

Project number:	693729
Project acronym:	smarticipate
Project title:	smart open data services and impact assessment for open governance
Instrument:	Horizon2020
Call identifier:	H2020-INSO-2015-CNECT
Activity code:	INSO-1-2015

Start date of Project:	2016-02-01
Duration:	36 months

Deliverable reference number and title (as in Annex 1):	D1.2 Annual Report		
Due date of deliverable (as in Annex 1):	M 13		
Actual submission date:	see "History" Table below		
Revision:			
Organisation name of lead contractor for this deliverable:			
Fraunhofer IGD			

Project funded by the European Commission, Horizon2020, topic INSO-1-2015				d Media
Dissemination Level				an
PU	Public	Х	-	ociety
PP	Restricted to other programme participants (including the Commission Services)		-	<b>ean Comn</b> mation S
RE	Restricted to a group specified by the consortium		-	Europ
со	Confidential, only for members of the consortium (including the Commission Services)			$ \langle 0 \rangle $



Title:
Annual Report
Author(s)/Organisation(s):
Veneta Ivanova, Joachim Rix (Fraunhofer IGD)
Working Group:
WPI
References:
Annex I - DoA
Short Description:
This document describes the project progress and results achieved during the first project year
Keywords:
Project objectives, work progress

#### History:

Version	Author(s)	Status	Comment	Date
001	Veneta Ivanova	rfc	Initial draft	28.02.2017
002	Veneta Ivanova / Joachim Rix	rfc	Final draft for review	24.04.2017
003	Veneta Ivanova	final	Final doc	29.05.2017

Review:			
Version	Reviewer	Comment	Date
002	Sean Carroll (ICLEI) /		26.04.2017
	Paul McDonald		
	(London)		

smarticipate

Opening up the smart city

## **ANNUAL REPORT**

### Feb. 2016 – Jan. 2017

# and LESSONS LEARNT



www.smarticipate.eu



#### **Table of Contents**

INTRODUCTION	3
WORK PERFORMED WITHIN THE FIRST PROJECT YEA	.R <b>8</b>
LESSONS LEARNT	11
EXPECTED IMPACT	14
Consortium partners and fact sheet	17



#### INTRODUCTION

This document presents the Annual Report of the smarticipate project and describes the project progress and results achieved during the first project year.

Publishing data on city portals as open data is a growing trend, which is also promoted by the EC. However, when investigating such data it becomes apparent that in most cases it is a raw dump of data, often created by technical people and aimed at a technical audience. It can be hard for non-experts to interpret the data sets. Sometimes there is no supporting information to explain the data, which means it is impossible for a non-expert to understand or use.

These challenges will be addressed by the **smarticipate** consortium and through the solutions developed by the project.

By making data accessible and understandable, citizens are empowered to provide input on new public services and solutions for urban planning.



#### smarticipate: the project

The **smarticipate** project aims to develop ICT tools for participatory applications, which use Open Data and other datasets (e.g. land-use, surveys, etc. which are not necessarily in the public domain). These applications will enable citizens to co-create, to co-design and to take informed decisions by receiving feedback on their participatory applications. Furthermore, citizens will be able to share their ideas and opinions, which should enrich existing Open Data.



Fig. 1: Smarticipate's added value innovation



In this respect, **smarticipate**'s three pilot cities - Rome, Hamburg and London's Royal Borough of Kensington and Chelsea (RBKC) - are actively participating in the development of **smarticipate**'s applications and data acquisition.

The project follows a rigorous development process which begins with the identification of the cities' needs, gathering of their requirements and the definition of use cases. These use cases aim to accommodate real participatory planning scenarios in these cities, where citizen participation is expected and encouraged.

The main idea is to allow citizens to visually see the development proposal through the **smarticipate** application, make changes and get quick feedback on the proposed changes e.g. whether or not a proposed change is economically feasible or if it is compliant to planning laws or environmental regulations.

Furthermore, these proposed changes might be shared within local neighbourhoods with the objective of gathering additional suggestions, support, criticism, etc. resulting in the generation of a great deal of opinion based data from citizens.

As a decision support tool, **smarticipate** improves governance in the urban context. The project aims to develop automatic feedback technology that enables citizens to probe and refine their ideas, which in turn should provide urban planners and city authorities with validated, "useful" input.



