

Project Number: 687818  
 Project acronym: O4C  
 Project title: OPEN4CITIZENS - Empowering citizens to make meaningful use of open data  
 Contract type: H2020-ICT-2015 - RIA

Deliverable number:	<b>D1.5</b>
Deliverable title:	<b>Concept Definition (Final version)</b>
Work package:	WP1
Due date of deliverable:	M30
Actual submission date:	M30 29/06/2018
Start date of project:	01/01/2016
Duration:	30 months
Reviewer(s):	Amalia de Götzen (AAU) Rikke Ulk (ANTRO)
Author/editor:	Tomasz Jaskiewicz (TUD), Nicola Morelli (AAU), Ingrid Mulder (TUD)
Contributing partners:	Aalborg University (AAU), The Country Council of Varmland (EXPERIO), Fundacio Privada I2cat, Internet i Innovacio Digital a Catalunya (i2CAT), Politecnico di Milano (POLIMI), Technische Universiteit Delft (TUD)

Dissemination Level of this Deliverable:	<b>PU</b>
--	-----------

<i>Public</i>	<i>PU</i>
<i>Confidential, only for members of the consortium (including the Commission Services)</i>	<i>CO</i>

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 687818. Further information is available at [www.open4citizens.eu](http://www.open4citizens.eu).

## Document history

Version No.	Date	Authors	Changes
0.1	12/4/2018	Ingrid Mulder, Tomasz Jaskiewicz	First draft on renewed concept approach and started discussion with AAU
0.2	9/5/2018	Ingrid Mulder, Tomasz Jaskiewicz, Nicola Morelli	Further alignment between TUD and AAU to set rationale
0.3	02/06/2018	Nicola Morelli	Outline structure and deliverable draft
0.4	13/06/2018	Ingrid Mulder	Final draft for internal review
0.5	25/06/2018	Tomasz Jaskiewicz	Address review comments
0.9	25/06/2018	Nicola Morelli	Final version
1.0	29/06/2018	Anne Bock	Final layout and submission to EC

## Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License, 2015. For details, see <http://creativecommons.org/licenses/by-sa/4.0/>

## From the DoA

This deliverable provides the final definition of the O4C concepts, taking into account the experience in the whole project.

**Contributors**

<b>Part. No.</b>	<b>Part. short name</b>	<b>Name of the Contributor</b>	<b>E-mail</b>
1	AAU	Nicola Morelli	nmor@create.aau.dk
1	AAU	Louise Klitgaard Torntoft	lto@create.aau.dk
2	i2CAT	Marc Aguilar	marc.aguilar@i2cat.net
3	POLIMI	Grazia Concilio	grazia.concilio@polimi.it
3	POLIMI	Francesco Molinari	mail@francescomolinari.it
4	ANTRO	Janice Pedersen	jp@antropologerne.com
4	ANTRO	Rikke Ulk	ru@antropologerne.com
5	EXPERIO	Tomas Edman	Tomas.Edman@liv.se
7	TUD	Tomasz Jaskiewicz	t.j.jaskiewicz@tudelft.nl
7	TUD	Ingrid Mulder	<a href="mailto:i.j.mulder@tudelft.nl">i.j.mulder@tudelft.nl</a>
7	TUD	Peter Kun	<a href="mailto:p.kun@tudelft.nl">p.kun@tudelft.nl</a>

## Table of Contents

List of Tables .....	4
Glossary.....	5
1 Executive Summary.....	7
2 Introduction .....	8
2.1 Towards a conceptual framework of Open Data as a Commons .....	9
3 The construction of an open data ecosystem.....	10
3.1 A support system at the hackathon event level.....	11
3.2 A support system at the hackathon campaign level .....	12
3.3 The OpenDataLab as system of support.....	12
3.4 Towards a system of innovation.....	12
4 Towards an Open Data Movement.....	14
5 Conclusion and links to other deliverables .....	15
6 References .....	16

## List of Figures

Figure 1. The O4C ecosystem.....	8
Figure 2. Logical levels of intervention of the Open4Citizens project (the Matrioshka model).....	9
Figure 3. Open Data ecosystem as a system of innovation .....	13

