Project Acronym:	**VICINITY**
Project Full Title:	**Open virtual neighbourhood network to connect intelligent buildings and smart objects**
Grant Agreement:	**688467**
Project Duration:	**48 months (01/01/2016 - 31/12/2019)**

Deliverable D9.11

Report on Dissemination Activities, Public Participation and Awareness, year 4

Work Package:	**WP9-Dissemination of Results & Exploitation**
Task(s):	**T9.3 VICINITY Dissemination Activities**
Lead Beneficiary:	**AAU**
Due Date:	**31/12/2019**
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4.	Aalborg University	AAU	Denmark
5.	GORENJE GOSPODINJSKI APARATI D.D.	GRN	Slovenia
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8.	Climate Associates Ltd	CAL	United Kingdom
9.	InterSoft A.S.	IS	Slovakia
10.	Universidad Politécnica de Madrid	UPM	Spain
11.	Gnomon Informatics S.A.	GNOMON	Greece
12.	Tiny Mesh AS	TINYM	Norway
13.	HAFENSTROM AS	HITS	Norway
14.	Enercoutim – Associação Empresarial de Energia Solar de Alcoutim	ENERC	Portugal
15.	Municipality of Pylaia-Hortiatis	MPH	Greece

[1] ***Deliverable Type:***
R: Document, report (excluding the periodic and final reports)
DEM: Demonstrator, pilot, prototype, plan designs
DEC: Websites, patents filing, press & media actions, videos, etc.
OTHER: Software, technical diagram, etc.

[2] ***Dissemination level:***
PU: Public, fully open, e.g. web
CO: Confidential, restricted under conditions set out in Model Grant Agreement
CI: Classified, information as referred to in Commission Decision 2001/844/EC.

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Executive Summary

The present document is deliverable "D9.11 – Report on Dissemination Activities, Public Participation and Awareness (year 4)" of the VICINITY project (Grant Agreement No.: 688467), funded by the European Commission's Directorate-General for Research and Innovation (DG RTD), under its Horizon 2020 Research and Innovation Programme (H2020).

The objective of the deliverable is to summarize the outcomes and results of the work on dissemination activities in 2019, which are conducted to guarantee the high visibility and accessibility of the project and its results. D9.11 is a conclusion of the past dissemination activities, public participation, scientific and technical publications, newsletters, project demonstrations, and project social media channels, meanwhile presenting the impact of these dissemination activities.

In order to achieve the highest possible impact of its activities, VICINITY focuses on maximizing the effectiveness and scope of its dissemination activities and public participation. These specific activities not only address the general public to raise awareness on the project and its achievements but also target key stakeholders having a relevant role in the field of activities undertaken by the project.

The VICINITY D9.11 has been structured in various sections presenting the 2019 dissemination activities results. It has been updated and adjusted as the project progresses.

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List of Definitions & Abbreviations

Abbreviation	Definition
EC	European Commission
EU	European Union
P2P	Peer to Peer
WP	Work Package
IoT	Internet of Things
DAR	Dissemination Activity Report
GDPR	General Data Protection Regulation
GAM	General Assembly Meeting
SecRIoT	1st International Workshop on Security and Reliability of IoT Systems

1. Introduction

The deliverable presents the achievements and feedbacks of VICINITY related dissemination activities, public participation, and awareness. It includes:

- Coordination the dissemination activities of project results to the international scientific and technical community as well as to the addressed VICINITY stakeholders;
- Promotion of the project during events (conferences, workshops, open calls, webinars, etc.);
- Paper submission to national and international conferences, workshops, journals;
- Preparation of pre-commercial and commercial Flyers and technical Newsletter to potential industrial and scientific users;
- Presenting the key outcomes and the progressions received during these activities;
- Improving the visibility of the VICINITY project outcomes.

1.1. Context within VICINITY

Fehler! Verweisquelle konnte nicht gefunden werden. gives an overview of the context of D9.11 within VICINITY. D9.11 summarizes the outcomes of dissemination activities, public participation, and awareness. Also, it reflects a reaction of VICINITY dissemination and communication plan for 2019.

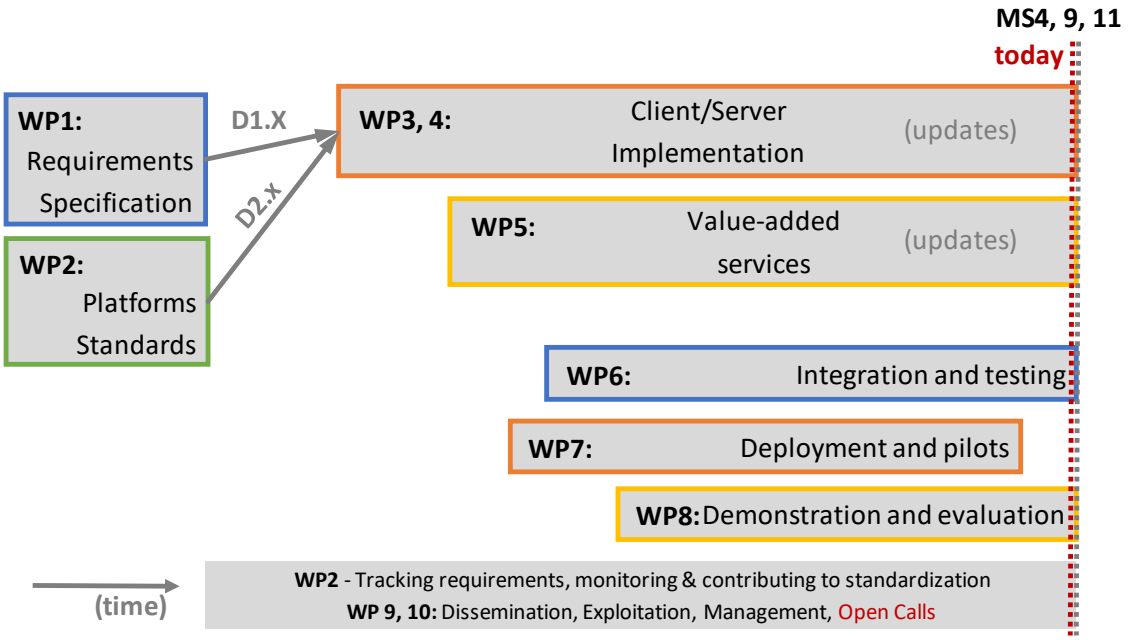


Figure 1. Work Package Architecture

Regarding the relation to other WPs and Tasks, the current document closely related to other Tasks, specifically:

- T9.1 VICINITY Dissemination, Communication and Data Management Plan
- T9.2 VICINITY Web Portal, Dissemination Channels & Promotional Material

- T9.4 Stakeholder Engagement
- T9.5 Exploitation Strategy and Business Plan Development
- T10.3 Open call for external contributions

1.2. Objectives in Work Package 9 and Task 9.3

Work-Package 9 (WP9) "Dissemination of Results & Exploitation" aims at increasing the impact of the project through the wide dissemination of project outcomes and the intense communication of its achievements and activities towards each of the project target groups.

The objectives of Task 9.3 are to coordinate the dissemination activities of project results to the international scientific and technical community as well as to the addressed VICINITY stakeholders. The objectives can be achieved through the promotion of the project during events (conferences, workshops, etc.), paper submission to national and international conferences, workshops, journals and project demonstrations, preparation of pre-commercial and commercial brochures and newsletter to potential industrial and scientific users.

1.3. Structure of the Deliverable

Chapter 1: Introduction to the deliverable, the context of the Tasks in VICINITY, and the objectives of WP9 and T9.3.

Chapter 2: Dissemination strategy and implementation.

Chapter 3: Public participation and publication for M37-M48.

Chapter 4: VICINITY web analytics.

Chapter 5: VICINITY social media analytics.

Chapter 6: VICINITY Second Open Call Dissemination Activities.

Chapter 7: Newsletter.

Chapter 8: Target Audience and Feedback Analytics.

Chapter 9: Conclusion.

Annex 1-12: News, Brochure, flyers, roll-up, posters and newsletters.

2. Dissemination Strategy and Implementation

VICINITY expands on previous dissemination strategies in order to even better communicate and engage stakeholders. The stakeholders may be IoT developers and integrators, and civil society at large. The aim of the dissemination is to inform about objectives, activities, and findings from the project.

VICINITY has developed a communication strategy that pursues the following objectives:

- Raise public awareness and ensure maximum visibility of the project key facts, objectives, activities and findings;
- Announce and promote VICINITY events, contributing to upgrade its attendance and engagement potential;
- Inform about open calls, objectives, and potential, increasing attention and number of proposals from stakeholders.
- Support the dissemination objectives.

2.1. Dissemination strategy

The proper definition of dissemination within the field of communication, means the process of broadcasting a message to the public without direct feedback from the audience. In the case of VICINITY, the target audience/stakeholder can be considered any person, university, agency, institution, or company that is interested in the project or is affected by the project outcomes.

VICINITYs Dissemination Strategy is based on activities to raise awareness and increase the visibility of the project. Furthermore, the strategy strives for successful dissemination for knowledge and understanding about the project outcomes to all stakeholders and the public. Finally, the aim is also to disseminate for action, to generate opportunities for stakeholders to act and get involved in the projects outcomes. Best practise from other projects has demonstrated that success comes from including everyone in practical activities, not just focus on awareness with no engagement.

These actions must be developed and conducted in times, places, regularly and modalities suitable to allow the broadest diffusion.

The objectives of the dissemination activities are to:

Plan	Identify targets, messages, tools, and channels. Build an adequate and effective communication and dissemination plan to ensure the best impact of project results.
Design	Produce dissemination tools: design a comprehensive set of communication material (including the project logo) to ensure an easy identification of the project and a major exposure.
Distribute and represent	Use the dissemination channels (both internal and external).
Activities	Organise project events and participate in workshops, conferences, and international/EC meetings.
Sustain	Ensure a persistent and long-lasting visibility of the project activities and outcomes.

Table 1. Objectives of dissemination activities cover the entire lifecycle of the project

Consequently, dissemination activities maximise VICINITYs impact on prompting dialogues, cooperation, and coordination with decision makers, developers, integrators, administrators, end users and establishing connections between European partners.

In order to create a proper understanding of topics to disseminate, the core values of VICINITY need to be reduced to a few sentences with relevant keywords. The general message is adjusted depending on the intended target group;

- One non-technical for simple communication and an overall understanding of the goals of the project.
- Another for a technical audience where a better grasp of the concept and opportunities the project provides is central.

What approach which is used depends on the arenas where the dissemination activities take place.

2.2. Dissemination implementation

VICINITY produced a wide area of outputs and results. The dissemination activities presented results from pilot sites, the state of technical integration, standardisation processes, value-added services, and opportunities related to open calls. Additionally, privacy legislations, activities related to IoT EPI and related projects alongside other ongoing efforts, had an integral part of explaining where VICINITY belonged in the landscape and how the project tied together and expanded on ecosystems.

The dissemination implementation mainly depended on which kinds of outputs VICINITY had and what expectations of impact that fuelled the actions that had been taken.

A number of dissemination channels and tools have been used for VICINITY dissemination implementation.

- Events: project events, project workshops, external events, conferences, EU parliament events, exhibitions.
- Publications: scientific publications, conference proceedings, event presentations, deliverables, press releases, newsletters, books.
- Online presence: VICINITY website, social media, videos, related websites.
- Dissemination material: posters, flyers, reference PPTs, invitation letters, brochures.

WP9 leader was responsible for dissemination resources collection, some of the dissemination channels and tools establishment and maintenance. Another important task was the coordination of dissemination activities of project results to the international scientific and technical community. These activities set out to improve awareness and visibility about the project objectives and outcomes with VICINITY stakeholders and public audience.

All partners contributed to dissemination activities in order to reach out to the target audience. Dissemination activity information was collected and distributed periodical through emails, tables, dissemination activity reports, bi-weekly meetings, feedbacks from project consortiums, VICINITY Web portal and Nextcloud information sharing.

3. Public Participation and Publication for M37-M48

3.1. Public participation

During M37 to M48, VICINITY partners have used their public participations in various channels to guarantee high visibility, to expand the accessibility to the VICINITY project and its results, as well as to facilitate knowledge sharing, personal interaction, and community building with targeted audiences.

Some types of channels targeted by the project were:

- External events
- Conferences
- Workshops
- Invited talks
- Webinars
- Exhibition
- Hackathon
- Press release
- TV interview
- Pitch event
- Trade faire
- Social media
- Springer book

Public participation is reported by a Dissemination Activity Report (D.A.R.) which consists on the following sections.

- Event Details
- Scope of the Event
- Description of the participation
- Other questions received
- Audience Reached
- Feedback
- Photos
- Event Program
- Useful Links

Please refer to **Additional Annex 1** to **Additional Annex 33** (in the separate documentation) – Dissemination Activity Reports (DARs) for more details about the public participations presented above.

A list of public participations where the project has already been presented during M37 to M48 together with its corresponding contribution to VICINITY is shown below:

	Type of Event	Participants	Contribution	Type of Audience	Place and date
1	Workshop/ Social media	ATOS	"Event EIT Master" ATOS organized a workshop to present several interesting initiatives and projects. The VICINITY catalogue, the GITHUB and the Second open call outline was presented.	Scientific Community	10 January 2019, Madrid, Spain
2	Webinars	ATOS, UNIKL, CERTH, BVR, TINYM, ENERC, HITS	"Webinar Second Open Call" The event was devoted to potential Open Call Participants, the main objective is to inform them about the Open call and to facilitate the participation in the VICINITY Open call	Scientific Community, Industry, Other	31 January 2019, Online (Circuit)
3	Workshop	CAL	"VRUs & Connected ITS" VICINITY was presented to propose an approach to allow opportunistic connection of devices that the Vulnerable Road user might have, without being prescriptive.	Scientific Community, Policy makers	6 March 2019, Sophia Antipolis, France
4	Hackathon/ Workshop	BVR	"IoTEA Hackathon" IoTEA Prague Hackathon in Prague was the first Industry 4.0 hackathon in Czech Republic to open new innovative ideas for Automotive, Energy Utility. Viktor Oravec pitched VICINITY Platform as one of the challenges for the Hackathon – Make your powerplant efficient.	Industry, Investors, Customers, General Public	8-9 March 2019, Prague, Czech Republic
5	Workshop	ENERC	"3rd Vicinity Workshop – The Roadmap to Installation" ENERCOUTIM presented to the stakeholder the evolution of the Vicinity Platform and the features available in the VICINITY VASs deployed at Martim Longo and explained how they could be used to monitor and analyse IEQ (Indoor Environment Quality) conditions.	Scientific Community, Civil Society	28 March 2019, Martim Longo, Portugal
6	Workshop	ENERC	"Vicinity Smart School Workshop – The Roadmap to Installation" ENERCOUTIM Smart School and the VICINITY platform were demonstrated at SolarLab as a technology solution to retrieve and analyse the parameters measured by the sensors and explained how that information could be used.	Other (students)	28 March 2019, Martim Longo, Portugal
7	Press release/ External	MPH	"5th Panorama Charity Fun Run" The participants of the second use case of the European pilot project "VICINITY- Open virtual	Scientific Community, Medias, Industry,	31 March 2019,

	events/ social media		neighbourhood network to connect IoT infrastructures and smart objects", met with the rest of the 3.000 participants of the charity action at the endpoint. The entrants were found by MPH, CERTH and GNOMON at the starting point of two kilometres with lots of eagerness and received the stickers with the "VICINITY- URBAN MARATHON" logo.	Investors, Civil Society, Customers, General Public, Policy makers	Thessaloniki, Greece
8	Workshop	BVR	"IoT Meet-up in Bratislava" VICINITY Platform was introduced to the leaders of IoT community in Slovakia from conceptual to technical layers and from the integration point for view.	Industry, Policy makers	9. April 2019, Bratislava, Slovakia
9	Workshop/ Conference	UNIKL	"2018 Workshop on Modelling and Simulation of Cyber-Physical Energy Systems" Several companies and the academic community were informed about the VICINITY project. And a scientific paper was published and presented at the Workshop.	Scientific Community, Medias, Industry	15 April 2019, Montreal, Canada
10	Event (Course)	AAU	"PhD/Industrial course on AC Microgrids 2019" A lecture which focuses on IoT and VICINITY project is presented. The objective is to give the attendees an introduction about the IoT enabled technologies in energy domain and give the students the hands-on examples based on the VICINITY platform.	Scientific Community, Industry	24 April 2019, Aalborg, Denmark
11	Workshop	BVR	"Smart region Workshop" BVR pitched how VICINITY addresses the smart region issues for CTO of the Usti Region to discuss the expectations and opportunities to build IoT backbone for the Usti Region in Czech Republic.	Other	2 May 2019, Olomouc, Czech Republic
12	Communicati-on campaign/ Press release/ Social media/ Web-site	HITS	"TV presentation about the VICINITY project" The VICINITY project was presented by showing how the Smart Parking solution is functioning and a business concept AirBnB for Parking. The 90 second clip from Regional News were forwarded to National TV for innovative research news.	Medias, Industry, Investors, Civil Society, Customers General Public, Policy makers , Other	6 May 2019, Tromsø, Norway

