



Grant Agreement N°: 825082
Call: H2020-ICT-2018-2
Topic: ICT-27-2018-2020, Internet of Things
Type of action: CSA



Next Generation Internet of Things

Deliverable number	D4.3
Deliverable title	Outreach and Impact Creation Activity Report (final)
WP number	WP4
Lead beneficiary	DNET
Deliverable type	Report
Dissemination level	PU
Delivery due month	M36
Actual submission month	M36
Authors	DNET, Martel
Internal reviewers	AU (WP5), MI (WP1)
Document version	Ver 0.1
Project start date	01.11.2018
Project end date	31.10.2021
Duration in months	36 months

This deliverable is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 825082.



Executive Summary

Deliverable “Outreach and Impact Creation Activity Report (final)” gives an insight into the implemented activities that have been carried out during the second half of the project M19-M36, based on the guidelines and means defined in the deliverable “Outreach and Impact Creation Strategy and Plan” and is a continuation of the work outlined in the deliverable “Outreach and Impact Creation Activity Report (interim)” that covered the first half of the project M1-M18 and the later updates of the outreach plan as these were presented in the intermediate Progress Project Review reports.

The purpose of this deliverable is thereby to:

- Present dissemination and communication results
- Show communication and engagement activities that have been implemented, monitored and evaluated by following the defined rules and procedures
- Depict how the methods, tools and promotional material (e.g. project logo, website, printable dissemination material, events, publications) have been used in the project’s dissemination and communication
- Provide a complete overview of the communication activities

Through these means, the NGIoT consortium promotes the concept and activities of the project towards a broad range of stakeholders and multipliers, as well as to outreach to the target audiences so they enrol in the ideation and acceleration activities organised or promoted by the consortium.

The Communication Plan constitutes an internal instrument that aims to provide a consistent framework for all activities needed to disseminate and sustain the concepts, achievements, as well as the knowledge and results developed within the project. It has been evaluated and revised during the course of the project duration.





Table of contents

1. INTRODUCTION	6
1.1. Purpose of the document.....	6
1.2. Structure of the document.....	6
2. THE FUNDAMENTALS OF OUTREACH AND IMPACT CREATION STRATEGY.....	7
2.1. NGIoT vision and objectives	7
2.2. Objectives of the outreach and impact creation strategy	7
2.3. NGIoT Positioning	8
2.3.1 Dimensions of the communication activities analysis	9
2.3.2 Stakeholders analysis - target audience	11
2.4. Outreach and impact: phases.....	11
2.5. Activities: the pillars of the strategy	13
2.6. COVID-19 and outreach and impact creation strategy	14
3. MEANS AND ACTIVITIES.....	16
3.1. NGIoT brand identity	16
3.2. Online presence.....	16
3.2.1 Project website	16
3.2.2 Social media	18
3.2.3 e-Newsletter	20
3.2.4 e-Publications.....	22
3.2.5 Videos and multimedia	23
3.2.6 Webinars and workshops	24
3.2.7 Online tools	26
3.2.8 Events participation	27
3.2.9 Events organisation.....	29
3.2.10 Events toolkit	32
3.3. Liaising with other initiatives.....	33
3.4. Liaison and transition: From NGIoT to EU-IoT.....	34
3.5. Coordination and support of AG08 communication activities.....	35
4. MONITORING AND EVALUATION.....	36
5. CONCLUSIONS	38
APPENDIX A – EVENTS	39
REFERENCES.....	3





List of Figures

Figure 1: NGIoT main objectives and expected outcomes	7
Figure 2: NGIoT positioning	9
Figure 3: NGIoT expanded dimensions	10
Figure 3: NGIoT groups of stakeholders	11
Figure 4: NGIoT Phases of the dissemination plan	13
Figure 5: Users and sessions of visitors of the NGIoT website	17
Figure 6: Most visited pages of the NGIoT website	17
Figure 7: NGIoT Twitter account.....	19
Figure 8: NGIoT LinkedIn page	19
Figure 9: NGIoT YouTube channel	20
Figure 10: Number of people who have opened the NGIoT newsletter email (opens) and number of clicks on content within the newsletter (clicks)	21
Figure 11: NGIoT newsletter	22
Figure 12: NGIoT thematic videos.....	23
Figure 13: NGIoT & Smart Cities video.....	24
Figure 14: List of NGIoT webinars and workshops	25
Figure 15: NGIoT online survey.....	26
Figure 16: Google Drive sheet listing the events for potential/confirmed NGIoT representation	28
Figure 17: Types of stakeholders at the events, relevance to innovation enablers and covered topics of discussion.	29
Figure 18: NGIoT poster	32
Figure 19: NGIoT 1 st version of roll-up	33
Figure 20: NGIoT 2 nd version of roll-up	33
Figure 21: IoT-LSP activity groups report.....	35





List of Tables

Table 1: dissemination and communication kpis impact	15
Table 2: directly involved initiatives	33
Table 3: key performance indicators (kpis) for dissemination and communication activities.....	37
Table 4: events attended by ngiot partners	39





1. INTRODUCTION

1.1. Purpose of the document

This deliverable “*Outreach and Impact Creation Activity Report (final)*” is prepared in the context of Work Package 4 (WP4) and is associated with all the three tasks. However, WP4 is a horizontal component within the project work plan that interacts with all the WPs of the workplan.

The document aims to depict overall dissemination and communication activities for NGIoT for outreach and impact creation that followed guidelines defined in the document D4.1 “Outreach and Impact Creation Strategy and Plan”.

The main focuses of WP4 are contact with the relevant stakeholders, as well as the preparation of the promotional materials and organising dissemination activities to create an open, secured, decentralised, user-oriented and highly engaging NGIoT community.

The purpose of this deliverable is to illustrate the activities based on the outlined communication plan:

- Present dissemination and communication of knowledge and results
- Show communication and engagement activities that have been implemented, monitored and evaluated by following the defined rules and procedures
- Depict how the methods, tools and promotional materials have been used in the project’s dissemination and communication
- Provide a complete overview of the communication activities

1.2. Structure of the document

The sections of the deliverable at hand are organised in the following manner.

After the introductory **Section 1**, **Section 2** depicts the vision of NGIoT and the fundamental aspects of the outreach and impact creation strategy, including the main objectives, the description of the target audiences and the strategic planning of the envisioned activities.

Section 3 presents the various types of dissemination activities and tools that have been used in order to support the project’s dissemination and communication activities.

Section 4 presents a detailed Communication Activities Plan.

Section 5 depicts the metrics for the evaluation of the dissemination and communication activities.

Section 6 is the conclusion.



2. THE FUNDAMENTALS OF OUTREACH AND IMPACT CREATION STRATEGY

2.1. NGIoT vision and objectives

The vision of NGIoT is to create a robust and agile research and innovation agenda that will close the gap to implementation and lead to unlocking the growth potential of the Internet of Things (IoT) while respecting core European values, supporting key EU policies, leveraging industry associations and establishing a Strategy Board.

NGIoT achieves this by growing and interconnecting the ecosystems of existing and upcoming European IoT initiatives and stakeholders from the quadruple helix: industry, service providers, policy makers, and knowledge institutions working in the IoT field. This group contributes input to one of NGIoT's key expected outputs: the creation of an iterative research and innovation roadmap with clear directions for implementation.

In terms of outreach and impact creation, by connecting the various IoT players in Europe and providing an authoritative voice for the industry, NGIoT aims to maximise outreach, harmonise the message and increase the impact of the European IoT industry as a whole.

In order to realise its ambitious vision, NGIoT has devised four high-level objectives. A definition of the high-level project objectives and how they map on to the detailed WP objectives are provided below:



Figure 1: NGIoT main objectives and expected outcomes

2.2. Objectives of the outreach and impact creation strategy

In terms of communication and dissemination, the main objective of NGIoT is to leverage the networks and connections already made to engage current players, reach further stakeholders who may be currently on the edges or outside of the established European IoT ecosystems. The outreach and impact creation strategy also assist in the development of a well-researched, market-oriented roadmap for the years to come.

It is important that NGIoT's dissemination, communication and community building activities are overarching throughout the whole duration of the project and serving the programme vision of



ensuring a human-centred IoT evolution. To establish and maintain the NGIoT brand, NGIoT designed, launched and maintained a dedicated web portal at the service of the project and of the community. NGIoT also put in place and animated dedicated communication channels and dissemination tools to effectively promote the project's concepts and results. These channels also serve various relevant programmes that are part of the European Commission's IoT initiative, ensuring participation in - and organisation of - dedicated events, as a means to engage the stakeholders, as well as to gather thematic working groups and provide them with appropriate fora for discussion and interaction.

Given the restrictions on people gathering at events due to Coronavirus, NGIoT adapted the strategy. NGIoT adopted a flexible and agile approach to the organisation of virtual events to ensure continued participation by all stakeholders in the NGIoT initiative. The main objectives of the NGIoT dissemination and communication strategy and plan are to:

- Ensure broad visibility of the European human-centred IoT vision gathering all top researchers and innovators, as well as promoting the IoT roadmap, to effectively foster the growth of a human-centred IoT, fitting in the broader NGI initiative and in line with the Horizon Europe ambition.
- Connect, stimulate and engage a critical mass of relevant stakeholders (with a strong focus on industry and associations) in a dynamic, sustainable and active ecosystem, able to address technical, business and social challenges related to end-users faced by the communities and best practices based on use cases of IoT in several domains and contexts.
- Facilitate the promotion of European research and technology excellence in the field of IoT and enhance its leading position.
- Foster contribution to support IoT policies under the new EC strategies and the Horizon Europe Programme.
- Actively create synergies with ongoing IoT initiatives at European and national levels, including the current EU-IoT CSA, the OPENDEI CSA, the new ICT-56 RIAs and other initiatives (mostly CSAs and RIAs) in the domains of emerging technologies related to IoT (IoT-Cloud-Edge), as well as liaising with the industrial associations and players.
- Ensure the smooth continuation, use, maintenance and engagement of the outreach work, tools and community with the transition to EU-IoT that takes over gradually from October of 2020 the animation and support of and within the NGIoT community.

2.3. NGIoT Positioning

The entire planning and implementation of the outreach and impact creation strategy of the project has relied on the clear positioning that NGIoT has, especially in the EU landscape, taking into account all the relevant initiatives in IoT and linked domains, considering:

- The CSAs that are running in the IoT domain and linked RIAs
- The CSAs that are running in relevant domains and especially the ones related to the innovation enablers (WP3 concept paper, white paper and roadmap) and their linked RIAs
- The running and newly funded by the EC initiatives, especially the ones under the ICT-56
- Existing Clusters and associations
- Public authorities and civil society organisations



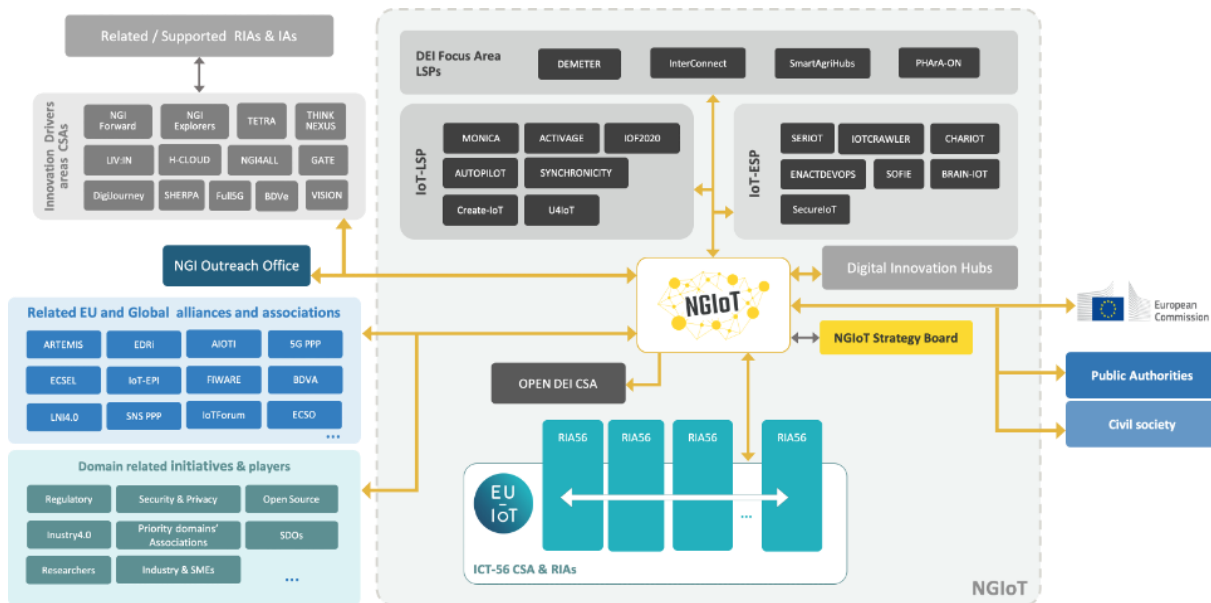


Figure 2: NGIoT positioning

2.3.1 Dimensions of the communication activities analysis

An additional analysis has been done in relation to the “impact factors” of the project that:

- Are aligned with the areas, priorities and topics discussed under the NGIoT Roadmap.
- Are extended to additional technological domains and IoT related topics as result of following the currently open discussions in the community, the discussions and experts’ positions as these were expressed and presented in the joined and organised events and the recommendations shared from the past Reviews of the project.
- Are the basis for alignment and coordination of the engagement activities organised by the different WPs of the project workplan, targeting to act as complement and feeding each other activities.