## List of Tables

Table 1 Elements of the innovation ecosystems at the three levels of the O4C project .....	11
--	----

**Glossary**

<b>Acronym/Word</b>	<b>Definition</b>
<b>API</b>	Application Programming Interface
<b>Application</b>	Any kind of meaningful use of open data. (As-of " <i>application areas of open data</i> ")
<b>[Mobile or Web] App</b>	A self-contained program or piece of software, especially designed to be downloaded by a user on a mobile device or personal computer.
<b>Commons</b>	Often used in phrases such as "a new commons" or a "global commons", the term refers to a new form of a common good, typically created by people through collective action and shared by the community (T de Moor, "From common pastures to global commons: a historical perspective on interdisciplinary approaches to commons", 2011).
<b>Challenge</b>	A widespread call to action to participate in an open contest (like a Hackathon) for improving or renovating an existing situation.
<b>Citizen</b>	An inhabitant of a particular town or city.
<b>Citizen initiative</b>	An initiative proposed by a (collective of) citizen(s), which ideally is informing the challenges for the hackathon process.
<b>FabLab</b>	A physical place where anyone can make an idea concrete by transferring and fabricating this idea through the use of 3D printers and other (complex) technological devices. The staff and peers at Fablabs empower people to build their ideas; they support them in doing it themselves, but do not execute the work for them.
<b>Hackathon</b>	Generally understood to be a collaborative event almost exclusively of software developers, that typically lasts two-three days and is intended to result in the production of one or more apps. In the Open4Citizens project, the hackathons include a range of participants with different areas of expertise and solutions being developed are not limited to apps.
<b>Maker culture</b>	A global trend of consumers becoming co-creators of new products and services (MD Gross and E Li-luen Do, in "Educating the New Makers: Cross-Disciplinary Creativity", 2009), encompassing democratization of digital production technologies (among others, FabLabs), and open source and other informal styles of software development (among others, hackathons).
<b>Mock-up</b>	A sample, or a low-definition, non-functional prototype of an app or a service resulting from the co-creation work in the hackathon event
<b>Non-expert user</b> <b>Non-IT savvy user</b>	A person without professional or specialized knowledge in a particular subject (here, we refer to expertise in computer programming and/or data skills in the context of the Open4Citizens project); also, non-data expert user with no particular IT and programming-skills
<b>O4C approach</b>	A workflow based on three consecutive phases: 1) Pre-hack; 2) Hack;

	3) Post-hack.
<b>O4C platform</b>	The online digital platform supporting the hackathon process with technological resources, methodological suggestions and data.
<b>Open Data</b>	Data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike. Source: <a href="http://opendatahandbook.org/guide/en/what-is-open-data/">http://opendatahandbook.org/guide/en/what-is-open-data/</a>
<b>OpenDataLab</b>	The physical infrastructure the Open4Citizens project intends to conceive, in order to support citizens' participation to co-creation with open data.
<b>Public service</b>	A service provided by a government body to people living within its jurisdiction, either directly (through the public sector) or through financing a third party (agency or subcontractor).
<b>Social impact</b>	The effect induced [by a certain project or initiative] on the well-being of a community (and/or a less integrated group of people)
<b>Social sustainability</b>	The ability of a community to develop processes and structures which not only meet the needs of its current members but also support the ability of future generations to maintain a healthy community. Source: <a href="http://www.businessdictionary.com/definition/social-sustainability.html#ixzz2y75dJTij">http://www.businessdictionary.com/definition/social-sustainability.html#ixzz2y75dJTij</a>
<b>Urban services</b>	Services at the urban scale, aimed at creating public utility. They are not necessarily initiated by the local government.

