



D9.1 Dissemination and Communication Strategy

PULSE project

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European Connected Health Alliance (ECHA)

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EXECUTIVE SUMMARY

The present document (Deliverable 9.1) defines and describes in detail the proposed dissemination and communication plans for PULSE (Participatory Urban Living for Sustainable Environments) project. This deliverable is part of the work package (WP9), led by the European Connected Health Alliance (ECHA).

The first version of Deliverable 9.1 was submitted in January 2017 (month 3 of the project). This document presented a high level description of the communication and dissemination strategy and the rationale and purposes behind it. This deliverable was rejected after the first review. The current version of the document provides an update of the above mentioned version addressing the comments provided in the first review report. Previously, an updated version of the communication and dissemination strategy (D9.6) was submitted in February 2018, illustrating with more details the communication and dissemination strategy of the project. D9.6 was accepted in the first review.

The PULSE consortium will develop innovative knowledge and solutions that will be disseminated across a multi-stakeholders ecosystem, including urban policy-makers, researchers, health and social care providers, citizens, industries and start-ups, and investors. This document describes the strategies and methods that the consortium will deploy to reach, and engage with, a variety of audiences, raising awareness for citizens and transferring new knowledge and insights.

To further this strategy, the PULSE consortium will develop a project website to communicate with relevant stakeholders, accompanied by a strong branding strategy, including the PULSE logo and a set of materials and tools to provide the consortium with a shared and consolidated visual identity. All media will express the main values of the project: openness; cooperation; commitment; expertise; experience; transformation and policy mission (building upon the Health in All Policies approach).

Timing of content in the project communications is important. PULSE consortium will continuously publish relevant information in digital format for each target group, through regular posts, articles and news, make wide use of social networks for outreach, and organize and participate in several workshops, conferences and events. Whereas possible, the latter will be arranged in correspondence of (within major international events related to the PULSE project, e.g. mainly related to IT for public health, digital health, smart cities and big data. The PULSE consortium will also organize independent conferences and events at relevant points during the course of the project.

1. BACKGROUND AND INTRODUCTION

The first step for a proper and effective dissemination of project's objectives, intermediate outcomes and final results is establishing targets, processes and plans for all the communication and dissemination actions to be put in place along the project's duration.

For this reason the Dissemination and Communication Strategy illustrated in the present document is a cornerstone in the project since it brings together current knowledge of target audiences, existing networks and priority activities during the project. It will be regularly reviewed and updated based on project developments and dissemination achievements.

Part of this planning activity will be to develop a coherent visual identity for the project development including the logo and graphic materials, such as templates, styles and guidelines which can be used by partners when presenting their work in electronic and printed material. All PULSE partners will use their dissemination networks, industrial partnerships, standardization activities and long-standing experience in EU funded projects to help dissemination, either through direct participation using workshops, conferences, web pages, promotion events, meeting of their professional associations, etc., or through their respective technical WPs and activities.

Furthermore, this document and its updates are complemented by regularly released reports gathering information about the dissemination and communication activities carried out and the corresponding outcomes. Specifically, as per the amended version of the project Description of Action (DoA), a series of reports of the dissemination and communication activities carried out and the corresponding outputs produced and objectives achieved are going to be provided in:

- D9.5 Report of the executed dissemination, exploitation, innovation and communication activities (events, publications, etc.) – month 12 (October 2017).
- D9.8 Report of the executed dissemination, exploitation, innovation and communication activities (events, publications, etc.) – month 24 (October 2018).
- D9.9 Report of the executed dissemination, exploitation, innovation and communication activities (events, publications, etc.) – month 36 (October 2019).

2. PURPOSE, OBJECTIVES AND VALUES

The main goal of the Dissemination and Communication Strategy is to establish the methodologies, channels and tools used by the PULSE consortium to raise awareness about project activities, outcomes and final results, and to make these available to the relevant stakeholders in order to foster adoption and use of the products and solutions that PULSE will deliver. Dissemination is essential for take-up, and take-up is crucial for the success of the project and for the sustainability and transferability of results in the long term.

For this reason dissemination is closely linked to exploitation strategy (which will be detailed in D9.7).

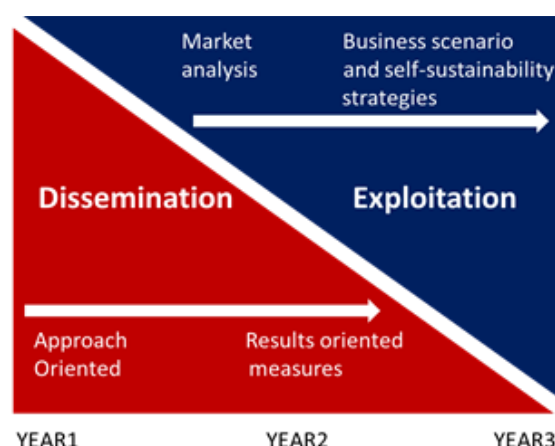


Figure 1. Linking dissemination and exploitation activities

As illustrated in Figure 1, Dissemination and Exploitation Strategy will be mutually feeding and interacting continuously. During the first part of the project, efforts are concentrated on setting the basis of the dissemination of the PULSE concept and approach, through a thorough analysis of the market, the stakeholder community and the needs of the different categories while providing the project with a solid plan and set of tools to properly communicate the project and increase outreach, visibility and engagement. With a snow-ball / cascade approach, in the second part of the project, while continuing to communicate and disseminate, the project consortium will gradually intensify the exploitation activities making them increasingly tailored and preparing the ground for the self-sustainability of the project's results even beyond its end.

To be effective, the mixed dissemination and exploitation approach includes the following activities:

- i) To identify the full range of potential stakeholders connected to the PULSE project, defining how they can contribute to the project implementation (as key actors) and how they can benefit from the project results (as target groups);
- ii) To define and implement a targeted mix of dissemination activities suitable for each of the identified groups of stakeholders, moving from an initial concept-oriented dissemination and progressing to result-oriented dissemination;
- iii) To define the exploitation potential for each of the identified groups of stakeholders, moving from activities related to the preliminary analyses of the market to viable business models and self-sustainable products and services (M36, D9.7).

