



## Raising Open and User-friendly Transparency- Enabling Technologies for Public Administrations



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### D5.4 Community Building Report

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## Executive Summary

The overall goal of the ROUTE-TO-PA project is to enable citizens to establish a more effectively transparent relation with their Public Administrations, on the basis of the meanings that individuals, groups or communities (co-)construct with respect to open data. For this, specific technological tools have been developed, for creating visualisations of open data ("TET") and for integrating these into a specifically designed and implemented social network ("SPOD"). When used together, SPOD and TET enable citizen-users, with their public administrations, to discuss open data visualisations, better understand them and thereby change their representations of the degree of effective transparency of Public Administrations. The aim of Work package 5 is to set up and implement scenarios of interventions in local contexts, and to evaluate these scenario activities at the pilot sites, with respect to the success criteria negotiated for each scenario between the project team, representing the goals of the project, and local stakeholders, representing local interests and aims. The current Deliverable (D5.4) is about the community building efforts during the scenario work, as well as with other interested parties, and the outcomes of these efforts. Our view on community building around TET and SPOD involves the following three aspects: (1) Recruiting members of the community for participation in the scenario, by an appropriate communication strategy to the targeted users; (2) Sustaining this community by supporting their collaboration, organising training sessions with the tools, working with open data, and amplifying the support within their organisation (management, political, other departments); (3) Extending (outcomes of) the scenario in order to reach new communities, by disseminating results, making results suitable for continuous work (e.g. making data available for future users on CKAN), organising meetings and workshops, etc.

We present our views on engaging (online) communities, best practices and the role of our work within a vision of an open knowledge society. Then, we present the community building efforts and outcomes in the pilots. Within these views, efforts towards community building are ongoing beyond the duration of the project. We present a number of recommendations to keep up these efforts at the pilot sites, and at other contexts.

# 1 INTRODUCTION

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## 1.1 PROJECT BACKGROUND

The purpose of this deliverable is to present work carried out within Work package 5 (“Evaluation, Verification, and Validation (pilots)”) during the (extended) third year (M24-M40) of the ROUTE-TO-PA project.

We recall that the overall goal of the ROUTE-TO-PA project is to enable citizens to establish a more effectively transparent relation with their Public Administrations, on the basis of the meanings that individuals, groups or communities (co-)construct with respect to open data. For this, specific technological tools have been developed, for creating visualisations of open data (“TET”) and for integrating these into a specifically designed and implemented social network (“SPOD”). When used together, SPOD and TET enable citizen-users, with their public administrations, to discuss open data visualisations, better understand them and thereby change their representations of the degree of effective transparency of Public Administrations.

The aim of Work package 5 is therefore to set up and implement scenarios of interventions in local contexts, and to evaluate these scenario activities at the pilot sites, with respect to the success criteria negotiated for each scenario between the project team, representing the goals of the project, and local stakeholders, representing local interests and aims. Evaluation in terms of changes in individual user’s views on transparent relations and engagement with open data as a result of their tool-based activities, is carried out and reported in D3.3. There, transparency and engagement are subjectively evaluated on the levels of social groups, online communities and usability of tools.

Crucially, in WP5, the focus is on the design and evaluation of user scenarios, supporting the implementation of the technology in user contexts. In D5.3 we report the outcomes, as changes in views, but also the process of implementation and appropriation of the tools in professional and educational contexts. In that deliverable we provide ideas and evidence concerning the innovative roles of open data tools in professional and educational contexts, with the aim of increasing transparency between citizens and local governments.

*The main outcome of our efforts as reported in D5.3 can be formulated as follows:*

- The main asset as we envisaged at the start of our work, that our tools [TET & SPOD] would support public administrators and citizens making meaning of open data, which would provide inspiration to more collaboration and mutual appreciation and understanding, in more transparent relations, cannot be achieved in the same way on both sides (PA’s and citizens), but requires instead:
  - for *citizens* to use our tools to collaborate on an engaging topic, for the creation of meaningful datasets, and to analyse and discuss these data, for joint understanding,
  - for *public administrators* to use our tools to engage in a cyclical process of agile data production, to visualise and thereby better understand the data, with the goal of creating citizen friendly open data, of higher quality (meaningful for citizens) than is currently the case.
  - For *citizens and public administrators together* to discuss the meaning of data in their own contexts.

## 1.2 OVERVIEW OF DELIVERABLE

The current Deliverable (D5.4) is about the community building efforts during the scenario work, as well as with other interested parties, and the outcomes of these efforts. In the description of work, written four years ago, this Deliverable is announced as follows:

T5.4 While the system is running at the user sites, researchers and representatives of user sites plan further uses on site, but also organise meetings with other regional and national public offices, followed by workshops and further activities when these potential new sites apply for trials. Diversity within the community will be emphasized to facilitate rich learning. An implementation plan may be constructed for each of the sites and the consortium ensures full continuation of the services, now with the first user sites as the main centres of knowledge.

This description positions community building as an activity that is directed outside of the pilot public administrations. Along the journey of this project, we discovered that building on further engagement and sustainability within a public administration was crucial as well. We found that none of the sites were well prepared for working with open data, so we had to start from scratch.

This explains why the public administration sites we worked with each had their own reasons for considering our efforts as no more than a first attempt and were hesitant to make steps toward implementation and further dissemination. However, there were engagements, by all members of the consortium, in concert with or without the public administrations, to spread the experiences to other members of the organisations, or to other organisations and communities. We will describe these in chapter 3.

Before that, in chapter 2, we will explain why we do think that the ROUTE-TO-PA tools and scenario-based approach can be very important for conceptualising and realising work with open data within public administrations, and also for learning in educational contexts about how to handle data, that is, for defining and implementing an approach to data literacy. This work with data as we see it, should be a collaborative effort, not the work of individuals only. Moreover, while such collaborative efforts are in service of citizens, and communities of citizens, the most important reason for public services and citizens to work together, also on open data, is that we believe such processes should be open and transparent, in order for both parties to develop trust by better understanding each other through meaningful collaboration.