13	Workshop/ Conference	OTE	"DCOSS - 1st International Workshop on Security and Reliability of IoT Systems (SecRIoT 2019)" In the context of 15th International Conference on Distributed Computing in Sensor Systems (DCOSS 2019) VICINITY Project and Hellenic Telecommunications Organisation co-organized SecRIoT (1st International Workshop on Security and Reliability of IoT Systems) Workshop.	Scientific Community, Medias, Industry	29-31 May 2019, Santorini, Greece
14	Conference/ workshop	OTE, AAU, UPM, UNIKL, CERTH	"DCOSS - 1st International Workshop on Security and Reliability of IoT Systems (SecRIoT 2019)" VICINITY project participated in the SecRIoT Workshop by presenting its accomplishments with 5 presentations from corresponding partners in two sessions respectively.	Scientific Community, Medias, Industry	30 May 2019, Santorini, Greece
15	Conference	UPM	"European Semantic Web Conference (ESWC 2019)" UPM participated in the ESWC conference where one paper and a demo were presented.	Scientific Community, Industry	2-6 June 2019, Portoroz, Eslovenia
16	Workshop/ Conference	UPM	"2nd W3C workshop on the Web of Things (2019)" UPM participated in W3C workshop on the Web of Things where a paper was presented.	Scientific Community, Medias, Industry	3-5 June 2019, Munich, Germamy
17	Conference/ External events	UPM, BVR. UNIKL	"VICINITY, an IoT Platform for the Ultimate Privacy. (IoT Week 2019)" This session gives an overview of the VICINITY IoT platform that is open, free, and that specifically addresses SME and users with privacy concerns. The session gives a broad overview of the VICINITY platform.	Scientific Community, Medias, Industry	17 June 2019, Aarhus, Denmark
18	Hackathon/ External events	UPM, BVR, CERTH, UNIKL	"Hackathon Community Building - co-located at IoT week, 2019" VICINITY participated in the hackathon by mentoring attendees during the event. The main goal of the mentors was to provide technical support, lecture and teach how to use VICINITY components, and assist the attendees in the development of their ideas.	Scientific Community, Medias, Industry, Civil Society, Other	18-19 June 2019, Aarhus, Denmark
19	Workshop	AAU and VICINITY consortium	"VICINITY Co-Creation Workshop" A workshop took place with students and researchers from disparate domains. The aim of the workshop was to present the results of project VICINITY to the participants and to	Scientific Community	24 June 2019 in Aalborg, Denmark.

			stimulate the dialogue on how the project results can be used and co-developed benefiting the attendees' innovation, digital and economic ecosystems.		
20	Conference	UPM	"31st International Conference on Software Engineering & Knowledge Engineering" The testing and conformance approach followed by the VICINITY ontologies is presented in the main conference.	Scientific Community, Industry	10-12 July 2019, Lisbon, Portugal
21	Webinar/ Workshop/ social media/ / with other H2020 projects	ATOS, CERTH, BVR, ENERC	"Webinar VICINITY IoT Next Club" The main goal of this event is to provide a VICINITY overview to the IoT Next Club Partners.	Scientific Community, Industry, Policy makers, Other	26 July 2019, Madrid, Spain
22	Conference / External events	HITS	"Arendalsuka 2019" Both UC1 called "P2P PARK" and the underlaying platform named "P2P Connectivity Platform integrated with VICINITY2020" was presented for relevant parties within the building sector.	Scientific Community, Medias, Industry, Policy makers	12-19 August 2019, Arendal, Norway
23	Conference	TINYM	"Arendalsuka 2019" VICINITY was mentioned as an enabler and was presented as one of several possibilities to standardise within Building Management.	Scientific Community, Medias, Industry, Policy makers	12-19 August 2019, Arendal, Norway
24	Forum /Conference/ Tutorial	UNIKL, UPM	"Forum on Specification & Design Language" The methodology and the ontologies developed in VICINITY were shown as examples in this practical activity. The role of the VICINITY ontologies within the project was also explained during the tutorial.	Scientific Community, Industry	2-4 September 2019, Southampton, United Kingdom
25	Pitch event	TINYM	"Pitch Cwi – Oslo Pilot Site" Tinymesh gave an overview of how the establishment was used as a Pilot Site and a description of how VICINITY was used at the premises.	Medias, Industry, Customers	9 September 2019, Oslo, Norway
26	Hackathon/ Pitch event	VizLore Labs Foundation	"Wyoming Blockchain Stampede" BARTER project which is under the umbrella of the VICINITY project was advertised as a ChainRider platform use-case, together with the VICINITY platform.	Scientific Community, Industry	19-22 Sep 2019, Laramie, USA

27	Conference / External events	HITS	"Nordic Edge Expo 2019" Both UC1 called "P2P PARK" and the underlaying platform named "P2P Connectivity Platform integrated with VICINITY2020" was presented for relevant parties within the building sector with focus on BIM (Building Information Models) and how VICINITY2020 could contribute with offering interoperability to sensors represented in digital twins.	Scientific Community	24-26 September 2019, Stavanger, Norway
28	Conference	AAU	"Conference on Electric power and power electronics: the electricity system of the future" A keynote which focuses on IoT and VICINITY project is presented. The objective is to give the attendees an introduction about the IoT enabled technologies in energy domain and to provide the hands-on examples based on the VICINITY platform.	Scientific Community, Industry	03 October 2019, Växjö, Sweden
29	Workshop/ Hackathon/ Social media/ with other H2020 projects	ATOS, UPM, ENERC	"Workshop Digital Innovation Hub" The VICINITY overview is provided to the Digital Innovation Hub members. VICINITY participated actively in the event in two slots: the VICINITY workshop, the Hackathon.	Scientific Community, Industry, Policy makers, Other	17 October 2019, Salamanca, Spain
30	Workshop	ATOS, UNIKL, UPM	"ETSI IoT Workshop & Showcases" The VICINITY was presented in Session 6: Semantic for Smart Applications, Session 7: IoT interworking & semantic Interoperability, Penal Discussion: The Standard Approach to Interworking & Semantic Interoperability, and Session 12: Part 1 Security & Privacy.	Scientific Community, Industry, Other	22-25 October 2019, Sophia Antipolis, France
31	Conference / workshop (Special Session)	CERTH	"BIBE 2019 - Intelligent Digital Health Interventions towards Prevention, Self-Management and Treatment of Pathologies (DIGHI 2019)" CERTH presented a paper that was based on the Pilea-Hortiatis GR, VICINITY Pilot Site, concerning Abnormal Behaviour Detection services offered within VICINITY IoT Platform.	Scientific Community, Medias	30 October 2019, Athens, Greece
32	Conference/ Trade fair	TINYM	"European Utility Week" Tinymesh was participating to dissiminate and find new partners for collaborating or selling solutions using VICINITY and Tinymesh platform.	Industry, Customers, Other	12-14 November 2019, Paris, France

33	Conference/ External event	HITS	"ISO/IEC JTC 1/SC41 Internet-of-Things and related technologies" VICINITY was visible in the SC41 meeting and this is reported to AIOTI which is heavily supported by EC. VICINITY Smart Parking use case was first time registered to ISO/IEC SC29 in April 2016.	Scientific Community	21 November 2019, St Petersburg, Russia
34	Workshop	ENERC and VICINITY consortium	"Faro Workshop" A workshop took place with regional stakeholders The workshop was held at CCDR-Algarve, the regional authority for development. The aim of the workshop was to present the results of project VICINITY to the stakeholders and to astimulate the dialogue on how the project results can be used and co-developed benefiting the regional innovation, digital and economic ecosystems.		29 November 2019, Faro, Algarve, Portugal
35	Hackathon/ workshop/ pitch event	UNIKL	"VICINITY Hackathon - Niko Hack 2019" UNIKL has organized a hackathon to showcase and demonstrate the use of VICINITY to interested students and SMEs. The event started off with an introduction and hands-on tutorial workshop, followed by around 20h of straight hacking and utilizing VICINITY to its full potential.	Scientific Community, Industry, Medias	6-7 December 2019, Kaiserslautern, Germany

Table 2. List of public participations where VICINITY project was presented.

3.2. Publications derived from VICINITY

During M37 to M48, thirteen scientific and technical papers were published on high-ranking international conferences or journals. The fourteenth paper is going to be submitted to an international journal.

The types of papers, contributors, paper titles and publication dates are listed as follows:

	Type of paper	Authors	Title	date
1	International conference/ workshop	UNIKL	Co-Simulating the Internet of Things in a Smart Grid use case scenario	15 April 2019
2	International conference	OTE, CERTH, GNO	Security Challenges in the eHealth Domain: The VICINITY Approach	30 May 2019
3	International conference	UPM, IS, CERTH, BVR, UNIKL	VICINITY: IoT Semantic Interoperability based on the Web of Things	30 May 2019

4	International conference	AAU	VICINITY Platform-based Load Scheduling Method by Considering Smart Parking and Smart Appliance	30 May 2019
5	International conference	UNIKL	Simulation based validation of a Smart Energy Use-Case with Homomorphic Encryption	30 May 2019
6	International conference	CERTH, GNO, BVR	Secure IoT e-Health Applications using VICINITY Framework and GDPR guidelines	30 May 2019
7	International conference	UPM	CORAL: A Corpus of Ontological Requirements Annotated with Lexico-Syntactic Patterns	2-6 June 2019
8	International conference	UPM	How to Validate Ontologies with Themis	2-6 June 2019
9	International conference/ workshp	UPM	Towards Semantic Interoperability in WoT Ecosystems	3-5 June 2019
10	International conference	UPM	Themis: a tool for validating ontologies through requirements	10-12 July 2019
11	White paper	UPM	Semantic IoT Solutions - A Developer Perspective	22 October
12	White paper	UPM	Towards Semantic Interoperability Standards based on Ontologies	22 October
13	Journal paper	UNIKL	Simulation-Based Performance Validation of Homomorphic Encryption Algorithms in the Internet of Things	22 October
14	International conference	CERTH	Abnormal Behaviour Detection for elderly people living alone leveraging IoT sensors	30 October
15	Journal paper (in progress)	IS	Semantic Discovery Validation in IoT	Soon

Table 3. List of scientific and technical papers derived from VICINITY

The detailed publication titles, authors, and main contributions are presented below.

1. **Co-Simulating the Internet of Things in a Smart Grid use case scenario**
   Johannes Kölsch (UNIKL), Axel Ratzke (UNIKL), Christoph Grimm (UNIKL)
   2019 Workshop on Modeling and Simulation of Cyber-Physical Energy Systems, 15-18 April 2019, Montreal, Canada
   - This paper presents a virtual environment for simulation and validation of IoT networks in real life scenarios. The virtual environment is used to generate simulation models for realistic situations with inputs from IoT use cases and their requirements. The interaction between discrete

computing parts and continuous-time dynamic parts is demonstrated in a smart grid use case. However, the cross-domain interoperability between grid components and communication infrastructures is incorporated into the use case as well. The platform is developed within the VICINITY project funded by the EU Horizon 2020 program.

2. **Security Challenges in the eHealth Domain: The VICINITY Approach**
Maria Belesioti (OTE), Evangelos Sfakianakis (OTE), Ioannis Chochliouros (OTE), Viktor Oravec (BVR), Athanasios Tryferidis (CERTH), Dimitrios Tzovaras (CERTH), Maria Koutli (CERTH), Kostis Kaggelides (GNO)
15th International Conference on Distributed Computing in Sensor Systems (DCOSS), 29 May 2019, Santorini Island, Greece
   - The eHealth constitutes the largest wave of change in the sector of healthcare. In this context, Internet of Things is of immense importance since connected data would facilitate treatment with more efficiency and comprehensive knowledge and would "act" as preventive medicine. Monitoring health data and making them ubiquitously accessible to predefined and authorized healthcare personnel are shared through various IoT platforms, which usually lack IoT-protocol-interoperability. In this paper, we present the impact of IoT systems in the eHealth services' evolution and we introduce the VICINITY ecosystem solution. Its high-level architecture is analyzed and several security considerations are offering "thought for food".

3. **VICINITY: IoT Semantic Interoperability based on the Web of Things**
Andrea Cimmino Arriaga (UPM), Fernando Serena (UPM), María Poveda-Villalón (UPM), Raúl García-Castro (UPM), Peter Kostelnik (IS); Athanasios Tryferidis (CERTH), Dimitrios Tzovaras (CERTH), Viktor Oravec (BVR), Stefan Vanya (BVR), Christoph Grimm (UNIKL)
15th International Conference on Distributed Computing in Sensor Systems (DCOSS), 29 May 2019, Santorini Island, Greece
   - Internet of Things ecosystems have been developed under different standards and semantics leading to sparse islands of information. The lack of consensus regarding both standards and semantics hinders the interoperability among Internet of Things ecosystems, preventing the exploitation of the huge potential expected by integrating such ecosystems. In this paper we present the H2020 project VICINITY, a decentralized bottom-up standards-based platform to integrate Internet of Things ecosystems avoiding the tedious task of adapting their semantics. VICINITY offers transparent interoperability among such environments as a service in the cloud. In addition, dynamic discovery of new ecosystems is included in VICINITY. We aim at implementing VICINITY in several real-world pilot scenarios in order to validate our approach.

4. **VICINITY Platform-based Load Scheduling Method by Considering Smart Parking and Smart Appliance**
Yajuan Guan (AAU), Wei Feng (AAU), Emilio J. Palacios-Garcia (AAU), Juan C. Vásquez (AAU), Josep M. Guerrero (AAU)
15th International Conference on Distributed Computing in Sensor Systems (DCOSS), 29 May 2019, Santorini Island, Greece
   - A VICINITY platform-based load scheduling method by considering the smart parking and household smart appliances for renewable energy resources integrated residential microgrids is proposed in this paper. The proposed method can shift the local loads and publish the vacant number of parking slot with a real-time electric vehicle charging price to VICINITY platform according to the renewable energy generation and the usage of the parking spaces to reduce energy cost and increase resident's revenue. The experimental platform-based real-life cross domain lab testing verifies the effectiveness of the proposed control approach.