These factors are presented in the diagram below.

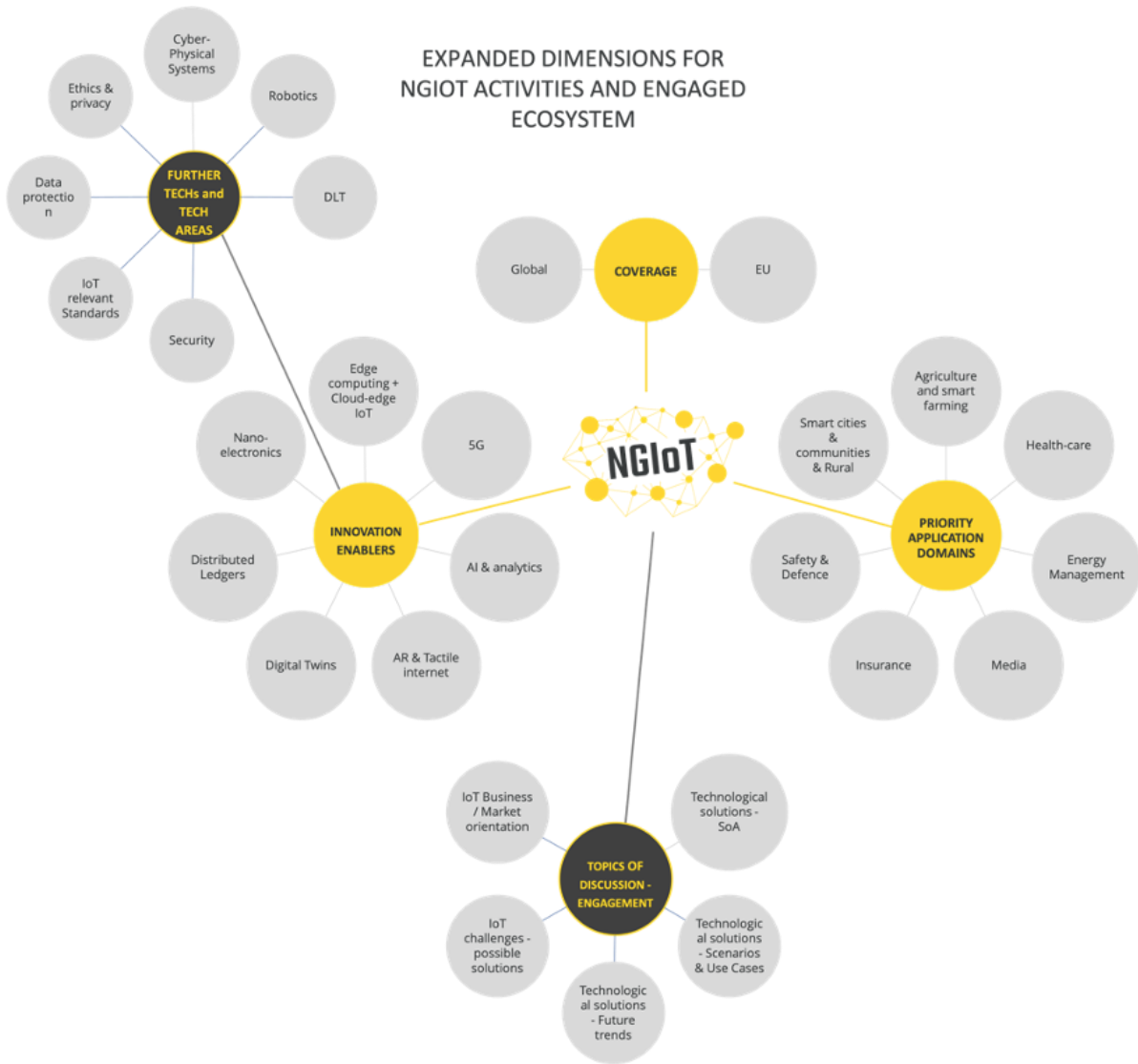


Figure 3: NGIoT expanded dimensions

2.3.2 Stakeholders analysis - target audience

Taking into account these dimensions and also the core and broader players of the IoT community, we further analysed the target group audiences and defined the types of stakeholders as shown in the diagram below.

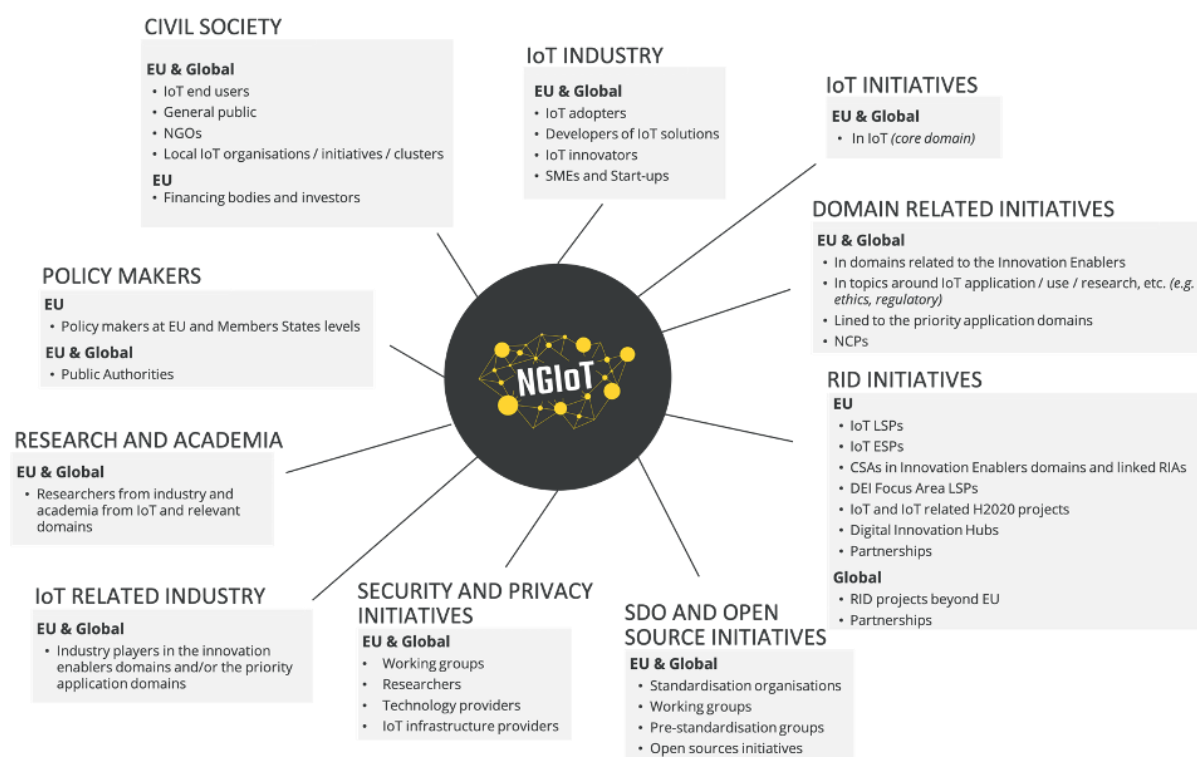


Figure 3: NGIoT groups of stakeholders

2.4. Outreach and impact: phases

NGIoT follows a phased approach to defining, planning, organising and exploiting a rich set of activities and instruments in the most effective way towards building a strong and vibrant IoT community in the EU that makes a difference in the future development of the field and NGI scene at large. Accordingly, the project follows a three-phase approach to outreach and impact creation, as follows:

Phase 1: NGIoT Sowing phase - awareness creation, communication foundation (M1-M06)

During this phase, NGIoT defined the dissemination strategy and plan, with target groups, planned activities and tools, in close coordination with the European Commission and the crosscutting IoT LSP Activity Group (AG08), that is leading communication of the IoT LSP programme.

NGIoT prioritised creating a set of communication tools and mechanisms to maximise outreach and engage target stakeholders. This involved strengthening the overall content strategy in relation to the planned project outcomes, also by aligning with the overall IoT LSP programme objectives, as well as the overarching Next Generation Internet vision and plans, in close coordination with relevant European industrial associations.

Outcomes/measures: NGIoT web portal created and launched, including a calendar of relevant events. Dedicated social media channels animated – NGIoT on Twitter, Facebook, LinkedIn and YouTube as



well as animating the IoT LSPs twitter feed. NGIoT survey launched. The first NGIoT newsletter was published in April 2019. The design of a first flyer about the human-centred IoT initiative. A slide-based project presentation. The first video is an introduction to the NGIoT concepts and main objectives.

Phase 2: NGIoT Flowing phase - targeted outreach and engagement bootstrap (M7- M24)

The scope of Phase 2 of the NGIoT outreach strategy was to actively reach out to targeted stakeholders and the public to generate interest and demand for the NGIoT activities and outcomes. This created further synergies and collaboration opportunities for the EU IoT/IoT LSP research and innovation community for stronger industrial liaison, security ecosystems, NGI and related initiatives. Initial versions of the roadmap and market studies are available.

Measures: Feedback from the NGIoT survey provided input to the roadmapping activities. During this phase, partners of the consortium attended the annual flagship event, IoT Week 2019, alongside other key events (e.g. NGI Forum, Digital Assembly, EuCNC, CSCC, among others). Promotional activities, including continuous population and animation of the portal and media channels continued. Quarterly editions of the newsletter have been produced and disseminated; videos and live sessions from events and thematic workshops have been launched and produced. Other NGIoT materials produced to highlight the human-centric IoT initiative include flyers, posters, presentations, publications and thematic videos.

Phase 3: Harvesting phase - broad outreach and experimenters' support (M25-M36):

Phase 3 (final phase) of the NGIoT outreach and impact strategy provided further dissemination in the final “full bloom” phase of the road-mapping and ecosystem creating activities of the NGIoT project and other relevant projects within the community. This phase actively engaged and supported all stakeholders in the network of European IoT and NGI, built by NGIoT through its dedicated promotional activities. Broad outreach in Europe and beyond, were also key to ensure a sustainable ecosystem that will continue beyond project duration, paving the way for Horizon Europe.

Measures: Results of the NGIoT project presented to key communities in IoT and NGI. The project supported the organisation of the flagship event, IoT Week 2021, including promotional activities. This phase saw the final development of the roadmap. Other outreach activities include continuous population and animation of the web site and media channels and developing promotional materials. The last four editions of the newsletter are produced and disseminated; Videos and live sessions of the events and thematic workshops were launched and produced. Active participation at external events and presentations continued. The roadmap is presented and promoted widely in and beyond the IoT communities. This document, D4.3 “Outreach and impact creation activity report (final)” is produced, as a summary of the project’s effort in impact creation.

The following Figure 4 demonstrates the three phases.





Figure 4: NGIoT Phases of the dissemination plan

2.5. Activities: the pillars of the strategy

The NGIoT communication and dissemination strategy is led by the pillars introduced below.