In detail, the PULSE communication and dissemination plan presented here after aims at engaging the stakeholder community at different levels in order to achieve three main **objectives** as stated in the DoA:

- **To raise awareness:** the project will disseminate the activities, outputs and benefits to targeted audiences. This approach will help with “word of mouth” type dissemination and build an identity and brand within the targeted community.
- **To promote understanding for potential adoption:** this level comprises activities that directly target audiences that can benefit from the project's offerings (with a specific focus in cities and urban decision makers), and thus provide a deeper understanding of the project.

- **To foster internalization and/or integration of results:** this level aims at moving from user awareness to user acceptance and promotes the willingness to make use of project's outputs, in order to ensure innovation capability growth.

This plan serves as a reference guide to ensure consistency in communications and to maintain PULSE brand identity.

The Dissemination and Communication Strategy is a living document to be shaped and adapted all along the project: that is the reason why the release of regularly updated versions of this document is essential in order to meet the needs of the consortium in terms of identified communication needs and refine the planned actions based on the expectations of the stakeholders as well as the evolution of the project's itself (including the degree of maturity of its proposed products and solutions). .

Nevertheless a set of basic principles which are the foundational values of this project are identified below since they will inform and guide all the activities of communication and dissemination that will be performed.

PULSE project is animated by principles and values:

- **Openness and Cooperation:** the PULSE consortium integrates a large number of stakeholders based on the strategy of building relations with external stakeholders through its Business and Innovation Councils, and with new cities interested in deploying PULSE tools and applications.
- **"Health in All Policies" as a policy mission:** the PULSE partners agree and support the need of intersectoral policies to overcome the inefficiencies due to the silos management of urban services establishing the future resilience of cities, health care systems, and communities.
- **Commitment:** all partners have agreed to collaborate to design, build, implement and evaluate the PULSE models, tools and technologies.
- **Expertise:** all PULSE partners are professionals, recognised in their domain, covering globally 3 continents.
- **Experience:** best-in-class cities and researchers will work together in an agile mode with key players within smart cities and digital health environments.
- **Transformation:** PULSE aims to bring more wellbeing to citizens, improve health status and quality of life, and create sustainable models for smart healthy cities.

3. STAKEHOLDER ENGAGEMENT STRATEGY

A solid stakeholder engagement strategy is, as stated below, the preliminary and essential step to frame an adequate communication and dissemination plan.

Thus, before detailing actions, tools, channels and tailored messages, the PULSE consortium went through a 4-steps strategic process to design its own stakeholder engagement strategy. The present section provides an updated and refined version of such strategy building on the high level approach provided in the first version of this document and embedding hereby the comments received during the first review.

Specifically, this section builds upon the 4-step strategic approach illustrated in Figure 2:

- **1st step: Identification of the relevant stakeholder groups.**

- **2nd step: mapping of stakeholder groups** according to their level of interest and influence in the project.
- **3rd step: design of the appropriate communication and dissemination strategy and means for each group.**
- **4th step: implementation and measurement of the effectiveness of the communication and dissemination strategy.**



Figure 2. PULSE 4-steps stakeholder mapping, dissemination and communication strategy

The 1st and 2nd step are developed and explained in section 3.1 while in section 3.2 the main narrative of the project and messages it aims to transmit are presented. Then, the operational tools, channels and actions to be put in place to reach each type of audience are described in section 4 (3rd step). Lastly, the information related to the implemented activities and the assessment of their effectiveness (4th step) will be the subject of D9.8 and D9.9.

3.1. STAKEHOLDER IDENTIFICATION AND MAPPING

The stakeholder identification and mapping exercise was performed at the beginning of the project. The PULSE project will develop a Big Data urban ecosystem comprised of dynamic, data-driven and evidence-based interactions and knowledge exchanges between and among a number of stakeholders.

These stakeholders were preliminarily identified in the DoA including their involvement (in terms of active contribution to the project's activities) and expected benefits for each of them. In the present mapping, we go a step further and we classify them in order to better select and prioritize the adequate communication and dissemination actions which best fit their needs. Also, in the present mapping we include not only stakeholders who are directly involved in the project's execution but also other categories (such as other

related EU projects and pan European initiatives and programmes) which have an interest in being informed about PULSE's development, thus widening the arena of actors that we will reach out.

This activity represents the first crucial step for building a successful dissemination and communication strategy because it allows not only to identify the project's key stakeholders but also to classify them according to their **level of interest** into the project and **capacity to influence** the project itself and its results.

Such classification makes use of an adapted version of the Mendelow's "power-interest grid"¹, which considers stakeholder power and expectations (and therefore their likely interest) to determine the potential influence of stakeholder groups.

