

TOOL PROTOTYPE EVALUATION

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A short report assessing the prototype based on requirements, LL expectations and Smart territories framework.

Dissemination level

Public	
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Restricted to a group specified by the consortium	
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ABBREVIATIONS' MEANING

RLL	Regional Living Lab
LPT	Local Public Transport
LML or LKL	Last Mile Logistic or Last Kilometer Logistic
LL	Living Laboratory
PA	Public Administration
TLL or TNLL	Transnational living laboratory
HD	Heavy Duty

1. METHODOLOGICAL APPROACH TO EXTERNAL DOCUMENT EVALUATION

The partners were sent the below questionnaires, with all deliverables under the evaluation on the 6. 4. 2022, in order to be sent to RLL stakeholders. The methodological approach to be followed was the same as for the Mid-term external evaluation, described in the Methodology of conduct for the A.T3.4. The deadline for the feedback was 9. 5. 2022. Partially the external evaluation was done at the TLL meeting, April 29th. The TLL participants were not able to review the documents; however, the main outputs were briefly introduced by presentations. The deadline for internal and external evaluation needed to be extended for the lack of feedback by the due date. In the Word template for the external evaluation, There was a block of questions also for the tool prototype evaluation, since the Tools prototype and finalization document, D.T3.2.3, describes the content of the digital tool and gives links, usernames and the passwords needed for the testing.

The questionnaire has been prepared in a very simplistic way, asking the most valid questions in order to minimize the time of the evaluators and to focus on the usability of the outputs. All responses received by the 26th of May 2022 were considered in this report.

The answers of the external survey were collected in the Word template and clustered by the sector and by state. The questions were posed according to the KPIs in the Methodology of conduct for the A.T3.4.

More detailed description of the questionnaire can be found in the document Final evaluation, D.T3.4.3, where the content of this report can be found as well.

1.1 The external questionnaire template

1. RELEVANT DATA

PP number and name	
Stakeholder's name, position organisation	
Date	

2. QUESTIONS AND THE DOCUMENTS FOR THE EVALUATION

WPT2: SMART MOBILITY ROAD MAP		
Quantity		Key questions for the stakeholders
1.	D.T2.4.1 e-SMART tactical road map	
1	State your answer in this cell:	Is the document useful for you - your company? Will you use it?
	State your answer in this cell:	How would you score the document in terms of the

		relevance and usefulness, from 1 to 10? 1 being completely irrelevant and useless and 10 being very relevant and useful.
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WPT2: SMART MOBILITY ROAD MAP		
Quantity	Key questions for the stakeholders	
1.	D.T2.5.1 e-SMART operational road map	
2	State your answer in this cell: Usefulness: Reason:	Is the document useful for you - your company? If yes, please explain in what way?
	State your score in this cell:	How would you score the document in terms of the relevance and usefulness, from 1 to 10? 1 being completely irrelevant and useless and 10 being very relevant and useful.

WPT3: SMART ENERGY INTEGRATION		
Quantity	Key questions for the stakeholders	
2.	D.T3.2.2 Tools requirements analysis report	
1	State your answer in this cell: Usefulness: Reason:	Is the document useful for you, your company? If yes, please explain in what way?
2.	D.T3.2.3 Tools prototype and finalization	
2	State your answer in this cell: Structure: Usefulness: Relevance:	Do you believe the document is well structured, useful and the content is relevant?
2.	D.T3.4.1 Tool prototype evaluation	
3	State your answer in this cell:	Do you find the DSS prototype easy to use?
	State your answer in this cell:	Do you believe the DSS prototype offers well defined structure?
	State your answer in this cell:	Do you believe the DSS prototype fits the Smart territories framework?
	State your answer here and define your territory (regionally, nationally, cross-	Do you have an interest in fully developing DSS prototype with

	border, transnationally:	these topics in your territory?
	State your answer in this cell:	Do you have suggestions how the DSS would fit your requirements even more?

2. THE SUMMARY OF THE EXTERNAL EVALUATIONS

Project partners provided in total 6 external evaluations. Not all the partners contributed the external evaluation feedbacks and the ones they did, they provided 1 per partner. The table below shows the number of responses by the project partner and country.