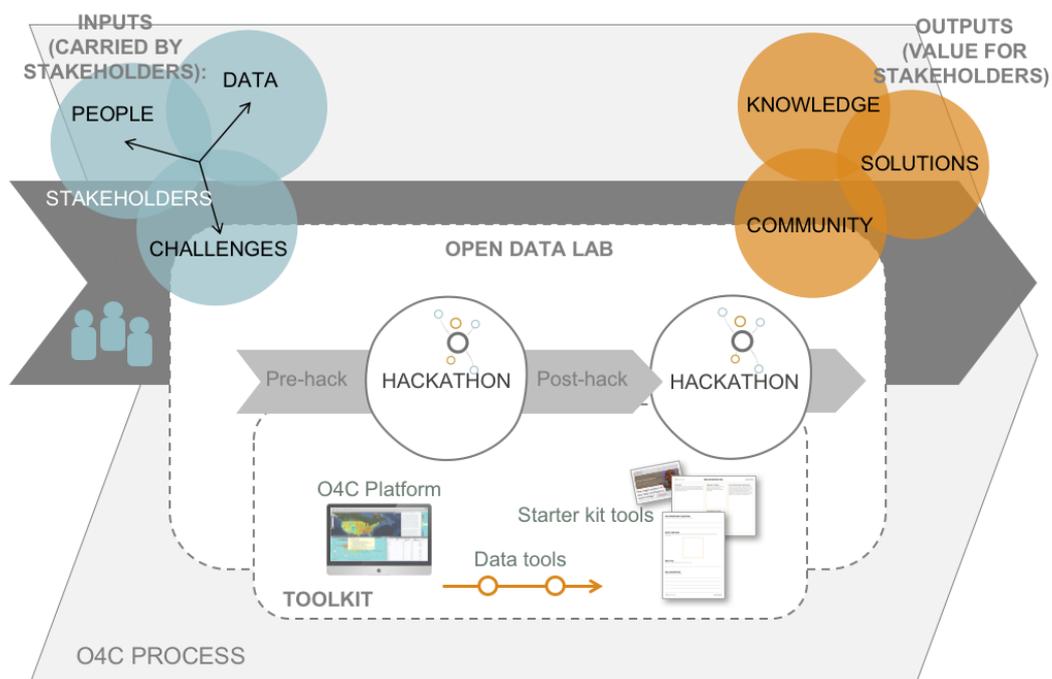
## **1 Executive Summary**

---

This deliverable presents the final refinement as well as theoretical, actionable and concise consolidation of the main concepts forming the foundation of the Open for Citizens project. The work presented in deliverables D1.3 and D1.4 is here summarised, reframed and extended to match with the final findings in the project. The O4C process is defined as transformation of people, challenges and data into solutions, communities and knowledge, which happens on the different scales of event, campaign and Open Data Lab. Further, the systems of record, insight and engagement are introduced as key ingredients of the system of innovation, providing a perpendicular classification of findings in the project. Ultimately, the deliverable presents a compact overview of the main concepts of the O4C project structured around the generation and sustainment of ecosystems of citizens, public authorities and other relevant stakeholders using open data – the key ambition of the project as a whole.

## 2 Introduction

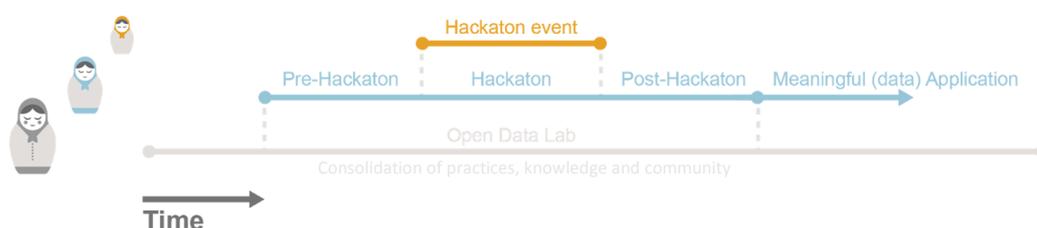
The present deliverable formulates the final definitions of the theoretical concepts that frame all other findings and results of the Open4Citizens project. The previous deliverables, and in particular D1.4, have provided a description of the action taken in the project across various levels, and introduced key concepts for the open data ecosystem. Figure 1, introduced in D1.4 brings back these key concepts, which have been guiding principles throughout the project. It shows that OpenDataLabs are locally embedded and that a triad of “people”, “data”, and “challenges”, will further contextualise the construction of the OpenDataLab. The corresponding O4C approach and methodologies (“O4C process”) enables to make sense and meaningful use of open data, manifested in resulting “outputs” (otherwise also referred to as “solutions”, such as urban services), as well “outcomes” (e.g., increased data awareness and literacy) and impact on the “community” level. Further work has been done in Work Package 4 to develop a broader understanding of the expected impact of the OpenDataLabs. D4.4 describes a series of scenarios that envision different configurations of OpenDataLabs in the various pilot locations, and D4.10 refers to the definition of a corresponding business model for OpenDataLabs as public innovation places.