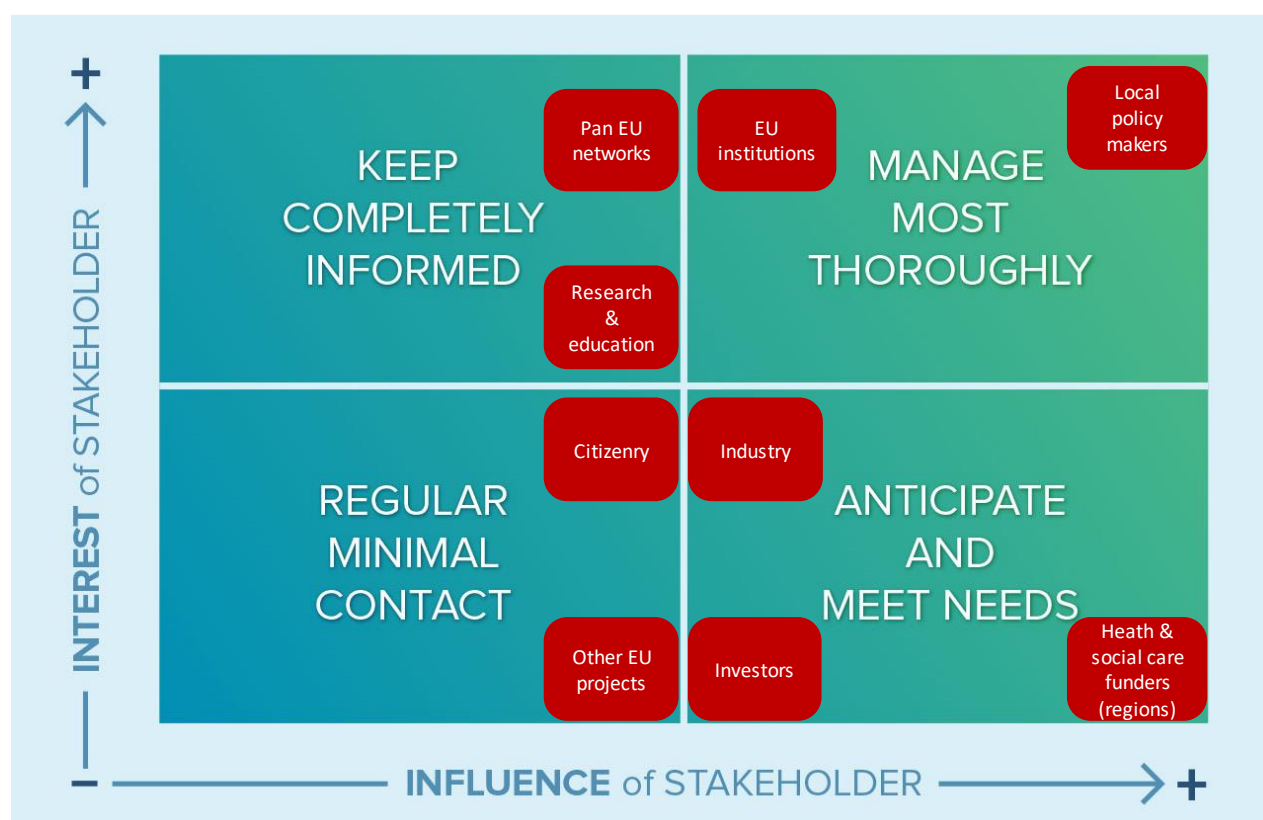


Figure 3. Relevant PULSE stakeholders mapping according to their level of interest and influence

Moreover, key actions to be undertaken in order to consolidate and enhance the capabilities of PULSE consortium to reach out and engage relevant stakeholder are detailed in the third column of Table 1 ("Targeted communication and dissemination plan").



Each action is further detailed in the subsequent chapter 4 and its sub-sections.

¹ Mendelow, A. (1991) 'Stakeholder Mapping', Proceedings of the 2nd International Conference on Information Systems, Cambridge, MA (Cited in Scholes, 1998).

Table 1. List of relevant stakeholders, including their link with the project and the proposed actions to target them

Key stakeholders	Their link to PULSE: how they contribute to/are affected by the project	Targeted communication and dissemination plan
Local policy makers	<p>They are the authorities responsible for designing public policies related to health and social care and aimed at enhancing citizens' wellbeing. This put them at the top of the stakeholders' list for their power of influence and determine the project's successful achievements in renovating the public health system.</p> <p>Their interest in up-taking PULSE results and building upon them for the construction of permanent Public Health Observatories is key for securing the impact of PULSE dissemination and exploitation strategy.</p>	<p>Liaison with City Councils and their relevant associations as well as regional governments and networks (e.g. <i>EUROCITIES international and local events, Events arranged by national associations of City Councils</i>).</p> <p>Presentation of relevant PULSE results to public health agencies and experts (e.g. <i>International Conference on Preventive Medicine & Public Health among others</i>).</p> <p>Link with relevant programmes supporting urban innovative policies (such as <i>URBACT and Urban Innovative Actions (UIA)</i>).</p> <p>Production of an ad-hoc infographic gathering relevant benefits for cities to uptake PULSE results and be engaged.</p> <p>Presentations and active participation of PULSE partners in relevant events (e.g. <i>next URBACT City Festival</i>).</p>
Research & education	<p>Develop research, scientific work, and innovations, as well education & training capacities, in order to manage change. They include universities, engineering schools, public/private training providers, research centres, etc.</p>	<p>Production of relevant papers, posters and abstracts to increase impact and acknowledgement of PULSE's results in the scientific community (<i>list of targeted journals and scientific conferences appended at the end of the document</i>).</p>
Industry	<p>Develop and provide innovative solutions, potentially connected to or built upon the project's outcomes. Many sectors could be reached e.g. IT services and software developers, integrators medical & non-medical devices, social services, etc.</p>	<p>Presentation and showcase of relevant PULSE's results at exhibitions and fairs (e.g. the <i>Smart City Expo Congress</i>).</p> <p>Regular dissemination of relevant project's info through the ECHAlliance database with 16.500 contacts from the digital health industry.</p>
Care providers/ professionals	<p>Those entities and the professionals who deliver health and social care services at both managerial (e.g. healthcare organization managers)</p>	<p>Risk detection is crucial for adequate prevention: an informative targeted project brochure aiming at raising awareness among health and social care providers and their relevant networks, especially primary care</p>

