples of the use of the promotional materials used (top) and created (bottom) during the current reporting period.

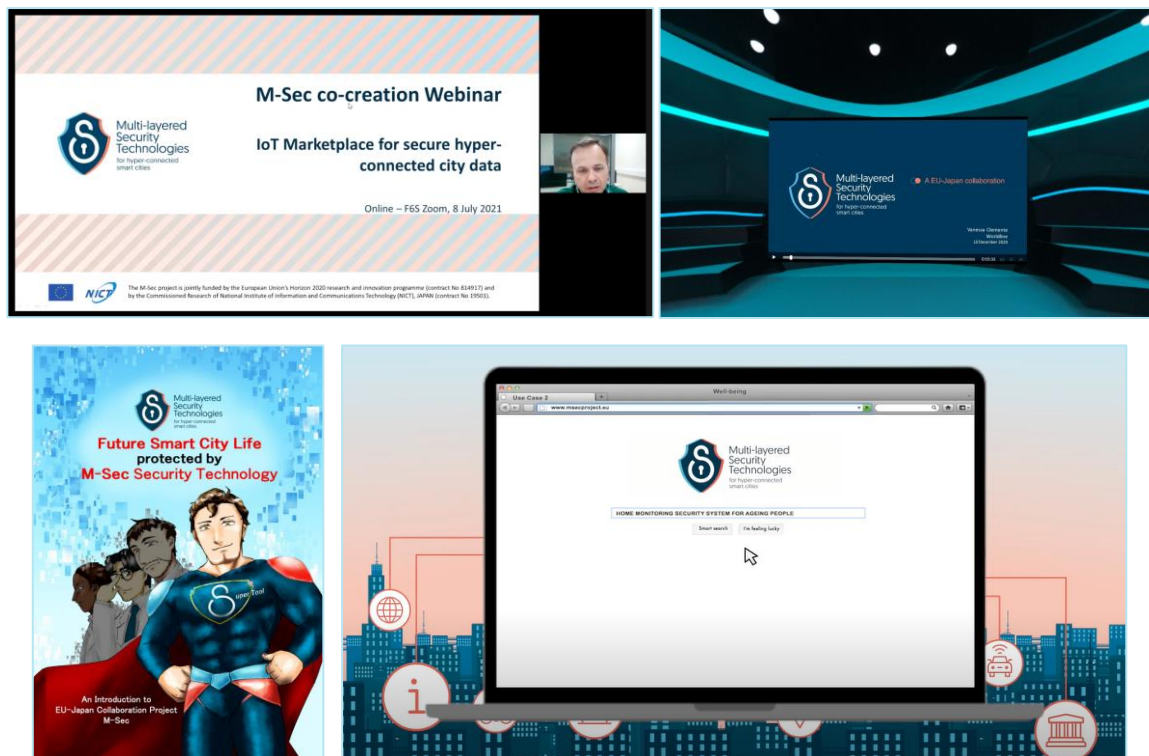


Figure 11: M-Sec PowerPoint being used at the Marketplace launch Webinar on 8 July 2021 (top, left corner), M-Sec branding of the project's booth at the Urban Technology Alliance Virtual Event on 8-11 December 2020 (top, right corner), M-Sec Comic Book (bottom, left corner) and video on M-Sec Use Case 2 (bottom, right corner)

3.5 Events

As previously stated, organizing, co-organizing workshops, webinars and other community trainings and being present at conferences and summits was also one of the main platforms to disseminate the M-Sec project.

² For more information on the Use Case videos: [Use Case 1 video](#), [Use Case 2 video](#), [Use Case 3 video](#), [Use Case 4 video](#) and [Use Case 5 video](#). In M-Sec's YouTube channel, a Spanish and Japanese version of the Use Case videos can also be found.





Since the project started, M-Sec partners have been involved in +/- 70 relevant events across the continent, either as one of the organizers and/or one of the speakers. Due to the covid-19 pandemic, the last 2 years of the project were focused on the organization of Webinars and attending virtual events, conferences and meetings.

Attendance at conferences and summits

Over the last 3 years, M-Sec partners have participated in 50 conferences and summits, presenting the M-Sec project in a panel or presentation, acting as an ambassador of the project. Attendance during the project's last year was limited due to the covid-19 pandemic. However, the project was able to focused on its own organized or co-organized promotion and co-creation events with the M-Sec community.

For the list of the previous 42 events from year 1 and 2, please refer to [Deliverable 5.4 – Dissemination Activities Report – Second Year Report](#) (June 2020). Below there is a list of all the 8 events attended by M-Sec partners during the current reporting period.

Name of event	Location	Date	Partner(s) attending
Athens Calls Athens , 1 st Session, 1 st Interdisciplinary Conference entitled "Man and His Creations", presentation "Blockchains and Smart Contracts for Internet of Things Applications"	Online	21 October 2020	ICCS
Researcher's Night ³	Online	27 Nov. 2020	ICCS
CITYxCITY Festival , pitch session nº3 (latest solutions and services for citizens and communities) ⁴	Online	14 Jan. 2021	TST
Kick-off meeting of the URBANAGE Project ⁵	Online	February 2021	AYTOSAN
Webinar "Ejemplos de la aplicación de blockchain en la administración pública" ⁶	Online	4 February 2021	AYTOSAN

³ The "Researcher's Night" concerns events organized throughout Europe, at the initiative of the European Union, and aim to familiarize the public with the world of research. Every year, the "Researcher's Night" welcomes the public on its premises, but on 2020, due to the special circumstances of covid-19, the event took a digital form with rich and interesting digital material that was gradually published on the social networks of the Night and culminated with a live virtual event on November 27, 2020. ICCS presented the M-Sec project and its scientific achievements during the "Researcher's Night" on a live youtube broadcast. You can watch the video recording of the session at:

<https://www.youtube.com/watch?v=ARaRplkgttc&feature=youtu.be>.

⁴ You can watch the video recording of the session at <https://www.citybycity.com/session/pitch-session-2>.

⁵ AYTOSAN has participated in the kick-off meeting of the URBANAGE project, Enhanced URBAN planning for AGE-friendly cities through disruptive technologies, where experiences from other EU projects, such as the M-Sec project, have been introduced.

⁶ You can watch the video recording at https://youtu.be/-o_Gz_f2AIM.