Strong engagement of industrial players and IoT related associations: A key feature of NGIoT is to actively engage industrial and association-based stakeholders to maximise impact and gather hands-on market-related feedback and to integrate them into the road-mapping and ecosystem-building activities. This follows closely not only the existing IoT policy documents from the EC, but also creates synergy with and builds on the members' latest activities and initiatives (e.g. AIOTI, ARTEMIS, BDVA, IoT Forum, and more). Key industrial partners from each of the NGIoT and NGI related projects are invited to actively participate in the thematic working groups, dedicated project events and activities and co-create the analyses and recommendations to be integrated in the roadmap.

Participation in and organisation of events: This area of activity has been severely impacted by restrictions on travel due to the Coronavirus outbreak. The initial objectives remain to ensure visibility of NGIoT's work and results and to promote them broadly to attract and engage all target stakeholders, fostering major participation to the project activities (e.g. the roadmap and ecosystem development), large-scale awareness creation for human-centred IoT deployment and network building for the IoT ecosystem.

In 2019, the consortium supported the organisation of IoT Week, as well as participating in relevant events, such as the annual NGI Forum, Digital Assembly, EuCNC, Connected Smart Cities Conference, Smart City Expo, among others. This has contributed overall to the building of an active IoT network of stakeholders and the ecosystem.

At project level, NGIoT has taken advantage of its direct link to IoT Forum and Open & Agile Smart Cities (OASC) and to organise impactful, dedicated sessions at the annual Connected Smart Cities Conference, IoT Week and the Smart City Expo – and from March 2020, their 'virtual event' equivalents to actively promote its concepts, invite distinguished AG members for insightful presentations on various aspects concerning deployment of the IoT technologies, to collect feedback from thematic working group discussions, workshops on IoT policy and funding opportunities. In live events it has been possible to showcase actively via exhibition booths with industrial and R&I partners, but since March, 2020 it was necessary to showcase online. Live events and online sessions have a strong innovation and industry focus, aiming to bring real opportunities to stakeholders. On 11 September, an event co-hosted with the European Commission, titled, *IoT and Edge Computing: Future directions for Europe* took place, closely followed by a two day event on 7 and 8 December, *IoT and Edge*



Computing II: The Far Edge. A third 'Edge' event was held February 25, 2021 titled: *IoT and Edge: Instruments, Priorities and Partnerships*. In this event, NGIoT invited European industry and the public sector to reflect on the results from the two previous workshops and convey their position or provide a spontaneous feedback on the role of Edge Computing as they experience it in their relevant sectors. Feedback could be provided orally or through quote and/or expression of interest in supporting the future strategic discussion on Edge Computing at the European level. In April, the European Commission, in collaboration with EU-IoT, organised the Next-Generation IoT and Edge Computing Strategy Forum. The event gathered top technology experts from across several digital and vertical domains, as well as corporate-strategy level representatives to exchange views on priorities, challenges and opportunities, and establish a commonly shared strategic European vision for the next-generation IoT and (far) edge computing. These Edge themed events resulted in the report, '*IoT and Edge Computing, Opportunities for Europe*'. Most events held in 2021 continued in virtual format and NGIoT events included regular thematic webinars relating to topics such as health, autonomous vehicles, Industrial IoT, agriculture etc, as well as a continuation of workshops on the theme of privacy and security. NGIoT had a very good representation at IoT Week 2021, participating or leading in around 10 events. See the news item here: <https://www.ngiot.eu/ngiot-at-iot-week-2021/>. A headline session entitled: *Building an ecosystem for IoT and Edge Computing towards a European Strategy Forum* explored achievements so far in building an ecosystem for IoT and Edge Computing, showcased funding opportunities through EU-IoT and took a look ahead towards a future European Strategy Forum.

Relevant initiatives in the IoT field: The NGIoT consortium benefits from its deep involvement in the IoT, standardisation, privacy and security, NGI related initiatives, including managing the dissemination and communication aspects of similar types of CSA projects. Active seeking of synergy through joint events, promoting materials, online activities, among others are explored, building on and aggregating results, lessons learned and networks of these projects. The consortium also has direct contacts with other projects under the NGIoT and IoT related domains and cooperates with key IoT initiatives with strong technical focus (details in Section 3.4).

2.6. COVID-19 and outreach and impact creation strategy

The original vision of NGIoT has been brought into sharp focus by the international travel bans imposed by containment measures by governments due to the COVID-19 outbreak. Certain elements of the objectives of NGIoT have adapted to the post-Coronavirus circumstances.

In this context, the NGIoT consortium has adapted the outreach and impact creation strategy based on the following:

- NGIoT participation / contribution in the online events that "replace" the physical ones, taking part in the ongoing discussion and presenting the project's main outcomes and activities as planned.
- NGIoT implementation of an intense programme of webinars in collaboration with all WPs, in conjunction with a communication plan aiming for a broad engagement of the community and attracting a large number of stakeholders from various domains of the NGIoT ecosystem.
- NGIoT strengthened online communication activities to reach and echo the relevant activities around the community.
- NGIoT held a series of activities related to the role of IoT and the currently discussed, running and planned activities throughout the NGIoT community.



These activities and the special circumstances that the containment measures had an effect on some of the dissemination and communication KPIs as described in the table below:

Table 1: Dissemination and communication KPIs impact

Measure	Indicator	Target Values	Source and methodology	Effect and update
Human-centred IoT Flyers	Number of brochures distributed (one update per year at least on the flyer)	1000/year	Through online and offline distribution	The consortium not reach this number, due to the limited physical events
Roll-up Banner	Number of roll-ups produced	3 by the end of the project (1 per year)	Through the dissemination reporting	No effect
Newsletters (published quarterly)	Number of subscribers	>500 (by the end of the project)	In-built website statistics tool	No effect
Project website	Number of unique visitors to website/page-hits	350 visitors/month (by the end of year 1)	In-built website statistics tool	No effect
Social networks	Number of followers in LinkedIn, Twitter, YouTube, Facebook	At least 500 overall (average number of followers in Twitter, YouTube, Facebook + Members in LinkedIn)	In-built statistics from different social media platforms	The consortium joined either physically or online the events that took place, contributing to their organisation as planned in the workplan
Events	Number of events organised/participated, number of participants	3 annual flagship events, with at least 250+ participants per edition	Attendance proofs (e.g., photos), events' report	No effect
Videos	Number of videos published on YouTube and average number of views	5 videos per year and 150 views per video	In-built website statistics tool	No effect

Beyond these, NGIoT produced a desk review of use cases of IoT related to COVID-19 entitled: "IoT and COVID-19" delivered in August 2020¹. The desk review gives an overview of the measures to control the epidemic in various regions that have leveraged IoT to manage patients, identify and isolate those infected and prevent transmission.

¹ <https://www.ngiot.eu/download/iot-supporting-covid-19-prevention-diagnosis-and-treatment-efforts-desk-review-ngiot/?wpdmdl=865&masterkey=5f3e747281452>



3. MEANS AND ACTIVITIES

This section presents the dissemination material created and activities undertaken by NGIoT partners from the beginning of the project in November 2018 until October 2021.

3.1. NGIoT brand identity

As an EC co-funded Coordination and Support Action project, a clear project brand identity was implemented since the early stages, in order to have an impact with the dissemination of respective work and achievements. Effective visual brand identity is achieved by the consistent use of particular visual elements to create distinction, such as the NGIoT logo, specific fonts, colours, and graphic elements including templates. All dissemination materials refer to the project name, the project's website and Horizon 2020 with associated graphic elements in line with the European Commission's guidelines² including the EU flag and declaration including the grant agreement number. The NGIoT visual identity, created by Martel, is incorporated in all promotional and dissemination materials and is used by all project partners in their communication activities according to the guidelines NGIoT has provided. More information is provided in document D4.1.

3.2. Online presence

3.2.1 Project website

The [ngiot.eu](https://www.ngiot.eu)³ website was designed and developed from M2 of the project. The **fully functional NGIoT website** represents the supportive actions and the community of the programme and enables the initiative to outreach to all stakeholders involved in the deployment of a human-centred IoT ecosystem. This NGIoT website is the main communication tool for the dissemination and communication of information related to the project and the NGIoT community was created and is maintained by Martel, as communications lead of NGIoT. A full description of the website is presented in document D4.1 and an enhanced and upgraded version was delivered within the first months of 2021 through EU-IoT, the new CSA of the initiative, with the support of the NGIoT communications team. This new edition of the website focuses more on the promotion of the NGIoT as an initiative, having its own brand and promoting the outreach activities of both CSAs (NGIoT and EU-IoT) and the RIAs (ICT-56 RIAs) as well as the liaised initiatives, ecosystems, projects and broader IoT community.

NGIoT website analytics

The NGIoT website had 15,216 sessions – which means the total number of users accessing the website. This comprises 14,029 unique users up to October 2021. Unique users are defined as visiting the website once. This is considered a strong performance.

²https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm

³ <https://www.ngiot.eu/>





Figure 5: Users and sessions of visitors of the NGIoT website

The website had an average of more than 425 unique visitors per month and in total the website had more than 52,000 page views during the reporting period. The figure below shows the most visited pages for the period.

Page	Page Views	Unique Page Views	Avg. Time on Page
	53,767 % of Total: 100.46% (53,522)	46,035 % of Total: 100.45% (45,829)	00:01:44 Avg for View: 00:01:43 (0.16%)
1. /	7,520 (13.99%)	6,298 (13.68%)	00:01:09
2. /trafficbot.life	5,025 (9.35%)	4,979 (10.82%)	<00:00:01
3. /events/	2,694 (5.01%)	2,070 (4.50%)	00:00:56
4. /about/	2,659 (4.95%)	2,112 (4.59%)	00:01:36
5. /news/	1,163 (2.16%)	854 (1.86%)	00:00:56
6. /open-calls/	1,106 (2.06%)	712 (1.55%)	00:00:48
7. /community/	1,072 (1.99%)	704 (1.53%)	00:00:38
8. /event/iot-and-edge-computing-future-directions-for-europe/	1,056 (1.96%)	943 (2.05%)	00:04:35
9. /event/workshop-on-iot-and-edge-computing-research-and-standardisation-convergence/?instance_id=167	854 (1.59%)	743 (1.61%)	00:04:29
10. /research-innovation/	701 (1.30%)	462 (1.00%)	00:00:33
11. /community/ngi-iot-initiatives/	643 (1.20%)	572 (1.24%)	00:01:47
12. /resources/publications/	591 (1.10%)	527 (1.14%)	00:03:27
13. /contact/	516 (0.96%)	448 (0.97%)	00:00:54
14. /event/workshop-on-iot-and-edge-computing-research-and-standardisation-convergence/	480 (0.89%)	399 (0.87%)	00:04:03
15. /event/iot-and-edge-computing-ii-the-far-edge/	475 (0.88%)	435 (0.94%)	00:04:14

Figure 6: Most visited pages of the NGIoT website

The main sections of the project website include the following:

- **Home:** Intro page that, using a slideshow, presents the main concept and message of the project and the access point to the upcoming events, the NGIoT community, registration to the project newsletter and social media
- **Community:** This page is the entrypoint to the relevant ecosystem, including the main stakeholders and liaised initiatives offering information and access.





- **News:** This part announces all the project news and important items from the NGIoT community, such as events, workshops, webinars, relevant documentation, etc.
- **Events:** This section of the website includes all the key events that the partners and projects organise and participate in along with other relevant events of the NGIoT community. Besides that, the overview of the most relevant events attended by the NGIoT partners is available.
- **Resources:** This area provides all dissemination, promotion and communication materials that are available to the public, including Media, outcomes (public deliverables), published (research) papers, presentations/talks, press releases, videos and presentations.
- **Contact:** This includes the form and contact points for the visitors to communicate with the dissemination and coordination team of the project
- **Social media pages:** This information is placed at the top and bottom of all pages allowing people to follow to the social media pages (Facebook, Twitter, LinkedIn and YouTube) of the project.
- **Newsletter:** This page includes the list of published newsletters that can be accessed and a subscription area, where visitors/partners could subscribe for receiving newsletters.

