



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



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D7.4 Business and exploitation plan

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EXECUTIVE SUMMARY

The aim of this document is to present the business and exploitation plan of the ROUTE-TO-PA project. The document starts with a presentation of the main ROUTE-TO-PA exploitable outcomes: SPOD, TET and SIM (Section 2). When used together, SPOD (and SIM) and TET enable citizen-users, with their public administrations, to better explore datasets, discuss around open data, create visualizations, better understand them and thereby change their perception of the degree of effective transparency of Public Administrations.

The document continues by presenting the plan on how to best exploit these project outcomes. One of the main elements of this exploitation plan is the establishment of the ROUTE-TO-PA Working Group (Section 3.1), a group of individuals that are willing to continue discussions around the topic of open data and transparency for public administrations and that are willing to exploit the ROUTE-TO-PA open source tools. A preliminary list of actions is presented for the ROUTE-TO-PA working group. Another important element of the exploitation plan is the identification of the four different services (Section 3.2) that will be offered by the partners that are willing to commercialize the ROUTE-TO-PA platform (FREE, Basic, PRO, GOLD).

A marketing plan is also presented (Section 4) with the aim to identify potential exploitation activities of the ROUTE-TO-PA working group and of the partners that are interested in exploiting the ROUTE-TO-PA outcomes. The marketing plan begins by a brief overview of the public administration market (Section 4.1) and continues with a presentation of two ROUTE-TO-PA early adopters (Section 4.2) that have already paid to use the ROUTE-TO-PA tools. A competition analysis (Section 4.3) presents the main ROUTE-TO-PA competitors that are offering open data services to the public administrations. Section 4 closes with a presentation of the potential marketing and exploitation activities after the end of the project and with a SWOT analysis of the exploitation prospects of ROUTE-TO-PA. Finally, Section 5 summarizes the exploitation plans of the ROUTE-TO-PA partners.

1 INTRODUCTION AND OBJECTIVES

1.1 GENERAL BACKGROUND

The purpose of this deliverable is to present work carried out within Workpackage 7 (“Sustainability and Exploitation”) of the ROUTE-TO-PA project and more particularly to present how the ROUTE-TO-PA consortium intends to exploit the main ROUTE-TO-PA results.

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: a set of transparency enhancing toolsets or extensions for CKAN and other open data platforms (TET) and a social platform for engagement with and co-creating open data (SPOD). Within SPOD, a component, named My space, provides a feature (SIM) that allows to use data to make decision trees.

When used together, SPOD (and SIM) and TET enable citizen-users, with their public administrations, to better explore dataset, discuss open data visualisations, better understand them and thereby change their perception of the degree of effective transparency of Public Administrations.

The aim of Workpackage 7 is to identify potential business and exploitation opportunities for these important ROUTE-TO-PA outcomes and to create the plan for the sustainability of these tools after the end of the project.

1.2 METHODOLOGY AND OBJECTIVES

The ROUTE-TO-PA sustainability and exploitation plan (WP7) deals with setting up the environment for exploiting (and potentially commercializing) the ROUTE-TO-PA platform. This section presents the methodology that was implemented to realise the project’s exploitation potential, which consists of the following two phases:

- ✓ Business model exploration (presented previously in “D7.3 Business models”)
- ✓ Business model implementation (presented in the current document “D7.4 Business and exploitation plan”)

The aim of the **Business model exploration phase** (presented in “D7.3 Business models”) was to identify relevant open source business models that will increase the exploitation potential of the ROUTE-TO-PA platform. The results of this report (ROUTE-TO-PA business model) serve as input to the current deliverable, the ROUTE-TO-PA business and sustainability plan.

The **Business model implementation phase** (presented in the current “D7.4 ROUTE-TO-PA business and sustainability plan”) presents the exploitation plan of the ROUTE-TO-PA consortium and the individual exploitation plans of the project partners. The document begins by presenting the main ROUTE-TO-PA exploitable outcomes (Section 2) together with the background and foreground IPRs that are involved. It continues by presenting the plan for sustaining and exploiting these outcomes (Section 3). Towards the sustainability and exploitation of the ROUTE-TO-PA tools, the consortium decided to establish a Working Group (ROUTE-TO-PA Working Group) that will continue discussions around the open data and transparency for public administrations and will try to further exploit the ROUTE-TO-PA tools. Towards the exploitation and commercialization potential of these tools, this document further presents the services that will be offered after the end of the project by the partners interested in the commercialization of the project outcomes and a marketing plan (Section 4) that describes how these services should be better exploited to potential customers. Finally, the document ends with a summary of the individual exploitation plans of the partners of the ROUTE-TO-PA consortium.

All two exploitation phases consider contributions from project partners through two mini workshops that were conducted within project meetings, as well as through discussions that take place online, over teleconferences, and during the project meetings.

2 ROUTE-TO-PA PROJECT OUTCOMES

In this section the main ROUTE-TO-PA exploitable (“tangible”) outcomes are presented. These are the projects’ results that have been developed within the project’s life-time and have a clear exploitation and commercialization potential. The exploitation plan that we are presenting in this document aims to set the ground for the sustainability of these outcomes and aims to identify possible commercialization opportunities.

The main outcome of the ROUTE-TO-PA project is the ROUTE-TO-PA integrated platform that is composed of two main technical components SPOD (Social Platform for Open Data) and TET (Transparency-Enhancing Toolset) and also SIM that is integrated within SPOD.

2.1 SPOD (SOCIAL PLATFORM FOR OPEN DATA)

The main purpose of SPOD (Social Platform for Open Data) is to engage citizens through a “purposeful and personalized relationship” between citizens and open data, not seen only as one between government and individual citizens but between government and networks of citizens that collectively attribute meanings to this information. More specifically SPOD is **a virtual place where citizens can meet**, forming on-line communities of interests and discussing topics using open data together with Public Administrations (PAs).

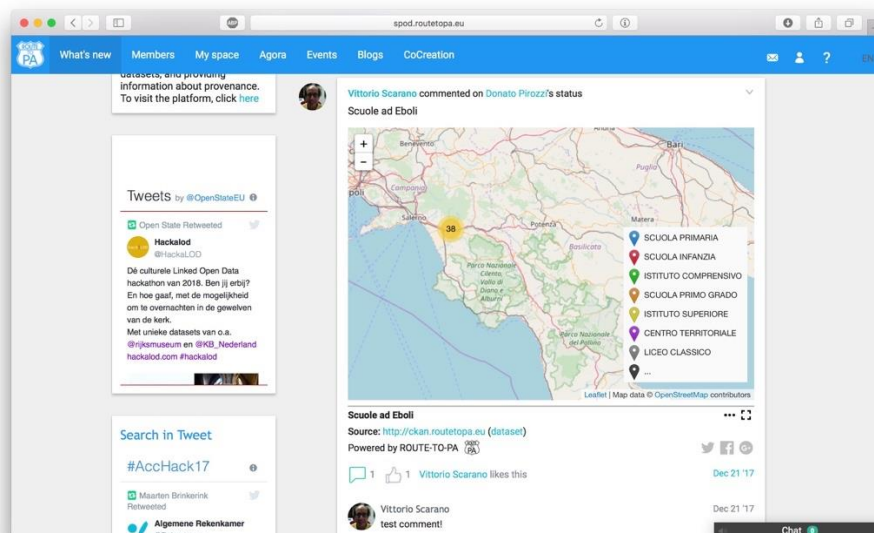


Figure 1: Social Platform for Open Data

SPOD platform enables social interactions among citizens around open datasets coming from different sources (dataset providers). Beside a traditional social network, the discussions are organized in “Public Rooms”, grouped in the Agora. Each user has also a personal space, called “My space”, where it is possible to place visualization of open datasets, URLs and notes so that they can be re-used later in discussions. Users can practice writing their status in “What's new” where all the activities of all the users are shown. Moreover, SPOD platform supports users in agile co-creation of reusable Open Data inside “Co-creation Rooms”. The platform provides tools for small groups of Open Data professionals or enthusiast that can simultaneously create an Open Data dataset publish it inside the social network or export for a wider public access.

Discussions over Open Data evolve around the so called “datalets”, which are reusable, sharable and changeable. The life of these visualizations exists also outside the SPOD environment, making it possible for a user (e.g., data journalist) to reuse the datalet along with its blog, article (see Presentation layer section). The datalets can be

statically embedded in any webpage (e.g., blog, forum, institutional website, and so on) through a copy-and-paste of its source code.

For sustainability and exploitation purposes SPOD is also available as an Android native mobile application¹. SPOD app has been developed in the last year of the project and its implementation covers the main features of the SPOD platform like Agora, Co-creation Knowledge, Data and Media rooms and Newsfeed.

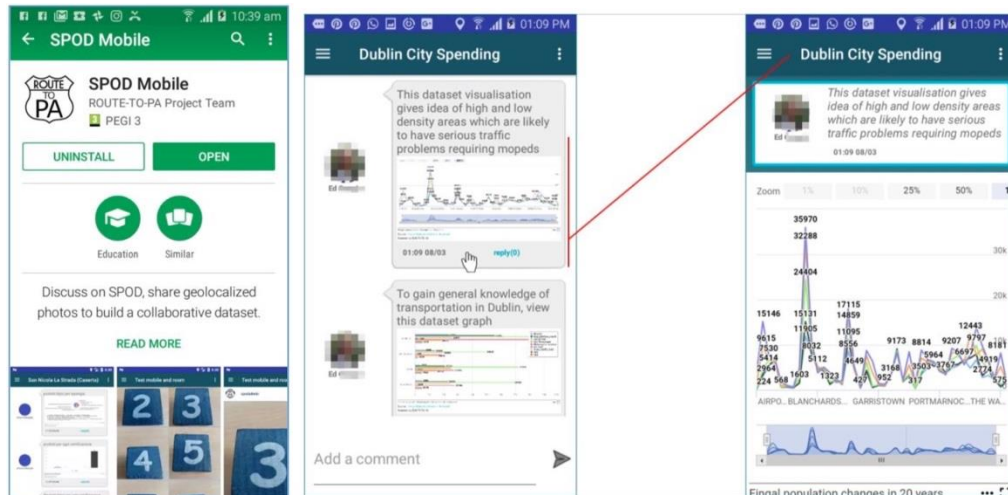


Figure 2: SPOD mobile

More information about SPOD can be found here: <https://github.com/routetopa/spod/wiki/English-version> and in the respective ROUTE-TO-PA deliverables:

- D4.1 Alpha version of SPOD²
- D4.3 Beta version of SPOD³
- D4.7 Final releases of the ROUTE-TO-PA platform
- <http://spod.routetopa.eu>
- <http://prato.routetopa.eu>
- <http://dublin.routetopa.eu>

2.2 TET (TRANSPARENCY ENHANCING TOOLSET)

TET is the **next-generation open data portal** containing set of tools that facilitate a better understanding of the data by providing connections and links to related datasets and providing information about provenance. TET is enhancing transparency through improved accessibility by personalized presentation of datasets in different formats and facilitates better understanding of these data by providing important contextual information like the metadata and provenance information as well as information on related or linked datasets.

Main function of TET within the ROUTE-TO-PA platform is related to data services: mainly the human data interactions. TET is designed to provide easy access to open data catalogues and their associated datasets usually organized in categories to facilitate their exploration. In general, TET offers:

- User friendly interface inspired by popular portals to simplify search and discovery of datasets that includes improved search experience by making it easy to discover relevant datasets (e.g. autosuggestion).
- Search results filtering: User can filter results by date, location, theme, file formats etc. and sort using different options.

¹ <https://play.google.com/store/apps/details?id=eu.spod.isislab.spodapp&hl=en>

² http://routetopa.eu/wp-content/uploads/2015/06/D4.1_Alpha_version_of_SPOD.pdf

³ http://routetopa.eu/wp-content/uploads/2017/09/D4.3_Beta_version_of_SPOD_v1.0.pdf

- Dataset preview is enriched with options that help users in better understanding the dataset and related files in single glance.
- Dataset summary provides users descriptive statistics related to the data associated with the dataset.
- Auto-generated charts and analytics.
- Datasets quality metrics.
- User readable metadata.
- Sql querying.
- Better metadata management.
- Metadata quality check/validation
- Personalization information for no-logged in users
- Datasets linking (related datasets)
- Detailed user profiles
- Personalized search and recommendation
- Recommendation for related datasets
- Tabular view and PivotTable

TET design and implementation has evolved over time as shown in version releases (latest version is TET 3.0). The final version is available in different configurations, depending on end user needs:

1. **All-in-one extension for CKAN:** The first configuration is available as an all-in-one extension of CKAN that aims to deliver rich user experience, powerful data discovery and analysis features to help users in leveraging the real potential of open data.
URL: <https://github.com/routetopa/ckanext-routetopa>
2. **Standalone application:** For **exploitation and sustainability purposes** TET is also available as a standalone application that serves as frontend or client for a CKAN backend. In order to present different views on the datasets for the users it uses APIs provided by CKAN. TET provides a set of powerful tools for discovering related datasets and facilitates user in exploring and understanding datasets stored on the data platform. TET is multilingual and supports the following languages: English, Italian, Dutch and French.
URL: <https://github.com/routetopa/tet>
3. **Set of extensions:** TET is completely configurable, and its extensions allow for the selection of specific TET functionality for a CKAN instance, i.e. all kind of analytics and visualization services available in TET.

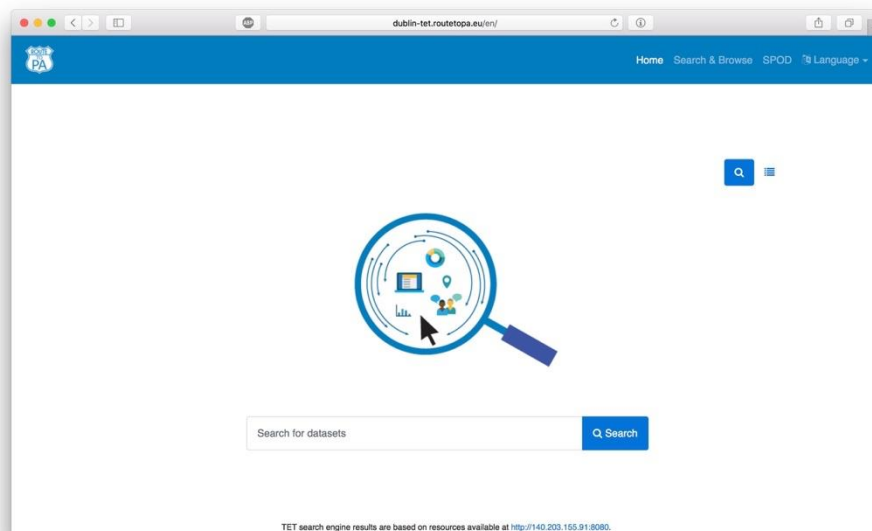


Figure 3: Transparency Enhancing Toolset

More information about TET can be found in the respective ROUTE-TO-PA deliverables:

- D4.2 Alpha version of TET⁴
- D4.5 Beta version of TET⁵
- D4.7 Final releases of the ROUTE-TO-PA platform
- <http://dublin-tet.routetopa.eu/en/>
- <http://prato-tet.routetopa.eu/en/>
- <http:// groningen-tet.routetopa.eu>
- <https://tet.openstate.eu/en/>

2.3 SIM (SILVERDECISIONS)

The main functionality and purpose of SIM module “SilverDecisions” is providing Open Data Governance Model tools for Public Administration to model stochastic decision process (also collaboratively with citizens and NGOs) and present the conclusions (decision scenarios with uncertainty) to citizens in a readable manner. SIM is integrated within the Collaboration layer of SPOD platform, a component, named My space and provides a feature that allow users to use open data to create a decision tree. Moreover, SilverDecisions is also available as a standalone open source product (<https://github.com/SilverDecisions/SilverDecisions>) that enjoys around 20.000 users around the globe.

SIM “SilverDecisions” generates decision trees that enable responsible decision making at each stage of the data life cycle (collecting, processing, sharing, analysing and using). A decision tree model describes and visualizes sequential decision problems under uncertainty in a tree-like diagram. This means that decision trees may be useful in explaining decision made by a PA having the following characteristics: (1) the decision maker takes several actions following one another; (2) the states of the world may differ based on the decisions that have already been made; (3) some decisions may result in more accurate probability estimates of those states. SilverDecisions uses a tree-like diagram presents possible decisions to be made, independent events that may happen, and the outcomes associated with combinations of those decisions and events.