BlockStart Webinar “How to make sure regulation helps and not hinders the development of blockchain-based solutions” ⁷	Online	27 May 2021	AYTOSAN
Webinar “Shaping the future of cybersecurity - Priorities, challenges and funding opportunities for a more resilient Europe” , session “How the EC project community is addressing these and many other challenges” ⁸	Online	14 July 2021	WLI
Sustainable Places, “Future Smart Cities” paper session : “IoT Security in the context of Smart Cities”	Online	28 September 2021	WLI

Table 5: List of attended events in which M-Sec partners have participated during year 3

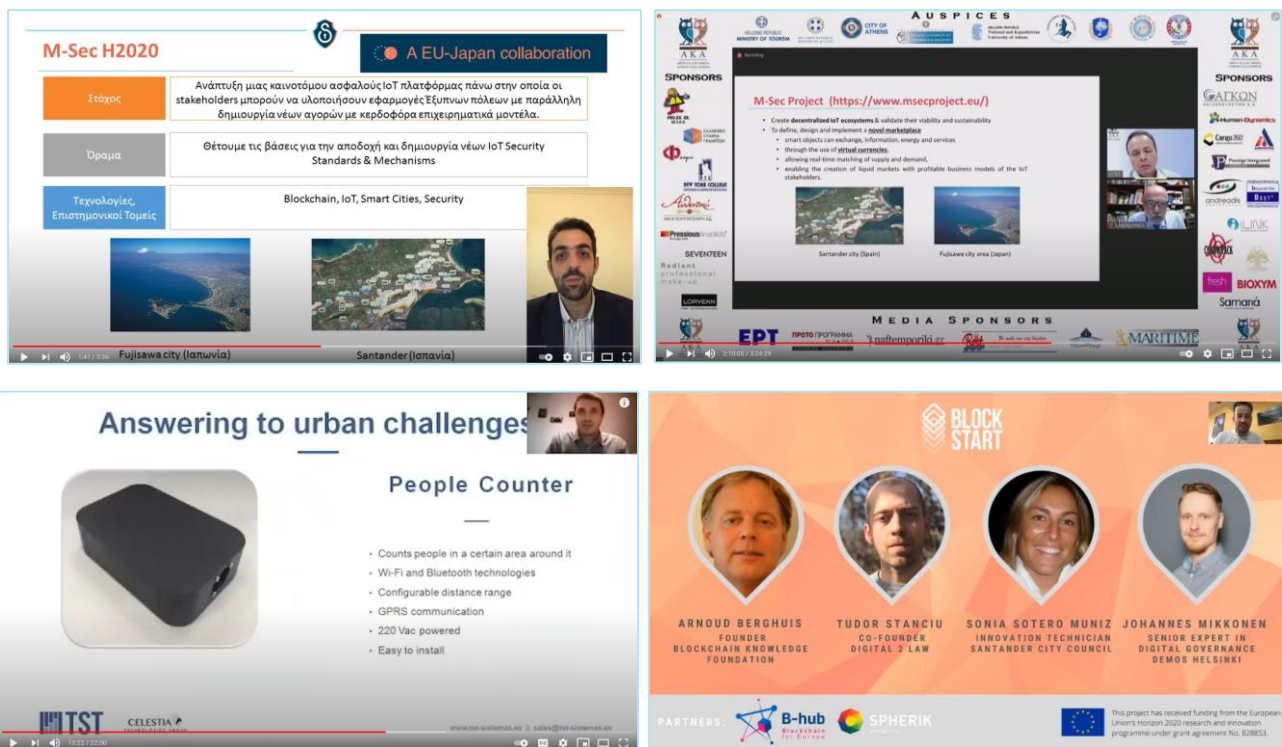


Figure 12: M-Sec partners participation at the “Researchers Night” (27 November 2020) (left, top), at “Athens Calls Athens” (20 October 2020) (right, top), at the CITYxCITY festival (14 January 2021) (bottom, left) and at BlockStart’s Webinar (27 May 2021) (bottom, right)

M-Sec co-organized international workshops

Apart from attending conferences and summits, M-Sec has co-organized international workshops, smaller and more participate events for a more intensive discussion around M-Sec and the technologies employed. These workshops were organized via external collaborations. Although the last event will occur after the project’s end

⁷ The video recording of the session can be found at <https://youtu.be/72se0K9C1zk>.

⁸ The video recording of the session can be found at <https://youtu.be/LGpDVtdEeEE>.





(after month 39), the background work (concept, speakers, organization) has been carried out during the current reporting period.

Overall, the project organized 9 international workshops, 5 during years 1 and 2 and 2 during the project's last year. The table below details the 2 workshops organized via external collaborations. The last event took place after the project's end. For the list of the previous 5 events from year 1 and 2, please refer to [Deliverable 5.4 – Dissemination Activities Report – Second Year Report](#) (June 2020).

Name of event	Location	Date	Partner(s) attending /organizing
Urban Technology Alliance Virtual Kick-off Event & Exhibition , speaker at session “Smart City Research and Development” & M-Sec virtual booth ⁹	Online	8-11 December 2020	WLI F6S
Co-organized workshop with Takamatsu Smart City Initiative, EJEA Annual Conference Kagawa 2021	Hybrid (Kagawa, Japan & online)	22-24 October 2021	NTTE ICCS AYTOSAN

Table 6: List of M-Sec co-organized international workshops from year 3

M-Sec training and community events

By the end of the project, M-Sec partners have co-organized 14 training and community events – 3 on year 1 and 2 and 11 on year 3, which included, among others, the M-Sec co-creation Webinars on the M-Sec layers, the presentation of the M-Sec project, Use Cases and Marketplace, the M-Sec Online Contest and the final project joint Webinar with sister-project Fed4IoT. The main goal of these events was to promote a proactive discussion of the main elements of the M-Sec project, in a workshop style, encouraging the feedback and input from participants, particularly thinking about the perspective of the end-users. Overall, these events have engaged more than 350 participants.

For more information on the M-Sec Online Contest, please refer to Deliverable 5.10 – M-Sec Online Contest Event (September 2021). Regarding the M-Sec & Fed4IoT joint final project event, attendees had the opportunity to listen first-hand about the projects' main achievements and results from project partners, who explained in detail their 3 years research and use cases implementation, as real examples of applications and success regarding the implementation of solutions that improve trust, security, and privacy in the use of IoT devices and applications, particularly in hyper-connected smart cities.

All these events were promoted through M-Sec's dissemination channels, including website (news & events sections) and social media channels, as well as disseminated among project partners, external stakeholders

⁹ The video recording of the session can be found at <https://youtu.be/k078i902KyM?list=PLJ7RUUdModJrVeKlj03olA3lDwzRwFwed>





and relevant media. A follow-up blogpost with main lessons learned was published at the website and disseminated on social media and a follow-up email was sent to all registered participants with the above-mentioned content and the video recording of the sessions.

For the list of the previous 3 events from year 1 and 2, please refer to [Deliverable 5.4 – Dissemination Activities Report – Second Year Report](#) (June 2020). The table below details the 10 community events co-organized during the current reporting period.