**Figure 1. The O4C ecosystem**

The previous iterations of this deliverable (D1.3 and D1.4) already defined a logical structure for the Open4Citizens approach and methodologies. This structure holds its ground; the three identified logical levels allows to further distinguish different kinds of actions (see Figure 2).

1. A level in which citizens' participation and co-creation is producing new solutions, while contributing to increase general awareness about the potential of open data. The concrete instantiation of this level is the **hackathon event**
2. The level of infrastructuring the hackathon event, that means the process of pre-hackathon, hackathon event and post-hack, i.e. a **hackathon campaign**, that is important to define the challenges for the hackathon event, to ensure the participation of key stakeholders and to aggregate datasets that can be used as the raw material for the co-creation process.
3. The level of consolidation of practices, knowledge and community links created by the hackathon event, into a public innovation place, the **OpenDataLab**.



**Figure 2. Logical levels of intervention of the Open4Citizens project (the Matrioshka model)**

## 2.1 Towards a conceptual framework of Open Data as a Commons

This deliverable takes the next step in defining the core concept of the O4C project, by providing a general and theoretical framing to qualify the creation of the *ecosystem*, that could activate open data as a public resource. In keeping with the call's ambitions to reuse data for the common good, data being a public resource would then qualify open data as a *Commons*. This is however, not straightforward. Hence, the Open4Citizens project started from the observation of the asymmetry between the production of new datasets and their actual (re)utilisation and integration in new public services.

Policies for opening data have been focusing on the implementation of the datasets' repositories, rather than on their utility. This implies a weak *demand side*; a poor definition of the way this resource can be put to use. This is partly due to the fact that the involved open data has originally not been collected with the aim of reusing it for another purpose. Instead, usually clear (policy) goals have been set before collecting data. This situation hinders meaningful reuse of the data (Stembert, Conradie, Mulder, & Choenni, 2013).

The demand side for reusing data is further complicated due to a) a lack of a consistent framework to orchestrate and assess strategic intervention to shape an open data ecosystem (Ciuccarelli, Lupi, & Simeone, 2014) and b) an absence of a consolidated practice - and a community of practice that exchange knowledge and experiences - in working with open data (Mulder, 2015).

In addressing these two points, two different perspectives are possible, to describe the work done in the Open4Citizens project, and in general, when reusing open data, i.e. the need to activate open data as a shared resource, and even more ambitious, to envisage open data as a new commons. The first perspective refers to the structural elements of the open data ecosystem and considers the way those elements have been organised in the O4C project. The second perspective considers the need to aggregate a community of practice (or create a movement) around the open data resource, that means activating key stakeholders and creating or consolidating practices to make meaningful use of this resource. The following sections elaborate upon those perspectives, while taking stock of what has been illustrated before in D1.3 (section 2) and partly in D1.4.

### 3 The construction of an open data ecosystem

---

Kapoor, Mojsilović, Strattner, and Varshney (2015) suggest that an open data ecosystem includes a range of activities, not only related to the release and publication of open data sets, but also to the treatment of such data, the interpretation up to the development of pathways showing directions for the usage of open data. Next to this, we expand the understanding of a data ecosystem to include its actors, and the political and organisational infrastructures promoting or participating to those activities.

The activation of such an ecosystem would in fact be the basis for a profitable use of open data; however, the activation of such resource would also need a system of innovation. In other words: making data fluid and available is necessary, but not sufficient to activate this resource; a learning process needs to be started, that increases the awareness of the opportunities offered by open data. This is the reason that inspired the Open4Citizens team to explore the potential to understand and use this resource among a wide context.