⁴ http://routetopa.eu/wp-content/uploads/2015/06/D4.2_Alpha_version_of_TET.pdf

⁵ http://routetopa.eu/wp-content/uploads/2017/09/D4.5_Beta_version_of_TET_v1.0.pdf

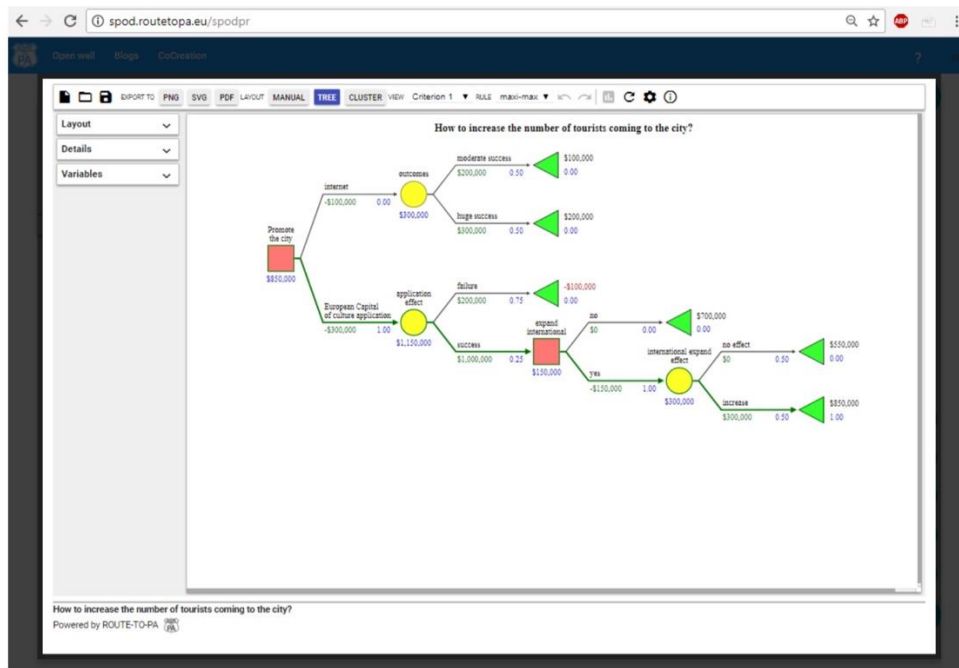


Figure 4: SilverDecisions running in SPOD

More information about SIM SilverDecisions can be found here: <http://silverdecisions.pl/> and in the respective ROUTE-TO-PA deliverables:

- D4.7 Final releases of the ROUTE-TO-PA platform

2.4 INTELLECTUAL PROPERTY RIGHTS

According to “World Intellectual Property Organization (WIPO)”⁶, Intellectual Property Rights (IPRs) are the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields. IPRs cover two main areas:

- industrial property (inventions: patents, utility models; trademarks; industrial designs and protected designations of origin), and
- copyright (represented by literary, musical, artistic, photographic and audio-visual works).

In ROUTE-TO-PA, as in every other EU research project, there are two IPR issues that need to be handled. First of all, **the management of the pre-existing know-how (background IPRs)** that exist in terms of commercialisation of the final product, and secondly **how the knowledge generated within the project (foreground IPRs) should be protected** by the ROUTE-TO-PA consortium after the end of the project. This section provides an analysis of these issues.

2.4.1 BACKGROUND IPRS

Background IPRs are Intellectual Property Rights that existed before the beginning of project and are important for the successful implementation of the ROUTE-TO-PA project. It is the knowledge held by participants prior to their accession to the Grant Agreement, as well as any IPRs which are needed for carrying out the project. In ROUTE-TO-PA, the following background IPR exists (Table 1), in the form of the current imported software from ROUTE-TO-PA, which ROUTE-TO-PA component uses it, and what its license is (see also Appendix 1 for a short description of the most important open source licences).

⁶ <http://www.wipo.int/>

Table 1: ROUTE-TO-PA background IPRs

Name	License	Component
Wordpress	GPLv2	TET
CKAN	AGPL v3.0	TET
Oxwall	CPAL 1.0	SPOD
Deep Dataletet	Jquery (MIT license) Highcharts Suite (Creative Commons (CC) Attribution-NonCommercial licence for Non-commercial use) Leafletjs (BSD-2-Clause) Datatables (MIT license) SilverDecision (GNU Lesser General Public License version 3) Camera slideshow (MIT license) TimelineJS (Mozilla Public License, v. 2.0) D3JS (BSD license) ALASql (MIT license)	SPOD (DEEP)
D3.js v4	BSD 3-clause	SIM
Math.js	Apache 2.0	SIM
i18next	MIT	SIM
lodash	MIT	SIM
Material Icons	Apache 2.0	SIM
jQuery	MIT	SIM
Pivot Table	MIT	SIM
Karma	MIT	SIM – buildtools
Gulp	MIT	SIM – buildtools
Jasmine	MIT	SIM - buildtools

2.4.2 FOREGROUND IPRS

Foreground IPRs are usually results, materials and knowledge generated in the project. They are IPRs that are generated within the project period and owned by the participant who generated them. When foreground is generated jointly, it is jointly owned, unless participants concerned agree on a different solution. In ROUTE-TO-PA foreground IPRs are divided in two categories:

- The ones that were generated within the project period and belong to the ROUTE-TO-PA Consortium such as the project logo, the project acronym, the domain name etc.
- The ones that were generated within the project period and belong to participant(s) who generated them.

For the first category (IPRs belonging to the CIPTec Consortium) we identify the following:

- The **project logo**, the **project acronym** (ROUTE-TO-PA) and the **project domain name** (www.routetopa.eu) belong to the ROUTE-TO-PA consortium. After the end of the project, the logo, the acronym and the domain name will belong to the members of the consortium that are interested in the

sustainability, exploitation and commercialisation of the project's results. The management will be in the hands of the coordinator with the support of the ROUTE-TO-PA Working Group described in Section 3.1.

For the second category (Foreground IPRs belonging to one or more partners), we identify the outcomes that have exploitation potential. All the outcomes are open source and their open source licences are presented in the Table below.

Table 2: ROUTE-TO-PA foreground IPRs

Component	Partners involved	Licensing options
SPOD	UNISA	MIT License
TET	Insight	AGPL v3.0
SIM	SGH Warsaw School of Economics	LGPL 3

3 TOWARDS ROUTE-TO-PA SUSTAINABILITY

In the previous section we presented the main ROUTE-TO-PA outcomes. The outcomes that have clear exploitation (and commercialization) potential. This business and sustainability plan document, describes the steps that the ROUTE-TO-PA consortium has made and is planning to make in the future (at least in the next two years) in order to ensure that these outcomes will be sustained, maintained and can lead to the implementation of new commercial or new funding opportunities. This plan is threefold and is composed of the following actions:

1. The development of the **ROUTE-TO-PA working group** (Section 3.1) that has been established with the aim to capture the momentum that has been generated during the project lifetime and widely exploit the ROUTE-TO-PA results while at the same time continue discussions on the hot topic of open data for transparency in public administration.
2. The development of the **ROUTE-TO-PA business plan** based on suggested business models. Here the aim is to propose a plan on how ROUTE-TO-PA individual partners can offer commercial services out of the ROUTE-TO-PA technical outcomes (Section 3.2). Towards this direction a marketing plan is also proposed (Section 0).
3. Partner's **individual exploitation plans** (Section 5) that describe how each partner intends to exploit the project outcomes and make use of the results of the project for future activities.

3.1 THE ROUTE-TO-PA WORKING GROUP

In order to make sure that the ROUTE-TO-PA tools and knowledge will be sustained and widely exploited to European stakeholders, the ROUTE-TO-PA consortium decided to form a Working Group that will take up the results, will continue working in the ROUTE-TO-PA area and will focus on sustaining the ROUTE-TO-PA developed tools.

The **“Open Data for Transparency” Working Group** (in brief ROUTE-TO-PA WG) is a group of individuals (under the umbrella of the ROUTE-TO-PA project) that are interested - from a scientific and practical point of view - on the topics that were addressed by the ROUTE-TO-PA project throughout its whole duration.

It is formed in an informal way, as a network of individuals, after the ROUTE-TO-PA project's closure and consists initially of persons that have been actively involved in all the phases of ROUTE-TO-PA contributing to the project's know-how.

The main aim of the Working Group is to capture the momentum that has been generated and exploit the project results on a voluntary basis while at the same time promote open data in EU public administrations. ROUTE-TO-PA WG intends to:

- a) Disseminate the project's results and findings to key stakeholders (Public Administrations, Policy Makers).
- b) Capitalise the outcomes of the project and seek ways of exploiting and sustaining its legacies.
- c) Provide visibility to the persons involved in the project, as well as some kind of credibility in terms of their expertise on the topics addressed by the project.
- d) Sustain the regular contact and communication among its members towards future and further Research and Innovation activities relevant to open data.
- e) Organise meet ups in European countries to discuss about open data in public administration.
- f) Organise training programmes, seminars and conferences addressed to policy makers interested in gaining the necessary background information to improve open data usage in their organisations.

This document proposes the specific objectives of the Working Group for the upcoming twenty-four months:

- To discuss the possible composition of a ROUTE-TO-PA WG manifesto (declaration).

- To discuss the management structure of the WG.
- To organise (online or offline) Working Group meetings every four months that should run according to an announced agenda that is distributed well in advance of the meeting itself.
- To exploit the project outcomes and the respective ROUTE-TO-PA deliverables. This can be achieved by presenting the outcomes to various important events and to various key stakeholders.
- To continue discussions around the broad topic of open data in public administrations. The working group will have a mailing list and a wiki where discussions around the ROUTE-TO-PA topics will take place. The mailing list will be open, and anyone can subscribe.
- To keep the project's website active by posting relevant news items and informing about the Working Group's activities. The target is to post at least 1 article per month. The names of the authors will be displayed in each post.
- To keep the project's social media accounts (Twitter, Facebook and LinkedIn) active by posting at least 2 times per month.
- To identify new research opportunities and collaboratively work on the preparation of research proposals in relation to the ROUTE-TO-PA.
- To discuss about adding new members to the working group. Experts can express their interest and the working group can discuss every six months and decide whether they should be included or not.
- To seek for sponsors that will provide financial support to the Working Group.

The ROUTE-TO-PA WP could include in next phases of its existence, other individuals that were not involved in the ROUTE-TO-PA project. This way, it could be established either formally or informally as a broader open network.

The main dissemination tools of the ROUTE-TO-PA WG will be the project's website and the project's social media accounts (Twitter, Facebook and LinkedIn).

The specific timeline for next major activities of the WG include the following:

1. The Working Group is being setup. The members and their CVs are ready and included in the project's website. (Deadline: June 2018).
2. The Working Group website is ready at the following url: <http://routetopa.eu>. The website will be restructured to accommodate the Working Group needs but the content that is already there will still exist (Deadline: June 2018).
3. Wide online and offline dissemination campaign will take place informing about the establishment of the Working Group. A press release will be created and will be sent to relevant contacts. Our aim is to inform stakeholders about our activities. (Deadline: September 2018).
4. Wide online and offline dissemination campaign of the ROUTE-TO-PA tools will take place (Deadline: September 2018).
5. The Working Group has a management structure that has been agreed by all members. Roles are being allocated to members (Deadline: September 2018)
6. The Working Group manifesto is ready (Deadline: November 2018).

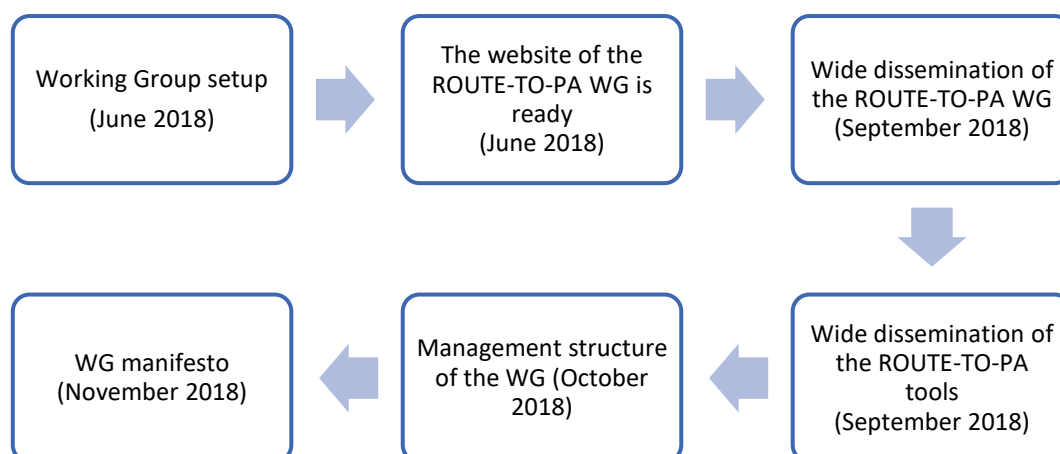


Figure 5: Timeline for important WG activities

3.2 THE ROUTE-TO-PA BUSINESS CASE

In this section we present the commercialization opportunities of the ROUTE-TO-PA project outcomes and more specifically we present the business case of the ROUTE-TO-PA platform as a whole. We describe the proposed and validated ROUTE-TO-PA open source business model and the exact services that will be offered through this business model to potential customers.

It is important to note, that since the tools are open source, a decision was taken by the ROUTE-TO-PA consortium not to propose the establishment of a new entity that will take up the results and will focus on selling ROUTE-TO-PA. On the contrary we propose a business plan that can be used by all partners interested in commercializing the ROUTE-TO-PA tools. Partners that expressed their interest on that direction are: UNISA that is already selling the ROUTE-TO-PA platform to Italian PAs, NUIG that is interested in exploiting TET and ANCITEL and Ortelio that are willing to expand the portfolio of services.

3.2.1 THE ROUTE-TO-PA BUSINESS MODEL

The way the proposed ROUTE-TO-PA business model evolved has already been described in detail in “D7.3 ROUTE-TO-PA business models”. In this section we provide a brief description of this business model that has been described using the Lean Canvas⁷ methodology. A more detailed description and analysis is included in “D7.3 ROUTE-TO-PA business models”. Below we present a short description of the Lean Canvas methodology:

When designing the Lean canvas, we start by firstly defining the **Customers**. We then move to the **Problem** that these customers have and that we are trying to solve. There is no business model without revenue. That is why we directly move to the **Revenue streams** box since we need to be able to articulate a revenue story from day one. For each problem we mentioned earlier, we need to come up with a **Solution**. We then move to the centre of the Canvas which is the **Unique Value Proposition**. The unique value proposition is a single clear statement that we make to our customers in order to get their attention. The **Channels** box is where we list our path to customers. Building a scalable path to customers is key to realizing the full potential of our business model. **Key metrics** represent the key numbers we need to track to measure the

⁷ <https://blog.leanstack.com/why-lean-canvas-vs-business-model-canvas-af62c0f250f0>

progress in our business model. Here it is important to understand and define the minimum success criteria. The **Cost structure** box describes the main costs for getting ready to enter the market (e.g. customer acquisition costs, distribution costs, hosting, people etc.). Finally, the **Unfair advantage** describes something in our solution that cannot be easily copied or bought (e.g. insider information, personal authority, dream team, existing customers, large network effect, community etc.).

As depicted in Figure 6, the main **customers** of ROUTE-TO-PA are Public Administrations (more information about the market segmentation can be found in Section 4.1). These are the customers that are willing to pay to use our services. The **problem** that our customers have is that despite the growth of open data sector, they are still lagging behind open data use. Their datasets are not of high quality and usually inconsistent and most of the times are unclear or too generic. There is also a lack of tools to facilitate the comprehension and transparency of their open data (if they have). We propose the integrated and validated ROUTE-TO-PA platform as a **solution** to the above-mentioned problems in order to improve citizen engagement, reduce costs for PAs and increase the quality of open data while in parallel promote innovation and development of new services around open data. Since our solution is open source, the proposed **revenue streams** (that we will also describe in detail in the next section) are:

- ✓ Software as a Service where our customers can subscribe and can access their ROUTE-TO-PA instance online and,
- ✓ Professional services where our customers will be offered services such as support, maintenance, consultation, training etc.

The **unique value proposition** of the ROUTE-TO-PA platform is the provision of high-quality open data while in parallel we reduce administration costs and engage citizens. When used together, SPOD and TET enable citizen-users, with their Public Administrations, to discuss around open data (using visualisations), to better understand data and thereby change the degree of transparency of Public Administrations.

The detailed business model, as depicted in the Lean Canvas template is presented in Figure 6 below.