	<p>and operational level (e.g. healthcare professionals).</p> <p>They are part of the end-users because they will benefit of:</p> <ul style="list-style-type: none"> • The Creation of novel risk models to support preventive services at the primary care level. • The definition of risk mitigation strategies and treatment advice for the secondary care. 	<p>(e.g. <i>European Forum for Primary Care</i>) is released.</p> <p>Presentations and active participation of PULSE partners in relevant events.</p>
Citizenry	<p>Users of the health and social care system and of the solutions. It includes associations for citizens/consumers, disease focused group, informal carers & families, etc.</p>	<p>Release specific informative content for citizens, patients, carers and their associations in a lay language and to be translated in national language if needed.</p>
Health & social care funders (regions)	<p>Purchase innovative solutions and decide on funding models. They could be public social insurances, regional authorities, mutual & pension funds, banks, etc.</p> <p>In the private sector, funders includes also insurance companies providing prevention schemes, occupational medicine services, etc.</p>	<p>Targeted information is produced to seek for synergies with regional funding schemes, European Regional Development Fund supported projects (e.g. <i>RIS3 projects</i>, <i>INTERREG projects</i>, among others).</p> <p>Reach out regional authorities and agencies through relevant networks e.g. <i>EIP on AHA Reference Sites</i>.</p> <p>Reach out the regional agencies or departments responsible for the implementation of the respective <i>Research and Innovation Strategy for Smart Specialisation (RIS3)</i>.</p> <p>Leveraging the ECHA membership base to reach out private big insurance companies and funding institutions.</p>
Pan EU networks	<p>International Fora and other working groups related to the activities foreseen in PULSE.</p>	<p>Seeking active interaction with relevant initiatives as like as EIT Digital, EIT health and EIP on Smart Cities (e.g. participating in the Roadshow “Enabling the City arranged by EIT Digital”).</p>
Investors	<p>Business angels, venture capital, social impact investors who support investments for innovation, possibly involved in specific partnerships (social impact investment) with policy-makers, health & social care providers and companies to deliver innovative care services.</p>	<p>Actions oriented to provide the PULSE industrial partners with the opportunity to showcase the solutions they develop at relevant events which are used to attract a large presence of investors:</p> <ul style="list-style-type: none"> - Presence in start-up international events (e.g. <i>4YFN Mobile World Congress</i>).

		<ul style="list-style-type: none"> - Stands at exhibitions and fairs (<i>e.g. the Smart City Expo Congress</i>).
	<p>Relevant Directorate-General of the European Commission, such as DG RESEARCH, DG GROW, DG REGIO, DG SANTE or DG CONNECT, as well as the European Committee of the Regions and the European Parliament.</p>	<p>Posting relevant news into the Agora network, the open access space within the <i>EU Health Policy Platform</i>.</p> <p>Posting relevant news in the <i>DG CONNECT newsletter</i>.</p> <p>Presentation and showcase of relevant PULSE's results at relevant events arranged by the EC or other EU institutions (<i>e.g. the European Week of Regions and Cities</i>).</p>
	<p>Projects clustered with PULSE under the same call for proposals as well as projects related to PULSE which have been funded under different H2020 streams or societal challenges.</p>	<p>Participation and active contribution to the clustering initiatives put forward by the EC to establish links with the other projects funded under the same call as PULSE.</p> <p>Inviting projects' representatives to PULSE events seeking to maximize cross-disciplinary collaboration and potential synergies (<i>e.g. with Citizen Science recently approved projects under the 'Science with and for Society' H2020 programme</i>).</p>

3.2. PULSE narrative and key messages

PULSE (Participatory Urban Living for Sustainable Environments) is a visionary project aimed at transforming public health from a reactive to a predictive system using heterogeneous data from numerous sources. At the beginning of the project two main topics have been identified so far to build the narrative of the project and the creation of targeted messages depending on the topic and the selected audience case by case:

TOPIC 1: Risk and Resilience in Cities

Working with the cities of Paris, Barcelona, Birmingham, New York and Singapore, the PULSE project will harvest open city data, clinical data, and data from satellites and fixed and mobile sensors. We will develop stratified population models of chronic disease risk and environmental exposure. Our focus is on two major chronic diseases in adult populations (the respiratory disease of Asthma, and the metabolic disease of Type 2 Diabetes).

We will design and build a unique cyber-physical-human system comprised of mobile applications, personal devices, augmented objects, an integrated sensor system and a citizen science platform to detect, measure and monitor health risk and promote health resilience.

TOPIC 2: Big Data Value and Public Health

Deploying a Health in All Policies (HiAP) perspective, and a "whole-of-city" model, PULSE will integrate and analyse data from the health, environment, planning and transport sectors in each city. PULSE will pioneer the development and testing of dynamic spatio-temporal health impact assessments using geocoded population-based data. PULSE will also develop simulation models of potential policy scenarios to allow decision-makers, citizens and businesses to ascertain the impact of proposed policies, and Communities of Practice and a Learning Platform to encourage the use of a HiAP approach in cities.

The project will culminate in the establishment of Public Health Observatories in each urban location. These observatories will serve as linked hubs that use knowledge-driven processes and big data to shape inter-sectorial public policy and service provision, support citizen health, and encourage entrepreneurship in the fields of data science and mobile health.

The PULSE consortium will develop specific messages for each category of stakeholders listed in Table 1 built upon the outcomes and outputs of the programme, such as:

- Project's progress, findings and new challenges arising from technology transfer and experimental test beds in Spain, United Kingdom, France, United States of America and Singapore.
- Research results and expected impacts for citizens.
- PULSE deliverables.
- Proposals on new business concepts, models and processes related to the deployment of the methodologies and tools arising from PULSE.
- Testimonials from public health agencies, city administrations, public transport agencies, environmental agencies and groups, urban planning/design agencies and groups, other government bodies or stakeholders interested in potential adoption of PULSE models, tools and technologies.
- News about new partnerships and established synergies.
- Reports from key events.

4. COMMUNICATION TOOLS AND CHANNELS

Tools and channels have been already released and their use has become a consolidated practice for partners anytime they are communicating relevant PULSE information outside the consortium.

4.1. Internal communication

PULSE's partners will use several tools to manage internal exchanges within the consortium in relation to:

- Online meetings: Go-to-meeting, and Skype.
- Design and development activities: Slack, emails
- Sharing documents: Google Drive, emails.