5. **Simulation based validation of a Smart Energy Use Case with Homomorphic Encryption**
   Johannes Kölsch (UNIKL), Axel Ratzke (UNIKL), Christopher Heinz (UNIKL), Christoph Grimm (UNIKL), Gomathi Nandagopal
   15th International Conference on Distributed Computing in Sensor Systems (DCOSS), 29 May 2019, Santorini Island, Greece
   - IoT systems consist of HW/SW systems (e.g. sensors) that are embedded in a physical world, networked and that interact with complex software platforms. The validation of such systems is a challenge and currently mostly done by prototypes. This paper gives an overview of an approach for the simulation- and emulation-based validation for large and complex IoT systems. The validation is supported by a simulation framework that also permits interaction with online-software, e.g. an IoT platform (emulation). The framework is demonstrated by a comprehensive case study. The example consists of the complete IoT "Smart Energy" use case with focus on data privacy by homomorphic encryption.

6. **Secure IoT e-Health Applications using VICINITY Framework and GDPR guidelines**
   Maria Koutli (CERTH), Natalia Theologou (CERTH), Athanasios Tryferidis (CERTH), Dimitrios Tzovaras (CERTH), Aimilia Kagkini (GNO), Dimitrios Zandes (GNO), Konstantinos Karkaletsis (GNO), Konstantinos Kaggelides (GNO), Jorge Almela Miralles (BVR), Viktor Oravec (BVR), Stefan Vanya (BVR)
   15th International Conference on Distributed Computing in Sensor Systems (DCOSS), 29 May 2019, Santorini Island, Greece
   - In this work we analyze the security requirements and challenges of e-Health Internet of Things (IoT) applications and propose a complete architecture to address them. This architecture combines VICINITY IoT Framework security features together with General Data Protection Regulation (GDPR) compliant mechanisms in order to provide secure e-Health services to elders and middle-aged people. We also demonstrate how an Ambient Assisted Living (AAL) and an mHealth application were designed and implemented, addressing the current security and privacy requirements.

7. **CORAL: A Corpus of Ontological Requirements Annotated with Lexico-Syntactic Patterns**
   Alba Fernández-Izquierdo (UPM), María Poveda-Villalón (UPM), Raúl García-Castro (UPM)
   European Semantic Web Conference (ESWC 2019)
   - Ontological requirements play a key role in ontology development as they determine the knowledge that needs to be modelled. In addition, the analysis of such requirements can be used (a) to improve ontology testing by easing the automation of requirements into tests; (b) to improve the requirements specification activity; or (c) to ease ontology reuse by facilitating the identification of patterns. However, there is a lack of openly available ontological requirements published together with their associated ontologies, which hinders such analysis. Therefore, in this work we present CORAL (Corpus of Ontological Requirements Annotated with Lexico-syntactic patterns), an openly available corpus of 834 ontological requirements annotated and 29 lexico-syntactic patterns, from which 12 are proposed in this work. CORAL is openly available in three different open formats, namely, HTML, CSV and RDF under "Creative Commons Attribution 4.0 International" license.

8. **How to Validate Ontologies with Themis**
   Alba Fernández-Izquierdo (UPM), Raúl García-Castro (UPM)
   European Semantic Web Conference (ESWC 2019)

- Validating ontologies regarding the requirements they need to satisfy is a crucial activity during ontology development in order to assure, both to domain experts and ontology developers, that the ontologies are complete regarding their needs. The aim of this work is to present Themis, a web-based tool for validating ontologies by means of test expressions, which represent the desired behaviour expected in an ontology if a requirement is satisfied. The purpose of these test expressions is to ease the formalization of the requirements into test cases and, therefore, the validation process.

9. Towards Semantic Interoperability in WoT Ecosystems

Andrea Cimmino (UPM), María Poveda-Villalón (UPM), Raúl García-Castro (UPM)

Second W3C Workshop on the Web of Things

- In this paper an approach is presented to bring interoperability to IoT infrastructures available on the Web. The former addresses how to describe the contextual data of such infrastructures, and the latter how to fetch their data, translate it into RDF on the fly and, finally, merge both contextual and captured data providing an unified view. This interoperability approach is implemented in the VICINITY H2020 project.

10. Themis: a tool for validating ontologies through requirements

Alba Fernández-Izquierdo (UPM), Raúl García-Castro (UPM)

The 31st International Conference on Software Engineering and Knowledge Engineering

- This work is focused on the validation through requirements, with the aim of assuring, both the domain experts and ontology developers, that the ontologies they are building or using are complete regarding their needs. Inspired by software engineering testing processes, this work proposes a web-based tool called Themis, independent of any ontology development environment, for validating ontologies by means of the application of test expressions which, following lexicosyntactic patterns, represent the desired behaviour that will present an ontology if a requirement is satisfied.

11. Semantic IoT Solutions - A Developer Perspective

Martin Bauer, Hamza Baqa, Sonia Bilbao, Aitor Corchero, Laura Daniele, Iker Esnaola-Gonzalez, Izaskun Fernandez, Östen Frånberg, Raúl Garcia-Castro (UPM), etc.

Semantic Interoperability White Paper

- This paper is co-authored by an informal group of experts from a broad range of backgrounds, all of whom are active in standards groups, consortia, alliances and/or research projects in the Internet of Things (IoT) space. The idea is to show how IoT systems can be built using semantic technologies, enabling semantic interoperability and thus allowing applications to reuse information originally provided for a specific application or IoT domain.

12. Towards Semantic Interoperability Standards based on Ontologies

Martin Bauer, Hamza Baqa, Sonia Bilbao, Aitor Corchero, Laura Daniele, Iker Esnaola-Gonzalez, Izaskun Fernandez, Östen Frånberg, Raúl Garcia-Castro (UPM), etc.

Semantic Interoperability White Paper

- This paper is co-authored by an informal group of experts from a broad range of backgrounds, all of whom are active in standards groups, consortia, alliances and/or research projects in the Internet of Things (IoT) space. This paper has two objectives: 1) explain the need for semantic interoperability, 2) provide recommendations for semantic interoperability standards using ontologies

13. **Simulation-Based Performance Validation of Homomorphic Encryption Algorithms in the Internet of Things**
    Johannes Kölsch, Christopher Heinz, Axel Ratzke, and Christoph Grimm
    Future Internet, Vol (11), Issue (10), 10.3390/fi11100218
    IoT systems consist of Hardware/Software systems (e.g., sensors) that are embedded in a physical world, networked and that interact with complex software platforms. The validation of such systems is a challenge and currently mostly done by prototypes. This paper presents the virtual environment for simulation, emulation and validation of an IoT platform and its semantic model in real life scenarios. It is based on a decentralized, bottom up approach that offers interoperability of IoT devices and the value-added services they want to use across different domains. The framework is demonstrated by a comprehensive case study. The example consists of the complete IoT "Smart Energy" use case with focus on data privacy by homomorphic encryption. The performance of the network is compared while using partially homomorphic encryption, fully homomorphic encryption and no encryption at all. As a major result, we found that our framework is capable of simulating big IoT networks and the overhead introduced by homomorphic encryption is feasible for VICINITY.

14. **Abnormal Behaviour Detection for elderly people living alone leveraging IoT sensors**
    Maria Koutli, Natalia Theologou, Athanasios Tryferidis, Dimitrios Tzovaras
    2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)
    E-health home-based solutions reduce healthcare costs and allow aging population to continue their daily life independently. Our objective is to combine simple IoT sensors and machine learning techniques, in order to provide a home-based solution that is able to detect behavioral changes of elderly people who live alone. For this purpose, we introduce a non-intrusive, spatio-temporal abnormal behavior detection approach. In this approach, motion and door sensor signals are elaborated to produce contextual metrics, which are filtered from any deviant observations, after performing a silhouette analysis on five outlier detection algorithms. Next, the combination of a classification and a regression-based approach is proposed for detecting abnormalities in the metrics, both in the contexts of space and time. IoT sensor data from ten elderly people houses have been collected and seven different machine learning algorithms have been analyzed in order to evaluate the performance of the individual as well as the combined approach.

15. **Semantic Discovery Validation in IoT – In progress**
    Peter Bednár, Peter Kostelník, Marek Paralič, Marián Mach, Tomáš Sabol
    Pervasive and Mobile Computing (www.sciencedirect.com/journal/pervasive-and-mobile-computing)

The full papers can be openly accessed from the Results subsection of VICINITY Project homepage (https://www.vicinity2020.eu/vicinity/content/publications).

3.3. Springer Book

Consortium has been working on a Springer book which entitled "**The Internet of Things: Platforms, Use Cases, Privacy, Business models - with comprehensive code examples based on the VICINITY platform**".

The IoT extends the internet from a network of computers to a network of all kind of devices. The IoT allows us to collect data and to create new services. This requires the in-depth knowledge of software platforms, services, standards, but as well privacy, security, legal issues and business models.

This book gives a comprehensive and in-depth introduction into the development of IoT applications. For each topic, a theoretical introduction and overview is backed by very concrete programming examples that

enable the reader to not only understand the topic, but as well to develop code using the open-source IoT platform VICINITY.

- The book gives an advanced and in-depth introduction into all major issues related to IoT.
- It covers the hottest and most recent topics such as block-chain, homomorphic encryption, privacy/GDPR.
- The book does not stop with theory, but offers as well an introduction to coding IoT applications.

The table of content of the book is list below.

- Chapter 1. An Introduction to the Internet of Things
- Chapter 2. IoT Platforms
- Chapter 3. Business models and use cases for the IoT
- Chapter 4. Methods and tools for Validation and Testing
- Chapter 5. Ontologies and Semantic Interoperability
- Chapter 6. Standards for the IoT
- Chapter 7. Security and Trust
- Chapter 8. Privacy, GDPR and Homomorphic Encryption
- Chapter 9. Mastering the IoT with the VICINITY platform

3.4. TV Report and Press Release

VICINITY project brought public attention, having the chance to present its Tromsø pilot site, Pilea-Hortiatis pilot site, and results it brings to the greater public through the TV report and local newspaper. The detailed news can be found in Annex 1.

Tips to Regional TV in North Norway resulted in TV-recording on Sunday 5th May 2019 and additional interviews and photos on Monday 6th May. The 90 second clip from Regional News were forwarded to National TV in order to submit into their innovative research news. The web-version of the news was followed up by an interview with Healthcare & Welfare director in Tromsø municipality on Newsfeed.

Figure 2. TV report about Tromsø use case.

VICINITY joining the 5th Panorama City Run was disseminated on local sites and newspapers describing the

second use case "Urban Marathon" of the Greek Pilot Site. More specifically VICINITY was disseminated in the following sites:

- Voria.gr
- Thestival.gr
- NewX
- TyposThes
- OTAVOICE

The news clips can be found in Annex 2.

Figure 3. VICINITY joining the 5th Panorama City Run was disseminated on local sites and newspapers.

VICINITY project as the co-organiser is also marked the homepage of the 1st International Workshop on Security and Reliability of IoT Systems. The details are shown in Annex 3.

3.5. VICINITY dissemination material

Besides the aforementioned dissemination activities and channels, a special effort has been made on the design of VICINITY illustrations and graphical elements. Furthermore, VICINITY project results have been also disseminated among the research community, policy-makers, private sector, IoT and service-providers, related projects and initiatives, and a wider audience by the following tools.

One roll-up, one brochure, three flyers, one invitation letter, and five posters have been designed to present a short overview of the VICINITY concepts, architecture, user cases, and detailed information. Please refer to Annex 4 to Annex 7 for more details respectively.

4. VICINITY Web Analytics

Consortium has established a wide variety of communication channels (official web portal, social media, etc.) in order to disseminate project's main objectives, achievements, and events as well as to coordinate and facilitate the cooperation of the consortium. VICINITY website has been developed to be a major external dissemination tool and an asset for project partners. It is periodically updated in order to spread the project's concept, objectives, outcomes, and latest dissemination activities to the public.

In order to monitor the activity and the audience reached by the project website, the Google Analytics free service is used, supporting the statistical analysis and facilitating the extraction of useful conclusions regarding trends and variations for its use by online visitors. Google Analytics is a very popular web analytics solution that gives rich insights into one's website traffic and marketing effectiveness. It allows for Advanced Segmentation, Custom Reports, Advanced Analysis Tools, Analytics Intelligence, Custom Variables, and Data exports. Google Analytics can also track visitors from all referrers, including search engines, display advertising, pay-per-click networks, e-mail marketing and digital collateral such as links within PDF documents.

The following list summarizes the main parameters and indicators that will be used for monitoring of the VICINITY website throughout the course of the project.

a) Number of visits / users
b) Number of unique and return visitors
c) Average Session and Visit durations
d) Domains/ countries of visitors

As such, Google Analytics will help the consortium determine the effectiveness of its web tools and targeted dissemination activities and feed into impact reporting.

The website managed to attract many people on a constant basis, with new sessions being logged every day. In particular, the following graphics show an overview of the user activity. Figure 4 represents a monthly performance report that clearly shows constant user activity between January and December 2019. As shown in the diagram sessions are high in the period from February to March 2019 due to the end of the second Open Call. Low session activity is detected until August 2019 and again a steady increase from September 2019 to November 2019 due to the active VICINITY participation in events and promoting of GitHub page.

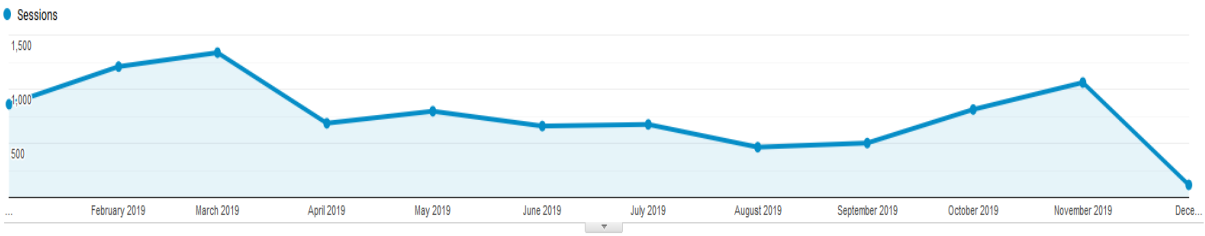


Figure 4. Monthly Performance Report

Figure 5 gives detailed overview statistics on the VICINITY website usage for M37-M48 of the project.