Table 1: Responses by the project partner and country

	Evaluation	External
LP - PP1	RSE	1
PP2	Piemonte (sent them out of due date)	3
PP3	Veneto Strade	1
PP4	The Smart City Association Italy (TSCAI)	1
PP5	BSC Kranj	1
PP6	GIZ ACS	
PP7	PVDF	1
PP8	Auvergne-Rhône-Alpes Énergie Environnement	
PP9	University of Applied Sciences Kempten	
PP10	Climate Alliance	
PP11	City of Klagenfurt	1
PP12	Codognotto Austria GmbH	1
PP14	Stadtwerke Klagenfurt Corporation	
PP15	County of Munich	

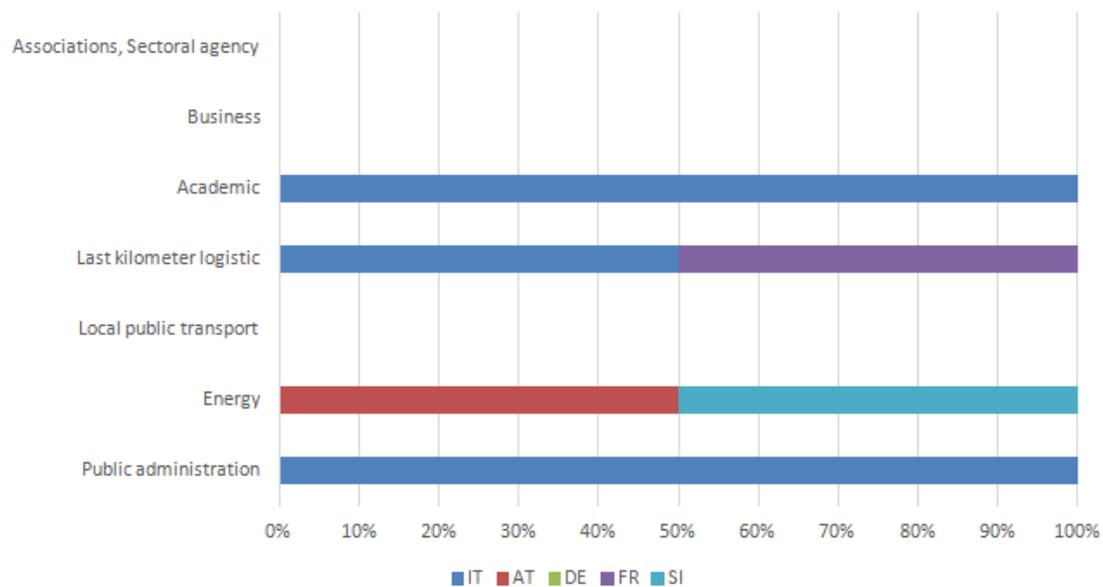
Table 2: Responses by sector and country

Sectors/country	IT	AT	DE	FR	SI
Public administration	1				
Energy		1			1
Local public transport					
Last kilometer logistic	1			1	
Academic	1				
Business					

Associations, Sectoral agency					
Total					

The responses came from different sectors, which contribute to the diversity of opinions in terms of sector vs. usability of deliverables. The orange number indicates deviance, meaning that the evaluation came from Codognotto Italy, which is not officially a partner in the project, sending the External evaluation from Codognotto Austria, which is officially a project partner. However, it has to be stated that it is one and the same stakeholder, as well as it is very important, because it is a logistic company that has an expert insight, knowledge in the logistic sector as well as in the project. Since the project is specifically addressing the first three sectors, the division was made. The graph below shows the share of the responses by the chosen sectors and the country.

Figure 1: The shares of responses by sector and country.



The last TNLL meeting, organized on the 31st of March, was dedicated to present the outputs of the Digital toolkit and get the feedback from the participants that would serve as an evaluation of the outputs. 43 stakeholders registered for the from a total of 67 participants.

The presenters were asked the following questions after the presentation of the Digital Toolkit: goals, how it works, problems encountered, outlook:

Did you like the presentation of the DSS?

Do you see potential in a prototype as a fully developed international or national tool?

Do you believe data sharing is a problem that hinders functionality of such a tool?

Do you agree public data sharing in e-SMART sectors should be to some degree compulsory by law?

Do you want us to send you the Tools requirements analysis report electronically?

All presentations received a high score, over 70% in likeability of the presentations. In terms of the content the policy documents, the Tactical Roadmap and the Operational Roadmap, were better evaluated than the digital toolkit, especially the DSS prototype. The majority of the stakeholders answered the questions with one of the given options: “I have no idea”.

2.1.5 Tool prototype evaluation D.T3.4.1

The set KPIs for the tool prototype evaluation are in terms of the relevance: % of IMPLEMENTATION SPECIFICATION defined properties confirmed through the evaluation process. The proposed target is: at least 80%.

For the user friendliness, KPI is % of users being able to use tools without special training given by the authors. The proposed target was at least 75%.