Name of event	Location	Date	Partner(s) attending /organizing
Webinar “Use Cases overview” ¹⁰	Online	1 July 2020	All
Webinar “Minimize security vulnerabilities in a range of IoT devices” (M-Sec IoT layer) ¹¹	Online	28 October 2020	All
Webinar “Middleware services for secure hyper-connected city data” (M-Sec middleware layer) ¹²	Online	11 November 2020	All
Webinar “How to manage data privacy in modern smart cities through cloud systems” (M-Sec cloud layer) ¹³	Online	18 November 2020	All
Webinar “GDPR & APPI: regulatory challenges in modern smart cities” ¹⁴	Online	25 November 2020	All
Webinar “Methodologies and tools for smart city application development” (M-Sec application layer) ¹⁵	Online	2 December 2020	All
Webinar “End-to-end security management for smart cities” (M-Sec cross layer) ¹⁶	Online	10 February 2021	All
Webinar “Developing a secure IoT smart city framework for a better digital future” , EU Industry Days 2021 ¹⁷	Online	9 March 2021	All

¹⁰ The video recording of the session can be found at https://youtu.be/u5_1JChpgHI

¹¹ The video recording of the session can be found at <https://youtu.be/dE-R8sZoRvI>

¹² The video recording of the session can be found at <https://youtu.be/1kJLLZSeKVM>

¹³ The video recording of the session can be found at <https://youtu.be/scmTRYvOHpc>

¹⁴ The video recording of the session can be found at <https://youtu.be/kGtsVMB1cgA>

¹⁵ The video recording of the session can be found at <https://youtu.be/Ffx6NqfJNnk>

¹⁶ The video recording of the session can be found at <https://youtu.be/Yx7j52CJ5p0>

¹⁷ The video recording of the session can be found at <https://youtu.be/zqmo97IZfeQ>



Webinar “IoT marketplace for secure hyper-connected city data” ¹⁸	Online	8 July 2021	All
M-Sec Online Contest – Business ideas for smarter, sustainable and more secure cities ¹⁹	Online	6-10 Sept. 2021	All
Webinar “Advanced technologies for hyper-connected societies – M-Sec & Fed4IoT joint final project event” ²⁰	Online	29 Sept. 2021	All

Table 7: List of M-Sec training and community events from year 3

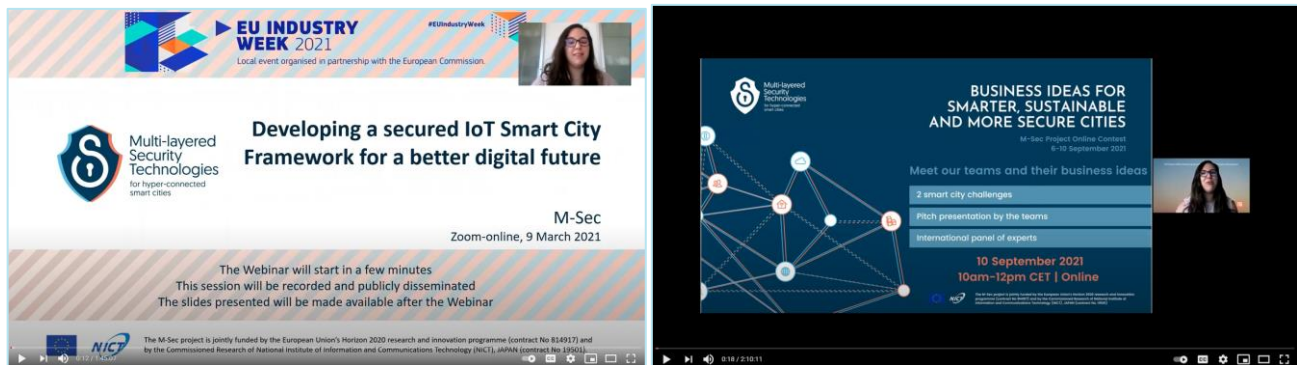


Figure 13: Screenshot of M-Sec’s Webinar in the scope of the EU Industry Week (9 March 2020) (left) and of M-Sec’s Online Contest public pitch presentation (10 September 2021) (right)

3.6 Scientific publications and tutorials/cookbook

Since the beginning of the project, M-Sec partners published 17 scientific publications in international conferences (15 individually and 2 joint EU & Japanese publication) and 21 in international journals (16 individually and 5 joint EU & Japanese publications). For the purpose of KPI tracking, these publications have been divided into these two lists (published in journals and in conferences), however, many items pertain to both categories, as subjects are often previously presented at conferences for peer-to-peer review purposes.

Unfortunately, due to the covid-19 pandemic, some conferences and publications had to be canceled or delayed, and therefore M-Sec partners have submitted 3 joint EU & Japanese scientific publications following M-Sec results and achievements that will only be reviewed and/or accepted after the project’s end. However, given that the majority of the work (drafting of paper, applying to the journal and/or conference) was carried out during the current reporting period, it has been considered in the project’s KPIs.

The overall list of scientific publications can be found at the table below.

¹⁸ The video recording of the session can be found at <https://youtu.be/BiF1TNDJVXE>

¹⁹ The video recording of the public pitch presentation can be found at <https://youtu.be/ZVZbkruhGTo>

²⁰ The video recording of the session can be found at <https://youtu.be/fiR5PQyUyks>





Publication authors name and title	Date of publication	International journal publication	International conference publication
Aizawa, K. Tei and S. Honiden, "Identifying safety properties guaranteed in changed environment at runtime," 2018 IEEE International Conference on Agents (ICA), Singapore, 2018, pp. 75-80, doi: 10.1109/AGENTS.2018.8460083 (28/31-07-2018)	28-31 July 2018 (conference) 13 Sept. 2018 (journal)	Yes	Yes
Katsunari Yoshioka "Cleaning up the mess: from monitoring to discovery and notification of infected/insecure IoT devices" . Keynote speech. 5th France-Japan Cybersecurity Workshop. 24-04-2019	24 April 2019	No	Yes
ennaceur et al., "Modelling and Analysing Resilient Cyber-Physical Systems," 2019 IEEE/ACM 14th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS), Montreal, QC, Canada, 2019, pp. 70-76, doi: 10.1109/SEAMS.2019.00018 (25-05-2019)	25 May 2019 (conference) 5 August 2019 (journal)	Yes	Yes
P. Mallozzi, E. Castellano, P. Pelliccione, G. Schneider and K. Tei, "A Runtime Monitoring Framework to Enforce Invariants on Reinforcement Learning Agents Exploring Complex Environments," 2019 IEEE/ACM 2nd International Workshop on Robotics Software Engineering (RoSE), Montreal, QC, Canada, 2019, pp. 5-12, doi: 10.1109/RoSE.2019.00011 (27-05-2019)	27 May 2019 (conference) 5 Sept. 2019 (journal)	Yes	Yes
H. Washizaki et al., "Landscape of IoT Patterns," 2019 IEEE/ACM 1st International Workshop on Software Engineering Research & Practices for the Internet of Things (SERP4IoT), Montreal, QC, Canada, 2019, pp. 57-60, doi: 10.1109/SERP4IoT.2019.00017 (27-05-2019)	27 May 2019 (conference) 14 November 2019 (journal)	Yes	Yes
K. Aizawa, K. Tei and S. Honiden, "Analysis Space Reduction with State Merging for Ensuring Safety Properties of Self-Adaptive Systems," 2019 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computing, Scalable Computing & Communications, Cloud & Big Data Computing, Internet of People and Smart City Innovation	19-23 August 2019 (conference) 9 April 2020 (journal)	Yes	Yes