4.2. Project identity

4.2.1. PULSE brand and logo

The PULSE Consortium has developed a professional logo, which expresses the values and approach of the project. This logo will be used on all external communications and will define the PULSE brand. The following design is the final version of the logo:



Figure 4 – PULSE logo

4.2.2. Visual identity: communication materials and templates

To promote consistency and coherence in PULSE branding and communications, PULSE will create standard templates/materials for use by Consortium members. These templates and materials will include:

- Word template for project deliverables;
- Word template for general internal and external project communications;
- PowerPoint template incorporating the major brand elements;
- Standard project presentation in PowerPoint format that will be updated with content and accomplishments;
- Project rollup/kakemono to support dissemination events;
- Additional materials, such as project flyers will be produced on an ad hoc basis, based on available resources.

4.3. Communication tools

4.3.1. Website

The project website, <http://www.project-pulse.eu/>, is the public showcase for the project. All project activities and results will be promoted online. The project website will provide project overviews and highlights; up-to-date information on intermediate and final project results, including public reports and publications; project events (e.g. user group meetings, conferences and workshops), etc.

The architecture of the website follows a standard layout including the following sections:

- Home
- About

- Objectives
- Partners
- Science & Technology
- Test beds
- News
- Events
- Resources
- Contact us

The website is able to receive comments from visitors and also subscription requests for the PULSE newsletter.

The News section will be updated on a regular basis, and will showcase the developments and achievements of the project. The PULSE project will publish regularly newsletters. The Resources section will include any publishable content about both the technical solutions implemented in PULSE and the results from the Pilot Sites and will be linked to the ECHA Connector web area.

4.3.2. PULSE dedicated area in CONNECTOR

In addition to the PULSE website, the ECHA has provided a dedicated web area within its CONNECTOR Digital Platform (www.echalliance.com) reaching a large community of 16,500 contacts in the Digital health sector. The PULSE web area displays general information on the project and links directly to the project website.

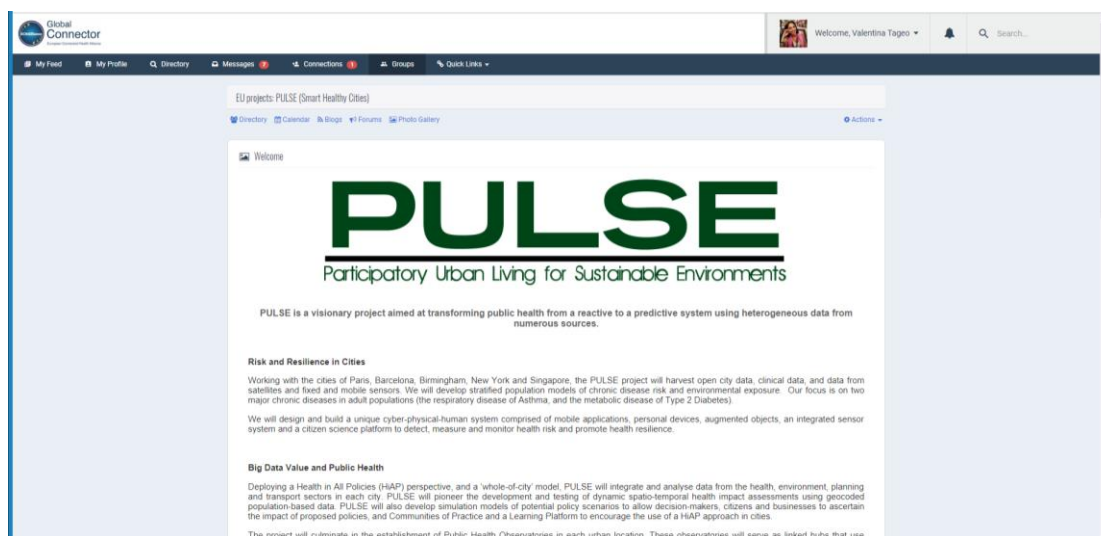


Figure 5. PULSE web area in CONNECTOR Digital Platform

4.3.3. Social networks

Facebook, Twitter and LinkedIn accounts have been created for the PULSE project. These social media accounts will be used to share multimedia content related to project activities. The project also created a LinkedIn Group to provide the target audience with an online space for networking and discussion. In addition to contents posted onto these social networks, short articles will be integrated in the News page of the project's website to share the latest project developments and divulgate them through the social network accounts of the projects. Furthermore, the partner's social networks will play an important role in disseminating project activities having a multiplier effect in increasing the reached audience.

In detail, PULSE social media accounts are available at the following links:

- Twitter: <https://twitter.com/PulseProjectEU1>
- Facebook: <https://www.facebook.com/PULSEprojectEU1>
- LinkedIn group: <https://www.linkedin.com/company/27224239/admin/overview/>

4.3.4. Media

PULSE will work with appropriate media outlets, especially those with an online presence, in the digital health, big data and smart cities fields to disseminate news about the important milestones in the project. The initial list of targeted media and print outlets includes the DG Connect newsletter, Ehealthnews.eu, Healthcare IT Management, and Health Tech Wire. PULSE project will also promote through the media channels of smart cities in Europe and beyond, in priority the 5 cities involved in the project, Paris, Barcelona, Birmingham, Singapore and New York, but also through the Smart Cities Council (Europe) and the Smart Cities Council (US). This list of media outlets and contact information will be expanded continuously with suggestions from the network and others.

4.3.5. Sources for content

There are four main sources for content to be provided for sharing through the PULSE social media handles and on the project website:

1. Project deliverables for dissemination

The project public deliverables may be suitable for publishing both on the project website and via social media. Moreover, brief publishable summaries of the other relevant deliverables will be produced in order to disseminate the technological products and solutions produced by PULSE and the achievements of the pilots.

2. Related material or information (articles and posts, publications, videos, etc.) and all content sent by a consortium member to the WP9 communications team (ECHA)

The Communication team (ECHA) will check the relevance of the material or information. In case of doubt, the proposition will be discussed during the soonest Board meeting. Once approved, all information and material will be circulated via the appropriated channels after English proof reading and language adaptation to the targeted audiences.

3. Events

Both events organized by PULSE consortium and external events whereas one or more members of PULSE consortium proactively participate or plan to participate are valuable occasions to disseminate PULSE and enlarge the stakeholder community around it.