The partner in the project who has clear and explicit views and experience on the open and transparent society, as is manifest in the roles of collaboration and collaborative technology, is Open Knowledge International (formerly known as OKF). Especially during the second and third year of the project, they have worked with the pilot partners in order to support their community building activities. These are described in chapter 4.

Chapter 5 evaluates our work and presents some prospects for future projects and activities in public administration.

The engagement of new users has been attempted through mobilising existing contacts, thinking about additional user scenarios that would benefit some community. Pilots engaged in various awareness-raising activities. Actually, we currently think that recruiting new users will be most successful (although not always) if these users are approached through an existing community, not as individuals. Overall, we have noted that citizens can be engaged in working with open data, if they are engaged with the topic, and guided in their activities (with the data). During the final year, we can show several attempts to involve citizens in using our tools in a meaningful way. Some positive effects are reported, especially in cases with new creative uses of data involving communities and community centres.

Sustaining efforts involves exchange of ideas and information within an organisation, including capacity and trust building. The pilots themselves can be taken as a way of involving participants, for example by co-design, demonstrations, and other workshops. After the first pilots with some of the users from a public administration, other departments and other levels within a department are involved in pilot activities. Ideally, we would expect an organisation to discuss further steps to implement scenarios and the required supportive structures. This expectation has proved to be naïve and is only relevant if the appropriate levels of management and resources

can be involved, which requires more experience and policy discussions than we could offer. Not in all cases we have been successful to advance involvement in public administrations beyond the level of initial participants. However, this has led us to also consider additional groups to work with our tools, especially in higher education, and also to consider different types of scenarios, that focus on the creation of new data, for example as data challenges, rather than on search and interpretation of open data. To our knowledge, this has hardly happened in any similar project.

Dissemination of our approach, through participation in various events has clearly resulted in more visibility. These efforts are reported elsewhere, in the dissemination reports.

## 2 COMMUNITY BUILDING

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A significant amount of effort has been expended in the project in order to accompany and favour the emergence of active and perennial online communities of practice, mediated by (SPOD-TET) tools that both facilitate activity and whose innovativeness attracts new users.

Our current view on community building around TET and SPOD involves the following three aspects:

- (1) Recruiting members of the community for participation in the scenario, by an appropriate communication strategy to the targeted users;
- (2) Sustaining this community by supporting their collaboration, organising training sessions with the tools, working with open data, and amplifying the support within their organisation (management, political, other departments);
- (3) Extending (outcomes of) the scenario in order to reach new communities, by disseminating results, making results suitable for continuous work (e.g. making data available for future users on CKAN), organising meetings and workshops, etc.

### 2.1 SUSTAINING ONLINE COMMUNITIES

Over the last 20 years, a research literature has been developed on the study of the emergence, functioning and evolution of online communities of practice (e.g. Wenger, 1998<sup>1</sup>; Wenger et al., 2002), and on strategies for stimulating their growth (e.g. Kraut & Resnick, 2011<sup>2</sup>). Maloney-Krichmar and Preece<sup>3</sup> (2005, p. 203) define an online community as a group of people with a common interest or a shared purpose whose interactions are governed by policies in the form of tacit assumptions, rituals, protocols, rules, and laws supported by technology. There are different types of communities e.g. discussion communities but also task or goal-oriented communities and combinations (Stanoevska-Slabeva & Schmidt, 2001<sup>4</sup>). Typical online communities go through a series of developmental stages, each of which requires adapted community building strategies (Wenger et al., 2002):

*Community developmental stages*

Stage	Characteristics
Potential	Movement of networked individuals towards becoming more connected and a more important part of the organisation.
Coalescing	Members interact and build connections. At this stage they form a community.
Maturing	Growth in participants and depth of knowledge shared. Moments of high and low activity.
Stewardship	Communities take active management of the knowledge and the practice they have and members are aware of how these are being developed.
Transformation	Activities and shared practices change. At this stage, communities can fade away, merge with another community, or die.

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<sup>1</sup> Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge university press.  
Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business Press.

<sup>2</sup> Kraut, R. E., & Resnick, P. (2011). Encouraging contribution to online communities. *Building successful online communities: Evidence-based social design*, 21-76.

<sup>3</sup> Maloney-Krichmar, D., & Preece, J. (2005). A multilevel analysis of sociability, usability, and community dynamics in an online health community. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 12(2), 201-232.

<sup>4</sup> Stanoevska-Slabeva, K., & Schmid, B. F. (2001, January). A typology of online communities and community supporting platforms. In *System Sciences, 2001. Proceedings of the 34th Annual Hawaii International Conference on* (pp. 10-pp). IEEE.

The following table shows some of the best practices for online community building that were extracted from the literature (e.g. Kraut & Resnick, 2011), and the ROUTE-TO-PA approach as we have planned it during the first year. We number the elements of the ROUTE-TO-PA approach (number preceded by B, standing for Best Practice Community Approach) for easy commenting during the rest of this report. Please note that this section especially applies to behaviour for **sustaining** online communities. The next section takes up a broader perspective, necessary for more substantial impact.