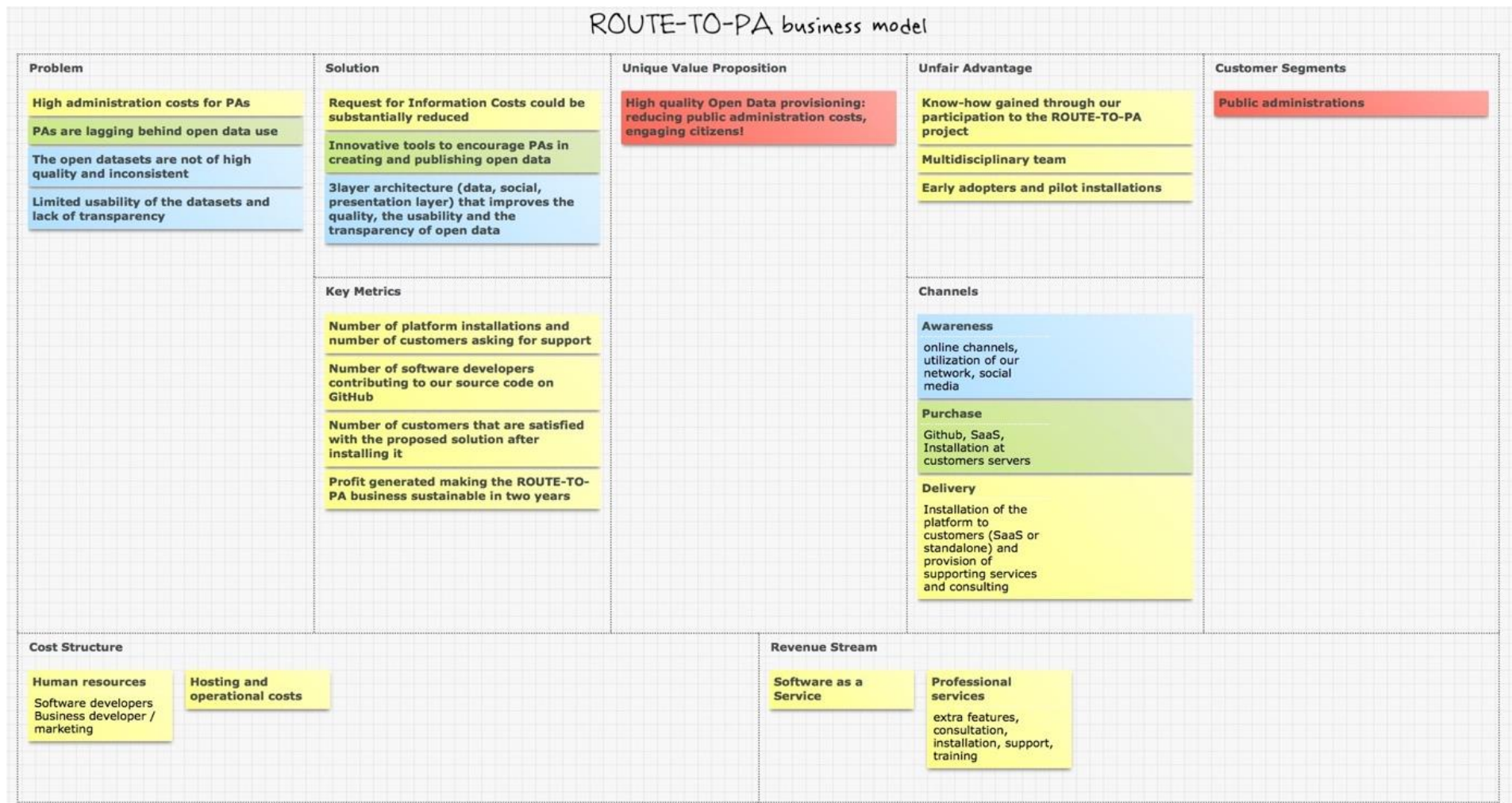


Figure 6: The ROUTE-TO-PA business model

3.2.2 THE ROUTE-TO-PA SERVICES

In this section and in line with the proposed business model, we present the ROUTE-TO-PA services (Revenue Streams) that will be offered after the end of the project through the ROUTE-TO-PA WG website by the partners interested in exploiting the project results. For sustainability, exploitation and commercialization purposes, the ROUTE-TO-PA consortium decided to continue offering the following four different types of services:

- ✓ **FREE version:** an online version of the ROUTE-TO-PA platform where anyone can register and use.
- ✓ **BASIC version:** the open source code available at the ROUTE-TO-PA Github account.
- ✓ **PRO version:** the Software as a Service version of the ROUTE-TO-PA platform that is offered for a certain fee.
- ✓ **GOLD version:** the paid professional services including deployment, customization, support, maintenance etc.

These four different services are described in detail below:

3.2.2.1 FREE VERSION

The Free version of the ROUTE-TO-PA platform is available at: <http://spod.routetopa.eu> and at: <http://tet.routetopa.eu>. It is an online version that incorporates SPOD (including SIM) and TET. It is a fully functional installation, and anyone can login, create communities, upload datasets etc. The free version of the online ROUTE-TO-PA platform is hosted and maintained by the ROUTE-TO-PA Working Group (more specifically SPOD is maintained by University of Salerno, TET by Insight Centre for Data Analytics and SIM by Warsaw School of Economics). For sustainability and exploitation purposes, this installation will be available for at least 3 years after the end of the project.

The decision for the FREE version was taken by the ROUTE-TO-PA Working Group and it is considered as an important asset towards the goal of the sustainability and exploitation of the ROUTE-TO-PA tools. The FREE version is a complete working example of the ROUTE-TO-PA platform, accessible from all users (through registration or from Facebook), and also from organisations that can have an "organisation" set up on the TET for publication. In this way, ROUTE-TO-PA will continue offering the service to several communities that want to keep working on the platform, in a centralised version.

3.2.2.2 BASIC VERSION

The Basic version of the ROUTE-TO-PA platform is open source and available at the following GitHub account: <https://github.com/routetopa/> (Figure 7). From the early stages of the project and for exploitation and sustainability purposes, the consortium decided that all the code of the platform will be available online to a GitHub account. Installation instructions and detailed documentation are available (Figure 8) for anyone that wishes to download, install and further develop the platform.

For organisations that are interested in installing and successfully maintaining the open source ROUTE-TO-PA platform, the following internal costs should be considered:

- ✓ **Development** effort is needed for installing and maintaining the ROUTE-TO-PA platform. (Technical personnel estimated: 4-5 days).
- ✓ **Data protection officer** is needed for managing all the ethical issues with regards to the protection of personal data (compliance of the platform to the GDPR etc.).
- ✓ **Community manager** is needed for engaging users and communities and for managing and monitoring the platform on almost daily basis (for the success of the platform one part time person should be appointed). One of the main lessons learnt from WP5 is that the engagement of new users should be

attempted through mobilising existing contacts, thinking about additional user scenarios that would benefit communities. Recruiting new users will be most successful if these users are approached through an existing community, not as individuals. More details on community building can be found in “ROUTE-TO-PA D5.4 Community building”.

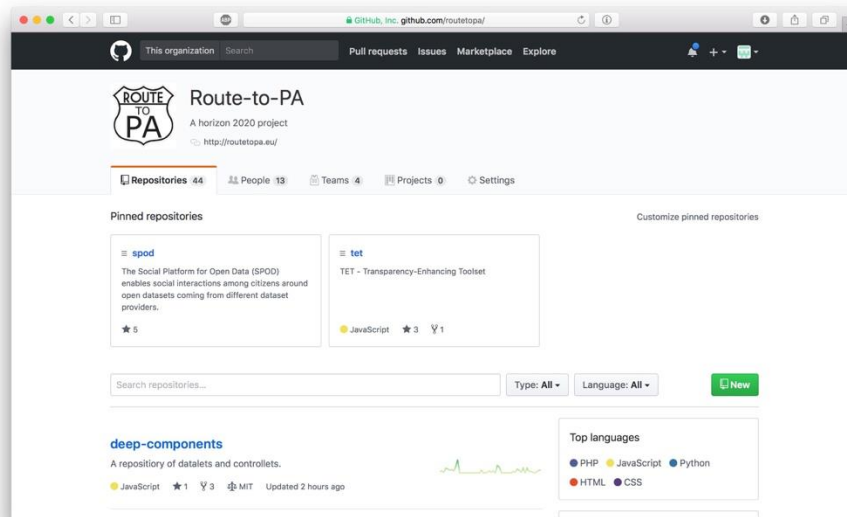


Figure 7: The ROUTE-TO-PA GitHub account

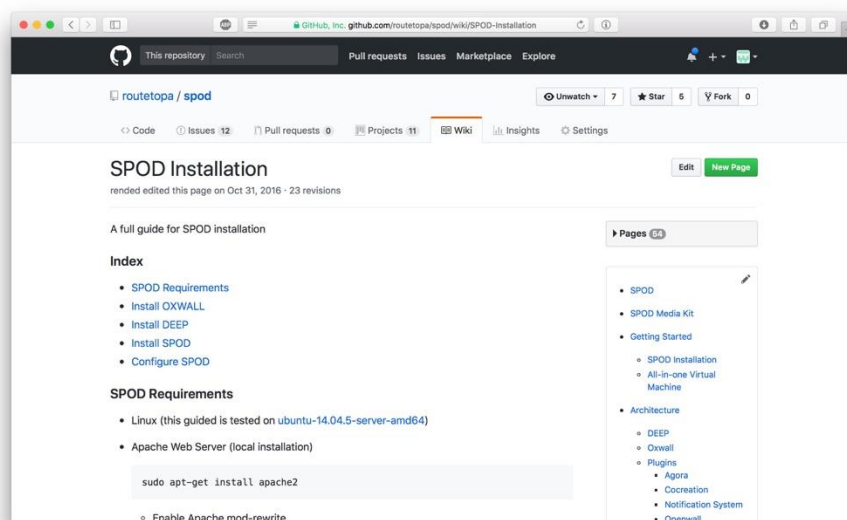


Figure 8: SPOD installation instructions

3.2.2.3 PRO VERSION

ROUTE-TO-PA Pro version is the SaaS (cloud) version of SPOD and TET. Customers can subscribe and select to install SPOD or TET or both. This is a comprehensive solution that incorporates the latest versions of SPOD (including SIM) and TET and incorporates the following services:

- ✓ Installation and deployment of SPOD and TET to a desired url.
- ✓ Customised layout (colours, fonts etc.).
- ✓ Upgrades to new versions (new versions are updated and include social platform, plugins and cumulative bug fixing and every new feature that will be developed by the ROUTE-TO-PA developers).

- ✓ Technical support (email only - max 12 emails per year). Extra technical support is provided at extra fee.
- ✓ Hosting (Amazon Web Services).
- ✓ Remote personnel training (8 hours).

With this solution customers can focus on publishing data and engaging communities without having to deal with technical tasks. For customers, especially when talking about small and medium size public administrations, software renting offers more possibilities for price negotiations and for varying the usage terms and contract length. The total software costs are also predictable and contractually defined, so there are no hidden costs related to the software, and the PAs know the financial resources that must be allocated during the contract.

The proposed cost model for the ROUTE-TO-PA PRO version is presented in the table below. Bear in mind that this is a proposed cost model. It has been subject to discussions between technical partners, pilots and business partners and reached to an initial agreement. The justification of these costs is presented in Appendix 2.

Table 3: Cost structure for the ROUTE-TO-PA PRO service

Up to 100 active users ⁸	Up to 300 active users	Up to 1000 active users	>1000 active users
One-time activation (includes installation and deployment) 790€	One-time activation (includes installation and deployment) 790€	One-time activation (includes installation and deployment) 790€	One-time activation (includes installation and deployment) 790€
Annual fee for hosting and maintenance 1090€ / year	Annual fee for hosting and maintenance 1290€ / year	Annual fee for hosting, maintenance and support 1690€ / year	Annual fee = Get a quote
(895€ / year for SPOD only or for TET only)	(1095€ / year for SPOD only or for TET only)	(1495€ / year for SPOD only or for TET only)	

Extra services include:

- ✓ **490€** for one-time installation and deployment of SPOD mobile
- ✓ **990€** remote support and remote training on SPOD and SPOD mobile, for 150h/year maximum
- ✓ SPOD training in Salerno University: max 8 persons, **500€** per full day (8h), with minimum 2 days, maximum 5 days. SPOD training on-site: **get a quote**.

Extra costs that should be taken into account by our customers:

- ✓ **Community manager** is needed for engaging users and communities and for managing and monitoring the platform (for the success of the platform one part time person should be appointed).

As we can see, the price is dependent on the active users because different Amazon cloud instances will be appointed in every case. Active users are counted based on the following KPIs:

- ✓ Number of users uploading content
- ✓ Number of users participating actively in the discussions

The costs include one-time activation fee which is the cost for deploying and installing the ROUTE-TO-PA platform to the customer's desired url and a fee for maintenance that includes hosting, technical support, training etc.

3.2.2.4 GOLD VERSION

⁸ It was a debate between the partners of the consortium on whether we should develop a cost structure based on the active users of the platform or on the population of the government agency. We thought it was better to do it by active users since the only differentiation between the costs is the webserver that will be deployed for serving the needs of the customer. The webserver is totally dependent on the active users that will be using the platform.

In the GOLD version the ROUTE-TO-PA platform is extended based on the customer's requirements. Customers can select to install and extend SPOD or TET or both. They can select to install the platform on their servers or on the cloud. This is a comprehensive solution that includes design, development, server setup, deployment, hosting, maintenance, management and support. In this version, technical and administrative tasks are taken care allowing customers to focus on publishing data, not battling with IT and management. The costs here are dependent on the requirements that the customers might have. It is important to note that University of Salerno has already signed a contract for offering the GOLD version to two public administrations in Italy. The details of these services are described in Section 4.2.

Table 4: ROUTE-TO-PA services

FREE Online	BASIC Open source	PRO Cloud platform	GOLD On demand
SPOD / TET	SPOD / TET	SPOD / TET	White labelling
Default layout	Default layout	Customised layout	Core + customised functionality
Full functionality (latest version)	Full functionality (latest version)	Installation / Deployment	Server setup
SPOD mobile	SPOD mobile	Hosting	Hosting
Documentation	Installation guidelines	Maintenance and upgrades to newest version	Management and support
	Documentation	email support	email and telephone support
		Free data export for migration	onsite training
		SPOD mobile (*)	
Pricing	Pricing	Pricing	Pricing
Free	Open source	One time activation 790€ (SPOD 395€ + TET 395€) Plus, maintenance costs: <ul style="list-style-type: none"> • 1090€ / year (up to 100 active users) • 1290€ / year (up to 300 active users) • 1690€ / year (up to 1000 active users) • Get a quote for > 1000 active users 	Get a quote
*Plus €490 one-time fee for installing SPOD mobile			

4 ROUTE-TO-PA MARKETING PLAN

We have already described the ROUTE-TO-PA outcomes and the plan to exploit these outcomes by mentioning the services that will be offered after the end of the project. In this section we intend to present a plan for potential marketing activities for the ROUTE-TO-PA platform. The ROUTE-TO-PA Working Group will have an important role in realizing this marketing plan. Having already described the services that will be offered, we present an overview of the main ROUTE-TO-PA customers that we should target with our exploitation activities, we give an overview of the competition and finally we present the marketing activities that should be conducted in the next two years for improving the commercialization potential of the ROUTE-TO-PA platform.

4.1 MARKET OVERVIEW

In this section we provide a brief overview of the Public Administration market segmentation in Europe in order to better understand in the PAs where we should target our exploitation, dissemination and marketing activities after the end of the project.

In the table below, we can see the average population sizes of municipalities in Europe. With the exception of the Netherlands, Ireland and UK we observe that large areas of other European countries are dominated by small and medium sized municipalities.

	Number of Municipalities	Population (2018)⁹	Average Number of Inhabitants per municipality
United Kingdom	419	65,648,054	156,678
The Netherlands	390	17,064,682	43,755
Ireland	126	4,786,562	37,988
Poland	2,479	38,131,648	15,382
Italy	7,958	60,589,445	7,614
France	36,658	65,129,822	1,776
Finland	313	5,534,655	17682
Austria	2100	8,745,151	4,164
Germany	11,313	82,220,424	7,267
Greece	325	11,149,330	34,305
Denmark	98	5,745,874	58,631

⁹ Statistics taken from the Eurostat site (http://ec.europa.eu/eurostat/statistics-explained/index.php/Main_Page) and Comuniverso site (<http://www.comuniverso.it>).

In recent years national governments in Europe have devolved a number of powers and responsibilities to local governments. In addition, there has been in many areas a **push for more unions between local authorities** to use more effectively the available resources. Indeed, in France, municipal cooperation is a crucial part of the national government strategy, considering the large number of “micro-municipality”. Practically speaking in every country, given the reductions in funding and support, local authorities don't really have any alternatives other than **collaboration**.