In the case of a PULSE event, the Communication team will develop an ad hoc communication plan including actions and corresponding timeline. After having discussed and approved such plan with the project Board, ECHA will proceed with its implementation ideally starting from at least 3 months before the event takes place in order to create the momentum and raise the expectations of the invitees. The plan shall include clear tasks and instructions for all partners.

In the case of an external event, the PULSE partners participating to this event are expected to provide the material in order to release the information before (ideally at least one month before) and after the event. It could be an article, a presentation, a poster, photos or videos, relevant links, etc.

5. EVENTS

In addition to digital communications, the PULSE consortium will engage in face-to-face interactions involving workshops, presentations and exhibitions at appropriate selected events and conferences as well as events organized by the consortium.

This chapter provides a detailed overview of:

- a) The international dissemination events that PULSE consortium plan to arrange.
- b) The exhibition opportunities identified by PULSE (especially industrial) partners.
- c) A number of dissemination opportunities in the context of relevant international events which will evolve along the project itself.

5.1. PULSE dissemination events

The organization of international dissemination events will be one the focal points of the present strategy for their enormous capacity to attract attention, raise awareness and generate opportunities for synergies and further collaborations even beyond the project itself.

More specifically, the following events are envisaged to take place in 2018 and 2019, as detailed hereafter.

5.1.1. PULSE at DHWS @ 4YFN Mobile World Congress, Barcelona in 2018 and 2019

The Mobile World Congress is the biggest congress in the world dedicated to mobile technologies, with more than 100,000 attendees in Barcelona and 50,000 in Shanghai in 2017.

The **Digital Health & Wellness Summit** will be back in Barcelona as part of the 4YFN start-up event within the Mobile World Congress 2018 and 2019.

The **DHWS** is developed by the European Connected Health Alliance (ECHA) thus it represents a privileged scenario for PULSE to showcase its results and plans for the future.

The objective of **DHWS** is to gather the best innovators bringing digital technologies to **improve healthcare delivery** around the world. It creates opportunities for these innovators to meet **end-users** (clinicians, citizens and patients) and understand their needs and challenges. The **DHWS** provides the **matchmaking** between the solutions suppliers and their customers (policy-makers, hospitals, insurers).

More than 400 people attended the past editions of the Summit with policy makers, companies and research organizations among the most represented stakeholder category.

It is foreseen that PULSE will partner the event and have a dedicated space inside its programme which will be aimed to:

- Showcase the technological solutions developed in the project
- Bring testimonials from the pilot cities
- Listen to outstanding keynotes from recognized external experts in smart cities and population health.



Figure 6. DHWS mock up banner

5.1.2. NYAM Big Data for Cities Conference (USA closure event)

The PULSE Big Data in Cities conference is conceived as a stand-alone event aimed at spreading PULSE results across the United States as well as highlighting the potential value of big data per better shaping urban health and social policies.

It will take place in Fall 2019 at either the New York Academy of Medicine or New York University. We will invite PULSE members, members of the PULSE Innovation Council, and/or other relevant speakers to actively participate. While the agenda is not yet finalized, we expect to have a large keynote address in the morning and then smaller panels or breakout sessions in the afternoon. We will conduct outreach through existing networks of the ECHA, NYAM, and other PULSE members.

For example, in addition to our own PULSE networks, NYAM will reach out to New York University and the Center for Urban Studies and Progress, both of which have vast networks within and outside of New York City, as well past attendees of similar conferences in New York City (e.g. NYAM's Population Health Summit, NY Academy of Science's Healthcare in the Era of Big Data: Opportunities and Challenges).

Other partners to be activated in order to provide maximum visibility and reach of the event include: WHO Collaborating Centre on Ageing, Globalisation and Urbanisation, the International Society of Urban Health, and the Rockefeller Foundation's 100 Resilient Cities Campaign.

5.1.3. PULSE Final Conference (EU closure event)

The PULSE consortium considers that the PULSE Final Conference is a crucial milestone to secure wide outreach and pave the ground for the sustainability of the project's results beyond its duration. Thus, the

consortium envisages to have the Final Conference of the project within the frame of (or linked to – as a side event) the 2019 European Week of Regions and Cities, the annual Brussels based four-day event traditionally held during the month of October, during which cities and regions showcase their capacity to create growth and jobs, implement European Union cohesion policy, and prove the importance of the local and regional level for good European governance. Organised by the European Committee of the Regions (CoR) and the European Commission's Directorate-General for Regional and Urban Policy (DG REGIO), the European Week of Regions and Cities is the key annual event for regional and local authorities.

The event aims to:

- bring together political representatives, decision-makers, experts and practitioners of regional policy, as well as stakeholders from business, banking, civil society organisations, academia, the EU institutions and the media, to discuss common challenges for European regions and cities and to exchange on possible solutions;
- provide a platform for capacity-building and the exchange of experience and good practice for those implementing EU cohesion policy and managing its financial instruments;
- facilitate cooperation and networking between regions and cities;
- feed into the debate on the future EU cohesion policy in a wider context, including recent research and views from third countries and international organisations.

Thus, it may represent the perfect scenario to emphasize the urgent need for commitment from local and regional policy makers who are the responsible for the definition of the public health strategies across Europe.

5.2. Exhibition opportunities

Fairs and exhibitions will be the relevant scenarios to showcase PULSE results, once they are available, to the industrial stakeholders or other potential adopters. Specific attention will be given to identify these events, covering not only the European regions but also other international territories. The consortium has already identified at this stage the Smart City Expo World Congress taking into account the timeline of the project and the results availability. This exhibition provides the right setting for smart city actors and urban actions worldwide. The idea behind is to empower cities and collectivize urban innovation across the globe. The target now is the 2018 edition that will be focussed on five main topics responding to the key issues faced by the cities: Digital Transformation, Urban Environment, Mobility, Governance & Finance, and Inclusive & Sharing Cities.