Best practices	ROUTE-TO-PA approach and results after three years
1. Community purpose. Define and articulate the purpose of the community; identify members' needs, through online surveys; use chat rooms to run focus groups. Develop a clear narrative, identify core values of the community; communicate the narrative through the layout, activity tools, and content of the website tools	<p>(B1.1) Members needs and communities' purposes were identified in WP2 and WP3 studies;</p> <p>(B1.2) these were further refined throughout the project by qualitative analysis (WP2, WP5) of emerging and evolving needs; (B1.3) clear narratives of communities' purposes, identities, were developed, in collaboration with initially identified core user groups (focus groups), in relation to SPOD-TET tool design in D5.3.</p> <p><i>In the scenarios designed in year 2-3, purpose and goals were always specifically addressed.</i></p>
2. Collaboration spaces. Build flexible, extensible gathering places that can evolve with the needs of the participants. Start small and allow development over time.	<p>(B2.1) the SPOD tools allow creation of rooms focussed on specific topics for specific (e.g. P.A.) groups</p> <p>(B2.2) tools have been developed for identifying emerging spaces for deliberation and close collaboration (co-creation rooms) and displaying their participation data to users, as various reflection/awareness tools</p> <p><i>This has been taken into account in tool design.</i></p>
3. Profiles. Create meaningful and evolving member profiles, that will allow participants build trust and social identity, foster relationships, and give the community a sense of history and context. Track and display participants' usage history.	<p>(B3.1) each user of SPOD-TET tools has a personal profile page, inspectable by all validated community participants.</p> <p><i>This has been taken into account in tool design.</i></p>
4. Roles. Design for a range of roles, to be managed by a site moderator: Visitors need to be welcomed; Novices need instruction; Regulars need rewards; Leaders need to be empowered; Elders need to be appreciated and honoured	<p>(B4.1) site moderators have been appointed (from PAs, from research groups) who have, in negotiation with participants, identified sets of roles (such as "power user", "admin", "expert on xyz", ...) and negotiate their ascription to participants</p> <p>(B4.2) moderators and users with related roles (e.g. admin) will define functions to be fulfilled – e.g. welcoming new users, providing help, rewarding high users — and implement them</p> <p><i>Moderation has been explicitly addressed in development of scenarios. Results are described in D5.3</i></p>
5. Leadership. Encourage the emergence of strong leaders, usually on the basis of "recommendations" from other participants, in order to gradually devolve responsibility to the	<p>(B5.1) moderators will gradually give over responsibility for management/moderation to participant-leaders, on specific themes, enabling devolution of responsibilities</p>

community itself (the “stewardship” stage of development).	to ensure continuation of community after the project duration  <i>This stage of sustainability has not been reached</i>
6. Rules. Encourage appropriate (n)etiquette, or community rules and values, especially for conflict resolution. FAQs, a privacy policy and guidelines for community leaders (or “admins”) are important).	(B6.1) the project has defined guidelines for carrying out moderator roles (D5.3) (B6.2) an initial set of community rules has been defined, inspired by existing online communities of practice (e.g. PYTHON, Wikipedia), and negotiated with participants (B6.3) a part of the moderator role is to ensure application of the community rules (B6.4) moderators will apply conflict resolution strategies where necessary (e.g. proposing that protagonists summarise the main evidence for their views; proposing a vote)  <i>Moderation has been explicitly addressed in development of scenarios. Results are described in D5.3</i>
7. Events. Promote regular events, including those organised by participants, including online group meetings, presentations and conferences, competitions, a calendar system, and chat rooms.	(B7.1) workshops, face to face, have been organised by some partners, in a “hackathon” style, on specific open data themes of interest to the particular communities  <i>See WP5.3 for description of the scenarios and results.</i>
8. Rituals. Integrate the rituals of community life, such as personal transitions towards roles, or particular milestones and success stories.	(B8.1) WP2 and WP5 work on evaluating the form and nature of activity, collaboration, using the SPOD-TET tools will enable identification of achievement of key milestones of communities (e.g. attaining a specific number of members, number of open data visualised), which will be fed back to the communities themselves; (B8.2) key participants will be encouraged to organise specific meetings  <i>This type of sustainability has not been reached</i>
9. Subgroups. Facilitate member-run subgroups, with appropriate technologies for managing them, in order to enable the community to grow	(B9.1) the SPOD tools allow separate rooms for specific subgroups (B9.2) moderators have encouraged subgroups to define their mission statements and rules for membership  <i>This has been taken into account in tool design</i>
10. Content and tools. Develop attractive content and tools: many online communities are successful because they have a rich inventory of content, and/or tools for working on it, that attract new members	(B10.1) Some participants from PA have generated new content (in TET and SPOD); <i>explicit data creation scenarios have been implemented (D5.3);</i> (B10.2) usability work in the project ensured that tools are beyond the state of the art; this will be reflected in the communities’ and the ROUTE-TO-PA tools’ narratives. <i>See D5.3 and its Appendix for the narratives</i>

Table 1. Best practices for community building

These best practice criteria do not apply to all pilot interventions, as many did not reach the stage of working online with large and active groups, but these criteria have still guided our work. However, in addition to best practices for online communities, there is another set of criteria, based on a vision of transparency in an open society. This vision will be reflected in the next section and implies a promise for ROUTE-TO-PA for linking to existing open knowledge communities.

## 2.2 THE OPEN KNOWLEDGE NETWORK VISION INSPIRED ROUTE-TO-PA

Open Knowledge International (OKI) operates with the conviction **that open knowledge can empower citizens, enabling people to work together to tackle local and global challenges, break down complex topics in form of data-driven reporting, expose public service inefficiencies but also opportunities, challenge social inequality and hold governments and companies to account for their doings.** This open knowledge network is a global one that influence governments and organisations on a federal and local. It is a network of independent ambassadors, groups, organizations and communities that are passionate about openness, using advocacy, technology and training to unlock information and enable people to work with it to create and share knowledge.

Open Knowledge International's role in ROUTE-TO-PA focuses, amongst other things, on community building processes as one of the main pillars of the EU Horizon2020 project. With the aim of engaging citizens with their respective public administrations and eventually governing bodies, **ROUTE-TO-PA platform is more than just another technological tool - it is also an enabler of social collaboration that caters for both offline and online activities.** This social collaboration is based on an overarching network strategy that clearly explains the role played by the communities and how do they fit in the mission of ROUTE-TO-PA.

