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# **Next Generation Internet of Things**

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#### **Executive Summary**

The present deliverable entitled "Outreach and Impact Creation Strategy and Plan" defines the main guidelines and means of the NGIoT Communication and Dissemination Strategy to be implemented in the course of the project. This strategy provides the framework within which the promotional and engagement activities will be carried out.

The purpose of this deliverable is thereby to:

- Identify target audiences
- Present the strategy put in place for the dissemination and communication of learnings and results
- Define the rules and procedures that will be applied to implement, monitor and evaluate all the communication and engagement activities
- Depict the methods, tools and promotional material (e.g. project logo, website, printable dissemination material, events, publications) that will be used in the project's dissemination and communication
- Provide a complete overview of the planned communication activities, as well as list other potential dissemination opportunities to be exploited in the project

Through these means, the NGIoT consortium foresees to promote 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 will be constantly evaluated and revised in the course of the project duration.



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# 1 INTRODUCTION

# 1.1 Purpose of the document

The present deliverable is prepared in the context of Work Package 4 (WP4) "Outreach and Impact Creation" 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.

Its aim is to develop an overall dissemination and communication strategy for NGIoT for outreach and impact creation, taking into account the characteristics of the information that needs to be disseminated, the target audiences and groups and the impacts to achieve. The expected outcomes and impacts, assessment metrics and tools are defined. This strategy provides the framework within which the different awareness-raising, and promotional activities will be carried out during the course of the project.

In this context, WP4 focuses on identifying the relevant stakeholders that have to be contacted in order to reach the right supporters at the right time. It also involves 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 therefore to outline an inclusive communication plan for the realisation of the above stated goals and in particular to:

- Identify target audiences, including a broad range of stakeholders of the IoT community
- Present the strategy put in place for the dissemination and communication of knowledge and results
- Define the rules and procedures that will be applied to implement, monitor and evaluate all the communication and engagement activities
- Depict the methods, tools and promotional materials that will be used in the project's dissemination and communication
- Provide a complete overview of the planned activities, as well as list potential opportunities to be exploited in the project

This is a living document, able to accommodate any required customisation. The dissemination planning will thus be constantly evaluated and revised in the course of the project. Major updates will be included in the Periodic Reports.

#### 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 will be 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** concludes the document.



# 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 will achieve 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 will contribute 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.

NGIoT recognises that Europe has distinctive values, which it needs to leverage in order to achieve leadership in research and innovation as well as implementation for a globally competitive position. These values are:

- Europe's strong tradition for a consensus-based approach to core technology development, democratising technology and empowering citizens and user communities in the development of products and services. Transparent government and acceptance of new technologies are the focal points of a human centred IoT, based on trust and a strong legal privacy and security framework.
- Europe's diversity and innovative capacity for designing new models for collaboration, such as
  a cross-domain ecosystem approach, as well as measures for standardisation and
  interoperability, can be turned into major assets for sustainable growth of the IoT market, in
  Europe and beyond.

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:

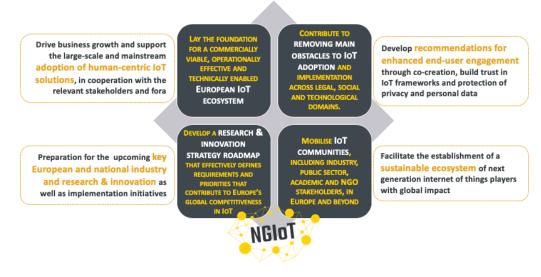


Figure 1: NGIoT main objectives and expected outcomes





# 2.2 Objectives of 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 will also assist in the development of a well-researched, market-oriented roadmap for the years to come. The roadmap's focus is a human-centred IoT strategy in the EU that will benefit society as a whole.

It is important that NGIoT's dissemination, communication and community building activities are overarching throughout the whole duration of the project and serving the entire IoT/ IoT LSP programme vision of ensuring a human-centred IoT evolution. NGIoT has taken leadership of the AG08 group and IoT LSPs communication channels as a first measure towards achieving this

To establish and maintain the NGIoT brand for the IoT/IoT Large Scale Pilot initiative, NGIoT has designed, launched and will maintain a dedicated web portal at the service of the project and of the community. NGIoT is also putting in place and animating 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 the thematic working groups and provide them with appropriate fora for discussion and interaction.

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 for Framework Programme 9
- 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
- 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 Digitising European Industry strategy, defining the roadmap for future IoT, especially human-centred IoT activities
- Actively create synergies with ongoing IoT initiatives at European and national levels, including
  the current IoT-LSP programme, as well as liaising with the industrial associations and players
  (especially those who are in the advisory entity Digitising European IoT Strategy Board)

# 2.3 Target audiences

Given the wide range of areas the NGIoT project will have impact on, different dissemination approaches will be followed, paying attention to classifying these audiences as indicated below.

Industrial players (including SMEs) in the fields of security, privacy, IoT and NGI, among others
prioritising those specialised in sensors and smart objects, mobile operators including IoT
device manufactures and cybersecurity companies. Direct reach and direct participation of
several partners in activities such as AIOTI, BDVA, IoT Forum will amplify outreach to small and
medium business players, but also to larger enterprises. Partner organisations involved in the
IoT LSP programme projects.





- Innovators and researchers both in the academic and corporate R&D domains working on, e.g.
   IoT, NGI, Big Data, security and privacy field.
- Standardisation bodies, including the Internet Engineering Task Force (IETF), the Internet Research Task Force (IRTF), World Wide Web Consortium (W3C), ITU, as well as newer bodies focusing on IoT such as AIOTI and the IoT Acceleration Consortium. NGIoT will collaborate with several standardization bodies to identify where and how standards should evolve. These bodies will be informed of any relevant project outcome that can be of interest for their activities and stakeholder contributions will also be encouraged, so as to amplify the outreach and impact of the project.
- Security and privacy experts and groups, including Digital Europe, European Digital Rights (EDRi), European Union Agency for Network and Information Security (ENISA), Internet Privacy Engineering Network (IPEN), European Cyber Security Organisation (ECSO), national data protection authorities, the European Data Protection Supervisor (EDPS), European security clusters in different countries, among which some have groups specialized in the IoT setting where the specific techniques and solutions proposed by NGIoT can contribute to address many organisational, security and societal challenges.
- The environment and society as a whole including citizens, students, public authorities, etc. that could benefit from an enhanced and human-centred IoT ecosystem.
- A number of key and relevant associations connected through the Strategy Board and Experts Group established by the project consortium, which will further expand after the project moves forward. These Associations are: OASC / Synchronicity, IoT Forum, IoT Forum / IoT EPI, TM Forum, FIWARE Foundation, Online Testing Association, IPSO Alliance / Ericsson, ENOLL / U4IoT, Finnish Chamber of Commerce, EIP-AHA / ActivAge, EIP-SCC, IoF 2020, Gartner, oneM2M, Atos, Ideas for Change, ATB Bremen, c\*Funds, IoT Tribe, IoT NEXT (Club of SMEs), University of Cantabria and University of Sorbonne

# 2.4 Outreach and impact: phases

NGIoT will follow 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 will make a difference in the future development of the field and NGI scene at large. Accordingly, the project will follow a 3-phase approach to outreach and impact creation, as follows:

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

During this current phase, we have 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.

We have prioritised creating a set of communication tools and mechanisms to maximise outreach and engage target stakeholders. This has involved strengthening the overall content strategy in relation to the planned project outcomes, but 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 will go out in April 2019. The design of a first flyer about the human-centred IoT initiative. A slide-based project presentation. The first video as introduction to the NGIoT concepts and main objectives.





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

Phase 2 of the NGIoT outreach strategy will actively reach out to targeted stakeholders and the public to generate interest and demand for the NGIoT activities and outcomes. This will create 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 will be made available.

**Measures:** Feedback from the NGIoT survey will provide input to the road mapping activities. During this phase, partners of the consortium will attend 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, as well as developing promotional materials, will continue. Quarterly editions of the newsletter will be produced and disseminated; videos and live sessions from events and thematic workshops will be launched and produced.

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

Phase 3 of the NGIoT outreach and impact strategy will provide 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 will actively engage and support all stakeholders in the network of European IoT and NGI, built by NGIoT through its dedicated promotional activities. Broad outreach in Europe and beyond, will also be the key to ensure a sustainable ecosystem that will continue beyond project duration, paving the way to Horizon Europe.