ROUTE-TO-PA could work with interested regional and provincial institutions or with Union of Municipalities, or at least one of the Metropolitan areas, each in turn would involve their network of institutions. The strategy behind any eventual marketing and dissemination should probably reflect a process of “indirect dissemination” through larger organizations and a selected number of government associations in each country. While the dissemination models will differ from country to country, depending on both the systems of government and the interests of the stakeholders, most municipalities lack the resources and are too small to manage by themselves the ROUTE-TO-PA platform. A SaaS service managed by a larger entity (region, province, or even a local university or research institution) could be more practical where even the smaller municipalities could be included.

The case of Italy / example of market segmentation

The total population of Italy is 60,589,445¹⁰. The total number of municipalities in Italy is **7,954** (Figure 9). The average resident population in Italian municipalities is 7,614 inhabitants. Some 5,536 municipalities have less than 5,000 inhabitants; in other words, around 70% of Italian municipalities are very small in size. Many municipalities are pooling their resources to be able to meet the increasing demands for public services.

Classi demografiche	Numero Comuni		Popolazione residente (Istat 2017)	
	v.a.	%	v.a.	%
0 - 1.999	3.465	43,56	3.277.582	5,41
2.000 - 4.999	2.071	26,04	6.679.558	11,02
5.000 - 9.999	1.192	14,99	8.425.656	13,91
10.000 - 19.999	705	8,86	9.741.561	16,08
20.000 - 59.999	417	5,24	13.724.403	22,65
60.000 - 249.999	92	1,16	9.473.794	15,64
> 250.000	12	0,15	9.266.891	15,29
Italia	7.954	100%	60.589.445	100%

Figure 9: Italian municipalities by population

Currently there are **537 active Municipal Unions** (called: Unioni di Comuni) with 3,095 municipal members, that is, approximately 39% of the total number of municipalities. Only **17 of these Unions have more than 100,000 inhabitants**. 8 larger municipal unions have more than 20 municipal members.

Municipal Unions are important as they have banded together to pool their resources. This indicates that would probably have the resources and interest in exploring new methods and technologies. One target for the ROUTE-TO-PA exploitation and marketing activities could be the municipal unions that have more than 16 municipalities as members. It is also possible to consider as a target the 96 municipalities that have the status of provincial capital. In addition, one could cross check larger municipalities with economic associations (like those created to manage wine and olive oil production) to identify 1-2 possible targets.

¹⁰ <https://www.istat.it/en/archive/population+register>

Regione	Provincia	Unione dei Comuni	Numero Comuni ▲	Popolazione (Istat 2017)	Superficie (kmq)
Piemonte	Cuneo	Montana Alta Langa	38	18614	455,97
Piemonte	Vercelli	montana della Valsesia	27	32075	780,85
Piemonte	Biella	montana del Biellese Orientale	24	39074	286,50
Piemonte	Torino	montana Valle Susa	22	67910	419,59
Friuli-Venezia Giulia	Udine	della Carnia	22	33669	981,14
Piemonte	Torino	montana Valli di Lanzo, Ceronda e Casternone	21	36324	477,53
Sardegna	Oristano	Alta Marmilla	20	9947	347,95
Friuli-Venezia Giulia	Pordenone	delle Valli e delle Dolomiti friulane	20	33066	1127,29
Sardegna	Sud Sardegna	della Marmilla	18	25084	415,16
Piemonte	Verbania	montana delle Valli dell'Ossola	18	46785	616,26
Piemonte	Cuneo	montana delle Valli Mongia e Cevetta-Langa Cebana-Alta Valle Bormida	18	11775	235,58
Veneto	Belluno	Montana Agordina	16	19147	658,48

Figure 10: Municipal Unions in Italy with more than 16 municipalities as members

Using the site noted below for demographic statistics¹¹, 14 metropolitan areas can be identified in Italy. According to Wikipedia¹², Metropolitan areas usually refer to a region consisting of densely populated area and its surrounding territories, sharing industry, infrastructure, and housing. As social, economic, and political institutions have evolved over time, these metropolitan areas have become key economic and political regions. The metropolitan city of Roma Capitale, of course, is the biggest one. These 14 metropolitan areas will be important, given the number of municipalities (1274) and residents, as possible targets for any dissemination or marketing action.

Regione	Città metropolitana	Comuni	Superficie (kmq)	Popolazione (Istat 2017)	Densità demografica (ab/kmq)
Lazio	Roma	121 Comuni	5363,28	4353738	811,77
Lombardia	Milano	134 Comuni	1575,65	3218201	2042,46
Campania	Napoli	92 Comuni	1178,93	3107006	2635,44
Piemonte	Torino	316 Comuni	6827,01	2277857	333,65
Sicilia	Palermo	82 Comuni	5009,28	1268217	253,17
Puglia	Bari	41 Comuni	3862,88	1260142	326,22
Sicilia	Catania	58 Comuni	3573,68	1113303	311,53
Toscana	Firenze	42 Comuni	3513,69	1014423	288,71
Emilia-Romagna	Bologna	55 Comuni	3702,32	1009210	272,59
Veneto	Venezia	44 Comuni	2472,91	854275	345,45
Liguria	Genova	67 Comuni	1833,79	850071	463,56
Sicilia	Messina	108 Comuni	3266,12	636653	194,93
Calabria	Reggio Calabria	97 Comuni	3210,37	553861	172,52
Sardegna	Cagliari	17 Comuni	1248,68	431430	345,51
Totale		1.274	46.639	21.948.387	470,61

Figure 11: The 14 metropolitan areas of Italy

Since most metropolitan areas include multiple jurisdictions and municipalities (for instance, 121 municipalities are associated with Rome), we should consider the **metropolitan areas in EU countries** as of priority interest in terms of dissemination and marketing possibilities. These metropolitan areas already are expected by law in terms of digitalisation efforts to help municipalities in their areas.

Aside from metropolitan areas, there are 96 municipalities that are provincial capitals. In addition, there are approximately 90 municipalities that are not provincial capitals and have more than 50.000 inhabitants. The municipal unions in Italy are currently 537. Those **municipalities with more than 50.000 inhabitants** are probably the most likely to have the social and economic resources to be interested in what ROUTE-TO-PA has to offer. As noted above the majority of Italian municipalities are small and lack the resources to be able to manage the ROUTE-TO-PA platform. The situation doesn't change substantially in other EU countries. The majority of municipalities in the EU are small and medium sized in population.

¹¹ <http://www.comuniverso.it>

¹² https://en.wikipedia.org/wiki/Metropolitan_area

Last but not least, it is important to remember the problem of education and awareness among local officials and employees. Many of them do not share or understand the ROUTE-TO-PA concerns or they just do not have much money in the budget to do much.

Future exploitation perspectives

In addition to working with public administrators, in ROUTE-TO-PA we also developed scenarios in citizen contexts with no direct involvement of public administrators, although there was a longer-term perspective, or a general consent by local or regional authorities. During the project many ideas came up about possible applications of open data activities with the ROUTE-TO-PA tools that could be exploited by citizens, for example for the benefit of cultural heritage. These are issues that the Working Group will further discuss and exploit.

4.2 EARLY ADOPTERS

It is important to note that another great step towards the exploitation and commercialization of the ROUTE-TO-PA platform has already been made by the ROUTE-TO-PA coordinator, University of Salerno. University of Salerno has managed to sign two GOLD version contracts for supporting two Public Administrations: “Regional Council of Campania” and “Regional Campania Government”.

More details about these contracts can be found below:

4.2.1 REGIONAL COUNCIL OF CAMPANIA

Service offered

- ✓ Hosting of the platform on Salerno premises
 - Installation,
 - Maintenance,
 - Support
 - Daily/Weekly Backups
 - Updates to new versions
- ✓ Extensive training on customers premises (6 full days), remote support e-mail phone/skype (1 day / week), training on Salerno site (2 days)
- ✓ Production of specific documentation, translations
- ✓ Extra functionalities required for guided export, quality check, standard compliance
 - Requirements elicitation
 - Design
 - Implementation
 - Testing on site
 - Bug fixing

Duration of the contract

The overall contract with the Department was signed on December 2016 and covers up to June 2019. Each year specific services, with a service rate, is defined, through an operational agreement. The current operational agreement was signed in Dec. 2016 and covered all 2017 (and extended to the first half of 2018). Another contract for late 2018-mid 2019.

Total costs

The Operation Agreement was 40000€ cost (for 18 months duration)

Extension

Currently negotiating the extension until 2019, for a cost of approximately the same amount (i.e. 30k€-40k€).

4.2.2 ALMAVIVA S.P.A (FOR A CONTRACT WITH REGIONE CAMPANIA GOVERNMENT)

Service offered

The planned services (as the contract is currently being signed) are the following:

- ✓ Management of the platform on Regione Campania cloud premises
 - Installation
 - Maintenance
 - Support
 - Updates to new versions
- ✓ Integration with the Regione Campania Authentication server
- ✓ Integration of services in the ITER platform, for publication of datasets
- ✓ Extensive training on customers premises (10 full days), remote support e-mail phone/skype (1 day / week)
- ✓ Production of specific documentation, translations
- ✓ Extra functionalities required for dataset enrichment, advanced quality check
 - Requirements elicitation
 - Design
 - Implementation
 - Testing on site
 - Bug fixing

Duration of the contract

The contract with the Department is currently being signed (approved in the Department of Computer Science Meeting of May 14th 2018) by Al maviva. The duration is up to June 2019.

Total costs

The Operation Agreement was 60000€ cost plus taxes (for 12 months duration).

4.3 COMPETITION LANDSCAPE

In this section, we present the most important ROUTE-TO-PA competitors; software products or companies that are offering public administration services which deal with open data, and are similar to ROUTE-TO-PA. We did a thorough literature review and we also reviewed all technologies that appear in the OGP toolbox¹³. The OGP Toolbox is a collaborative platform that gathers digital tools developed and used throughout the world by organizations to improve democracy and promote transparency, participation and collaboration. The platform aggregates software and services used by governments and civil society around the world for referencing, sharing and re-use. Examples are open data portals, public consultation platforms, tools for monitoring and co-creating legislation, discussion forums, civic tech solutions, and online platforms to monitor the implementation of National Action Plans.

In the competition analysis we found that there exist:

- ✓ Third parties that are offering hosted services using their own software, such as Socrata¹⁴, OpenDataSoft¹⁵ and OpenGov¹⁶.

¹³ <https://ogptoolbox.org/en/>

¹⁴ <https://socrata.com>

¹⁵ <https://www.opendatasoft.com>

¹⁶ <https://opengov.com>

- ✓ Companies that are based around open source software, such as Datapress¹⁷, Viderum¹⁸ and Link Digital¹⁹ (which offer services around CKAN).

Third party hosted solution model is used by several European portals, mainly on the regional and local level. One of the main benefits of third party hosted solutions is the **low costs** associated with the installation and maintenance since these services are designed to be user-friendly and they do not require a high level of specialist skills. Customers also benefit from a **single cost** in being able to effectively forecast a budget for the cost of technical hosting for set periods of time. Lastly, these services often offer a large number of **features** for portals as part of the core offer: for instance, OpenDataSoft provides APIs over tabular datasets, whilst Socrata offer visualization tools for their users.

However, portals using third party hosted solutions may also be **limited in their flexibility and independence**. In particular, there may be a limited number of solutions or features that a portal can access, or portals may require the cooperation of the third party in order to implement any technical changes. For instance, the use of a hosted solution has prevented one of the survey respondents from implementing necessary changes, as the portal provider owns the platform and user experience. Furthermore, in the long-term, this limited independence may result in a dependency on the tools and APIs of external suppliers. In terms of financial sustainability, this reliance on one external company in a limited marketplace of suppliers, may risk portals becoming somewhat dependent on the goodwill of hosting companies not to raise their prices.

Consequently, use of third party solutions offers a number of benefits for portals in lowering costs, but must be balanced with the negative impact of some limited flexibility and independence.

On the other hand, customers may decide to use **open source software** directly such as CKAN. A European Data Portal report²⁰ found that all national portals they surveyed adopted CKAN, whereas regional portals tended to use a mix of Socrata (third party host) and CKAN.

The **setup costs** associated with using open source software are relatively **low** since the software is available for free. Furthermore, open source software allows customers to benefit from the development work done by other similar platforms that use the same software e.g. an improvement and a new feature in a CKAN instance can benefit other CKAN instances as well.

However, portals using open source software are likely to have more **complex costs**. This is because skilled people are required in order to deploy and maintain this software that in many cases will require higher salaries. Furthermore, the fact that open source platforms might be less user-friendly (lack of good documentation etc.) may mean investing in training more widely. This has implications in the total expected costs. Finally, there is a **lack of ability to forecast future costs**. Governments using open source software may be subjected to unexpected issues and the costs associated with them. Consequently, governments using open source software may find it more difficult to accurately plan the overall costs of developing and maintaining the portal.

In the competition analysis it is important to mention data.world, a social network focused on assisting data scientists in managing their data and in collaborating. Data.world is a single installation where users can register and upload their datasets and collaborate. Though the customers of data.world are not public administrations it is important to review its business model since it is very similar platform to SPOD. A more detailed description of the main ROUTE-TO-PA competitors is presented in the following tables.

Competitor name: data.world	http://data.world
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¹⁷ <https://datapress.com>

¹⁸ <https://www.viderum.com>

¹⁹ <https://linkdigital.com.au>

²⁰ https://www.europeandataportal.eu/sites/default/files/edp_s3wp4_sustainability_recommendations.pdf

<p>Description: Data.World is a social network geared toward helping data scientists connect. Data.World looks a lot like Facebook. Each user gets a profile with a picture and their name and the ability to upload data sets. There is also a “feed” component. Rather than people, Data.World allows users to follow specific data sets. Users can search for, copy, analyze, and download data sets. Uploading data to Data.World means the data are in one central place and format and can therefore be easily combined, a traditionally difficult task. Data scientists can also connect by commenting on data sets – much like friends communicate on Facebook. Though, at the moment there isn’t any direct messaging capability.</p> <p>The following statement is taken from the Data.world website: Data.world is helping people who work with data to solve problems faster by creating new ways to discover, prepare, share and collaborate. The main purpose of data.world is to (a) strive to build the most meaningful, collaborative and abundant data resource in the world in order to maximize data's societal problem-solving utility, (b) advocate publicly for improving the adoption, usability, and proliferation of open data and linked data, and (c) serve as an accessible historical repository of the world's data.</p> <p>Founded in 2015, Data.world’s total amount of investment to date is \$32.7 million. The startup currently has 34 employees.</p>	
<p>The problem: The problem data.world is trying to solve is the fragmentation of data. There are 18 million open data sets, but they are often stored in different places, aren't machine-readable and take considerable time to understand and analyze.</p>	
<p>The solution: Data.world wants to solve these problems by establishing a platform that is part social networking site, part data aggregator. The company wants to become a central repository for open data sets, but also make it easier to find, understand and analyze the data.</p>	
<p>The company: Data.world is a public benefit corporation (rare for a tech company) and its main goal is to be a transformative network for solving world problems than it is about growing revenue in the short-term.</p>	
<p>Business model: Data.world plans to make money by charging companies or organizations for the ability to have "private" accounts that allow them to keep their data a secret. Most of its users won't have to pay anything. The service is free unless users want to store data in a private workspace. This is similar to GitHub's business model.</p>	
<p>Data.world vs ROUTE-TO-PA</p> <p>Similarities:</p> <ul style="list-style-type: none"> Both are platforms with social characteristics (timeline, friends/followers) that aim to assist in discovering, creating and sharing open data. In both platforms, users can co-create datasets. Users can upload new open or private datasets and can collaboratively create new datasets (projects). You can invite others and you can collaborate to create new datasets. <p>Differentiations:</p> <ul style="list-style-type: none"> ROUTE-TO-PA is an open source platform that can be installed by anyone. Data.world is not open source and it cannot be installed by others. It is a single installation, a one-stop access point to open datasets. In that respect, we also have a completely different business model. 	

Competitor name: CKAN	http://ckan.org
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Description: CKAN is a tool for making open data websites. It is similar to a content management system like WordPress – but for data, instead of pages and blog posts. It helps organisations to manage and publish collections of data. Once data is published on CKAN, users can use its faceted search features to browse and find the data they need, and preview it using maps, graphs and tables – whether they are developers, journalists, researchers, NGOs, citizens, or even your own staff.

The problem: Making data open involves practical as well as policy steps – data actually needs to be made available online in ways that ensure it is easily findable and usable.

The solution: An open source open data platform that makes it easy for governments, companies and other organisations to make their data open, online, and accessible.

The company: Open Knowledge International is a global non-profit organisation focused on realising open data's value to society by helping civil society groups access and use data to take action on social problems. Open Knowledge International is a worldwide network of people passionate about openness, using advocacy, technology and training to unlock information and enable people to work with it to create and share knowledge.