**Through designing a detailed road map for this strategy communities are helped in achieving self governance in order to maintain its activities and plan for scaling up.** The long-term goal with every community building activity is to scale up the current ROUTE-TO-PA communities, but in order to achieve that, we need to be able to clearly align priorities, communicate the ROUTE-TO-PA values and provide the members of the communities with tools that will translate strategies into actions. ([Reference: Community RoadMap Ebook](#)).



Picture 1. The community Strategy Road Map

This movement is still being shaped today, with new trends emerging in the data communities such as Follow the Money, MyData or current conversations around data protection as a basic human right in light of recent revelations of abuse of private data by third-party companies such as Cambridge Analytica. The relation is no longer limited to numbers and analytics - it goes beyond to touch on the lives of people and thus on society as a whole. The role of open data, openness and transparency plays an important role in shaping societies.

### 2.3 POTENTIAL FOR COMMUNITY BUILDING WITH ROUTE-TO-PA TOOLS AND SCENARIOS

At Open Knowledge International, we have witnessed the concept of open data evolve and change over time. It originally was an external activity conducted outside established organizations and governments. Whereas now, all the efforts are directed towards embedding open data as a democratic concept in organizations, public administrations and government bodies - and ROUTE-TO-PA is an excellent example to these efforts when it comes to building communities. Growing the ROUTE-TO-PA community or in fact any community calls for patience and the will to iterate prior strategies as it might, more often than not, mean going back to the drawing board. Community building is not only a joint effort between partners in the consortium but also a continuous and intensive process with other stakeholders on the open platforms and online channels.

During the 2nd and 3rd project year, the relationship between ROUTE-TO-PA platforms (SPOD and TET) and the community (pilots and their network) has been growing. Currently this community is made up of active users in Italy, The Netherlands, Ireland and France, who are either students or citizens that contributed to one or more scenario, in addition to the members of the partner public administrations and organizations that also took part in the different project scenarios. A majority of these active users are using the SPOD tool.

How will this community communicate, convene and connect? A multi-layered system should be identified, established and utilised. From mailing lists, to blog posts, closed and open groups on both SPOD and other platforms such as Facebook, Reddit, in addition to tweets, videos and live online sessions. The communities form and will continue to grow outside the formal ROUTE-TO-PA structures. Building and sustaining a healthy and sustainable community means finding more than one space for discussion and learning, online but offline as well. Open Knowledge International's experience is that an open data community is eager to learn but also that is eager for solutions that work and that solve their issues around interaction with open data. This is why, we should always remain an active participant in the communication channels that will be established to solicit feedback and push further the learning journey of the community members.

The community building efforts should also focus on new key influencer audiences such as policy makers, CSOs, the media and active working groups which focus on data journalism as a tool for advancing the society and better engaging the citizens. This should be accompanied with developing or further strengthening the brand of ROUTE-TO-PA and its purpose while making the language used in communication coherent across all channels including the website, social media, newsletters and other regular and momentary medium. In addition, ROUTE-TO-PA platforms should be utilized to develop key messaging and tailored messages for all audiences. This became very important for the pilot partners that worked around cultural heritage, open budgets and mapping public services. A clear message for all three areas will attract the right audience, one that is interested in using the platform and join or create a conversation around data and policies.

As part of **GUIDE**, the overarching communication strategy for ROUTE-TO-PA should utilise the case studies at hand (*ROUTE-TO-PA scenarios*) to illustrate:

- The value of open data and how the different stakeholders can benefit from using it
- The relationship between a public administration and citizens when it comes to sharing, using and talking about data
- The effect or outcomes on policy and/or community level

This will help the adopters to identify a similar scenario and plan for satisfactory results, all while every adopter or organization becomes a member of the ROUTE-TO-PA network. Hence the community will continue to increase its capacity and reach while being self-managed and maintained. An ideal combination of recommendations towards building, sustaining and scaling a community is best described as a scalable building block. People participate in communities for different reason and have various engagement levels and resources to allocate, however they all would need a solid starting pack that is flexible and scalable and can be adapted to their needs, goals and objectives.

Some of the main points that constitute this building block are:

- Common space (digital) for connecting and obtaining of basic information
- Shared learning spaces
- GUIDE
- Local events (offline)

Finally, communities thrive when their efforts and achievements are recognised, so an important aspect of communication is also storytelling and dissemination. Therefore: Share, encourage other networks stories, scenarios and achievements and this will inspire other communities to become more active.

## 3 COMMUNITY BUILDING EFFORTS IN ROUTE-TO-PA

### 3.1 ENGAGEMENT AND SUSTAINABILITY ACTIVITIES

The following table is based on Paskaleva et al. (2015)<sup>5</sup>, but somewhat modified according to our specific purposes. For complete information about the ROUTE-TO-PA scenarios, we refer to D5.3 (Evaluation, Validation and Verification Report) and its extended appendix.

Engagement and Sustaining activities		Goals	ROUTE-TO-PA scenarios
1.	Open public event	Municipality organises meeting inform people about project, show possibilities and tools	Prato, Heter
2.	Introductory event	Potential users are invited and informed about scenarios and technology	Groningen, Issy/CNRS
3.	Training sessions with technology	Participants guided in actively working with the technology	Prato, Heter, Groningen, Utrecht, Issy/CNRS, CLEMI
4.	Media Production	Blog and facebook posts, twitter, dedicated mailing, for recruiting or sharing results	Heter, Dublin, Issy
5.	Co-design workshop	Eliciting, fostering of ideas and possible solutions. Detailing a solution idea towards a blueprint	Den Haag, Utrecht, Groningen
6.	Community development events	Public event, facilitating the people interaction toward the development of trust networks, and sharing results	Heter, Prato
7.	Evaluation Sessions	Collaborative evaluation of scenarios	Den Haag, Groningen, Utrecht
8.	Social Media Groups	Enabling an aware discussion on public issues in a private forum	The SPOD tool was designed to facilitate this
9.	Facilitation Workshop	Creating conditions for aware alignment among different stakeholders	The collective intelligence workshop was organised at all municipalities
10.	Gaming	Capturing people involvement by creating game atmospheres	Heter, Dublin, Prato
11.	Prototyping experiments	Facilitating participation in co-design	All pilots
12.	Public discussions	Enabling an aware discussion on a public issue	The SPOD tool was designed for this purpose
13.	Student courses	Enabling stakeholders as peers in academic knowledge production	Galway, Groningen, Utrecht, Heter, Prato, CLEMI