The website is based on a **Content Management System (CMS)** allowing easy way of creation and management of the website content, including news, events and other relevant articles and their relevant images.

Martel as communication lead keeps the authority to upload content, mainly for the sake of consistency and editorial quality. All partners contribute to drafting content, according to their role in the project and their knowledge, using the relevant templates and tracking online documents.

3.2.2 Social media

Various social networks are used as **marketing tools** in order to promote activities and outputs of the project on a regular basis, while also encouraging a wider discussion on the topics related to NGIoT activities. Thus, NGIoT has an active presence on the most popular social media channels, such as **Twitter, Facebook, LinkedIn** and **YouTube**, which are linked to the project's website and the NGIoT Google account. Below we present a brief overview of the Social Media channels created for NGIoT.

Twitter (<https://twitter.com/NGIoT4eu>) total number of followers: 869

As a rapid and professional communication tool, Twitter allows real-time interactions and very high potential outreach towards NGIoT's target audience, using hashtags and thematic tweets.

NGIoT already has an active Twitter account ([@NGIoT4eu](https://twitter.com/NGIoT4eu)) and has chosen the basic hashtags [#IoT](#), [#NGIoT](#) and [#IoTEdgeEU](#) for its tweets. The twitter account is used for promoting and disseminating the development of NGIoT, including news, events, outcomes, etc. Moreover, re-tweets are made of relevant and interesting content from disparate sources. Last but not least, by following relevant users, NGIoT not only gains access to more relevant content and updates, but also acquires more followers. As a Horizon 2020 project, NGIoT follows the official Twitter account of the Horizon 2020 programme [@EU_H2020](#) thus becoming a part of the community of H2020 projects on social media. Following the guidelines received from the EC^[4], we pursue to use a hashtag [#ResearchImpactEU](#) and tag [@EU_H2020](#) whenever announcing important news which clearly show the real impact of our

⁴] EC communication sent on 23/02/2017 by the Participant Portal Grant Management Service on behalf of Mr Robert-Jan Smits, Director-General at Research and Innovation Directorate-General of the European Commission, titled "Information letter on Horizon 2020 project communication and acknowledgement of EU funding"



research. Other hashtags and accounts that are frequently used according to the content of the posts, are: #innovation #H2020 #EUfunding #IoTWeek2019 @IoTForum @NGIEXP @NGI4eu @5GPPP @FIWARE #SmartCities @IoTeuLSP @oascities @U4IoT #SmartCities #digitaleurope together with hashtags relevant to the project partners’ organisations and representatives, hashtags of initiatives and events related to the project and the content, accounts of important participants of these events, accounts of the Project Officer of the EC, and more.



Figure 7: NGIoT Twitter account

LinkedIn (<https://www.linkedin.com/groups/8774065/>) Total number of members on LinkedIn = 170

LinkedIn is a business-oriented professional networking tool that is used by many as a source of information and inspiration, therefore, it serves as a solid tool to amplify the news shared on the website. It is an important platform for discussions relevant to NGIoT, among experts in the area and various stakeholders in general.

NGIoT maintains a LinkedIn profile page, making it possible to connect to relevant professionals and share news and developments with them, while making it possible to subscribe to and connect with relevant groups.

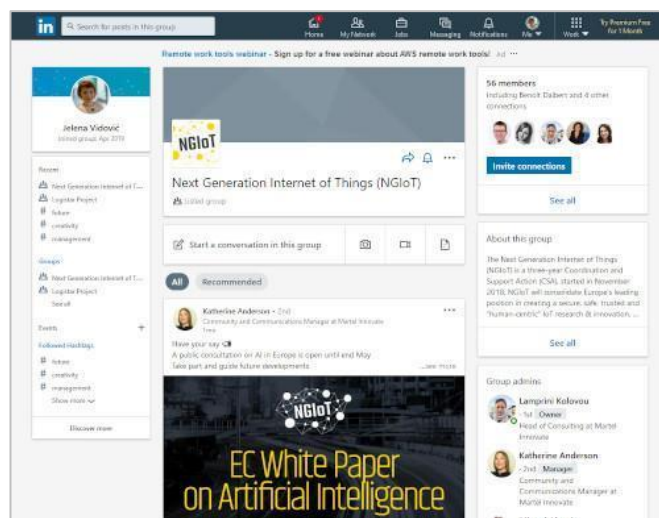


Figure 8: NGIoT LinkedIn page

YouTube (<https://www.youtube.com/channel/UCoybrBS6vzvKnkAsCXK9R1Q>)

There are 28 videos on the NGIoT YouTube channel, with more than 2,000 views and 61 followers. Video production is described in the Video and Multimedia section of this document, 3.2.5.

There are three corporate videos:

- Introduction to the Next Generation Internet of Things (155 views)
- IoT for what? (119 views)
- NGIoT & Smart Cities (56 views)

There is a series of videos of webinars, which are discussed in the webinar section of this document 3.2.6.

A series of videos featuring presentations about NGIoT at IoT Week, 2019, is referenced in document D4.2: Outreach and impact creation strategy and plan (interim).

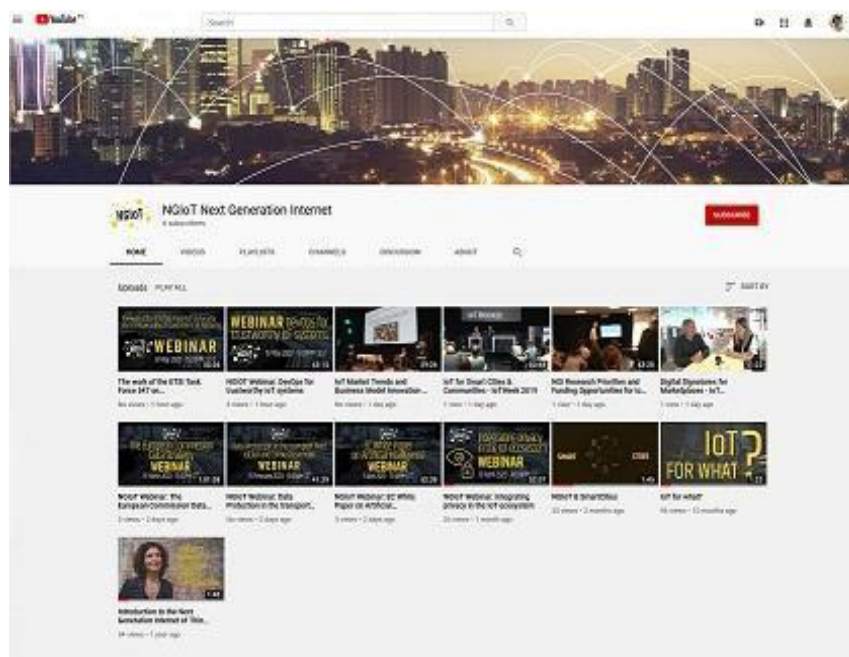


Figure 9: NGIoT YouTube channel

3.2.3 e-Newsletter

A total of 5 quarterly newsletters have been produced in the reporting period with a total number of 610 subscribers. A registration functionality (encourages users to subscribe to the newsletter) is included on each website page. In accordance with GDPR guidelines, the newsletter is sent to registered subscribers of the newsletter portal and the mailing list of the project. In addition to being circulated by e-mail, the newsletter is also promoted on social media via Twitter, Facebook and LinkedIn and is made available on the NGIoT website.



<input type="checkbox"/>		NGIoT newsletter 5 Regular · NGIoT	Sent	40.4% Opens	13.9% Clicks
Sent mar., décembre 1st, 2020 4:04 AM to 153 recipients by you					
<input type="checkbox"/>		NGIoT newsletter 3 (copy 01) Regular · NGIoT	Sent	51 Opens	18 Clicks
Sent mer., juillet 22nd, 2020 4:03 AM to 129 recipients by you					
<input type="checkbox"/>		NGIoT newsletter 3 Regular · NGIoT	Sent	48.6% Opens	23.4% Clicks
Sent jeu., février 27th, 2020 4:16 AM to 109 recipients by you					
<input type="checkbox"/>		NGIoT newsletter 2 Regular · NGIoT	Sent	49.4% Opens	19.5% Clicks
Sent mer., octobre 9th, 2019 4:00 AM to 88 recipients by you					
<input type="checkbox"/>		NGIoT newsletter 1 Regular · NGIoT	Sent	60.4% Opens	16.7% Clicks
Sent mar., mai 28th, 2019 5:30 AM to 48 recipients by you					

Figure 10: Number of people who have opened the NGIoT newsletter email (opens) and number of clicks on content within the newsletter (clicks)

The NGIoT e-Newsletter is produced by the NGIoT consortium on a quarterly basis. A typical e-Newsletter contains highlights (major outcomes, links, contacts, and dissemination activities), the most important news, announcements and a schedule of the major upcoming webinars/events. Project partners regularly provide information for the e-Newsletter and ensure that the content is accurate.





Figure 11: NGIoT newsletter

3.2.4 e-Publications

All documents produced by the project are published on the NGIoT website (<https://www.ngiot.eu/archive-ngiot-resource/>):

Below is a list of documents produced by the project that are available on the website:

- Preliminary version of Roadmap for IoT Research, Innovation and Deployment in Europe: https://www.ngiot.eu/download/ngiot-draft-roadmap-for-iot_research-innovation-deployment-in-europe/?wpdmdl=688&masterkey=5e5fdc5573311

Number of downloads from NGIoT website = 1,223

- IoT and 5G City: <https://ngiot.eu/wp-content/uploads/sites/26/2019/07/IoT-5G-smartcity-report-NGIoT.pdf>

Number of downloads from NGIoT website = 564

- Building a roadmap for the Next Generation Internet. Research, innovation and implementation 2021 – 2027: https://ngiot.eu/wp-content/uploads/sites/26/2019/09/NGIoT_scoping-paper.pdf

Number of downloads from NGIoT website = 1,460

- IoT supporting COVID-19 prevention, diagnosis and treatment efforts: https://www.ngiot.eu/download/iot-supporting-covid-19-prevention-diagnosis-and-treatment-efforts-desk-review-ngiot/?wpdm_dl=865&masterkey=5f3e747281452

Number of downloads from NGIoT website: 351

A chapter of a book/monograph has been produced by NGIoT, entitled “*Security Risk Management for the Internet of Things: Technologies and Techniques for IoT Security, Privacy and Data Protection, chapter 9: Data Protection Compliance Requirements for the Internet of Things*”, published by Boston-Delft: now publishers: <https://www.nowpublishers.com/Article/BookDetails/9781680836820>

In addition, significant project developments, news and announcements, press releases and articles introducing NGIoT are published on third-party portals, including professional and specialised platforms, Cordis, relevant thematic blogs and collaboration platforms, partners’ web portals, as well as through several freely accessible tools.

A preliminary list of the freely accessible portals includes:

- Cordis projects & results: <http://cordis.europa.eu/projects/homeen.html>
- TRIMIS: <https://trimis.ec.europa.eu/>
- ELTIS: <http://www.eltis.org/>
- Horizon Magazine <http://horizon-magazine.eu/https://ec.europa.eu/programmes/horizon2020/en/newsroom/551/>
- research*eu results magazine <http://cordis.europa.eu/research-eu/homeen.html>
- Headlines on the Commission’s Research & Innovation website www.ec.europa.eu/research/infocentre/allheadlinesen.cfm
- CORDIS Wire <http://cordis.europa.eu/wire/>

3.2.5 Videos and multimedia

A suite of videos was produced to better communicate the project concepts to the target groups as audiovisual content performs well on social media channels and video interviews add a human dimension to the ‘human-centered IoT’ community.



Figure 12: NGIoT thematic videos

There are three corporate/thematic videos:

- Introduction to the Next Generation Internet of Things (155 views)
- IoT for what? (119 views)
- NGIoT & Smart Cities (56 views)



Figure 13: NGIoT & Smart Cities video

A video series from presentations and interviews conducted during IoT week 2019 was produced, described in Document D4.2 Outreach and Impact Creation Activity Report (interim).

3.2.6 Webinars and workshops

Together with WP2 and WP3 partners a series of webinars and workshops have been delivered, both for general audiences and for targeted groups. They are announced and communicated through NGIoT social media channels, , the news section of the NGIoT website and the NGIoT newsletter.