(SmartWorld/SCALCOM/UIC/ATC/CBDCom/IOP/SCI), Leicester, United Kingdom, 2019, pp. 1363- 370, doi: 10.1109/SmartWorld-UIC-ATC-SCALCOM-IOP-SCI.2019.00249 (19/23-08-2019)			
Shin Katayama, "Situation-Aware Emotion Regulation of Conversational Agents with Kinetic Earables" - pp. 725–731, 8th International Conference on Affective Computing and Intelligent Interaction (ACII), Cambridge, United Kingdom. doi: 10.1109/ACII.2019.8925449 (03/06-09-2019)	3-6 Sept. 2019 (conference) 9 December 2019 (journal)	Yes	Yes
Castellano, E., Braberman, V., D'Ippolito, N., Uchitel, S., & Tei, K. (2019). "Minimising Makespan of Discrete Controllers: A Qualitative Approach. In 2019 IEEE 58th Conference on Decision and Control, CDC 2019 (pp. 1068-1075)". [9029766] (Proceedings of the IEEE Conference on Decision and Control; Vol. 2019-December). Institute of Electrical and Electronics Engineers Inc. doi: 10.1109/CDC40024.2019.9029766 (11/13-12-2019)	11-13 December 2019 (conference) 12 March 2020 (journal)	Yes	Yes
Wataru Sasaki, Yusaku Eigen, Arturo Medela, Antonis Litke, Venessa Clemente Nunez, Tadashi Okoshi, Jin Nakazawa, "SmileCityReport: Emotion-aware Participatory Sensing for Smart Cities with Double-sided Photo Shooting," pp.164-169, 2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops), Online, virtual conference. doi: 10.1109/PerComWorkshops48775.2020.9156159 (23/27-03-2020)	23-27 March 2020 (conference) 4 August 2020 (journal)	Yes	Yes
Kounas, D., Voutyras, O., Palaiokrassas, G., Litke, A., & Varvarigou, T. (2020). QuietPlace: An Ultrasound-Based Proof of Location Protocol with Strong Identities. Applied System Innovation, 3(2), 19, doi: https://doi.org/10.3390/asi3020019 (07-04-2020)	7 April 2020	Yes	No
Tsoulias K., Palaiokrassas G., Fragkos G., Litke A., Varvarigou T. (2020), A Graph Model Based Blockchain Implementation for Increasing Performance and Security in Decentralized Ledger Systems, in IEEE Access, vol. 8, pp. 130952-130965, 2020, doi: 10.1109/ACCESS.2020.3006383 (01-07-2020)	1 July 2020	Yes	No



Chun-Jung Wu, Katsunari Yoshioka and Tsutomu Matsumoto. "ThingGate: A Gateway for Managing Traffic of Bare-metal IoT Honeypot". Journal of Information Processing Vol.28 481–492 (Sep. 2020). doi: : 10.2197/ipsjip.28.481	September 2020	Yes	No
T. Yamauchi, K. Tei and S. Honiden, "Method for Low-Cost Environment Partitioning Modeling in Dynamic Update," 2020 IEEE Third International Conference on Artificial Intelligence and Knowledge Engineering (AIKE), 2020, pp. 183-187, doi: 10.1109/AIKE48582.2020.00036	9-13 December 2020 (conference) 19 February 2021 (journal)	Yes	Yes
K. Kuwana, K. Tei, Y. Fukazawa and S. Honiden, "Method of Applying Df-pn Algorithm to On-the-fly Controller Synthesis," 2020 IEEE Third International Conference on Artificial Intelligence and Knowledge Engineering (AIKE), 2020, pp. 168-173, doi: 10.1109/AIKE48582.2020.00033	9-13 December 2020 (conference) 19 February 2021 (journal)	Yes	Yes
J. Li, K. Aizawa, K. Tei and S. Honiden, "Efficient Difference Analysis Algorithm for Runtime Requirement Degradation under System Functional Fault," 2020 IEEE 18th International Conference on Embedded and Ubiquitous Computing (EUC), 2020, pp. 33-40, doi: 10.1109/EUC50751.2020.00012	31 December 2020-1 January 2021 (conference) 3 February 2021 (journal)	Yes	Yes
Jialong Li, Kenji Tei and Shinichi Honiden, " Identifying achievable goals for adaptive replanning against runtime environment change ", The 20th International Conference on Intelligent Systems Design and Applications (ISDA), Dec. 2020	December 2020	No	Yes
Keiko Dogushi and Vanessa Clemente Nunez, " Research on security technology effective for smart city society and demonstration in real cities in Japan and Europe-Introduction of Japan-Europe joint research and development project "M-Sec" ". Journal of the ITU Association of Japan, volume 51, n°1 (2021, 1)	January 2021	Yes	No