<sup>5</sup> Paskaleva, K., Cooper, I., Linde, P., Peterson, B., & Götz, C. (2015). Stakeholder engagement in the smart city: Making living labs work. In *Transforming city governments for successful smart cities* (pp. 115-145). Springer, Cham.

14.	Online training in tools	Participants are guided in working with SPOD, including active moderation or moderation on request	Prato, Heter, Den Haag, Dublin, Issy
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Table 2. Overview of engagement and sustaining activities

### 3.2 OVERVIEW OF THE SCENARIOS AND EVALUATION OF THE COMMUNITY BUILDING ACTIVITIES

During the scenario work, pilots were advised by the workpackage coordinator to use the expertise of the Open Knowledge International for making informed decisions on community building strategies. In the tables below, we specify these contributions, showing the diversity in community building approaches.

#### **Scenarios focused on collaboration between PA and (some group of) citizens**

This type of scenarios was initiated from the start of the project and aimed at the initial goals of the project: increasing collaboration between PA and citizens around open data with use of RTPA tools. The options for community building were related to the networks of participating citizens, who could be part of various communities, and the attitudes of the management and political layers of the local public administrators. The numbers between brackets (e.g. [1]) in the table below refer to the focus of community building actions within the scenario: [1] recruitment, [2] sustainability, or [3] extension.

Scenario	Year	Community building goals and activities	Findings and Impact	OKI's suggestions for CB-strategies
Den Haag – PA's work with employers	1-2	The ambition (of management) was to establish a new collaborative practice [2] (co-creation with open data) between PA and representatives of local employers. Several meetings to create a group [2], find shared topics, learn about open data. Pilots with RTPA tools to engage in data-driven co-creation. The CB aim was to extend to multiple topics and expand to the community of local employers [3].	CB activities were directed inwards – sustaining the participating group took much energy. The step to enlarge the community to the network of ambassadors (employers) of inclusive participation (of handicapped workers) was almost taken [2,3]. CB towards the PA organisation were difficult to make, due to (assumed) lack of support from the political layer [2]. After two years the collaboration was not sustained, because the senior manager, who supported the project, was promoted to another department.	Community building efforts were directed towards formulation of good connection between the ambitions and goals of the municipality and the possibilities of the ROUTE-TO-PA project, which is important for the sustainability and impact of the project in other departments of the municipality.  In addition to working with core group of employers and PA's, other groups were suggested (e.g., the ambassador network) to explore the possibilities of SPOD for co-creation and collaboration with the municipality.
Groningen – population decline	1-2	Efforts to establish collaboration between PA, stakeholders and students around the topic of population decline in the province of Groningen.	CB activities were directed inwards, establishing and maintaining the participating group [1,2]. The heterogeneity of the group made active participation not always easy	UU was advised to include interviews with Open data specialist and population decline policymaker to test the instrument developed for

		Meetings were organised to decide on research questions, introduce tools, discuss roles of participants and on evaluation of the project. The actual data work in the tools was done in a period of six weeks.	for all. PA's were mostly involved in preparation and evaluation, rarely in the actual online collaboration around the data. Results were shared with a select group of (new) PA's, stakeholders and with the politically responsible in the province [3].	analysing the societal level and to discuss the next steps to be taken.
Utrecht Healthy balance	– 3	Efforts to establish collaboration between PA, stakeholders and students around the topic of livelihood and liveability. Meetings were organised to decide on the specific research questions, introduce the tools, discuss roles of participants and on evaluation of the project. The actual data work in the tools was done in a period of five weeks.	Much work was done to establish good contact with the municipality, but here also few people were involved in the topic of open data. A similar scenario was constructed as in Groningen, but much effort was given to involving all in deciding relevant research questions for the students. Active online participation of PA's was not high, but the moderator (PA) tried different strategies to involve his colleagues. Results (students reports) were shared after careful consideration on the impact they could have. A lot of political sensitivity had to be taken into account, because of municipal elections. Findings from this scenario were not meant to have a big impact but were publicly available in the end [1,2,3].	Politician and city official were resistant at first to the scenario efforts as they don't want any events that might stir controversy or generate negative publicity given that the local election is approaching. We suggested that the Utrecht team to attend neighbourhood meetings and present leaflets or a presentation from the data acquired during the data expedition phase. If the users are not going to SPOD, we bring SPOD to them. Make the presentation friendly without any judgment (positive or negative) . We also suggested to conduct a small survey during those meeting in a way to also determine new factors that will contribute to the presentation of the data. Finally in order to strengthen the communication channels and make it closer to the users (reduce the technological barriers) we suggested the creation of a whatsapp group for the members who are attending different meeting to report and share information.

**Scenarios focused on engaging young people (students) in working with open data (for co-creating datasets, and co-creating ideas and solutions based on data)**

These scenarios were developed to explore the use of the RTPA tools in educational contexts. Activities were done in middle and high schools and with university students. Students were invited to work on scenarios for co-creation of datasets and for co-creating ideas and solutions based on data. For most of the scenarios, participation was obligatory, so no efforts were needed to stimulate use of the tools.