Important IoT/NGI topics are defined and selected experts (both internal and external) have been invited to speak.

All webinars are posted on the 'Events' page of the NGIoT website and widely disseminated through social media.

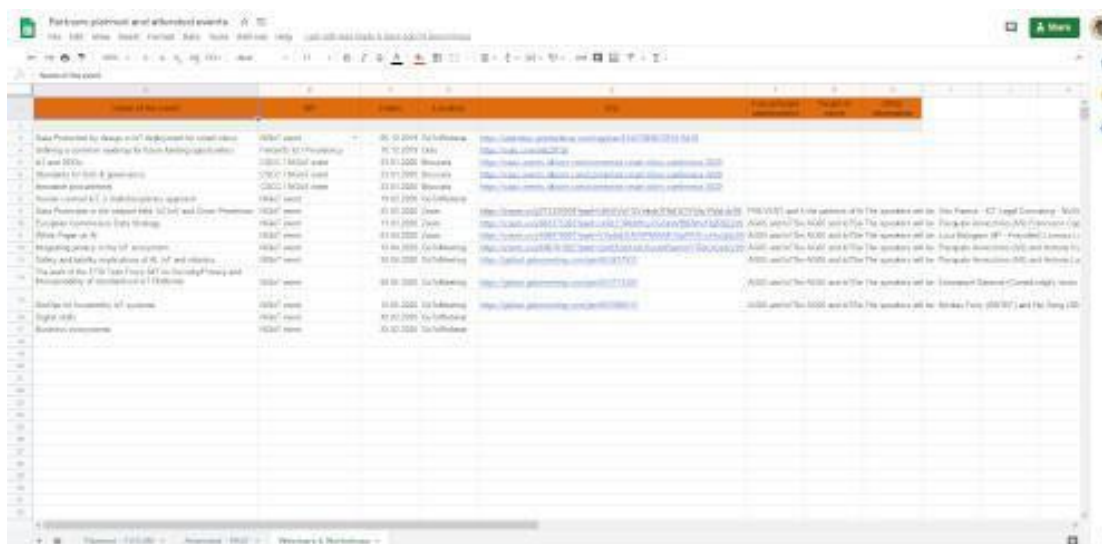
Webinar recordings are made available on a webinar portal created under the resources tab of the NGIoT website: [https://www.ngiot.eu/archive-ngiot-resource/Archive ngiot resource – Next Generation IoT](https://www.ngiot.eu/archive-ngiot-resource/Archive_ngiot_resource_-_Next_Generation_IoT)

A list of webinars and workshops held in the reporting period:

- NGIoT Webinar - DevOps for trustworthy IoT systems
- NGIoT Webinar - Going Public – providing access to our IoT innovations
- NGIoT Webinar - Implications of 5G and IoT for personal data protection
- NGIoT Webinar - Global Reflections on the EU Approach to AI and Data Governance
- NGIoT Webinar - IoT and Digital Skills
- IoT and Edge Computing: Future directions for Europe
- Views on IDS: Privacy Preserving Technologies for Trusted Data Spaces
- Legal uncertainties after Schrems II: Could codes of conduct be the answer?
- IoT and Edge Computing II: The Far Edge

- IoT and Edge: Instruments, Priorities and Partnerships
- NGIoT Thematic Workshop: Smart Cities & Communities
- NGIoT Thematic Workshop: Agrifood and Rural communities
- NGIoT Thematic Workshop: Energy
- NGIoT Thematic Workshop: Manufacturing
- NGIoT Thematic Workshop: Health and Care
- IoT and Edge Computing Research and Standardisation Convergence
- NGIoT Workshop On Data Protection In IoT, Edge And Cloud Computing

A shared Excel sheet template on Google Drive, listing all webinars and workshops has been created in order for the project consortium to be able to keep track of the partners' webinar schedule and provided reports. WP leaders responsible for webinars and workshops are following the common process before and after the webinar takes place.



Topic	Date	Time	URL
Data Protection by Design and by Default for smart cities	05/10/2019	10:00-11:00	https://www.ngiot.eu/2019/10/05/data-protection-by-design-and-by-default-for-smart-cities/
Building a common language for smart cities applications	05/10/2019	14:00-15:00	https://www.ngiot.eu/2019/10/05/building-a-common-language-for-smart-cities-applications/
AI and SDGs	03/09/2019	10:00-11:00	https://www.ngiot.eu/2019/09/03/ai-and-sdgs/
Workshop for IoT & governance	27/07/2019	10:00-11:00	https://www.ngiot.eu/2019/07/27/workshop-for-iot-governance/
Research presentations	22/07/2019	10:00-11:00	https://www.ngiot.eu/2019/07/22/research-presentations/
Research presentation: AI in public security application	19/07/2019	10:00-11:00	https://www.ngiot.eu/2019/07/19/research-presentation-ai-in-public-security-application/
Data Protection in the smart city: IoT and Open Innovation	05/07/2019	10:00-11:00	https://www.ngiot.eu/2019/07/05/data-protection-in-the-smart-city-iot-and-open-innovation/
European Commission IoT Strategy	11/01/2019	12:00-13:00	https://www.ngiot.eu/2019/01/11/european-commission-iot-strategy/
White Paper on AI	02/02/2018	10:00-11:00	https://www.ngiot.eu/2018/02/02/white-paper-on-ai/
Regulating smart city IoT application	02/06/2018	10:00-11:00	https://www.ngiot.eu/2018/06/02/regulating-smart-city-iot-application/
Policy and technical implications of 5G, NFV and cloud	02/06/2018	10:00-11:00	https://www.ngiot.eu/2018/06/02/policy-and-technical-implications-of-5g-nfv-and-cloud/
The path of the 5G from 4G to 5G and beyond: from a technology perspective to a business perspective	02/06/2018	10:00-11:00	https://www.ngiot.eu/2018/06/02/the-path-of-the-5g-from-4g-to-5g-and-beyond-from-a-technology-perspective-to-a-business-perspective/
Analysis of security of IoT systems	02/06/2018	10:00-11:00	https://www.ngiot.eu/2018/06/02/analysis-of-security-of-iot-systems/
Smart cities	02/06/2018	10:00-11:00	https://www.ngiot.eu/2018/06/02/smart-cities/
Business presentations	02/02/2018	10:00-11:00	https://www.ngiot.eu/2018/02/02/business-presentations/

Figure 14: List of NGIoT webinars and workshops

Selected experts (both internal and external) were also invited to present material on relevant IoT/NGI topics in the form of presentations or lectures. Presentations are available on the project website (<https://www.ngiot.eu/archive-ngiot-resource/>).

For the lectures, the main approach was to identify the experts and policy makers who would participate in the annual edition of IoT Week as a major event (or any equivalent one to be discussed and agreed upon with the EC) for the next generation IoT efforts in Europe. The most relevant sessions were selected from the event's programme and recorded. The experts and policy makers were asked for permission to record their sessions on site.

Lecture sessions are available on the project website in an ongoing process: <https://www.ngiot.eu/archive-ngiot-resource/>



3.2.7 Online tools

Interactive tools such as surveys, a repository of relevant IoT initiatives in Europe and a portable demonstration package have been created and maintained integrating the main outcomes of relevant IoT projects to be used at community engagement events and demonstrations.

Surveys: The project’s first survey, the IoT research and development survey, was launched at the beginning of March 2019. The survey gauged the views and collected suggestions from the European IoT community, seeking input on the top priorities to be addressed by the next phase of European research & innovation funding and the Horizon Europe deployment programme for 2021-2027.

Statements on IoT and Edge: as part of the ongoing webinar series on IoT and Edge Computing, NGIoT collated a series of statements by participants and speakers of the webinars which then fed into the Report: “IoT and Edge Computing, Opportunities for Europe”⁵.

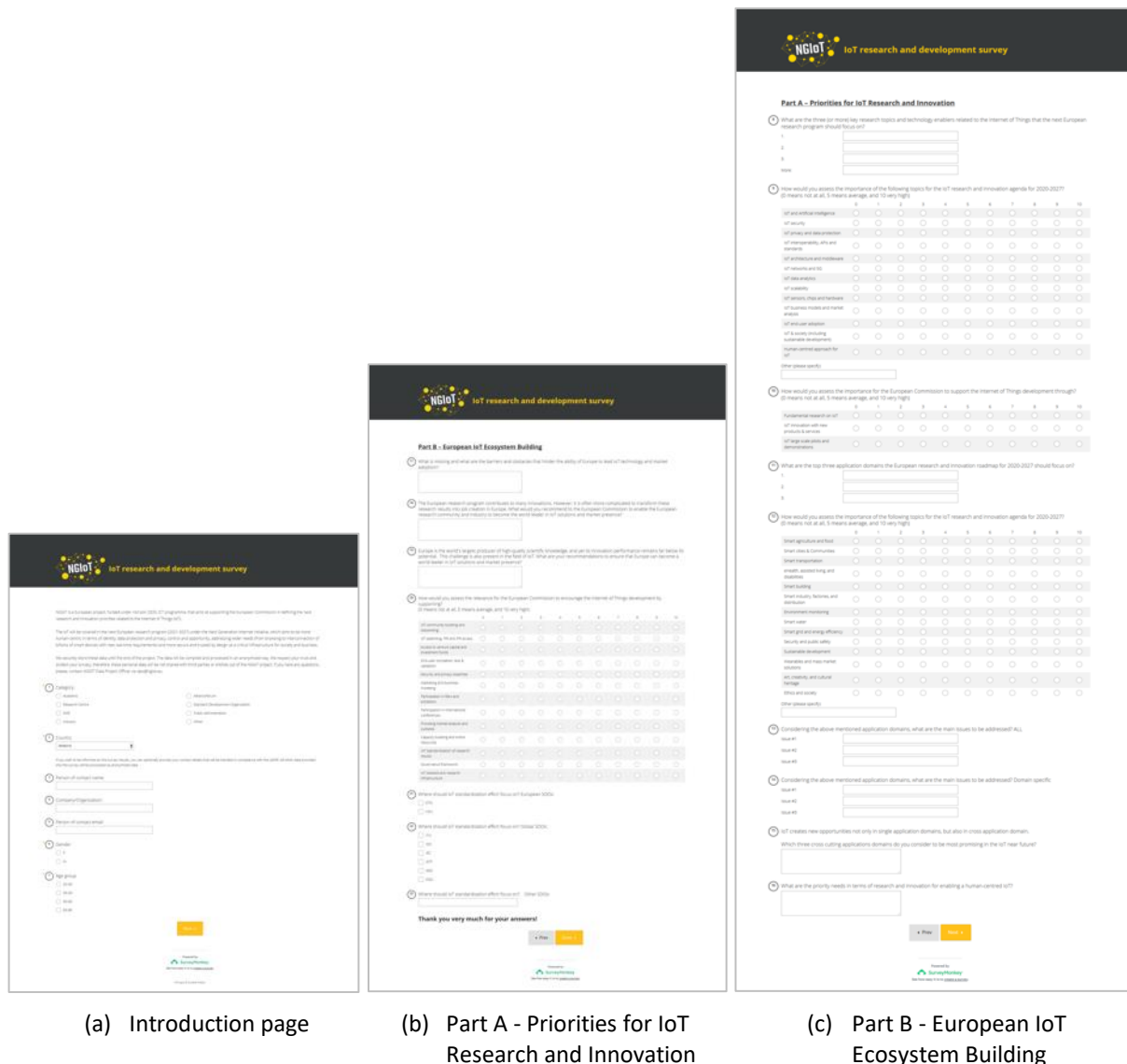


Figure 15: NGIoT online survey

⁵ <https://www.ngiot.eu/report-iot-and-edge-computing-opportunities-for-europe/>





An **online repository** is available on the project website. It provides insight into all relevant IoT initiatives/pilot installations in Europe. Each IoT initiative/pilot installation item on the list contains the relevant information related to selected POI (Point of Interest). The list has various categories that enable users to narrow down the search among the:

- NGI & IoT initiatives
- LSP projects
- IoT ESP projects
- Liaised projects
- Standardisation bodies
- Security and privacy initiatives

The **demonstration package** was planned to be delivered as a set of related videos giving the answer to the relevant questions that explain main projects results, lessons learned, what impact those results have on future projects in certain project areas.