#### The overall project objectives are:

- To enable structured interaction between authorities and citizens/business via developing the smarticipate communication platform, related to participatory urban planning
- To improve the information flow in the cities, providing a smarticipate user interaction tool
- To create smarticipate applications for selected use cases
- To generate conditions for innovative service provision by local authorities, based on the technology above;
- To ensure the usefulness and market relevance for the targeted audience through piloting the developed platform in three European cities: Rome, Hamburg and London.
- To establish European-wide dissemination and feedback loops with cities and key stakeholder groups during the project's entire lifetime;
- To assist stakeholders in impact assessment for planned actions and analysis of current problem



From a technical point of view, the overall system concept is reflected in the chart below:



Fig. 2: smarticipate overall system concept

Through **smarticipate**, citizens get full access to public open data and feedback on their neighbourhood-related and citywide ideas for urban development. This is achieved in a playful, digital dialogue based on the creation of an open, easily accessible platform. This allows government, NGOs, businesses and citizens to develop their own apps as producers and co-producers. As a result, citizens are empowered to play active roles in the public domain, to develop new tools and to generate new public services, thereby making major contributions to Europe 2020 strategies for smart, sustainable and inclusive growth in European cities.



#### Work performed within the first project year

In the first year of the **smarticipate** project, the technical and conceptual baseline was set for a stable, collaborative and citizen-oriented platform. In the three project cities, Hamburg, Rome and London, the platform will contribute to increasing the efficiency of urban planning processes and will provide co-creation opportunities for citizens to help shape their living environment.

For the four main activities supported by the platform (modelling, visualising, collaborating and analysing) the related requirements were specified. Questionnaires were created and distributed in the three cities, followed by Requirements Workshops. The needs, challenges and the available data and technologies were identified and scenarios for the different applications were constructed. City experts managing the relevant data took part in the requirements workshops and the technical discussions, providing input for these scenarios. Later, the requirements were consolidated and validated.

Every specific city use case that was defined is being assessed and elaborated based on existing Open Data. All datasets that will be generated by the **smarticipate** tools are currently being described, allowing us to identify what is not possible at this stage. Once all use cases and requirements are finalised and validated by the city partners, it is possible to define exactly what data sets will be collected, processed, preserved and shared.



#### **THE SMARTATHONS**

Furthermore, three Smartathons were organised in each city –

London Smartathon (17 September, 2016), Hamburg Smartathon (8 October, 2016) and Smartathon di Roma (21 January, 2017) -

with the goal to gather criticism and suggestions for shaping the platform. Residents and entrepreneurs in The Royal Borough of Kensington and Chelsea, Freie und Hansestadt Hamburg and Roma Capitale have plenty of ideas for the neighbourhood in which they live, work and play. The collected input from the citizens for the development of the **smarticipate** tool resulted in eight lessons which form a manual, titled This is how to do it, for opening up the smart city. They are based on the feedback of the table hosts, the information collected on the posters and the survey filled in by the Smartathon participants.





Fig. 3: Smartathon events in London (left), Hamburg (middle) and Rome (right)

So-called urban stories were defined, providing functional examples of how the platform will work. They serve to display the type of common issues that citizens, public authorities and businesses have in urban areas, and how **smarticipate** can be used to help them tackle these issues. While the stories themselves are based on the real capabilities of the platform, the characters in the Urban Stories are fictitious. One of London's Urban Stories, for example, involves residents using the **smarticipate** platform to create a football field.

Smartathons were carried out in the three cities in the local language, with participants working in groups of 6-8 people. The people were mixed based on their interests. That means that people were working together that normally would not meet. The event is conceived and executed as a day of experimentation. The participants look at a specific Urban Story in their city, the Open Data linked to it and the Essential Features that go along with it. Together as a group, they tackle these three topics and provide feedback and opinions through pitches, remarks on the posters, and a final survey. A selected table host supports the group. During the event participants could contact the Smart Helpdesk to get additional information, while experts from the **smarticipate** team provided insights into the latest technological developments of the project.

Sixteen deliverables were prepared and submitted within the first project year. A list of the deliverables as well as the public documents can be found on <a href="https://www.smarticipate.eu/resources/">https://www.smarticipate.eu/resources/</a>.



#### **Lessons Learnt**

More than 150 residents and entrepreneurs joined the Smartathons in the three cities. These lively, hands-on events focused on developing **smarticipate** into a user- friendly tool that is relevant for those that will be using it. This resulted in eight lessons that together form a "*This is how to do it*" manual for opening up the smart city.





#### **8 LESSONS**

#### Doers vs. receivers

Smarticipate has to focus on not only active 'doers' who want to change their neighbourhood, but also on 'receivers' who want a way of quickly and easily influencing what others are proposing, preferably at the earliest possible time.