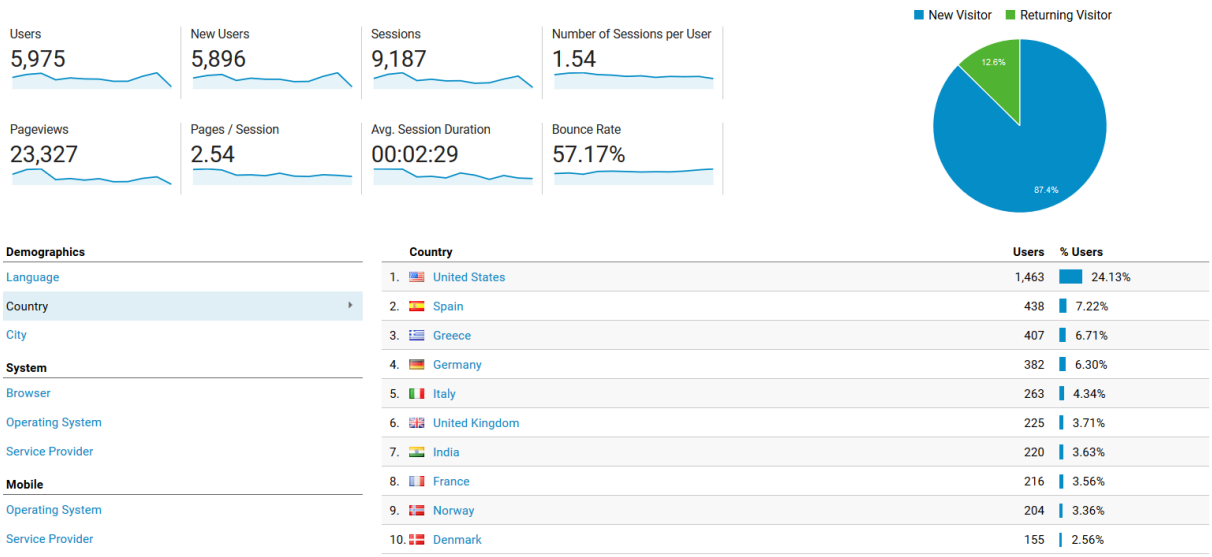


Figure 5. Audience Overview Statistics

So far, the total number of VICINITY website audience has reached more than 5900 users in more than 9000 sessions with an average duration of 02:29 min, while almost 12.6% of the visitors return. The total number of VICINITY website audiences is over the original target (5000 visitors) before the end of the project. These figures and other indicators are displayed in Figure 6 “General overview of the users’ activity” and Figure 7 “New Visitors – Returning Visitors”.

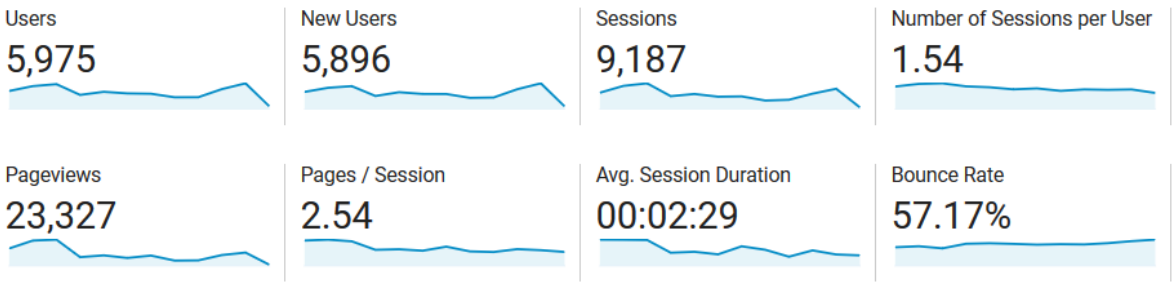


Figure 6. General Overview of the users’ activity

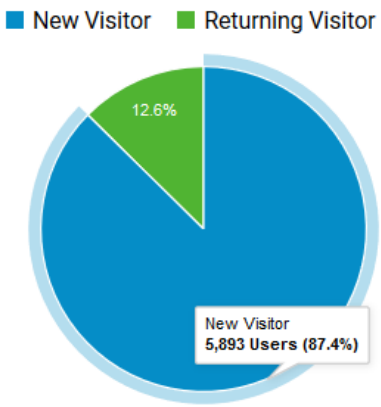
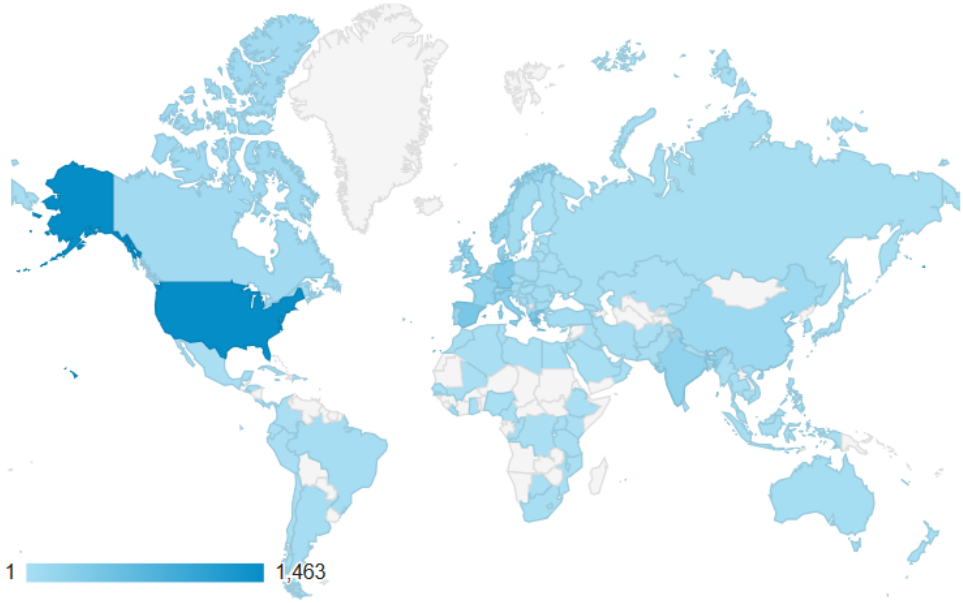


Figure 7. New visitors – Returning Visitors

The following figure reveals that the increased visits in the VICINITY website mostly consist of new users from all over the world. The most visits have been tracked from the United States, mainly from Illinois and Virginia states. It is probably because some industrial and academic institutions in these two states have strong backgrounds in computer science and Electrical and Electronics fields, therefore having similar research interests with VICINITY. The second visiting country is Spain, due to the fact that the main responsible for the open call partner is from Spain. It is notable that there are many visits from outside Europe, in particular from the United States and India.



Country	Users	Users	Contribution to total: Users
	5,975 % of Total: 100.00% (5,975)	5,975 % of Total: 100.00% (5,975)	
1. United States	1,463	24.13%	
2. Spain	438	7.22%	
3. Greece	407	6.71%	
4. Germany	382	6.30%	
5. Italy	263	4.34%	
6. United Kingdom	225	3.71%	
7. India	220	3.63%	
8. France	216	3.56%	
9. Norway	204	3.36%	
10. Denmark	155	2.56%	

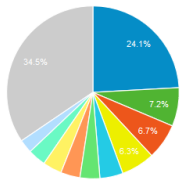


Figure 8. Visitors per country

In Figure 9 the difference between the sessions in M37-M48 in comparison to M36-25 is presented. Sessions were high in the third year in M27-30 comparing to the fourth year due to the first Open Call. It is notable that there is high interest in the VICINITY project during M47 due to high dissemination activities. Figure 10 presents that there is an overall increase in the users in these two years of the project.

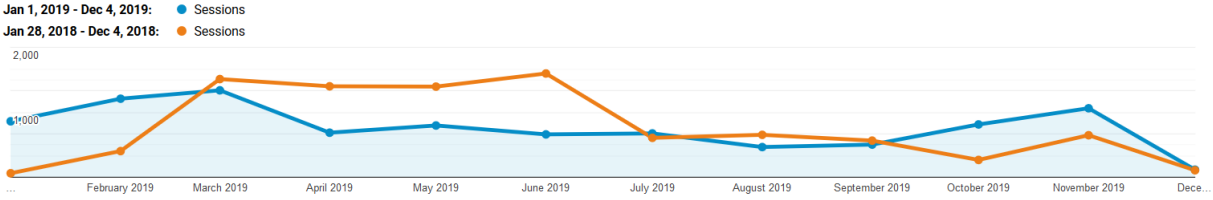


Figure 9. Comparative sessions for the third and fourth year

Figure 10. Comparative general overview for the third and fourth year

5. VICINITY Social Media Analytics

5.1. Twitter

In order to help the consortium to reach a wider spread with their dissemination activities, VICINITY social media channel - Twitter, applies continuous updates and engages a wide number of visitors.

Free Twitter analytics tools are used to evaluate the impact of the project communication activities. The Twitter analytics tools can track growth, content performance and progress. Besides, improve engagement and grow Twitter audience. In addition, tag tweets and replies for aggregate campaign analysis, meanwhile exporting profile and post-level Twitter reports. Furthermore, easily analyse comments, engagement, and Twitter data.

A series of Key Performance Indicators (KPIs) are detailed below as the main considerations and indicators.

- Number of Twitter followers: 601
- Number of Tweets / retweets: 602
- Tweet impressions and top tweets

5.1.1. Number of followers

Currently, VICINITY has 601 Followers. The number of followers has evolved monthly during this year as follows:

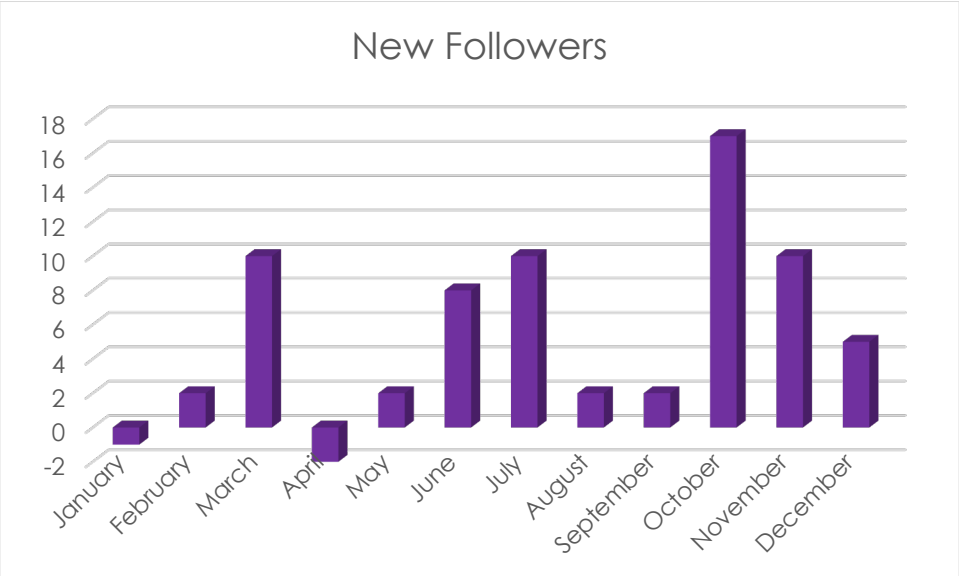


Figure 11. VICINITY New followers

5.1.2. Tweets

The following picture depicts the new tweets published per month from January 2019 to December 2019.

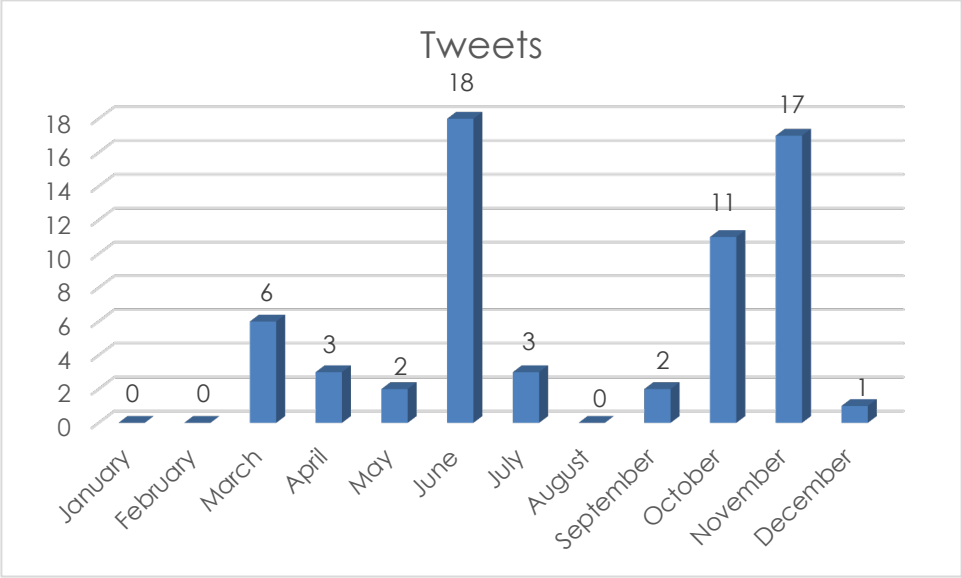


Figure 12. VICINITY Tweets

5.1.3. Number of profile visits

Figure 13 shows the evolution of profile visits during the period January 2019 – December 2019. As observed, more visits are obtained during the IoT Week 2019 and AAU GAM in June, and during Workshop Digital Innovation Hub and ETSI IoT Workshop & Showcases in October.

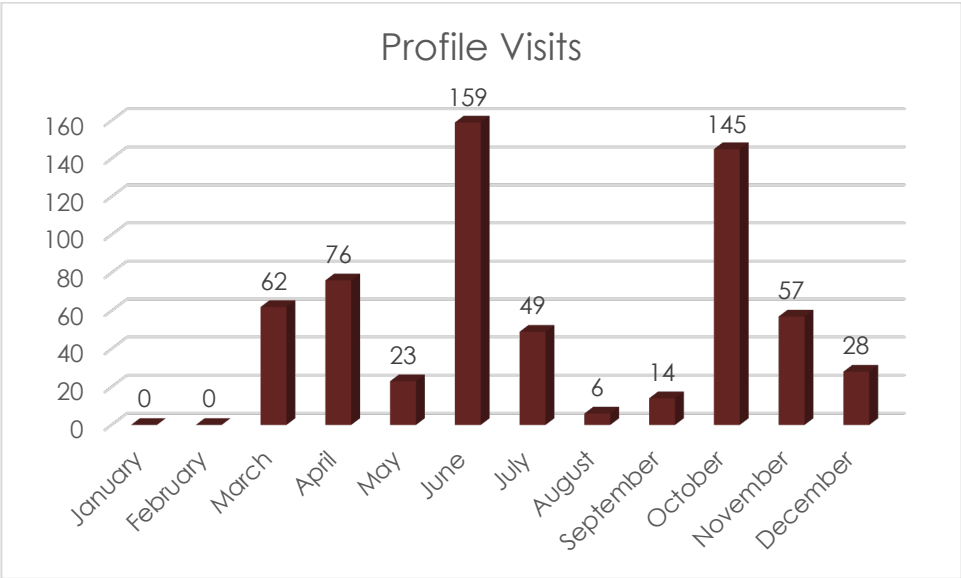


Figure 13. VICINITY Profile visits

5.1.4. Mentions

Figure 14 presents the VICINITY mentioned by other users in Twitter from January 2019 to December 2019.

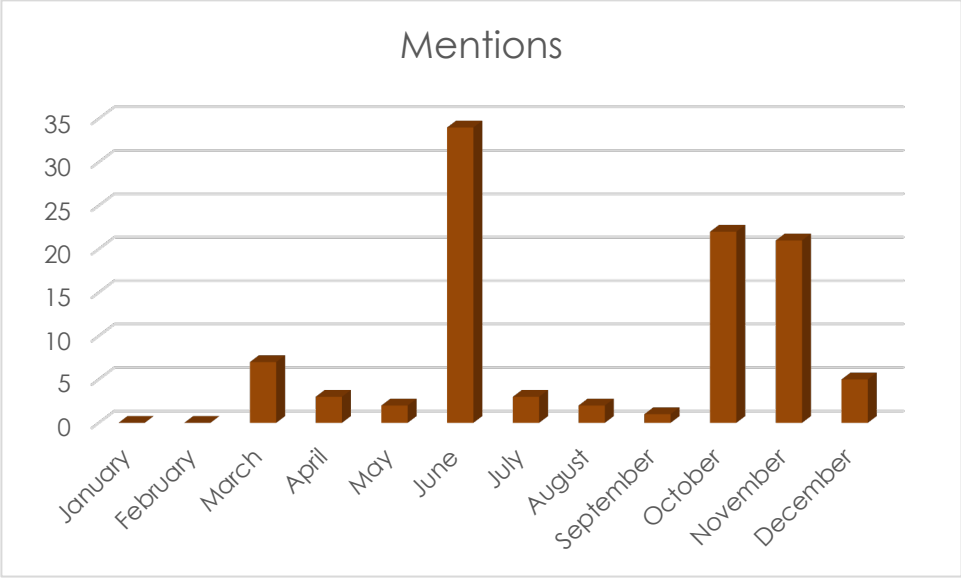


Figure 14. VICINITY Twitter Metions

5.1.5. Tweet impressions

Every time a user sees a Tweet, it counts as an impression. Figure 15 depicts the tweet impressions from January 2019 to December 2019.