Business model: CKAN is open source. It can be downloaded and installed by anyone that is interested in developing an open data website. Customers can acquire commercial support for their CKAN installation. There are three companies that offer this kind of support in the European Union, in the United States and in Australia:

- **Viderum²¹ Ltd.** is an open data solutions provider spun off from Open Knowledge (i.e. it is owned by Open Knowledge). Viderum provides services and products for governments, institutions, and local authorities to publish open data. Specifically, they offer low-cost CKAN hosting on a scalable cloud-based infrastructure, CKAN technical support, custom open data website and CKAN extension development, and technical consulting related to open data.
- **OpenGov²²** was founded in 2012. The team observed dedicated public servants struggle against outdated technology that prevented them from accessing timely spending information and communicating their priorities to citizens and elected officials. Believing there was a better way, the team set out to build cloud-based, easy-to-use government performance solutions to power more open, effective, and accountable government. Today over 1,500 public agencies in 48 states form a growing network leveraging OpenGov's Smart Government Cloud to achieve better budgeting, improved reporting and operational performance, and comprehensive transparency and open data. OpenGov solutions drive impact by giving governments the right tools and relevant data for more informed decision-making and better outcomes for the public.
- **Link Digital²³** is a Canberra based digital agency that has been providing quality web design, development and consulting services to an extensive list of government, commercial and non-profit clients since 2001.
- **DataPress²⁴** connects open data publishers with their local communities. It is built with CKAN, its engagement platform powers the London DataStore²⁵, the Leeds Data Mill²⁶ and the Amsterdam Open Data²⁷.

²¹ <https://www.viderum.com>

²² <https://opengov.com>

²³ <https://linkdigital.com.au>

²⁴ <https://datapress.com>

²⁵ <https://data.london.gov.uk>

²⁶ <https://datamillnorth.org>

²⁷ <https://data.amsterdam.nl>

Customers: It is used by national and local governments, research institutions, and other organizations who collect a lot of data. Numerous organisations and developers now use and contribute to CKAN, making it a better product and a sustainable technology ecosystem.

CKAN vs ROUTE-TO-PA

One big difference is that CKAN does not offer the social and the co-creation features that SPOD offers. On the other hand, comparing CKAN and TET (that is an extension of CKAN) we can argue that TET extends the functionality of CKAN in the following ways:

Content management system support: CKAN Integration with a content management system enables publishers to publish content related to datasets and publish updates related to the portal in an easy way.

Pivot Table: CKAN platform has limited data analysis capabilities, essential for working with data. ROUTE-TO-PA added a PivotTable feature to allow users to view, summarize and visualize data. From the data explorer in this example, users can easily create pivot tables and even run SQL queries.

OpenID: ROUTE-TO-PA created an OpenID plugin for CKAN which enabled OpenID authentication on CKAN.

Recommendation for related datasets: The application recommends related datasets a user can look at based on the current selection and other contextual information.

Combine Datasets Feature: This feature allows users to combine related datasets in their search results within TET into one “wholesome” dataset.

Personalized search and recommendations: Personalized search feature allows logged-in users to get personalized search based on details provided in their profile. In addition logged-in users are provided with personalized recommendations based on their profile details.

Metadata quality check/validation: Extra validations to dataset entry form are added to prevent data entry errors and to ensure consistency.

Competitor name: OpenGov	https://opengov.com
<p>Description: OpenGov is a company that offers a complete suite of software products, all designed to enable public agencies to make data-driven decisions, improve budgeting and planning, and inform elected officials and citizens. According to the company's website, the platform complements traditional accounting and enterprise resource planning systems by providing user-friendly access to data. Among others they offer the following products:</p> <p>OpenGov Transparency</p> <p>OpenGov Transparency visualizes government financial and nonfinancial data, allowing the public to drill down into graphs and tables. This product also includes saved views that answer common questions, annotations, maps, and performance dashboards.</p> <p>OpenGov Open Data</p> <p>OpenGov Open Data, powered by enterprise-ready CKAN, delivers public data to civic developers, businesses, and citizens. This solution provides a hosted and managed CKAN instance with customizable portals.</p>	
<p>The problem: Public servants struggle against outdated technology that prevent them from accessing timely spending information and communicate their priorities to citizens and elected officials.</p>	
<p>The solution: OpenGov’s comprehensive open data and financial transparency solutions help agencies of all sizes drive accountability, make data more useful, engage the public, and unlock economic potential.</p>	
<p>The company: OpenGov was founded in 2012 and is a Silicon Valley technology company that offers cloud-based software for public sector budgeting, reporting, and open data, powering more effective and accountable governments. Today over 1,500 public agencies in 48 states form a growing network leveraging</p>	

OpenGov's Smart Government Cloud to achieve better budgeting, improved reporting and operational performance, and comprehensive transparency and open data.
Business model: OpenGov is selling a cloud based platform and support services to public administrations in the US. They work in close collaboration with their customers and they develop customized solutions.
OpenGov vs ROUTE-TO-PA OpenGov is a US based company that offers open data services to public administrations. They have a wide range of products from budgeting and planning, to citizen engagement for feedback and better decision making, and to open data and financial transparency solutions that help agencies to drive accountability and make data more useful. They offer CKAN installation services but they miss the social and the co-creation features of ROUTE-TO-PA. It is also important to notice that their own customized solutions are not open source.

Competitor name: Socrata	https://opengov.com
Description: Socrata is a mission-driven software company that helps governments and public sector institutions use data more strategically in the design and delivery of their programs and missions. Socrata's data as a service solutions have been adopted by more than 1,200 government agencies for open data, open government, performance management and data-driven government. Socrata solutions help public sector organizations better manage, analyze and share metadata and data.	
The problem: Most people primarily interact with businesses digitally - online. As citizens, people expect to be able to interact with government digitally as well, but government hasn't yet become digital or data-driven. While government has data in abundance, they aren't yet using that data strategically to solve their most important problems because governments are plagued by an immense data silo problem.	
The solution: To meet the expectations of a digital citizenry and to solve important problems, improve government operations and improve efficiency, government must lead with data. Socrata is focused on solving this government data dilemma, breaking government data silos in order to help government use data more strategically in the design and delivery of their programs and missions. Socrata's cloud-based solutions allow government organizations to put their data online, make data-driven decisions, operate more efficiently, and share insights with citizens.	
The company: Socrata was founded in 2007 in Seattle, Washington, USA and subsequently opened offices in Washington, D.C. and London, U.K.	
Business model: Socrata is selling a cloud based platform and support services to public administrations in Europe and the US. They work in close collaboration with their customers and they develop customized solutions.	
Socrata vs ROUTE-TO-PA Socrata is a US based company that has also offices in the UK and it that offers open data services to public administrations. They have a wide range of products targeted to public administrations. Socrata Open Data is the most widely adopted government open data solution. Socrata Open Data is a solution for public sector institutions to automate the flow of data from their primary, line of business systems, into a publicly accessible website where stakeholders can easily find and utilize government data. Socrata Open Data solution misses the main social characteristics of SPOD and it is also proprietary.	

Our experience from the competition analysis shows that larger "open data" solution companies generally are not interested in smaller municipalities. They only tend to be interested when the client is someone big; for instance, when one of the larger, more prosperous regions in Italy (e.g. Campania, Lombardia) puts out a bid for

tender. The regions of Lombardia consists of 1516 municipalities and that of Piemonte some 1.197 municipalities. These larger regions tend to have in-house firms that manage many of the IT projects. Lombardia negotiated a contract with Socrata for all the municipalities in Lombardia.

For smaller municipalities it is difficult for reasons of economy of scale to resist the offers of those larger companies that have immense, well organized, and federated data catalogues that do not necessarily require that someone be dedicated to maintaining them. Being constrained by budgetary issues to choose solutions imposed by a large provider is understandable. Unfortunately, such a choice, ultimately, tends to exert a negative impact on the level of local competencies. Local authorities do not develop a capacity with handling data. In other regions like Puglia the development of data sets and catalogues has been much slower as the Region has been gradually converting municipalities one by one without the more “industrial” solutions of the larger data providers. The end result has been a slow, but steady, increase in competency among local government officials. Certainly, in both cases whether a large data solution provider or someone much smaller the offering of SPOD/TET could be seen as an extension not necessarily in competition. Both SPOD/TET can function as instruments to help shape data offerings through engagement with local authorities and the community. The situation becomes a mix of co-competition - where there are both cooperation and competition going on at the same time. The basic idea is that there is room for everyone to participate. The various stakeholders tend to develop complementary roles where everyone has their areas of interest and responsibility. On a local level, products like SPOD/TET can play a role in promoting engagement among local authorities and their communities. Using SPOD/TET does not preclude the eventual adoption of other solutions to organize the data - whether solutions like Socrata or more locally based solutions (very often open source).

4.4 MARKETING AND EXPLOITATION ACTIVITIES

In this section we present the steps that have already been made for the exploitation and marketing of the ROUTE-TO-PA platform and the steps that should be made after the end of the project for maximizing the commercialization potential of the platform. The main objective of the proposed marketing plan is to **build awareness of the ROUTE-TO-PA tools** to the ROUTE-TO-PA potential customers that are described in the previous sections.

Marketing and exploitation activities already conducted

We briefly mention all the main steps that have been made so far towards the exploitation and sustainability of the ROUTE-TO-PA project outcomes:

- ✓ The source code of the ROUTE-TO-PA platform is available on **GitHub** (<https://github.com/routetopa/>) from the early stages of the project together with installation instructions and documentation. This enables developers, potential customers and researchers to learn more about the platform, to experiment and to contribute in the development.
- ✓ The online version SPOD (**Free version** – see Section 3.2.2.1) is available to all users from the end of the first year of the project (<http://spod.routetopa.eu>). The free version was updated every time a new version was available. Users had the opportunity to test the platform and to see how it evolved. TET will be also available online to the following url: <http://tet.routetopa.eu>.
- ✓ The **all-in-one ROUTE-TO-PA virtual machine** that was setup to assist the installation and deployment of the ROUTE-TO-PA software. The ROUTE-TO-PA ecosystem is fairly complex and consists of different pieces of software, each with its own requirements and dependencies. The all-in-one virtual machine simplifies the process of installing and testing the platform in any webserver.

- ✓ Another important feature that is considered as a very good marketing tool is the fact that SPOD is available as a mobile application. Considering the trend to use smart phones on social networks, **SPOD mobile** is a very good commercialization tool.
- ✓ University of Salerno has already acquired **two contracts** for supporting two public administrations in Italy in using the ROUTE-TO-PA platform. This is a great step towards the commercialization of the platform and shows the potential of the ROUTE-TO-PA open source tools. It also shows that our business model is on the right track.
- ✓ **SIM SilverDecisions** is also available as a standalone open source product (<http://silverdecisions.pl/>) that enjoys around 20.000 users around the globe.
- ✓ Various **dissemination activities and events** that took place during the project promoting the ROUTE-TO-PA platform and tools. The dissemination activities include the final conference and the pitching of the ROUTE-TO-PA business model during the Common Exploitation Booster event organized by the EC.
- ✓ Last but not least, one important marketing asset is the establishment of the **ROUTE-TO-PA working group** that will continue discussions on the topic of open data and transparency for public administrations and will focus on further exploiting the results of the project.

Marketing activities after the end of the project

In this section we present a plan for the exploitation and marketing activities that should be conducted for at least two years after the end of the project. First we identify the appropriate audience to raise awareness. In ROUTE-TO-PA we consider as key stakeholders for our marketing activities the metropolitan areas in EU countries, the networks and associations of local governments²⁸, the municipalities with more than 50.000 inhabitants and other professional associations that work with public administrations (e.g. IT practitioners in local government). These networks can help decode appropriate information flows, such as technological change, sources of technical assistance, market requirements, and strategic choices by others, thus strengthening the ROUTE-TO-PA competitive advantage.

Given the economies of scale it will be more efficient for us to select a small number of possible contacts in each country and work through a local government association. Going directly to municipalities and other local governments would not be practical both in terms of time and resources. Based on experience in Italy, for instance (Ancitel), it is more profitable to work with interested associations who could in turn interest their members. A dialogue should be established with a selected number of government associations in the countries of each partner interested in the commercialization of the ROUTE-TO-PA platform.

Below we present marketing activities that the ROUTE-TO-PA working group and the partners that are interested in the commercialization of the ROUTE-TO-PA platform are planning to conduct after the end of the project.

The ROUTE-TO-PA project has already established a **brand name**. It is important to work now towards segmenting branding efforts to target highly-specific audiences (see market segment in Section 4.1). The brand awareness strategy should now focus on capturing the attention of potential customers. Proposed brand awareness activities are the following:

- ✓ The **Working Group website** will be updated after the end of the project and it will be the central point where information about the ROUTE-TO-PA platform can be found. Among others, the project website, located in the following url: <http://routetopa.eu> will have the following sections:

²⁸ <http://www.ccre.org/en/associations/index>

- An “About us” section where the Working Group will be described (e.g. how it evolved, activities). Photos and short CVs of its members will be included.
- A “Features” section where the main features of the ROUTE-TO-PA platform will be described together with the benefits that the use of the platform has.
- A section that describes the “Services” that are offered by the members of the Working Group and information on who customers can contact in order to acquire these services.
- Supporting material e.g. documentation, installation and deployment instructions.
- Information on existing customers and on the pilots that used the ROUTE-TO-PA tools.
- A blog where posts by the working groups members will be published.
- ✓ Regular content production is important to improve SEO and increase the chances of being found online. **Blogging** is the easiest way to create consistent content. It is suggested that the members of the ROUTE-TO-PA working group will post relevant articles on the blog of the working groups website.
- ✓ **Multimedia**, infographics and visual content is something that catches the attention and is recommended.
- ✓ Continue **social media** activities and also run social media campaigns. Twitter, Facebook and LinkedIn are considered as the most relevant social media to use. Hashtags are recommended e.g. #opendata #publicadministrations #transparency etc. At least weekly social posting is important for visitors to be able to look at our social media profiles and know we are active. The more valuable content we post, the higher the chance of a follower sharing our content.
- ✓ Online **demo** catches the attention. The ROUTE-TO-PA FREE version is the actual demo version of the platform and will be used to get attract new customers.

Apart from these online activities for brand awareness it is important to raise awareness through other activities such as:

- ✓ Partners interested in commercializing the ROUTE-TO-PA platform should contact their **national associations of local and regional governments**²⁹ and inform them about the ROUTE-TO-PA tools. In Appendix 3 we present the main key stakeholders that should be contacted in the UK, Italy, France, Poland and Ireland.
- ✓ The ROUTE-TO-PA Working Group should explore ways of listing the platform in the local procurement agencies. This brings ROUTE-TO-PA to the attention of interested public agencies. Procurement agencies are interesting for two aspects: a) listing what you are offering, b) asking for bids on some specific project.
- ✓ Consistently check the lists **national procurement** agencies in order to identify relevant calls.
- ✓ Add to OGP toolbox (<https://ogptoolbox.org>) the ROUTE-TO-PA platform.
- ✓ Look for further funding opportunities e.g. new H2020 project proposals.
- ✓ Collaborate with the Innovation Radar³⁰, an initiative supported by the European Commission focussing on the identification of high potential innovations and the key innovators behind them in FP7, CIP and Horizon 2020 projects. ROUTE-TO-PA consortium is already in contact with the Innovation Radar and we are discuss the core ROUTE-TO-PA innovations with their experts.
- ✓ Some preliminary discussions with Viderum (the European commercial provider of CKAN) have already been established to identify potential synergies.

²⁹ <http://www.ccre.org/en/associations/index>

³⁰ <https://ec.europa.eu/digital-single-market/innovation-radar>

4.5 SWOT ANALYSIS

The swot analysis that follows summarises the strong and weak points of the ROUTE-TO-PA services in terms of its exploitation opportunities as well as opportunities and threats in the open data market.