**Measures:** Results of the NGIoT project will be presented to key communities in IoT and NGI. The project will support the organisation of the flagship event, IoT Week 2021, on behalf of the IoT LSP community, including promotional activities. This phase will see the final development of the roadmap. Other outreach activities, continuous population and animation of the web site and media channels and developing promotional materials. The Last 4 editions of the newsletter will be produced and disseminated; Videos and live sessions of the events and thematic workshops will be launched and produced. Active participation at external events and presentations are expected. The roadmap will be presented and promoted widely in and beyond the IoT communities. D4.3 will be produced, as a summary of the project's effort in impact creation.

The following Figure 2 demonstrates the three phases.



Figure 2. NGIoT Phases of the Dissemination plan

# 2.5 Envisaged activities: the pillars of the strategy

The NGIoT communication and dissemination strategy will be 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 will follow closely not only the existing IoT policy documents from the EC, but will also create synergy with and build on the members' latest activities and initiatives (e.g. AIOTI, IoT Forum, among others). Key industrial partners from each of the IoT LSP programme / NGI related projects will be invited to join the Strategy Board and 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. As mentioned, NGIoT has taken leadership of the AG08 group and IoT LSPs communication channels as a first measure towards achieving this.

Participation in and organisation of events: Ensuring visibility of NGIoT's work and results and promoting 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.

The consortium will support the organisation of the 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 2020, among others. This will contribute overall to the building of an active IoT network of stakeholders and the ecosystem.

In particular, the flagship event and selected key events are planned, closely in line with the iterative process around roadmap development and policy recommendation activities (more details in Section 3.3.).

At project level, NGIoT will take 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 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, as well as to showcase actively via exhibition booths with industrial and R&I partners. The sessions will have a strong innovation and industry focus, aiming to bring real opportunities to stakeholders.

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 will be explored, building on and aggregating results, lessons learned and networks of these projects. On the other hand, the project will cooperate with key IoT initiatives with strong technical focus (details in Section 3.4).

The consortium also has direct contacts with other IoT LSP programme projects and leads the strategic communications (AGO8) of the LSP Cluster (details in Section 3.5).





#### 3 MEANS AND ACTIVITIES

# 3.1 NGIoT brand identity

As an EC co-funded Coordination and Support Action project, a clear project brand identity needs to be implemented in order to have an impact with the dissemination of respective work and achievements.

The recognition and perception of a brand is highly influenced by its visual presentation. A project's visual identity is the overall look of its communications. Effective visual brand identity is achieved by the consistent use of particular visual elements to create distinction, such as specific fonts, colours, and graphic elements.

A visual identity has been finalised since the early stage of the project, in order to secure a strong and unique brand. It will be incorporated in all promotional and dissemination materials produced during the project and will be used by all project partners in their communication activities.

The identity is composed of visual elements such as the NGIoT logo, fonts, colour palette and templates for documents and presentations. 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 guidelines [1].

#### 3.1.1 NGIoT logo and branding guidelines

The core of the NGIoT visual identity is its logo. The logo is part of the project communication and branding; it provides a consistently unique and coherent visibility and identity, making NGIoT stand out from other projects of the domain, identifying the domain.

The NGIoT logo was designed in the very early stages of the proposal and updated at the beginning of the project with the aim of presenting the project's core concept and vision to external stakeholders and also to be aligned with the new name, NGIoT.

The logo has been created according to an iterative design process taking into account the opinions of the project partners. It is characterised by smart, simple and intuitive design that includes the project acronym that is the exact acronym of the full project name. It provides an **easily recognisable project trade-mark** to be used in all dissemination materials and activities to contribute in creating awareness.

Along with the logo, a set of guidelines were also designed based on this, to be followed when designing and producing any kind of dissemination and promotional material within the project.







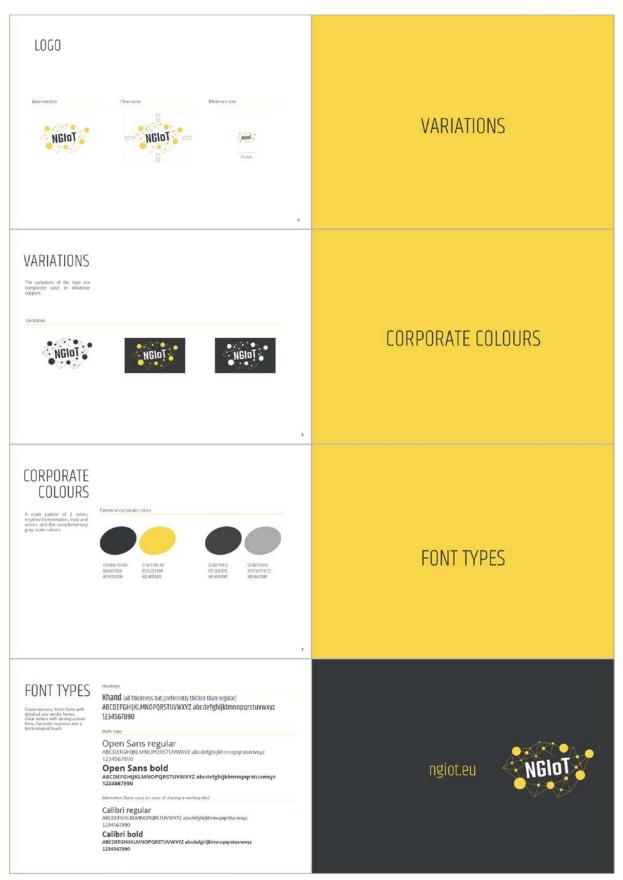


Figure 3. NGIoT branding – logo and guidelines





#### 3.1.2 EU flag

The EU flag along with the declaration that "NGIoT has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825082" will be used by NGIoT in all its communication material and on the website.



#### 3.1.3 NGIoT presentations template

The PowerPoint presentation template has been created in order to be used by the partners to create their presentations for all external and internal events, meetings, etc., based on a common look and feel. The template has been designed by Martel and validated by the project coordinator. The NGIoT presentation template is showcased below.

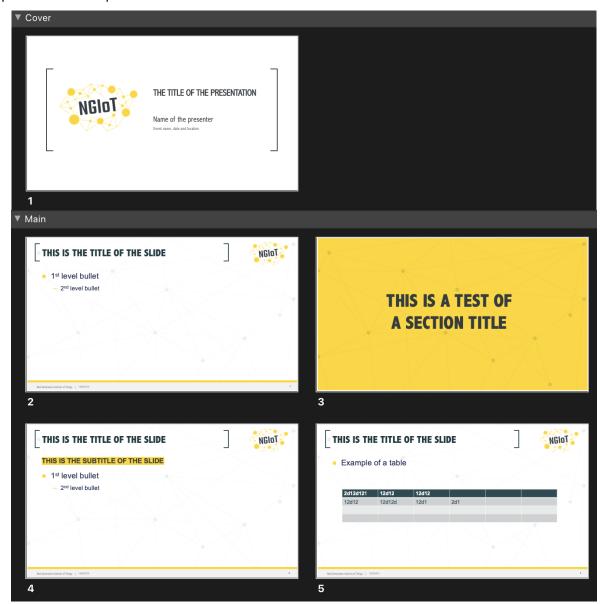








Figure 4. NGIoT presentations template

## 3.2 Online presence

#### 3.2.1 Project website

A website dedicated to the IoT / IoT LSP vision was designed and developed from M2 of the project. This website represents the supportive actions and the community of the programme and intents to reach out to all the players / stakeholders involved in the deployment of a human-centred IoT ecosystem.

The design of the website aims to be comprehensive, easy to navigate and well connected to all related social media channels the project is making use of, providing access to all the related and updated information.

The **project website's home page** is accessible at <u>NGIoT.eu</u>, includes the NGIoT logo, the EU flag with the respective message, direct links to the newsletter registration and social media, along with the most recent relevant events and the NGIoT community. Messages sent via the contact form are forwarded to <u>info@NGIoT.eu</u> which is forwarded to the concerned project partners (the coordinator, and the WP4 lead, Martel), who will receive the message and respond to it.

The following pictures present some of the main pages of the NGIoT website:



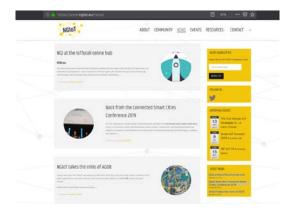
(a) Landing page



(b) NGIoT community









(c) NGIoT news page

(d) About NGIoT

Figure 5: NGIoT website indicative pages

The **fully functional NGIoT website** will be the main communication tool for the dissemination and communication of information related to the project, the NGIoT community and the relevant activities of both the project and the liaised stakeholders / initiatives to the pogramme. The NGIoT website will become a single gateway to access available results for people seeking information but also with links and references to relevant information and other sources.

