Management Of Networked IoT Wearables – Very Large Scale Demonstration of Cultural Societal Applications
(Grant Agreement No 732350)

D.12.1 Communication and Dissemination Strategy

Date: 2017-03-31

Version 1.0

Published by the MONICA Consortium

Dissemination Level: Public

Co-funded by the European Union's Horizon 2020 Framework Programme for Research and Innovation under Grant Agreement No 732350

Document control page

Document file: D12.1 Communication and Dissemination Strategy_1.0.docx
Document version: 1.0
Document owner: IN-JET

Work package: WP12 – Impact Creation, Exploitation and Dissemination
Task: T12.1 – Communication Plan
T12.2 – Dissemination Coordination
Deliverable type: R

Document status: ☐ Approved by the document owner for internal review
☒ Approved for submission to the EC

Document history:

Version	Author(s)	Date	Summary of changes made
0.1	Louise Birch Riley (IN-JET)	2017-03-01	ToC
0.2	L. Riley (IN-JET), Marco Jahn (FIT)	2017-03-21	Added analysis, strategy and plan sections and FIT input on collaboration plan, distributed to partners for comments/input
0.3	L. Riley, Veronica Chesi (IN-JET), M. Jahn (FIT), Steffen Ring (RING), Bonnie Bagger (PSG), Julie-Ann Shiraishi (FHH-SC), Vincent Gissinger (ACOU)	2017-03-27	Incorporated input from partners, finished sections on policy, summary and introduction, ready for internal review
1.0	L. Riley (IN-JET)	2017-03-30	Incorporated reviewer comments, added internal links and finalised document
1.0	L. Riley (IN-JET)	2017-03-31	Final version submitted to the European Commission

Internal review history:

Reviewed by	Date	Summary of comments
Katja Gjørup, Vaeksthus Zealand (VH-SJ)	2017-03-27	Approved with minor comments
Dorothy Monekosso, Leeds Becket University (LBU)	2017-03-30	Approved with minor comments

Index:

1 Executive Summary

The aim of communication and dissemination in MONICA is to help achieve the overall vision and goals of the project. Impact creation in various areas of the project is foreseen and communication and dissemination play an important role in supporting and maximising this impact.

This deliverable presents the strategy on how communication (promoting the action and its results) and dissemination (sharing the results) can help achieve the goals. This involves activities at project as well as at partner level. It is a central guideline document for the MONICA Consortium in communicating and disseminating MONICA to external stakeholders as well as for sharing and coordinating activities internally.

Four main project goals which dissemination and communication will help to achieve include: Foster the take-up of IoT; Enable open ecosystems at a large scale; Gain user acceptance of the IoT solutions and Create sustainable solutions. High socio-economic, user and technological impact is foreseen which will mark MONICA as a Best Practice of IoT deployment.

Besides supporting the achievement of the project goals, communication and dissemination should pave the way for an effective exploitation of MONICA results for the individual partners and in joint partnerships. It should also help realise the strategic goal of the Innovation Union, demonstrating how it adds value to European life. The communication and dissemination obligations reflect this widened purpose by addressing a wide audience.

Six stakeholder groups have been identified and categorised according to their interest or involvement in MONICA and analysed according to their role and communication needs. They include The Cities, The Citizens, Technology Providers, Researchers/Innovators, Regulators and Internal Audiences with several sub-groupings under each category. To prioritise the communication efforts, the sub-groups have been prioritised according to interest and power. Especially public authorities and event/festival organisers are central target groups for communication, being the ones making the final decisions on whether to adopt IoT solutions or not and should be managed closely and be fully engaged.

MONICA has also analysed the Strengths, Weaknesses, Opportunities and Threats (SWOT) related to communication and dissemination. The analysis shows that MONICA has a strong foundation on which to create impact, being an innovative, widely applicable, close-to-market, real-life demonstration which is of relevance to most Europeans. The challenge will be to give the right people, the right information at the right time for maximum impact and to ensure that the regulatory and user demands are met.

The analysis and identification of stakeholders help us establish the key messages which cover four focus areas: Solution-oriented communication, technological dissemination/communication, commercially oriented communication and story-oriented communication. They each comprise central innovation areas of MONICA.

The variety of target groups also necessitates the use of several platforms for MONICA to effectively inform, communicate and engage with its many audiences. To reach this wide audience, MONICA uses a mix of traditional and online communication and dissemination tools. Online tools include the project website, social media platforms, social awareness platform and webinars whereas the traditional channels cover exhibitions, events, scientific conferences, press interviews, TV and radio appearances as well as visits, workshops and meetings. Some are suitable for information sharing; others invite the visitor to engage.

The strategy is to increase communication and dissemination activities as the project results appear, moving from creating awareness to preparing for exploitation. Activities are steered by central milestones such as major deliverables and are executed using a variety of methods, including information material, newsletters, press releases, articles, posts, calls for proposals, publications etc. Special emphasis is on visual communication and the use of videos, images and infographics. A detailed plan is presented, mapping target groups with messages, channels, methods, timing, partners involved and related impact.

To know whether the project meets the needs of the target groups and see if adjustments are needed, MONICA uses different quantitative as well as quality methods to measure communication and dissemination. These include Key Performance Indicators for knowledge impact and visibility of the project as well as impact assessment.

Finally, a set of communication policies are presented to effectively plan, share and coordinate efforts, demarcating internal communication processes, partner responsibilities and obligations.

All partners are engaged in communication and dissemination activities as part of their work package activities and expertise and are encouraged to be proactive, welcoming the press, offering interviews and visits.

2 Introduction

The aim of communication and dissemination in MONICA is to help achieve the overall goals of the project and maximise the project's impact through a strategic approach as outlined by this document.

The task is to promote (communication) and share (dissemination) the MONICA results effectively to a wide range of stakeholders who have an interest in, concern about or are affected by IoT technologies and the MONICA applications.

The distinction between the terms communication and dissemination is presented in the MONICA Grant Agreement (No. 732350) where the obligations are listed.

The dissemination obligations concern the obligation to publicly disclose the results from the project and is often related to the scientific activities of making research results known:

Unless it goes against their legitimate interests, each beneficiary must — as soon as possible — 'disseminate' its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium).

The communication obligations are extended to promoting not only the results but also the project to a wider audience, thereby going beyond the project's own community:

The beneficiaries must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner.

A third, important goal is related to the use (exploitation) of the results of which the dissemination strategy is a prerequisite for the exploitation plans developed during and after the project[1].

2.1 Purpose, context and scope of this deliverable

The purpose of this document is to establish and agree upon a common strategic approach to communication, dissemination and collaboration in MONICA, aligning and coordinating activities taking place at project and partner level. The specific objectives are to:

- Define and execute an effective communication strategy at the beginning of the project;
- Define, agree and execute a comprehensive dissemination strategy and plan with measurable goals;
- Contribute to the consolidation and coherence work implemented by the CSA (Coordinated Support Actions) for horizontal activities;
- Participate in joint activities organised by the European Commission in policy groups and with other EU funded projects.

The deliverable is part of the Work Package 12: *Impact Creation, Exploitation and Dissemination* and the tasks *T12.1 Communication Plan* and *T12.2 Dissemination Coordination* of which the latter deals with coordinating the dissemination activities and the efforts to make MONICA results influence relevant standardisation bodies and policy makers.

Since there is significant overlap between communication and dissemination in terms of target groups, messages, channels and plans, the terms are coined at places and a single plan covering both terms is presented.

This document mainly covers and specifies general activities planned at project level, indicating individual partners' responsibilities and activities. To ensure a strategic approach and commitment, each partner will produce a communication and dissemination plan, detailing the activities at partner level.

Since the document is part of a continuous process, being revised throughout the project, it is therefore subject to change and the Consortium will revise the efforts regularly and provide status and updates in the periodic management reports.

[1] For the distinction between dissemination, communication and exploitation, see https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-933.html

2.2 Structure and content of this deliverable

The deliverable is structured to move from a general perspective to a detailed plan of action.

First, the strategic framework for communication and dissemination in MONICA is presented in Chapter 3 with an analysis of the project, stakeholders, strengths, weaknesses, opportunities and threats, all of them positioned in relation to communication and dissemination.

This sets the scene for the strategy in Chapter 4 which outlines key stakeholders and messages and the channels which will be used. In Chapter 5, we go into further detail, looking at the plan and execution of the strategy including methods used and the timing of activities.

To know we meet the needs of the target groups, we use methods for measuring the communication and dissemination efforts in Chapter 6.

Then communication policies are established in Chapter 7 to effectively plan and coordinate activities internally and establish the obligations and procedures between partners.

Finally, a list of completed and planned activities is presented in Chapter 8, giving a snapshot of activities at the time of writing.

3 Analysis

The aim of communication and dissemination in MONICA is to help achieve the overall vision and goals of the project. Impact creation in various areas of the project is foreseen and communication and dissemination play an important role in supporting and maximising this impact.

This chapter provides the framework for communication and dissemination in MONICA, and an analysis of its role and function.

The following sections highlight the project's main vision, goals and areas of impact and how communication and dissemination can help fulfil the objectives.

To know more about who the communication and dissemination should target, stakeholders have been identified and analysed further to establish roles, interests and communication needs.

The analysis chapter is concluded by an analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) related to communication and dissemination of MONICA for the purpose of strategic planning.

3.1 Project vision and goals

As a large-scale pilot in the Horizon 2020 programme on the Internet of Things (IoT)[2], the MONICA project plays a central part in the ambition to foster the European take-up of IoT and enable open IoT ecosystems as part of the overall strategy of digitising Europe, with the overall aim to encourage public authorities, companies and researchers to make the most of new technologies[3].

One of the challenges today is the take-up of IoT at a large scale. The vision of MONICA is to be a Best Practice of large-scale IoT deployment by demonstrating how European cities can implement multiple, existing and new IoT technologies for smarter living, focusing on security and acoustics applications at large cultural events. Innovative solutions include the establishment of sound zones at outdoor concerts for noise mitigation as well as security measures improving crowd information and management.

With six pilots in Copenhagen, Bonn, Hamburg, Leeds, Lyon and Torino, involving 100.000+ end-users, the MONICA Project will demonstrate that it is possible to implement an IoT ecosystem at a massive scale which can handle a multitude of devices, sensors, networks and heterogeneous data integrated into an interoperable cloud-based platform which is capable of offering multiple applications. With at least 10.000 simultaneous end-users, it becomes a massive IoT platform demonstration.

To support a wider uptake, MONICA will offer several business models showing the potential of IoT platforms and make tools available for new market openings, including a promotion package for entrepreneurs and a development toolbox with enablers for integration with other Smart City platforms.

This leads to the other challenge of enabling open IoT systems which must be based on underlying open technologies and architectures that may be reused across multiple use cases and enable interoperability across those[4]. The MONICA IoT ecosystem is based on open standards, architectures and data, with only the application layer being specific to the deployment setting, thus making it integrable, scalable and available for the development of new IoT applications. An important task is to identify areas and technologies from the demonstrations which can be standardised and contribute with those to existing standardisation bodies.

A third challenge is the user acceptance of the IoT solutions and safeguarding trust, privacy and data security. All pilots will actively involve the end-users to meet and find solutions for real needs and challenges. More than 10.000 people will be engaged in the evaluation and innovation process, from authorities, organisers to citizens. Neighbours affected by the event will be involved in creating useful solutions to the conflict between cultural attractiveness and nuisance which often exists when carrying out big city events in the inner city.

To safeguard trust, the MONICA IoT platform contains a Data Security, Privacy and Trust Framework that ensures full data protection and privacy which will be validated by the local authorities and organisers.

A fourth goal in MONICA is to lay the best possible foundation for exploitation of the results after the project ends by developing individual partner exploitation and sustainability plans. Communication and dissemination will support the preparation of exploitation and further take-up of IoT after project completion with the pilots as central actors in paving the way.

[2] https://ec.europa.eu/digital-single-market/en/news/horizon-2020-work-programme-2016-2017-internet-things-large-scale-pilots
[3] https://ec.europa.eu/digital-single-market/en/digitising-european-industry
[4] http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iot-01-2016.html

3.2 Project impact

With its demonstrations, entailing a massive number of users, MONICA will have a high impact on citizens, the event industry, IoT business partners and public services. To sum up the vision and goals in the previous section, the following lists the socio-economic, technological and user impact expected:

In terms of socio-economic impact, the demonstrations will evoke new, significant business opportunities for several actors with improved access to the European markets. They will help improve safety, quality of life and comfort for citizens, with less noise emission for people living in urban areas where the venues are held, and they will help stimulate tourism and increase participation in events.

In terms of technological impact, MONICA will embody a successful use of IoT applications at a large scale, offering a sustainable, open, plug-in solution available for existing Smart City IoT platforms after project completion. It will deliver substantial contributions to standardisation work and will influence other IoT related areas.

In terms of user acceptability, the demonstrations will involve citizens, event participants and professional actors (such as event organisers, artists and local authorities) in co-creation and validation activities which will be significant for replicability in other cities and for other professional actors.

A set of Key Performance Indicators (KPI) for each area of impact has been defined and will be assessed by the pilot work package WP9. Successful fulfilment of the KPI will demonstrate the MONICA platform as a case of Best Practice of IoT deployment. The results from the pilots will be supported by communication and dissemination activities to help maximise the impact. See Section 6.3 and Appendix A for more on project KPI.

3.3 Communication and dissemination objectives

As indicated, communication and dissemination in MONICA should pave the way for an effective and competitive exploitation of MONICA results for the individual partner organisations. However, it should also support the grand narrative of European innovation.

Besides the European IoT framework outlined in 3.1, MONICA is also part of the larger strategic framework of innovation[5], playing a key role in supporting and propagating innovation in Europe through the communication and dissemination of project results.

As outlined in the EC communication guide[6], MONICA should demonstrate how it contributes to a European Innovation Union and account for public spending by providing proof that it adds value by:

- showing how European collaboration has achieved more than would have otherwise been possible;
- showing how the outcomes are relevant to our everyday lives;
- making better use of the results.

These public obligations are reflected in the project's agreement with the European Commission whereby the project must engage the public and ensure that knowledge and results are made available for those who would like to use it.

The communication objective in MONICA is thus to promote the project and its results for maximum impact, demonstrating how EU-funding contributes to tackling societal challenges[7]. This is achieved by providing targeted information to multiple audiences, including the media and the public in a strategic and effective manner and by engaging its stakeholders in a two-way exchange.

The dissemination objective in MONICA is to make results and knowledge easily available to the public and stakeholder groups who have an interest in IoT and Smart Living/City applications, enabling stakeholders to use the results in their own work. This is achieved by enabling open access to scientific publications, sharing open data and offering development tools.

To further maximise the impact, collaboration with support actions and other initiatives with similar strategic aims is planned to support the take-up of IoT and the growth of dynamic IoT ecosystems. See Section 5.3.

[5] http://ec.europa.eu/research/innovation-union/index_en.cfm
[6] http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf
[7] As defined by https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-933.html

The following tables illustrate how communication and dissemination will support the achievement of the overall goals in MONICA.

Goal: To foster the take-up of IoT

Project objective	Communication and dissemination objective
To encourage public authorities, businesses and researchers to make the most of IoT technologies	To ensure that the stakeholders have access to information about the project, pilots and the results within their interest area. To ensure that especially the users of the IoT technologies i.e. the city actors have the opportunity to contact and meet with the pilots To provide demonstrations of the solution to city challenges To ensure that scientific publications and results are easily available for the research community and documented in internal assessments of impact
To provide best practice deployment	To provide evidence of best practise based on the identified KPI To ensure that the general public and the press are continuously made aware of the MONICA vision, results and innovations To ensure that the advisory and ethical boards in MONICA have access to relevant information
To develop attractive business models	To make the value propositions and business prospects available to the relevant stakeholders

Goal: To enable open ecosystems at a large scale

Project objective	Communication and dissemination objective
To offer plug-in solution to existing Smart City IoT platforms	To ensure that the relevant stakeholders know of the possibilities of integrating the MONICA platform and have access to the tools To provide demonstrations of scalability and integration
To contribute to standardisation work	To ensure that the MONICA contributions are made available from the demonstrations
To influence other IoT related areas	To make the MONICA concept and results known to other IoT areas and through collaboration with other large-scale projects, support actions and initiatives
To enable the use of open data for innovation	To ensure that developers know of and have access to the Open Data repository and the tools To ensure that entrepreneurs know of the commercial opportunities in the MONICA Promotion Service Package

Goal: To gain user acceptance of the IoT solutions

Project objective	Communication and dissemination objective
To engage citizens in co-creation	To enable access to information, city data and dialogue about city challenges To provide demonstrations of solutions on how to involve the citizens
To improve trust, safety and quality of life	To ensure that information about the MONICA approach to social innovation is available to city administrations To make the evaluation results from the pilot demonstrations known to stakeholders
To stimulate tourism	To ensure that information about the business impact coming from the pilots is available to the tourism and cultural industries

Goal: To create sustainable solutions

Project objective	Communication and dissemination objective
To create sustainability of the pilots	To ensure that the strategies and promotion actions are informed about internally in the organisations and to its external audiences
To prepare for exploitation	To make support material available for partners to use To make the MONICA concept and results known to strategic networks of partners

3.4 Stakeholder identification and classification

Success of the project is not simply related to achieving the deployment of the MONICA ecosystem and innovations but also depend on the impact it has on the outside world and the relevant stakeholders. Stakeholders can be defined as those with an interest or concern in MONICA, who impact or are impacted by MONICA. Stakeholders thus constitute a broad group of people, groups and organisations who can affect the project decisions and outcomes more or less.

To maximise the impact through communication and dissemination, it is therefore first important to identify and classify which stakeholders MONICA is targeting to structure the right messages and select the right platforms and then analyse the power structure to make prioritisations, keeping in mind the dynamics of power which might shift between stakeholders[8].

The Consortium has identified a set of target groups, covering the full range of potential users and stakeholders. The external target groups can be divided into five, overall categories with subgroups as indicated in Table 1. A sixth category has been added on the right to represent the main internal audiences in MONICA.

[8] E.g. even though one stakeholder has the power to decide, invest and implement a new service, its users can affect a successful outcome by lack of adoption or bad reviews. Also, the prioritisation of stakeholders will be different for each of the 28 MONICA partners.

Table 1 Initially defined target groups for communication and dissemination in MONICA

The Cities	The Citizens	Technology Providers	Researchers and Innovators	Regulators	Internal Audiences
Event and festival organisers	Neighbours to events	IoT Smart City integrators	ICT and IoT research communities	Local politicians	MONICA partners
Public authorities	Citizens in urban areas	Component and system suppliers, IoT platform companies	Acoustics societies	National politicians	Project Board
The cultural and creative industry	Event participants	Telecommunication companies	Support actions	Law enforcement organisations	Advisory Board
The tourism industry	Civic communities	Security service providers	IoT large scale pilots	Noise regulation communities	Ethical Board
Various communities of EU cities	Entrepreneurs, innovators, developers	Acoustic industry	AIOTI - The European Alliance of IoT Innovation	EU regulators	EC Project officer
Press	General public	Standardisation bodies	IoT EPI, OpenAIRE, IoT Open platforms	Data protection experts	Partner internal organisation
Other public institutions (healthcare)	Educators (non-research)	Other IoT industries (healthcare, gamification)	Art Community		

The Cities comprise public and private actors responsible for the administration and organisation of large cultural events in the city. Development of the city towards the Smart City concept is crucial to all subcategories in relation to innovation, growth and fostering optimal creative business. As a result, they are interested in activities which make the city more attractive, without sacrificing the Safe City aspects. Therefore, the public actors also have a responsibility to meet all interests in the city, especially safeguarding its citizens, with the role of making rules on how to use the city and/or administering that regulations and rules are obeyed. This includes interaction with the PPDR authorities (Public Protection and Disaster Relief) were any new or increased cultural activities must accommodate the interests of these authorities.

The Citizens consist of all the people who live in the city or come to cultural events in the city. They include the citizens affected directly by the events; citizens participating in the events; groups of citizens with an interest in the city, a specific area or cause; citizens with an interest in creating new services and the general public. The local inhabitants want what is best for their local surroundings, with special focus on what may affect their daily life and neighbourhood. Others, such as tourists and visitors, come to enjoy the events being less attached to the city as ‘home’, looking merely for great experiences.

Technology Providers cover the broad group of technology suppliers from device and hardware manufacturers to network and storage, interested in, enabling or integrating IoT functionality. A common feature is the focus on the business prospect of offering IoT technologies, moving away also from the fixed wire constraints to developing new standards for enabling wireless interoperability.

Researchers and Innovators cover the ICT communities and projects who work with similar aims as MONICA: to bring IoT technologies to the market and establish Europe as The Innovation Union. Both the Technology Providers and the Research and Innovation group look at the potential of using the results from MONICA in other city innovation areas such as airports and main traffic arterials. Other business/innovation areas such as healthcare and gamification industries could also benefit from the knowledge derived from the project. Such spin-off stakeholders are also evident in the Cities’ sub-group ‘other public institutions’ such as the healthcare institutions who could be interested in new health apps, in-ear solutions, noise measurement etc.