Table 5: ROUTE-TO-PA SWOT analysis

Strengths (internal)	Weaknesses (internal)
<ul style="list-style-type: none"> ✓ The ROUTE-TO-PA platform is fully functional and has been tested in different areas. The TRL of the developed components are high (between TRL 8 and TRL 9). ✓ Early adopters / customers are already paying to use the ROUTE-TO-PA services. ✓ The establishment of the ROUTE-TO-PA Working Group is an asset and its members are willing to work towards the exploitation of the tools. ✓ Partners of the consortium are willing to offer the ROUTE-TO-PA services. ✓ All the components are open source, available on GitHub and anyone can use them and can further develop them. ✓ There is a FREE version available that can act as a starting point for many local authorities. ✓ The cost of the PRO version is quite low. At least at the beginning we decided to keep the costs low for exploitation purposes. 	<ul style="list-style-type: none"> ✓ In this business plan we don't present an entity that will be established after the end of the project and will continue working towards the exploitation and commercialization of the platform. Different partners will try to commercialize and offer the ROUTE-TO-PA services. For that reason, it was impossible to present a clear financial plan that would involve staff, equipment, office, marketing etc.
Opportunities (external)	Threats (external)
<ul style="list-style-type: none"> ✓ No other similar solutions for PAs exist that combines the social characteristics of SPOD with the open data platform of TET and can be offered as a service or is open source. ✓ Open Data Maturity in Europe 2017 report³¹ demonstrates that many countries in Europe are only just beginning to formally assess the economic impact of Open Data. ✓ Political developments (the obligation in some countries to have their data open) offer market opportunities. 	<ul style="list-style-type: none"> ✓ There is lack of urgency for implementing open data in many local governments. Open Data is no longer the highest priority on the agenda, and even with political and legislative commitments in place, open data portal teams are increasingly being asked to justify their expenditure. ✓ Advanced competitors (e.g. http://data.world and Socrata) with good reputation have established their presence in open data distribution and open data collaboration area. ✓ The economic crisis situation and the financial resources of many local authorities in Europe. ✓ Intense competition in open data portals market (e.g. CKAN, Socrata, OpenDataSoft).

³¹ https://www.europeandataportal.eu/sites/default/files/s3wp4_sustainability_recommendations_ii.pdf

5 PARTNERS EXPLOITATION ACTIVITIES

In this section we present a summary of the individual exploitation plans of the ROUTE-TO-PA partners. In order to better guide partners in presenting their plans we developed an exploitation questionnaire (Appendix 4) that was distributed to all partners. The questionnaire is composed of the following questions:

1. How did your organisation benefit by participating in the ROUTE-TO-PA project?
2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?
3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?
4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?
5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

The detailed answers to this exploitation questionnaire are presented in Appendix 5. In general, most of the partners agreed that ROUTE-TO-PA has been an important tool to increase their network and to gain valuable insights from the application of the different methods that were used during the ROUTE-TO-PA work packages. Regarding the exploitation perspective, some partners have gained expertise to offer better consulting services to public administrations while pilots are already considering using the ROUTE-TO-PA tools. A brief analysis of the partner's answers to the exploitation questionnaire is presented below:

Benefits

From their participation in the ROUTE-TO-PA project, partners have gained the following benefits:

- Technical partners gained deep **technical knowledge** of several standards and frameworks and had the opportunity to enhance their international position.
- **Research partners** had the opportunity to expand their interdisciplinary research profiles by working with other researchers and businesses. All partners gained **academic** and practical insights in the re-use of open data with the aim to enhance transparency. Several **research papers** were published by the partners of the consortium.
- **Pilot partners** had the opportunity to learn more about open data and transparency and to work in real life scenarios using the ROUTE-TO-PA tools. The project gave the opportunity to explore platforms for the enriched publication of open data and to increase the number of open datasets published by the administrations. The project gave the opportunity of getting suggestions for a better internal organisation for the publishing of open data, thanks to the exchange of experiences with the consortium partners.
- Through the scenario building and user engagement process, partners had the opportunity to follow open data users and producers in real life scenarios, obtaining experience on how people deal with open data and what they expect from it. Partners also gained deeper expertise in modes of collaboration with Public Administrations.
- All partners increased their expertise in the open data domain, how to handle open data and understood the role of open data for society.
- Business and technical partners identified new opportunities to enhance their **commercial offerings**.

- In general, ROUTE-TO-PA was an opportunity for **knowledge acquisition and exchange** for all partners in the consortium. Partners had the opportunity to enhance their network by making and sustaining useful contacts during the research, dissemination and exploitation activities. Valuable links have been made with partners across Europe which will be beneficial to all organisations in the future.

Exploitable outcomes

- UNISA plans to exploit **SPOD** by providing solutions for hosting, installation, training, support and custom development for Public Administrations and Public bodies, NGOs, Local Communities. SPOD is already used non-commercially as part of the HETOR project, an initiative that promotes collection, development and dissemination of data related to cultural heritage in the Italian region of Campania. SPOD has been also used by other EU projects (such as FESTIVAL, and currently exploring the possibilities with REACH). Moreover, SPOD is already being exploited commercially by the collaborations with the Regional Council of Campania (that granted coverage for 2017 – mid 2018 activities and are currently renegotiating the contract for the late 2018-2019), and UNISA is negotiating a contract with an Italian big ICT company that is offering services to the Regione Campania Government for the second half of 2018 - 2019.
- SGH is planning to exploit the SIM SilverDecisions. SGH has released SIM as Open Source and is planning to maintain and develop it beyond the project. The tool was adopted by teachers in several undergraduate and graduate classes to support teaching how use of simulation and decision modeling can support decision making processes in business and public administration.
- Ancitel, as part of its current portfolio of services provided to the Italian Municipalities, could include the ROUTE-TO-PA services in its offer to the municipalities, both through the Basic Services provided or through an ad-hoc offer. This offer, could be integrated with some services already available to the municipalities like Privacy in Local Authorities and others, for this, the services provided on SPOD and TET, as all Ancitel services, will have to respond to the requirements of the Transparent Administration and they must be included in the catalogue MePA (Electronic Market of the Italian Public Administration) to be distributed to Italian's Local Public Administrations.
- Ortelio is planning to exploit the ROUTE-TO-PA platform as a whole.
- Research partners will continue their research on the re-use of open data for democratic processes. More specifically UU is likely that will continue to collaborate with the pilot city of Utrecht as a follow-up of the ROUTE-TO-PA project.
- ROUTE-TO-PA was part of the Dutch Open Government Actionplan 2016-2018 developed by the Ministry of Internal Affairs. The Ministry organizes regular meetings for local and regional governments. The UU has been part of these meetings and will continue to do so to inform local and regional governments of the open data living lab methodology.
- Many partners intend to continue collaborating on further exploitation of the ROUTE-TO-PA platform, by further research and development proposals and by developing education and training services in collaboration with the technology partners.
- Project pilots intend to exploit the ROUTE-TO-PA platform by continuing using the platform in the future.

Commercial opportunities

- There are commercial opportunities out of the ROUTE-TO-PA exploitable outcomes. Partners interested in commercializing the project outcomes (UNISA, Ancitel, Ortelio) can select to offer the ROUTE-TO-PA services as described earlier in this document.

Key actions necessary to successfully exploit the main ROUTE-TO-PA technical outcomes

- One of the key elements in the success of the co-creation activities is the role of the **Community Manager**, whose goal is to engage people and fuel discussion around data and co-creation activities. This is something that needs to be pointed out to potential customers in order to successfully implement ROUTE-TO-PA platform activities in their areas. In line with that, it is also important to constantly monitor the platform (to ensure safety and correctness of the interactions).
- To **link to the existing main players** in the field.
- To have a **clear and affordable business offer** for targeted users.
- To have a perfect **demo-site** and to make the user interface as friendly as possible, by also replicating other social networks' paradigm, to lower the difficulty threshold for new users.
- Local governments need to understand the advantages of open data and transparency. An outline of what might be impacted if open data and transparency were effectively implemented is a solution.

Main obstacles towards successfully exploiting the ROUTE-TO-PA tools

- One of the main obstacles is that our business model is lacking an **entity with a legal status** for signing contracts with PAs. However, we decided that each partner interested in commercializing the ROUTE-TO-PA outcomes should follow the plan presented in the current document and with the assistance of the ROUTE-TO-PA working group can try to exploit and commercialize the platform.
- The costs for the PAs in maintaining the **community manager** role is something that is important to spell out for the PAs, as the usage of the platform, after being installed, could drop if not adequately supported, thereby lacking the support needed for a renewal of the contract. To what extent the PAs would need to find the human resources necessary to manage the platform, including dialogue with citizens.
- There is **lack of urgency for implementing open data** in many local governments. There is a lack of comprehensive open data and also a lack of willingness to implement open data. The lack of compatibility and quality of datasets on the one hand and an increasing overload of datasets on the other hand. Searching a dataset should be made easier.
- The ROUTE-TO-PA platform is a software product. Hence it requires installation, configuration and maintenance. Naturally, deploying such a platform requires various technical competencies and IT staff.
- **Money**, as usual but the other is a far greater problem is **mentality**. At least in the context of local government, we are faced with continuing fear of change – lack of comprehension of possible benefits, etc.
- The **recruitment** of a critical mass of users is a main obstacle for the success of the ROUTE-TO-PA platform. PAs need to find ways to engage users. Furthermore, users must be kept active by proposing topics of discussion etc.

6 CONCLUSIONS

The ROUTE-TO-PA exploitation and sustainability plan begins by a description of the main ROUTE-TO-PA exploitable outcomes (Section 2) and continues with the plan on how these outcomes can be sustained and exploited (Section 3 and Section 4). Individual exploitation plans from partners (Section 5) are also presented.

In order to make sure that the knowledge generated in the project and the tools that have been developed will be sustained and widely exploited to European stakeholders, we propose the development of a Working Group that will take up the results, will continue working in the ROUTE-TO-PA area and will focus on sustaining the ROUTE-TO-PA platform. Towards the commercialisation perspective of the ROUTE-TO-PA platform, a business model has been designed and presented together with the services that will be offered by the ROUTE-TO-PA partners interested in the commercialization of the platform. Furthermore, a website dedicated to the exploitation and sustainability of the platform will be developed. The website will be available here: <http://routetopa.eu>. IPRs issues for the ROUTE-TO-PA outcomes have been very well considered and presented. Regarding the individual exploitation perspective for the partners, some have gained technical expertise, some improved their research capacities while pilots are already considering continuing using the ROUTE-TO-PA tools in the future and business partners are thinking of commercialising and putting to the market ideas that came out of the ROUTE-TO-PA activities. All partners had the opportunity to enhance their network making valuable links with partners across Europe which will be beneficial to all of them in the future. Key actions and main obstacles for the exploitation of the ROUTE-TO-PA outcomes are also presented in detail.

APPENDIX 1: OPEN SOURCE LICENSES

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APPENDIX 2: JUSTIFICATION OF THE COSTS FOR THE PRO VERSION

Below we present a justification of the costs that are involved in the ROUTE-TO-PA PRO version. Installation of the platform includes:

- ~10 hours for installing SPOD = 400€
- ~8 hours for installing TET = 390€
- Total costs for installation = 790€

Annual fee for hosting and maintenance includes:

- 12 emails = 6 hours = 240€
- 8 hours training = 320€
- 195€ for SPOD + 195€ for TET per year = 390€. These are the profits for acquiring a new customer.
- Hosting:
 - 140€ per year hosting to Amazon Cloud server in Frankfurt t2.small instance. This server supports to up to 100 active users. Total cost = **1090€ per year**.
 - 340€ per year hosting to Amazon Cloud server in Frankfurt t2.medium instance. This server supports to up to 300 active users. Total cost = **1290€ per year**.
 - 740€ per year hosting to Amazon Cloud server in Frankfurt: t2.large instance. This server supports to up to 1000 active users. Total cost = **1690€ per year**.

APPENDIX 3 : MARKET ANALYSIS

Below we present an analysis of the current situation in the public administration sector in France, Italy, Ireland, Poland and UK. This will allow us to better target our exploitation activities after the end of the project.

France

In France, the interests of local and regional governments are handled principally by the following three organizations (ARF, AMF, ADF). Judging from references and documents available on the web the most likely local government association that could be contacted is the Association of French regions – in particular, concerning their initiative entitled the 27e region.

The Association of French regions (Association des Régions de France – ARF)³²

The AFR lobbies the government about the issues of interest to the regions. The Association also lobbies members of Parliament concerning the opinions of the regions to take into account during the legislative process. ARF also seeks to transmit the regions' viewpoints in a number of state bodies. In addition, the ARF also promotes regional activities, collaboration, and exchange of information in several economic and social spheres, like commerce, industry, and agriculture, as well as legislation on decentralisation and regional administration.

The 27e région (<http://www.la27region.fr>)

The Association created in 2008 a 27th region calling it a virtual collective ("collectivité virtuelle") – in other words, a laboratory of ideas for the future. As we pointed out in Deliverable 7.1 the Association could be quite receptive concerning the possibility of workshop or pilot projects based on the activity of ROUTE-TO-PA project. Among their projects are:

- "The Town Hall of Tomorrow"³³
- "Entrelabs: Immersion in Public Design"

Another web site <http://superpublic.fr/>³⁴ associated with the site www.la27region.fr.

The web sites <http://www.la27region.fr> and <http://superpublic.fr> could be platforms to reach local authorities interested in innovation and change using tools like SPOD TET.

Ireland

Unlike in other countries one of the key players is the Local Government Management Agency (LGMA - <http://www.lgcsb.ie>). It was established 2012 to provide a range of services to the Local Government Sector. The LGMA is a central resource for the local government sector, providing, procuring and coordinating a range of support services which are most suited to being distributed at national level. It is a shared repository of best practice providing research and specialist expertise for the Local Government sector. Various activities in a range of workshops or seminars on SPOD and TET could be planned with them to explain not just the content of these tools but how these instruments could be useful to local government in the organization and running of public services.

³² [https://fr.wikipedia.org/wiki/R%C3%A9gions_de_France_\(association\)](https://fr.wikipedia.org/wiki/R%C3%A9gions_de_France_(association)), principal site of the association : <http://regions-france.org>

³³ <http://www.la27region.fr/en/cas-pratiques/the-town-hall-of-tomorrow/>

³⁴ First section about Superpublic notes that "Superpublic est le premier espace entièrement consacré à l'innovation dans le secteur public". On the following page there is a list of the various organizations involved with the project: <http://superpublic.fr/#section-3> – it could be profitable to engage one or two of the larger organizations.

The Office for Local Authority Management (OLAM), a division of the Local Government Management Agency (LGMA) provides support and acts as point of contact for the CCMA. OLAM supports the committee structure and influences and implements the Association's work programme through targeted research and identification of best practice. Working with this office could be worthwhile on the identification and elaboration of best practices in local government.

In June 2014, the Association of County and City Councils (ACCC) merged with the Association of Municipal Authorities of Ireland (AMAI) to form the AILG (Association of Irish Local Government – web site: <http://www.ailg.ie/>). The AILG is a networking, policy development and training resource for the elected members of Ireland's thirty-one County and City Councils. The Association works through delegates in each of the councils to help develop a sense of collegiality among the elected members who serve the public in a variety of local government settings ranging from urban to suburban and rural. Contacts with this group could be important in terms of networking opportunities to identify other local government leaders interested in tools that would help them engage their communities.

County and City Management Association (CCMA)³⁵, known as the “representative voice” of the local government management network. Its members are Chief Executives of the County and City Councils and the Assistant Chief Executives of Dublin City Council. It is a non-statutory body that works to ensure that the influence of local authority Chief Executives is brought to bear on the development and implementation of relevant policy.

The following strategic objectives as listed on the CCMA website point to an interest in innovation and best practice. The results of ROUTE-TO-PA could be applied effectively in promoting “direct engagement with key stakeholders”:

- Influence and shape emerging and future policy affecting local government through direct engagement with key stakeholders on a range of diverse subjects;
- Advocate on behalf of the system for necessary resources, identify strategic choices to be made in the allocations of resources and demonstrate the system's capability to ensure the provision of value for money;
- Develop and present an accurate and positive view of the worth of local authorities in the public domain by building an understanding of the broad range of work that local authorities are involved in and the issues that drive and influence it;

The CCMA works in partnership with other agencies to develop and implement legislation. As a representative of the management of local authorities, the CCMA are key stakeholders in the areas of planning, the provision of infrastructure, housing, environment and sanitary services as well as recreational, social inclusion and cultural and tourism services and as such are consulted with by a broad spectrum of organisations.

LGiu Ireland (<http://www.lgiuireland.ie>)

To help share policy information for local government across Ireland.

Developing a schedule of occasional events to help politicians and officers in local government explore and share policy development. The site seems rather small but they may be interested in disseminating information about SPOD and TET to their subscribers.

Local Government Management Agency - Web site: www.lgma.ie

The Agency seems to be the key, at least in part, to promoting change and innovation on a governmental level. The County Manager, as well as being manager for the county councils, is also manager for all boroughs and town councils within a county. Town clerks (at the local level) work under the guidance of the county manager

³⁵ <http://www.lgma.ie/en/CCMA>

(intermediate level). Each Regional Authority also has a designated County/City Manager, to assist in guiding the work of the authority and ensure coordination between the local authorities in the region

Italy

The principal local government associations are the following:

- National Association of Italian Communes (ANCI)

In cooperation with ANCI Ancitel could create a service for individual municipalities where the installation and management of SPOD and TET would be done by Ancitel as a cloud based service for municipalities interested. Depending on resources another possibility might be to combine the service with another one concerning Privacy and Data Protection obligations and guidelines.