Scenario	Year	Community building goals and activities	Findings and Impact	OKI's suggestions to improve community building efforts and results
CLEMI	3	Explore the possibilities of the RTPA tools in educating students about data manipulation and make them aware of the role of visualisations of data in news. Role play exercise to engage students in analysing open datasets from a certain perspective.	CLEMI is a centre for education in media and information, collaborates with high schools in France. Teacher was member of CLEMI. This scenario focused on use of the tools in a school. Students were the community that was addressed. Sustainability of learning activities was achieved by making sure that the RTPA tools stay available for the school to use [2]. There was no sharing of results to outside the classroom.	No involvement of OKI
Hetor School scenarios	2-3	Engaging young people to use open data, through the topic of cultural heritage. Activities focused on learning to create and work with (open) data, be active in collecting data for datasets, understand issues that arise from interpretation of the data. A lot of activities were aimed at sharing results and learning process with the outside world [3].	Participation was voluntary for most instances of the school scenario, many (introductory) activities were developed to engage the students and moderation/ tutoring always there during the work [2]. Involving students in sharing their work (blog with visualisations of the datasets, the actual datasets) through social media was a big part of the activities [2]. Datasets that were created are accessible for other citizens through the Hetor CKAN [3].	This pilot received a lot of positive feedback and contribution from participants however in order to improve students engagements we proposed a series of initiatives or strategies such as the creation of a competition among the schools involved in the Hetor Project - Open Data Finds Schools: a great solution thanks to which it may be possible to engage both students and teachers, with specific prizes or rewardings (best teacher, best class award, etc). <a href="http://routetopa.eu/routetopa-case-study-hetor-pilot/">http://routetopa.eu/routetopa-case-study-hetor-pilot/</a>
Prato Tabernacle	3	Engaging young people in open data, through the topic of cultural heritage specifically local tabernacles [1]. Be active in collecting data for their own datasets. Meetings to involve teachers in the tools and possibilities, end meeting to show results to outside world and select	School scenario initiated by Prato municipality, to engage the young in local cultural heritage [1]. Collaboration with local historian for content on tabernacles. Differences between the participating schools in how they allowed students to go out and collect data (picture,	No involvement of OKI

		winner of prize for collecting the most and informative data for the dataset [2,3].	geolocation, stories related to the collected tabernacle). Involvement of municipality was through a moderator and mostly technical assistance was given. The datasets created by the students will be available for others through the Prato CKAN. Through a meeting involving students and teachers, the results will be shared with other interested teachers [2,3].	
Galway – Healthy Ireland	3	Engaging students in the process of data-driven discussion and decision-making on the topic of health [2].	Highly structured set of activities for university students, to use existing datasets to arrive at recommendations for improving health and well-being in Ireland. No activity for sharing results with other communities or interested parties yet.	No involvement of OKI
Open state Hackathon	2	SPOD was used during a hackathon (100 users, 1 day) to share outcomes. The hackathon was about designing new accountability solutions with open data [3].	Hackers had their own tools for working with data. Outcomes were shared using SPOD, most other options were not used. After a couple of months, we still saw some activity.	After the event OKI prepared a blog from Open State detailing their experience as scenario owners, observations from use of NL-SPOD on the day and recommendations for future community building scenarios <a href="http://routetopa.eu/social-platform-for-open-data-enabling-interactions-at-accountabilityhack-2017/">http://routetopa.eu/social-platform-for-open-data-enabling-interactions-at-accountabilityhack-2017/</a> as well as a <a href="#">Community Building</a> report and A short video detailing Open State's process i.e. in getting data.openstate.eu connected to NL-SPOD, dataset use and collaborations between teams <a href="https://www.youtube.com/watch?v=sDBGm746dQE">https://www.youtube.com/watch?v=sDBGm746dQE</a>  <a href="https://www.youtube.com/watch?v=Mvn8l-cMtg4">https://www.youtube.com/watch?v=Mvn8l-cMtg4</a>

### Scenarios focused on engaging citizens in data expeditions or data-driven discussions

Some RTPA scenarios were entirely focused on engaging citizens in using or creating (open) data. Some scenarios were initiated by municipalities (for consulting citizens on an issue), some were initiated by other organisations (Hetor, Dublinked, Issy-media). Results are very diverse ranging from creating a community of active citizens, to no participation from citizens at all.

Scenario	Year	Community building goals and activities	Findings and Impact	OKI's suggestions to improve community building efforts and results
Dublin – services in the park “Pin in the Park”	3	Engaging citizens in collecting data using the app for describing services in the parks of Dublin [1]. Online communication strategy for recruiting participants through diverse social media channels. Gamification was used to engage citizens in the scenario (system of points and prizes could be won).	Strategies to recruit citizens were not successful, there was no participation of citizens during the challenge. There was some communication about problems with the tools but help from the moderator did not result in active participation.	<a href="#">The data expedition in the “Pin in the parks”</a> scenario wasn't successful due to several issues mainly technical difficulties with the newly released SPOD app from one hand and due to the fact that participants weren't geographically close to the expedition area. However, and despite the failure of the data expedition, the feedback was used in making the app better and we suggested that the Dublin team, should meet with the city department and pitch the app (without a demo in the first stage) as we saw an important value if the city employees adopt this app as a way to report incident and flag issues when it comes to city facilities. We've also contributed in shaping the messages (design and dissemination) for the “Pin it in the parks” event.
Issy – Issy once upon a time	3	Engaging citizens in sharing old pictures of Issy and creating a dataset for encouraging interest in local cultural heritage. Several online and paper communication strategies were designed and existing local associations were contacted to get involved [1].	Communication strategies did not result in active participation by citizens. Colleagues of Issy Media did get involved, in attempts to try to engage others. Local history associations were involved in trying to understand why citizens did not participate.	OKI connected the with OpenGlam community that focuses on cultural heritage projects. However this didn't lead to engaging users and members of the open Glam in the Issy once upon a time scenario
Hetor – Data challenge on	3	Engaging citizens in creating datasets on	Very successful scenario, group of active participants.	Several efforts mainly on dissemination for communities to