Events-based dissemination

Events-based dissemination was an essential part of the NGIoT strategy and activities. It targeted to liaise with IoT stakeholders via organisation of dedicated events, as well as coordinating participation in major EC/Non-EC conferences and events. These activities contributed to better utilise and reinforce the research and innovation excellence of Europe in the field of IoT, to advocate a strategy that focused on human-centred IoT through security, privacy and user trust, as well as to build and sustain an IoT network involving various stakeholders, as defined in the project community (Sections 2.3 and 3.2.1).

The events helped the partners while implementing the relevant tasks of the project work plan to identify emerging business models, discuss and contribute to the development of the roadmap, liaise with a broad range of stakeholders from both the supply and the demand side.

The main focus was to contribute to the annual editions of IoT Week, as a major event (or any equivalent one to be discussed and agreed upon with the EC) for the next generation IoT efforts in Europe. Participation with presentations, workshops and dedicated sessions to other events took place according to specific opportunities and needs to promote the overall next generation IoT vision.

3.2.8 Events participation

NGIoT presented at a number of events aiming to promote and communicate, by all relevant means and tools, all relevant information to increase the project's visibility in terms of the NGI and IoT aspects. Participation in events was also an opportunity to increase and strengthen the network of relevant parties interested in becoming part of the audience of the project and intermediaries becoming multipliers of NGIoT.

In particular, the planned flagship event and selected key events were closely in line with the iterative process around the roadmap development and policy recommendation activities proposed by NGIoT.

The NGIoT representation at the events took place in different ways, including paper or project presentations, poster presentations, simple participation for liaising or networking purposes, workshops organisation or general support of the NGIoT related projects. Taking into account that all the events took place in an online format, the use of promotional materials such as brochures, a poster or a roll-up (where relevant) for dissemination purposes was very limited.

A shared Excel sheet template on Google Drive, listing relevant events based on importance and participation was created in order for the project consortium to be able to keep track of the partners'





participation and to report about these activities and their impact in the dissemination deliverables as well as on the project website.

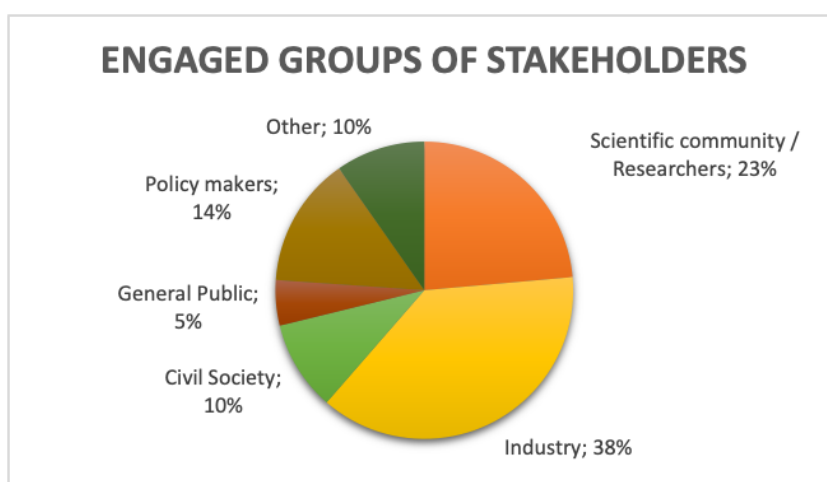
Event Name	Date	Location	NGIoT Representation	Status
10th European Summit on AI	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed
AI Summit 2019	10-11 Oct 2019	Brussels, Belgium	Industry, policy makers	Confirmed

Figure 16: Google Drive sheet listing the events for potential/confirmed NGIoT representation

An indicative (yet non-exhaustive) list of relevant events, which were considered useful for dissemination purposes throughout the project and beyond, is presented in Annex A. The list was regularly updated in the shared sheet in Google Drive during the whole project duration.

After every event, the NGIoT partner(s) who jointly held the event were requested to update the shared events list with all the relevant information to capture the experience and updated the “News” section of the website with the relevant information and visual materials.

In the reporting period to date, NGIoT participated in a total of 60 events. Analysis has been performed on the types of stakeholders at the events, relevance to innovation enablers and covered topics of discussion:



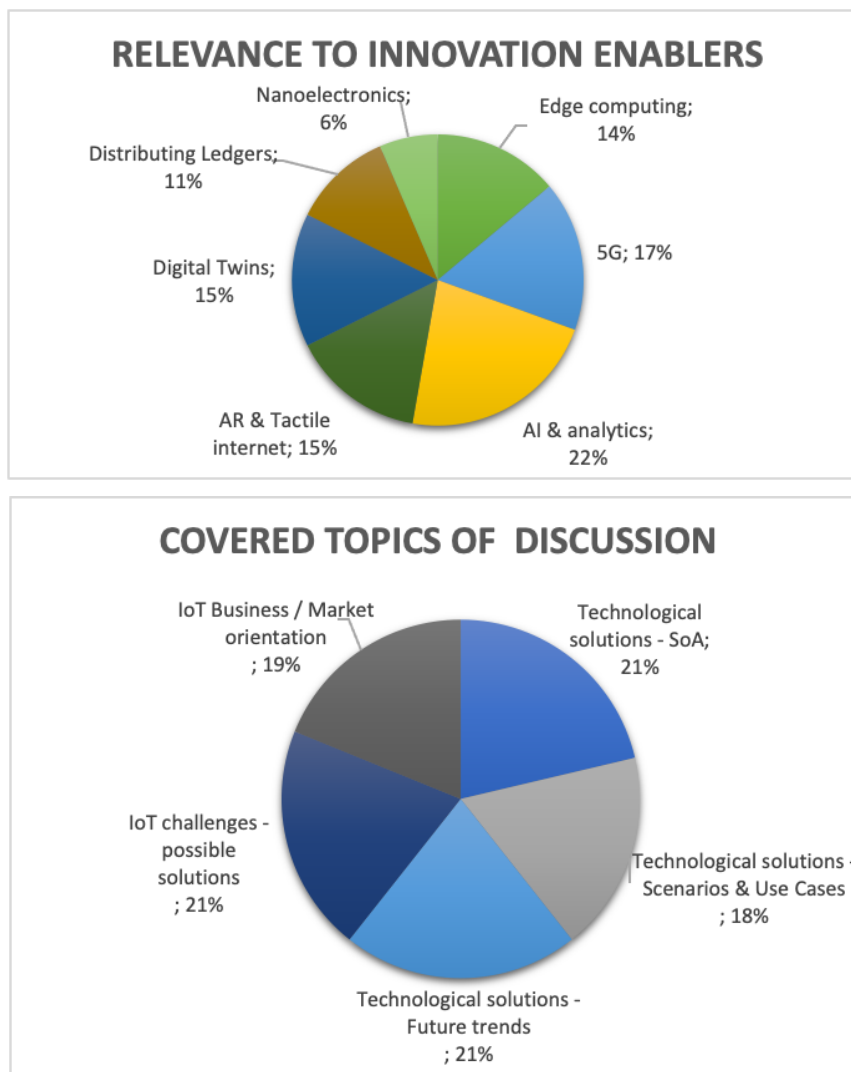


Figure 17: Types of stakeholders at the events, relevance to innovation enablers and covered topics of discussion.

3.2.9 Events organisation

NGIoT event planning underwent a thorough reevaluation due to travel restrictions encountered during the COVID-19 pandemic. The initial plans to contribute to the annual editions of IoT Week as a flagship event among others, and equivalent ones, had been agreed upon with the EC for the next generation IoT efforts in Europe, contributing to the agenda by making sure focused workshops and sessions take place allowing the European IoT stakeholders, including the IoT LSP and Security clusters, to showcase their work. Due to the pandemic situation, the IoT Week 2020 did not take place. Nevertheless, this was achieved for IoT week 2021.

During this reporting period, a number of events were organised:

- NGIoT Webinar - DevOps for trustworthy IoT systems - May 15, 2020. In this webinar, Nicolas Ferry and Hui Song discussed DevOps for IoT, and how the ENACT project proposes to contribute to the field.
- NGIoT Webinar - Going Public – providing access to our IoT innovations - July 3, 2020. For this webinar, two ICT projects with very different approaches to IoT, but who are in similar



situations - Going public - were presented. The topics included: the IoT Crawler Github repo organization and documentation, how using multiple distributed ledgers in parallel (Interledger) enables interoperability between IoT platforms and how novel technologies such as Decentralized Identifiers and Verifiable Credentials improve security and privacy of people and things.

- NGLoT Webinar - Implications of 5G and IoT for personal data protection - July 10, 2020. The deployment of 5G and IoT solutions have brought forward important implications for personal data protection. The webinar presented the recent evolution of the subject, building upon the perspectives of ongoing European research projects.
- NGLoT Webinar - Global Reflections on the EU Approach to AI and Data Governance - July 28, 2020. This webinar presented focused on the European Data Strategy and the White Paper on Artificial Intelligence published by the European Commission. Many organizations submitted their suggestions to the Commission through the Consultation. In the course of this webinar the representatives of Now AI Institute presented their submission and shared their recommendations.
- NGLoT Webinar - IoT and Digital Skills - September 8, 2020. In this webinar, NGLoT focused on the Digital Europe Programme and joined forces with The Digital Skills and Jobs Coalition (DSJC). The webinar addressed the barriers related to the lack of skills that hinder the uptake of new technologies, as IoT, and the realisation of its market potential, as well as the instruments that can be initiated to improve digital skills among citizens and companies in Europe.
- IoT and Edge Computing: Future directions for Europe - September 11, 2020. The workshop drew attention to future opportunities of Edge Computing including its role of safely connecting devices; and provided insights into the requirement for orchestration with cloud services, the importance of integrating connectivity and computing with AI-based reasoning and automation, while addressing the challenges and barriers for European stakeholders across different sectors. The workshop was hosted by the Next Generation IoT (NGLoT) CSA project and organised together with the European Commission and the Alliance for IoT Innovation (AIOTI), to reflect on opportunities and challenges, the position of European stakeholders and possible measures to reach consensus on an agenda and roadmap European IoT research, innovation and deployment in the world.
- Views on IDS: Privacy Preserving Technologies for Trusted Data Spaces - October 1, 2020. NGLoT co-hosted the webinar with ISDA on 'Privacy Preserving Technologies for Trusted Data Spaces'. Experts from the Musketeer project presented and discussed their efforts to bring more privacy preserving technologies to help this demand of trustworthiness in data sharing ecosystems.
- Legal uncertainties after Schrems II: Could codes of conduct be the answer? - October 19, 2020. This webinar explored the benefits, key principles and potentials of Codes of Conduct under GDPR and gives an overview for possible solutions for different sectors.
- IoT and Edge Computing II: The Far Edge - December 7, 2020 – December 8, 2020. The purpose of the workshop was to bring key European stakeholders together to share views on the emerging needs and opportunities for European Edge IoT, learn from key voices in industry and public sectors and identify next steps to move forward
- IoT and Edge: Instruments, Priorities and Partnerships - February 25, 2021. The purpose of the workshop was to take stock and consolidate on the key messages from the previous workshops on IoT and Edge computing, organised by the Horizon 2020 project NGLoT, held on 11 September and 7/8 December 2020.