5.3. Dissemination opportunities in the context of relevant international events

This section illustrates a number of key opportunities for dissemination identified in the context of relevant international events. This list is regularly updated on the basis of the inputs provided by the partners and the matching between the project's timeline, the expected dates for production of relevant and mature results and the conferences' schedule.

5.3.1. eHealth week

Organised by the European Commission, and the country holding the EU Presidency every year, this event is a great opportunity to disseminate the outcomes of PULSE. More specifically, the project will take advantage of the workshop that ECHA organises in this event every year to present to the audience how the cities involved in the deployment of PULSE have implemented new actions towards the public health policies and the approaches followed.

5.3.2. URBACT City Festival

Cities are the core actors in PULSE and the enablers of a true change in policy directions towards a Health in All Policies approach.

URBACT enables cities to work together to develop new and sustainable solutions to major urban challenges, through networking, sharing knowledge, and building capacities for urban practitioners. URBACT is a European Territorial Cooperation programme fostering sustainable integrated urban development in cities across Europe.

Every year the Programme celebrate a European Festival where 400+ representatives from local authorities share stories of urban renewal rooted in URBACT exchange and testimonies to the increasing power of cities to drive change.

With a view to spreading the benefits of PULSE to the highest possible number of cities, including smaller cities with a lower rate of participation in high class actions like H2020 projects, the URBACT City Festival is the perfect fit to the purpose.

All the European cities involved in PULSE are URBACT cities (i.e. Barcelona, Birmingham and Paris are either leading or partnering a URBACT network). One of the ideas is to organise a workshop where the city administrators or other relevant political stakeholder of the PULSE pilots participate at the URBACT festival.

5.3.1. Enabling the City Roadshow²

This series of events started in the Finnish capital Helsinki on 28 August 2018 and will continue through a tour arranged in 5 more European Cities - Helsinki, Brussels, Stavanger, Paris, Barcelona, and Milan.

It is an initiative powered by Open & Agile Smart Cities (OASC)³ and EIT Digital⁴ to demonstrate how common standards support cities in procuring lightweight, interoperable, and open solutions.

During the roadshow specific emphasis is given to discuss the benefits of OASC minimal interoperability mechanisms for cities to unlock the potential of local digital entrepreneurship. The events will further present an example of an open urban platform built on the OASC principles and powered by FIWARE - the

² <https://www.eitdigital.eu/newsroom/news/article/enabling-the-city-six-european-cities-explore-how-to-make-the-best-out-of-their-city-data/>

³ <http://oascities.org/about-oasc/>

⁴ <https://www.eitdigital.eu/>

CEDUS⁵ City Enabler - and will share insights in the efforts of EIT Digital in supporting cities and communities in their digital transition.

The Barcelona event will be held in occasion of the Smart City Expo World Congress and will be the right place for PULSE to establish a link with the “Enabling the City” initiatives.

5.3.2. HIMSS & Health 2.0 European Conference⁶

The HIMSS & Health 2.0 European Conference will be held on 11-13 June 2019 in Helsinki, the capital of Finland. The conference will bring the best of both worlds: HIMSS’ knowledge, expertise and thought leadership in healthcare digitisation and Health 2.0’s network of entrepreneurs and investors, showcasing the latest cutting edge and innovative health tech solutions.

The HIMSS & Health 2.0 European Conference will provide a unique opportunity to connect the players in the field of health and care. The track on promoting a secure, ethical and actionable flow of data for prevention, population health management, personalised health and research will be used by PULSE members as the platform to disseminate their achievements.

5.3.1. 10th International Conference on Preventive Medicine & Public Health (ICPMPH 2019)

The ICPMPH 2019 has turned in to a premier forum to network, learn and connect with experts, academicians, researchers, specialists and activists in generating a platform to discuss and spread meaningful messages, values and practices in the subject of Preventive Medicine and Public Health.

The conference, which will take place in Vienna (Austria) in July 2019, is hosted around the theme “Innovations & Current Trends in Preventive Medicine and Public Health” with the goal to unite a wide audience of academics, industry, policymakers and specialists around clearly circumscribed topics, engage participants in the productive level-headed discussion, and facilitate mutual understanding.

5.3.2. 5th International Conference on Public Health (ICOPH2019)

The 5th International Conference on Public Health 2019 (ICOPH 2019) will be held in July 2019 in Kuala Lumpur, Malaysia. ICOPH 2019 will be an innovative and informative International Conference reflecting the direction of Public Health while offering a wide range of diversions to participants of all backgrounds. Leading academicians, medical students, clinicians, public health professionals, health care specialists, health care workers, health economists, eminent researchers, scientists, health workers, policy makers, social workers and other related professionals will share their knowledge and experiences in the field of Public Health.

⁵ <http://cedus.eu/>

⁶ <https://www.himsseuropeconference.eu/helsinki/2019/about>

6. SCIENTIFIC PUBLICATIONS

PULSE results will be disseminated through the publication of papers in recognised scientific journals following an open access policy. The consortium has already identified several that are relevant for the topics addressed by the project. These are:

- Journal of Big Data
- Big Data Research
- Big Data
- International Journal of Big Data Intelligence
- Data and Knowledge Engineering
- Journal of Computer and System Sciences
- Journal of Urban Health
- Cities and Health
- American journal of Health Behaviour
- mHealth: New horizons for health through mobile technologies
- IEEE Journal of Translational Engineering in Health and Medicine
- *Step 4.* Ensure Open Access to the deposited publication. An embargo of 6 months (or 12 months for the social sciences and humanities) is acceptable.