Jialong Li, Zhenyu Mao, Zhen Cao, Kenji Tei, Shinichi Honiden, "Self-adaptive Hydroponics Care System for Human-hydroponics Coexistence", 2021 IEEE 3rd Global Conference on Life Sciences and Technologies, pp.204-206, March, 2021. doi: 10.1109/LifeTech52111.2021.9391909	9-11 March 2021 (conference) 8 April 2021 (journal)	Yes	Yes
Takanori Hirano, Kenji Tei, Kazuya Aizawa and Shinichi Honiden, "Differential Controller Synthesis at Runtime Using Changed Parts of Environment Model", 2021 IEEE 8th International Conference on Industrial Engineering and Applications (ICIEA 2021), pp.91-100, April, 2021. doi: 10.1109/ICIEA52957.2021.9436711	23-26 April 2021 (conference) 26 May 2021 (journal)	Yes	Yes
A. De La Piedra Ghidra-EVM: Reversing Smart Contracts with Ghidra (2021) , Black Hat Arsenal, May 7 2021 (CEA)	7 May 2021	No	Yes
Takafumi Kawasaki, Georgios Palaiokrassas, Akira Tsuge, Tadashi Okoshi, Antonis Litke, Jin Nakazawa. SOXCollaborator: A Bridge System to Realize Open-Data Commerce by Collaborating with SOXFire and Blockchain Marketplace . IPSJ - Information Processing Society of Japan. 26 August 2021	26 August 2021	Yes	No
Bokhari, A., Inoue, Y., Kato, S., Yoshioka, K., and Matsumoto, T.: Empirical Analysis of Security and Power-Saving Features of Port Knocking Technique Applied to an IoT Device. Journal of Information Processing, Vol.29, pp.572-580 (Sep-2021). DOI: 10.2197/ipsjip.29.572	September 2021	Yes	No
Orfefs Voutyras, Aamir H. Bokhari, Akira Tsuge, George Palaiokrassas, Takafumi Kawasaki, Xavier Cases Camats, Jin Nakazawa, Antonios Litke, Tadashi Okoshi, Theodora Varvarigou, A methodology for generating Systems Architectural Glimpse statements using the 5W1H maxim, MDPI Computers: Edge and Cloud Computing in IoT	September 2021	Yes	No
Georgios Palaiokrassas, Petros Skoufis, Orfefs Voutyras, Takafumi Kawasaki, Mathieu Gallissot, Radhouene Azzabi, Akira Tsuge, Antonios Litke, Tadashi Okoshi, Jin Nakazawa, Theodora Varvarigou, Combining blockchains, smart contracts and complex sensors management platform for	September 2021	Yes	No



hyper-connected smart cities: an IoT data marketplace use case, MDPI Computers: Edge and Cloud Computing in IoT			
ICCS, KEIO, NII and YNU. "A Development Method for Safe Node-RED Systems using Discrete Controller Synthesis" Submitted paper to the IEEE iThings2021	Submitted on 6 September 2021. Under review. Notification date will be on 20 October 2021	No	Yes

Table 8: List of M-Sec scientific publications from year 1 to 3

Moreover, during the current reporting period, partners have also drafted, publish and disseminated the M-Sec [White Paper](#) and [Cookbook](#), that were included in the "Media Kit" section of the project's website. While the White Paper introduces the overall M-Sec architecture and shows it can be a viable solution for overcoming the main IoT security issues faced nowadays, the Cookbook provides an introduction to the M-Sec components from 5 different aspects – IoT security, cloud and data level security, P2P level security and blockchain, application level, and overall end-to-end security – with their definition and ulterior implementation, thus serving as a practical guide for any IoT developer who wishes to implement the M-Sec solution in order to address the security concerns and risks identified in the M-Sec White Paper.

Both documents were published in December 2020 and disseminated in M-Sec's website (i.e., Media Kit page, dedicated blogposts), social media channels and a Press Release was sent to several media disseminators. They were also promoted in several online communities (e.g., Cyberwatching.eu, StandICT.eu, etc.) and were part of the materials provided to the teams who applied to the M-Sec Online Contest, that ran between 6 and 10 September, as they needed to further understand the M-Sec framework, think about how they could integrate it within their business idea (to add an extra security and privacy layer to the solution) and present it at the final public pitch event, on 10 September 2021.

3.7 Consultation and concertation activities

EU and other worldwide consultation and concertation activities

Over the last 3 years, M-Sec was able to participate at 5 European Commission's or other worldwide consultations and at 5 concertation activities:

- WLI submitted an e-consultation on blockchain on March 2020 at <https://ec.europa.eu/eusurvey/runner/b33a9f4e-1e1a-27e1-e0ae-3d092366275b>.
- M-Sec partners have participated at 3 [ICT Verticals and Horizontals for Blockchain Standardization meetings](#) promoted by the European Commission: kick-off meeting (20 October 2020), thematic discussion on cybersecurity (13 January 2021) and thematic discussion on IoT (27 January 2021).



- F6S submitted an answer to the INATBA - International Association for Trusted Blockchain Applications survey on MICA Regulation (Markets in Crypto-assets Regulation proposal as published by the European Commission on 24 September 2020) at <https://www.surveymonkey.com/r/SHK3CML>.
- M-Sec partners participated at the following concertation activities promoted by the European Commission: Digital Excellence Forum @ ICT Proposers' Day (19-20 September 2019, Helsinki, Finland), SMI2G "Security Mission Information & Innovation Group" (29-30 January 2020, Brussels, Belgium), H2020 Secure Societies Info Day & Brokerage Event (12 – 13 March 2020, Brussels, Belgium), [Data-driven communities: fostering a local data ecosystem for sustainability](#), stakeholder workshop, (8 December 2020, online) and [Next-Generation IoT and Edge Computing Strategy Forum](#) (22 April 2021, online).

E-consultation survey

The [M-Sec e-consultation survey](#) was launched in December 2020 and ran until September 2021 to all EU and Japanese citizens and stakeholders, considered as potential users of the M-Sec framework, to collect feedback on their experience when using IoT devices and applications and on their knowledge of EU and Japan's data protection regulations. The main goal of this survey was to help the project better understand the IoT ecosystem in which M-Sec was expected to operate, what were people's main IoT habits and their awareness regarding data protection regulation in their regions.

The survey was launched in English and then later translated to Spanish and Japanese, for a larger outreach. At the end of the project, the consortium was able to collect 355 answers in English, 206 in Japanese and 33 in Spanish, a total of 594 answers. The e-consultation survey was widely disseminated through M-Sec's main communication channels – [dedicated blogpost](#), social media posts, newsletters, call for action by email invitation, etc. – and a social media campaign was launched between March and April 2021 on LinkedIn and Twitter to promote the survey and engage new stakeholders. M-Sec has also disseminated the survey in other online communities and media, such as Cyberwatching.eu and StandICT.eu H2020 networks, among others, apart from its internal network of contacts.



Figure 14: Screenshot of Twitter post (left) and external article (right) on the M-Sec e-consultation survey

After 6 months, with a sample of 450 answers, the consortium decided to do a preliminary analysis of the answers to the survey. These results were then made public to the M-Sec community through a [dedicated blogpost](#) and disseminated at the project's social media channels.





3.8 Synergies with other relevant initiatives and projects and standardization efforts

Standardization bodies

As previously mentioned in section 2 – Tools and channels of this report, M-Sec has identified opportunities to promote the M-Sec results and to influence standardization organizations and alliances, most of which the M-Sec partners were already active in. Since the partners involvement in each standardization body was different, it was decided that the standardization efforts should be reviewed on a case-by-case basis and internal KPIs were defined to harmonize those efforts and keep track of the main activities held in their scope (please see Table 1 on page 13).