The Regulators cover the group of national regulatory authorities (NRA’s) holding the mandate to develop and set the scene for what is possible or not for the MONICA application areas both at a local, national and European level. They should not only be seen as a barrier but a dynamic framework for guidance which helps

to identify but also overcome constraints in particular through the work at European level in bodies such as ETSI[9] and CEPT[10].

The Internal Audiences contain the stakeholders internal to the project. At project level, the city pilots are important as a requirement source and the advisory and ethical board as consultants in terms of needs, trends, rules and standards. At partner level, the internal organisation plays a role in the sustainability of the MONICA solutions beyond the project.

The following table illustrates the main role and interest of the different subgroups in relation to deployment of MONICA solutions and the need for communication.

Table 2 Role, interest and communication need

	Sub-group	Role	Interest in MONICA	Communication need
The Cities	Event and festival organisers	Plan and market events Meet budget and generate growth Gain feedback from users to improve services	Increase the number of popular events or participants or expand the variety of artists Widen the concert event opportunities to approach more urban environments	Get detailed information about the MONICA applications and the opportunities Get access to evaluation results
	Public authorities	Develop and maintain city and citizen services Participate in branding of the city Inform and communicate with citizens about central issues gaining feedback	Attract newcomers whether citizens, artists, creative classes or visitors Provide a better citizen service Promote what makes the city unique and safe	Get detailed information about the MONICA demonstrations and opportunities Get information about the evaluation results in terms of environment, noise control, security and user acceptance
	The culture and creative industry	Market their cultural products Continue to innovate	Fulfil certain standards and quality parameters Attract a wider range of artists	Get information on the opportunities of MONICA in other cultural areas
	The tourism industry	Market the city towards visitors	Attract more visitors	Get information about what MONICA has to offer and promote its business models Spectacular - Safe - SMART
	EU city communities	Share knowledge with other cities	Improve urban life by sustainable, integrated solutions, and even Cooperate in the implementation	Get information about MONICA as Best of Practice
	The press	Provide news to citizens about the SMART changes in society	Empower the informed to make own decisions, and develop new ideas of applications	Get information about the novelty of the demonstrations and MONICA's impact on society In MONICA, special focus is expected on the aspects of

[9] European Telecommunications Standards Institute: http://www.etsi.org/
[10] European Conference of Postal and Telecommunications Administrations: http://www.cept.org/

	Sub-group	Role	Interest in MONICA	Communication need
				the new, personal data protection regulations
	Other public institutions such as the healthcare domain	Look out for new opportunities and innovation	Utilise the results from MONICA in their own domain to improve services	Be informed about the potential of other application areas
The Citizens	Neighbours to events Close proximity to the events	Quality of life directly affected by the cultural events in the city	Keep noise and other nuisance (petty crime, traffic, etc.) to a minimum	Get information about issues and changes that affect them and which they can affect Consultancy and feedback on annoyance level Shared access to city data Enter into dialogue and be heard
	Citizens in urban areas	Part of a democratic society, with rights and obligations, being a determining factor in accepting changes	Protect standard of living and rights	Shared access to city data Point out the general relevance of MONICA to everyday life and how it adds value
	Event participants	Partake in cultural events and provide feedback, which influences the perception of event success or failure	Enhance the whole experience (quality, service, safety and trust)	Know the details about the venue/event, features and services including applications
	Civic communities	Identify and address issues of public concern	Solve issues of public security and noise concern to promote the quality of the community	Get information about MONICA in terms of citizen involvement
	Entrepreneurs, innovators, developers	Make/develop new business opportunities Contribute to growth of society and employment levels	Use the MONICA toolbox of development tools and technology enablers to quickly develop new IoT applications.	Receive information about tools and guidelines and how to use them
	General public	Voice the ‘norm’ of society and influence the general perception of what is ‘in’ and what is ‘out’	Become aware of the project’s aim and relevance	Get information about MONICA as issues relevant to their daily life and society in general
	Educators (non-research)	Play an active role of learning, influencing its content and modelling	Must have up-to-date insight and knowledge about technology and IoT to found next generation innovation	Get information about MONICA applications and their context in terms of pros and cons

	Sub-group	Role	Interest in MONICA	Communication need
Technology Providers	IoT Smart City integrators	Provide a secure and scalable IoT infrastructure that integrates multiple systems	Integrate with existing applications Leverage the MONICA enabling toolbox Move from small-scale to large-scale operation	Get information about the MONICA IoT platform ecosystem as moving beyond the state of the art and integration aspects Get access to the business models
	Component and system suppliers IoT platform companies	Develop and market the right systems and processes for maximum value Safeguard connected devices and networks Ensure privacy measures	Deliver a resilient, secure, scalable IoT platform Deliver feedback, actuation and intelligence for situational awareness and decision support Overcome the uptake barrier of costly sensors Leverage the MONICA generic Data Security, Privacy and Trust Framework for full data protection and privacy	Get information about the MONICA ecosystems. Special interest in scalability and security is foreseen Get access to validation results Get information about the business models Communicate the advantages of industry participation in the standardisation activities in ETSI
	Telecommunication companies	Accommodate for the rapid increase of devices communicating over their networks and the different behaviour when connecting to the network Safeguard connected devices and networks	Integrate M2M (Machine-to-Machine) communication technologies into the telco network Expand services for IoT revenue	Get information about MONICA approach and results in terms of deploying wireless communications in massive IoT networks Communicate the message that pure data services should be offered at flat rates to grow the business
	Security service and solution providers	Secure events and venues	Add additional security solutions to the portfolio of services	Get information about the MONICA security applications and innovations and how they interwork with current security related networks
	Acoustic industry	Offer acoustics design for enhancement of sound experience	Move from laboratory testing to real environment implementation	Get information about the MONICA sound applications and innovations

	Sub-group	Role	Interest in MONICA	Communication need
		and/or noise control solutions	Leverage the results of establishing sound zones in a real-life setting	
	Standardisation bodies	Identify standards gaps, and encourage developments of new technical standards towards European Norms (EN) in ETSI	Pave the way further for a horizontal approach, 'using the same language' Create a competitive offering of MONICA services through a standards-based environment with the CE-marking certification	Get introduction to MONICA and input on new possible standards coming from the project Establish a regular liaison between project MONICA and the relevant ETSI TB's in the field of IoT/M2M
	Other IoT industries (healthcare, gamification)	Create business opportunities	Exploit the MONICA results in own business domains and for new applications	Get information about MONICA innovations and replicability and have access to tools
Researchers and Innovators	ICT and IoT research communities	Build and exchange knowledge of ICT and IoT Strengthen European leadership and overall export potential	Identify areas for further research and innovation including eventual follow-on projects	Get introduction to MONICA and its innovations, moving beyond state of the art
	Acoustic societies	Promote the knowledge, progress and practical applications of acoustics in an outdoor environment	Move from laboratory testing to real environment implementation Disseminate the establishment of quiet sound zones in a real-life setting	Get information about MONICA and the acoustics ecosystem and applications Develop Application Notes explaining the possibilities of invisible"sound curtains" or "muted areas"
	Support actions	Support IoT take-up by aligning it with end-user and societal expectations Mutualise information and learning experiences, and improve communication with the public Stimulate collaboration between IoT initiatives, foster the take up of IoT in Europe and support the development and growth of IoT ecosystems	Follow user activities and provide consultancy Follow and support the IoT progress	Get information about MONICA vision and approach to provide the best support

	Sub-group	Role	Interest in MONICA	Communication need
	IoT large scale pilots	Promote the up-take of IoT and facilitate open IoT eco systems in Europe	Exchange knowledge and collaborate	Get introduction to MONICA and vision
	AIOTI – the Alliance for IoT innovation	Contribute to a dynamic European IoT ecosystem	Utilise the results from MONICA	Get introduction to MONICA and vision
	IoT EPI, IoT Open platforms, OpenAIRE	Build a vibrant, open and sustainable IoT-ecosystem in Europe	Share information about platform interoperability and development	MONICA results (use cases, lessons learned, software) made available to the IoT Open Platforms portal.
	Art Community	Bring together artists and technology providers to explore new ways of working	Creativity coming from MONICA to boost innovation and stimulate prototype development	Inform of MONICA and the possibilities of taking part in artistic residence programs
Regulators	Local politicians	Lay out the local strategies, policies and budget for IoT uptake and Smart City implementation	Identify the opportunities and benefits of implementing IoT for city services	Get introduction to MONICA and the IoT opportunities for Smart Living and Smart City implementation
	National politicians	Lay out the national legislative framework and budget	Identify the national opportunities and benefits of implementing IoT	Get introduction to MONICA and the demonstrations of IoT in terms of security and noise
	Law enforcement organisations	”Dress up” the Public Safety and Emergency organisations and staff to understand how MONICA could be a tool that further strengthens their capabilities efficiency of activities	Improve security measures and management when handling large-crowd behaviour. Understand how MONICA offers predictive assistance in identifying possible trouble zones in a large crowd	Get information about MONICA in terms of security handling and interaction with existing local systems.
	Noise regulation communities	Avoid noise problems by setting up guidelines, noise limits and methods of noise measurements	Follow the results on the handling of noise at large cultural events and on the general perception of sound	Get information about the results from the pilots
	EU regulators	Establish the legislation and regulation relevant for IoT deployment; ePrivacy, cybersecurity, data protection, data economy	Follow the results from the demonstrations to identify gaps, barriers and impact	Get information about MONICA and its results within the regulatory landscape Get information about barriers that hinder further uptake
	Data Protection experts	Assess data management in ICT systems	Follow the demonstrations and evaluate the MONICA	Get introduction to MONICA and involvement of advisory and ethical boards

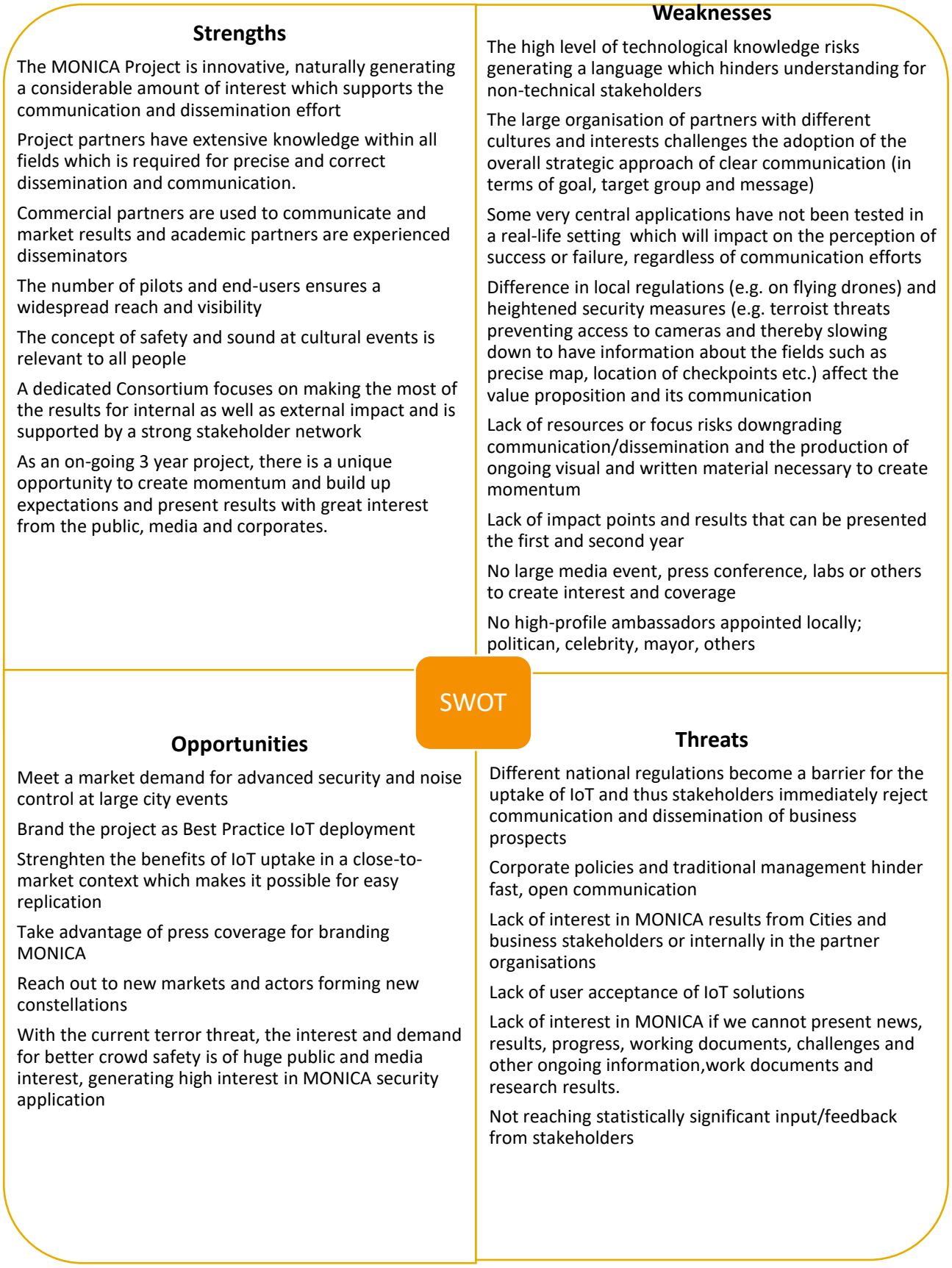
	Sub-group	Role	Interest in MONICA	Communication need
			Data Security, Privacy and Trust Framework and its impact	Get information about data issues hindering further deployment
Internal Audiences	MONICA partners	Promote MONICA and its results locally to showcase IoT uptake, either for commercial, consultancy or sustainability purposes Coordinate the activities	Offer new services Continue to use the IoT applications if successful	Know the communication and dissemination aims and commit to the plans Get tools and materials which assist activities Get information about activities from other partners
	Project Board	Ensures that major technical decisions support the project's vision and objectives and provides strategic direction to the project in all relevant areas	Reach goals in terms of innovation and impact	Get reports on the outcomes of dissemination and communication efforts
	Advisory and ethical boards	Offer expertise in terms of standardisation, radio frequency utilisation, security, noise, acoustics and IoT as well as ethical matters	Review the project outcomes and make recommendations	Get introduction to MONICA vision and progress Get access to relevant deliverables
	EC project officer	Functions as the main contact point between the Consortium and the Commission Ensures the development, assessment and follow-up of the project	Assess the project impact and measuring the extent to which the project contributes to the achievement of the EC strategic objectives	Get reports on the impact of communication and dissemination efforts with regards to the overall goals of the project
	Partner internal organisation	Determines the objectives and strategy areas of the company/organisation	Reap the benefits of participation and create a lasting impact of the MONICA project	Get updates on project status, results and impact

3.5 SWOT

This section presents an analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) related to communication and dissemination in MONICA, analysing the internal situation (Strengths and Weaknesses), and external situation (Opportunities and Threats). The purpose of the analysis is to become aware of the potentials and barriers to better plan the strategic approach. The SWOT analysis is presented in Figure 1.

The analysis shows that MONICA has a strong foundation on which to create impact, being an innovative, widely applicable, close-to-market, real-life demonstration which is of relevance to most Europeans. The challenge will be to use resources wisely, giving the right people, the right information at the right time for maximum impact and to ensure that the regulatory and user demands are met. In the following chapters, the strategy and plan for achieving this goal are described.

Figure 1 SWOT analysis



4 Strategy

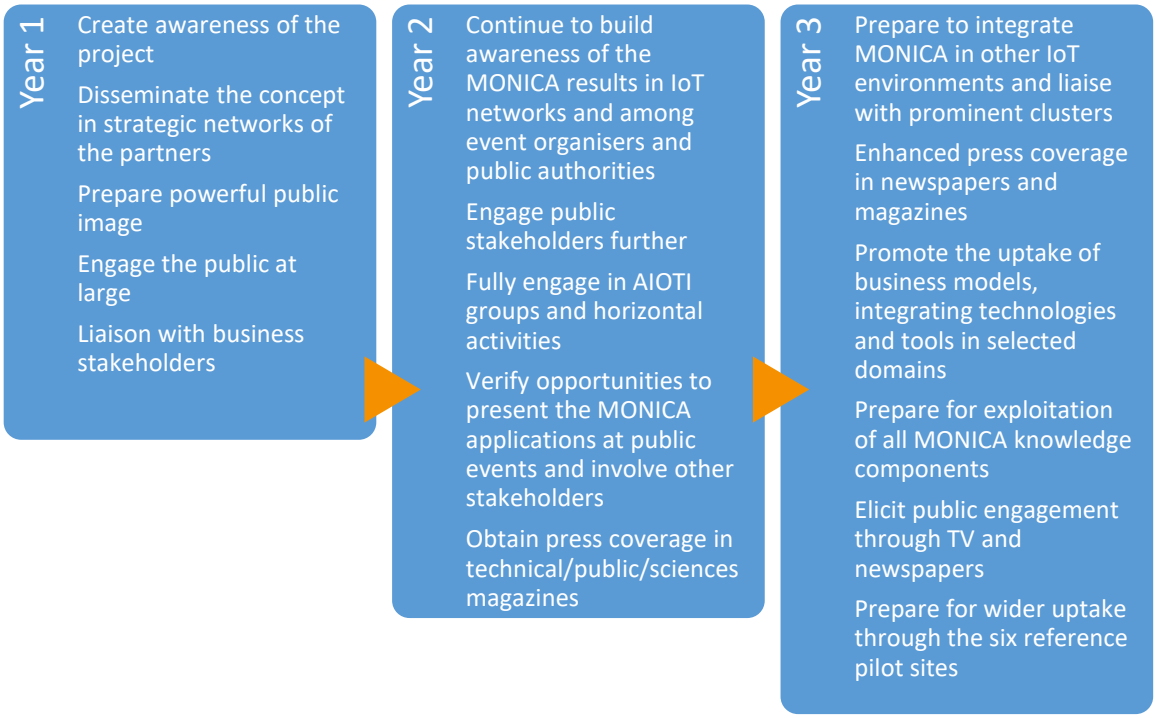
This chapter describes the aim of communication and dissemination and how MONICA plans to get there. It contains a stakeholder prioritisation, the key messages and which platforms MONICA plans to use.

4.1 Aim and approach

As mentioned, the goal of communication and dissemination in MONICA is to help achieve the overall vision and goals of the project set out in 3.1 for maximum impact. This is done by a threefold approach of making results and knowledge available (dissemination), promoting results and the project in general (communication) and engage stakeholders (collaboration, demonstration and user engagement). Key objectives include ensuring easy access to information and results for all stakeholders, engaging with stakeholders and providing demonstrations and developer tools.

The strategy is to progressively increase communication and dissemination activities as demonstration results are obtained, moving from initially assuring wide awareness of the MONICA project to creating favourable conditions for wider uptake towards the end of the project. The process is illustrated in Figure 2.

Figure 2 Stages of activities



4.2 Stakeholder prioritisation

MONICA have multiple audiences as identified in 3.4. who have different needs and interests and communication must therefore be targeted appropriately to be effective. To work effectively with all stakeholders, a prioritisation of stakeholders is valuable to demarcate the level of power and interest and plan communication and dissemination efforts accordingly.