7. ADDITIONAL COMMUNICATION CHANNELS AND NETWORKS

Apart from the above mentioned channels, tools and events, a number of additional communication and dissemination opportunities will emerge by leveraging:

- The links established with other EU funded projects (section 10.1)
- Other privileged communication channels or networks PULSE partners belong to (section 10.2)
- EC official communication handles (section 10.3)

7.1. Related EU projects

The five projects funded under the same call as PULSE (SC1-PM-18-2016: “Big Data supporting Public Health policies”) are:

- iASiS (Big Data for Precision Medicine) www.project-iasis.eu
- MIDAS (Meaningful Integration of Data, Analytics, and Services) www.midasproject.eu
- BigO (Big data against childhood Obesity) www.bigoprogram.eu
- CrowdHEALTH (Collective wisdom driving public health policies) www.crowdhealth.eu
- EVOTION (Big Data Supporting Public Hearing Health Policies) <http://h2020evotion.eu>

The focus of this call topic was “...how to better acquire, manage, share, model, process and exploit the huge amount of data to develop integrated solutions that support public health authorities, in particular in healthcare system management, long-term policy making and increase the ability to provide actionable insights at the point of care”.

PULSE established a sound cooperation and interaction with them and relevant clustering events are arranged by the EC or at project level throughout their duration. It is expected that, especially during the last project phases the links with these and other relevant projects will be intensified in terms of mutual support and information sharing.

Moreover, the following two projects have been identified as being in line with PULSE's purpose and mission:

City4Age (<http://www.city4ageproject.eu>): City4Age (Elderly-friendly city services for active and healthy ageing) is a research and innovation project funded by the European Commission under the Horizon 2020 Programme. The first and core objective of City4Age is to enable Ambient Assisted Cities or Age-friendly Cities. The project aims to create an innovative framework on ICT tools and services that can be deployed by European cities in order to: enhance early detection of risk related to frailty and Mild Cognitive Impairments (MCI), and provide personalised intervention that can help the elderly population to improve their daily life and also promote positive behaviour changes.

Euro Healthy (<http://www.euro-healthy.eu>) develops tools based on a population health index that evaluates the health and well-being of the European population. This index is informed by evidence on the relationship between multiple determinants with health outcomes over the past 15 years. It is constructed using a multi-criteria model structure, following a socio-technical approach: integrating the technical elements of a multi-criteria value model and the social elements of interdisciplinary and participatory processes. The index is applied to evaluate the population's health in 273 European regions and 10 selected pilot metropolitan areas, covering the population of 28 EU countries. The space-time analysis and comparison of the population health index is enabled by a user-friendly web-based geographic information system.

However, fruitful synergies must be established also across disciplines and funding schemes e.g. with Citizen Science recently approved projects under the 'Science with and for Society' H2020 programme.

7.2. Privileged communication channels closed or linked to project partners

In addition to the previously mentioned channels and actions, the partners will seek to maintain and intensify interactions with other relevant organizations, groups or networks like:

- Urban Health Masters Blog: <http://www.nyam.org/new>
- GEOforall: www.geoforall.it
- Data Manager online: www.datamanager.it
- Interdisciplinary Association for Population Health Science
- New York Academy of Medicine Fellows Sections
- International Society for Urban Health
- Smart Cities Council (Europe and US)
- Open innovation Lombardia Region: <http://www.openinnovation.regione.lombardia.it/it/home-page>
- Italian Smart Cities: <http://italiansmartcity.it/>

- Osservatorio nazionale Smart City (Italy): <http://osservatoriosmartcity.it/>

Such interactions may vary from sending relevant informative documents to these network, having short PULSE articles published in their media outlets or PULSE partners participating in relevant events they arrange across the year.

Lastly, a number of relevant national events where PULSE partners traditionally participate to or are invited to submit publications will be used as a further chance to disseminate PULSE at national level.

7.3. European Commission media and communication handles

Attention is and will continue to be paid to making the European Commission support always visible during events, as in all communication tools and materials disseminated.

Press releases and news will be sent to all relevant EC publications, such as the EIP Smart Cities & Communities, and several DGs (e.g. REGIO, SANTE; CONNECT, ENTERPRISE).

PULSE project will intensify all those activities seeking support from the European Commission in dissemination of results, by leveraging the following channels:

EC publications, e.g.: Project stories <https://ec.europa.eu/programmes/horizon2020/en/newsroom/551/>; Research*EU results magazines www.cordis.europa.eu/research-eu/magazine_en.html

Online news, e.g.: Headlines www.ec.europa.eu/research/infocentre/all_headlines_en.cfm; CORDIS Wire <http://cordis.europa.eu/wire/>.

Tagging relevant Twitter handles e.g. European Commission @EU_Commission; Horizon 2020 @EU_H2020; EU Science & Innovation @EUScienceInnov; EU Regional policy @EU_Regional; DG Growth @EU_Growth; EU ICT4Cities @EU_ICT4Cities; Digital Single Market @DSMeu; EIP Active & Healthy Ageing @EIP_AHA; EIP Smart Cities and communities @EUSmartCities; European Commission Vice-President for the #DigitalSingleMarket, Andrus ANSIP @Ansip_EU; Commissioner Mariya Gabriel @GabrielMariya; CORDIS @myCORDIS.

Posting relevant news in the DG CONNECT newsletter.

Posting relevant news into the Agora network, the open access space within the EU Health Policy Platform. The EU Health Policy Platform⁷ is the main forum for communication and cooperation between health interest groups and organisations, and the European Commission. It also improves communication among these organisations by providing a framework for dialogue between the Commission and health-related interest groups or organisations.

⁷ <https://webgate.ec.europa.eu/hpf/>

CONCLUSIONS

The above described plan is an ambitious combination of well-designed tools, communication strategies and events aiming at make the results of the project visible, durable and accessible to all the members of the stakeholder's community who have an interest on them to different extent and with different purposes.

Specific emphasis is given to the effort that the PULSE consortium will make into connecting with cities and their decision makers since producing a relevant and sustainable change in the way local policies are designed is one of the core pillars of PULSE mission which is informed by the Health in All Policies approach.

Such strategy is conceived as a dynamic, living and flexible instrument and will be refined in agreement with the project partners as long as the project evolves in order to secure a perfect fit between communication needs, available contents and selected channels.

Moreover, a detailed reporting of all the activities put in place during the 3-year project's duration will be provided in both the contractual (periodic and final) reports and the scheduled deliverables D9.5, D9.8 and D9.9.