#### Let's make knowledge great again

Smarticipate has to offer a full range of information – beyond just statistics – that covers memory, dynamic present and projected impact.

#### Multiple captains on the ship

Smarticipate has to support co-creation so that not only government, but also residents, businesses and NGOs can contribute solutions and invest in realising them.

#### Tell me the rules (so I can break them)

Smarticipate has to let users understand the rules on which the immediate feedback is based and then provide a clear procedure for adding and changing these rules.

#### Mayor, where are you?

Smarticipate shouldn't be a digital shield that keeps residents at a distance; instead, it should allow users to track & trace their ideas through the policy and decision-making process as participants.



#### No dead-end streets

Smarticipate has to offer users suitable alternatives whenever it gives negative feedback on their ideas or proposals.

#### Finally, a gadget for my grandma

Smarticipate has to offer the top technical features, while also accommodating residents with a language barrier, a disability or a lack of digital access.

#### Flash in the pan or 2.0, 3.0, 4.0...

Smarticipate's technical platform has to be complemented by a robust service ownership concept to ensure long-term sustainable operation.

More information is provided in the public project deliverable D7.1 "Working Document summarizing the results for Hamburg, Rome and London" that can be downloaded from the project website https://www.smarticipate.eu/resources/.



#### **Expected impact**

The "dialogue with the city" goes beyond currently available solutions of 'chatbots", textbased dialogue systems that compile databases to help automatise customer services, tax return processes (Karsten & West, 2016), or voting procedures (phoneia - Technology & Entertainment, 2016). This "dialogue with the city" offers answers and ideally also comments to citizens' requests. For instance, when proposing the development of a new park at a certain location, the feedback should give an indication of whether that is in principle possible. The research on technologies that might enable such levels of informed dialogue between the city and their inhabitants is an ongoing process (West, 2004). Apart from questions related to the feasibility of semantic processing of open data, the opportunities and constraints for their design have so far not been explored.



#### The Technology behind

From a technical point of view, the biggest challenges are in the participatory user experience patterns and in the context-aware communication platform. The participatory user experience patterns provide a methodology for cities to create a sound e-participation front-end. **Smarticipate** will provide a collection of templates for creating polls and issue mark-ups. The feedback mechanisms will also include visualizations of conflict alerts, when user demands and feasibility/regulations do not match, and especially the costs and alternatives for achieving user demands. It will also provide more advanced interaction experience modules, such as for 3D spatial graphics and augmented reality. The context-aware communication platform enables the structured interaction with users and communities. This will be highly varying based on factors such as the participatory setting (town hall meeting vs. individual contributions), location (home vs. on the move and proximity to a building or square under discussion), personal preferences and technology used (e.g. tablet vs. smartphone vs. public display vs. notebook vs. smart home display).

Furthermore, an open data retrieval system, based on semantic annotation and impact assessment component will enable access to appropriate data matching the requirements of the users.



**Smarticipate** enables co-creation by citizens, communities and the other partners who are needed to make ideas happen. As a result, the following further impacts are addressed in **smarticipate**:

- Improves the city's information flow by making open data usable – for the public and for business development
- Involves citizens in shaping the future of their neighbourhood and the entire city by co-production of data through developing and applying own services, enabling participatory sensing of perceptions and opinions
- Increase transparency of urban governance and planning activities through ICT assisted impact assessment
- Transforms democracy with open governance by improving administrative duties and processes with early participation, feedback and dedication from citizens
- Creates new business opportunities and ideas through enabling citizen data co-creation and citizen data exploration.



## Consortium partners and fact sheet

Partners from five countries representing city administrations, research, academia, and industry, as well as an international network of local and regional governments, form the **smarticipate** consortium. The coordinator is the Fraunhofer Institute for Computer Graphics Research IGD.





#### **PARTNERS**











Geoville











#### **FACT SHEET**

CONTACT

EU-Call ID: H2020-INSO-2015-CNECT GA Nr 693729 Project start: February 2016 Duration: 36 months Total budget: 3.268.645 Euro EU contribution: 2.997.259 Euro www.smarticipate.eu Dr. Joachim Rix

Fraunhofer Institute for Computer Graphics Research IGD Department Spatial Information Management Fraunhoferstraat 5 D-64283 Darmstadt, Germany Phone: +49 6151 155 420 Email: coordinator@igd.fraunhofer.de