Stakeholders can be mapped within four positions, indicating roles and what kind of action is needed[11]:

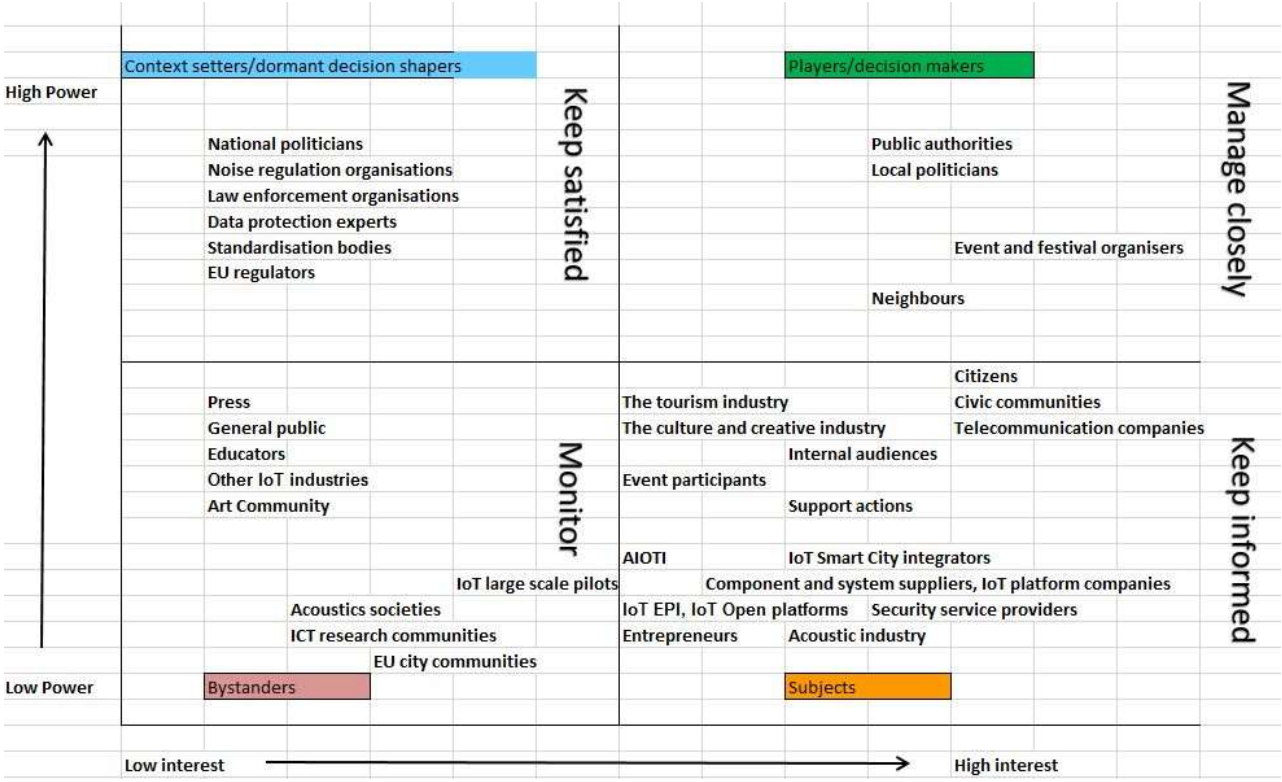
- Key players with high power and interest. They should be managed closely and be fully engaged, making sure they are very satisfied with the level and quality of communication;

[11] Methods used: Wright, George, and George Cairns, Scenario Thinking: Practical Approaches to the Future, Palgrave MacMillan, Houndmills, Basingstoke, Hampshire, 2011, p. 92 and https://www.mindtools.com/pages/article/newPPM_07.htm

- Context setters with high power but lower interest. They should be kept satisfied but not bored with the message;
- Subjects with low power, but high interest. They should be kept adequately informed, they might contribute with important aspects and advice;
- Bystanders with low power and immediate interest. They should be monitored and receive relevant updates but no excessive information.

The mapping of stakeholders in MONICA is illustrated in the following Figure 3. The mapping of stakeholders is subject to refinement as the project progresses and if a shift in power or interest becomes apparent.

Figure 3 Mapping stakeholders according to level of power and interest



The mapping of stakeholders shows that the cities, their politicians and the event organisers are central target groups for communication activities, being the ones making the final decisions on whether to adopt IoT solutions or not. However, actors who are affected by the solutions such as the neighbours to the events must also be kept in the loop and engaged in the process for optimal effect. The aim in MONICA is exactly to consolidate the conflict that may arise between city and citizen interest by engaging citizens in co-creating solutions.

Others who play an important role are the technology suppliers who provide the technological infrastructure and solutions for realising the Smart City/Smart Living – solutions which must comply with several requirements to succeed, in terms of security, interoperability and scalability.

4.3 Key focus areas and messages

In the previous sections, we have identified the communication and dissemination objectives related to the project goals and looked at the communication needs of each stakeholder sub-group. Key target groups have been identified, enabling the project to prioritise the communication efforts and from this, we can establish the key focus areas and messages that we want to convey. The key messages can be construed according to four different focus areas:

- Solution-oriented communication which engages cities and cultural event communities in the MONICA demonstration results and the technical proficiency.

- The key message is that cities can add value for all by implementing IoT technologies and that the technology is available and ready now;
  - MONICA demonstrates how multiple, existing and new technologies for a smarter living can be implemented at a large scale, focusing on security and acoustics applications at large cultural events in the inner city. It uniquely involves 100.000+ end-users with more than 10.000 citizens involved in co-creation and evaluation activities.
  - Innovative applications include the establishment of muted sound zones at outdoor concerts for noise mitigation as well as security measures improving crowd information and management.

- Technological dissemination/communication which engages the IoT community in the unique functionalities of the MONICA platform in terms of interoperability, scalability, heterogeneity, and closed-loop applications.
  - The key message is that current technological restrictions of large-scale IoT implementation (security, scalability, integration, lack of feedback, actuation and intelligence, cost etc.) can be overcome.
    - MONICA provides a Best Practice of large-scale IoT demonstration, taking all aspects into account. It demonstrates innovative security, acoustics and IoT platform ecosystems moving from laboratory test to real-life implementation. The ecosystem uses a multitude of different sensors, networks and heterogeneous data and entails a cloud-based platform capable of offering multiple applications with at least 10.000 simultaneous end users, making it a massive IoT platform demonstrations. The result is an IoT platform based on open architecture and standards which can be incorporated with existing Smart City systems, be replicated to fit other settings or used to develop new Smart City applications.

- Commercially oriented communication which informs stakeholders, investors, entrepreneurs and potential customers about the MONICA solutions, business models and tools.
  - The key message is that IoT technology can create real economic value, generating new business in various areas and settings.
    - MONICA will offer several business models showing the potential for IoT platforms and make tools available for building business by inviting developers and entrepreneurs to use MONICA open data and start-up services. With its innovative sound and security applications, it has substantial growth potential being relevant for several other application areas.

- Story-oriented communication which informs the general public about the demonstrations and progress in IoT solutions for solving societal issues.
  - The key message is that it is possible to embrace the new technologies and reap the societal benefits, without jeopardising data security, privacy and trust.
    - The MONICA solution features a generic data security, protection and trust federation framework that ensures full data protection and privacy and allows role-based control measures to enforce information exchange only among authenticated and authorised entities. MONICA has security and regulatory experts within the Consortium to establish the legislative framework and also engages an advisory and ethical board for proper guidelines.

The messages will be further detailed once the MONICA use cases are in place and once the demonstration results start emerging.

4.4 Communication and dissemination channels

The variety of target groups necessitates the use of several platforms for MONICA to effectively inform, communicate and engage with its many audiences.

To reach this wide audience, MONICA uses a mix of traditional and online communication tools. Online tools include the project website, social media channels, social awareness platform and webinars whereas the

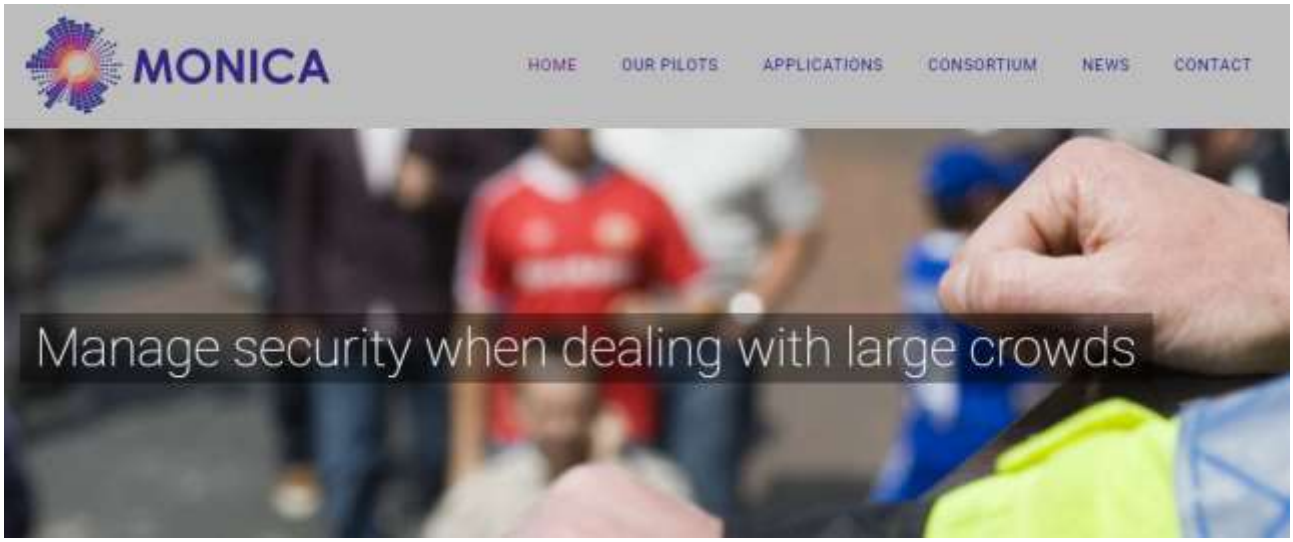
traditional channels cover exhibitions, events, paper presentations, press interviews, TV and radio appearance as well as visits, workshops and meetings. Some are suitable for information sharing; others invite the visitor to engage.

The following sections present the channels chosen for the different target groups. The website, social media platforms and webinars have already been described in detail in *D12.2 Project Website and Social Media Platforms*, so the following descriptions replicate the main conclusions and provide any further details.

4.4.1 Project website

The website is the main communication tool, suitable for addressing the various stakeholders in MONICA who can quickly click on to their area of interest. It contains the most important information about the project and will be enriched continuously.

Figure 4 Screenshot security slider on MONICA home page



It is designed so that is possible to get an overview of the MONICA story on one page, using images, videos, and lively, engaging content to engage the visitor, reflecting the vibrancy of the cultural and sport events which will be demonstration events in MONICA.

Most of the language used is non-technical and easy to understand, with the exception of technological and regulatory matters which entail using more specialist terms. However, the aim is to make this content as easily digestible as possible to the average visitor.

The visitor can on one page get an initial impression of the project by clicking ‘our pilots’, ‘applications’, ‘consortium’, ‘news’ which will lead to the respective description on the same page with the possibility to ‘read more’. It will also be possible to get more information about the project by using the submenus.

A central focus of the website is the end-users i.e. the cities and on what the city can gain by implementing IoT technologies (solution-oriented communication, see 4.3). An invitation to read more about the security and acoustics applications is given in the sliders on the front page and in the menu, leading to the six pilots.

Another important group is the technology providers looking for ways to deal with the integration of multiple networks, systems and technologies in the creation of business (technological and commercially oriented communication/dissemination). Finally, focus is on the engagement of citizens in Smart City solutions (solution- and story- oriented communication). Read more about the website content and solution in *D12.2*.

4.4.2 Partner websites

Partners use their own websites to promote a general awareness of the MONICA project, pinpoint their specific role in their own network of stakeholders and some partners will create specific pages for the project[12]. Some partners have started from day one publishing news about MONICA and continue to post on a regular basis,

[12] https://www.fit.fraunhofer.de/en/fb/ucc/projects/monica.html, http://www-injet-azure.businessdns.dk/en/articles.php?article_id=2 http://www-injet-azure.businessdns.dk/en/articles.php?article_id=27

other partners (e.g. some pilot partners) will only use certain official channels when a more definite and developed stage of the project is achieved. Examples of news releases are shown in Appendix E.

4.4.3 Social media platforms

To reach and engage a wide audience, information about MONICA is spread both on the project as well as on partners' social media sites. Posts will be shared to support the flow of news and content added continuously. Some partners will use their social media channels only for special occasions.

MONICA uses different social media channels to increase visibility, share knowledge faster, promote the results and interact with the public, especially the citizens involved at the pilot sites. By using social media, MONICA meets people where they are, thereby gaining important insight, and MONICA can take advantage of the networking and viral effect, making it possible to increase awareness considerably.

At the time of writing, Facebook and Twitter are used at project level and MONICA also plans to establish a YouTube channel once videos are produced. Other channels such as Instagram and LinkedIn are also considered.

Facebook

Being suited for reaching citizens and the general public, Facebook is used to highlight the demonstrations and the relevance it brings to society and our daily lives, using a non-formal and more personal language. The aim is to engage people in the discussions on the benefits and conflicts of having large, inner city events and using new IoT technologies, ultimately to gain user acceptance of IoT (story- and solution-oriented communication).

The MONICA Facebook page targets the broader European crowd, collecting and linking stories about the project and the events.

Partners also use their own Facebook pages to create awareness about the project and highlight their specific role. Pilot partners will use it to target the individual citizens and civic groups affected by the large cultural events inviting them to participate in solving the challenges based on factual data and information coming from the pilot sites.

Twitter

MONICA mainly uses Twitter to connect to the IoT and EC communities, which include other relevant projects, networks, initiatives and stakeholders in the IoT domain as well as cities interested in IoT technologies and Smart City/Living platforms. As a result, the tweets contain more specialist terms, known to these communities.

Tweets are used to direct the audience's attention to central information about the project and invite for collaboration by marketing events, open data repositories, promotion packages and publications (commercially oriented and technological communication/dissemination).

MONICA will also use Twitter to promote and comment on the webinars, applying a hashtag which others can use in their tweets. All tweets during the webinar will feature in the integrated Twitter feed on the webinar player site. Read more about the social media platforms and usage in *D12.2*.

YouTube

With over 1 billion users, YouTube is a far-reaching platform which MONICA plans to use for uploading and sharing own videos. Central stakeholders are Cities, Citizens and the general public. The content of the videos will inform and engage viewers, focusing on creating awareness and on making content that are relevant to general society. Other possibilities will also be explored such as interviews of citizens/neighbours or vlogs (video diaries) from the demonstration events. MONICA will also engage in more 'social' activities, following relevant YouTube channels and commenting on content.

Instagram and LinkedIn

Several partners use other channels such as LinkedIn and Instagram which can are used to spread MONICA messages, increase visibility and coverage. As mentioned in *D12.2*, Instagram is an obvious choice for the

pilot events and happenings, sharing pictures and input and this content can also feed directly into the Facebook page(s). With over 400 million users of which 53 % are between the ages of 18 and 29, Instagram is a suitable platform for the festival and concert-goers in MONICA.

LinkedIn can be utilised for targeting content to very specific industries and companies such as the Technology Providers as it is a channel for business networking with 433 million members. It is also relevant for opening up business opportunities to individual partners since it links directly to partners' company profiles. The associated slide hosting service SlideShare, owned by LinkedIn and with 70 million users, can be used to share presentation slides.

Figure 5 Instagram post from partners Vaeksthus Zealand on MONICA in the local Copenhagen newspaper Bryggebladet https://www.bryggebladet.dk/

Heavy uden høreværn

EU giver 112 millioner kroner til lydprojekt, der rammer lige ned i en varm Bryggeproblematik: Hvordan kan man beskytte naboer mod uønsket støj fra koncerter og events

Kan man være nabo til en heavykoncert og alligevel få sig en morfar? Kan man bo ved siden af en dansescene uden at vågne om morgenen med samme fodder og vabler i øregangene? Eller mere præcist: Hvordan afskærmer man lyd fra koncerter og store events i byen, så den generer naboerne mindst muligt?

Det skal MONICA, et stort europæisk innovationsprojekt om lyd, forsøge at finde svar på i løbet af de næste tre år.

Et dansk initiativ med udgangspunkt i et ønske om at forbedre forholdene for naboer, musikere og koncertgæster til Fredagsrock i Tivoli har fået EU til at bevilge ikke mindre end 112 millioner kroner til et stort europæisk innovationsprojekt om lyd og sikkerhed ved kulturelle events. Nu skal 29 partnere fra seks forskellige europæiske lande, heraf otte fra Danmark, finde smarte, højteknologiske løsninger på udfordringer med støj i forbindelse med store events.

Med Tivoli som lyslevende testmiljø vil de danske partnere, som blandt andre tæller Vækstfabrikken Lydens Hus, DTU og Københavns Kommune, finde løsninger på, hvordan man kan styre lyd med det mål at begrænse støjgener i forbindelse med store events og koncerter. Som en sidegevinst vil tilskuerne få en endnu bedre lydoplevelse.

Målrettet lyd

Projektet fokuserer på, hvordan man via teknologiske løsninger kan målrette lydoplevelsen til særlige 'lydzoner'. For eksempel til de mange tusinde publikummer ved Fredagsrock i Tivoli. Innovationsprojektet har desuden fokus på, hvordan der skabes god dialog med beboere i områder med mange events.

De danske partnere forudser, at forskningsprojektet vil give øget innovation og vækst i danske lydvirksomheder. De teknologiske løsninger, som forsknings-projektet munder ud i, skal kunne anvendes i alle byer rundt om i verden. -hn

FAKTA:

- Det internationale forskningsprojekt om lyd, MONICA, løber over en treårig periode fra 2017 til 2019.
- Ud over støjproblematikken beskæftiger projektet sig med sikkerhedsforanstaltninger i forbindelse med events, hvor teknologiske løsninger også kan give nye muligheder for at sikre fornuftig adfærd i store grupper.

lydenshus Følg

17 Synes godt om 9 u.

lydenshus Bryggebladet har bragt en interessant omtale af MONICA projektet. D. 6. februar afholder Københavns Kommune en åben konference om projektet på Rådhuset kl. 14.30-17.30. Find mere info og program på vores facebookside Vækstfabrikken Lydens Hus eller skriv til info@lydenshus.dk

Log på for at synes godt om eller kommentere.

4.4.4 Collective Awareness Platforms

Citizens from the pilots, who are affected by the events are invited to participate on Collective Awareness Platforms (CAP) with the purpose of co-designing sustainable solutions for their neighbourhoods. Each pilot city will have a CAP with content based around the focus of the pilot.

The CAP will contain discussion fora/blogging tools with the possibility of making customised widgets as a foundation for further engagement and co-creation activities. The widgets can be used for context awareness, knowledge sharing and factual enrichments of discussions by containing relevant data from the demonstrations such as noise levels, crowd information and or traffic details.

4.4.5 Webinars

Webinars are suitable for inviting many stakeholders into the dialogue, sharing knowledge and best practice. Three webinars will be organised in MONICA, targeting different stakeholders. The webinars will be used to maintain interest in MONICA and engage central players from the demand side (cities, event organisers) and supply side (acoustics and security industry and the technology providers).

The three webinars will deal with:

- Citizen engagement (solution-oriented communication) aimed at event organisers and cities who look to create the best possible solutions by engaging the citizens affected. The MONICA approach to social innovation and demonstrations of solutions on how to involve the citizens are presented and results are discussed;
    - Panel participants: MONICA partners (pilots), public authorities (engagement experts), event organisers (customer and citizen service)
    - Other target sub-groups: Citizens, EU city communities, civic communities, support actions, IoT large scale projects, local and national politicians
- Noise control with participation of a broad selection of actors (technological and commercially oriented communication). The MONICA acoustics ecosystem, applications and demonstration results are presented and discussed in terms of innovation and business potential;
    - Panel participants: MONICA partners (technological, regulatory, business), public authorities, event organisers, acoustic industry, noise regulation communities
    - Other target sub-groups: Local and national politicians, acoustic societies, AIOTI – the Alliance for IoT innovation
- Security with participation of security professionals (technological and commercially oriented communication). The MONICA security ecosystem, applications and demonstration results are presented and discussed in terms of innovation and business potential;
    - Panel participants: MONICA partners (technological, regulatory, business), security service and solution providers
    - Other target sub-groups: public authorities, event organisers, law enforcement organisations, local and national politicians, AIOTI – the Alliance for IoT innovation.

The webinars will follow the same basic format with a panel of experts representing different areas of expertise. Two moderators will be assigned to the webinar; one to manage the floor at the physical meeting and another to manage the online input from the webinar viewers.

Each webinar will last a couple of hours and will be webcast live. After an introduction by the moderator, each expert will give a short presentation on the topic from their unique perspective. The presentations will be followed by a panel discussion of the main aspects and issues raised. The discussion will include questions from the participants in the room and the online viewers.

In the live webcast, the online viewers can interact via a live chat window (moderated) and can also tweet about the webinar (not moderated).

To further motivate the remote audience to engage in the discussions, the online moderator can post short live comments and tweets about what is happening. The webinar will end with a summary of the main discussion points and conclusions.

The webinar is available on-demand using a webcasting platform. Read more about the webcasting platform and functionalities in *D12.2*.

4.4.6 Open data repositories

MONICA will create an Open Data repository that enables cities to share the data from IoT sensor networks and wearables (privacy and security concerns permitting) with citizens as well as entrepreneurs and developers who would like to use it to build new applications or redistribute it.

This applies in particular to data on sound and noise levels in multiple city locations and possibly also data related to crowd information, again only if not violating regulations.

All the public partners have already comprehensive repositories for Open Data where the MONICA data can be published. For the project lifetime, a dedicated repository will be created in the MONICA cloud where the open data will be stored. Access will be channelled through the relevant city Open Data platforms.