- NGLoT Thematic Workshop: Smart Cities & Communities - March 30, 2021. This workshop on Smart Cities and Communities was part of a thematic workshop series on IoT and Edge computing, organised by the NGLoT and EU-IoT Coordination and Support Actions in collaboration with the European Commission and relevant associations, networks, and projects.
- NGLoT Thematic Workshop: Agrifood and Rural communities - March 30, 2021. This workshop on Agrifood and Rural communities was part of a thematic workshop series on IoT and Edge computing, organised by the NGLoT and EU-IoT Coordination and Support Actions in collaboration with the European Commission and relevant associations, networks, and projects.
- NGLoT Thematic Workshop: Manufacturing - April 27, 2021. This workshop on Manufacturing was part of a thematic workshop series on IoT and Edge computing, organised by the NGLoT and EU-IoT Coordination and Support Actions in collaboration with the European Commission and relevant associations, networks, and projects.
- NGLoT Thematic Workshop: Energy - May 18, 2021. This workshop on Energy was part of a thematic workshop series on IoT and Edge computing, organised by the NGLoT and EU-IoT Coordination and Support Actions in collaboration with the European Commission and relevant associations, networks, and projects.
- NGLoT Thematic Workshop: Health and Care - May 18, 2021. This workshop on Health and Care was part of a thematic workshop series on IoT and Edge computing, organised by NGLoT, the EU IoT roadmap Horizon 2020 Coordination and Support Action in collaboration with the European Commission, DG Connect and relevant associations, networks, and projects.
- NGLoT Thematic Workshop: Automotive Industries and Mobility - June 15, 2021. This workshop on Automotive Industries and Mobility was part of a thematic workshop series on IoT and Edge computing, organised by NGLoT, the EU IoT roadmap Horizon 2020 Coordination and Support Action in collaboration with the European Commission, DG Connect and relevant associations, networks, and projects.
- IoT and Edge Computing Research and Standardisation Convergence - September 13, 2021. This workshop, co-organised by NGLoT, AIOTI and the IoT Forum was composed of three online webinars. It started by identifying and discussing the latest developments and priorities in the domain of Internet of Things (IoT) and Edge computing standardisation. It identified and discussed priority needs from the industry with regards to IoT and Edge Computing standardisation. The webinar discussed how these various efforts can converge to support globally interoperable IoT and edge computing technologies and how upcoming research can support this development, including in specific verticals such as industrial IoT, telecommunication services, health, home, energy and mobility.
- NGLoT Workshop On Data Protection In IoT, Edge And Cloud Computing - September 15, 2021 – September 16, 2021. The online workshop on 15th and 16th September 2021 aimed to present and discuss the latest developments, innovations, and challenges for GDPR and data protection compliance in the Internet of Things, Edge and Cloud computing domain.
- IoT Week 2021 - August 31, 2021 – September 3, 2021. NGLoT was geared up to fully participate in the IoT Week by organising or taking part in several sessions
 - Training Session by EU-IoT: Machine Learning at the Edge and FarEdge
 - Opening: Next-Generation IoT For a Sustainable Future
 - From Cloud to Edge to IoT for European Data by the European Commission



- IoT Business Model Innovation at The Edge by EU-IoT/NGIoT
- Cloud-Edge- IoT Landscape Complementarities and Opportunities Between Europe and US by NGIoT
- Building an ecosystem for IoT and Edge Computing towards a European Strategy Forum
- Edge Intelligence and Industrial Internet of Things by EU-IoT/NGIoT
- Digital Agriculture by Demeter & NGIoT
- IoT and Edge Computing Standardisation Challenges by NGIoT
- IoT Data Interoperability by NGIoT and Slices SC

3.2.10 Events toolkit

An event toolkit can be used for both self-organised and third-party events. The key here was to make as many “dual use” products as possible – communications tools which can be used at events and via other channels (e.g. multipliers).

The event toolkit included a roll-up, posters, brochures, identification material, NGIoT wheel of fortune and the NGIoT photo booth.

Roll-up and posters

Different versions of the roll-up will be created during the project lifetime, matching the look and feel of the website and the overall project design concept to meet the needs of the project.

Posters of a smaller size (A0) were produced. NGIoT also considered producing event focused posters of smaller size, but due to the fact that the pandemic moved all the events online, this action was not considered necessary anymore.

The project logo, the EU flag along with the NGIoT website and the social media links were clearly displayed on the poster.

Printable versions of the posters were created and provided to partners to be printed and used at the events they participated in.

The first version of the roll-up was made available in the early stages of the project, to support participation and promotion of NGIoT at the ICT2018 event.

Taking into account the shift from in-person events to online events, the communication toolkit was adapted and all the partners were provided with presentation templates which took into account the brand guidelines for the NGIoT project.



Figure 18: NGIoT poster



Figure 19: NGIoT 1st version of roll-up

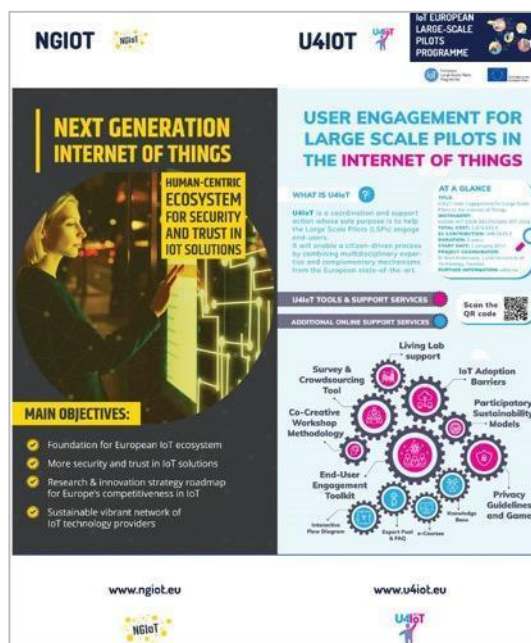


Figure 20: NGIoT 2nd version of roll-up

Identification material

Small materials showcasing the project logo, or a small slogan were produced. NGIoT designed, printed and produced material typically required for professional events. Merchandising included Fbranded laptop camera covers. Event specific materials were developed for engagement at live events, including the NGIoT wheel of fortune, NGIoT Photo Booth and the NGIoT Brochure. These are described in more detail in D4.2 Outreach and Impact Creation Activity Report (interim).

3.3. Liaising with other initiatives

NGIoT benefited from its partners' involvement in several initiatives related to the NGI and IoT domains, building a strong collaboration with them. A first list of such initiatives is presented below.

Table 2: Directly involved initiatives

Initiatives where NGIoT partners are directly involved
SynchroniCity (IoT LSP programme)
CREATE-IoT (IoT LSP programme)
U4IoT (IoT LSP programme)
Open calls launched by the IoT LSP programme (ActivAge, SynchroniCity, IoF2020)
NGI4ALL
OrganiCity
IoT-EPI initiative
EXCITING (EU-China Study on IoT and 5G)





F-Interop
ANASTACIA
Orchestra Cities
FLAME
Privacy Flag
IoT Security Project Cluster
TagItSmart!
NGI4ALL
H-CLOUD
EU-IoT
ICT-56 RIAs
ARTEMIS
GAIA-X
...and more

The collaboration with these initiatives happened on several levels including, but not limited to:

- Co-organisation of events
- Exchange of information related to project achievements
- Engagement in the dissemination and communication activities especially using social media and online presence tools
- Interviews with key stakeholders
- Invitation to participate in NGIoT events
- Collaboration on white papers and other publications

3.4. Liaison and transition: From NGIoT to EU-IoT

For the smooth and continuation of the outreach and community building activities organised under the NGIoT CSA to the newly funded (Oct. 2020) EU-IoT CSA, a number of activities were planned with close collaboration between the two communication teams beyond the strategic coordination and collaboration on various fronts defined and executed by the Coordination teams of the two projects. These activities are summarised as follows:

- Participation in the monthly meetings of the EU-IoT Communication Task Force, with members of the EU-IoT, OPENDEI and the NGIoT RIAs with the main objective to exchange information, build collaboration and support joint activities and promotion towards effective teamwork to ensure wide outreach to the broader community.
- Collaboration with the EU-IoT communication team in terms of:
 - Jointly organised events (e.g. sessions in IoT Week 2021, Digital Around the World, and more)





- Participation in the events organised by the EU-IoT (and also related initiatives) as well as by the European Commission
- Invitation as speakers / panelists of experts and partners from the EU-IoT and NGIoT RIAs to the events organised by the NGIoT CSA
- Adaptation / upgrade of the ngiot.eu website into a portal for the NGIoT initiative and broader community
- Release of newsletters jointly edited and updated.

3.5. Coordination and support of AG08 communication activities

The aim of the European IoT Large-Scale Pilots Programme was to ensure the positioning of IoT solutions in Europe. This was achieved through the integration of cutting-edge IoT technologies across the value chain, the demonstration of multiple IoT applications at scale and in a usage context, and the transferability to operational conditions.

The AG08 communication strategy contributes to objectives of the IoT LSP Programme by fostering the involvement of external target groups and communities. NGIoT supported AG08 communication and dissemination activities, including joint communication activities, social media management and communications tools such as the documents repository and mailing list, up to December 2019. Further details are available in the report: D4.2 Outreach and Impact Creation Activity Report (interim).

IoT European Large-Scale Pilots Programme			
IoT-LSP Activity Group 8 (AG08)			
Project	Event name	Date / place	url(s)
ACTIVAGE			
CREATEIoT	World Summit on the Information Society (WSIS) Forum (Joint booth Create-IoT & U4IoT)	8-12 April	https://www.itu.int/itu-t/iss/Forum2019/
IoT2020			
SynchronCity	Workshop on IoT & Data Marketplaces. Jointly organized by IoT LSP Programme, European Commission and AOTI, hosted by G4iC	8 April, Brussels	https://www.g4iic.eu/2019/04/08/iot-data-marketplaces-workshop/ https://www.g4iic.eu/2019/04/08/iot-data-marketplaces-workshop-slides/ https://www.g4iic.eu/2019/04/08/iot-data-marketplaces-workshop-slides-2/
	Procurement Workshop organised by EC & G4iC	May 2, Brussels	https://www.g4iic.eu/2019/05/02/procurement-workshop/ https://www.g4iic.eu/2019/05/02/procurement-workshop-slides/
U4IoT			
AUTOPILOT	ITS EU Congress Eindhoven	3-6 June 2019, NL	https://2019.itscongress.com/
MONICA			

IoT European Large-Scale Pilots Programme			
IoT-LSP Activity Group 8 (AG08)			
Project	Activity	Planning	Support
ACTIVAGE			
CREATEIoT	IoT LSP Programme newsletter	End of April / beginning of May	Inputs, subscription campaign, dissemination
IoT2020			
SynchronCity			
U4IoT			
AUTOPILOT			
MONICA			

From last call, CREATEIoT - preparing a sheet with the events per WP, to be shared when ready.

9. Other topics

- White paper: <https://www.g4iic.eu/2019/05/02/procurement-workshop-slides/>
- IoT Handbook - Springer:
 - MONICA - chapter on Wearables
 - Autopilot - Chapter on Connected Vehicles

Gabriela:

- White paper: contributions are in progress, to be ready before the IoT Week.

Figure 21: IoT-LSP activity groups report



4. MONITORING AND EVALUATION

The complete set of communication and dissemination activities have been closely monitored and evaluated by the WP4 lead in order to keep track of all ongoing activities. The deliverable “Outreach and Impact Creation Activity Report (interim)” documents all the related conducted activities inline with the first version D4.1(M4) in the period M1-M18 and is concluded at the end of the project in D4.3(M36) in this document “Outreach and impact creation activity report (final)”.

Qualitative and quantitative indicators were defined through the Communication Strategy and can be evaluated. They cover the progress of the strategy’s implementation and refer to an outreach activity that is quantifiable through the attendance (in person or virtual) of persons present from the audiences, quantity of material distributed, number of events (live or virtual) participated in, the development and dissemination of messages and materials, media presence and traffic created in social media.

The proposed **analysis framework** aims to measure various quantitative figures, as well as the impact of promotional efforts.

In full accordance with the NGIoT needs, **a five-step measurement cycle model has been implemented**, spanning from objective identification to data driven optimisation:

1. We identify our core objectives (e.g. raise awareness, increase engagement – i.e. acquire more contacts, acquire more participants to our events).
2. We set goals for our promotional tactics. We concentrate on how to accomplish our objectives (e.g. inform visitors through the content of our website, intensify events promotion, etc.).
3. We identify our Key Performance Indicators (KPIs) – the metrics that play a crucial role in the success of the aforementioned utilised tactics and set the expected achievable qualitative and quantitative targets.
4. We measure the progress and impact of the conducted activities based on these metrics on a regular basis. Monitoring of such metrics will allow having a constant view of the amount and the effectiveness of the dissemination activities conducted.
5. We adjust and optimise the communication strategy towards achieving the expected outcomes and maximising visibility.

The tools, products and activities outlined in the strategy are monitored, measured, evaluated and realigned on an ongoing basis.