cultural heritage		<p>the cultural heritage of the town. Several face to face meetings (introduction, training sessions, final event) were organised to engage and support participants. Gamification was used, and prizes could be won at the end of the data challenge [1].</p>	<p>Age diversity and intergenerational work in which young students worked with the tools and older citizens provided information on several topics. The face-to-face meetings at the public library were important to create participation and for help to be physical available, not only online. The datasets that were created are still available on the Hetor CKAN [1,2,3].</p>	<p>share cultural heritage blog posts, visualizations and co-created datasets with:<sup>[1][2]</sup><sub>[SEP]</sub></p> <p>Facebook:</p> <p><a href="#">Archaeology in Italy</a>  <a href="#">Photogrammetry for Cultural Heritage Summer School</a>  <a href="#">Open Pompei</a>  <a href="#">Cultural Heritage Blog Italy</a>  <a href="#">Italy - My Country</a>  <a href="#">Digital Education Network for Cultural Projects</a>  <a href="#">Conversations on Conservation of Cultural Heritage</a>  <a href="#">Cultural Hub - Observatory of Cultural Heritage</a>  <a href="#">Heritage Conservation Society</a></p> <p>Google Groups and Forums  <a href="#">Linked Open Data in Libraries, Archives, &amp; Museums</a></p>
Prato – WIFI scenario	2	<p>Consulting citizens in the topic of new WIFI hotspots. Initiated by the municipality and also moderated by them. Meetings were organised to inform people about this consultation and to teach about the tools [1]. How to close the consultation and to use the results is not clear.</p>	<p>The period in which citizens could get involved was very long; participation was high in the beginning, but not in the long run. Moderation was high; moderator-initiated work on the dataset with suggested new wifi point. Activities to keep citizens involved in this consultation were lacking; participation in most cases consisted of a one-time contribution (a suggestion, also with some arguments).</p>	<p><a href="http://routetopa.eu/routetopa-case-study-prato-municipality-pilot/">http://routetopa.eu/routetopa-case-study-prato-municipality-pilot/</a></p> <p>A case study was written in order to share the scenario.</p>

## 4 ACTIVITIES FOR EXTENDING AND DISSEMINATING TO OTHER COMMUNITIES

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### Background of Open Knowledge International

Open knowledge - and therefore open data - is a cross-disciplinary endeavour and needs people with diverse skills and experience, and Open Knowledge International is part of a network and works with both deeply technical and deeply specialist groups and bring them together with shared understanding for strong collaborations and community building. Open Knowledge International is part of the Open Knowledge Network - the Open Knowledge chapters are spread all over the world. Even though the chapters pledge their loyalty to the [Open Definition](#), they act completely independently from Open Knowledge International, both financially and in regards of their project focuses, since this is always embedded in the respective of the social-cultural and political context of the country. Being independent from Open Knowledge International is paramount, yet the chapters remain close ties with each other and Open Knowledge International. This expertise in community building around the world helped Open Knowledge International in shaping the community building scenarios and accompanied activities for ROUTE-TO-PA.

Over the past three years, **different approaches towards community building** were suggested and implemented by the pilot partners, along with the ongoing awareness raising efforts by Open Knowledge International to invite stakeholders to use the ROUTE-TO-PA tools SPOD and TET, contribute to ideas and share feedback. Community building efforts in that regard (elaborated in section 3.2) can be categorised as follow:

- **Scenario building & activities planning and development**  
The main characteristics of developing a scenario is that it non-academically moves in zig zags. Even with a clear goal in mind, it is not uncommon to have to recalculate the route only after a few meters into the journey. A lightweight development framework is therefore necessary that allows easy adaptations when faced with a detour, one-way-street or unexpected roadworks. In 5., we give recommendations of what project partners can do when faced with the typical obstacles that are common in Open Data projects.
- Communication and dissemination strategies
- Engagement and Awareness raising through several blog posts and social media posts & campaigns
  - [ROUTETOPA – An Introduction](#)
  - [7 ways the ROUTE-TO-PA project has improved data sharing through CKAN](#)
  - [Three ways ROUTETOPA promotes Transparency](#)
  - [Social Platform for Open Data – enabling interactions at Accountability Hack 2017](#)
  - [ROUTETOPA User Stories](#)
  - [ROUTETOPA Case Study: Prato Municipality Pilot](#)
  - [ROUTETOPA Case Study: Hetor Pilot](#)

Communities are more responsive with data expeditions, suggested scenarios and seek to be more active on the platforms. For general dissemination we have produced several blog posts and curated content about ROUTE-TO-PA projects and pilots, contributed to the Clarity interview and created regular content on social media for events such as the Barcelona Expo and scenarios and maintained an updated ROUTE-TO-PA website.

### **Keeping the community building tech tools up to date**

ROUTE-TO-PA tools SPOD and TET comprise of a number of tech features that need iterations and maintenance. The latest release of the new version of the SPOD "Zavijah" v.3.1 includes new features like the publication of co-created datasets with notes and metadata directly in the CKAN open data portal, the import of ESRI Shapefile in the Co-creation data room which allows for the visualization of maps created from geospatial data (Shapefile file) in addition to the updated Mobile App currently available for Android users.

It is important for the ROUTE-TO-PA tools to remain active after the official project time is over, otherwise these tools will become a digital ghost town and eventually obsolete. Civic tech organisations needs to take this into consideration when developing tools for connecting communities and public administrations.

We acknowledge that many not-for-profit civic tech organisations struggle with funding frameworks that don't allow them to cover resources for long-term strategies to enable them to leading a tech system to its potential by maintaining and iterating it. This problem needs to be addressed with funders who are interested in fostering and supporting civic tech tool that benefit democratic values of participating and transparency.