Figure 6 Copenhagen open data set http://data.kk.dk

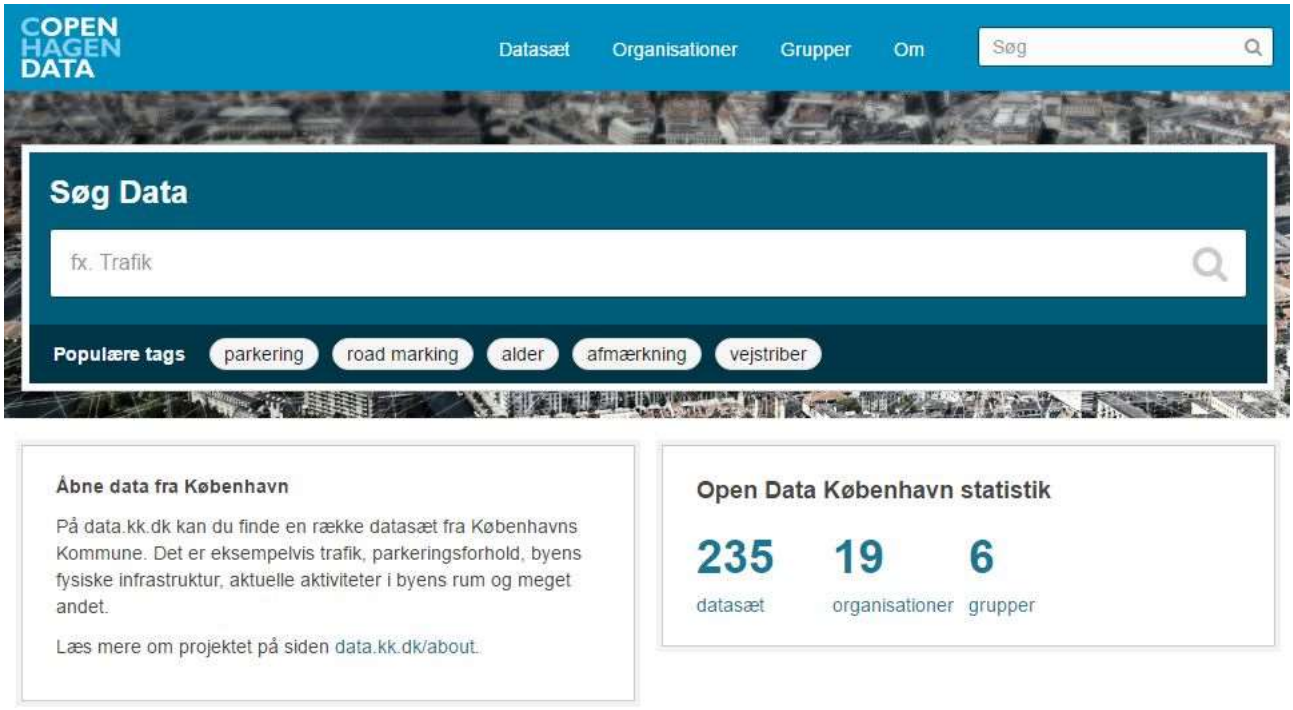


Figure 7 Open data Lyon https://data.grandlyon.com/

The aim is to provide factual information as a basis for better decision-making and enable use of the results for new innovative solutions.

MONICA will also participate in IoT EPI[13] and the Pilot on Open Research Data in H2020 which 'aims to make research data generated by selected Horizon 2020 projects accessible with as few restrictions as possible, while at the same time protecting sensitive data from inappropriate access'[14].

4.4.7 Scientific journals and conferences

Scientific journals and conferences are important dissemination channels for sharing the MONICA results to academic and industrial communities, creating knowledge impact and enabling stakeholders to use the results in their own work. The channels will mainly be used by the academic partners in MONICA (technological dissemination).

The first submissions to conferences and leading technical journals will take place when substantial scientific results emerge from the project. Due to the composition of the Consortium, journals targeted are industrial, computer science and software journals.

Table 3 Targeted journals for submission of publications

IoT360 (http://iot-360.eu/2015/)	International Symposium on Wearable Computers (ISWC)
Wearable Technologies Body Sensor networks (BSN)	IEEE Systems, Man, and Cybernetics Society conference
IEEE Pervasive Computing	IEEE Transactions on Signal Processing
IEEE Computer	Ubiquitous Computing and Communication Journal
Int. Journal of Semantic Computing	Int. Journal of Advanced Computer Science and Applications
Applied Acoustics	Acta Acustica Journal of the Audio Engineering Society
Noise Control Engineering	Information Systems for Crisis Response and Management
Image and Vision Computing	International Journal of Computer Vision
Pattern Recognition	IEEE Transactions on Circuits and Systems for Video Technology
Pattern Recognition Letters	Computer Vision and Image Understanding Neurocomputing IEEE Intelligent Systems
Machine Vision and	IEEE Transactions on Human-Machine Systems (THMS)
Applications Expert systems with applications	IEEE Computational Intelligence Magazine

The conferences that MONICA partners will submit publications to are high impact, international conferences in the area of acoustics and computer science. As a starting point, the following annual conferences and events have been identified as targets:

Table 4 Targeted conferences for paper submission

ESWC – Extended Semantic Web Conference, http://www.ewsn.org/	Euronoise - European Conference and Exhibition on Noise Control, http://www.euronoise2018.eu/
IJCAI – International Joint Conferences on Artificial Intelligence, http://www.chessprogress.com/IJCAI-2018/2016/08/31/hello-world/	Internoise - International Congress and Exposition on Noise Control Engineering Taming Noise and Moving Quiet, http://internoise2017.org/
International Conference on Computer Vision, http://iccv2017.thecvf.com/	Ubicomp – ACM Conference on Pervasive and Ubiquitous Computing, http://ubicomp.org
European Conference on Computer Vision, https://eccv2018.org/	ECAI – European Conference on Artificial Intelligence, http://www.ecai2016.org/
British Machine Vision Conference (BMVC), https://bmvc2017.london/	

[13] http://iot-epi.eu/
[14] https://www.openaire.eu/opendatapilot

	KES – Int. Conference on Knowledge-based and Intelligent Information & Engineering Systems, http://kes2017.kesinternational.org/ EWSN – International Conference on Embedded Wireless Systems and Networks, http://www.ewsn.org/

4.4.8 Events

To effectively ensure visibility of the project and establish important liaisons, MONICA partners will organise and/or attend several events, ranging from conferences, exhibitions to workshops and meetings, targeting different stakeholders.

MONICA will organise two workshop sessions at relevant conferences to demonstrate European advances in IoT platforms and inviting leading scholars as key speakers. The topic of the first workshop is a demonstration of the scalability and integration capability of MONICA aimed at the IoT community (technological dissemination). The second workshop will demonstrate the MONICA solution to city challenges and how to involve citizens (solution-oriented communication) and will be aimed at cities.

MONICA will also organise workshops to enhance exchange of knowledge between multidisciplinary groups. These include an 'Innovation showcase' on a specific topic where industry leaders, research academics give seminars on their work and stakeholders. In relation to the impact on tourism and culture, an international workshop with the participation of artists, event managers, tourist planners, public authorities, sociologists, psychologists, anthropologists, journalists, etc. The aim of the workshop to lay out a roadmap for the future use of Smart Cities' concepts in tourism and art.

The showcase and networking event will be organised in collaboration with the Enterprise & Innovation office at Leeds Beckett University, taking place in month 24. The international workshop will occur in month 30. The workshop will introduce the audience to topics that address the uses of technology to support event planning, organising and running in the context of tourism, culture, arts and sports.

MONICA will also consider doing demonstration workshops in each pilot city with partners involved in the planning. They should include high profile speakers and participants, bearing the press in mind so that they can have material and news to work with making it easy for them to cover the events.

Throughout the project's lifetime, different events and happenings will be considered to boost interest and coverage. These include:

- a special event focusing on security, as the media and public are highly interested in this topic. By taking advantage of the public security interest and concern, security can be used as the hook to create interest for MONICA;
- a happening, flash mob, exercise, experiment and/or other type of event to assure interest and press coverage. They can be arranged in various cities, while partners are visiting and all gathered or at the actual events used for demonstrating MONICA;
- Press conferences at the EU and at other locations, where mid-results and advances are presented.

Partners will also participate in a limited number of specialised international and national exhibitions to highlight the offerings of MONICA.

4.4.9 Networks

Partners will use their local and national networks to communicate and disseminate MONICA and the particular value propositions which are relevant to their field of operation. They will also engage in various EU and international networks, as well as in clusters of EU and joint programme projects addressing the field. The EU and international networks include, but are not limited to:

- AIOITI - The Alliance for IoT Innovation: http://www.aioti.org/
- ANT+ Alliance (wireless sensor network), https://www.thisisant.com/
- ARTEMIS Industry Association (embedded intelligence): https://artemis-ia.eu/

- CEPT - European Conference of Postal and Telecommunications Administrations http://www.cept.org/
- Continua Health Alliance (connected personal health), http://www.continuaalliance.org/
- ETSI - European Telecommunications Standards Institute: http://www.etsi.org/
- EFFRA – European Factories of the Future Research Association, http://www.effra.eu/
- EUROCITIES – network of major European cities: http://www.eurocities.eu/
- IEEE - Advancing Technology for Humanity: https://www.ieee.org/index.html
- IERC – European Research Cluster on the Internet of Things: http://www.internet-of-things-research.eu/
- IETF - The Internet Engineering task force https://www.ietf.org/
- IRTF - Internet Research Task Force: https://irtf.org/
- ITU-R - ITU Radiocommunication Sector: http://www.itu.int/en/ITU-R/information/Pages/default.aspx
- NATO (on cyber defence): http://www.nato.int/cps/en/natohq/topics_78170.htm
- PSCE - Public Safety Communication Europe: http://www.psc-europe.eu/
- US & European Special Operation Forces
- US & UK government agencies

MONICA also participates actively in the consolidation and coherence work implemented by EC horizontal actions and other initiatives, collaborating with several projects. A description of projects and plan for this work is presented in 5.3.

The national and local networks which partners use feature in the individual partner communication and dissemination plans.

4.4.10 Other channels

Besides the listed channels, MONICA will also communicate with stakeholders through mails, meetings, hackathons, distributing important news, sending press releases, inviting to engage as well as doing presentations. Partners will target relevant online newsrooms with articles and contributions as well as offer interviews.

Relevant EC channels such as newsrooms and blogs will be targeted and contributions made to the coordinated dissemination portal as part of the collaboration with support actions and other large-scale pilots. See 5.3.1.

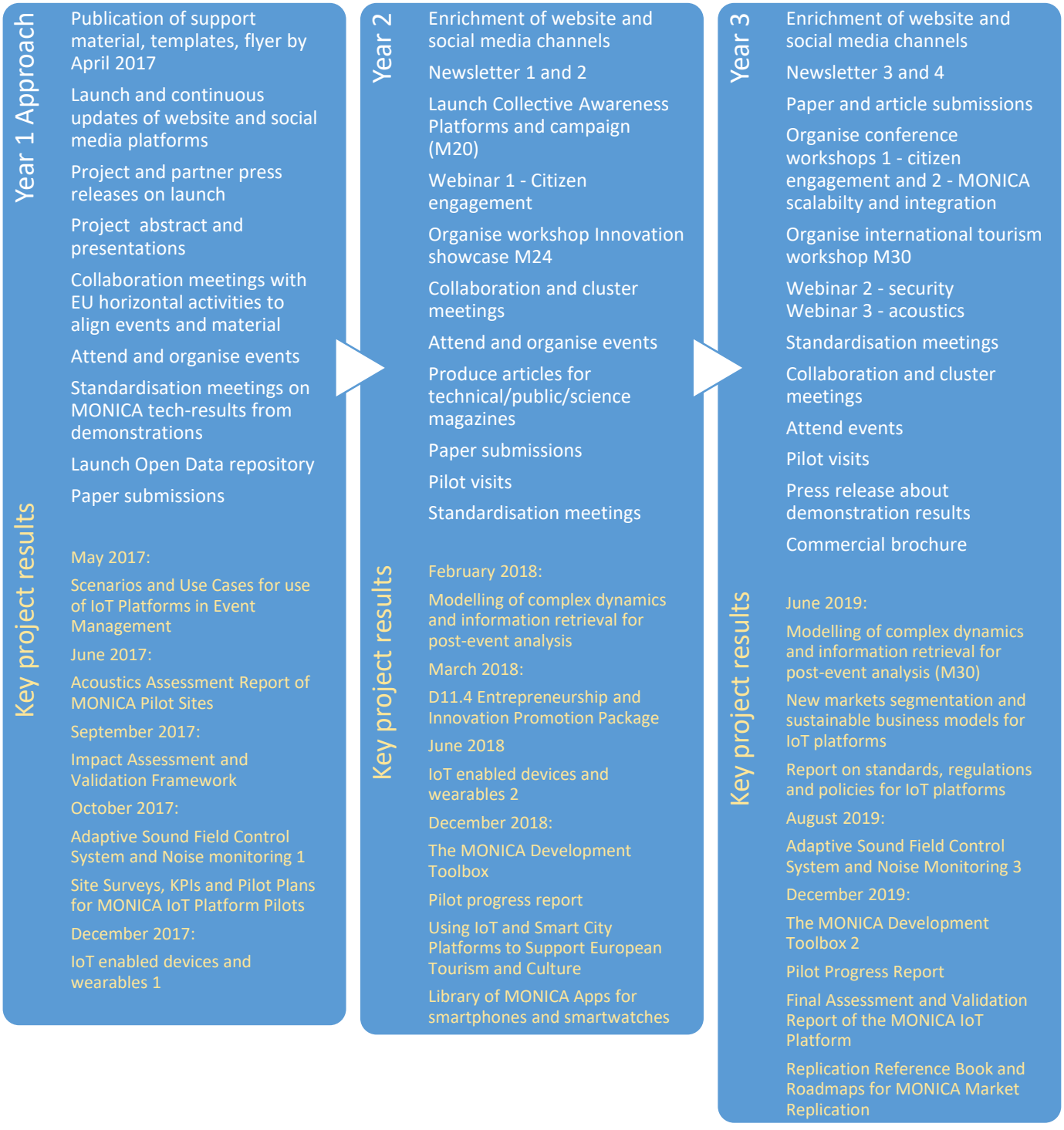
MONICA will also consider appointing high-profile ambassadors like politicians, celebrities etc. to boost visibility as well as the need for spokesmen assigned to the project for a certain period of time. Several local politicians from the pilot cities have already been visible in communicating the prospects of MONICA for their cities. See Chapter 8.

5 Plan and Execution

This chapter presents the overall, communication and dissemination plans for MONICA, executing the messages through the chosen channels by using different forms.

As described in 4.1, the strategy is to increase communication and dissemination activities as the project results appear, moving from creating awareness to preparing for exploitation. Figure 8 presents the activities planned to realise the objectives from 4.1, aligned with the timing of central project results.

Figure 8 Communication and dissemination approach and overall plan



In the first year, information about the project and its vision is spread to all stakeholders, in the second year, focus is on further engaging stakeholders based on the initial MONICA results and impact and in the third year, the aim is to demonstrate the MONICA solutions by organising several events and activities. Key project results are listed to indicate the timing of associated communication/dissemination activities.

5.1 Communication and dissemination form

As presented in Figure 8, MONICA uses a variety of communication and dissemination forms customised to the different channels and stakeholders. MONICA will aim to use a lot of visual material (images, videos, slides, infographics), to attract more attention, make it easier to understand MONICA and to make people remember MONICA based on the fact that 80 % of people remember what they see, only 20 % of what they read and 10 % of what they hear. The following methods are used:

- Flyers/brochures, posters, presentations and demonstrations are developed to support marketing activities at events and meetings. As the project progresses, the content will assume a more commercial point of view;
- Newsletters and press releases are distributed via mail to highlight key aspects of MONICA and the good stories;
- Videos, images, posts, news articles are used on website and social media sites to inform and engage users, signalling an active project;
- Calls for proposals and promotion packages are promoted through social media campaigns, newsletters and hackathons to engage entrepreneurs and innovators;
- Articles, information material, publications are submitted for technical, cultural and scientific events and online fora for increased impact.

5.2 Detailed communication and dissemination plan

Appendix A presents a detailed plan for external communication and dissemination in MONICA. It covers online and offline activities related to the promotion of MONICA and the visibility of the project (communication) and it also outlines the plan for dissemination which entails activities related to the impact on knowledge such as the submission of scientific publications.

Since the plan is very much a process, the detailed planning will be continuously revised and updated by the Consortium.

5.3 Plan for collaboration with support actions and other initiatives

To maximise impact, MONICA actively participates in consolidation and coherence implemented by horizontal actions and other initiatives.

5.3.1 Collaboration with coordination and support actions and other large-scale pilots

MONICA will contribute to the two horizontal Coordination and Support Actions (CSAs) CREATE-IOT and U4IOT supporting the activities defined under "Horizontal Activities" of the topic H2020-2016-IOT-02.

Resources are allocated to contribute to clustering results of horizontal nature, such as interoperability, standards, security and privacy approaches, business validation and sustainability and contribution to a coordinated dissemination/portal implementation.

Furthermore, the project will cooperate with the other four IoT Large Scale Pilot (LSP) projects under the European IoT Focus Area (IoT-FA). The project will exchange information, achievements and lessons learned with the other large-scale pilot projects. These horizontal activities will require participation in workshops, the organisation of one cluster meeting and contribution to relevant activity groups of common interest.

Seven activity groups have been set up for the European IoT Large-Scale Pilots Programme:

1. IoT Focus Area Sustainability
2. IoT Standardisation, Architecture and Interoperability
3. IoT Accelerators, Ecosystems and Market Place

4. Trusted IoT, Privacy, Security and Legal Frameworks
5. IoT Focus Area Evolution
6. Communication, Collaboration Strategy and Liaisons
7. IoT Open Environments

MONICA has nominated experts from the Consortium for each activity group.

5.3.2 Contribution to AIOTI WG3 and WG7 on the use of wearables

MONICA project partners will contribute to the AIOTI activities by sharing the main results achieved through the foreseen large-scale deployments in different member states. More specifically, the project could contribute to the collection of lessons learned and the definition of recommendation for testing of user acceptability and impact assessment. Moreover, relevant input will be provided on how to overcome barriers for large-scale deployments, promoting sustainability and identifying guidelines for replication of the deployed solutions and relevant methodologies. Several MONICA project partners are members of the AIOTI initiative.

5.3.3 Contribution to the IoT EPI and IoT Open Platforms

MONICA will promote the creation of synergies with the IoT EPI[15] (European Platform Initiative), contributing to maximizing the opportunities for platform development, interoperability and information sharing. MONICA results (use cases, lessons learned, software) could be made available to the IoT Open Platforms[16] portal.

5.3.4 Collaboration between MONICA and the art community

Moreover, due to the interaction between the IoT platform and performing artists also present in the Consortium, MONICA is in a unique position to contribute to the ICT & Art Connect community which sets out to bring together artists and technologists to explore new ways of working.

MONICA will collaborate with the STARTS[17] initiative, supporting 'Innovation at the nexus of Science, Technology, and the ARTS'. It is a field where boundaries between art and engineering are removed and creativity becomes a crucial factor. More specifically, MONICA will work with the CSA project VERTIGO[18], which brings together artists and R&I partners to boost innovation and stimulate prototype development. The project implements a program for artistic residencies as part of ICT projects through three yearly calls for proposals which will be selected by an international jury. MONICA as a project working in cultural events seeks to take part in these programs.

[15] http://iot-epi.eu/
[16] http://open-platforms.eu/
[17] https://ec.europa.eu/digital-single-market/en/ict-art-starts-platform
[18] http://vertigo.starts.eu/vertigo-project/

6 Measurement

To know whether the project meets the needs of the target groups, MONICA uses different quantitative as well as quality methods to measure communication and dissemination and see if adjustments are needed.

The project will record and closely monitor results generated from communication and dissemination activities, assessing the efforts continuously and status and updates will be provided in the periodic management reports.

6.1 Key Performance Indicators for visibility and knowledge impact

To measure the communication and dissemination progress and impact at project level, a number of quantifiable Key Performance Indicators (KPI) have been established, based on an assessment of project size and reach, mix of partners and allocated resources.

6.1.1 Visibility of the project

The following KPI have been identified to maximise the visibility of the project for all stakeholders, especially to the target groups Cities and Technology Providers.

Table 5 KPI for visibility of the project

Activity	Year 1	Year 2	Year 3	Total
Number of downloads of material from the website per year	500	2500	6000	9000
Press releases and newsletters	1 project press release 12 partner press releases	2 project newsletters	2 project newsletters 1 project press release 12 partner press releases	30
Number of conferences attended		6	9	15
Number of external workshops attended	2	8	15	25
Number of external workshops organised		1 Innovation showcase M24	1 Conference workshop – citizen engagement 1 Conference workshop – scalability and integration 1 International workshop tourism M30	4

6.1.2 Knowledge impact

The following dissemination KPI have been established for impact on knowledge.

Table 6 KPI for knowledge impact

Activity	Year 1	Year 2	Year 3	Total
Number of IoT publications		2	4	6
Number of IoT conference papers and presentations		2	6	8
Number of wearable conference papers and presentations		1	3	4
Number of participants/viewers at webinars in total (live/archived)		Webinar 1	Webinars 2+3	100/1200

6.2 Other quantitative measures

To measure the level of interest in the project and the distribution rate of material, the project uses the following methods:

Web

MONICA monitors traffic on the website via Google Analytics and on social media it uses the statistical tools made available from the sites. To increase visibility, posts are shared among partners. The number of downloads is measured through a statistical plugin on the website.