The main sections of the project website include the following:

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

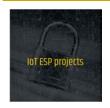


One of the major objectives is to mobilise effectively and provide strategic coordination of existing IoT-related stakeholders, organisations, networks, initiatives and projects in preparation of upcoming key European and national industry, research and innovation as well as implementation initiatives.

NGIoT grows and interconnects ecosystems of existing and upcoming European IoT initiatives and stakeholders from industry, service providers, policy makers, and knowledge institutions working in the IoT field. In this corner, the most relevant initiatives in Europe and worldwide are presented.



NGIoT will serve, strengthen and support the entire IoT LSP programme's vision to ensure a human-centric IoT evolution in the NGI area. Towards this, clear alignment between the overall IoT LSP programme objectives as well as the overarching Next Generation Internet vision and plans is more than necessary, along with the close collaboration between the relevant projects and initiatives.



The aim of this cluster is to share experiences on approaches and tools for risk assessment and threat analysis in the IoT domain from the perspective of the cluster's project members and based on that to contribute to standards, offering a joint position of the group of IoT security related and practice oriented projects, co-founded by EU. As such, IoT ESP consists of a portfolio of eight existing projects, to ensure



good facilitation and interaction between the cluster and the NGIoT action.



Due to its ambient nature and relatively complex implementation across all sectors of industry and society, IoT products and services disrupt existing divisions between network administration, digital service providers, knowledge institutions and civil society. A single solution will need to embed disjunct competences of both developers and users, enabling a broad understanding of the value and challenges of implementing IoT solutions across use cases and stakeholder groups.

Towards this, active synergies on real use case piloting activities and solutions between IoT research, innovation and development projects at European and national levels become critical.

Under this section, the first projects beyond the IoT LSP and IoT ESP projects that are part of the NGIoT ecosystem and actively contribute to its community are presented.



Dialogue and collaboration among IoT related SDOs at European and international levels, is more than necessary to foster convergence towards globally interoperable solutions for the IoT across domains.



Security and privacy experts and groups at European and international levels participating in the NGIoT community to address organisational, security and societal challenges.

The full list of the initiatives of the NGIoT community that are currently listed on the website is presented in Appendix A. This list will be expanded throughout the project lifetime.

- News: This part will announce all the project news and important items from the NGIoT community.
- **Events**: This section of the website includes all the key events that the partners and the LSP projects organize and participate in along with other relevant events of the NGIoT community.
- Resources: This area will provide all dissemination, promotion and communication materials
  that are available to the public, including Media, outcomes (public deliverables), published
  (research) papers, 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: Subscription area

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 will keep the authority to upload content, mainly for the sake of consistency and editorial quality. All partners will 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 will be used as **marketing tool** 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 will have 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)

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) and has chosen the basic hashtags #IoT #NGIOT for its tweets. The twitter account will be 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 @EUH2020 thus becoming a part of the community of H2020 projects on social media. Following the guidelines received from the EC[2], we pursue to use a hashtag #ResearchImpactEU and tag @EUH2020 whenever announcing important news which clearly show the real impact of our research. Also, in order to be added to Horizon2020's new Twitter list and thus making it possible to inform the EC (Horizon2020 account) about our activities we introduced our project via Twitter with a tag @EUJH2020, following the abovementioned EC guidelines. 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.

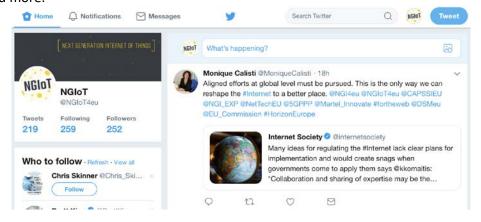


Figure 6: NGIoT Twitter account

#### Facebook (https://www.facebook.com/ngiot/)

NGIoT maintains a Facebook page, in order to be reachable by a broader and probably less specialised audience. The project's Facebook page will include news, photos and information about the NGIoT



project, its developments and activities. We also pursue to re-post relevant and interesting information from other accounts in order to enrich the page content and attract more fans.

Both the Twitter and the Facebook page are connected to diffuse NGIoT news, key messages and announcements to the wider audience of related stakeholders.

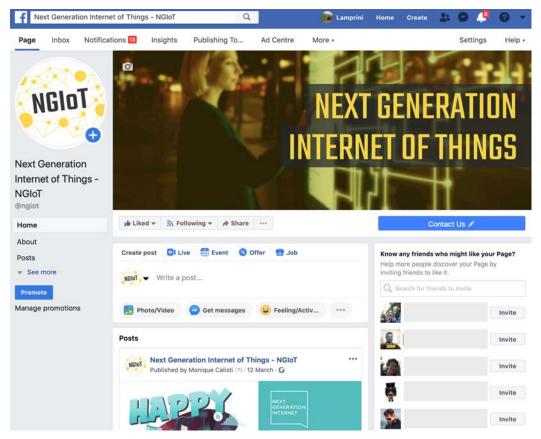


Figure 7: NGIoT Facebook page

#### LinkedIn (https://www.linkedin.com/groups/8774065/)

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.



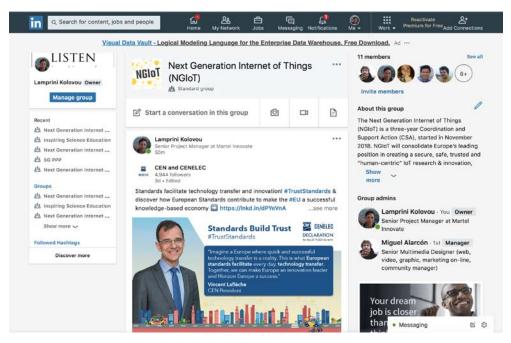


Figure 8: NGIoT LinkedIn page

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

The YouTube channel will be used to disseminate the NIGIoT vision, concepts and objectives, but also to promote and ensure enhanced visibility of the experts and engaged stakeholders of the project that participate in the interviews and project events.



Figure 9: NGIoT YouTube channel

#### 3.2.3 e-Newsletter

An e-Newsletter will be produced by the NGIoT consortium on a quarterly basis and will provide regular updates on trends of IoT research and innovation policies, key results from the IoT LSP programme, next rounds of funding opportunities, project findings and results, news from industrial partners, among others. The newsletters will also contain information regarding the upcoming tasks and events in an attempt to inform the audience on how they can get in touch with the project and the connected initiatives. As such, a typical e-Newsletter of the project will contain highlights (major outcomes, links, contacts, and dissemination activities), the most important news, announcements and a schedule of the major upcoming events. Project partners will provide information for the e-Newsletter and ensure that the content is accurate.

All the e-Newsletter issues will be uploaded on the project website. Beyond this, a mailing list will be created giving the possibility to share the e-Newsletter via mass mailing as well to inform interested users about project news, achievements and planning of events. A registration functionality allowing the interested visitors to subscribe to the newsletter will be included.



#### 3.2.4 e-Publications

Significant project developments, news and announcements, press releases, but also articles introducing NGIoT will be 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: <a href="https://trimis.ec.europa.eu/">https://trimis.ec.europa.eu/</a>
- ELTIS: http://www.eltis.org/
- Horizon Magazine <a href="http://horizon-magazine.eu/https://ec.europa.eu/programmes/horizon2020/en/newsroom/551/">http://horizon-magazine.eu/https://ec.europa.eu/programmes/horizon2020/en/newsroom/551/</a>
- research\*eu results magazine <a href="http://cordis.europa.eu/research-eu/homeen.html">http://cordis.europa.eu/research-eu/homeen.html</a>
- Headlines on the Commission's Research & Innovation website www.ec.europa.eu/research/infocentre/allheadlinesen.cfm
- CORDIS Wire <a href="http://cordis.europa.eu/wire/">http://cordis.europa.eu/wire/</a>

Beyond these, other documents produced by the project will be properly presented through the NGIoT website, including the white paper "IoT research and market priorities in the EU", the roadmap of proposed standardization activities and the Research and Innovation Strategy Roadmap.