In the case of ROUTE-TO-PA, in order to continue the work after the project has officially ended, we need to be able to identify who will engage with the tools and what are the key incentives and motivation behind every engaging group.

Creating and understanding the requirements and needs and -based on that - creating incentives and requirements behind every group will yield to strengthening those groups and their involvement which will eventually lead to creating a strong, diverse and scalable community which will engage with the tools.

The following groups are the most likely the main users of the ROUTE-TO-PA tool:

- Municipalities
- Civil society organisations
- Citizen interest groups
- Educational institutions such as school and universities

Both existing and new members of a community need to be notified as soon as new data is available, especially when it is related to themes that they relate to or work on. This includes tailoring messages to groups of journalists or environmental activists for example who are frequent users of the tools. Finally, the most important success indicator is when the tools (including the data) you provide meet the needs of those interested in it. We will not succeed in making groups care or be interested in the data we have, just because we have it. We need to integrate our tools in their setting and contexts so their engagement will be meaningful and long lasting.

## 5 CONCLUSIONS AND RECOMMENDATIONS

Successful community building around Open Data based on technical tools, whether it happens on a local or regional level, depends on several factors. As outlined in section 4, we have listed the roadblocks, detours and one-way streets that project facilitators are most likely to be facing during a community building project that involves Open Data:

	<b><i>Factors that are likely to impede community building efforts:</i></b>	
<b>Restricted availability of Data</b>	Lack of or irregular response to data & FOIA requests and general questions by the public administrations.	Interested citizen or members of the community who are seeking information need to know: <ul style="list-style-type: none"> <li>- If the data in question can be published openly or under what Terms and conditions? (Questions around open licences)</li> <li>- with whom to follow up with after a data request is submitted?</li> <li>- In case the data can't be made available, can someone explain why?</li> </ul>
<b>Currentness of Data</b>	Outdated or irregularly updated data	Public administration should establish a data publishing workflow that allows for a standardized and automatized publishing of the data
<b>Data Quality</b>	Data that isn't published in any of the recommended Open Data formats and is therefore difficult to re-use	For the efficient re-use of the data, data users such as programmers rely on the release of data that comes in Sir Tim Berners-Lee <a href="#">5-Star-Model Open Data</a> plan gives data publishers an orientation. The more stars a data format has been assigned the more options data users have to work with the data (i.e. using the data for data analysis or building tool based on it)
<b>Lack of Metadata</b>	Problems with TET's datasets	Data without metadata doesn't produce meaning. Therefore, data publisher have to not only publish data in a excellent quality on regular basis, but also need to ensure that the metadata of the data is being provided.
<b>Internal challenge</b>	Public administrations	<ul style="list-style-type: none"> <li>- Difficulties in including other departments in the PA in the publishing of open data sets to support pilots</li> <li>- project facilitators experience time consuming communication with the public administrations and a low return of investment.</li> <li>- Pause of projects due to colliding political interests</li> </ul>
	Technical problems	Bugs and downtime with the ROUTE-TO-PA tools which might lead to less users coming back to the platform or suggesting it to others
<b>Lack of resources to sufficiently facilitate a mid- to long-term</b>		In order to produce satisfying and added-value outcomes for the community, project facilitators need to take into

<b>community building process</b>		consideration that enough resources are available to plan, implement and guide the project.
<b>Lack of data literacy skills with PAs and project stakeholders</b>		Not all PA members have the same data literacy levels.
<b>Lack of participants</b>		the number of active user varies from one pilot to the other and the current interest is only limited to specific scenarios, the users are not initiating conversation around data.

	<i><b>Recommendations for project facilitators and new adopters of the ROUTE-TO-PA tools</b></i>
<b>Activities</b>	If the facilitators intend to facilitate a community project that includes open data for fact finding and data-driven storytelling, they need to make sure that the project plan offers a sound balance between online- and offline activities
<b>Community</b>	Take part in existing community events by sponsoring them, or signing up to speak about public administration efforts, etc
<b>Workshops &amp; Events</b>	Run themed workshops regularly around different topics i.e. a diversity event on International Women's' Day, a workshop on water sources and afforestation efforts in the municipality on World Environment Day, etc to increase use of data published by the public administrations, and solidify relationship with the community. As well as running data literacy sessions for those who are interested in becoming active members working with ROUTE-TO-PA tools.
<b>Resources</b>	A permanent community help desk will guarantee the ongoing monitoring of SPOD at all times and would encourage continued engagement as well as guaranteeing that TET is constantly updated with useful and usable data. This help desk can manifest both online and offline.

The main EU [policies](#) on open data focuses on:

- Non-legislative measures to facilitate re-use
- European legislation on re-use of public sector information
- Open data portals
- Implementation of the Public Sector Information Directive

ROUTE-TO-PA tools are in line with the 4 main EU open data policies namely TET the open data portal, therefore making sure that TET remains in use and updated is really key and a step in the right direction.

#### **Future community building for ROUTE-TO-PA**

The ROUTE-TO-PA community can be substantially bigger if we manage to successfully include local groups, students, open data activists, members of international organizations such as Creative Commons or Sunlight Foundation as well as members of Open Knowledge European chapters as well as successfully integrating the recommendations for the new adopters and the facilitators. But since a community is a two-way relationship, a condition to make the community bigger is to offer the rights tools (SPOD, TET) outside the pilots' context. Using GUIDE, the exploitation strategies by the ROUTE-TO-PA working group (see D7.4 Exploitation Plan and [WWW.ROUTETOPA.EU](http://WWW.ROUTETOPA.EU) after May 31<sup>st</sup>) and future users and adopters of the ROUTE-TO-PA tools will be able to get the maximum out of all the platforms.