Newsletters

The newsletter will be created using the email marketing platform MailChimp[19] which offers statistical tools for viewership and subscription. Partners distribute the newsletter to own contacts and report back on the distribution number.

Flyer/brochure

Partners will report on the number of flyers and information material distributed.

6.3 Impact assessment

To assess the quality of communication and dissemination, the project uses the following methods:

Press coverage

Partners report back on local press coverage to indicate the effect of communication and dissemination and measure the relation between the messages and their perceptions. The result will indicate what the point of interest is and this can be used to generate more similar stories or expose a need to adjust the strategy.

Feedback

Feedback from events and new contacts established are registered by partners, and any new business opportunities which come from activities are reported. Feedback can help to evaluate the quality of the outcome, reveal new or confirm stakeholder needs, measure the impact and indicate whether the strategy works or has to be revised.

Webinar

The webcasting system that will be used for the webinar has a built-in statistical feature which will provide data on number of live viewers, number of archived views, from which countries they view and for how long. This data will be used to assess the success of the webinar together with the content of the online participation and feedback from participants.

[19] https://mailchimp.com/

Communication and dissemination efforts will be classified according to level of impact: communicate to build an understanding of the goals and the benefits, communicate to build a deeper understanding of the benefits and communicate for action.

KPI project impact

As described in 3.2 and referred to in Appendix A, a set of KPI for each area of impact (socio-economic, technological and user acceptance) have been defined to reach the MONICA goal of Best of Practice in IoT deployment. Some of these are linked to the dissemination and communication activities and their effect and will be incorporated into the measurement framework. They include:

- 4 demonstrations of cloud interoperability with public services for business and private purposes
- 4 interoperability hooks to Smart City platforms demonstrated;
- >800 value chain actors involved in webinars, workshops and demonstrations (in total);
- 6 accepted tenders for further app developments though calls for proposals;
- 5000 users involved in the social media and Collective Awareness apps and sharing data;
- 10 sustainable, validated business models showing the potential from IoT platforms;
- >95% acceptability of the toolbox and guidelines through validation in incubator environments;
- 10 contributions to ETSI, oneM2M and radio spectrum regulations.

7 Communication Policy

This deliverable is a central guideline document for communicating and disseminating MONICA to external stakeholders which will take place at project level and at partner level.

To effectively plan, share and coordinate efforts in a project with 28 partners, MONICA has established a set of policies in terms of internal communication, partner responsibility and obligations which are presented in this chapter.

7.1 Internal communication

Strong internal communication is paramount for the achievement of the strategic goals and for making processes as efficient as possible. To ensure proper capture of central results and their impact, a Dissemination Manager has been appointed to coordinate the activities and for this purpose a wiki and a shared workspace system have been established for partners to record all activities and impact. The purpose is to ensure that the goals are met, all activities are tracked and all relevant information is available and disseminated through the channels.

All partners have identified a communication representative, responsible for activities at partner level and for reporting back at project level.

The internal communication plan is presented in Figure 7 below. The overall aim is to support the achievement of the strategic goals (see 3.3) through efficient internal communication and collaboration.

Table 7 Internal communication plan

Target group WHO	Focus, Message WHAT	Channels	Form HOW	Timing WHEN	Level	Main partners involved
MONICA partners	Know the common goals for communication and dissemination and commit to them 'If you know it, show it' Plan, share and coordinate activities proactively Follow the internal procedures	Shared workspace, wiki, online and physical meetings, mailing, website	Presentations, mails, phone calls, deliverables D12.1, D12.2, D12.3 and D12.4, news	Continuously Yearly updates	Keep informed	Dissemination and project managers All partners
Project Board	Provide status on activities, KPI and impact	Mailing, Meetings	Presentations, mails	Continuously Yearly updates	Keep informed	Dissemination Manager
Advisory and ethical boards	Inform on progress and challenges	Mailing, Meetings	Mails, deliverables presentations,	Three meetings throughout the project	Keep informed	Project, technical and ethical managers, Project Board
EC project officer	Make the project and its results visible Highlight the impact of	Mailing Meetings, website, EC newsrooms and blogs	Mails, press releases, news articles, newsletters, deliverables	At launch of project Central milestones and results	Keep informed	Project manager, dissemination manager

	communication and dissemination			Yearly reports Project reviews		
Partner internal organisation	Engage to ensure lasting impact of MONICA	Internal meetings, internal web, impact assessment frameworks	Presentations, information material, news	Continuously	Keep informed	All partners

7.2 Partner roles and responsibilities

All partners engage in general communication and dissemination activities at consortium level and partner level, as part of work package activities and areas of expertise. Partners will work together in locating and organising relevant activities and cooperate with stakeholders, relevant projects, clusters and initiatives. Partners are encouraged to think communication and dissemination into all MONICA activities, bringing forward the good stories to create synergies with other partners and channel them to a wider audience.

Partners and pilot partners in particular are also encouraged to welcome the press, offering interviews, visits and demonstrations.

The following table summarises the partners' strategy and plans when disseminating and communicating the project and its results. For a presentation of the individual partners and their role in MONICA, see the project website: http://www.monica-project.eu/index.php/partners/.

Table 8 Specific communication and dissemination roles per partner

Partner	Role in terms of communication and dissemination
FIT	Communicate the project and its results to a variety of target groups: European Commission, standardization groups, general public and press, expert communities on a high level. Identify and foster opportunities for knowledge exchange and collaboration between MONICA partners and relevant expert groups (e.g. MONICA sound experts and event organizers). Build on existing and establish new collaborations between European cities by bringing together MONICA partners and external parties. Support the Dissemination Manager by identifying and providing key project results. Ensuring the active contribution of all project partners to dissemination and collaboration activities. Coordinate collaboration with CSAs CREATE-IOT and U4IOT and other exchange platforms. In the IoT European large-scale Pilots Programme: Partake in the Activity Group 1: Communication, Collaboration strategy and liaisons.
TIVOLI	Inform in local language about project progress and milestones to the press and public, when the opportunity or situation arises over the MONICA project horizon. Share updated, relevant information on relevant social media. Provide updated relevant information to internal stakeholders.
Copenhagen Municipality	Communicate the test results from the Danish pilot to all relevant stakeholders

	Engage neighbours and citizens in the process
City of Torino	Distribute information through the institutional website and social media platforms. Produce information in local language for different kind of audience, depending on the project activity / objective. Produce press releases. Exchange of best practices and dissemination of project results in Eurocities Working Group Noise
Movement Entertainment	Communicate the project progresses in our Business Update, i.e. a periodic newsletter to 450 qualified profiles: institutions, business, media. The newsletter is also uploaded on our corporate website (www.clever-entertainment.com) where we post all the articles that can be interesting for such a financial/institutional community.
City of Hamburg	The Senate Chancellery represents and at the same time presents the project to local political decision makers and the public of Hamburg. While being the official contact to the public, the media and political stakeholders and therefore accountable for the project's legitimisation, our role also lies in informing about and promoting support for MONICA among all involved stakeholders. Distribute information on selected websites and social media platforms. Provide information in local language to press, public and politicians. Produce press releases and articles. Provide dissemination manager with information about ongoing activities. Hamburg's Agency for Geoinformation and Survey, in particular, develops and cares for the network of involved technical actors, experts and organisers.
Hamburg University of Applied Science	Communicate and disseminate the results from the Hamburg pilot to relevant stakeholders
City of Lyon - Acoucite	Communicate major steps of the MONICA project to the pilot area and in any congress, we will be attending in the upcoming years.
City of Bonn	Publish information on our intranet website, on the official website and social media platforms. Produce press releases. Exchange of best practices and dissemination of project results in national and international cooperation networks and forums. Provide information to the city council. Provide dissemination manager with information about ongoing activities.
Leeds Rugby and Yorkshire Cricket Club	Communicate results from the Leeds Pilot site (Yorkshire County Cricket Club and Leeds Rugby at Headingly Carnegie Stadium) and the opportunities for selected applications benefitting fans and visitors.
Leeds Beckett University	In addition to contributing to technical and scientific publications, LBU will plan, organise, and host one Innovation event. LBU will also plan, organise, and host one international workshop. The aim of the workshop to lay out a roadmap for the future use of Smart Cities' concepts in tourism and art with the participation of artists, event managers, tourist planners, public authorities, sociologist, psychologist, anthropologist, and journalists.

Brüel & Kjær	Communicate to the environmental noise community the new possibilities demonstrated in MONICA regarding monitoring and assessment of noise generated by events in cities. This will include conference papers at Internoise (or similar), and the B&K company magazine "Waves" which goes out in 7000 printed copies and being downloaded through the B&K newsletter.
Technical University of Denmark	Disseminate the Sound Zone System results to the relevant stakeholders Produce publications
Kingston University London	MONICA has featured as a news story on 9th February 2017 on KU's main webpages. A press release was sent out when the story was published and shared across our social media (Twitter/Facebook/Instagram/LinkedIn). It is planned to have MONICA as a Research Case Study, and Paolo Remagnino's Researcher Profile in the main KU research webpages when appropriate. MONICA will be showcased in the research showcase brochure due to be completed by 9th June 2017. MONICA will feature in the Research themed Civic Engagement Event on 13th June 2017 An article will be published in 'The Conversation' http://theconversation.com/uk A social media campaign on all KU research across social media for research week. Media opportunities will continue to be investigated as the trial progresses. This includes investigation of possible press opportunities with some media agencies that had asked to be informed once the testing stage had commenced, however, we cannot guarantee any coverage yet. The research will be supported through social media when the story is featured on media platforms.
Dexels	Communicate the goals of the MONICA project, the progress, milestones and role of Dexels within the project.
Digisky	DigiSky has just released a new version of its website which includes a page also related to the MONICA project. The MONICA page in DigiSky website will be continuously updated with all the upcoming information related to the research outcomes, partners, events and press releases in order to be informative and to ensure wide communication with all the diverse categories of external audiences. As part of its dissemination strategy, DigiSky will share a project narrative on all its social media pages, such as LinkedIn with the goal of drawing attention to published reports or drive interested parties to sources such as the project website and make them a useful tool in support of other engagement and dissemination strategies. DigiSky will coordinate with all other Italian partners in order to prepare press releases in Italian for distribution to the media and other stakeholders on completion of specific project milestones in our country.
Optinvent	Communicate the goals of the MONICA project, the progress, milestones and role of Optinvent within the project.
Telecom Italia	Communicate the project and its results to a variety of target groups: European Commission, standardization groups, general public and press, expert communities on a high level.
VCA Technology	Communicate the goals of the MONICA project, the progress, milestones and role of VCA Technology within the project.

Atos IT Solutions and Services	Disseminate the technical results to the relevant stakeholders
ISMB	As technical manager of the project, communicate the technical results to relevant stakeholders Disseminate to the European networks and clusters which ISMB is part of In the IoT European large-scale Pilots Programme: Partake in the Activity Group 1: Communication, Collaboration strategy and liaisons, Activity Group 2: IoT Focus Area Sustainability, Activity Group 5: IoT Focus Area Evolution
CERTH	CERTH, as a research organization, will produce and/or contribute to technical and scientific publications. Communicate the achievements of the project to established partner networks in national and EU level. Explore opportunities and provide feedback to the dissemination and communication manager on related EU projects.
CNet	Communicate the project and its results to relevant stakeholders Disseminate to the national, European and international networks which CNet is part of
HW Communications	Communicate the goal and results of MONICA to relevant stakeholders In the IoT European large-scale Pilots Programme: Partake in the Activity Group 4: Trusted IoT, Privacy, Security and Legal Frameworks
IN-JET	Communicate the project and its results at project level and specifically with regards to user and stakeholder involvement, citizen engagement, business value, pilot impact and validation and ethics. Manage the project website and social media platforms, producing content. Provide information material that supports partners in activities Produce newsletters, press releases and articles Organise and coordinate webinars and CAP Coordinate communication and dissemination activities as Dissemination Manager Ensure the communication and dissemination of demonstration results, as Pilot Coordinator In the IoT European large-scale Pilots Programme: Partake in the Activity Group 6: IoT Accelerators, Ecosystems and Market place and Activity Group 7: IoT Open Environments
Praesidio Group	Communicate the project from a security perspective and create internal communication material, and angles that other partners can use to secure larger interest. Share MONICA and security related information on all social media, LinkedIn, our website and through our own newsletter, clients, partners and contacts. Proactively approach Danish press and try to assure stories to the Danish media with the security angle as focus.
Ring Advocacy	RING is, as technical expert for the Danish Government participating on a regular basis in the spectrum regulatory sessions of the CEPT/ECC organisation holding 48 European countries as members. This opens a large-scale opportunity to disseminate MONICA knowledge even outside the 28 EU Member States and plan to develop a “reference presentation”, which can

	invoke the national interest in MONICA covering a potential market of over 400 million citizens. CEPT/ECC has a formal (MoU based) collaboration with ETSI (developing and adopting so-called System Reference Documents (SRD's)) and this open a unique opportunity for development of a new "MONICA" SRD under the ETSI heading, and SRD which can be referenced globally (also through references in 3GPP). RING is currently studying this dissemination opportunity and its possible time scales. RING plans to hold presentations on seminars and workshops on a regular basis on the aspects and impacts of IoT in the SMART society, such as the Fraunhofer IoT Innovation Days 2017 (May 22nd-23rd 2017)
Vaeksthus Zealand	Communicate the project and its results to stakeholders identified, especially entrepreneurship/start-up communities Distribute information on selected websites and social media platforms, Facebook, Instagram, LinkedIn, Twitter Create subsite that informs stakeholders/public about the progress in MONICA/VH-SJ Communicate through our own newsletter to the tech start-up community, partners and contacts Actively provide information in local language to press, public and politicians. Produce press releases and articles. Create awareness at meetings, workshops and talk sessions with the tech start-up community, partners and contacts.

7.3 Obligations

As set out in the Grant Agreement (GA), partners are obliged to communicate and disseminate the project and its results by disclosing them to the public. Specific provisions for dissemination (dissemination restrictions) are set out in the GA and the Consortium Agreement (CA).

The following sections list the most important aspects. Partners are advised to consult the GA (Article 29 and 38) and the CA (Section 8.4) for further details.

7.3.1 Advanced notice

Partners must notify other partners when they intend to disseminate MONICA **results**;

- Prior notice of any planned publication shall be given to the other partners at least 45 calendar days before the publication (if not agreed otherwise). Any objection to the planned publication shall be made in accordance with the Grant Agreement within 30 calendar days after receipt of the notice (if not agreed otherwise). If no objection is made within the time limit stated above, the publication is permitted;
- A partner shall not include in any dissemination activity another partner's results or background without prior written approval;
- Using other partners' names, logos or trademarks requires a prior written approval.

7.3.2 Open access to scientific publications

Partners must enable open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to results:

- Deposit a machine-readable electronic copy of the published version/accepted final peer-reviewed manuscript in a repository as soon as possible or on publication at the latest. Add research data needed for validation of the presented results

- A repository has been created on the shared workspace system

- Ensure open access to the deposited publication at the latest on publication if an electronic version is available for free via the publisher or within six months of publication in any other case as well as to the bibliographic metadata that identify the publication
  - Access to the publication and bibliographic metadata is available on the project website on publication or within six months of publication

The bibliographic metadata must be in a standard format and must include all of the following:

- The terms “European Union (EU)” and “Horizon 2020”;
- Management of Networked IoT Wearables – Very Large Scale Demonstration of Cultural and Security Applications, MONICA, No 732350;
- The publication date, and length of embargo period if applicable, and
- A persistent identifier

7.3.3 Acknowledgement of funding

Acknowledgment of EU funding is obligatory in all communication and dissemination material within the framework of MONICA (where possible).

The EU emblem (EU flag) must be displayed together with the programme. Example (EU logo must be at least 1 cm high and not smaller than other logos displayed next to it):

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 732350

7.3.4 MONICA logo

The MONICA logo was chosen from a set of options, symbolising sound, people, IoT and movement. A selection of different colours is available to indicate the different pilots. Se Appendix C.

7.3.5 Disclaimers

A disclaimer excluding Commission responsibility is added to any dissemination of **results**. Example:

The content reflects only the author's view. The Commission is not responsible for any use that may be made of the information that it contains.

A legal notice is added to project material when deemed relevant. Example:

This [document, presentation] is intended for information about the MONICA project only. The MONICA Consortium makes no warranties, express, implied or statutory as to the information provided in this material. Neither the European Commission nor the MONICA Consortium are liable for any use that may be made of the information that it contains. All rights reserved. Copyright: the MONICA Project.

7.3.6 Public deliverables

All deliverables marked as public will be made available as downloads on the project website after they been approved by the Commission.

Dissemination and communication of results from deliverables classified as either confidential or restricted need to be approved by the Consortium or the involved partners before any release can take place.

8 List of Completed and Planned Activities

This list is a snapshot of partner activities and press coverage at the time of writing. The list is continuously updated and will feature in the project management reports.

Description	Date	Place	Partners involved
NEWSPAPERS			
Cronaca Qui (article in local newspaper)	03.08.16	Torino	TO, ISMB, MOVE
La Stampa (article in national newspaper)	03.08.16	Torino	TO, ISMB, MOVE
Metroxpress (online)	29.11.16	Copenhagen	KK, TIVOLI
Berlingske (article in national newspaper):	30.11.16	Copenhagen	TIVOLI, KK
Eurobrief (German bulletin)	March 2017	Hamburg	FHH-SC
General Anzeiger (article in regional newspaper)	29.01.17	Bonn	FIT, BONN
General Anzeiger (article in regional newspaper) English version	29.01.17	Bonn	FIT, BONN
Kölnische Rundschau (article in regional newspaper)	28.01.17	Bonn	FIT
Radio Bonn	30.01.17	Bonn	FIT, BONN
WDR (German TV, article on the website)	14.02.17	Bonn	FIT
Bryggebladet (article in local Danish newspaper)	12.01.17	Copenhagen	KK, TIVOLI, DTU, VH-SJ
RADIO			
Radio Bonn (radio news)	8.02.17	Bonn	BONN
TV			
Regional news: http://www.tv2lorry.dk/nyheder/29-11-2016/2227/millionprojekt-skal-give-bedre-lyd-i-tivoli	29.11.16	Copenhagen	KK
Lokalzeit (TV news)	8.02.17	Bonn	FIT, BONN
PARTNERS' WEBSITE AND SOCIAL MEDIA			
http://www.dtu.dk/nyheder/dtu-avisen/nyhed?id=B544349F-C004-4E9C-9B6E-12FD2FCA0419	30.11.16	Copenhagen	DTU
http://praesidiogroup.com/2016/11/1623/	30.11.16	Copenhagen	PSG
http://gramex.dk/turn-up-the-music-and-reduce-unwanted-acoustic-exposure/ http://gramex.dk/turn-up-the-music/	Dec 2016	Copenhagen	RING
http://www.kk.dk/nyheder/eu-giver-112-mio-kr-til-internationalt-lydprojekt	2.12.16	Copenhagen	KK
http://praesidiogroup.com/2016/12/praesidio-group-er-sikkerhedspartner-pa-innovativt-eu-projekt/	2.12.16	Copenhagen	PSG
http://www.kingston.ac.uk/news/article/1786/09-feb-2017-kingston-university-secures-euro900000-grant-to-explore-how-drones-smart-wristbands-and-cameras-could-transform/	9.02.17	London	KU
http://www.in-jet.dk/en/articles.php?article_id=27	10.12.16	Copenhagen	IN-JET
http://www.in-jet.dk/en/news.php?readmore=19	13.12.16	Copenhagen	IN-JET
http://praesidiogroup.com/2016/12/praesidio-groups-seasonal-greetings/	24.12.16	Copenhagen	PSG
http://www.elektro.dtu.dk/nyheder/nyhed?id=A9CA8066-5258-4490-96E6-B7E7E4B1A490	6.1.17	Copenhagen	DTU
http://praesidiogroup.com/2017/01/launching-of-eu-project-with-praesidio-participation/	26.1.17	Copenhagen	PSG
http://www.hamburg.de/bsw/gremien-projekte/7967702/monica/	-	Hamburg	FHH-SC
http://www.thierryphilip.fr/ (Maire Thierry Philip's blog)	28.03.17	Lyon	ACOU
TWITTER			
Stiig Wæver speaks about @MonicaProject & crowd management at conference: Innovation through partnerships between public and private sector	6.02.17	Copenhagen	PSG