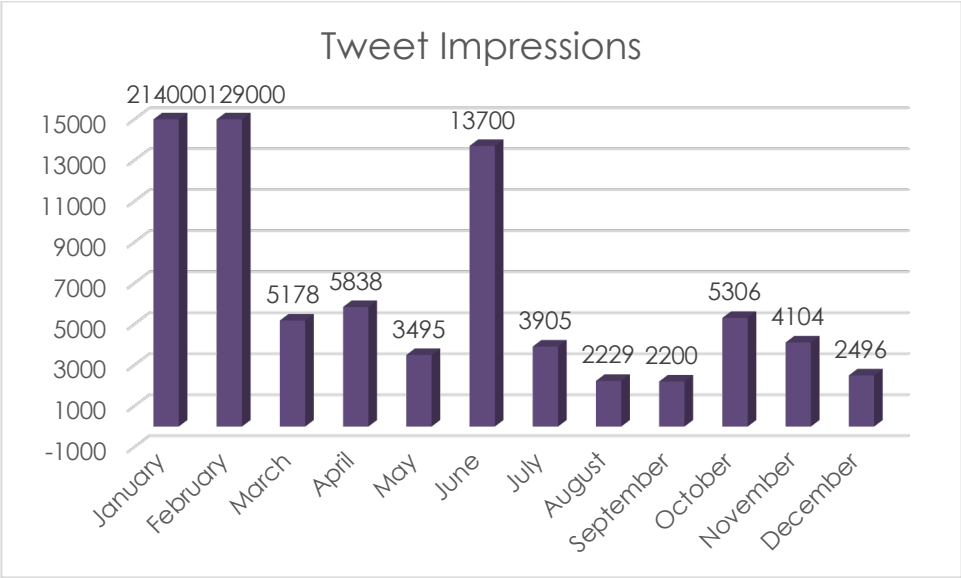


Figure 15. VICINITY Tweet Impressions

5.1.6. Top Tweets

Top tweet: Tweet that received the highest number of impressions. The twitters with the top 3 impressions during 2019 are:

- About VICINITY Tromsø use case.
- About VICINITY GAM and IoT value added services.
- About providing a presentation focusing on VICINITY interoperability and semantic

5.2. Other social media

A number of social media channels, such as Facebook, YouTube, LinkedIn and Google Plus, have further been early established as well to provide the project's objectives, VICINITY concepts, and to raise awareness on project's activities.

The VICINITY 2020 Facebook homepage has 149 followers and obtained 136 likes. Six posts have been published during M37 to M48. Three of the posts which regards to VICINITY Github, Second Open Call Material, and Second Open Call Webinar reach 395 persons and get 31 engagements.

21 videos have been produced and published by now on the VICINITY 2020 YouTube channel (https://www.youtube.com/channel/UC7TNz7JosAqTWIR2-oq5w3A/videos). The channel has 41 subscribers and earned more than 2000 views. The VICINITY Tromsø pilot site was presented by showing how the Smart Parking solution is functioning and a business concept AirBnB for Parking. A 90 second interview clip from Regional News (https://www.youtube.com/watch?v=SLU93dWDPVQ) were forwarded to National TV (https://www.youtube.com/watch?v=6-gxo9u5-58) for innovative research news. The two news are also published on YouTube. A video for VICINITY integration testing scenario (https://www.vicinity2020.eu/vicinity/content/test-lab-facilities) in AAU IoT-microgrid laboratory is produced in M38 and was published on VICINITY website. A Video for IoT meetup (https://www.youtube.com/watch?v=gge2E_wwWwE) where VICINITY is presented by BVR is published on YouTube as well. Recently, 4 videos are being produced by ENERC for Martim Longo pilot site and will be uploaded to YouTube soon. A list of the videos is shown below.

- Implementing an Adapter
- Reading data from these devices
- Creating a TD with contextual data and mappingsV2
- Enabling services and contracting devices data
- Registering TD in VICINITY
- How to setup Gateway API and Agent
- Setting up Gateway API & Agent and registering service TD
- Enabling services and contracting devices data
- Registering an organisation in NM
- Accessing data in VICINITY
- Homomorphic encryption final
- Using semantic interoperability services
- VICINITY architecture
- Tromso stakeholder workshops
- Tromso pilot use case
- Oslo pilot use case
- MPH UC2 deployment

- MPH UC1 deployment
- VICINITY second open call webinar 31 January 2019
- VICINITY open call webinar 20180411 110127
- VICINITY2020 – bridging the smart devices
- VICINITY integration testing scenario in AAU IoT-Microgrid laboratory
- Norwegian News
- Norwegian News
- 35. IoT meetup
- Global Climate Services
- Dynamic Building Audit
- Smart School
- Smart Clean

6. VICINITY Second Open Call Dissemination Activities

6.1. Introduction

The purpose of this section is to summarize the dissemination and communications activities undertaken by the VICINITY Consortium to promote the VICINITY 2nd Open Call. This evaluation allows the project to assess the Open Call strategy and to extract lessons to be applied in future projects.

The main objectives of the Second Open Call were:

- Create new specific value-added services based on the VICINITY platform
- Create new specific micro-services to enhance the VICINITY Platform

Participants were invited to participate in one of the Objectives.

6.2. Second Open Call Figures

- The Open Call was officially opened from 15/12/2018 to 15/03/2019.
- 50 Expressions of interests were received.
- 23 proposals were received.
- 13 European Countries participated in the Open call.

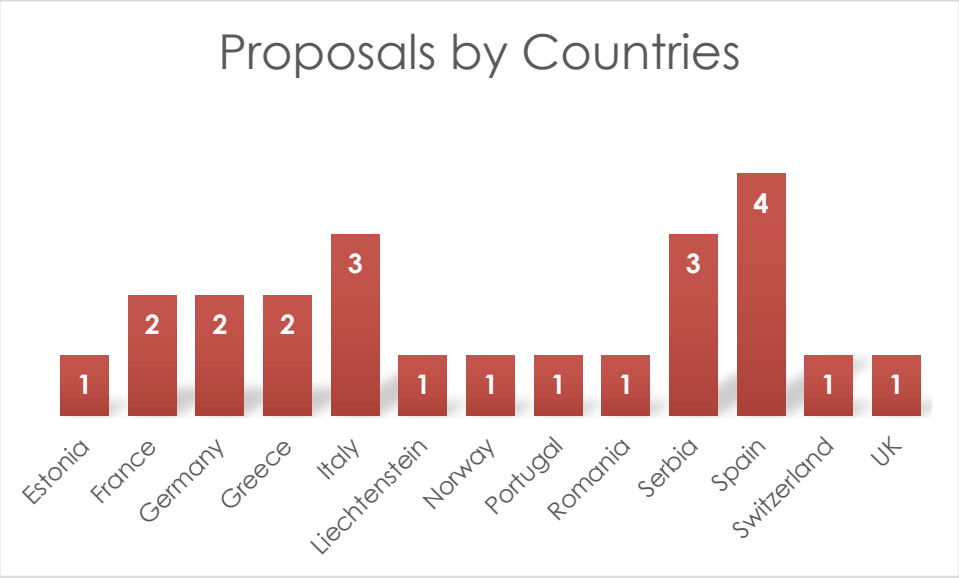


Figure 16. Second Open Call proposals countries

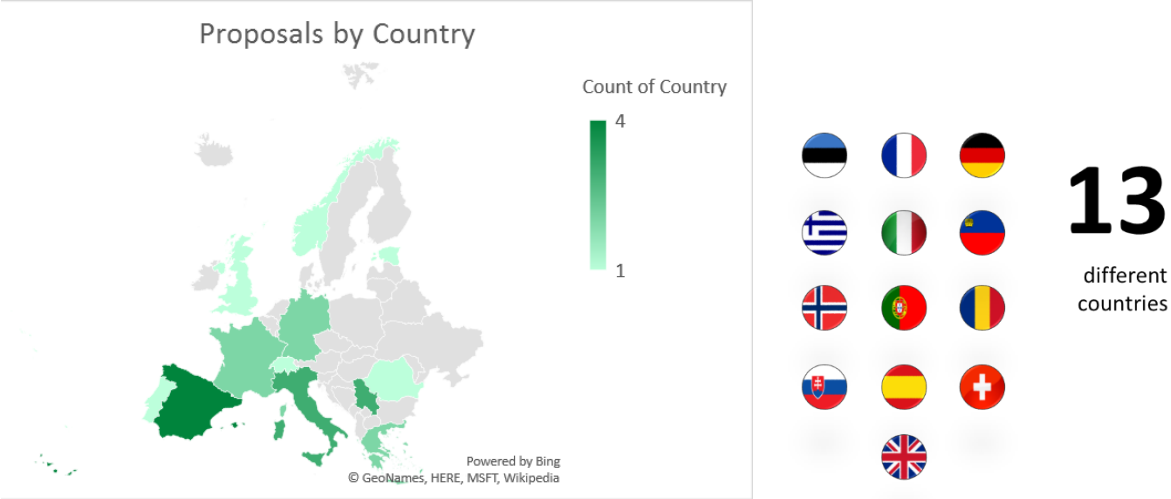


Figure 17. Second Open Call Countries

6.3. Material

The following material was created specifically to promote the Second Open call:

- **VICINITY Open Call communication pack**:
  - VICINITY OC2 Press Release
  - VICINITY OC2 Technical Guidelines
  - VICINITY OC2 Evaluation Criteria
  - VICINITY OC2 F6S Walkthrough
  - VICINITY OC2 guide template
  - VICINITY OC2 Standard-Extension-Contract
  - VICINITY WPs and List of Deliverables template [DOCX]

This is the set of documents that were attached in the emailing campaign and available on the web site in the following link (https://vicinity2020.eu/vicinity/content/open-calls/2nd-OC/open-call-material).

- **Emails**

An official email informing about the launching of the Second Open Call was created. Partners carried out a cascade distribution of the email among their contacts, inviting them to participate in the Second Open call.

- **Summary Presentation**

A general presentation was distributed into the partners to be used in events. This presentation was used by the partners as template.

- **Open Call Banner on the VICINITY Web Site**

In order to promote the Open Call on the VICINTY Web Site, a specific call banner was created and placed on the VICINITY web Home.

Figure 18. VICINITY Second Open Call Banner.

6.4. Communication activities

To maximize the open call awareness, different dissemination channels were used to successfully reach the targets groups.

- **Open Call Newsletters**

A subscription list was created to reach directly to the subscribers. There are 180 people subscribed to the mailing list. Several messages were sent from this account to communicate relevant news to the subscribers and make official announcements. For example: To communicate material updates, and new entries in FAQ section on the website.

- **Email campaign**

The emails campaign was undertaken as follows

  - Around 100 emails were launched to partners contacts.
  - About 40 incubators were contacted across Europe.
  - Around 90 University and Research Centre Transfer Offices were contacted
  - The First Open Call 81 expression of interest were invited to participate in the Second Open Call directly by email.

- **email support**

The email account opencalls@vicinity2020.eu was created to support the participants. Participants could ask questions using the email. Once a question was answered the answer was published on the VICINITY Open Call FAQ link (https://vicinity2020.eu/vicinity/content/open-calls/2nd-OC/open-call-faq).

- **Social Media**

The following Social media tools were used to promote the Second Open Call.

  - Facebook
  - LinkedIn
  - Twitter

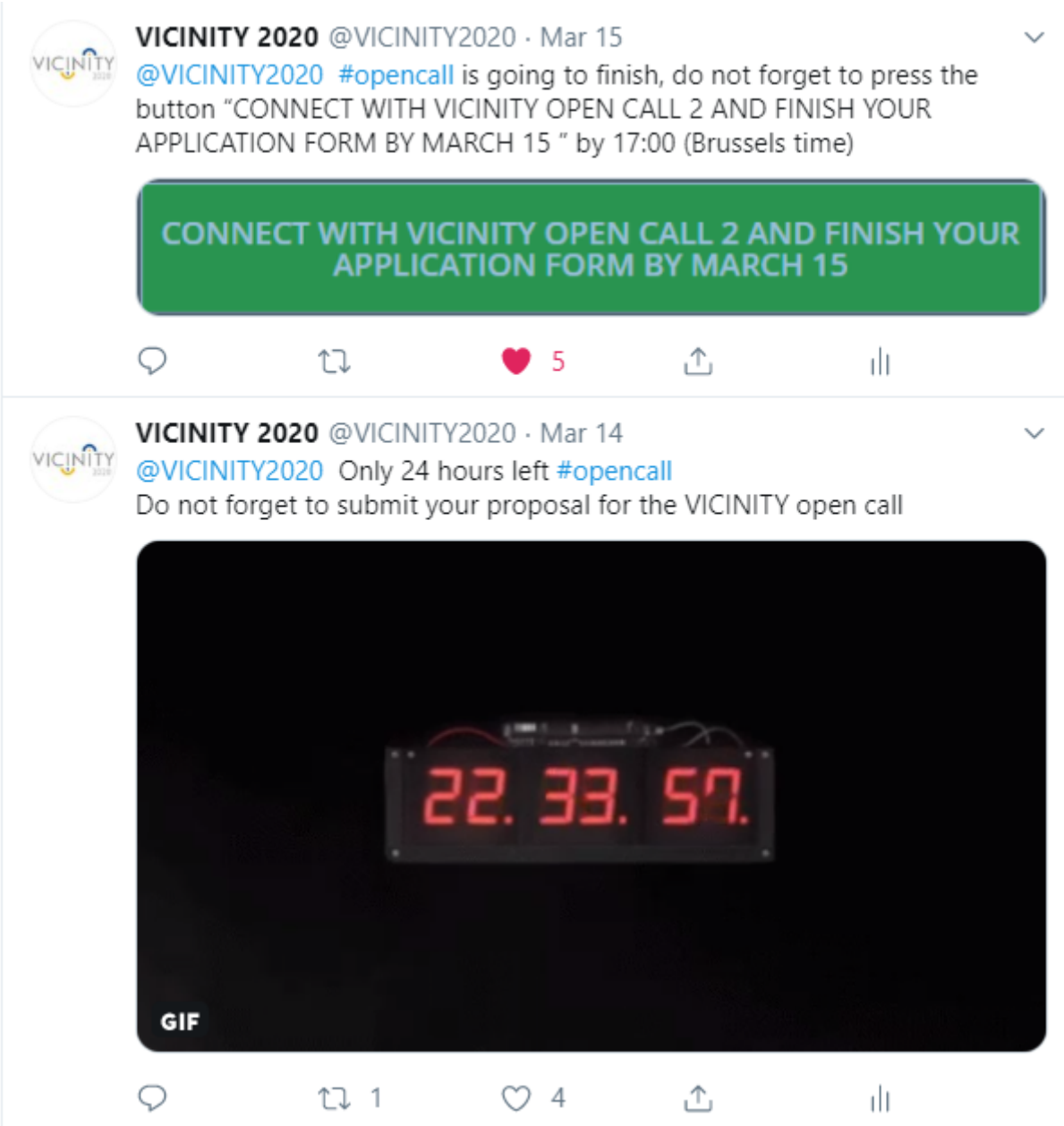


Figure 19. Open call Twitter

- **F6S and Fundingbox**

F6S and Fundingbox are well-known community building sites (https://www.f6s.com/, https://fundingbox.com/). These are focus on promote funding for companies. A wide range of Open calls are organized using these tools. VICINTY used these tools to promote the Second Open Call.