Kapoor et al. (2015) confirm Open4Citizens' initial observation that in the current paradigm the exploration of open data is for the larger part left to civic hackers, developers, small business and entrepreneurs, i.e., to the solution owners. Although those people have good attitude to generate technical applications, they often lack of an overview of the issues they are trying to address. The inclusion of problem owners - i.e., citizens, public administrators, interest groups, that have a clear view of critical problems to solve - would instead call for an open and broader process, based on participation and co-creation.

Given those premises, in order to support the use of open data, Kapoor et al. (2015) propose a structured system of innovation, consisting in three subsystems:

- a system of record;
- a system of insight;
- a system of engagement.

In our interpretation of this structure, **the system of record** is supposed to provide the *raw material* for the activities in the open data ecosystem, such as datasets and the treatment needed to make data usable, but also knowledge and cultural infrastructure. The **system of insight** is supposed to support the process of obtaining insights from open data across the O4C community. This is achieved by organising the activities and providing the tools that can inspire, focus and visualise the potential of open data; including tools, algorithms and APIs, that would allow for data to be visualised or used in apps and services, ultimately leading the involved community to obtain new

insights on the world through data. Finally, the **system of engagement** includes activities, events or consolidated infrastructure, that support attracting citizens and their sustained participation.

In consideration to Kapoor's elements for an innovation system, the effort of the O4C team consisted in identifying such elements at the three levels of the "*Martioshka model*" described above and shown in figure 2. The corresponding matrix of elements defines a systemic strategy for supporting the generation of new practices across all levels of intervention (Table 1).

It is worth noticing that the extension of the focus from the technical treatment of open data to the social context requires a broader interpretation of Kapoor's terms, to include social and practical issues related to the participation to the hackathon event, the hackathon process and the activities in the OpenDataLab.

**Table 1 Elements of the innovation ecosystems at the three levels of the O4C project**

	<b>System of Records</b>	<b>System of Insights</b>	<b>System of Engagement</b>
<b>Hackathon event</b>	Datasets, data repositories	Visualisation and inspiration tools	Hackathon and workshop facilitation, data sprints.  Involving data owners and issue owners
<b>Hackathon campaign</b>	Shared issues, community culture and attitudes, institutional settings	Activities focused on data, people and challenges	Hackathon event,  Participatory activities
<b>OpenDataLab</b>	Knowledge about open data	Calls for projects, call for data, fundraising, navigation and visualisation support	Activities that engage citizens, public administrators, data owners and other relevant stakeholders

### **3.1 A support system at the hackathon event level**

- The system of record at the hackathon level consists in the collection of the raw material for the hackathon activity. The raw material for a creative activity on open data is of course a number of datasets: links to the most relevant data repositories were collected for the participants before the hackathon event and new datasets were also created and made available.
- The system of insight in the hackathon event supports the process of obtaining insights from open data across the O4C community, including the ambitions, the purpose of getting together, the themes and problems and issues to be solved. It consists of the visualisation and inspiration tools provided to the participants. The tools include inspiration cards, examples and visualisations of existing datasets.
- The system of engagement consists of the various tools and strategies for engaging participants, including facilitation or data sprints. It is worth noticing that the engagement of participants also depends from non-technical issues, such as the participation of data

owners or issue owners (e.g. public administrations proposing a problem to solve or awards for the best project).

### **3.2 A support system at the hackathon campaign level**

- The raw material (the system of record) in the hackathon process consists of the information coming from institutional, social and organisational frameworks. It includes shared issues, community culture and attitudes, institutional settings, including laws, hierarchical structures and regulations. In other words, the raw material for the hackathon process is the social, technical and organisational ecosystem in which certain problem areas can be addressed with the use of open data.
- The system of insight in the hackathon process consists of the activities that are supporting the formation of the hackathon ecosystem. They include activities focused on the three main components of the hackathons: challenges (What are the relevant problems the hackathon should solve?), data (Which datasets can be relevant? Which ones are available? Which ones can be found from different sources?) and people (Who are the people that would be motivated to solve the challenges?)
- Finally, the system of engagement consists of the participatory activities during the hackathon process, including the hackathon event and a number of other preparatory or post-hack events, including data sprints, service jams, meetings and workshops.