FACEBOOK			
https://www.facebook.com/lydenshus/photos/a.289808981143536.1073741830.289577161166718/509510035840095/?type=3&theater	23.01.17	Copenhagen	VH-SJ
https://www.facebook.com/lydenshus/photos/a.289808981143536.1073741830.289577161166718/510805129043919/?type=3	25.01.17	Copenhagen	VH-SJ
https://www.facebook.com/lydenshus/photos/a.289808981143536.1073741830.289577161166718/516897081768057/?type=3	3.02.17	Copenhagen	VH-SJ
INSTAGRAM			
https://www.instagram.com/p/BPnSnUsD3NY/	23.01.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BPnomHSjPl9/?taken-by=lydenshus	23.01.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BPpOQdkDyll/?taken-by=lydenshus	24.01.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BPpDRR9Dd2k/	24.01.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BPsGOUcDnd6/	25.01.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BQLH8V7jfjN/?taken-by=lydenshus	6.02.17	Copenhagen	VH-SJ
https://www.instagram.com/p/BQLD8uJDOKP/?taken-by=lydenshus	6.02.17	Copenhagen	VH-SJ
CONFERENCES			
Conference at Copenhagen Town Hall, including presentation slides: http://www.monica-project.eu/index.php/2017/02/07/ppp-conference/	6.02.17	Copenhagen	KK, TIVOLI, IN-JET, RING, B&K, VH-SJ
PRESS RELEASES			
Press release Municipality of Torino http://www.torinoclick.it/?p=56309	2.08.16	Torino	TO, ISMB, MOVE
Press release Municipality of Copenhagen	Nov 16	Copenhagen	KK
Press release Kingston University London shared across social media sites (Twitter/Facebook/Instagram/LinkedIn).	Feb 17	London	KU
Press release, project level, EU channels	April 2017	N/A	IN-JET, FIT
Press release, Leeds Pilot Site	April 2017	Leeds	YCCC
Press release, Vaeksthus Zealand. Angle: *Through the MONICA project Copenhagen Sound Incubator will facilitate different opportunities for start-ups and Entrepreneurs*	May 2017	Copenhagen	VH-SJ
EVENTS/MEETINGS			
Kick-off Info Event, including presentation slides	10.01.2017	Hamburg	FH-SC, HAW
Pilot meeting with Fraunhofer, including presentation slides	21.2.2017	Hamburg	FHH-SC, FIT
Meeting IoT European large-scale pilots programme activity group 1: Communication, Collaboration strategy and liaisons	3.3.2017	Online	ISMB
10 individual meetings with sound starts-up where the MONICA project was presented.	March 2017	Copenhagen	VH-SJ
Fraunhofer IoT Innovation Days	22-23 May 2017	Bonn	RING, FIT
Info event about MONICA: 'Bits and Beers' in Copenhagen Sound Incubator	2nd June 2017	Copenhagen	VH-SJ
Research themed Civic Engagement Event	13th June 2017	London	KU
PRESENTATION MATERIAL + VIDEO			
Presentation slides for collaboration activities	15-03-2017	Online	IN-JET, ISMB, FIT
MONICA flyer Hamburg	22-03-2017	Hamburg	FHH-SC
Abstract for external communication use	28-03-2017	Online	IN-JET

Video from Kick-off released	April 2017	BONN	FIT
General project flyer and template	April 2017	-	IN-JET
General handout and template	April 2017	-	IN-JET
Research Showcase brochure	9th June 2017	London	KU

9 List of Figures and Tables

9.1 Figures

9.2 Tables

10 Appendix A: Detailed External Communication and Dissemination Plan

Overall goals: Promote the take-up of IoT, enable open IoT ecosystems, gain user acceptance of IoT and create sustainable IoT solutions

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN	Level	Main partners involved	Main related impact
The **Cities**	Event and festival organisers	Encourage to make the most of new technologies Solution-oriented	Website, Pilot and local partner websites, webinars, events, pilot visits, meetings, YouTube Twitter	News articles, press releases, newsletters, printed material, presentations, videos, demonstrations	Continuously Y1 use cases in May 2017 Y2 webinar – citizen engagement Pilot results Y3 webinar - security and webinar - acoustics conference workshop Business models launched June 2019 Final pilot and replication results in December 2019	Manage closely	Pilot partners Project, impact, pilot and dissemination managers Industrial partners	>800 value chain actors involved in webinars, workshops and demonstrations 10 sustainable, validated business models showing the potential from IoT platforms >95% approval rate related to noise and security by professional organisers
	Public authorities	Encourage to make the most of new technologies Solution-oriented	Website, Pilot and local partner websites, webinars, events, pilot visits, meetings, exhibitions YouTube Twitter	News articles, press releases, newsletters, printed material, presentations, Videos, demonstrations	Continuously Y1 use cases in May 2017 Y2 webinar – citizen engagement Y3 webinar – security webinar - acoustics Y3 conference workshop – citizen engagement Final pilot and replication results in December 2019	Manage closely	Pilot partners Project, impact, pilot and dissemination managers Industrial partners	>800 value chain actors involved in webinars, workshops and demonstrations >95% approval rate related to noise and security by professional organisers >90% satisfaction rate related to noise by neighbours, professionals and musicians

	Target group WHO	Focus, Message WHAT	Main channels and HOW	Form	Timing WHEN	Level	Main partners involved	Main related impact
	The cultural and creative industry	Encourage to make the most of new technologies Commercially and solution-oriented	Website, Pilot and local partner websites, events, meetings, mail correspondence	News articles, printed material, presentations, demonstrations	Web platform starts.eu established end of 2017 Y3 International workshop Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Pilot partners Project, impact, pilot and dissemination managers Industrial partners	>800 value chain actors involved in webinars, workshops and demonstrations 10 sustainable, validated business models showing the potential from IoT platforms >95% approval rate related to noise and security by professional organisers
	The tourism industry	Encourage to make the most of new technologies Commercially and solution-oriented	Website, Pilot and local partner websites, events, meetings	News articles, printed material, presentations, demonstrations	Y3 International workshop Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Pilot partners Project, impact, pilot and dissemination managers Industrial partners	>800 value chain actors involved in webinars, workshops and demonstrations 10 sustainable, validated business models showing the potential from IoT platforms
	EU city communities	Encourage to make the most of new technologies Solution and story-oriented Best of practice sharing	Website, meetings, events, Twitter	News articles, presentations, videos, demonstrations	Collaboration events throughout the project Final pilot and replication results in December 2019	Monitor	Pilot partners Project, impact, pilot and dissemination managers	4 interoperability hooks to Smart City platforms demonstrated
	Press (General)	To gain user acceptance of the IoT solutions Story-oriented	Website, partner websites, social media sites, YouTube	Press releases, news articles, posts, videos	Press releases on launch Y1 Press releases on results Final pilot and replication results in December 2019	Monitor	Pilot partners Project, impact, pilot and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by

	Target group WHO	Focus, Message WHAT	Main channels and HOW	Form	Timing WHEN	Level	Main partners involved	Main related impact
								neighbours, professionals and musicians
The Citizens	Neighbours to events Citizens in urban areas	To gain user acceptance of the IoT solutions Story-oriented	Pilot and local partner websites and engagement channels, webinar, Facebook, Collective Awareness Platforms (CAP) YouTube	Information material, news articles/posts, videos, demonstrations	Y1 pilot plan completed Y2 deployment and first feedback Launch of CAP M20 Webinar 1 – citizen engagement Launch of open data Final pilot results in December 2019	Monitor closely Keep informed	Pilot partners Project, impact, pilot and dissemination managers	+5000 users involved in the social media and Collective Awareness apps and sharing data >98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians
	Event participants	To gain user acceptance of the IoT solutions Story-oriented	Pilot and local partner websites and engagement channels, Facebook YouTube CAP	Information material, posts, videos, press release for Music and Entertainment Media	Y1 pilot plan completed Y2 deployment and first feedback	Keep informed	Pilot partners Project, impact, pilot and dissemination managers	+5000 users involved in the social media and Collective Awareness apps and sharing data >98 % acceptability of data protection, privacy and trust schemes >75 % approval rate related to public participants exposed to the solutions
	Civic communities	To gain user acceptance of the IoT solutions Story-oriented	Pilot and local partner websites and engagement channels, Facebook project website Webinar Website	Information material, news articles/posts	Y1 pilot plan completed Y2 deployment and first feedback Webinar 1 – citizen engagement Final pilot and replication results in December 2019	Keep informed	Pilot partners Project, impact, pilot and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN	Level	Main partners involved	Main related impact
	Entrepreneurs, innovators, developers	Commercially oriented	Pilot and local partner websites Open data repositories, start-up service package, Twitter, Website, Facebook, Instagram	Social Media Campaigns, articles for Entrepreneur media and magazines, demonstrations, hackathons, call for proposals	Y2 Launch of open data repositories and Entrepreneurship and Innovation Promotion Package	Keep informed	Pilot partners industrial partners, Project, impact, pilot and dissemination managers	>95% acceptability of the toolbox and guidelines through validation in incubator environments 6 accepted tenders for further app developments though call for proposals
	General public	To gain user acceptance of the IoT solutions Story-oriented	Project Facebook page, Pilot partners' social media sites Website	News, posts, articles for public magazines, demonstrations	Continuous updates Final pilot and replication results in December 2019	Monitor	Project and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians >75 % approval rate related to public participants exposed to the solutions
	Educators	Story- and technologically oriented	Website and social media sites, academic partner sites	News, posts, articles, publications, demonstrations	Y2 Launch of open data repositories and Entrepreneurship and Innovation Promotion Package Final pilot and replication results in December 2019	Monitor	Academic partners Project and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians >75 % approval rate related to public participants exposed to the solutions

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN	Level	Main partners involved	Main related impact
Technology Providers	IoT Smart City integrators	Encourage to make the most of new technologies The MONICA IoT Platform ecosystem Technologically and commercially oriented	Website, industrial partner websites, events, Open data repositories and enablers, articles for tech magazines Twitter, conferences	News articles, printed material, demonstrations, papers, articles	Y3 Conference workshop 2 - MONICA scalability and integration Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Public pilot partners, industrial and academic partners Technical manager Project, dissemination managers	4 interoperability hooks to Smart City platforms demonstrated 4 demonstrations of cloud interoperability with public services 10 sustainable, validated business models showing the potential from IoT platforms
	Component and system suppliers, IoT platform companies	Encourage to make the most of new technologies Technologically and commercially oriented	Website, industrial partner websites, events, Open data repositories and enablers, articles for tech-magazines, Twitter, conferences	News articles, printed material, demonstrations, papers, articles	Y3 Conference workshop 2 - MONICA scalability and integration Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Industrial and academic partners Technical manager Project, dissemination managers	+100.000 users of connected wearables in the entire project 17 applications that integrate wearables and other sensors 15 applications simultaneously running on the same platform up to 8.000 simultaneous communication sessions during an event 10 sustainable, validated business models showing the potential from IoT platforms
	Telecom companies	Encourage to make the most of new technologies Technologically and	Website, industrial partner websites, events, Open data repositories and enablers, articles for tech-magazines Twitter	News articles, printed material, demonstrations, papers, articles	Y3 Conference workshop 2 - MONICA scalability and integration Business models launched June 2019	Keep informed	Industrial and academic partners Technical manager	+100.000 users of connected wearables in the entire project 17 applications that integrate wearables and other sensors

	Target group WHO	Focus, Message WHAT	Main channels and HOW	Form	Timing WHEN	Level	Main partners involved	Main related impact
		commercially oriented			Final pilot and replication results in December 2019		Project, dissemination managers	15 applications simultaneously running on the same platform up to 8.000 simultaneous communication sessions during an event 10 contributions to ETSI, oneM2M and radio spectrum regulations 10 sustainable, validated business models showing the potential from IoT platforms
	Security service providers	Encourage to make the most of new technologies Technologically and commercially oriented	Website, industrial partner websites, webinar, events, articles for tech-magazines Twitter	News articles, printed material, demonstrations, papers, articles	Y3 Conference workshop 2 - MONICA scalability and integration Webinar 2 - security Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Industrial and academic partners Technical manager Project, dissemination managers	98 % acceptability of data protection, privacy and trust schemes >95% approval rate related to noise and security by professional organisers 10 sustainable, validated business models showing the potential from IoT platforms
	Acoustic industry	Encourage to make the most of new technologies Technologically and commercially oriented	Website, industrial partner websites, webinar, events, articles for tech-magazines Twitter	News articles, printed material, demonstrations, papers, articles	Y3 Conference workshop 2 - MONICA scalability and integration Webinar 3 - acoustics Business models launched June 2019 Final pilot and replication results in December 2019	Keep informed	Industrial and academic partners, Technical manager Project and dissemination managers	15 dB(A) reduction of noise levels in selected neighbouring areas >90% satisfaction rate related to noise by neighbours, professionals and musicians >95% approval rate related to noise and

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN		Level	Main partners involved	Main related impact
									security by professional organisers 10 sustainable, validated business models showing the potential from IoT platforms
	Standardisation bodies	Technological dissemination To enable open ecosystems at a large scale	Meetings, conferences, exhibitions Website, Twitter	Presentations, printed material, news	Y3 Conference workshop 2 - MONICA scalability and integration Report on standards, regulations and policies for IoT platforms		Keep satisfied	Regulatory partners, Technical manager project, dissemination managers	10 contributions to ETSI, oneM2M and radio spectrum regulations
Researchers and Innovators	ICT and IoT research communities	Technological dissemination To enable open ecosystems at a large scale	Conferences, meetings, exhibitions, Webinars Website, Twitter	Publications, presentations, printed material, news	Y3 Conference workshop 2 - MONICA scalability and integration Final pilot and replication results in December 2019	Conferences for paper submission **EWSN** Y2: 02/18 2018, submission 09/17 Y3: 02/19, submission 09/18 **Euronoise** Y2: 27-31/05/18, submission July-Oct 17 Y3: 27-31/5/19, submission July-Oct 18 **ESWC** Y2: May/June 18, submission Nov-March 18	Monitor	Academic partners, Technical manager Project, dissemination managers	15 dB(A) reduction of noise levels in selected neighbouring areas 4 demonstrations of cloud interoperability with public services 4 interoperability hooks to Smart City platforms demonstrated >98 % acceptability of data protection, privacy and trust schemes +100.000 users of connected wearables in the entire project

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN		Level	Main partners involved	Main related impact
						Y3: May/June 19, submission Nov-March 19 **IJCAI** Y2: 13-19/07/18, submission Feb 18 Y3: 07/19, submission Feb 19 **Internoise** Y2: Aug 18, submission Jan-March 18 Y3: Aug 19, submission Jan-March 19 **ECAI** Y2: with IJCAI conf. Y3: August 19 **BMVC** Y2: 09/18, submission Feb-Apr 18 Y3: 07/19, submission Feb-Apr 19 **ECCV** Y2: 8-14 Sep 18 , submission March18 Y3 Sep 19, Submission March19 **Ubicomp – ACM** Y2: Sep 18, submission Apr-June 18 Y3: Sep 19, submission Apr-June 19 **KES** Y2: Sep 18 Y3: Sep 19			17 applications that integrate wearables and other sensors 15 applications simultaneously running on the same platform Up to 8.000 simultaneous communication sessions during an event
	Acoustics societies	Technological dissemination To enable open ecosystems at a large scale	Conferences, meetings, webinar Website	Publications, presentations, printed material	Y3 Webinar 3 - acoustics		Monitor	Academic partners Technical manager Project, dissemination managers	15 dB(A) reduction of noise levels in selected neighbouring areas >90% satisfaction rate related to noise by neighbours, professionals and musicians
	Support actions	Technological dissemination To enable open ecosystems at a large scale Foster the take-up of IoT User acceptance	Meetings, Shared web portal, Website, Twitter	Presentations, printed material, articles for shared portal	Y3 Conference workshop 1 – Citizen engagement Conference workshop 2 - MONICA scalability and integration Final pilot and replication results in December 2019		Keep informed	Project and technical manager, Partners appointed for the activity groups	>800 value chain actors involved in webinars, workshops and demonstrations >90% satisfaction rate related to noise by neighbours, professionals and musicians >95% approval rate related to noise and security by professional organisers >75 % approval rate related to public participants exposed to the solutions

	Target group WHO	Focus, Message WHAT	Main channels and Form HOW		Timing WHEN		Level	Main partners involved	Main related impact
	IoT large scale pilots	Technological dissemination To enable open ecosystems at a large scale Foster the take-up of IoT	Meetings, Shared web portal, exhibitions, website, Twitter	Presentations, printed material, articles for shared portal	Y3 Conference workshop 2 - MONICA scalability and integration Final pilot and replication results in December 2019	**ICCV** Y2: Oct 18, submission March 18 Y3: Oct 19, submission March 19	Monitor	Project and technical manager Partners appointed for the activity groups	15 applications simultaneously running on the same platform up to 8.000 simultaneous communication sessions during an event 10 contributions to ETSI, oneM2M and radio spectrum regulations 4 interoperability hooks to Smart City platforms demonstrated 4 demonstrations of cloud interoperability with public services for business and private purposes
	AIOTI - The European Alliance of IoT Innovation	Technological dissemination Best Practice To enable open ecosystems at a large scale Foster the take-up of IoT User acceptability Sustainable business	Conferences, meetings, exhibitions, webinars, Website, Twitter	Presentations, printed material, mails, meetings	Y3 Conference workshop 2 - MONICA scalability and integration Webinar 2 - security and 3 -acoustics Final pilot and replication results in December 2019		Keep informed	Members of AIOTI, Project manager	All impacts communicated
	IoT EPI and IoT Open platforms	Technological dissemination	Open data repositories and	Presentations, mails	Y3 Conference workshop 2 -		Keep informed	Project manager,	>95% acceptability of the toolbox and guidelines

	Target group WHO	Focus, Message WHAT	Main channels and HOW	Form	Timing WHEN		Level	Main partners involved	Main related impact
		To enable open ecosystems at a large scale Foster the take-up of IoT	enablers, meetings, website		MONICA scalability and integration			Technical partners	through validation in incubator environments
	ICT Art Community	Technological dissemination Foster the take-up of IoT	Meetings, website	Presentations, mails	Business models launched June 2019 Final pilot and replication results in December 2019		Monitor	Project manager, Cultural partners	>800 value chain actors involved in webinars, workshops and demonstrations 10 sustainable, validated business models showing the potential from IoT platforms
Regulators	Local politicians National politicians	Solution- and story-oriented	Pilot and local partner websites, Conferences, meetings, webinar, website	Presentations, news articles, mails, deliverables	Y2 Webinar 1 – citizen engagement Y3 Conference workshop 1 – citizen engagement Final pilot and replication results in December 2019		Manage closely Keep satisfied	Pilot partners Project, pilot and dissemination managers	15 dB(A) reduction of noise levels in selected neighbouring areas >90% satisfaction rate related to noise by neighbours, professionals and musicians >95% Approval rate related to noise and security by professional organisers >75 % approval rate related to public participants exposed to the solutions

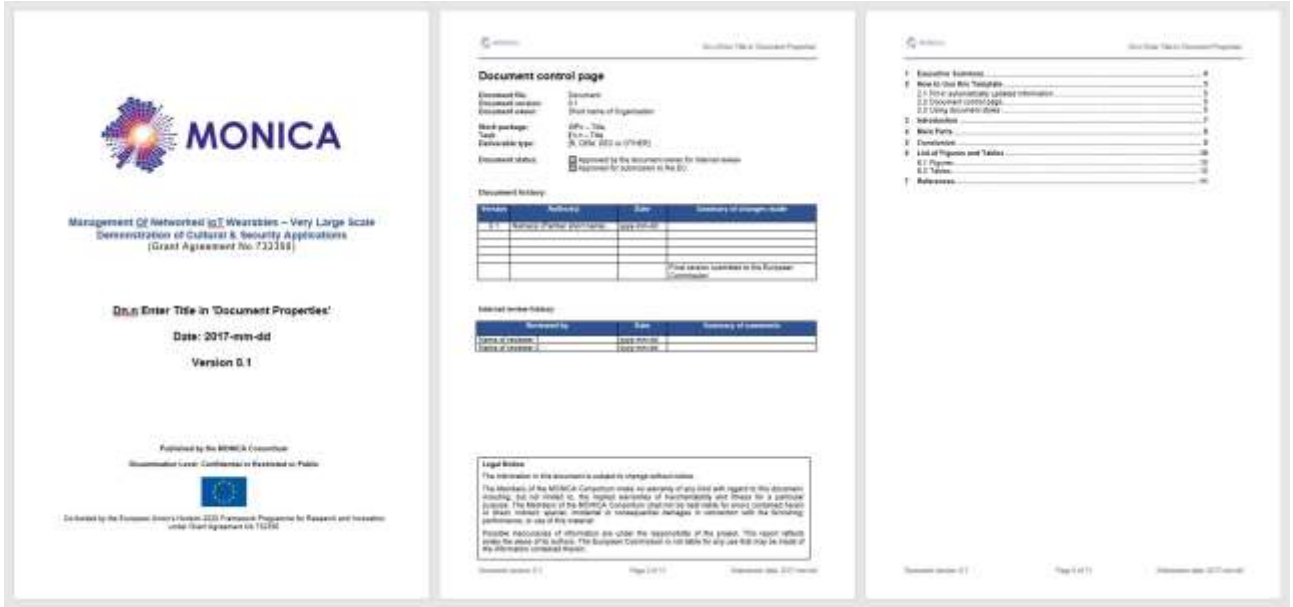
	Target group WHO	Focus, Message WHAT	Main channels and HOW	Form	Timing WHEN	Level	Main partners involved	Main related impact
	Law enforcement organisations	Solution- and story-oriented	Webinar, meetings website	Presentations	Y3 Webinar 2 -security Final pilot and replication results in December 2019	Keep satisfied	Pilot partners, Regulatory partners, Project and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians >95% approval rate related to noise and security by professional organisers
	Noise regulation communities	Solution- and story-oriented	Webinar, meetings website	Presentations	Y3 Webinar 3 -acoustics Final pilot and replication results in December 2019	Keep satisfied	Regulatory partners Pilot partners Project and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes >90% satisfaction rate related to noise by neighbours, professionals and musicians
	EU regulators	Technological and story-oriented	Meetings, conferences	Presentations, printed material	Y3 Report on standards, regulations and policies for IoT platforms	Keep satisfied	Regulatory partners, project and dissemination managers	10 contributions to ETSI, oneM2M and radio spectrum regulations >98 % acceptability of data protection, privacy and trust schemes
	Data protection experts	Technological and story-oriented	Meetings, conferences	Publications, presentations, printed material	Final pilot and replication results in December 2019	Keep satisfied	Data protection manager, Regulatory partners Project and dissemination managers	>98 % acceptability of data protection, privacy and trust schemes

11 Appendix B: Project Templates

All templates display the project logo and full title. Templates for external communication/dissemination are designed to ensure a uniform impression, presenting the MONICA project as a brand.