#### 3.2.5 Visuals and multimedia

A set of videos will be produced to better communicate the project concepts to the target groups including an introductory video to the project at the start, followed by additional ones for thematic working group discussion and events.



Figure 10: NGIoT introductory video

Apart from these, additional short videos and interviews with leading experts and policy makers explaining the main challenges and policies will be created and published on the project website and on YouTube. The interviews will mostly take place during the events that the project partners will organise and participate in, engaging key stakeholders, policy makers and representatives from all the domains of the NGI & IoT ecosystems.



#### 3.2.6 Webinars

A series of webinars will be adapted for general audiences and will be available on the project website as well as on YouTube and SlideShare.

After defining important IoT/NGI topics, selected experts (both internal and external) will prepare the material in the form of presentations or lectures.

Presentations will be available on the project website and on SlideShare.

Lecture sessions should last no more than 15 minutes and will be available on the project website and YouTube.

For the lectures, the main approach is to identify the experts and policy makers who will participate in the annual edition of the IoT Week as 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 will be selected from the event's programme and recorded. The experts and policy makers will be asked for permission to record their sessions on site.

#### 3.2.7 Interactive tools

**Interactive tools** such as surveys, an interactive, online map visualizing relevant IoT initiatives in Europe and a portable demonstration package will be 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 will gauge the views and collect 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.



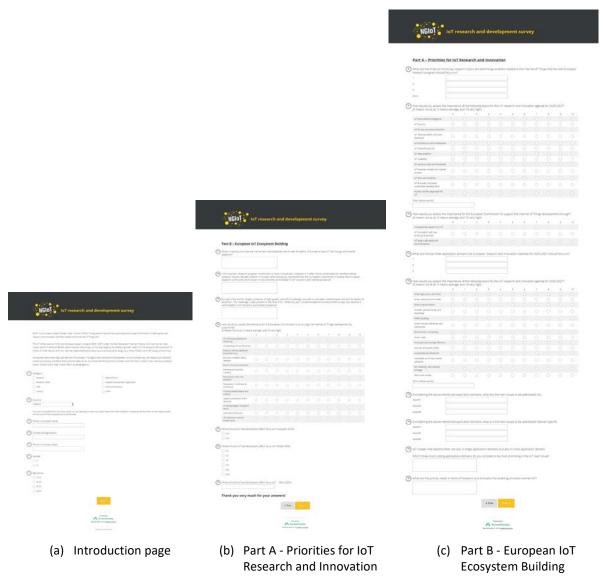


Figure 11: NGIoT online survey

An **Interactive map** will be available on the project website. It will provide the visual insight to all relevant IoT initiatives/pilot installations in Europe. Each pin for an IoT initiative/pilot installation on the map will contain the relevant information related to selected POI (point of interest). The map will have category filters integrated that will enable users to narrow down the search.

A **portable demonstration package** will be created and maintained integrating the main outcomes of relevant IoT projects to be used at community engagement events and demonstrations.

The demonstration package will be a portable, minimized testbed for a complete smart city solution, that can be carried easily and will enable real-time demonstration. Determined sensors will be used and the corresponding application will be provided. All together it will allow us to demonstrate the testbed in action and display the most relevant information to the users at one place. Our aspiration is to present one of the LSPs' showcases.

#### 3.3 Events-based dissemination

Events-based dissemination is a critical part of the NGIoT strategy and activities. It targets 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 will contribute to better utilise and reinforce the research and innovation excellence of Europe in the field of IoT, to advocate a strategy that focuses 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 will help the partners while implementing the relevant tasks of the project workplan 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 is to contribute to the annual editions of IoT Week, as 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 will take place according to specific opportunities and needs to promote the overall next generation IoT vision.

#### 3.3.1 Events participation

NGIoT will be presented at a number of events aiming to promote and communicate, by all relevant means and tools, all relevant information that will increase the project's visibility in terms of the NGI and IoT aspects. Participation in events is 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 flagship event and selected key events are planned, closely in line with the iterative process around the roadmap development and policy recommendation activities proposed by NGIoT.

The NGIoT representation at the events can take 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 LSP projects. Promotional materials such as brochures, a poster or a roll-up (where relevant) will be also used for dissemination purposes.

A shared Excel sheet template on Google Drive, listing relevant events based on importance and participation has been 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.

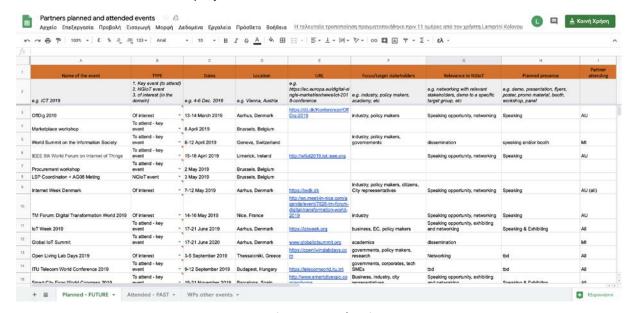


Figure 12: Google Drive sheet listing the events for potential/confirmed NGIoT representation

An indicative (yet non-exhaustive) list of relevant events, which are considered useful for dissemination purposes throughout the first year of the project and beyond, is presented below. These events, to be selected and prioritised during the project, are proposed as an indication of the types of events being held mainly in the EU in 2019 that NGIoT will consider participating in.



The list will be regularly updated in the shared sheet in Google Drive during the whole project duration.

The events included in this shared file are divided into three categories: 1. Key event (to attend), 2. NGIoT event (organised by the project), 3. Of interest (events that might be of interest of the NGIoT community). This file also feeds into the events section of the project website.

Table 1: Relevant events considered for a wide dissemination by NGIoT

		,	
Title of event	Туре	Date	Location
OffDig 2019	Of interest	13-14 March 2019	Aarhus, Denmark
Marketplace workshop	To attend - key event	8 April 2019	Brussels, Belgium
World Summit on the Information Society	To attend - key event	8-12 April 2019	Geneva, Switzerland
IEEE 5th World Forum on Internet of Things	To attend - key event	15-18 April 2019	Limerick, Ireland
Procurement workshop	To attend - key event	2 May 2019	Brussels, Belgium
LSP Coordination Meting	NGIoT event	3 May 2019	Brussels, Belgium
Internet Week Denmark	Of interest	7-12 May 2019	Aarhus, Denmark
TM Forum: Digital Transformation World 2019	Of interest	14-16 May 2019	Nice, France
IoT Week 2019	To attend - key event	17-21 June 2019	Aarhus, Denmark
Global IoT Summit	To attend - key event	17-21 June 2020	Aarhus, Denmark
Open Living Lab Days 2019	Of interest	3-5 September 2019	Thessaloniki, Greece
ITU Telecom World Conference 2019	To attend - key event	9-12 September 2019	Budapest, Hungary
Smart City Expo World Congress 2019	To attend - key event	19-21 November 2019	Barcelona, Spain
Connected Smart Cities Conference	NGIoT event	January 2020	Brussels, Belgium

The level of involvement in the events will vary, according to the nature and scope of the event. A thorough procedure for deciding on our participation and dissemination activities will be 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 will be 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 **AIOTI Assemblies** senZations summer school Value Alliance Conference (www.senzations.net) **GIOTS** ACM SIGCOMM workshop IoT meetups (www.globaliotsummit.org) on IoT Security and Privacy **ACM CONEXT ACM SIGMOD ACM Multimedia Systems** Conference **ACM SOSP** ACM CCS ACM/IEEE Symposium on **Edge Computing** ACM Conference on Mobile • ACM, IRTF & ISOC Applied ACM/IEEE International Systems Networking Research Conference on Internet-of-Things Design and Workshop Implementation (IoTDI) **IEEE NetSoft** ACM/IEEE IPSN IEEE SDN Initiative newsletter IEEE INFOCOM **IEEE NOMS** IEEE World Forum on Internet of Things IETF/IRTF DIN WG IEEE GLOBECOM **IEEE ICC**  IEEE Symposium on **IEEE WCNC** IEEE International Conference on Smart Security and Privacy Computing (SMARTCOMP) IEEE ICDE **USENIX NSDI USENIX OSDI** PAM **EDBT NIPS**  Crypto Conference series **ICML** International Teletrafic Congress (ITC) and its workshops ISOC NDSS and NDSS Privacy Enhancing

After every event, the NGIoT partner(s) who joint the event is 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.