Web site: www.anci.it/ ilocal

Web site: www.ancitel.it

Web site: www.comuniverso.it

The Netherlands

Dutch municipalities are generally dependent on the Central Government. Revenues from local taxes are lower than many other European countries and Dutch local authorities are responsible for a wide range of tasks. As a consequence, any communication with Dutch associations needs to be carefully managed. Emphasis needs to be on how SPOD and TET can help a municipality transform its relations with its various communities³⁶. Without engagement of community groups municipalities will find it increasingly difficult to fulfil their basic mission of providing services.

The Association of Provinces of the Netherlands (Interprovinciaal Overleg; IPO) (Web site: <http://www.ipo.nl/>) is the association of the twelve provinces of the Netherlands. The association looks after provincial interests and developed a platform for exchanging knowledge and experience among the twelve Dutch provinces.

On their web site they note the following:

Innovation & knowledge

The Association also seeks to provide a platform for the provinces to stimulate innovation and the sharing of knowledge. In this way, it hopes to encourage best practices and the sharing of innovations in the implementation of provincial policies. The idea is to contribute to the quality, effectiveness and efficiency of public administration. It certainly might be possible with the Dutch members of the Consortium to do a number of workshops and training sessions with them.

The Association of Dutch Municipalities (Vereniging van Nederlandse Gemeenten or VNG) <http://www.vng.nl/> represents the interests of all 380 [Dutch municipalities](#) vis-a-vis central government. In addition, it delivers a variety of services to all Dutch municipalities.

Other than the four general themes that they present on their web site: new positioning for the Association, support for the implementation, administrative cooperation and regionalization, their principal projects for 2018 seem to be:

- Climate and energy
- Costruction (building)
- Acceleration of social change

³⁶ Central Bureau of Statistics, Netherlands, "Municipalities financially dependent on central government2, <https://www.cbs.nl/en-gb/news/2014/51/municipalities-financially-dependent-on-central-government> .

- Strong local democracy
- Digitalization

Under the Research and Development programs on the site they outline an outreach program to help municipalities exploit knowledge and research in the social sector. Their interest in the development and diffusion of knowledge – from the bottom towards the top, through workshops on the transformation of local and regional knowledge networks should fit in quite well with SPOD and TET.

Poland

Several nationwide organizations of local government have been established since 1990.

Among the organizations of interest there are:

- Union of Metropolitan Cities (the ten largest cities)³⁷

<http://www.metropolie.pl/en/> : The resources available to them makes them a likely contact for possible dissemination activities. They would also be important because they would be in a position to help other smaller communities.

- Union of Rural Comunes

<http://www.zqwrp.org.pl/> : The Union is very interested in the development of local democracy and local autonomy. They have participated in a number of European organizations and EU projects. With the Consortium partner in Warsaw there could be an opportunity for dissemination here.

- Association of Municipalities of Malopolska and Poviats

<http://www.sgpm.krakow.pl/index.php> They define the Union is the largest of its kind at the regional level in Poland. It includes 100 municipalities and districts. They seem quite interested in promoting democracy on a local level and projects to develop civil society in addition to reinforcing social capital at a local level. This Union would probably be quite interested in discussing possibilities for the Project – particularly in terms of implementing a cloud based service.

Open data and efforts for more transparency in government have attracted most interest from local advocacy civil groups. Through our Consortium partner in Warsaw it might be possible to contact some of these groups that have already been working on open data issues to sound out interest in applying the results of the Project.

United Kingdom

The principal local government association in the UK is the Local Government Association (LGA)

(Web site: www.local.gov.uk). All English councils are members of the LGA* (414 authorities in total).

In addition there are bodies such as [London Councils](#) (formerly the Association of London Government) and other regional bodies to bring together local authorities at the regional level.

Some of the more active regional groupings are:

[East Midlands Councils](#) : (<http://www.eelga.gov.uk/>)

[London Councils](#) ³⁸ (<http://www.londoncouncils.gov.uk/>)

[Association of North East Councils](#) (<http://www.northeastcouncils.gov.uk/>).

³⁷ Among the goals of the Union of interest to the Project there are: supporting the development of territorial and economic self-government, building the civic society, and promoting initiatives and actions aimed at building regional and local structures, especially those emerging in metropolitan areas.

³⁸ The membership of London Councils comprises the 32 London borough councils, the City of London Corporation, the London Fire and Emergency Planning Authority and the Mayor's Office for Policing and Crime. From Wikipedia entry: https://en.wikipedia.org/wiki/London_Councils

[South East England Councils \(http://www.secouncils.gov.uk/ \)](http://www.secouncils.gov.uk/)

[South West Councils \(http://www.swcouncils.gov.uk/nqcontent.cfm?a_id=1 \)](http://www.swcouncils.gov.uk/nqcontent.cfm?a_id=1).

As noted in the first deliverable of work package WP7 it is clear reviewing the activities of these associations there is considerable interest in innovative solutions that would help local administrators develop more services that respond more effectively to community needs. Workshops on the results of the Route-To-PA project could be developed for their members on not only what SPOD and TET do but also what value proposition they may have for local authorities. Indeed a tool-kit would be developed that would allow others to replicate the ideas from Route-To-PA and shape them to local interests.

The following excerpt from the website of the East Midlands Councils is indicative of an organization that is in innovative solutions to help them deliver services to their communities.

East Midlands Councils is a consultative forum for local government in the East Midlands region of England. Web Site: <http://www.eelga.gov.uk/>

Considering in the following what this group establishes as their objectives they would be worthwhile to contact about Route-To-PA.

- A provider of innovative solutions to partners; delivering projects and services around key issues such as integration, commercialization and organizational review.
- A highly respected and influential advocate for our members; promoting their leadership of their locality, as well as fighting for them to get the resources, powers and freedoms necessary to perform that role successfully.
- A catalyst for collaborative working; bringing together groups of councils to harness their collective strength and knowledge.
- An invaluable resource of specialist expertise and capacity; providing advice and support to councils on key issues.

Another service to investigate is the electronic service delivery (esd) toolkit (Now known as LG Inform Plus)³⁹ that was designed and developed by LGA to help local governments meet the challenges of performance monitoring, evidence collection, knowledge exchange and central reporting. The toolkit includes information on customer insight - an on-going programme that evolves with changes to citizen and customer needs, a council's political priorities, and the local, regional and national policy landscape. According LGA it should be built into everyday mechanisms of local authorities for performance management, decision making and engagement.

Ultimately SPOD and TET could be of great interest to the LGA as an eventual development in their programme of "customer insight" to stimulate greater community awareness and participation. As in other countries like Italy the idea has been to help administrators perform more effectively and involve their local communities.

³⁹ More information available at: http://www.local.gov.uk/about-lginform/-/journal_content/56/10180/5469329/ARTICLE The current version of esd-toolkit explained at: <http://www.local.gov.uk/about-lginformplus>

APPENDIX 3: ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

Dear colleague,

Please spend a few minutes answering this questionnaire.

This questionnaire is ROUTE-TO-PA consortium's tool to collect information concerning all partners' strategy to exploit the ROUTE-TO-PA project outcomes both at individual level and at the level of the consortium as a whole. It will also serve the consortium to analyse your ideas and opinions about the exploitation prospects of the ROUTE-TO-PA project.

Your answers will be analysed, synthesised and included in deliverable D7.4 "Business and Exploitation Plan". This ROUTE-TO-PA Project Exploitation plan is requested by the European Commission to assess the viability of the project after its completion.

Thank you for being detailed and specific when providing all thoughts and ideas.

Key concepts:

SUSTAINABILITY

The European Commission envisages the funding of research projects as a first step in the development of a more ambitious path by part of or by all consortium partners, in a way that research outcomes lead to a pre-commercial or commercial phase where no EU funding is necessary, and where consortium partners have found a way, often through the application of appropriate business models, to ensure continuity of the project efforts beyond the overall project lifecycle.

Precisely, as far as consortium partners are co-investing in the project's research, they are expected to have similar interests to exploit project outcomes, thus ensuring the sustainability of their project. A credible "sustainability plan" is one of the most valuable outputs of a project.

EXPLOITATION PLANS

The European Commission pays great attention to the project's measures to maximise the impact of the results on science, technology and society. Ensuring that project outcomes are widely disseminated beyond the partners' audience, as well as effectively exploited, guarantees the utility of the results after the project ends, and, therefore, it is the source of accountability of projects funded by taxpayers' money.

To develop an Exploitation Plan is a systematic requirement for EU-funded projects. The Plan should detail how the individual project partners and the consortium as a whole intend to make use of the research results. While some partners may only foresee an improvement of their expertise, or level of publications, others might envision concrete exploitation perspectives based on more or less formalised business models described in "D7.3 Business models" and presented here in the appendix.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name			
Organisation			
Position			
Email address			

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

If you have further comments / recommendations, please write them here.

APPENDIX 5: ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE ANSWERS

Partner 1: UNISA

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Vittorio Scarano	Luca Vicidomini	
Organisation	Università di Salerno	Università di Salerno	
Position	Professor	Post-doc	
Email address	vitsca@unisa.it	lvicidomini@unisa.it	

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

We had the opportunity to participate in the scenario building and user engagement process, since the requirements elicitation phase and, thereby, follow open data users and producers in real life scenarios, obtaining experience on how people deal with open data and what they expect from it.

From the technological point of view, we gained deep knowledge of several standards and frameworks, the most important being Angular, Web Components, OAuth2, Virtualization.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

We plan to exploit SPOD by providing solutions for hosting, installation, training, support and custom development for Public Administrations and Public bodies, NGOs, Local Communities.

SPOD is already used non-commercially as part of the HETOR project, an initiative that promotes collection, development and dissemination of data related to cultural heritage in the Italian region of Campania.

SPOD has been also used by other EU projects (such as FESTIVAL, and currently exploring the possibilities with REACH).

Moreover, SPOD is already being exploited commercially by the collaborations with the Regional Council of Campania (that granted coverage for 2017 – mid 2018 activities and are currently renegotiating the contract for

the late 2018-2019), and we are also negotiating a contract with an Italian big ICT company that is offering services to the Regione Campania Government for the second half of 2018 - 2019.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

Yes, we are considering to offer commercial services regarding the ROUTE-TO-PA stack, in particular leveraging SPOD and an associated CKAN installation. Offered services include installation, email and/or phone support, training, maintenance, custom components developments.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

It is absolutely crucial the role of the Community Manager, whose goal is to engage people and fuel discussion around data and co-creation activities. Also, constantly monitoring the platform (to ensure safety and correctness of the interactions) is an important task.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

The main obstacle is in lacking an entity with a legal status for signing contracts with PAs. Also, the costs for the PAs in maintaining the community manager role is something that is important to spell out for the PAs, as the usage of the platform, after being installed, could drop if not adequately supported, thereby lacking the support needed for a renewal of the contract.

If you have further comments / recommendations, please write them here.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Michael BAKER	Françoise DÉTIENNE	(—)
Organisation	Centre National de la Recherche Scientifique (CNRS)	Centre National de la Recherche Scientifique (CNRS)	(—)
Position	Directeur de Recherche au CNRS	Directrice de Recherche au CNRS	(—)
Email address	michael.baker@telecom-paristech.fr	francoise.detienne@telecom-paristech.fr	(—)

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? (*Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.*)

We gained deeper expertise in modes of collaboration with Public Administrations.
We acquired knowledge of relations between forms of computer-mediated interaction and forms of democracy.
We were able to better understand applications of our existing research on quality, processes and forms of collaborative activity in the field of Open Data.
We expanded our interdisciplinary research profile by working with researchers in management and organisational sciences.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(*e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D.*)

The CNRS “i3” (Institut Interdisciplinaire de l’Innovation) research laboratory, at the French National Graduate Telecom Engineering School (Telecom ParisTech) is planning to exploit the SPOD-TET tools developed in the ROUTE-TO-PA project in the field of secondary school education, specifically in the areas or taught disciplines (e.g. mathematics, computer science, media studies, citizenship studies) concerned with educating and training the future “data scientist”. Thus, projects will be developed for use of the tools in educational settings on the basis of an extension of a collaboration established within the project duration with the “CLÉMI” (<https://www.clempi.fr/> - Centre de Liaison de l’Enseignement et des Médias d’Information) organisation, with whom we co-developed usage scenarii. CLÉMI is the centre for liaison of teaching and information media and is involved in training secondary school teachers across all disciplines on how to use new media, including Internet tools, in their teaching. Its headquarters in Paris coordinate CLEMI centres in all regions (Académies) in France.

The centre is closely linked to its Ministry of Education, and particularly the “Direction du Numérique Éducatif” as well as the French Centre for Pedagogical Documentation (<http://www2.cndp.fr>) in Poitiers. At a dissemination exercise organised by the CNRS in Paris in January 2018, the Ministry of Education and CLEMI responded very favourably to the idea of exploring the possibility of their being an institutional website for SPOD-TET such that it could be used potentially by all schools in France.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

No commercial services will be offered by the CNRS partner.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

In the opinion of the CNRS partner, the key actions necessary to successfully exploit the ROUTE-TO-PA platform are:

To find state funded organisations in each country who will make a commitment to permanently hosting the platform and making it available for free to all citizen users, including educational institutions.

Addressing the issue at the political level, finding municipalities and/or governmental organisations that are genuinely committed to favouring and moderating dialogue between citizens and government about issues of common democratic concern.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

The main obstacle concerns the involvement of Public Administrations in exploitation, to the extent that they would need to find the human resources necessary to manage the platform, including dialogue with citizens.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Jerry Andriessen	Mirjam Pardijs	
Organisation	Wise & Munro	Wise & Munro	
Position	Owner	Owner	
Email address	jerry@wisemuno.eu	mirjam@wisemuno.eu	

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

Increase of expertise in open data domain, functioning of local public administration, collective intelligence workshops, the role of open data in society, how to handle open data, what education can learn from working with open data, how education can work with open data, the open data society.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

We intend to collaborate on further exploitation of the SPOD platform, by further research and research proposals, by developing education and training services in collaboration with the technology partners

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

Education and training, workshops for awareness raising.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

To link to the existing main players in the field: CKAN, advanced cities and companies, political influencers and EU platforms

To have a clear and affordable business offer for targeted users: e.g. schools, regional organisations, municipalities (small and medium, large)

To have a perfect demo-site.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

Diversity within the field

The individualistic society

Lack of urgency for open data issues in many local contexts

Issues with privacy, and strong constraints on openness on public forums by public administrators

Silo-effects within public administrations

Lack of comprehensive open data in many domains

If you have further comments / recommendations, please write them here.

We could sell our platform as a possible way to overcome some of the barriers: collect data, semi-private environment for sharing and discussing, for serious interactions between public and administrators.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Przemyslaw Szufel	Bogumil Kaminski	
Organisation	Warsaw School of Economics	Warsaw School of Economics	
Position	Assistant Professor	Associate Professor, Head of Decision Analysis and Support Unit	
Email address	pszufe@sgh.waw.pl	bkamins@sgh.waw.pl	

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

The participation in the project allowed us to enhance international position of the university and increase the potential around the world. SIM SilverDecisions.pl tool built during the project already enjoys a population of 50'000 users from all of continents. We have published several research papers about results of the project as well as increased technological proficiency of our team in area of building web frontends for simulation models.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

The SIM SilverDecisions.pl has been released as Open Source and we still plan to maintain and develop it beyond the project. We are currently also exercising possibilities to acquire grants for further developments of the tool. The tool was adopted by teachers in several undergraduate and graduate classes to support teaching how use of simulation and decision modelling can support decision making processes in business and public administration.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU

can be established between non-technical partners and technical partners in case support is needed for providing services)

No, because the developed software is open source so it is free to use for everyone. Also it has a full documentation online. Support is provided for free via GitHub. However, we have promoted SIM SilverDecisions.pl in the operations research community and it helps the university to require new research partners.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

The Open Source model taken by the authors is a good direction. It can encourage further development of the product. Currently we are building an Open Source community around SIM Silverdecisions.pl. It should be possible due to already large interest in this solution.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

The ROUTE-TO-PA platform is a software product. Hence it requires installation, configuration and maintenance. Naturally, deploying such a platform requires various technical competencies and IT staff. This can be perceived as an obstacle. Additionally, with any new product there is some learning curve.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Erna Ruijter	Albert Meijer	
Organisation	Utrecht University, School of Governance	Utrecht University, School of Governance	
Position	Postdoctoral researcher	Professor	
Email address	h.j.m.ruijter@uu.nl		

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? (*Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.*)

Utrecht University gained academic and practical insights in the re-use of open data with the aim to enhance transparency by participating in the ROUTE-TO-PA project. We developed a model in collaboration with our ROUTE-TO-PA partners that linked open data to democratic processes. Due to the multidisciplinary nature of the ROUTE-TO-PA project we also learned new methods, common in other disciplines than our own. Furthermore, ROUTE-TO-PA allowed us to test the models we developed in practice by close collaboration with pilot sites in the Netherlands but also with other pilots across Europe.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(*e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).*)

At Utrecht University we will continue to conduct research on the re-use of open data for democratic processes. During the project we developed a methodology for conducting this research: an open data living lab in which civil servants, stakeholders, citizens and students work together to solve societal issues based on open data. One step in the living lab is a data expedition that we developed with our other partners in which the participants in the living lab work with the technology of SPOD and TET. We have noticed that local governments but also national government are interested in an open data living lab. It is likely that we will continue to collaborate with our pilot the city of Utrecht as a follow-up of the ROUTE-To-PA project. The city of Utrecht joined in the last year of the ROUTE-TO-PA project and views their participation as a first step in the re-use of open data for democratic processes. Moreover, we also recently started a collaboration with a Dutch ministry interested in the methodology developed by the ROUTE-To-PA project.