Presentation template

Deliverable template



Press release template

MONICA

Press release xx/xx/xx

Management of Networked IoT Wearables – Very Large Scale Demonstration of Cultural and Security Applications

The headline should be short and precise

The opening paragraph tells the most important elements of the story and encourages the reader to read on. Here you present the most significant aspects in four to ten lines and you answer the wh-questions: where, when, what, why, who.

A good press release has a clear message. It is short, precise and credible and should refer to facts and contacts. A good press release makes it easy for the press to follow up on and ideally you should keep your press release within one A4 page and maximum two pages.

The body text
The body text provides the details of what was presented in the opening paragraph and is divided into short paragraphs with short headings. Remember to stick to one message per paragraph.

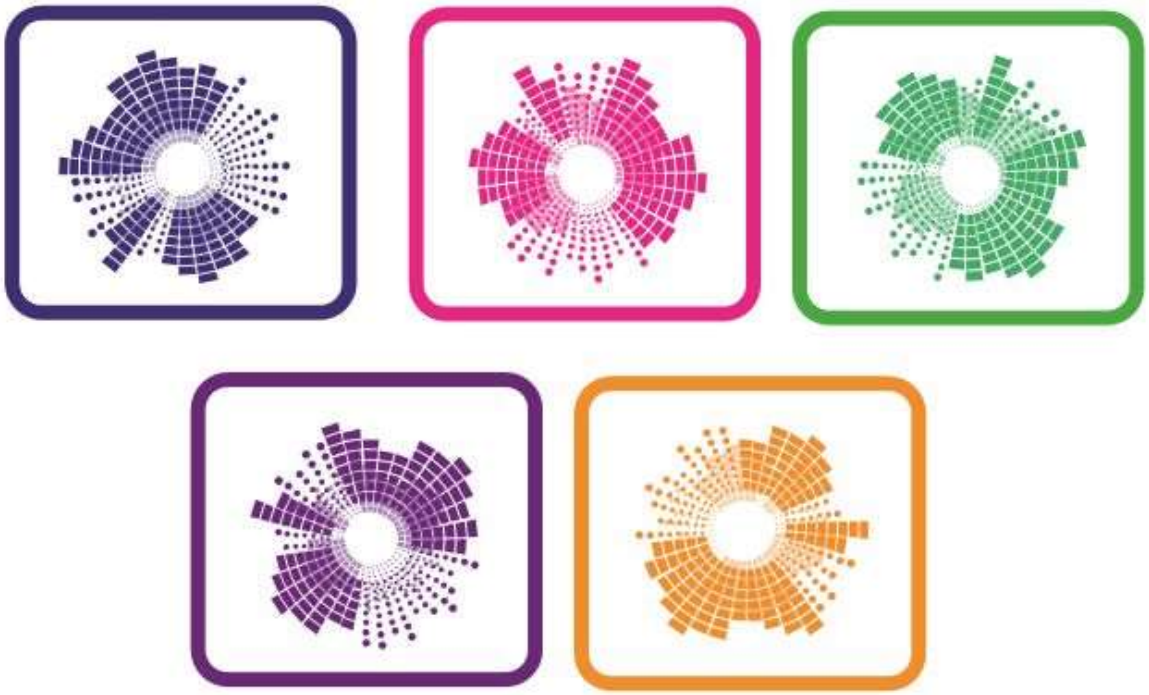
Depending on who the press release is targeted at, it is a good thing to add quotes from important sources. Usually the main text starts with the most important points and ends with factual and general information.

Last paragraph
The last paragraph should present a list of contacts and more information e.g. links to relevant websites. It is also worth remembering that you are present and reachable after the press release is sent to make sure the journalists do not contact you in vain.

The press release can be released by one partner, if it is sensible and objective and pays due credit to the project and the other partners. A copy of such release should be circulated (or placed in a repository to be announced) as soon as the release has taken place.

Remember to include acknowledgement of funding
The MONICA project is a 36-month Innovation Action, co-funded by the European Commission through the Horizon 2020 Framework Programme for Research and Innovation, under Large Scale Pilots, Objective Pilot 3: Wearables for smart ecosystems, Grant Agreement No 732350. EU contribution: EUR 15 million. Duration January 2017 through December 2019.

12 Appendix C: Logo Colour Choices



13 Appendix D: Press Releases

General project press release for EU channels and for general partner usage

MONICA

Press release 28/03/17

Management of Networked IoT Wearables – Very Large Scale Demonstration of Cultural and Security Applications

Improve sound experience and safety at large, cultural events in the city

The innovation project MONICA will demonstrate how cities can use the Internet of Things to deal with sound, noise and security challenges at big, cultural, open-air events. A range of applications will be demonstrated in six major European cities involving more than 100.000 users in total.

Imagine sound zones at outdoor concerts in the city where the sound experience is enhanced for those who enjoy the music and the noise mitigated for those who don't. Visualise intelligent cameras deployed at city festivals which, while preserving privacy, estimate crowd size and density in real time, notifying security staff of any unusual crowd behaviour. Or imagine smart wristbands and mobile apps, allowing people to interact with each other and the performers, informing people of the best way out of the venue or guiding them to the nearest exit in case of an emergency.

These are some of the several applications which MONICA will demonstrate at minimum 16 cultural events, taking place in Copenhagen, Bonn, Hamburg, Leeds, Lyon and Torino. The events include concerts, festivals, city and sport events and involve the use of multiple, wearable, mobile and fixed devices with sensors, such as wristbands, smart glasses, video cameras, loudspeakers, drones and mobile phones.

"MONICA will demonstrate a large-scale IoT ecosystem which uses a multitude of different sensors, networks and heterogeneous data and a cloud-based platform capable of offering multiple applications with at least 10.000 simultaneous end users, making it a massive IoT platform demonstration", explains Dr. Markus Eisenhauer from Fraunhofer FIT who coordinates the project, consisting of 28 organisations from nine European countries.

User driven pilots
Each of the six pilot cities will identify a number of relevant applications that they wish to deploy for the chosen events, based on their current challenges. Whereas some will emphasise control of sound, and others optimise security or service, all pilots will actively involve the end users, engaging more than 10.000 people in the evaluation and innovation process, from authorities, organisers to citizens.

"The citizens will be involved in creating useful solutions to the conflict between cultural attractiveness and nuisance which often exists when carrying out big city events in the inner city. And to ensure that needs and regulations are met in terms of trust, privacy and data security, MONICA will engage the local authorities and organisers in validation of the IoT services so that MONICA can become a Best Practise of IoT deployment", concludes Dr. Markus Eisenhauer.

The result is an IoT platform based on open architecture and standards which can be incorporated with existing smart city systems, be replicated to fit other settings or used to develop new smart city applications.

About the project
The MONICA project is a 36-month Innovation Action, co-funded by the European Commission through the Horizon 2020 Framework Programme for Research and Innovation, under Large Scale Pilots, Objective Pilot 3: Wearables for smart ecosystems, Grant Agreement No 732350. EU contribution: EUR 15 million. Duration January 2017 through December 2019.

Pilots and events include: TIVOLI Copenhagen (Friday rock concerts), Bonn (Rhein in Flammen, Pützchens Markt), Hamburg (Hamburger Dom and port festival), Leeds (cricket and rugby games at Headingly Stadium), Lyon (Festival of Lights), Torino (Kappa FuturFestival, Movida).

For further information, contact Project Coordinator, Dr. Markus Eisenhauer from Fraunhofer Institute for Applied Information Technology: markus.eisenhauer@fit.fraunhofer.de
Or visit the project at: http://www.monica-project.eu/

Municipality of Torino 3rd August 2016: http://www.torinoclick.it/?p=56309

TorinoClick
Agenzia quotidiana della Città di Torino

Internet delle cose, a Torino un finanziamento europeo

Pubblicato il: **02 agosto 2016** In: **Torino cambia**

di Michele Chicco

La Città di Torino si è aggiudicata un finanziamento europeo di 370mila euro nell'ambito del Programma Horizon 2020, con il progetto MONICA (Management Of Networked IoT Wearables – Very Large Scale Demonstration of Cultural Societal Applications).

Obiettivo del progetto è fornire una dimostrazione su larga scala di molteplici applicazioni, nuove o già esistenti, di tecnologie Internet degli Oggetti per una migliore qualità della vita e, in particolare, per migliorare la gestione delle questioni ambientali e di sicurezza associate agli eventi che si svolgono nei centri urbani. Internet applicato agli oggetti infatti è una realtà che con le applicazioni adattate a servizi e usi quotidiani ha un notevole impatto grazie a queste nuove tecnologie sulla vita di tutti.

La Giunta comunale, nella seduta di oggi, ha preso atto dell'aggiudicazione del Progetto europeo.

La Città è uno dei 6 siti pilota, insieme a Copenaghen, Bonn, Amburgo, Lione e Leeds, e porta come casi studio la "Movida" e il Kappa FuturFestival: verranno sperimentate tecnologie per il controllo e la gestione del rumore e indossabili (wearables) per la sicurezza.

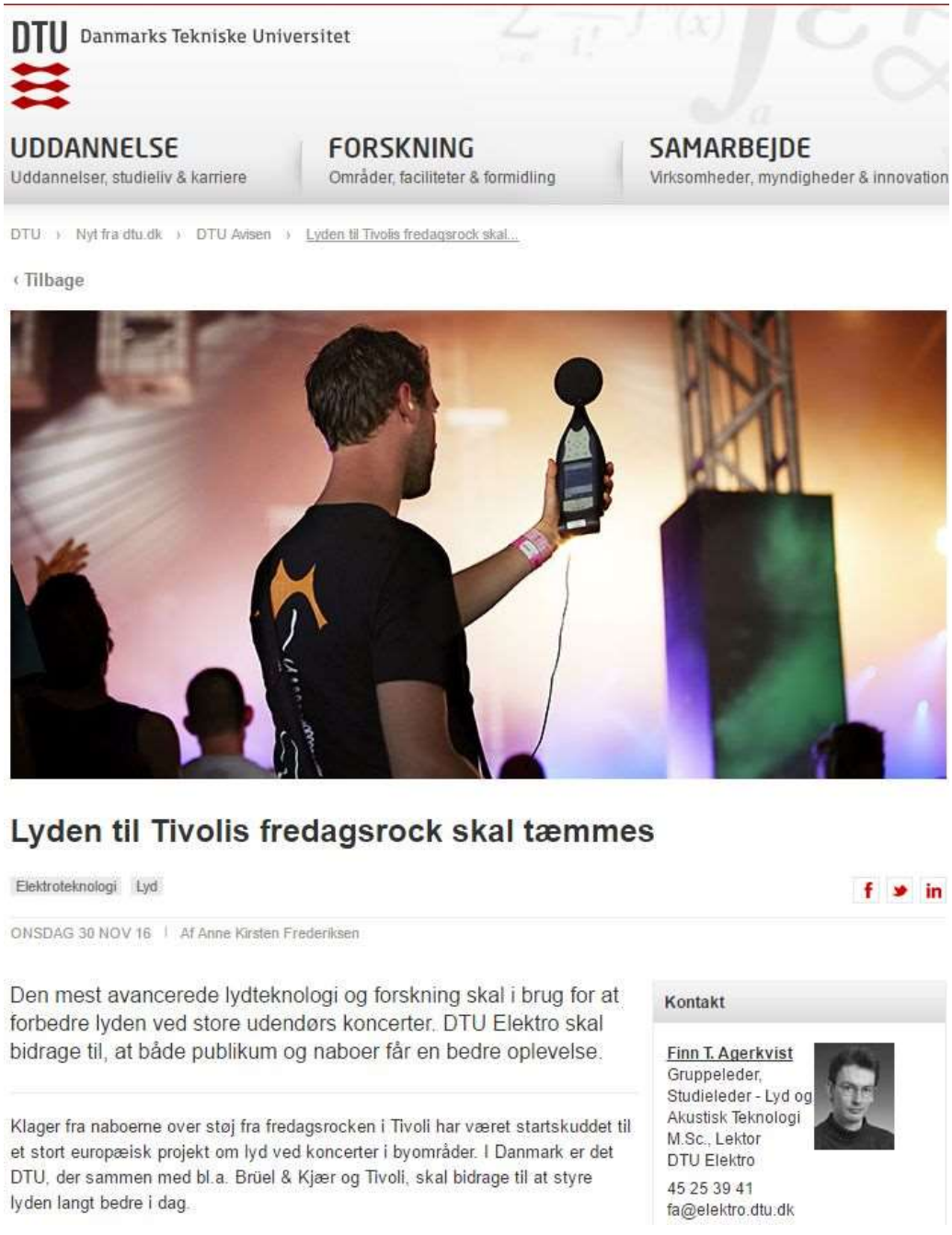
Partner torinesi del progetto, insieme alla Città, sono l'Istituto Superiore Mario Boella e Movement Entertainment Srl, società organizzatrice del Kappa FuturFestival.

Torino ha partecipato al bando Horizon 2020 IoT-01-2016 "Large Scale Pilots" e presentato il progetto MONICA nell'aprile, insieme a un partenariato costituito da 28 organizzazioni provenienti da Germania, Francia, Slovacchia, Danimarca, Svezia, Paesi Bassi, Grecia, UK. Il progetto ha una durata complessiva di 48 mesi e riceve nel suo insieme un finanziamento totale dall'Unione europea di 15 milioni di Euro.

14 Appendix E: News Releases on Partner Websites and Social Media Platforms

This list contains examples of news releases on partner websites.

Technical University of Denmark, November 2016: http://www.dtu.dk/nyheder/dtu-avisen/nyhed?id=B544349F-C004-4E9C-9B6E-12FD2FCA0419



DTU Danmarks Tekniske Universitet

UDDANNELSE
Uddannelser, studieliv & karriere

FORSKNING
Områder, faciliteter & formidling

SAMARBEJDE
Virksomheder, myndigheder & innovation

DTU › Nyt fra dtu.dk › DTU Avisen › Lyden til Tivolis fredagsrock skal...

‹ Tilbage

Lyden til Tivolis fredagsrock skal tæmmes

Elektroteknologi Lyd

ONSDAG 30 NOV 16 | Af Anne Kirsten Frederiksen

Den mest avancerede lydteknologi og forskning skal i brug for at forbedre lyden ved store udendørs koncerter. DTU Elektro skal bidrage til, at både publikum og naboer får en bedre oplevelse.

Klager fra naboerne over støj fra fredagsrocken i Tivoli har været startskuddet til et stort europæisk projekt om lyd ved koncerter i byområder. I Danmark er det DTU, der sammen med bl.a. Brüel & Kjær og Tivoli, skal bidrage til at styre lyden langt bedre i dag.

Kontakt

Finn T. Agerkvist
Gruppeleder,
Studieleder - Lyd og Akustisk Teknologi
M.Sc., Lektor
DTU Elektro
45 25 39 41
fa@elektro.dtu.dk

January 2017: http://www.elektro.dtu.dk/nyheder/nyhed?id=A9CA8066-5258-4490-96E6-B7E7E4B1A490

DTU ELEKTRO is part of large European Sound City project

Elektroteknologi Lyd

FREDAG 06 JAN 17 | Af Nadia Jane Larsen

DTU's Department of Electrical Engineering is one of 28 international partners, extending over several major European cities. The successful grant will provide 2-3 PhD projects and a post-doc position

MONICA, which stands for Management Of Networked IoT Wearables aims at providing a very large scale demonstration of multiple existing and new Internet of Things technologies for Smarter Living. The solution will be deployed in 6 major cities in Europe and demonstrates a large scale IoT ecosystem that uses innovative wearable and portable IoT sensors and actuators with closed-loop back-end services integrated into an interoperable, cloud-based platform capable of offering a multitude of simultaneous, targeted applications. MONICA is one of the largest scale IoT platform demonstrations ever, thanks to cheap wearables and legacy Smartphones.

Kontakt

Finn T. Agerkvist
Gruppeleder,
Studieleder - Lyd og Akustisk Teknologi
M.Sc., Lektor
DTU Elektro
45 25 39 41
fa@elektro.dtu.dk

Kontakt

Diego Caviedes Nozal
Ph.d.-studerende
DTU Elektro
91 85 86 81

Copenhagen City

December 2016

BORGER ERHVERV BRUG BYEN POLITIK OM KOMMUNEN

EU giver 112 mio. kr. til internationalt lydprojekt

02.12.2016

Hvordan afskærmer man lyd fra koncerter og store events i byen, så den generer naboerne mindst muligt? Det skal nyt projekt finde svar på.

Hamburg's Agency for Geoinformation and Survey – City of Hamburg

Landesbetrieb Geoinformation und Vermessung

MONICA

Mehr Sicherheit für Großveranstaltungen

Die Freie und Hansestadt Hamburg ist eine der sechs Pilotstädte des EU-Projektes MONICA, das eine umfangreiche Demonstration mehrerer bestehender und neuer Internet-Technologien zur Erhöhung der Besuchersicherheit und Besuchergesundheit auf kulturellen Großveranstaltungen mittels tragbarer vernetzter Sensoren in Alltagsgegenständen ('IoT-Wearables') ermöglicht.

(Bild: MONICA)

Das Projekt ist im Januar 2017 gestartet und läuft drei Jahre. Partner sind u.a. die Senatskanzlei und die Hochschule für Angewandte Wissenschaften. Neben Hamburg sind Kopenhagen (Dänemark), Turin (Italien), Lyon (Frankreich), Bonn (Deutschland) und Leeds (Vereinigtes Königreich) die weiteren Pilotstädte.

Kingston University London

Kingston University London

Courses | News | Events | Faculties and schools | Services for business | Giving | Jobs | About us | How to find us | Contact us

Undergraduate study | Postgraduate study | International students | Research | Alumni

Home › News › News articles

News

- News articles
- Find an expert
- Media enquiries

Contact us

General enquiries:

- Contact Kingston University

Journalists only:

- Communications team
  Tel: +44 (0)20 8417 3034
  Email us

Kingston University secures €900,000 grant to explore how drones, smart wristbands and cameras could transform future of concert security

Posted Thursday 9 February 2017

Photo by: Business Images/REX/Shutterstock

How a network of drones, smart wristbands and body-mounted video cameras could be used to help keep people safe at large outdoor concerts will be explored by Kingston University experts as part of a major new European research project.

Sound and technology experts from 28 partner institutions across the continent have come together for the three-year €15m European Commission-funded project MONICA. The international study initially arose from attempts to find a solution to mitigating the impact of noise levels on residents during outdoor rock shows held at Copenhagen's Tivoli Gardens.

Kingston University's Robot Vision team (RoViT) has secured funding of more than €900,000 to work on the security aspect of the European-wide project, funded as part of the Horizon 2020 EU Research and Innovation programme.

Coordinated by German research organisation the Fraunhofer Society, the MONICA (Management Of Networked IoT wearables – very large scale demonstration of Cultural societal Applications) project will aim to demonstrate how the latest Internet of Things (IoT) technologies – devices that can be connected over the internet and then operated remotely – could be brought together in a networked system to help manage large-scale events. The institutions and companies taking part – ranging from telecoms specialists to universities and sports clubs – will seek to address both the noise impact and security challenges faced when managing such outdoor concerts.