The table below presents the Key Performance Indicators, the achievable targets set for each type of the communication activities and the current status:

Table 3: Key Performance Indicators (KPIs) for dissemination and communication activities

Measure	Indicator	Target Values	Source and methodology	Current status (TOTAL)
Human-centred IoT Flyers	Number of brochures distributed (one update per year at least on the flyer)	1000/year	Through online and offline distribution	500
Roll-up Banner	Number of roll-ups produced	3 by the end of the project (1 per year)	Through the dissemination reporting	2
Newsletters (published quarterly)	Number of subscribers	>500 (by the end of the project)	In-built website statistics tool	610
Project website	Number of unique visitors to website/page-hits	350 visitors/month (by the end of year 1)	In-built website statistics tool	461
Social networks	Number of followers in LinkedIn, Twitter, YouTube, Facebook	At least 500 overall (average number of followers in Twitter, YouTube, Facebook + Members in LinkedIn)	In-built statistics from different social media platforms	LinkedIn: 170 Twitter: 869 YouTube: 61 Facebook: 69 Total: 1169
Events	Number of events organised/participated, number of participants	3 annual flagship events, with at least 250> participants per edition	Attendance proofs (e.g., photos), events' report	- CSCC 2019 - IEEE 5th World Forum on Internet of Things - IoT Week 2019" - CSCC 2020 4 in total
Videos	Number of videos published on YouTube and average number of views	5 videos per year and 150 views per video	In-built website statistics tool	9 videos per year Views: +600 per year



5. CONCLUSIONS

This deliverable document presents the NGIoT outreach and impact creation activity. Inline with the framework described in the previous deliverable document D4.1 “Outreach and impact creation strategy and plan”, it presents all activities accomplished to disseminate and sustain the concepts, achievements, as well as knowledge results developed within the project in the period M1-M36 (final report).

Since the consortium recognised dissemination, communication and engagement activities as essential throughout the project’s lifetime, they have integrated them within all the work packages.

This confirms that performed activities were there to support NGIoT’s purpose, through promotion of the project online and via participation in the events, organisation of workshops, writing of publications, producing high-quality promotional material as well as collaboration with other projects and initiatives.

In order to measure the achieved progress and impacts, a monitoring and evaluation framework has been updated and a number of indicators have been reported.

This is a final document customised to reflect revisions in the course of the project duration.



APPENDIX A – EVENTS

Table 4: Events attended by NGIoT partners

Title of event	Partner(s) involved	Date	Location
Connected Smart Cities Conference 2019	AU, Martel, MI	17 January 2019	Brussels, Belgium
Partnerships for a Sustainable Future, Conference at AU	AU	04 February 2019	Aarhus, Denmark
Vitel 2019	DNET	20 March 2019	Brdo pri Kranju, Slovenia
Large-Scale IoT & Data Marketplaces	AU	08 April 2019	Brussels, Belgium
IoT day	DNET	09 April 2019	Novi Sad, Serbia
World Summit on the Information Society (WSIS) 2019	MI	08-12 April 2019	Geneva, Switzerland
IEEE 5th World Forum on Internet of Things	AU	15-18 April 2019	Limerick, Ireland
Releasing the Power of Procurement	AS	02 May 2019	Brussels, Belgium
IoT week 2019	ALL	17-21 June 2019	Aarhus, Denmark
European Industry Partnerships for New Digital Age Event	Martel	12 September 2019	Brussels, Belgium
ICT proposers' day 2019	Martel	19-20 September 2019	Helsinki, Finland
Nordic Edge Expo	AU	24-26 September 2019	Stavanger, Norway
NGI Forum	Martel	25 September 2019	Helsinki, Finland
European Week of Regions and Cities	AU	07-10 October 2019	Brussels, Belgium
AIOTI signature event "IoT Through the Looking Glass"	Martel	08 October 2019	Brussels, Belgium



Smart and sustainable cities, Novi Sad	DNET	30-31 October 2019	Novi Sad, Serbia
Smart City Expo World Congress 2019	AU, Martel	19-21 November 2019	Barcelona, Spain
Forward 2019	DNET	4-5 December 2019	Banja Luka, Bosnia and Herzegovina
Finnish EU-Presidency	AU	10-12 December 2019	Different cities, Finland
Connected Smart Cities Conference 2020	All	22-23 January 2020	Brussels, Belgium
Policies to Support Open Data Marketplaces	MI	29 January 2020	The Hague, The Netherlands
Cities Forum	AU	30-31 January 2020	Porto, Portugal
Tampere Smart City Week	AU	27-29 January 2020	Tampere, Finland
World Urban Forum	AU	10-12 February 2020	Abu Dhabi, UAE
Create the next generation IoT eXperience for the Future	AU, MI, DNET, AS	19-21 February 2020	Brussels, Belgium
Workshop on European Research Support and Contribution to Global Standardisation, Internet of Things Perspectives	MI, AU, AS, DNET	03 March 2020	Geneva, Switzerland
NGIoT Strategy Board Meeting	AU, MI, DNET, AS	04-05 March 2020	Crans-Montana, Switzerland
NGIoT Webinar: The work of the ETSI Task Force 547 on Security/Privacy and Interoperability of standardised IoT Platforms	AU, AS	8 May 2020	Online
NGIoT Webinar: DevOps for trustworthy IoT systems	AU, AS	15 May 2020	Online
35 Proposals to Make European Data Strategy Work Publication Event	AU	18 May 2020	Online





NGIoT e-workshop on ETSI IoT Standard	AS	24 May 2020	Online
Webinar: Artificial Intelligence in Smart Cities	AU	25 May 2020	Online
Community of Practice on Cities - How to scale up digital solutions in smart cities and communities?	AU	26 May 2020	Online
Global IoT Summit	All	2-5 June 2020	Online
INSPIRE Conference		3-12 June 2020	Online
The role of smart cities in meeting objectives of the Green Deal		4 June 2020	Online
NGIoT Webinar: The Interoperability between IoT Platforms: the SOFIE Framework	MI, AS, IIP	5 June 2020	Online
SynchroniCity Live Summit	AU	16-18 June 2020	Copenhagen, Denmark
NGIoT Webinar: Physical Audience Measuring Technologies and Privacy Concerns	IIP, AS	26 June 2020	Online
NGIoT Webinar: Going Public – providing access to our IoT innovations	IIP, AS	3 July 2020	Online
NGIoT Webinar: Implications of 5G and IoT for personal data protection	IIP, AS	10 July 2020	Online
Open webinar on the impacts of the EU Court of Justice ruling “Schrems II”	IIP, AS	24 July 2020	Online
NGIoT Webinar: Global Reflections on the EU Approach to AI and Data Governance	IIP, AS	28 July 2020	Online





Nordic Smart Cities	AU	3 Sept 2020	Online
NGIoT Webinar: IoT and Digital Skills	Martel	8 Sep. 2020	Online
IoT and Edge Computing: Future directions for Europe	Martel	11 Sept. 2020	Online
SAM IoT Conference	All	17-18 Sept 2020	Online
European Research and Innovation Days 2020	All	22-24 Sept 2020	Online
Views on IDS: Privacy Preserving Technologies for Trusted Data Spaces	IIP, AS	1 Oct 2020	Online
Legal uncertainties after Schrems II: Could codes of conduct be the answer?	IIP, AS	19 Oct 2020	Online
Digital Around the World - IoT and Edge Computing: Future Directions for Europe	MI	20 Oct 2020	Online
European Big Data Value Forum 2020	All	3 Nov 2020	Online
IoT and Edge Computing II: The Far Edge	All	7 Dec 2020	Online
MyData Online 2020	Martel	10 Dec 2020	Online
Monitoring the uptake of Advanced Technologies in EU industry	AU	14 Dec 2020	Online
CityxCity festival	Au	13 Jan 2021	Online
IoT and Edge: Instruments, Priorities and Partnerships	All	25 Feb 2021	Online
Next Generation ICT Research Infrastructures	Martel	2 March 2021	Online





Data Science and Digital Transformation Skills challenges for SMEs	Martel	5 March 2021	Online
Edge Computing World Europe 2021	AU	9 March 2021	Online
IOF final event	AU	16 March 2021	Online
Digital Day 2021	All	19 March 2021	Online
Smart Factories: The Future of Manufacturing	AU, Martel	23 March 2021	Online
NGIoT Thematic Workshop: Smart Cities & Communities	AU, Martel	30 March 2021	Online
NGIoT Thematic Workshop: Agrifood and Rural communities	AU, Martel	30 March 2021	Online
Monitoring Advanced Technologies: European countries in the global competitive landscape	AU	31 March 2021	Online
The IoT Day – Roundtable Discussion on IoT Security Innovative Technologies & Research Trends	AU	9 April 2021	Online
Monitoring the uptake of Advanced Technologies for effective Industry 4.0 policies	AU	21 April 2021	Online
Next-Generation IoT and Edge Computing Strategy Forum	AU, Martel	22 April 2021	Online
NGIoT Thematic Workshop: Manufacturing	AU, Martel	27 April 2021	Online
Standardisation and Open-source Aspects workshop	Martel	27 April 2021	Online
Scaling up European advanced tech – fixing the demand side	AU	6 May 2021	Online





Web Seminar “Speeding up Industrial AI and Trustworthiness”	AU	12 May 2021	Online
NGIoT Thematic Workshop: Energy	AU, Martel	18 May 2021	Online
NGIoT Thematic Workshop: Health and Care	AU, Martel	18 May 2021	Online
EU-IoT Training Workshops Series: AIoT and Edge Machine Learning	Martel	21 May 2021	Online
The European Data Governance Act from a data sovereignty perspective	AU, AS	25 May 2021	Online
Data Week 2021	All	27 May 2021	Online
From Cloud to Edge to IoT for European Data	AU, Martel	7 July 2021	Online
IoT and Edge Computing Research and Standardisation Convergence	AU, Martel	13 Sept 2021	Online
NGIoT Workshop On Data Protection In IoT, Edge And Cloud Computing	AU, Martel	15 Sept 2021	Online
Global IoT Summit		31 Aug 2021	Online
IoT Week	All	31 Aug - 3 Sept 2021	Online
Digital Around The World 2021	All	20 Oct 2021	Online
EuroCybersec2021 Workshop	AU	25 Oct 2021	Online
AIOTI Standardisation Report Promotion webinar	AU, MI	27 Oct 2021	Online

Participation in some of the events is presented in Figures 27 and 28.





The level of involvement in the events varies, according to the nature and scope of the event. A thorough procedure for deciding on our participation and dissemination activities has been followed to identify those events which are "tailored" to fit the project's dissemination goals with each specific group within the target audience, giving a clear priority to the events organised and suggested by the EC.

In addition, industrial and thematic workshops related to IoT have been utilised as dissemination channels to inform potential stakeholders and engage all relevant communities to the NGIoT technologies, initiatives and policy making activities. A few of these events are listed below:

- Annual editions of Big Data Value Alliance Conference
- GIOTS (www.globaliotsummit.org)
- ACM CoNEXT
- ACM SOSP
- ACM Conference on Mobile Systems
- ACM/IEEE IPSN
- IEEE INFOCOM
- IETF/IRTF DIN WG
- IEEE International Conference on Smart Computing (SMARTCOMP)
- IEEE ICDE
- PAM
- ICML
- ISOC NDSS and NDSS workshops
- senZations summer school (www.senzations.net)
- ACM SIGCOMM workshop on IoT Security and Privacy
- ACM SIGMOD
- ACM CCS
- ACM, IRTF & ISOC Applied Networking Research Workshop
- IEEE SDN Initiative newsletter
- IEEE NOMS
- IEEE GLOBECOM
- IEEE Symposium on Security and Privacy
- USENIX NSDI
- EDBT
- International Teletraffic Congress (ITC)
- Privacy Enhancing Technologies Symposium
- AIOTI Assemblies
- IoT meetups
- ACM Multimedia Systems Conference
- ACM/IEEE Symposium on Edge Computing
- ACM/IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI)
- IEEE NetSoft
- IEEE World Forum on Internet of Things
- IEEE ICC
- IEEE WCNC
- USENIX OSDI
- NIPS
- Crypto Conference series and its workshops





REFERENCES