ROUTE-TO-PA was part of the Dutch Open Government Actionplan 2016-2018 developed by the Ministry of Internal Affairs. This Ministry organizes regular meetings for local and regional governments. The UU has been part of these meetings and will continue to do so to inform local and regional governments of the open data living lab methodology.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

At the UU we would not be able to offer installation and maintenance support but we could offer paid services to organizations regarding the development of an open data living lab. We could for instance offer a training on how to conduct a living lab.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

The key actions are the following:

- 1) Market SPOD and TET separate and integrated for cities, schools and universities as a way to discuss open data and to co-create datasets. It is more complicated to market SPOD/TET as a data analysis tool due to the issues encountered with the quality and format of the datasets that most of the time do not seem to match
- 2) It should be made very easy for (governments), schools and universities to download their own version of SPOD and TET and a helpdesk as a service is necessary. A helpdesk should offer services related to technical issues, maintenance etc but also related to how data quality can be enhanced and how open data can be re-used for societal challenges and democratic processes. Hence both technology and more organization related services.
- 3) Schools & universities could use the tools during a data science course in which collaboration can be sought with local governments in line with the living lab methodology. Cities might have a data questions related to a societal issue. Students can be asked to work with data in order to find an answer to the questions during a course. This will help civil servants with a local issue and will enhance data skills of future citizens.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

- 1) Currently most if not all Dutch governments are still working with internet explorer which is not compatible with SPOD and TET. I therefore think the current exploitation for Dutch governments is complicated
- 2) Scaling up data initiatives: we have noticed that there is an initial enthusiasm to experiment with a small group within organizations but getting a large group of stakeholders and citizens involved is a challenge and perhaps not really feasible
- 3) The lack of compatibility and quality of datasets on the one hand and an increasing overload of datasets on the other hand: on the Dutch SPOD platform there are currently too many datasets that makes it very difficult for users to find the right datasets. Either the search function should be made easier (and TET and SPOD should work seamlessly were TET has the search function and you can then use the dataset on SPOD) or each organization should have their own version of SPOD/TET

Partner 7: Ancitel

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	John Forrester	Manuel Leiva	Annarita Marocchi
Organisation	Ancitel	Ancitel	Ancitel
Position	Solution Architect Systems Engineer	Project Manager	Head of Commercial Area
Email address	forrester@ancitel.it	leiva@ancitel.it	marocchi@ancitel.it

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? (*Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.*)

Commercial opportunities: There are a number of opportunities in various regions to enhance our commercial offerings. The best prospects seem to be combining the possibility of Spod with something services like Privacy and CyberSecurity. We would look to create a cloud service for cities interested in a personalized platform for the discussion of privacy and cybersecurity.

Knowledge acquisition: Acquiring a better understanding of open data and issues of transparency was useful and could help us in proposing a service aimed at promoting open data and its potential benefits.

Technological advances: Information that we acquired about open data and how data sets are done in various nations was helpful. We are hoping there might be an opportunity to investigate further possibilities. It's clear that more work needs to be done to help municipalities with the creation of data sets and to encourage their use afterwards. Merely increasing the number of data sets available on the municipal web site is clearly not enough.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(*e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).*)

Ancitel, as part of its current portfolio of services provided to the Italian Municipalities, could include the services of the SPOD and TET platforms in its offer to the municipalities, both through the Basic Services provided or through an ad-hoc offer. This offer, could be integrated with some services already available to the municipalities like Privacy in Local Authorities and others, for this, the services provided on SPOD and TET, as all Ancitel services, will have to respond to the requirements of the Transparent Administration and they must be included in the catalog MePA (Electronic Market of the Italian Public Administration) to be distributed to Italian's Local Public Administrations.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

What would be offered is a cloud service based on Spod and/or Tet. Most municipalities are far too small and lack the resources to engage directly in developing platforms for their communities using Spod or Tet. Offering a cloud service would be the best possibility for those municipalities interested but due to a lack of resources are not able to launch such a service by themselves. Ancitel would probably be able to offer a well defined service with a degree of personalization available to these smaller municipalities.

Some of the larger municipalities (those generally with more than 20000 inhabitants in our experience) may be interested in experimenting with the use of Spod/Tet. One possibility might be for them to try out the platform as a cloud service for a limited period at a possibly discounted rate in order to familiarize themselves with the potentialities of the tools.

Another possibility for Ancitel within the context of local government is to explore the interest among firms either fully owned or partially by municipalities (many of which are in the transport or energy sector) to adopt similar tools to help engage more effectively businesses and end users. Initially it would entail finding a firm that would be interested in being an early adopter and help attract others. In the region of Piemonte there are a number of firms that could be contacted.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

In the context of Ancitel and local government:

2-3 page document outlining the possible “business case” for local governments. There needs to be a clear exposition of the advantages of open data and transparency that uses where possible national and local examples.

Simulation of what might happen if used? Although a simulation, it would be useful in the local languages an outline of what might be impacted if open data and transparency were effectively implemented.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

There are basically two problems – money, as usual but the other is a far greater problem – mentality. At least in the context of local government, we are faced with continuing fear of change – lack of comprehension of possible benefits, etc.

If you have further comments / recommendations, please write them here.

1. Let's try to identify some European local government associations that have taken the lead and start with them – one good example is the LGA (Local Government Association in the UK). Another would be the French.

2. In addition, there are municipalities that are well known for the innovative programs and not just deserved to be publicized but also written up to use with the development of business cases. Even without subsidies they could be quite interested in applying SPOD.

It's important to remember that politicians (whether mayors or city council members) look at answers to the question of why and, in particular, what can open data and transparency provide them as they try to provide further public services to their communities.

Partner 8: Ortelio

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2
Full name	Ilias Trochidis	Stratos Arampatzis
Organisation	Ortelio	Ortelio
Position	Researcher	Director
Email address	it@ortelio.co.uk	sa@ortelio.co.uk

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

Ortelio had the opportunity to increase its expertise on open data and transparency for public administrations. It further had the opportunity to work with local governments and understand their needs. Through the various dissemination and exploitation activities, Ortelio had the chance to enhance its network of collaborators. Finally, Ortelio is planning to expand its portfolio of services by working towards the commercialization of the ROUTE-TO-PA platform.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

Ortelio is planning to exploit the ROUTE-TO-PA platform as a whole. Ortelio was the initiator of the idea for establishing the ROUTE-TO-PA working group and intends to work towards the exploitation of the ROUTE-TO-PA platform by offering commercial services to PAs in the UK based on the project's outcomes. Ortelio is also planning to identify future funding opportunities for the sustainability of the ROUTE-TO-PA platform.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

Yes, Ortelio is considering offering commercial services based on the ROUTE-TO-PA business model and based on the ROUTE-TO-PA proposed services. Our aim is to offer services mainly in the UK and to identify there commercial opportunities.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

We need to convince local governments for the usefulness of open data and of transparency. We need to change behaviour. We have good technologies and we need to convince for the applicability of our tools.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

Lack of money and lack of willingness to change.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Nicola Graham		
Organisation	Smart Dublin, Dublin City Council		
Position	Smart Dublin Regional Data Co-ordinator		
Email address	Nicola.graham@smartdublin.ie		

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

Smart Dublin acted as one of the five pilot sites in the Route to PA project. Our role in the project was:

- to help develop scenarios to test the Route to PA platform tools;
- to trial and report issues on upgrades to the platform and;
- to engage with public administrations and citizens and encourage use of the platform

The main benefit to the organization was increased open data awareness in the following ways:

- Enabled us to evaluate the quality of data available on the open data portal
- Highlighted the importance of data standards and schemas for interoperability
- Identified the need to address the data skills gap among local authority staff
- Encouraged us to begin appraising our data assets across local authorities in the Dublin region
- Reaffirmed the belief that more collaboration and data sharing across departments and organizations is necessary to drive innovation, increase economic growth and improve services for citizens across the Dublin region.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

The insights, observations and results from our participation in the project are the most valuable outputs to the organisation and its partners. This knowledge will be used to feed into and further develop the Smart Dublin Data Strategy. The strategy once agreed by Smart Dublin's steering committee; will be managed by the Smart Dublin Regional team and rolled out across the four Dublin local authorities. The strategy includes a publication plan which will be reviewed regularly.

We feel that with further development the Route to PA platform along with the SPOD Mobile App have the potential to become valuable data collection tools.

As the Smart Dublin data catalogue grows, the TET visualisation tools could be a valuable addition to the Smart Dublin Open Data Store. TET relies on good quality data. Due to the lack of this data on the Open Data Store, the full value of TET has not been fully explored. Some of the TET extensions are currently in use on the Smart Dublin Open Data Store.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

No.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

We feel that improvements to the UX design of the platform are necessary in order for exploitation to be successful. The UX interface needs to be more user friendly and accessible for those with disabilities in line with EU guidelines.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

Platform Optimisation:

- The platform is not optimised for mobile devices - This severely limits the number of users able to access the platform on the go or who do not have access to a desktop.
- Many local authorities and other public bodies in Ireland still use Internet Explorer as the default browser and do not have access to Google Chrome - The Route to PA platform is only optimised for Chrome which limits the number of public bodies able to access it.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Paolo Boscolo		
Organisation	Comune di Prato		
Position	ICT manager		
Email address	p.boscolo@comune.prato.it		

Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

The Municipality of Prato gained most benefits by exploiting the opportunity for increasing transparency by means of open data. Moreover, the project gave the opportunity to explore sw platforms for the enriched publication of open data and to increase the number of open datasets published by the Prato administration. Very interesting was also the possibility to test models for citizens' involvement (e-participation and co-creation). Eventually, the project gave the opportunity of getting suggestions for a better internal organisation for the publishing of open data, thanks to the exchange of experiences with the consortium partners.

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

TET

The Municipality of Prato is already adopting a CKAN platform for the official publication of open dataset, called Open Data Network (ODN). ODN is an initiative established by a group of Public Administrations in Tuscany - Province of Florence, Province of Prato, Province of Pistoia and the Arno River Basin Authority – joined by the Municipality of Prato in 2014 thanks to an agreement made with the Province of Prato. Nevertheless, the TET platform is very useful as a tool to give further visualization modes for open datasets and to integrate with SPOD, since it will represent the CKAN used as a publishing tool for non-official datasets, like for example those built through the co-creation process. The official ODN platform will be harvested on TET, to have data synchronised publication.

SPOD

It will be used as the main module to associate "social" discussions to the publishing of open dataset and it will be adopted for by the administration several institutional activities:

- 1) collection of information and requests of datasets from the audience/users
- 2) running of participation, communication and co-creation experiences with citizens and other stakeholders
- 3) provision of the SPOD access to other administrations, bodies and/or associations willing to use the platform

SIM

As a SPOD module, it will be useful to identify more objective justifications for the administration's choices that can be modelled according to a decision tree technique.

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

NO.

Anyway, the Municipality of Prato is interested in keeping the platform active through its own funding, as a tool for the civic network, in the same way as it already happens with other platforms.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

The key actions are the following:

- 1) to market the TET platform as a CKAN variant, even only as a platform for the publication of open data;
- 2) to market SPOD both alone and integrated with TET and SIM as a dedicated platform only for large cities, to ensure enough users;
- 3) to foresee a SPOD for social discussion open to all, like any other social network; it should not be bound to a specific reality and to overcome difficulties in maintenance (supposing there is no advertising or selling of big data) we could use a commercial schema where cities pay to keep single rooms in the agora or in the co-creation running (ex. IDEASCALE);
- 4) to use city associations (ex. ANCI in Italy) to vehiculate Route-to-PA services and products;
- 5) to offer Route-to-PA also to big national and international NGOs, information media and research bodies using data or interested in data driven discussion;
- 6) to make the user interface as friendly as possible, by also replicating other social networks' paradigm, to lower the difficulty threshold for new users (graphics, management of access/invitation, link with other platforms/SN, etc.)

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

These are the main obstacles we have identified so far:

- 1) the capture of a critical mass of users, trying and eliminating barriers in registration, respecting privacy;
- 2) to keep users active by proposing topics of discussion;

- 3) the need to foresee roles like community manager/communication mediators by those interested in developing a discussion and/or in co-creating datasets;
- 4) to make the already saturated market of social networks aware of the SPOD platform.

ROUTE-TO-PA EXPLOITATION QUESTIONNAIRE

April 2018

Please indicate in the table below the name of the representative of your organisation providing answers to this questionnaire.

	Contributor 1	Contributor 2	Contributor 3
Full name	Abir Ghattas	Diana Krebs	
Organisation	Open Knowledge International	Open Knowledge International	
Position		Project manager	
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Exploitation questionnaire

Q1. How did your organisation benefit by participating in the ROUTE-TO-PA project? *(Increase of your expertise in x domain, knowledge acquisition, network enhancement, commercial opportunities, scientific/ technological advances, etc.)*

The Route-To-PA experience was beneficiary for OKI:

- Increase our expertise in EU funded projects mainly on working with different EU countries (different contexts and work environment)
- More expertise in community building efforts through both online and offline activities in different european countries
- Creation of a new network of data enthusiasts (the users of Route-to-PA tools across the 6 countries)
- Getting more familiar with country specific law and rules around data transparency

Q2. Please describe, in a concrete and comprehensive manner, which of the project outputs is your organization planning to exploit, and how?

(e.g. project outputs: ROUTE-TO-PA platform, SPOD, TET, SIM, research results, other? / how: Non-commercial implementation (self-use), commercial implementation, planned advancement via future R&D).

On community building:

- Lessons learned from Route-To-PA project will help us further develop our outreach strategies and offline events
- Develop community building roadmaps based on the different communities we worked on in the project (PAs, Data activists, students)

On TET:

- OKI will advocate for some of TET's extensions to be adopted by the core CKAN community

Q3. Is your organisation considering to offer commercial services (SaaS, installation, support, maintenance etc.) based on the ROUTE-TO-PA technical outcomes?

Towards the sustainability of the ROUTE-TO-PA technical outcomes, a commercial website will be developed that will present the ROUTE-TO-PA services (SPOD, TET, SIM), their functionalities, the problems that these tools solve, etc. The tools will be open source and can be downloaded by anyone. However, based on our business model, any organisation can offer ROUTE-TO-PA services (SaaS, installation, support, maintenance etc.) to potential customers. Is your organisation willing to offer such services? If yes, which services and how? (Notice that a MoU can be established between non-technical partners and technical partners in case support is needed for providing services)

Open Knowledge International is the mother entity of Viderum, which is a 100% commercial spin-off that is commercially distributing CKAN. A commercial path to exploit ROUTE-TO-PA could be to partner with Viderum and include the tools to the Viderum portfolio. Viderum is working with governments and public institutions across the globe. Many administrations Viderum works with have raised the concern of how to strategies with the public, once the data is published. With TET being a CKAN extension, Viderum and ROUTE-TO-PA team could explore and assess commercial possibilities that ensures SaaS, installation, support and maintenance.

Q4. What, in your opinion, are the key actions necessary to successfully exploit the ROUTE-TO-PA platform?

We need to make sure that the technology is up-to-date and user friendly and supported across all platforms. We also need to work on building the capacities of the users from one and the PAs from another through the creation of online and offline trainings that focuses on (1) best practices of exporting and creating data sets (2) best practices to use the data sets.

Q5. What, in your opinion, are the main obstacles towards successfully exploiting the ROUTE-TO-PA platform?

- adoption by the public administrations
- unified Data sets loaded into TET
- Keep the community and online users interested in using the platforms beyond a certain project

If you have further comments / recommendations, please write them here.