The Kingston University team will be looking at how drones could be used in an internet-connected security system.The Kingston University team, based in the Faculty of Science, Engineering and Computing, will explore how smart technologies could improve video surveillance and speed up the response from security teams to incidents in the middle of a large crowd, Professor Paolo Remagnino explained. "The bigger the event, the more potential issues you have in terms of ensuring the safety of those attending," he said.

30 March 2017

Kingston University wins 2017 Guardian University Award for teaching excellence

28 March 2017

Award-winning record producer Tony Visconti returns to Kingston University for the inaugural Visconti Winter School

17 March 2017

QS World University Rankings place Kingston University in top 100 globally for art and design

17 March 2017

Comedian Lenny Henry praises outstanding Kingston University students at annual Talent Awards

"We want to help develop a way of bringing these technologies together to help establish a secure environment during public events where many thousands of people are attending."

The Kingston University team will be looking at how drones and other methods of video surveillance could be used as part of an internet-connected security system. Photo: Matt Rourke/AP/REX/Shutterstock

The University's work will involve liaising with several project partners to examine how various devices could secure live video, audio and other data and how these could be used to respond to incidents more quickly. Other institutions will be tasked with exploring how noise cancellation technology could form part of the networked system to mitigate issues around hosting outdoor concerts in cities and residential areas.

"As part of the project we will be looking at how wearable devices – such as smart wristbands that could be worn by concert-goers – could connect to a system developed as part of the MONICA project which will provide GPS information," Professor Remagnino said. "That would tell you how many people are in specific places and, if there was a disturbance, you could quickly establish where it was taking place.

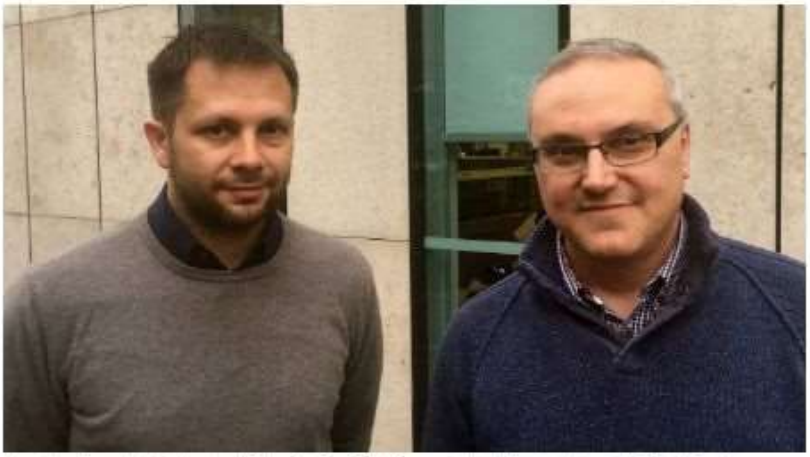
"We will be researching how other inter-connected IoT technologies, such as body-mounted video cameras or potentially even drones, could then be sent in to the affected areas to get footage that can be fed back in to the system."

The project will also involve the team looking into how all of this data could then be brought together through a cloud-based system where it would be stored indefinitely, allowing it to be examined and processed both live and after the event, Professor Remagnino said. During the three-year project, pilot events will be held across several European cities with the aim of demonstrating how a system bringing together these technologies could be used in the real world.

"If we can show that this kind of smart security system could work on this scale, it would go a long way to demonstrating the potential of these smart technology solutions to the challenges faced in crowded outdoor environments in big cities," associate professor Vasileios Argyriou, who is working on the project with Professor Remagnino, added.

"The University has a strong tradition of being at the forefront of developments in video surveillance and analytics and being involved in these kinds of international projects shows our continuing commitment to undertaking cutting-edge research in this field."

- **Find out more about studying computing and mathematics courses at Kingston University.**

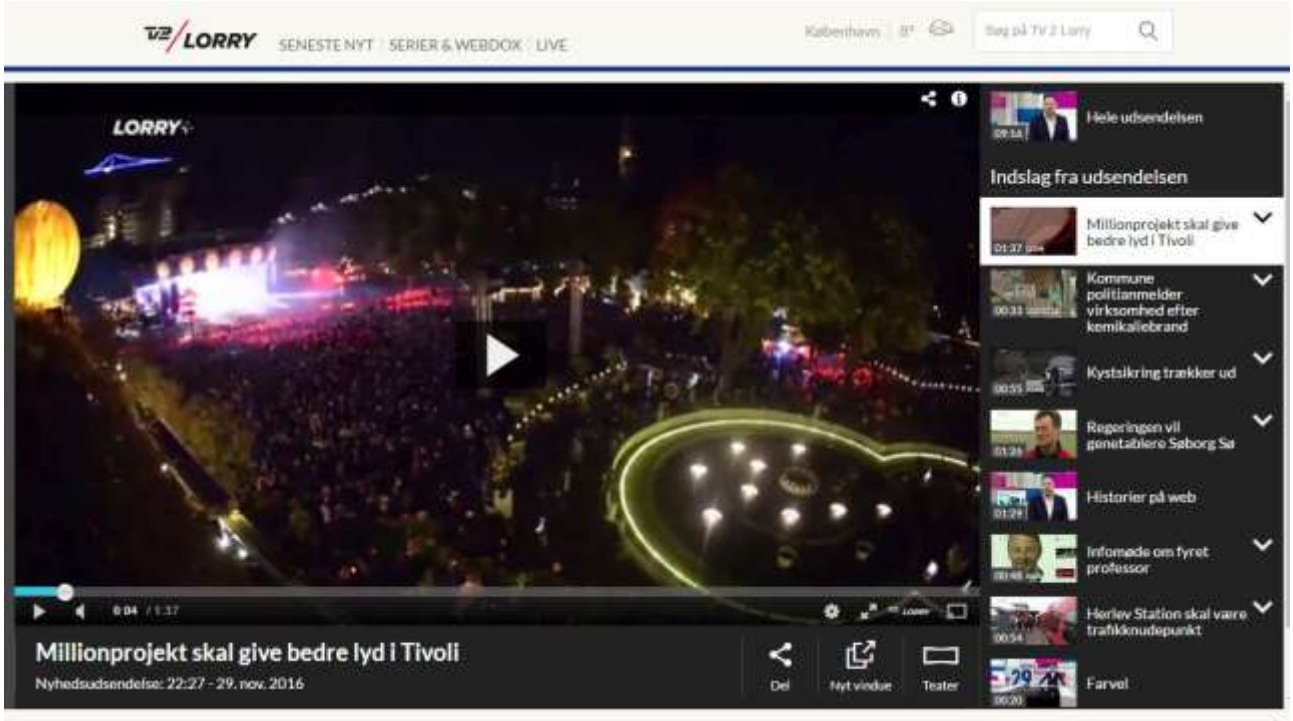


Associate professor Vasileios Argyriou (left) and Professor Paolo Remagnino (right), from the University's Robot Vision team working on the MONICA project.

15 Appendix F: Press Coverage

The following list shows examples of MONICA in the press.

TV Lorry, Regional TV station, Denmark, 29. November 2016, http://www.tv2lorry.dk/nyheder/29-11-2016/2227/millionprojekt-skal-give-bedre-lyd-i-tivoli



Metroxpress (Danish free newspaper), 29. November 2016: http://www.mx.dk/penge_erhverv/nyheder/story/27567822

Gramex.dk, December 2016, the Danish organisation in charge of administering the financial rights of performing artists and record companies: http://gramex.dk/turn-up-the-music-and-reduce-unwanted-acoustic-exposure/

Pladeselskaber Udøv

Forside / Turn up the music and reduce unwanted acoustic exposure

TURN UP THE MUSIC AND REDUCE UNWANTED ACOUSTIC EXPOSURE

Foto: Rasmus B.S. Hansen, Tivoli

How is the optimal sound from outdoor rock concerts created in an urban area without disturbing citizens living nearby? A large EU Commission Horizon 2020 (H2020) project named MONICA aims to innovate a solution to this and more over the next 3 years.

MONICA stands for **M**anagement **O**f **N**etworked **I**oT **C**learables – Very Large Scale Demonstration of Cultural Societal **A**pplications, and the idea is to apply new innovation from advanced wireless IoT technologies to develop an innovative set of readily deployable solutions within electronic acoustics management and extended safety and security for citizens in large crowds at bigger events.

WDR - Westdeutscher Rundfunk, 27. January 2017, http://www1.wdr.de/nachrichten/rheinland/sicherheit-grossveranstaltungen-100.html

WDR

Wette

Nachrichten Sport Wissen Verbraucher Kultur Unterhaltung

Mehr Sicherheit durch High-Tech auf Großveranstaltungen

Von Jochen Hilgers

- Mehr Sicherheit und Lärmschutz bei Großveranstaltungen
- Funktionale Eintrittskarten, die z.B. den nächsten Notausgang zeigen
- Projekt mit 17,6 Millionen Euro von der EU gefördert

In ganz Europa werden Veranstaltungen unter freiem Himmel immer beliebter, zugleich steigen aber auch die Anforderungen an die Organisatoren, etwa in Sachen Lärmschutz und Sicherheit. Wie das gelingen kann, stellten die Forscher am Freitag (27.01.2017) im Fraunhofer Institut in Sankt Augustin vor.

Funktionale Eintrittskarten für Großveranstaltungen

Es mag ein Blick in die Zukunft sein, doch die wird wohl schneller kommen als gedacht. Vermutlich werden Tickets oder VIP-Bändchen bei Stadionbesuchen oder Großveranstaltungen bald ausgedient haben.

Markus Eisenhauer (li.) und Hans Jürgen Hartmann

Die Forscher vom Fraunhofer-Institut für angewandte Informationstechnik bevorzugen stattdessen sogenannte wearables, Computersysteme, die am Leib getragen werden. Das können zum Beispiel Armbänder sein, die jeder Besucher einer Großveranstaltungen tragen muss. Dies ermögliche zum Beispiel, so Markus Eisenhauer vom Fraunhofer Institut, dass Menschenströme besser gelenkt werden könnten.

Armbänder leuchten den Weg zum Notausgang

In Duisburg bei der Loveparade hätte dies viele Menschenleben retten können, so Eisenhauer weiter. Über diese wearables könnten theoretisch auch Anweisungen per Lichteffekt gegeben werden. Ein Beispiel: Das Armband leuchtet gelb, was für den Träger bedeuten würde, sich zum gelben Notausgang zu bewegen. Außerdem ist es über wearables ohne Probleme möglich, verdächtige Personen im Blick zu behalten. Parallel wird daran gearbeitet, für das Sicherheitspersonal Datenbrillen zu entwickeln.

Notausgang-Schilder demnächst überflüssig?

Drohnen sollen Livebilder liefern

Livebilder von Großveranstaltungen durch Drohnen

Über dem Veranstaltungsgelände kreisen dann im Idealfall mehrere Drohnen, die den Sicherheitsleuten permanent Livebilder vom Gelände liefern. Das Projekt des Fraunhofer Instituts wird allein mit 17,6 Millionen Euro von der EU gefördert. Dabei sind Städte wie Hamburg, Lyon, Leeds oder Bonn, die alle mehrere Großveranstaltungen jährlich veranstalten.

Ruhezonen direkt vor der Konzertbühne

Ganz praktisch wird auch an Soundsystemen gearbeitet, die zum einen ein besseres Klangerlebnis bringen sollen. Zum anderen sollen schallschluckende Lautsprecher die Schaffung von Ruhezonen selbst in Bühnennähe ermöglichen.

"Wir stehen vor der zweiten Internetrevolution"

"Da wird besonders die Stadt Bonn hellhörig. Dort beschweren sich immer wieder Anwohner über angeblich zu laute Freiluftkonzerte", sagt Hans Jürgen Hartmann von der Stadt Bonn. Das Forschungsprojekt ist zwar auf drei Jahre angelegt. Erste Ergebnisse werden aber sicher nicht lange auf sich warten lassen. "Wir stehen datenmäßig vor der zweiten Internetrevolution", prophezeien die Wissenschaftler vom Fraunhofer-Institut.

Rhein-Sieg-Anzeiger, Köln, 28 January 2017 http://www.ksta.de/region/rhein-sieg-bonn/sankt-augustin/sankt-augustin-forscher-entwickeln-systeme-fuer-mehr-sicherheit-bei-grossveranstaltungen-25633310

Rhein-Sieg-Anzeiger

Kölner Stadt-Anzeiger | Region | Rhein-Sieg-Bonn | Sankt Augustin

Sankt Augustin: Forscher entwickeln Systeme für mehr Sicherheit bei Großveranstaltungen

Von Ralf Rohrmoser-von Glasow 28.01.17, 08:00 Uhr

Bei Großevents wie Rhein in Flammen in Bonn und den Nachbarstädten sollen angepasste Beschallungstechnik, Sicherheits- und Servicesysteme entwickelt und erprobt werden.
Foto: Rohrmoser-von Glasow

Sankt Augustin/Bonn - „Die spielen hier gern, auf dem Schloss", zeigte sich Jürgen Hartmann, Leiter des Referats Stadtförderung in Bonn, von dem begeistert, was im Fraunhofer-Institut für Angewandte Informationstechnik (FIT) erdacht wird.

Tatsächlich aber ist das internationale Projekt „Monica", von der Europäischen Union gefördert, keine Spielerei, sondern hat mehr Sicherheit und Service für Großveranstaltungen im Fokus. Die Europäische Kommission fördert mit rund 15 Millionen Euro, für Bonn sind gut 450 000 Euro vorgesehen.

Projektkoordinator Markus Eisenhauer und Hartmann stellten nach einem einwöchigen Kick-Off-Treffen mit rund 70 Teilnehmern aus vier europäischen Staaten erste Ideen vor.

„Wir wollten die 28 Partner alle auf einen Stand bringen, eine gemeinsame Sprache finden", erklärte Eisenhauer. „Das muss immer Spaß machen", spielte er auf die Ansage Hartmanns an. Die Herausforderung ist das »Internet der Dinge«. Roboter und Maschinen kommunizieren künftig direkt im Netz.

„Das wird das Internet revolutionieren", so der FIT-Bereichsleiter. Bei „Monica" geht es um Anforderungen für Großkonzerte, Kirmesveranstaltungen wie Pützchens Markt, den Hamburger Dom oder Rhein in Flammen.

Die Forscher wollen neueste Sensortechnik, partizipative Systeme und Lichtelemente in tragbaren Geräten erproben und vernetzen. Neben Smartphones und digitalen Brillen ist dabei vor allem an Armbänder gedacht, die die Besucher der ausgewählten Events, von Kopenhagen bis Turin, tragen sollen.

Service und Sicherheit spielen dabei gleichermaßen eine wichtige Rolle. Die Daten dieser sogenannten Wearables sollen dabei in Echtzeit erfasst und die Informationen verarbeitet werden. Drohnen liefern dazu Aufnahmen aus der Luft.

Im Kontext von Sicherheitsfragen können die Armbänder Aufschluss darüber geben, wo sich möglicherweise zu viele Menschen ballen und eine Panik entstehen könnte. Die Sicherheitskräfte bekommen die entsprechende Information und können gegensteuern. Spezialisten sind zudem in der Lage, aus abweichenden Bewegungsmustern möglichen Attentätern auf die Spur zu kommen.

„Wir setzen aber auf Datensparsamkeit“, betonte Eisenhauer, „es geht nicht um die Analyse individuellen Verhaltens, außer im konkreten Fall.“ Es sollen nicht die Sicherheitskonzepte neu erfunden, sondern den

beteiligten Organisationen Entscheidungshilfen geliefert werden.

„Große Veranstaltungen zu überschauen, ist schwierig“, erläuterte Hartmann und hofft auf die Ergebnisse der Analysen, „da wird uns die Technik helfen.“ Mit Pützchens Markt, Rhein in Flammen sowie dem Beethovenjahr 2020 zum 250. Geburtstag des Komponisten ist die Stadt gleich mit drei Großveranstaltungen dabei, erhofft sich auch Erkenntnisse für den Weihnachtsmarkt.

Neben Sicherheit sind das Wohlfühlerlebnis für die Gäste und eine bessere Verträglichkeit für die Anwohner zentrale Themen. Für die Konzertbesucher etwa geht es darum, Musik lauter und besser hören zu können. Es soll aber auf dem Gelände Oasen der Ruhe geben, in denen telefoniert werden oder Verletzte behandeln werden können, ohne dass die Bässe sie sozusagen wegwehen.

Mit Gegenschall in unteren Frequenzbereichen können die Belästigungen für Bewohner der Innenstädte bei den Großevents in Hamburg, Turin oder Kopenhagen minimiert werden. All das ist technisch machbar und soll jetzt systemisch zusammengeführt werden.

In Phase eins des auf drei Jahre angelegten Projekts sind vor allem Erfassung und Analyse angesagt. Natürlich gibt es einen Plan für die kommenden 36 Monate, der aber soll stets angepasst werden. Eisenhauer: „Wenn Armbänder nicht funktionieren, muss eben etwas anderes her.“

Und noch ganz andere Dinge sind möglich, Formen der Beteiligung etwa oder der Rückkopplung durch Gäste. Gigantische Lichtinstallationen lassen sich so etwa mit LED-Lampen und Zehntausenden Teilnehmern entwickeln. Über die „Wearables“ können den Nutzern beispielsweise touristische Informationen geliefert, über digitale Brillen wiederum Fahndungsbilder direkt an Einsatzkräfte verschickt werden.

George Orwell würde sich wohl zurücklehnen und denken: „Hab ich es doch gewusst!“

General-Anzeiger Bonn, 29 January 2017 http://www.general-anzeiger-bonn.de/ga-english/Guardian-angel-to-support-large-events-in-the-region-article3460927.html

Guardian angel to support large events in the region

Foto: Nicolas Ottersbach

The 'Monica' security system will be tested at the Rhine in Flames event in Bonn

BONN/SANKT AUGUSTIN. Noise complaints, large crowds, mass panic and the threat of terrorism – there is a long list of issues and real dangers connected with large events in Bonn and the region.

Eurobrief from Network Enterprise Europe – March 2017

eurobrief März 2017

Anette Benz, Tel.: 0431 9905 3494, anette.benz@ib-sh.de
Ingo Buck, Tel.: 0451 6006 190, buck@wtsh.de

(zurück zur Startseite)

MONICA - Mehr Sicherheit und Lärmschutz bei Großveranstaltungen durch das Internet der Dinge

Die Freie und Hansestadt Hamburg ist eine von sechs europäischen Pilotstädten des EU-Projektes MONICA, das eine umfangreiche Demonstration mehrerer bestehender und neuer Internet-Technologien zur Erhöhung der Besuchersicherheit und Besuchergesundheit auf kulturellen Großveranstaltungen ermöglicht.

MONICA demonstriert ein umfangreiches "Internet of Things"-Ökosystem, das innovative tragbare vernetzte Sensoren in Alltagsgegenständen einsetzt, sogenannte 'IoT-Wearables", zum Beispiel in Armbändern, Smartphones und Körperkameras, die in eine Cloud-basierte Plattform integriert sind.

Das Projekt startete am 01.01.2017 im Rahmen des EU-Förderprogramms HORIZON 2020 und wird drei Jahre laufen. Die Besonderheit des Projektes liegt darin, das Zusammenspiel der verschiedenen Anwendungen aus dem Sicherheits- und Akustikbereich auf einer IoT-Plattform im großen Stil und unter realen Bedingungen zu testen und zu evaluieren. Das Projekt steht vor dem Hintergrund des Beschlusses des Hamburger Senates, technische Innovationen für die Entwicklung Hamburgs als Digitale Stadt nutzbar zu machen.

Zur Umsetzung des Projektes arbeiten insgesamt dreißig Partner aus sechs Ländern zusammen. Als Koordinator des Projektes fungiert die Fraunhofer-Gesellschaft für Angewandte Informationstechnik. Die beteiligten Partner aus Hamburg sind der Landesbetrieb Geoinformation und Vermessung (Datenmanagement), die Senatskanzlei der Freien und Hansestadt Hamburg (Politische Begleitung) und die Hamburger Hochschule für Angewandte Wissenschaften (HAW, Kernteam des IoT Systems RIOT), sowie alle diejenigen, die in der Stadt mit dem Thema Sicherheit oder der Organisation von Großveranstaltungen beschäftigt sind.

Weitere Informationen: http://www.monica-project.eu/

16 Sources and References

MindTools.com	https://www.mindtools.com/pages/article/newPPM_07.htm
NCVO, 2017	https://knowhownonprofit.org/campaigns/communications/communications-strategy
Wright et. al., 2011	Wright, George, and George Cairns (2011). Scenario Thinking: Practical Approaches to the Future, Palgrave MacMillan, Houndmills, Basingstoke, Hampshire.
EC 2014	Communicating EU research and innovation guidance for project participants http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf
EC portals	https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-933.html
	https://ec.europa.eu/digital-single-market/en/news/horizon-2020-work-programme-2016-2017-internet-things-large-scale-pilots
	https://ec.europa.eu/digital-single-market/en/digitising-european-industry
	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iot-01-2016.html
	http://ec.europa.eu/research/innovation-union/index_en.cfm
	https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-933.html