The table below shows the 7 standardization bodies with which M-Sec partners have engaged during the project's overall duration and the main activities undertaken, taking into consideration the internal KPIs defined.

Standardization body	Partner(s) involved	Meetings	M-Sec presentations	Contribution to discussions	Participation in other type of activities	Cross communication / dissemination activities
Alliance for Internet of Things Innovation (AIOTI)	ICCS	1 Participation in regular meeting of the Working Group of the Distributed Ledger Technologies (WG DLT) - November 2020	N/A	N/A	1 Contribution to AIOTI WG DLT on the Open Energy Marketplaces evolution white paper, describing the M-Sec project use cases	2 Participation in two regular telcos of the WG Standardization on IoT Landscape maintenance
Open & Agile Smart Cities Initiative (OASC)	AYTOSAN	1 Initial meeting in March 2020, to introduce the project, with the aim of identifying common interests and potential areas of collaboration	1 Introduction of the M-Sec project	1 Showed interested in the M-Sec Marketplace	N/A	2 They have been invited to join and disseminate among its network the (1) M-Sec webinars (9, including EU Industry Days) and (2) the e-consultation survey



Urban Technology Alliance (UTA)	CEA	3 Technical Working Group Meetings	3 M-SEC use cases	1 Contribution to requirements analysis and standard recommendations		1 Global Smart City Event
OSGi Alliance - Open Service Gateway Initiative	CEA	6 IoT Expert Group Meetings	10 M-SEC security requirements	1 Contributions to security requirements for IoT Chapter for the upcoming specification	1 Open source reference implementations	1 New Working Group on smart cities to be created in Eclipse Foundation, coworking with the OSGi Alliance WG
Industrial Internet Consortium (IIC)	KEIO	Many times Participates in every members meetings (Recently, 14th June 2021)	2 Introduction of the M-Sec project	1 Discussions about the possibilities of some contributions	N/A	N/A
United Nations International Telecommunication Union (UN ITU, The ITU Association of Japan)	WLI NTTE	2 1st initial meeting in June 2020, to exchange information and to explore collaboration pathways	1 Introduced M-Sec overview and activities in a Webinar organized by The ITU Association of Japan in August 2020	N/A	1 Contributed an article for ITU-J Journal in joint authorship in January 2021	N/A
StandICT.eu - ICT Standardization Observatory and Support Facility in Europe	F6S	N/A	1 1st initial meeting in January 2021, to explore collaboration pathways	3 Participation in open discussion groups on "cyber-security", "IoT" and "smart cities", sharing M-Sec news and initiatives	N/A	Social media posts on both sides to promote partnership Blogpost in M-Sec website to promote partnership and



						disseminate 2nd Call for ICT Professionals
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Table 9: M-Sec partners participation (activities description) in standardization bodies

Other relevant initiatives and projects

As previously mentioned in section 2 – Tools and channels of this report, to ensure a scalable impact of the project’s achievements and results, M-Sec has explored complementarities and exploited synergies with other relevant initiatives and H2020 projects addressing similar issues (i.e., smart cities, security and privacy of data, etc.). During the current reporting period, this resulted in collaborations with Cyberwatching.eu, StandICT.eu, Smart Cities Magazine and Fed4IoT.

Cyberwatching.eu is the European observatory of research and innovation in the field of cyber-security and privacy. M-Sec not only created a profile with relevant information on the project, but also promoted its Use Cases, White Paper, Cookbook and events through this online community. Moreover, it was included in the [project’s radar](#), alongside similar EU initiatives, and was “[Project of the Week](#)”, in March 2021, which included online and social media promotion of the project and its Use Cases, an initiative of Cyberwatching.eu to promote the European Commission’s funded project results, outputs, news and upcoming events of over 200 R&I cybersecurity and privacy projects. Moreover, M-Sec was later invited to a Webinar held on 14 July 2021 entitled “Shaping the future of cybersecurity - Priorities, challenges and funding opportunities for a more resilient Europe”, to showcase the project and its results and contribute to the EU debate on cybersecurity and privacy.

StandICT.eu is the ICT Standardization Observatory and Support Facility in Europe. M-Sec was invited to integrate the European Observatory for ICT Standardization (EUOS), more concretely the cybersecurity, IoT and smart cities public thematic groups, so as to showcase there the project’s main results, including its Use Cases, and promote discussions around its main achievements. This collaboration was further promoted in both project’s websites and social media channels²¹. On the other hand, M-Sec made sure to promote the StandICT.eu Open Calls for ICT professionals and to disseminate them also among its EU consortium members.

Moreover, M-Sec also engaged with sister-project Fed4IoT and after an initial meeting to present the projects and agree on some common activities, Fed4IoT was involved in the technical activities of M-Sec researchers regarding the development of the marketplace²². Both projects also agreed on organizing a joint final event to present the goals, achievements and results and showcase the developments in their Use Cases before an audience of relevant players and stakeholders. This event was held on 29 September 2021 and joined together 37 participants, and closed the activities of both projects.

Finally, the project also closely collaborated with [Smart Cities Magazine](#), a Portuguese online and written magazine dedicated to the topics related with smart cities, as media disseminator of M-Sec’s activities and results over the last year. Several news regarding M-Sec events and activities have been published at their

²¹ Please refer to the blogpost that provides more information about this collaboration: <https://www.msecproject.eu/m-sec-and-standict-eu-collaboration/>

²² <https://www.msecproject.eu/building-an-m-sec-marketplace-between-the-eu-and-japan-for-the-secure-exchange-of-data/>





online version, and an [interview](#) was published and printed, focusing on the Use Cases and what to still expect for 2021.