### **3.3 The OpenDataLab as system of support**

- The raw material collected in the OpenDataLabs is the whole knowledge around open data, that means: an archive of datasets, applications, inspiration and networking tools, that would make it possible for any user of the Lab to use data, work with data or get information on how to use open data.
- The OpenDataLabs are also supposed to collect and support activities on open data, such as calls for projects, call for data, fundraising, navigation and visualisation support. All those elements are part of the system of insight related to the OpenDataLab.
- The number of activities that engage citizens, public administrators, data owners and other relevant stakeholders in open-data-related processes represents instead the system of engagement in the OpenDataLab.

### **3.4 Towards a system of innovation**

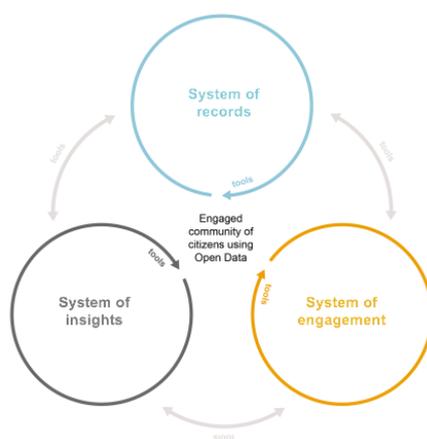
Whereas these elements are essential for the construction of the open data ecosystem, they do not guarantee a system of innovation. Hence, the Open4Citizens approach and methodologies are key to turning the open data support system in a system of innovation; the developed strategies and tools on the one hand, and the reframing of the hackathon concept as process for construction of common practices to work with data, on the other hand (Morelli et al., 2017; Mulder, Jaskiewicz, & Morelli, 2019).

The OpenDataLabs, O4C hackathons, and the O4C tools are the three main instrumental concepts that structure the O4C methodologies as indicated in the open data ecosystem. The OpenDataLab is both a physical and virtual infrastructure supporting the reuse of open data as resource among heterogeneous groups of people. It defines hackathons as a set of practices that actively support

citizens' initiatives and the creation of events that involve participants with different knowledge and competences. Finally, it provides the overview of the toolkit that supports the actual co-creation process through a 'hackathon starter kit', data tools and the O4C platform.

The facilitating role to the O4C team in aggregating a community in using the data resources, goes together with the framing and reframing challenges and the problem space. Communities are supported in working with data and reusing them for meaningful solutions. To reach this result, O4C is infrastructuring the community ecosystem with a set of strategies and tools that allow them to organise their own event and campaigns.

Figure 3 shows the role of the O4C methodology enabling the interplay among the support systems allowing for innovation in the open data ecosystem. It is the Open4Citizens approach and corresponding methodologies and systems that facilitate this social innovation process. Therefore, Section **Fejl! Henvisningskilde ikke fundet.** elaborates upon the Communities of Practice as a necessary condition to enable meaningful reuse of data in the first place, and to further contextualise OpenDataLabs, enabling the data as a new commons.



**Figure 3. Open Data ecosystem as a system of innovation**

## 4 Towards an Open Data Movement

---

In keeping with the Matrioshka model, the ambition of O4C is not only to create OpenDataLabs, but also to mobilize an ecosystem of stakeholders using and sharing open data, including local citizen communities, public authorities, commercial parties and other entities, while being open and inclusive for those who are usually unfamiliar with open data and unaware of its potential. Such ecosystem can also be described as a community of practice, which, according to Wenger (1998), is a community of people that engage in a shared process of collective learning within a shared domain. The intended community of practice should be based on a learning-by-doing process, that involves a community in the co-creation of solutions at different technology readiness levels, from concepts to operating services.

Both the hackathon event and campaign cannot be seen as mere opportunities to explore the potential of open data as resources, these are part of a larger infrastructuring process of establishing communities of practices using open data as new commons. Such an elaborate learning-by-doing process aims to enhance a better understanding of data and the opportunities for reuse, as well as to better articulate data needs. The triad of people, data, and challenges already shapes a first profile of a local community with those citizens who are open to explore opportunities (community of place). The challenge at hand further shapes the community (community of interest). Their shared interest in co-creating meaningful services indicates that their involvement is not necessarily intentional. In other words, it is unlikely that people will come together to learn how to use open data, but they will possibly join their efforts and spend their energy to solve cogent problems related to their community.