Furthermore, F6S has been used to receive the proposals and also it was used as a direct tool to received questions from the proposers.

F6S mentioned the VICINITY Second Open Call in its internal Newsletters.

6.5. Events

The consortium participated in the following events where information was provided through presentations and Questions and answers slots.

Place	Type of Event	Public	Partners	Date	Type of Action
Madrid Enginering Week Carlos III	Workshop	Potential participants	ATOS	14/11/2018	Presentations and Q&A
IoTMeetup	Meetup	Potential participants	ATOS, UPM	14/11/2018	Presentations and Q&A
ARI Digital Show	Workshop	Potential participants	ATOS	27/11/2018	Presentations and Q&A
Atos btic	Workshop	Potential participants	ATOS	10/01/2019	Presentations and Q&A
SAB Webinar	Webinar	SAB Members, potential evaluators	ATOS, BVR, CERTH, UNKL	15/02/2019	Presentations and Q&A
Open Webinar	Webinar	Potential participants	ATOS, BVR, CERTH, UNKL	31/01/2019	Brochure, Roll-up

Table 4. List of Events/Meetings in which the Second Open Call was presented

- **Open Call Webinar**

In order to public inform about the Second Open call, a webinar was held on 31/01/2019 and 47 people participated in the webinar.

The Agenda was as follows:

Figure 20. Webinar Agenda

A Slido (the Q&A and polling platform for meetings and events) channel was created to answers questions directly and obtain feedback from the participants.

The following data was collected from Slido:

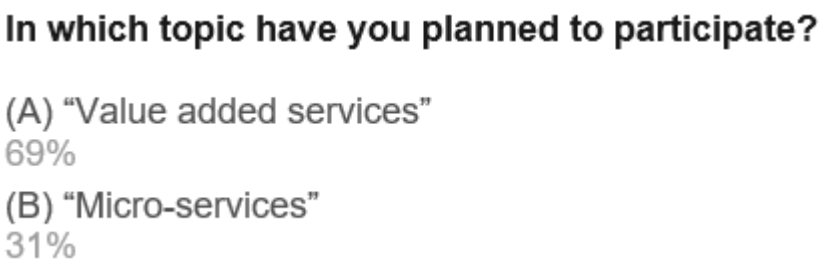


Figure 21. Second Open Call participants selected topic

People from 8 EU countries participated in the webinar (Czech Republic, France, Germany, Greece, Italy, Norway, Spain, and Netherlands).

A video was recorded and it can be found online on the VICINITY Web page link (https://www.youtube.com/watch?v=XgvSEQOYzjw&feature=youtu.be).

The webinar presentations can be found on the VICINITY web site. Also, the presentations can be found in the previous link.

- 01.Introduction
- 02.Webinar Introduction

- 03.Pilot Sites
- 04.Technical Details
- 05.Services
- 06.Participation Rules

6.6. Impact of Dissemination Channels

The proposers were asked how they had known about the VICNITY 2nd Open Call, the proposers mentioned the following channels of information:

As it can be seen in the figure below, the personal network channel was the most frequented mentioned.

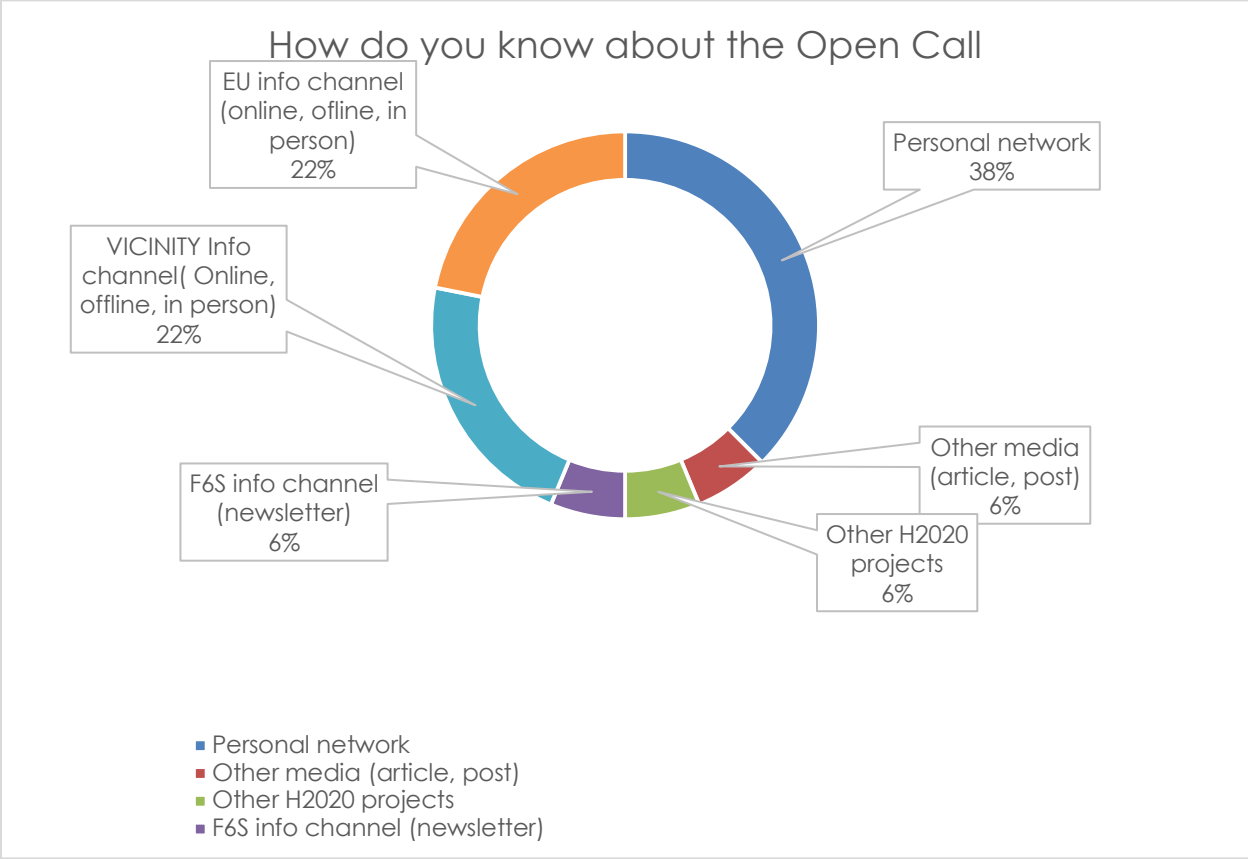


Figure 22. How do you know about the VICINITY Open call

6.7. Conclusions and lessons learned

The Second Open call dissemination strategy has been considered successful. The participation has been less than the previous one, but as this Open Call has been designed to be more specific than the previous one, it was foreseen. Proposals have been received from a wide range of countries.

Besides, it is considered that the call for the open call was very close to the call for ICT and that could be another reason to receive fewer proposals.

7. Newsletter

The VICINITY project releases electronic Newsletter as an internal and external dissemination channel for covering project-related information in somewhat more detail than what can be communicated through social media, addressing the general research society, but also the general public to enhance project outreach.

Newsletter enables the consortium to update the project community with latest project activities and results. Contents of the Newsletter are based on the important information of the project, including but not limited to project's topics, latest achievements, news, results of the activities, development guides, study reports, milestones and ongoing activities of use-cases. The contents are derived from dissemination activity reports, VICINITY websites, deliverables, and all VICINITY partners' contributions.

Four Newsletters were published during M37-M48. The contents of Newsletters include:

#8 Newsletter	#9 Newsletter	#10 Newsletter	#11 Newsletter
16 April 2019	22 August 2019	19 November 2019	17 December 2019
Editorial	Editorial	Editorial - VICINITY at the final - but not last - sprint	Editorial
Latest News and Upcoming Events	Latest News	Latest News and Upcoming events	Latest News and Upcoming events
Reviewers give positive feedback	VICINITY collaborate with IoT NEXT Club	VICINTIY participated actively in the IoT Week 2019 held in Aarhus, Denmark	"Niko Hack" - VICINITY hackathon
VICINITY partners joined Urban marathon in Pilea-Hortiatis	VICINITY partners co-organise SecRIoT workshop and present five VICINITY papers	Interview with Nissatech	Digital Innovation Hub event
VICINITY Participation in Industry 4.0 Hackathon	Ubiwhere - one of the VICINITY 2nd Open Call winners	Interview with Sensinov	The Winner of the URBAN MARATHON and the Award to be Given
2nd Open call is closed	VizLore Labs Foundation (VLF) - one of the VICINITY 2nd Open Call winners	Interview with VizLore Labs Foundation (VLF)	VICINITY Second Open Call
Interview with one of 1st Open call winners – SaMMY	Sensinov - one of the VICINITY 2nd Open Call winners	Interview with Ubiwhere	VICINITY Unique Selling Point - Stakeholders' opinion
Interview with one of 1st Open call winners – Thinkinside	Nissatech - one of the VICINITY 2nd Open Call winners	Interview with Dr Charith Perera - Lecturer of Cardiff University	Results and ambitions of Tromsø pilot site
Interview with one of 1st Open call winners – PilotThings	Interview with João Guerra - an IoT Next Club coordinator	Sensing VICINITY - Interviews with Martim Longo Pilot Stakeholders	Interview with Prof. Gomathi Nandagopal - Vel Tech University
Interview with one of 1st Open call winners – WearHealth	eHealth at Home Installations	Interview with the Head of School in Martim Longo pilot site	VICINITY Core components continous updates

Oslo Pilot Site (NO) – Buildings	Tromsø pilot creates insight and business opportunities	Smart Parking success in arctic city Tromsø	VICINITY client operation and continuous upgrades
VICINITY testbed deployment, including Validation, Parameterization and Testing	Oslo Pilot Site – Buildings	Pilot results of eHealth at Home use-case	Security and Privacy valuation of VICINITY components
Auto-Discovery space deployment validation report	Evaluation of the semantic model in real life scenarios	Pilot results of the Smart Energy Microgrid Neighborhood use-case	Continuous Operation and Upgrades of VAS
IoT enabled solutions for Climate change adaptation and digital Solar futures within Martim Longo Demonstration pilot	Milestones	Pilot results of Smart Buildings use-case	Overall evaluation of user experience and performance of VICINITY framework and tools
Evaluation of VICINITY			Milestone
Milestones			

Table 5. List of Newsletter published in 2019

Please refer to Annex 8 – Newsletters during January 2019 to December 2019.

8. Target Audience and Feedback Analytics

8.1. Audience reached

During M37-M48, a number of dissemination channels and tools have been used and various dissemination activities have been conducted. The goal has been to inform of the project and get in touch with stakeholders.

VICINITY has identified and addressed the following audience:

- Present and prospective developers and integrators of smart devices.
- Stakeholders within public administration, entrepreneurs and institutions.
- Early adopters, non-technical users, and residents of health homes.

Project results have been disseminated among the research community, policy-makers, and the private sector. Additionally, VICINITY has made a particular effort towards communicating project information to a wider audience. A detailed description is presented below.

Dissemination tools and channel	Internal/external		Target audience					
	Internal	external	Policy-makers	Industry	R&D Community	Private sector	Related projects & initiatives	General public
Project website		√	√	√	√	√	√	√
Other websites (partner websites, EC services, etc.)		√	√	√	√	√	√	√
Social media and professional networks	√	√	√	√	√	√	√	√
Project events	√			√	√	√		
External events		√	√	√	√	√	√	√
Target publications and scientific magazines		√		√	√	√	√	
Media (radio, tv)		√	√	√	√	√	√	√
Newsletter	√	√	√	√	√	√		
Exhibitions	√	√	√	√	√	√	√	√

Table 6. Dissemination channels and target audience

As observed from Table 6, different dissemination channels and tools have different target audience and result in different impacts and feedbacks.

VICINITY consortium has developed a lot of communication material in order to gather the attention of owners of pilot sites and improving good use cases. With this basis, we are developing a dissemination and communication strategy especially targeted toward finding technology partners and integrators, as well as finding common grounds with the other IoT EPI projects for further cooperation. These activities include participation at venues, presentation within clusters/incubators (which of course also are interested in the Open Calls), discussing with other suppliers looking for synergy-effects, and also influence some of the opinion makers that may affect the topics that VICINITY aims to address.

8.2. Feedback analytics

Through the various dissemination activities, VICINITY project raised increased interest and a number of feedbacks in a positive way for the concept and results of VICINITY. Totally, more than 6936 audiences and 70000 readers, which include a wide range of representatives from the IoT communities, industrial companies, research communities, devices suppliers, policymakers, end-consumers, public administration, etc. have been involved in VICINITY dissemination activities.

The main feedbacks, audience reached, and total attendees are listed below.

Domains	Feedbacks and Business Opportunities detected	Total attendees	Audience reached
Energy	• Stakeholders engaged with data in a very straightforward way and focused on UV, CO_2 and the daily cycles of the parameters • Building usage patterns and their relationship with the observed IEQ parameters were discussed • Provided an engaging perspective about IoT and related technologies as it concerned the school community. • Students showed interests in developing their own adapters • Energy and sustainable cities were also topics that garnered a lot of attention. • Several companies showed great interests in developing their use cases based on VICINITY platform	200	• Industrial representatives • Industry solution providers representatives • IoT community • Hackers – students and IoT enthusiasts • managers and technical responsible of the buildings in the pilot site • Students and teachers of the Martim Longo School • PhD students • Scientific Community • Medias
eHealth	• 3000 participants joined the 5th "Panorama Charity Fun Run". • Greek local sites and newspapers describing the use case "Urban Marathon" • The concept of introducing a solution that tied together health with other digital services generated interest in future potential. • Discussed also how other sensors can be integrated with P2P Healthcare Visit	3110	• Scientific Community • Medias • Industry • Investors • Civil Society • Customers • Representatives from different municipalities

Domains	Feedbacks and Business Opportunities detected	Total attendees	Audience reached
	• Discussed how P2P Healthcare Visit and the First Responder functionality can strengthen the care services. • Discussed new products and services built on VICINITY2020/P2P Healthcare Visit. • Discussed how P2P Healthcare Visit can be part of a series of products/services that can be offered within large-scale projects. • Interest was shown by several participants/speakers in the Abnormal Behaviour Detection services offered within VICINITY IoT Platform.		
Platform, Standards and Open Call	• Students were very interested about the Open Call, they asked for potential ways of participation. • New stakeholder body in Slovakia is identified. • Identified the potential collaboration to work on Smart Region concept. • Audiences showed interests in VICINITY platform, homomorphic encryption and use cases. • Participates were very interested in the webinar and thought the webinar is useful for them. Some of them have interests in using the VICINITY GithHub. • An interesting opportunity raised from this event thanks to Bable. • ChainRider was approached by guests and investors to explain how its usage in fast prototyping of Hyperledger Fabric networks is beneficial for organisations. • Participants were very interesting on the workshop, also they answered online questions. • One team was in charge of the VICINITY Challenge in the hackathon. The team developed a project using VICINITY and blockchain. • The audience showed a high interest to our presentation on privacy and the VICINITY ideas to data protection received a positive feedback. • The idea of building the semantic interoperability on top of SPARQL queries, and the discovery and distributed access underneath, was welcome by the audience.	38	• Scientific Community • Students of the EIT Digital Master • Policy makers • IoT community • innovation community • Industry • Medias • IoT Next Club Partners • Public sector
Semantic and interoperabili -ty	• Exchange work ideas and propose potential collaborations. • Special interests in VICINITY project are showed-the discovery and access mechanisms that are enabled when semantic interoperability is achieved.	255	• Scientific Community • Medias • Industry • Civil Society