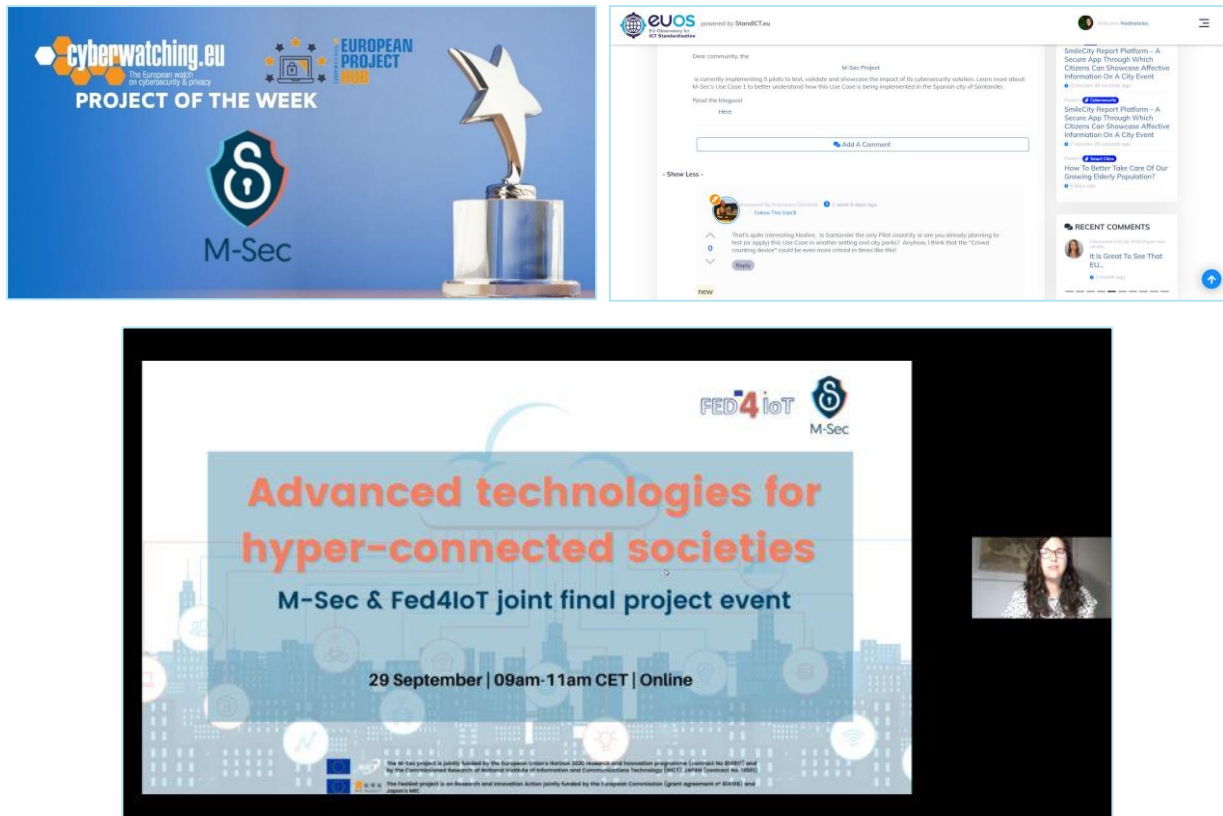


Figure 15: Official visual of M-Sec as “Project of the Week” by Cyberwatching.eu (left, top), discussion at EUOS platform (right, top) and screenshot of M-Sec’s final Webinar with Fed4IoT (bottom)

4. Dissemination and Communication Activities – Partner Level

Each partner of the M-Sec project has its own existing communication channels, whether that be its website (with a static page dedicated to describing their role in M-Sec, as well as blogs/news), social media (Twitter, Facebook, LinkedIn, YouTube, Instagram, etc.), newsletter, etc. Some partners may have all of these channels, or only engage in a small selection.

It was extremely important to spread the news of the M-Sec project activities and results on these pre-existing channels in order to maximise communications efforts done at project level. In this way, M-Sec was able to reach a pre-existing audience that is already interested and engaged in the topics of secure and connected smart city innovations, IoT, blockchain, cloud technology and big data.

In addition, each of the M-Sec partners has its own connections with other projects and platforms, where they disseminated the M-Sec news. In this way, dissemination efforts reached even outside the realm of the consortium to a wider audience.



The dissemination and communication activities completed by partners during the current reporting period were provided and organised on Confluence, the project's internal communication tool. Partners could easily record digital dissemination and communication such as blog/news posted, social media activity, press articles mentioning the project, as well as attendance at events where M-Sec was disseminated during face-to-face networking/presentations. The following is a sample of the activities carried out during this third and reporting period at partner level.

Press Releases

- WLI deployed in Santander its Senior Care solution for the care of the elderly (Use Case 2). The [Press Release](#) sent out on 22 October 2020 was about this Use Case, more concretely on the sensitive data collected through the home sensors and how M-Sec protects all the data from end to end approach.



Figure 16: Screenshot of Press Release by WLI on Use Case 2

Website news & external articles

- AYTOSAN and Logroño strengthened their collaboration in projects and initiatives that promote the cultural and tourism sector in both cities, as well as innovation and digital transformation projects. Furthermore, they have shared experiences in completed and ongoing projects, including not only city level projects but also pilot experiences. 5 people attended this meeting (mayors of the two cities and those responsible for the areas of culture, tourism and innovation) and an [article](#) was published at AYTOSAN's website on 5 October 2020.
- AYTOSAN took a step forward in the care of the elderly by monitoring teleassistance users through Senior Care solution, with the launching of the Use Case 2 pilot and an [article](#) was published at AYTOSAN's website on 8 November 2020. Moreover, several external articles were published in Spanish media regarding the beginning of this pilot implementation: [Cantabria Europa Press](#), [20 Minutos](#), [Cantabria Lavanguardia](#), [ClaudioAcebo.com](#), [Ifomo noticias](#) and [CDC Cronica de Cantabria](#).
- AYTOSAN deployed sensors and QR codes in Las Llamas Park, in Spain. The pilot experience "Enriching your visit to the park" is part of the M-Sec Use Cases in which Santander City Council, TST and several other consortium members collaborated (i.e., Use Case 1). An [article](#) was published at AYTOSAN's



website on 26 August 2021 and several local newspapers have published the news about this pilot: [ALERTA – El Diario De Cantabria](#), [Cantabria Directa](#) and [El Diario Montanes](#).

- TST has supported M-Sec dissemination efforts by publishing 2 articles in its website dedicated to the [M-Sec Online Contest](#) (21 July 2021) and to the [M-Sec Cookbook](#) (20 January 2021).



Figure 17: Screenshot of external articles in Spanish press regarding Use Case 2

Website updates

- During this third year of the project, AYTO SAN has updated the [M-Sec section of the Santander municipal website \(in Spanish\)](#) including content of the 5 M-Sec pilots, the links to the Use Case videos with the spanish subtitles, the spanish version of the Comic Book and the news of the M-Sec Online Contest, among others.

5. Monitoring and evaluation

The M-Sec project has achieved a considerable amount of impact through its dissemination and communication activities over the last 3 years. The relevance of the project's dissemination and communication activities towards the M-Sec previously identified target groups has particularly increased during the current reporting period due to the project's technical results and achievements obtained over the last year. As a good amount of preparation was carried out in the first 2 years of the project, by communicating the project's goals, the results it was expected to achieve and the impact it was supposed to have in the European IoT ecosystem, this last year benefited from the results of the solid implementation of M-Sec and the showcasing of its real impact, particularly in Santander and Fujisawa cities.