The ongoing co-creation activities in the OpenDataLab further foster the sense of community and commitment. The continued participation in activities keeps the community active and alive. And at the same time, enhances its data literacy. The same is true when the DIY activities lead to concrete services, solution or artefacts. These all are just examples of how the activities in the OpenDataLab contribute to digital citizenship and a cohesive community, active in making their own city. The concept of data as a commons further strengthens 'communing', as coined by Linebaugh (2009).

## 5 Conclusion and links to other deliverables

---

This deliverable adds to the definition of the O4C concept described in D1.3 and D1.4 by specifying the conceptual framework for the definition of open data as a common, and therefore for understanding the structure of a system that would connect the production side of open data with the demand side in an organic way. Two complementary perspectives are proposed in this deliverable: the first perspective is focused on systemic aspects: it articulates the construction of an open data ecosystem in three subsystems (the system of records, the system of insights and the system of engagement) along the three level of the matrioshka model suggested in D1.3. The second level is instead looking at open data use as the ground for the construction of open data as a commons, thus exploring the elements for the creation of a community of practices around open data.

The concepts illustrated in this deliverable have been the ground for the whole project and are further explored in other deliverables, more specifically:

D2.1 specifies the practices O4C experimented and how they contribute to the consolidation of knowledge on open data and to the creation of a community of practice

D4.4 defines the scenarios for the consolidation of those practices into different possible configuration of OpenDataLabs in the contexts of the pilots

D4.8 defines the policies to support open data publication and reuse

D4.10 defines the configurations that will support the financial sustainability of the ODL in each pilot, also in relation to their capability to support their community.

## 6 References

---

- Ciuccarelli, P., Lupi, G., & Simeone, L. (2014). *Visualizing the Data City*. Milan, Heidelberg, New York, Dordrecht, London: Springer.
- Kapoor, S., Mojsilović, A., Strattner, J. N. & Varshney, K. R. (2015). From Open Data Ecosystems to Systems of Innovation: A Journey to Realize the Promise of Open Data. In: Proc. of Bloomberg Data for Good Exchange Conference, New York City, September 25, 2015.
- Linebaugh, P. (2009). *Magna Carta Manifesto: Liberties and Commons for All*. Berkeley, CA: University of California Press.
- Morelli N., de Götzen A., Simeone L. (2019). A System of Innovation to Activate Practices on Open Data: The Open4Citizens Project. In: Knoche H., Popescu E., Cartelli A. (eds) *The Interplay of Data, Technology, Place and People for Smart Learning*. SLERD 2018 2018. Smart Innovation, Systems and Technologies, vol 95. Springer, Cham.
- Mulder, I. (2015). Opening Up: Towards a Sociable Smart City. In: M. Foth, M. Brynskov and T. Ojala (eds.). *Citizen's right to the digital city: Urban interfaces, activism, and placemaking* (pp. 161-173), Springer. Available online: <http://link.springer.com/book/10.1007%2F978-981-287-919-6>
- Mulder, I., Jaskiewicz, T. & Morelli, N. (2019). On digital citizenship and data as a new commons. Can we design a new movement? (in Spanish: *Sobre la ciudadanía digital y los datos como un nuevo campo común: ¿Podemos diseñar un nuevo movimiento?*). *Cuadernos del Centro de Estudios de Diseño y Comunicación*, Cuaderno 73, pp. 97-109. Special issue: Design in perspective - Transition Design (First Section, edited by Terry Irwin).
- Stembert, N., Conradie, P., Mulder, I. & Choenni, S. (2013). Participatory Data Gathering for Public Sector Reuse: Lessons Learned from Traditional Initiatives. In: M.A. Wimmer, M. Janssen, and H.J. Scholl (Eds.): *Proc. of EGOV 2013, LNCS 8074* (pp. 87-98). Springer-Verlag: Berlin Heidelberg. Available online at: [http://dx.doi.org/10.1007/978-3-642-40358-3\\_8](http://dx.doi.org/10.1007/978-3-642-40358-3_8)
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, UK, New York, USA: Cambridge University Press.