The KPI set for the impact are:

- Number of stakeholders testing each TOOL. Proposed target is at least 70. However, in terms of tools, at first multiple digital tools were meant to be developed and it could be argued that each of the dashboards included in the DSS could be a separate tool to extract the relevant information.
- Number of national, regional and local LL participants and other stakeholders committed to use TOOLS. Proposed target: at least 20 (at least 3 per LL).
- Score of the TOOLKIT evaluation, including digital tools, by RLL: relevance, performance, effectiveness, impact, sustainability, replication potential. Evaluation score of each property targeting average 8.

The reason why the questionnaire was simplified was to shorten the time of evaluation for the evaluators, in the hope to get more replies.

The stakeholders evaluated the digital tool, DSS.

The evaluation was on:

- Use, how easy is it to use it?
- The structure, if the DSS prototype offers well defined structure?
- The relevance for smart territory frameworks, if the DSS prototype fits to the Smart territories' framework?
- The interest of full prototype development, if there is an interest to fully develop DSS prototype with these topics in stakeholder's territory? And
- If there are any suggestions how the DSS would fit the stakeholder's requirements even more?

The responses are stated below.

The Austrian stakeholder from the energy sector stated that the DSS prototype is easy to use, the structure is well defined, the relevance for the territory is very high and it is very important to keep data updated. At this time they have no interest in fully developing the prototype, the region Styria “has to be proved in detail”. They had no suggestions how the DSS would fit the stakeholder's requirements better.

The Italian stakeholder from the public sector stated that the DSS prototype is easy to use, the structure is well defined and it is relevant for the territory. At this time, they have no interest in fully developing the prototype, “since at provincial level we have no interest in developing the DSS prototype”. They had no suggestions how the DSS would fit the stakeholder’s requirements better.

The Austrian stakeholder from the logistics sector stated that the DSS prototype is easy to use. They could not evaluate the structure, since it is not their area of expertise. The stakeholder agrees the DSS prototype fits the Smart territories framework. The stakeholder does not have an interest in fully developing such a prototype since it is not their area of expertise. The suggestion given was that the “LML logistics is linked to intermodal transport. Therefore, data sharing with ports, freight terminals etc. could be a further step.”

The French stakeholder from the logistic sector does not feel in the position to use such a tool and thus no other answer was given on this matter.

The Italian stakeholder from the academic sector states the following: in terms of usability “I don’t know, the codes provided (esmart – opendash#22) didn’t allow me to enter”, thus no other questions were answered.

The Slovenian stakeholder also could not test the DSS functions on the basis of the information provided in the Tools prototype and finalization document. The stakeholder believes that the DSS prototype offers well defined structure from the concept, but the stakeholder doesn’t know from experience, since it could only read about it in the Tools prototype and finalization and access few basic screens. The stakeholder believes that as a concept the DSS prototype fits to the Smart territories’ framework “and also selected tools based on Fiware are some sort of guarantee for this”. In terms of fully developing the DSS the stakeholder stated: “We were interested to be a part of the process and test the final result, for the possible future replication, but we were unable to. For now, we are not going to develop the DSS.” The suggestion for improvement states: “The concept would need to be fully developed in each of the countries with necessary particularities and relevant stakeholders would need to provide relevant data. More info was provided to Elektro Ljubljana OVE.”

Slovenian partner, supported by external expert, asked that the experience of the DSS prototype development and its potential to be fully developed transnationally or nationally is described in more detail in order to be shared with partners and a knowledge capacity building and with Slovenian Ministry of Infrastructure (directorate for sustainable transport and the energy directorate). The document was sent to the Ministry and uploaded on the e-SMART repository as an annex to this document.

3. CONCLUSION

Overall, this has been a challenging project in terms of technical activities. It hasn’t been easy to implement activities in the time of covid-19 pandemic. The idea addressed in e-SMART has been a bit before time for many of the stakeholders. Changes and innovation in terms of digital tools of smart cities that bring data sharing between and within private economic sectors on the table, that can be direct or indirect competition is challenging. A huge disinterest among public authorities in general, beside the partner institution, on the

topic was identified. There was not a clear consensus between partners on many activities and improvements have been proposed for future projects. We can conclude that this project gave a huge opportunity for knowledge capacity building and that partners have given it their best effort to get things moving in the direction of digitalization and creation of smart city blocks in the thematic of e-SMART to quicken and support the planning and a set-up of charging infrastructure for the electric LML HD freight transport and LPT. A tangible and intangible knowledge was gained and lessons have been learned.