The Dissemination and Communication Plan was revisited by WP5 leaders and discussed in the project's WP5 monthly meetings and consortium meetings, considering the objectives and KPIs set. It can be observed that the M-Sec project has always tried to achieve greater impact and outreach with its dissemination and communication activities, and as a result It has received very good feedback and interest from relevant IoT stakeholders and citizens.

5.1 Impact assessment – Year 3

The following shows a snapshot of the impact achieved during this last reporting period:

- **Project website:** robust branded website with +19.000 total visitors, 1300 monthly reads and with several updates to better showcase the results and achievements of the M-Sec project, as well as relevant information on its initiatives and events.
- **Social media and online communities:** +900 followers (surpassing the target of >500 followers at the end of the project, +12.000 monthly impressions, and with accounts growing since the beginning of the project. Other online communities growing at a steady pace, such as the Slack community.
- **News, articles, and Press:** 72 blogposts on the project's website and mentions in +60 external articles, in multiple languages, totalling +130 news on M-Sec and the project's main achievements (ahead of the target of 15 non-scientific articles), as well as contacts established for future long-term collaborations with disseminators. 10 M-Sec Newsletters have been sent out to a growing audience currently of 124 subscribers (ahead of the target of 4 Newsletters as project goal) and 7 Press Releases have been shared with a growing number of external actors.
- **Events:** partners were present at a total of 50 conferences and summits worldwide, from Europe to Japan, and online, and have co-organized 9 international workshops (surpassing the minimum target of 2) and 14 training and community events, including joint events with other EU & Japanese projects and the M-Sec Online Contest.
- **Synergies:** collaborations fostered with 7 standardization bodies, other relevant H2020 initiatives and media, paving the way for more indepth partnerships as the project evolved.
- **Scientific publications:** 17 scientific publications in international conferences (1 still to be accepted) and 20 publications in international journals (2 still to be accepted), clearly ahead of the targets set, with an overall total of 37 publications related with the M-Sec framework.

As previously stated, dissemination and communication activities during the current reporting period had a major impact in promoting the project's results and achievements, to attract a higher number of IoT stakeholders and citizens interested in the M-Sec framework. In this sense, the impact of the activities carried out in this reporting period can also be shown in the increase on the number of participants at M-Sec events and initiatives, and the positive feedback the project has been receiving in Europe and Japan.

Overall, the project was able to maintain a regular flow of information regarding its achievements and results through online and offline channels, showcase the impact of the M-Sec framework to a larger audience, either technical and non-technical, and create synergies with other relevant initiative and projects that leveraged its promotion and gathered positive feedback among its main stakeholders. The M-Sec project thus ends in a good position as it paved the way for further research and implementation regarding security and privacy of the data exchanged in hyper-connected smart cities, and confident that it has achieved the objectives proposed for its dissemination strategy.



A deeper analysis of the communication activities of the overall 3 years of the project is presented in contrast with the KPIs set for the end of the project in the table below.

Target groups	Indicators	Target number	Status at M36
General public (including industry and SMEs)	Non-scientific publications (articles, press releases, ...)	15	143
	Newsletters	4	10
	Videos views	3000	3002
	Followers in social networks	>500	988
	Number of deliverables downloaded	200	537
	Booth in exhibition	2	3
Research community	Publications in international conferences	15 individual 5 joint EU/Japan	15 individual 2 joint EU/Japan
	Publications in international journals	3	21 (incl. 5 joint EU/Japan)
	Co-organised international workshops	2	9
Standards and regulation bodies	Standardization groups that project interact with	>3	7
	Participation in EU commission's consultation and other worldwide regulatory in the field of interest	4	5
Cities field trial stakeholders/community	Number of training and community events co-organized (webinars,	10 20-50 participants	12



(including citizens and startups)	workshops, hackathons, etc.)		
	Online contest with participation of startups and entrepreneurs	>1 with more than 20 participants	1
	Number of citizens for e-consultation	1000 EU/Japan	892 (89,2% achieved)
	Use case replication in 2 cities or more	2	2
EU-Japan initiatives and policy makers	Participation to EU's concertation activities	>4	5
	Joint events with other EU-Japan projects	>4	5
	Invitations from governmental institutions (embassy, etc.	>3	5

Table 10: M-Sec dissemination and communication KPIs

Even though the project was not able to reach the minimum target KPI for joint EU & Japanese scientific publications in international conferences, it more than reached the other research community related KPIs of scientific publications in international journals (21 publications when the minimum target was only 3, from which 5 were joint EU & Japanese publications) and international conferences (17 publications when the minimum target was 15, 15 of which were individual publications from the EU or Japanese side). In fact, the majority of the publications submitted by project partners to international journals were also presented at relevant high-level international conferences, and therefore widely spread through the scientific community interested in the M-Sec related topics and partners have expressed their interest in jointly continue to submit relevant publications regarding the main findings and achievements of M-Sec after the project ends.

Another KPI that did not reach the minimum target was the number of citizens for e-consultation. However, we believe that the M-Sec e-consultation survey was widely spread and received relevant answers both from the European and the Japanese side, with relevant results for the project. Another factor that explains why this KPI was not reached related with the later implementation of the M-Sec Use Cases in comparison to what was initially foreseen, whose strategy needed to be revised due to the covid-19 pandemic. In this case, several surveys to collect the feedback of end-users were prepared at a later stage and were not able to be considered for the project's dissemination and communication KPIs before the project's end.



5.2 Next steps – wrap-up of the project

With the end of the M-Sec project, the consortium intends to wrap-up the project with a short video highlighting the main results and overall impact of the project. Moreover, a final blogpost and social media post are also expected, to close the dissemination and communication activities at project level, and a final Newsletter containing all these materials will be launched after the project ends. The project website will be updated to its final version and kept running during 3 years after the project ends, so that interested stakeholders and citizens can directly contact the consortium for more information and further engagement. Overall, even though the project will end in September 2021, several activities are still foreseen after the project ends so as to wrap-up the dissemination and communication activities of M-Sec.

6. Conclusions

Overall, the dissemination and communication activities of the M-Sec project during its 3 year's implementation showed good process, generated a relevant impact for the project's results and achievements at a more technical level and promoted a positive feedback from its target stakeholders and main players. The work completed during the first 2 years of the project laid a strong foundation in terms of promoting the M-Sec project and its mission, ready for the final year of the project, that focused on its concrete results and achievements: technical developments regarding the M-Sec framework and implementation in real-life Use Cases, in the cities of Santander and Fujisawa. Even though 2 KPIs suffered from delays and constraints regarding the covid-19 pandemic, they were compensated with major achievements in other activities and tasks with higher impact for the project (e.g., Use Case videos, Webinars on M-Sec layers, Comic Book, blogposts and external articles, etc.). Therefore, it can be stated that the goals of the project in terms of dissemination and communication activities have been reached.