**Technologies Symposium** 

#### 3.3.2 Events organization

workshops

NGIoT plans to contribute to the annual editions of IoT Week as a flagship event among others, and equivalent ones, agreed upon with the EC for the next generation IoT efforts in Europe. More precisely, the focus will be on contributing to the agenda by making sure focused workshops and sessions will take place allowing the European IoT stakeholders, including the IoT LSP and Security clusters, to showcase their work. The planned activities will also include promoting the event both online and offline, before, during and after it has taken place. In this concept, special sessions/workshops are planned as it follows:



- Session/workshop on Security, Privacy and Trust in cooperation with WP2 (lead IIP). The session aims to understand the main challenges for user acceptance in the IoT as well as to provide a platform for idea exchanges, and to offer solutions. It will feature key players in the field of security and privacy from academia, policy makers and the industry. It will also feature linkages with ongoing initiatives, such as the Privacy Flag.
- Session/workshop on IoT Research and Innovation Excellence in Europe and roadmap towards a vibrant IoT platform and technology cluster in cooperation with WP1 and WP3 (lead AS). It will focus on selected topics such as, key research topics, technology strength on IoT, technology capacities on the backbends, key challenges for connecting research communities with the market, etc. A number of partners are actively involved in various ongoing IoT initiatives, such as the IoT Large-Scale Pilots Programme, which will provide strong inter-project synergies. Points of recommendations for a future funding strategy will also be presented and widely discussed.
- Session/workshop on the IoT LSP programme (lead MI). It will focus on supporting the specific
  needs of the IoT LSP programme projects, organising dedicated sessions for different projects
  (such as thematic workshop sessions, open call promotion and result sharing, among others),
  creating synergies with the overall human-centred IoT vision, as well as the NGI initiatives
- Exhibition and brokerage (lead DNET). As a key feature of NGIoT, industrial presence gets a
  strong focus, with active liaison with IoT related associations. They will be invited to the NGIoT
  sessions not only as presenters or panellists, but also as exhibitors, as well as participants in
  brokerage events to identify and materialize real business opportunities.

#### 3.3.3 Events toolkit

An event toolkit can be used for both self-organised and third-party events. The key here is 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 will include a roll-up, posters, brochures (a lighter and a more result-oriented version is foreseen), identification material and the NGIoT wheel of fortune.



#### Roll-up and posters

Different versions of the roll-up will be created, 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) will be produced. NGIoT will also consider producing event focused posters of smaller size, if considered necessary, where the content of the poster will be replaced to fit the needs (theme) of the event.

Both the roll-up and the posters will be prepared in English (local languages to be considered if appropriate or necessary) to raise awareness of the stakeholders and a variety of relevant audiences about the project with succinct textual and graphical information.

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

Printable versions of the posters will also be created and provided to partners to be printed and used at the events they participate in.

The design will be easily adjustable to the requirements individual partners have, in case an additional or a more specific version is required.

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.



Figure 13: NGIoT Roll-up

#### **Identification material**

We plan to produce small materials showcasing the project logo or a small slogan. We will design, print and produce the full set of materials typically required for professional events. A potential identification material can be one of the following objects: notepads, pens, USB sticks, bags, etc.

The consortium will analyse the possibilities in terms of relevance and cost efficiency and will decide on the selection of the identification materials.

All communication and promotional materials will be produced according to the NGIoT specifications and visual identity.

#### **NGIoT** wheel of fortune

To attract more people to the areas where NGIoT will be present during the events, and especially targeting the general public and the citizens, an NGIoT wheel of fortune will be designed and produced. Its first demonstration is planned for IoT Week 2019.

In this context, the wheel of fortune will be NGIoT branded, including "winning sectors" that correspond to different gadgets, e.g. the gadgets available in the NGIoT booth. They will not be given automatically but there will be "hard work" and fun involved, spinning the NGIoT wheel to get e.g. a battery bank, USB shield, etc. The questions of the wheel will be designed to "teach / introduce" main NGIoT concepts and themes.

#### Brochure



The **first project brochure** which comprises a two-fold sheet, available in English, with a clean, modern and attractive design will be produced, with a layout and content agreed by all the partners.

The initial plan is that the outside of the brochure presents the project logo and information on the project including the project's website, contact information, the programme under which it has been funded and the logo of the European Union. The inside of the brochure will include information about the project's main message and overall scope.

The brochure is to be distributed for dissemination/communication and awareness-raising purposes to target stakeholders during the events.

As the project evolves, an **updated and more detailed version** of the brochure will be created.

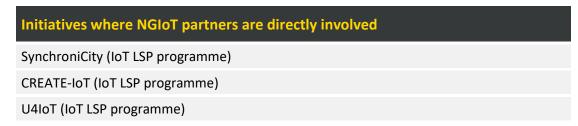


Figure 14: The first version of the NGIoT brochure

# 3.4 Liaising with other initiatives

NGIoT will benefit 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, and an extended list of the current project community is presented in **Appendix A**.

Table 2: Directly involved initiatives





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

The collaboration with these initiatives will happen 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 for participation in NGIoT events
- Collaboration on white papers and other publications

# 3.5 Coordination and support of AG08 communication activities

The aim of the European IoT Large-Scale Pilots Programme is to ensure the positioning of IoT solutions in Europe. This will be 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.

To foster European leadership in the field of Internet of Things the European IoT Large-Scale Pilots Programme, an innovation consortium cooperates on:

- The development of the most advanced technologies across the value chain which provides solutions to present needs of end-users;
- The confirmation of user acceptability by tackling issues such as security, privacy, trust and attention;
- The validation of viable business models fit to be used beyond the scope of the project.

The AG08 communication strategy contributes to objectives of the IoT LSP Programme by fostering the involvement of external target groups and communities.



NGIoT will support AG08 communication and dissemination activities, undertaking the role of Communication Officer, while SynchroniCity will chair the group for as long as the LSP projects of AG08 are running, in order to strengthen the collaboration between the LSP projects, advance the visibility and promotion of the cluster but also to better support the dissemination activities of NGIoT. More precisely, the goal of the AG08 communication activities is to strengthen the uptake of IoT in the fields of action of the LSPs. To reach this goal, AG08 has established four objectives:

- 1. **Enhance** the visibility of the LSPs and **amplify** their communication efforts;
- 2. Raise awareness of the benefits of IoT in different sectors;
- 3. Unify the communication activities/messages of the LSPs;
- 4. Support and serve as an example to the communication actions of all LSPs.

#### 3.5.1 Joint communication activities

The support of AG08 in terms of Communication Officer activities is focused on:

- Alignment of the interests of the different key stakeholders across the LSPs;
- Synchronized approach to communicate effectively about the LSPs' activities and achievements to a mapped audience;
- Unified stance during major communication actions such as publications, events, exhibitions, etc.;
- Promotion of 'best practices' using the available communication means by NGIoT and all LSP projects.

To ensure the overall coordination of the AG08 communication, teleconferences will take place on a monthly basis with the participation of communication representatives of each LSP. The teleconferences will be organized, animated and chaired by the NGIoT Communication Officer (Martel). After each session, a set of action points will be drafted and shared with the participants, occasionally inviting additional participants according to the ongoing activities and the upcoming events.

A typical agenda for such meetings includes:

- Details for planning and accessing of the meeting
- Participants list
- Participation and planned activities of AG08 projects in important future events (e.g. IoT Week)
- List of events planned by the LSP project to be promoted by NGIoT and the IoT LSP social media accounts
- Important achievements and news to be shared by the LSP projects
- Other activities of the LSP projects that require further support
- Other topics / activities of collaboration between the LSP projects to be supported



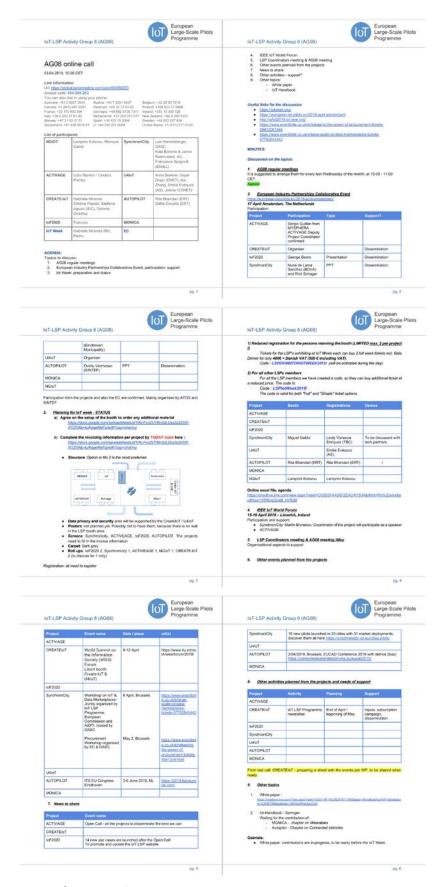


Figure 15: Typical agenda / minutes of the online AG08 meetings



#### 3.5.2 Social media management

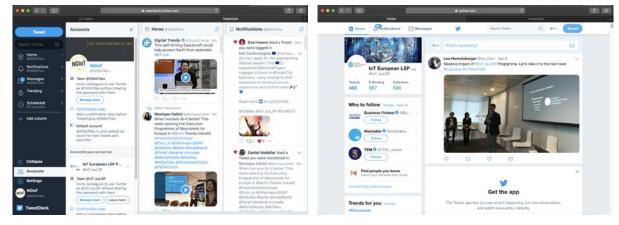
Social media is one of the most important channels for communication and dissemination of information towards the general public. For this reason, it is quintessential for the European I oT Large-Scale Pilots Programme to use these tools to communicate effectively about project news and promote the outcomes to the different stakeholders.