Domains	Feedbacks and Business Opportunities detected	Total attendees	Audience reached
	• Special interest is showed in the content of the ultimate privacy that VICINITY platform provided. • The participants agreed on the usefulness of the tools used to support the methodology and the resources generated in VICINITY for building and depicting the ontology network. • It was also commented the need of having a tool to generate automatically diagrams from the ontology code.		
Mobility	• A lot of public interests on Facebook, LinkedIn, emails. • Most interested contacts and follow-up meetings were with companies and municipalities. • All the ambassadors expressed interest in solutions that addresses smart mobility and digital welfare. • Regional Research Fund in Troms would like to have cooperation on future projects. • A number of representors in smart city domain in Stavanger would like to have cooperation on integration activities. • Discussed also how other sensors can be integrated with P2P PARK – for instance new ice sensors, new parking sensors, new smart appliances etc. • Discussed how P2P PARK and the P2P Connectivity Platform can build upon the framework provided by the customers - but even more important; how VICINITY2020 can resolve many issues with incompatible sensors and ecosystems. • Discussed how VICINITY2020 can integrate information from smart street lights with a control/info panel used for smart parking – for instance by indicating availability or accessibility. • Discussed cooperation on integration activities in the context of VICINITY2020 and smart city sensors. • Meetups and talking about VICINITY2020 and P2P PARK. • Clusters are established for helping members develop innovative business models and connect investors and start-ups. Several of these initiatives can be considered relevant for HITS to further the exploitation activities.	1,100,335	• Industrial representatives • Industry solution providers representatives • IoT community • Hackers – students and IoT enthusiasts. • Medias • Investors • Civil Society • Customers • General Public • Policy makers • Representatives from different municipalities
Building	• A very positive feedback from Statsbygg, Paul Chaffey (state secretary for minister of digitalising Nikolai Astrup), Bærum municipality and Agder Energi. • The solution used by the cleaning companies was found interesting by some of the	425	• Representatives from Smart Buildings • Politicians • Representatives from the government • Scientific Community

Domains	Feedbacks and Business Opportunities detected	Total attendees	Audience reached
	participants and was demonstrated later in a smaller group. • Device manufacturers and services providers are actively seeking platforms that provide interoperability, releasing the services and devices manufacturers from possible lock-in scenarios. • Vicinity technology may be implemented as part of a vendor-specific solution, e.g. by companies offering integration services. The end client will not see the Vicinity platform, while the integrator may use the Vicinity platform as an integration-tool.		• Medias • Industry • Policy makers • Customers • Small startups • Building owners • Building managements • Communication technology providers • Chip manufacturers • SaaS providers • Electricity meter manufacturers • Hardware platform manufactures

Table 7. Main feedbacks, audience reached and total attendees.

All in all, the VICINITY project has been very welcome. VICINITY raised increased interest in a positive way for the implemented "VICINITY virtual Neighbourhood" concept for allowing IoT interoperability in cross-domains. The use cases and value-added services were a point of discussion, showing interest from the application-development scope, industry area, and different municipalities, revealing the new horizons possible in combing real-time data from diverse sources and allowing clustering of related information to provide value-added applications under new business models. The Open Calls were another important point of discussion, both during the open discussion and the networking session that followed. Many companies and IoT technology providers showed interest in participating in the process, to have the opportunity to get funding through the open call procedures in order to test the VICINITY platform and implement and demonstrate value-added services in new cross-domain fields. Semantic interoperability, security and privacy, low power devices, business model and standards are hot topics as well.

The questions and comments had been addressed during the open discussion and the simultaneous brainstorming during each dissemination activity. Cooperation opportunities on areas of common interest had appeared.

9. Conclusion

The hereby Report on Dissemination Activities, Public Participation and Awareness aims to summarise dissemination activities' and public participations' categories, feedbacks, details; publication numbers, contributors, types, topics; statistics analytics of various dissemination channels and tools developed or participated by VICINITY consortium, thereby analysing and evaluating the visibility, impression, accessibility of each dissemination activity.

A comparison between the main dissemination activity achievements of M37-M48 and dissemination plan is shown in the following table. It can be seen that most of the pre-set KPIs are very well reached and even over-fulfilled in several dissemination channels.

Dissemination channels and tools	**KPIs**		**Achievements of M37-M48**
	Items (month 48)	**Targets**	
Participation in external events	Contributions external events	9	35, which includes (some participates have multi-type activities): Workshop: 13 Conference: 11 Webinar: 2 Hackathon: 5 External Event: 2 Pitch Event: 3 Forum: 1 Communication campaign: 1
Publication	Number of journal/conference/workshop publications:	6	14 published, 1 in progress
Press release	Number of Press release	2	7
Project website	Number of visitors December 2019 (Month 48): Average duration of visits:	2000 3 min	5900 2: 29 min
Project social media	Number of Twitter followers Number of Tweets/retweets	> 110 > 110	601 602
Project biannual e-Newsletter	Number of e-Newsletters published Size of the dissemination list	4	4

		> 2000	336
Information brochures	Number of brochures	2	1
flyers	Number of flyers	1	3
Videos	Number of videos to be produced	1	24
Invitation letters	Number of Invitation letters	2	1
Posters (Roll up)	Number of posters	1	7

Table 8. A comparison between the main dissemination activity achievements of M37-M48 and dissemination plan

Annex 1: News about Tromsø Pilot Site


nrk TV
Therefore a new system is being tested in Tromsø, a kind of AirBnB for the rental of parking spaces.
0:08 / 1:48

Annex 2: News on OTA VOICE.GR, Typosthes, newX.gr, Thestival.gr, and VORIA.gr about “5th Panorama Charity Fun Run” at Pilea-Hortiatis Pilot Site

Annex 3: VICINITY Project as the Co-organiser SecRIoT 2019

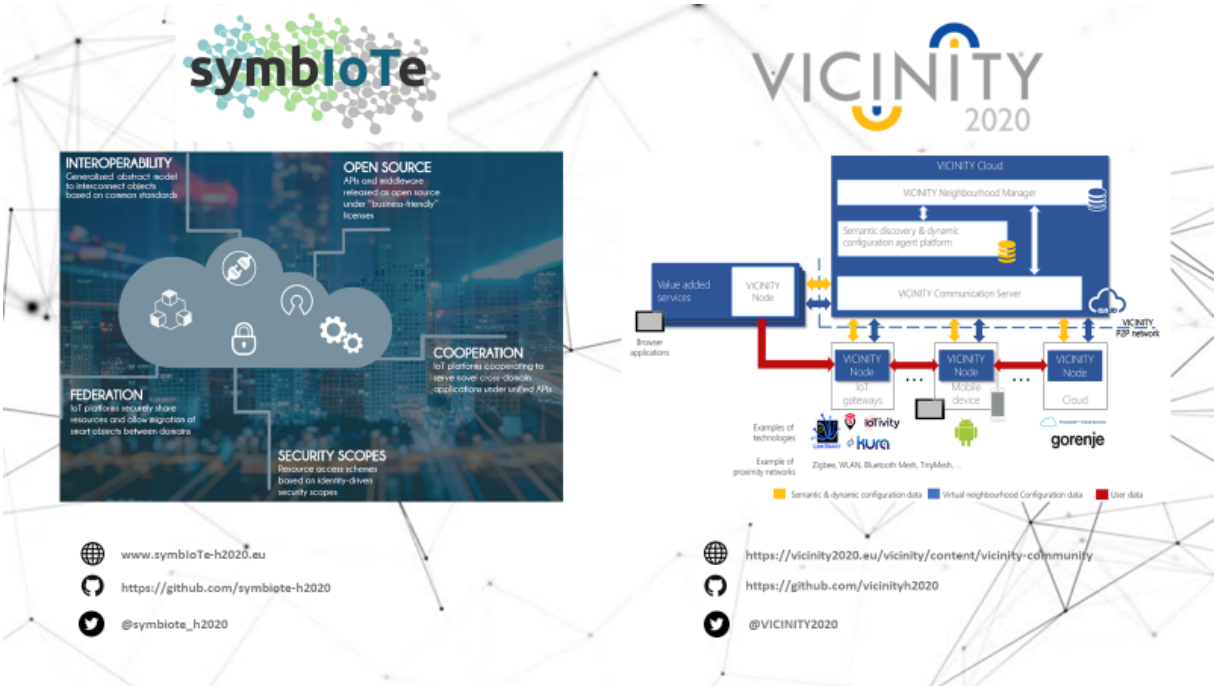
Important Dates

- ~~Paper Submission: March 8, 2019~~
- **New Extended Final Paper Submission Deadline: March 18, 2019**
- Acceptance Notification: April 1, 2019
- Camera Ready: April 15, 2019
- Early Registration Deadline: April 15, 2019
- Special hotel rates: April 19, 2019

Important Info

- **Camera ready instructions here**
- **Registration information here**
- **Hotel special rates here**
- Accepted papers announced here
- This workshop is co-organized in the context of the VICINITY EU research project
- Maximum length of paper submissions: eight (8) double column pages
- Accepted and presented papers will be included in the same volume with the DCOSS 2019 proceedings

Annex 4: VICINITY Brochure



Annex 5: VICINITY Flyers

VICINITY 2020

28TH MARCH

SMART SCHOOL WORKSHOP

THE ROAD MAP TO INSTALLATION

LEAD BY:

MARC RECHTER

NATALIE SAMOVICH

JOÃO OLIVEIRA

VITOR ABREU

LOCATION:
ESCOLA BÁSICA - MARTIM LONGO

PROGRAM:

15h00 - Presentation of Enercoutim;
15h10 - Presentation of the Vicinity Project and the "Smart Schools" case study";
15h30 - Vicinity Platform Online Demo;
15h45 - Clarification session;
16h00 - Visit to the places where the equipment is;
16h15 - Visit to the Solar Demonstration Platform and Solar Lab.

For more info: 919 319 293/ 966 967 305

VICINITY 2020

STAKEHOLDERS WORKSHOP

FARO - CCDR AUDITORIUM
Praça da Liberdade, 2
PORTUGAL

HOSTED BY:

ENERCOUTIM CCDR Algarve

29th NOVEMBER 2019

THE ALGARVE REGIONAL PERSPECTIVES STAKEHOLDERS WORKSHOP
- SMART CROSS-DOMAIN DIGITAL SERVICES FOR RESILIENT REGIONAL IMPLEMENTATION APPROACH
- SMART ENERGY COMMUNITIES, SMART BUILDINGS, SUSTAINABLE TOURISM, MOBILITY AND HEALTH DOMAINS

PARTICIPANTS:

CCDR - Algarve, University of Fez - Morocco, Resilient Regions, Skåne region Sweden, VICINITY H2020 consortium, Enercoutim, and the Algarve regional stakeholders.

AFTERNOON PROGRAM:

Workshop part 1

Intro Workshop

14:30h - Welcome Address Francisco Serra, President of CCDR, Algarve

14:35h - Regional Context. Smart Regional Specialisation (António Ramos – Regional Coordinator, CCDR Algarve)

14:45h - The VICINITY Project Overview (Christoph Grimm – Uni. of Kaiserslautern)

14:55h - VICINITY Technical Solution Overview (Viktor Oravec – Bavenir)

15:05h - Value Added Services in VICINITY - Smart Buildings, Smart Energy, Climate Services for Citizens (Marc Rechter – Enercoutim, Portugal Pilot)

15:10h - Value Added Services in VICINITY - Healthy Ageing (Greece Pilot)

15:15h - Value Added Services Mobility - Smart Parking (Norway Pilot)

15:20h - Reaching Resiliency Via Enabled Services (Magnus Quant – Resilient Regions, Sweden)

15:35h - **Facilitated Workshop** - Invisioning Services and Data Share as an Ecosystem
- Smart Regional Services Enablement;
- Cross domain: Hospitality;
- Energy and Healthy Ageing;
- Public Services and Buildings;
- Scaling up.

(Interactive Format)

Workshop part 2

17:10h - Panel Discussion: "Ignite Cross Domain Data Enabled Services"

António Ruano – professor UALG, Ahaitouf Ali – Fez (Morocco), António Ramos – CCDR, Magnus Quant – Resilient Regions (Sweden), Hugo Barros – CRIA, Jorge Monteiro – Professor UALG, moderator Natalie Samovich – Enercoutim

18:00h - Closing Address. The Way Forward Addressing the Societal Challenges (Marc Rechter - Enercoutim)

18:05h - Closing of the event

19:15h - Dinner and P2P Energy Game
Ignite Discussions

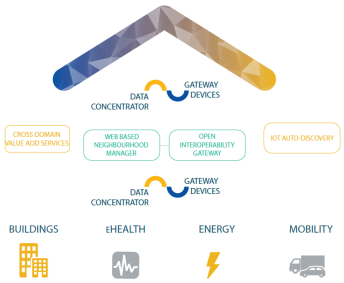
Annex 6: VICINITY Roll-up

VICINITY 2020

Open virtual neighbourhood network to connect IoT infrastructures and smart objects

"Interoperability as a Service for the Internet of things – a bottom-up approach."

The VICINITY project will build and demonstrate a platform and ecosystem that provides "interoperability as a service" for infrastructures in the Internet-of-Things (IoT). The approach is bottom-up, decentralized and user-centric and involved in standardization without relying on a single standard.

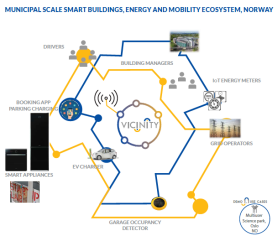


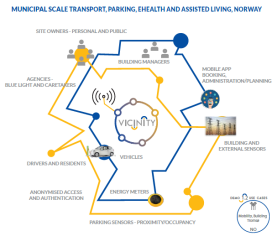
VICINITY Solution

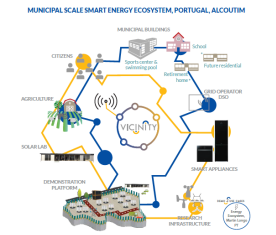
The lack of interoperability is considered as the most important barrier to achieve the global integration of IoT ecosystems across borders of different disciplines, vendors and standards. Indeed, the current IoT landscape consists of a large set of isolated islands that do not constitute a real internet, preventing the exploitation of the huge potential expected by ICT visionaries.

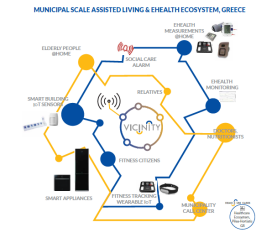
VICINITY will build and demonstrate a device and standard agnostic platform for IoT infrastructures that will offer "Interoperability as a Service". It will rely on a decentralised and user-centric approach that offer a complete transparency across vertical domains while retaining full control of the ownership and distribution of data.