By developing already existing social media channels, the European IoT Large-Scale Pilots Programme will be able to:

- Establish and widen the online reputation of the projects;
- Communicate the achievement of deliverables, project news and publications to a wider audience;
- Generate interest of new stakeholders;
- Actively engage stakeholders and partners;
- Build a community of stakeholders (e.g. ecosystem) for information sharing, collaboration and further partnerships;
- Synchronize joint messages of the pilots;
- Reinforce the common IoT identity shared between the LSPs.

To ensure this, NGIoT will be responsible to maintain the Twitter account of AG08 / IoT LSP Programme, ensuring that all the important activities and results of the LSP projects are properly promoted while also ensuring that the followers are informed about the most recent and important trends, events, achievements in the IoT domain.

Martel is using the TweetDeck tool to manage both the NGIoT and IoT LSP accounts, planning future posts in an effective way and making sure that information flows in a smooth way on both channels.



(a) The TweetDeck dashboard

(b) The IoT LSP Twitter page

Figure 16: Twitter account management for the IoT LSP programme

#### 3.5.3 Communication tools

**Documents repository**: For the organisation and hosting of the shared materials between the LSP projects, AG08 maintains its own space in the eRoom, that is regularly updated with new documents and files.



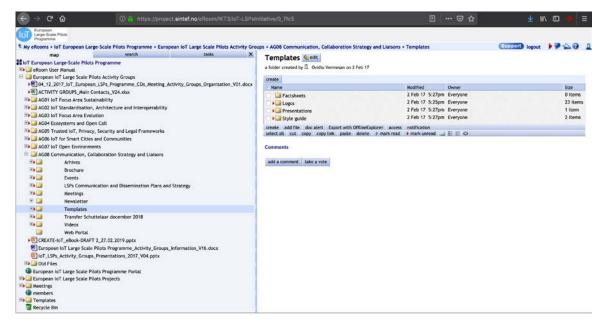


Figure 17: AG08 space in eRoom

Online shared working folder: To prepare and conduct the online meetings and to ensure the contribution of the LSP projects and guarantee direct access to the agenda and minutes, a Google Drive repository is maintained, including live documents and materials that are necessary to be shared in a dynamic way with the project partners.

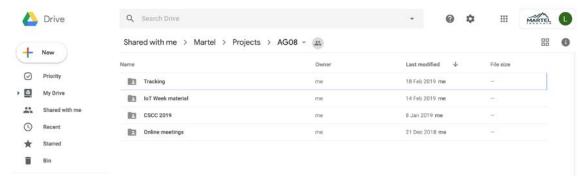


Figure 18: AG08 Google Drive

Mailing list: To support the day-to-day communication among the members of AG08, NGIoT has created and maintains a mailing list, including relevant project partners. Mailing list: <a href="mailto:lsp-ag08.ditcom@maillist.au.dk">lsp-ag08.ditcom@maillist.au.dk</a>.



#### 4 MONITORING AND EVALUATION

The complete set of communication and dissemination activities will be 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" will document all the related conducted activities in two versions: D4.2 (M18), D4.3 (M36).

The evaluation of the Communication Strategy concerns both qualitative and quantitative indicators. Once measurable objectives are defined, we will then evaluate to what degree the project has achieved the objectives set. Process evaluation will involve examining the progress of the strategy's implementation and will refer to an outreach activity that is quantifiable through the attendance of persons present from the audiences, quantity of material distributed, number of events participated in, the development and dissemination of messages and materials, media presence and traffic created in social media.

There are various key issues associated with measuring and controlling the outreach and impact creation strategy and plan. Achievement is often more difficult to measure and compare, and thus needs to be carefully quantified and measured according to the specific type of action involved. The objectives chosen must be realistic, clearly defined, relevant, and coherent; the means of measurement must be objective, clearly defined and quantified, and the measurement process must not involve significant levels of cost relative to the objectives themselves. The evaluation needs to be continuous or incremental as much as possible, in particular for non-repetitive actions. Finally, the measurement of different actions must allow some degree of comparison with other actions and/or alternatives.

The proposed **analysis framework** will aim to measure various quantitative figures, as well as the impact of promotional efforts on the attitude of the receivers of the communications messages. This will be feasible through the combination of a set of measurement procedures, which will provide a clear view of the promotional activity outcomes in terms of behavioural trends.

In full accordance with the NGIoT needs, we will implement a five-step measurement cycle model, 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 to the success of the aforementioned utilized 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. 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 this strategy will be monitored, measured, evaluated and realigned on an ongoing basis.

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



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

Measure	Indicator	Target Values	Source and methodology
Human-centred IoT Flyers	Number of brochures distributed (one update per year at least on the flyer)	1000/year	Through online and offline distribution
Roll-up Banner	Number of roll-up produced	3 by the end of the project (1 per year)	Through the dissemination reporting
Newsletters (published quarterly)	Number of subscribers	>500 (by the end of the project)	In-built website statistics tool
Project website	Number of unique visitors to website/page-hits	350 visitors/month (by the end of year 1)	In-built website statistics tool
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
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
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
Webinars	Number of webinars, number of participants	2 per year, with at least 20 participants	Attendance proofs, YouTube /web site records



# 5 CONCLUSIONS

This deliverable presented the NGIoT Outreach and Impact Strategy and Plan, an internal instrument to provide a consistent framework for all activities needed to disseminate and sustain the concepts, achievements, as well as knowledge results developed within the project.

The consortium recognises that dissemination, communication and engagement activities are essential and pervasive throughout the project's lifetime and integrated within all its work packages. Therefore, the present plan illustrates in clear terms the rationale behind the strategy and clarifies all dimensions and tools necessary to communicate the core messages of the project in a very effective and comprehensive way.

Various activities will be realized throughout the project's lifetime in order to help NGIoT achieve its purpose. 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 constitute some of the main actions towards the aforementioned goals.

In order to measure the achieved progresses and impacts of the proposed strategy and plan, a monitoring and evaluation framework has been defined and a number of indicators have been recognised and reported.

The present strategy will act as a handbook for every project partner in order to perform their dissemination activities, as it lists all stakeholders, communication channels, dissemination activities and corresponding key performance indicators. It also addresses the European Commission that will be requested to assist in the realisation of this plan if deemed necessary.

This is a living document to accommodate any customisation required. The dissemination planning will thus be constantly evaluated and revised in the course of the project duration.



# 6 APPENDIX A – INITIAL LIST OF THE NGIOT COMMUNITY'S STAKEHOLDERS

Table 4: NGIoT Community – The main stakeholders

Name	URL	Description
NGI & IoT Initiatives		
Next Generation Internet (NGI)	https://www.ngi.eu/	The Next Generation Internet (NGI) initiative, launched by the European Commission in the autumn of 2016, aims to shape the future internet as an interoperable platform ecosystem that embodies the values that Europe holds dear: openness, inclusivity, transparency, privacy, cooperation, and protection of data. The NGI will drive this technological revolution and ensure the progressive adoption of advanced concepts and methodologies spanning the domains of artificial intelligence, Internet of Things, interactive technologies and more, while contributing to making the future internet more human-centric.
European Large Scale Pilots Programme (LSP)	https://european-iot- pilots.eu/	The IoT European Large-Scale Pilots Programme includes the innovation consortia that are collaborating to foster the deployment of IoT solutions in Europe through integration of advanced IoT technologies across the value chain, demonstration of multiple IoT applications at scale and in a usage context, and as close as possible to operational conditions.
IoT European Security and Privacy Projects (IoT ESP)	https://www.ngiot.eu/co mmunity/iot-esp- projects/	The aim of this cluster is to share experiences on approaches and tools for risk assessment and threat analysis in IoT domain from cluster's project members perspective and based on that contribute to standards, offering a joint position of the group of IoT security related and practical oriented projects, cofounded by EU.
IoT European Research Cluster	http://www.internet-of-things-research.eu/	The aim of European Research Cluster on the Internet of Things is to address the large potential for IoT-based capabilities in Europe and to coordinate the convergence of ongoing activities.
Alliance for Internet of Things Innovation (AIOTI)	https://aioti.eu/	AIOTI aims to strengthen the dialogue and interaction among Internet of Things (IoT) players in Europe, and to contribute to the creation of a dynamic European IoT ecosystem to speed up the take up of IoT.
Open & Agile Smart Cities (OASC)	https://oascities.org/	The vision of OASC initiative is to create an open smart citz market based on the needs of cities and communities.
The Internet of Things Council	www.theinternetofthing s.eu	The Council is a formidable, unique network of talents encompassing all skills, experiences and trades, from entrepreneurship to philosophy, public sector and private sector, and it brings together people who beyond their specific knowledge share the same passion of tinkering with technology to put it at the service of individuals, communities, society, and the whole planet.



Name	URL	Description
IoT Forum	https://iotforum.org/	The IoT Forum is a member based organization which aims to promote international dialogue and cooperation on the Internet of Things; Organize events and conferences, such as the IoT Week; Develop activities and synergies with and among its members.
IoT-European Platforms Initiative (IoT-EPI)	https://iot-epi.eu/	The IoT-European Platforms Initiative (IoT-EPI) was formed to build a vibrant and sustainable IoT-ecosystem in Europe, maximising the opportunities for platform development, interoperability and information sharing. Seven leading research and innovation projects make their technology accessible to 3rd parties. In addition, strong support & funding structure (open calls, workshops) fosters further collaboration.
AGILE - an Adaptive & Modular Gateway for the IoT	http://agile-iot.eu/	AGILE is a modular hardware and software gateway for the Internet of Things with support for protocol interoperability, device and data management, IoT apps execution, and external Cloud communication, featuring diverse pilot activities, Open Calls & Community building.
Big Data Value Association (BDVA)	http://www.bdva.eu/ab out	The Big Data Value Association (BDVA) is an industry-driven international not–for-profit organisation with 200 members all over Europe and a well-balanced composition of large, small, and medium-sized industries as well as research and user organizations. BDVA is the private counterpart to the EU Commission to implement the Big Data Value PPP program.
FIWARE Foundation	https://www.fiware.org/ foundation/	The FIWARE Foundation is the legal independent body providing shared resources to help achieving the FIWARE mission by promoting, augmenting, protecting, and validating the FIWARE technologies as well as the activities of the FIWARE community, empowering its members including end users, developers and rest of stakeholders in the entire ecosystem.
IoT-LAB	https://www.iot- lab.info/	IoT-LAB provides a very large scale infrastructure suitable for testing small wireless sensor devices and heterogeneous communicating objects.
oneM2M	http://www.onem2m.or	The purpose and goal of oneM2M is to develop technical specifications which address the need for a common M2M Service Layer that can be readily embedded within various hardware and software, and relied upon to connect the myriad of devices in the field with M2M application servers worldwide.
ERTICO – ITS Europe	http://ertico.com	ERTICO's final goal is to create safer, smarter and cleaner transport services and networks for the benefit of all. To achieve societal and political goals, strengthen the competitiveness of the industry and optimise services for the user, ERTICO puts together



News	LIDI	Description
Name	URL	Description
		the interests of public and private stakeholders across Europe.
TM Forum	https://www.tmforum.o	TM Forum is the global industry association that drives collaboration and collective problem-solving to maximize the business success of communication and digital service providers and their ecosystem of suppliers.
OrganiCity	https://organicity.eu	OrganiCity is a service for experimentation, which explores how citizens, businesses and city authorities can work together to create digital solutions to urban challenges.
European Innovation Partnership in Active and Healthy Ageing through Europe (EIP- AHA)	https://ec.europa.eu/eip /ageing/home_en	The European Innovation Partnership in Active and Healthy Ageing (EIP on AHA) is an initiative launched by the European Commission to foster innovation and digital transformation in the field of active and healthy ageing.
5G PPP	https://5g-ppp.eu/	The 5G Infrastructure Public Private Partnership (5G PPP) is a joint initiative between the European Commission and European ICT industry (ICT manufacturers, telecommunications operators, service providers, SMEs and researcher Institutions). The 5G PPP will deliver solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures of the coming decade.
European Innovation Partnership on Smart Cities and Communities (EIP- SCC)	https://eu- smartcities.eu/	The European Innovation Partnership on Smart Cities and Communities (EIP-SCC) is a major market-changing undertaking supported by the European Commission bringing together cities, industries, SMEs, investors, researchers and other smart city actors.
LSP projects		
actiVage	http://www.activageproj	The main objective is to build the first European IoT ecosystem across 9 Deployment Sites (DS) in seven European countries, reusing and scaling up underlying open and proprietary IoT platforms, technologies and standards, and integrating new interfaces needed to provide interoperability across these heterogeneous platforms, that will enable the deployment and operation at large scale of Active & Healthy Ageing IoT based solutions and services, supporting and extending the independent living of older adults in their living environments, and responding to real needs of caregivers, service providers and public authorities.
SynchroniCity	www.synchronicity- iot.eu	SynchroniCity is a European IoT Large-Scale Pilot funded by the European Commission. It aims to open up a global market for IoT-enabled services for cities and communities, where public authorities and businesses develop and deploy services using new technologies in agile partnerships to sustain and



Name	URL	Description
		improve the lives of citizens, and to ensure sustainable local economic development. The SynchroniCity project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732240, and it is part of 104m€ Large Scale Pilots Programme. 38 partners worldwide from business, academia, municipalities and NGOs are contributing to the project.
U4IoT	www.u4iot.eu	U4IoT (User Engagement for Large Scale Pilots in the Internet of Things) brings together 9 partners from 5 European countries. The objectives are to develop toolkit for LSPs end-user engagement and adoption, including online resources, privacy-compliant crowdsourcing tools, guidelines and an innovative privacy game for personal data protection risk assessment and awareness, online training modules.
CREATE-IOT	www.create-iot.eu	As partner in CREATE-IoT, Mandat International is responsible for key contributions to standardisation roadmap for the IoT LSP programme.
AUTOPILOT	http://autopilot- project.eu	The AUTOPILOT consortium represents all relevant areas of the IoT eco-system. Thanks to AUTOPILOT, the IoT eco-system will involve vehicles, road infrastructure and surrounding objects in the IoT, with particular attention to safety critical aspects of automated driving.
loF2020	https://www.iof2020.eu	The project Internet of Food & Farm 2020 (IoF2020) explores the potential of IoT-technologies for the European food and farming industry.
MONICA	https://www.monica- project.eu/	The MONICA project is a large-scale demonstration of new and existing IoT applications for a smarter living. The demonstration involves six major cities in Europe: Lyon, Bonn, Leeds, Turin, Copenhagen and Hamburg. Focus is on one of the key aspects of European society: the cultural performances in open-air settings which create challenges in terms of crowd safety, security and noise pollution.
IoT ESP projects		
CHARIOT	https://www.chariotproj	CHARIOT will advance state of the art by providing a design method and cognitive computing platform supporting a unified approach towards Privacy, Security and Safety (PSS) of IoT Systems, that places devices and hardware at the root of trust, in turn contributing to high security and integrity of industrial IoT.
BRAIN-IoT	http://www.brain-iot.eu/	BRAIN-IoT looks at heterogeneous IoT scenarios where instances of IoT architectures can be built dynamically combining and federating a distributed set of IoT services, IoT platforms and other enabling