ECOSYSTEMS







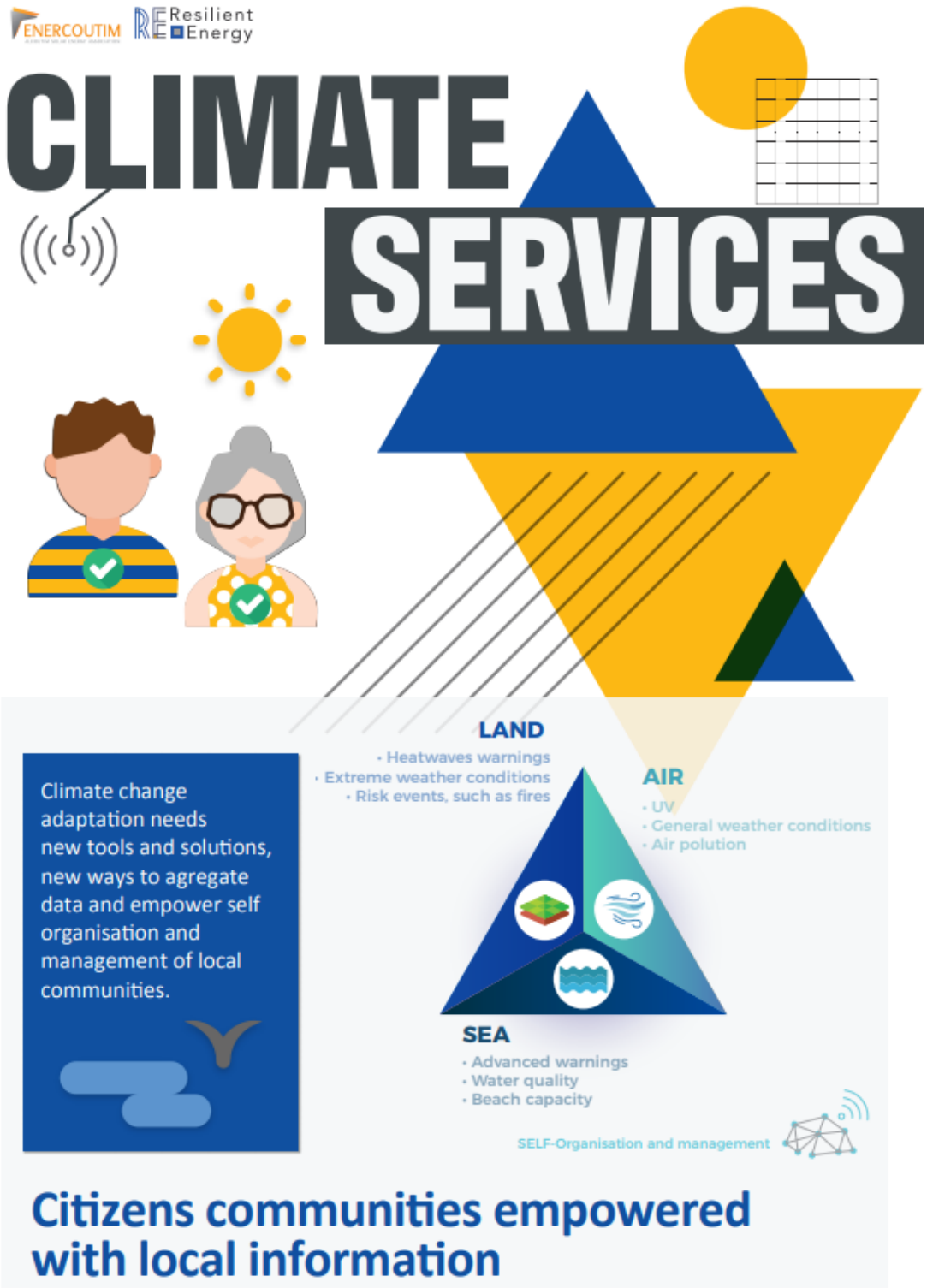


PARTNERS

vicinity2020.eu/

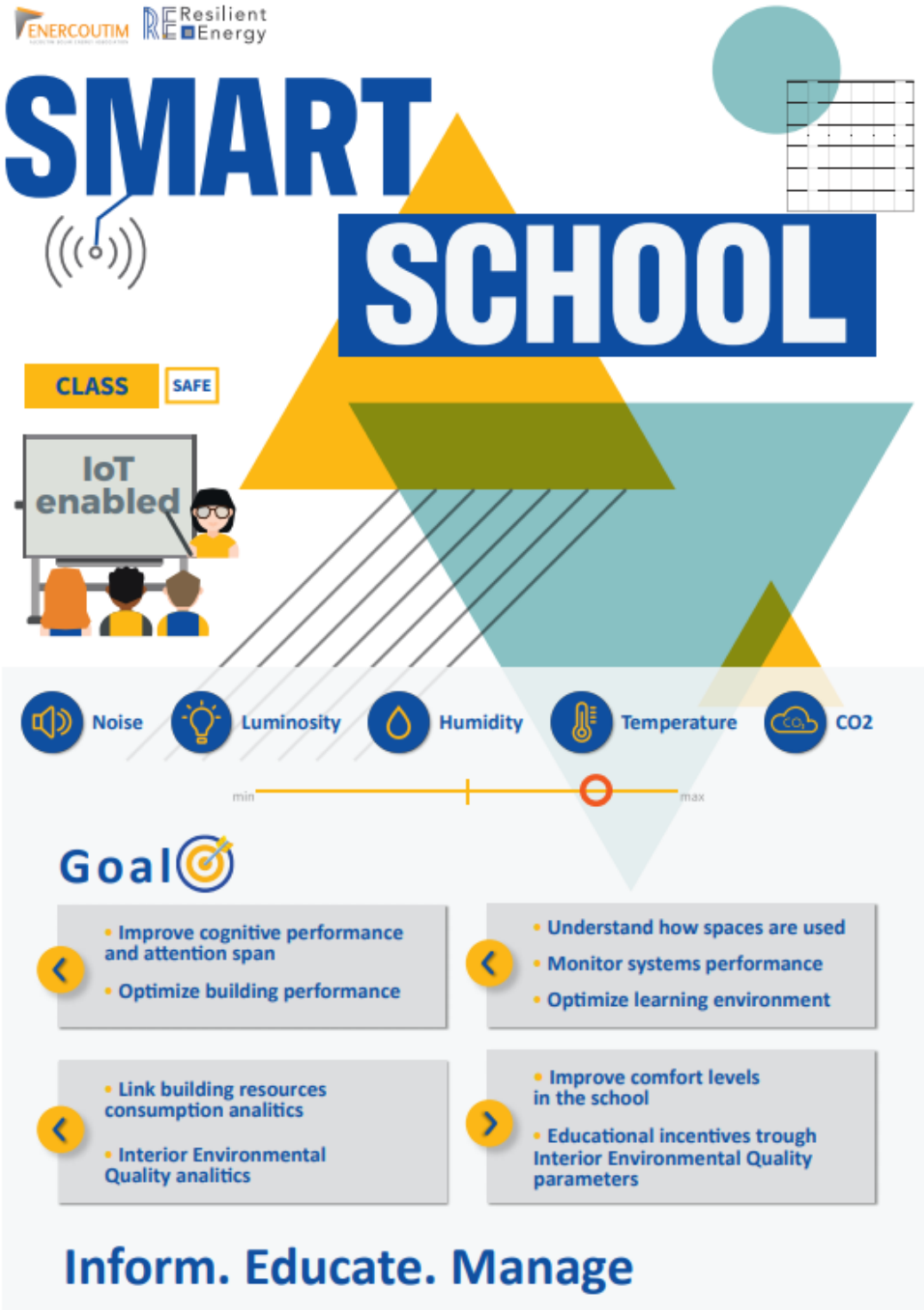
This project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under grant agreement no 688467.

Annex 7: VICINITY Posters


ENERCOUTIM
Resilient Energy
CLIMATE SERVICES
Climate change adaptation needs new tools and solutions, new ways to agregate data and empower self organisation and management of local communities.
LAND
• Heatwaves warnings
• Extreme weather conditions
• Risk events, such as fires
AIR
• UV
• General weather conditions
• Air polution
SEA
• Advanced warnings
• Water quality
• Beach capacity
SELF-Organisation and management
Citizens communities empowered with local information


ENERCOUTIM
Resilient Energy
DYNAMIC
AUDIT
We have insightful reports, inventory and notifications
Now we can manage energy efficiency goals of the municipal cluster
Now we know when and where the buildings need to be renovated
Now we can improve Interior and Environmental Quality (IEQ) and manage resources consumption
Know. Manage. Improve


ENERCOUTIM
Resilient Energy
SMART
CLEAN
OPTIONS:
• weather conditions
• equipment availability
• operations staff availability
• plant performance
Optimal O&M. Manage. Improve


ENERCOUTIM
Resilient Energy
SMART
SCHOOL
CLASS
SAFE
IoT enabled
Noise
Luminosity
Humidity
Temperature
CO2
min
max
Goal
Improve cognitive performance and attention span
Optimize building performance
Understand how spaces are used
Monitor systems performance
Optimize learning environment
Link building resources consumption analitics
Interior Environmental Quality analitics
Improve comfort levels in the school
Educational incentives trough Interior Environmental Quality parameters
Inform. Educate. Manage

Annex 8: Invitation Letter

VICINITY Co-Creation Workshop

"Making collaboration happen"

PURPOSE

The VICINITY co-creation workshop is a face-to-face session where different stakeholders from disparate domains work together with the VICINITY team of experts to discover new ways to provide added-value to your customers.

AGENDA

13:00 – 13:15 VICINITY Overview Presentation

13:15 – 14:15 Stakeholder Engagement

14:15 – 14:45 Business Case Validation

14:45 – 15:00 IoT Smart Home Demonstration

15:00 – 15:30 Closing and next steps

WHEN 24 June 2019, 13:00 – 15:00

WHERE Pontoppidanstræde 111, Room 1.031, 9220 Aalborg East

PARTICIPANTS VICINITY Consortium, Invited External Stakeholders

About VICINITY Project

VICINITY presents a virtual neighborhood concept, which is a decentralized, bottom-up and cross-domain approach that resembles a social network, where different IoT ecosystems are inter-connecting through an open gateway API (providing interoperability as a service) which enables interaction with IoT objects (devices and value-added services) from other different ecosystems as if they were their own.
The IoT objects shared within the VICINITY virtual neighbourhood may be accessed by value-added services to provide cross-domain services using common semantics based on VICINITY ontology.

The "Interoperability as a service" provided by VICINITY IoT platform is specifically tailored to the needs of small and medium-sized enterprises (SME) and public bodies, as well as offers leading privacy in the IoT and is "GDPR-ready".

CONTACT

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European Platforms Initiative

European Commission | Horizon 2020 European Union funding for Research & Innovation

Annex 9: Newsletter

8th VICINITY Newsletter

The cover of VICINITY Newsletter #8 (January 2019– March 2019) is shown as follows:

Newsletter
January 2019 - March 2019

VICINITY 2020

"Interoperability as a Service" – Connecting IoT infrastructures and smart objects

Editorial

Dear VICINITY partners & friends,

You get this newsletter in a moment where VICINITY has reached the most important milestones: we have successfully implemented the platform; and the deployment to the demo sites is mostly done. Based on this we have investigated a set of business and exploitation models, and defined our unique selling points. We have been reviewed with very good outcomes and advices by the reviewers (read the summary below!).

Prof. Dr. Christoph Grimm
Coordinator of VICINITY project
Technische Universität Kaiserslautern

Now, we have to disseminate and exploit the platform – and to improve the main USP to achieve leadership there. We hence face a number of events to "sell" our platform to a broad audience.

Full VICINITY Newsletter #8 (January 2019– March 2019) can be accessed at https://www.vicinity2020.eu/vicinity/system/files/h2020_vicinity_newsletter_-_january_2019_to_march_2019_3.pdf

9th VICINITY Newsletter

The cover of VICINITY Newsletter #9 (April 2019– August 2019) is shown as follows:

Newsletter

April 2019 - August 2019

"Interoperability as a Service" – Connecting IoT infrastructures and smart objects

Editorial

Dear VICINITY partners & friends,

After the summer holidays we are approaching the final phase of the VICINITY project. This comes with some good news: our participation at IoT Week 2019 in Aarhus was a great success with two of the three hackathon winners being projects supported by VICINITY teams. The SPRINGER book on VICINITY is also growing although a lot more work is needed to complete it. The use cases are being evaluated and are being complemented with several adaptors beyond those from the Open Call winners.

However, such early success must remind us that there is still a lot to do! The usability and learning curve need to be improved - the book will help here and a further growing community will be grateful for this. We are now heading towards our next General Assembly in Faro, Portugal on 28th and 29th November and we are currently preparing all the items we will need to present VICINITY successfully to our final EC Review in Brussels. With this in mind, I hope you enjoy reading the vibrant news in this newsletter!

Prof. Dr. Christoph Grimm

Coordinator of VICINITY project

Technische Universität Kaiserslautern

Full VICINITY Newsletter #9 (April 2019– August 2019) can be accessed at https://www.vicinity2020.eu/vicinity/system/files/vicinity_9th_newsletter_april_august_2019.pdf

10th VICINITY Newsletter

The cover of VICINITY Newsletter #10 (September 2019– October 2019) is shown as follows:

Newsletter
September 2019 - October 2019

VICINITY 2020

"Interoperability as a Service" – Connecting IoT infrastructures and smart objects

GoTo

- Editorial - VICINITY at the final - but not last - sprint
- Latest News and Upcoming events
- VICINTIY participated actively in the IoT Week 2019 held in Aarhus, Denmark
- Interview with Nissatech
- Interview with Sensinov
- Interview with VizLore Labs Foundation (VLF)
- Interview with Ubiwhere
- Interview with Dr Charith Perera - Lecturer of Cardiff University
- Sensing VICINITY - Interviews with Martim Longo Pilot Stakeholders
- Interview with the Head of School in Martim Longo pilot site
- Smart Parking success in arctic city Tromsø
- Pilot results of eHealth at Home use-case
- Pilot results of the Smart Energy Microgrid Neighborhood use-case
- Pilot results of Smart Buildings use-case

Editorial - VICINITY at the final - but not last - sprint

Dear Partners & Friends,

Our VICINITY project is currently in its final stage.
The projects is funded by the EC to create an initial implementation, and to highlight its capability via a number of use cases.
We are very close to achieving this.
But, to be clear, this will not be the last stage - VICINITY is ready to use in our daily businesses.

We are in transition from being grant-funded to commercial exploitation and use.
This newsletter presents news of progress in that direction.
We have had lots of action that shows applicability and quality of the VICINITY platform.

Prof. Dr. Christoph Grimm
Coordinator of VICINITY project
Technische Universität Kaiserslautern

Full VICINITY Newsletter #10 (September 2019– October 2019) can be accessed at https://www.vicinity2020.eu/vicinity/system/files/20191119_vicinity_newsletter_sept._to_oct._2019.pdf

11th VICINITY Newsletter

The cover of VICINITY Newsletter #11(November 2019 – December 2019) is shown as follows:

Newsletter

November 2019 - December 2019

"Interoperability as a Service" – Connecting IoT infrastructures and smart objects

GoTo

- Editorial
- Latest News and Upcoming Events
- "Niko Hack" - VICINITY Hackathon
- Digital Innovation Hub Event
- The Winner of the URBAN MARATHON and Upcoming Award
- VICINITY Second Open Call
- VICINITY Unique Selling Point - Stakeholders' Opinion
- Results and Ambitions of Tromsø Pilot Site
- Interview with Prof. Gomathi Nandagopal - Vel Tech University
- VICINITY Core Components Continuous Updates
- VICINITY Client Operation and Continuous Upgrades
- Security and Privacy Valuation of VICINITY Components
- Overall Evaluation of User Experience and Performance of VICINITY Framework and Tools
- Final Milestones