Name	URL	Description
		functionalities made available in marketplaces and accessible by means of open and standard IoT APIs and protocols.
ENACT	https://www.enact- project.eu/	The main technical objective of ENACT is to develop novel IoT platform enablers to: (1) Enable DevOps in the realm of trustworthy smart IoT systems, and enrich it with novel concepts for end-to-end security and privacy, resilience and robustness strengthening trustworthiness, taking into account the challenges related to "collaborative" actuation and actuation conflicts; (2) Facilitate the smooth integration of these to leverage DevOps for existing and new IoT platforms and approaches (e.g., FIWARE, SOFIA, and TelluCloud).
IoT-CRAWLER	https://iotcrawler.eu/	loTCrawler is a three-year long research project focusing on developing a "Google" for Internet of Things (IoT) devices. It aims at a paradigm change on both how IoT application can access IoT resources and on how IoT resources can make themselves discoverable.
SECUREIOT	https://secureiot.eu/	SecureIoT project focuses on delivering predictive IoT security services, which span multiple IoT platforms and networks of smart objects and are based on security building blocks at both the edge and the core of IoT systems.
SEMIoTICS	https://www.semiotics- project.eu/	SEMIoTICS main scope aims to develop a pattern- driven framework, built upon existing IoT platforms, to enable and guarantee secure and dependable actuation and semi-autonomic behaviour in IoT/IIoT applications.
SERIOT	https://seriot- project.eu/project/	SerIoT aims to provide a useful open & reference framework for real-time monitoring of the traffic exchanged through heterogeneous IoT platforms within the IoT network in order to recognize suspicious patterns, to evaluate them and finally to decide on the detection of a security leak, privacy threat and abnormal event detection, while offering parallel mitigation actions that are seamlessly exploited in the background.
SOFIE	https://www.sofie- iot.eu/	The main goal of SOFIE is to enable diversified applications from various sectors to utilize heterogeneous IoT platforms and autonomous devices across technological, organizational and administrative borders.
Liaised projects		
Privacy Flag	https://privacyflag.eu/	The Privacy Flag project is a European research project on personal data protection.
INTER-IOT	http://www.inter-iot- project.eu/	INTER-IOT aim is to design, implement and test a framework that will allow interoperability among different Internet of Things (IoT) platforms.



Namo	LIDI	Description
Name	URL	Description
HUB4NGI		The main goal of the HU4NGI project is to bootstrap the current Next Generation Internet (NGI) initiative and turn it into a dynamic, collaborative, and participatory innovation ecosystem capable of more effectively supporting and coordinating activities across the whole R&D landscape.
bloTope	https://biotope- project.eu/	The bloTope project lays the foundation for creating open innovation ecosystems by providing a platform that enables companies to easily create new IoT systems and to rapidly harness available information using advanced Systems-of-Systems (SoS) capabilities for Connected Smart Objects — with minimal investment.
symbloTe	https://www.symbiote- h2020.eu/	symbloTe comes to remedy the fragmented environment across various IoT domains by providing an abstraction layer for a "unified view" on various platforms and their resources so that platform resources are transparent to application designers and developers.
TagltSmart!	https://www.tagitsmart.	The overall objective of TagItSmart! is to create a set of tools and enabling technologies integrated into a platform with open interfaces enabling users across the value chain to fully exploit the power of condition-dependent FunCodes to connect mass-market products with the digital world across multiple application sectors.
VICINITY	https://www.vicinity202 0.eu/vicinity/	VICINITY presents a virtual neighborhood concept, which is a decentralized, bottom-up and cross-domain approach that resembles a social network, where users can configure their set ups, integrate standards according to the services they want to use and fully control their desired level of privacy.
OrganiCity	www.organicity.eu	OrganiCity is a service for experimentation that explores how business, citizens and city authorities can work together to create digital solutions to urban challenges.
EXCITING	www.euchina-iot5g.eu	EXCITING, The EU-China Study on IoT and 5G, analyses the research and innovation ecosystem for IoT and 5G in China and compares it with the European model. The main purpose of the EU-China Study on IoT and 5G (EXCITING) is to support the creation of favourable conditions for cooperation between the European and Chinese research and innovation ecosystems, mainly related to the key strategic domains of Internet of Things (IoT) and 5G.
F-Interop	www.f-interop.eu	F-Interop is a three years European research project. It is researching and developing online interoperability and performance test tools supporting emerging IoT-related technologies from standardization to market. It intends to support



Name	URL	Description
		researchers, product development by SME, and standardization processes.
ANASTACIA	www.anastacia- h2020.eu	The ANASTACIA project is addressing cyber-security concerns by researching, developing and demonstrating a holistic solution enabling trust and security by-design for Cyber Physical Systems (CPS) based on IoT and Cloud architectures.
Orhestra Cities	www.orchestracities.co m	Orchestra Cities aims to deliver a data and IoT-driven solution that allows the collaborative creation of Smart Cities involving different stakeholders through Open APIs and Open Data, embedding key added value hallmarks.
FLAME	https://www.ict-flame.eu/	FLAME outlines the main platform benefits as part of the initial work needed to develop and deploy a Future Media Internet delivery platform starting in 2018. The main target is to provide a significant leap forward for media delivery supporting personalized, interactive, mobile and localized (PIML) workflows.
SmartSDK	www.smartsdk.eu	SmartSDK is the FIWARE's "cookbook" for developing smart applications in the Smart City, Smart Healthcare, and Smart Security domains.
To-Euro-5G	https://5g-ppp.eu/to- euro-5g/	The To-Euro-5G project has a prime objective to support the activities of the European 5G Initiative during the second phase of the 5G PPP from June 2017 to June 2019.
Standardization bodies	5	
Internet Engineering Task Force (IETF)	https://www.ietf.org/	The mission of the IETF is to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.
Internet Research Task Force (IRTF)	https://irtf.org/	The Internet Research Task Force (IRTF) promotes research of importance to the evolution of the Internet by creating focused, long-term Research Groups working on topics related to Internet protocols, applications, architecture and technology.
World Wide Web Consortium (W3C)	https://www.w3.org/	The W3C mission is to lead the World Wide Web to its full potential by developing protocols and guidelines that ensure the long-term growth of the Web.
ITU-T	https://www.itu.int/en/l TU-T/	The Study Groups of ITU's Telecommunication Standardization Sector (ITU-T) assemble experts from around the world to develop international standards known as ITU-T Recommendations which act as defining elements in the global infrastructure of information and communication technologies (ICTs).
IoT Acceleration Consortium	https://iotlab.jp/en/inde x	The IoT Acceleration Lab supports creation of advanced model businesses and improvement of business environment through regulatory reform, etc.



Name	URL	Description
CEN/CENELEC	https://www.cencenelec	CEN/CENELEC's mission is to fulfil the needs of business, industry and commerce, service providers, public authorities and regulators, academia and research centres, European trade associations and interest groups representing environmentalists, consumers, trade unions as well as small and medium enterprises, and other public and private institutions.
ETSI	https://www.etsi.org	ETSI is the recognized regional standards body – European Standards Organization (ESO) – dealing with telecommunications, broadcasting and other electronic communications networks and services. Special groups: ETSI Smart Cities, ETSI ISG CIM group
ISO	https://www.iso.org/home.html	ISO is an independent, non-governmental international organization with a membership of 162 national standards bodies.
IEC	https://www.iec.ch/	The International Electrotechnical Commission (IEC) is the world's leading organization that prepares and publishes International Standards for all electrical, electronic and related technologies.
Security and privacy initiatives		
DigitalEurope	http://digitaleurope.org	DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe.
European Digital Rights (EDRi)	https://edri.org/	European Digital Rights (EDRi) is an association of civil and human rights organisations from across Europe. We defend rights and freedoms in the digital environment.
European Union Agency for Network and Information Security (ENISA)	https://www.enisa.euro pa.eu/	The European Union Agency for Network and Information Security (ENISA) is a centre of expertise for cyber security in Europe.
Internet Privacy Engineering Network (IPEN)	https://edps.europa.eu/data-protection/ipen-internet-privacy-engineering-network_en	The purpose of IPEN is to bring together developers and data protection experts with a technical background from different areas in order to launch and support projects that build privacy into everyday tools and develop new tools which can effectively protect and enhance our privacy.
European Cyber Security Organisation (ECSO)	https://ecs-org.eu/	ECSO represents the industry-led contractual counterpart to the European Commission for the implementation of the Cyber Security contractual Public-Private Partnership (cPPP).
European Data Protection Supervisor (EDPS)	https://edps.europa.eu/	The European Data Protection Supervisor (EDPS) is the European Union's (EU) independent data protection authority.



# 7 REFERENCES

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- [2] 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"

