

Master thesis title: Horizon 2020, Smart Cities Lighthouse Projects: a metaevaluation.

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Abstract

Background of the work. The Smart Cities & Communities initiative is an important funding instrument of the European Commission that aims at demonstrating innovative solutions and business models in the fields of energy, mobility and ICT. The purpose is to promote the decarbonisation of the cities, while ensuring at the same time a more efficient energy use, affordable prices and better life conditions for citizens.

Seven annual calls have been launched since 2014 to test near-to-market technologies across 18 funded projects, named Lighthouse projects, and 48 Lighthouse cities, with the purpose to demonstrate their performance and impacts through the deployment of monitoring programs during at least two years.

According to references and projects, the monitoring programs are intended as the *systematic assessment of the progress of projects based on their objectives, results, and impact, in order to nurture replication and scaling plans, and learning*. The monitoring and evaluation systems of the projects cover the environmental, economic and social dimensions, which are addressed through different methodologies.

Questions to be answered. This study entails a metaevaluation of the social evaluation frameworks of the Lighthouse projects funded under the European initiative Smart Cities & Communities of the Funding Program Horizon 2020.

The objectives of the study are:

- To know how the evaluation of the social impact is approached under the monitoring programs of the Lighthouse projects.
- To develop an evaluation framework for the social evaluations of the Lighthouse projects.

Relevance of the work for the evaluation community. The purpose of this metaevaluation is to generate knowledge useful for the evaluation community and

usable by the Lighthouse projects evaluators and similar programs, with a special focus on the social perspective, the less used under those initiatives (Angelakoglou et al., 2019). Multiple efforts have been observed within the Smart Cities & Communities towards the standardization and alignment of the monitoring and evaluation practices. Indeed, a Monitoring and Evaluation Task Group was created in 2019, composed by experts leading the monitoring and evaluation activities under the 18 funded Lighthouse projects. I believe that further knowledge of the evaluation tradition, key issues, academic background and current debate will enhance the Smart Cities & Communities perspective, while bridging evaluative practices will eventually benefit the wider evaluation community.

Data and methods. According to the evaluative approach I chose, based on Bustelo (2004), this metaevaluation is an evaluation of the evaluative processes, and it is focused on the design process of the evaluation frameworks of the Lighthouse Projects. The design process covers the following six steps, according to Ligerio Lasa (2015):

1. Assignment, motivation to evaluate
2. Definition of the evaluand and context analysis
3. Choice of evaluative approaches
4. Operationalization
5. Measurement system
6. Impact evaluation strategy

In order to perform the analysis, I selected a convenience sample of six Lighthouse projects, based on the quantity and quality of available documents, the diversity of the evaluation teams (in terms of countries and types of organization) and the representativeness of the calls for proposal.

To operationalize the metaevaluation, I elaborated a checklist composed by seven dimensions and 55 questions, to fill in with qualitative information and a quantitative score according to the level of accomplishment of the metaevaluation criteria summarized in the evaluative questions. The checklist was elaborated ad-hoc for the purpose of this metaevaluation, and it is based on:

- ❖ *Rayuela. Un ejercicio de comprobación y reflexión para hacer una evaluación consciente* (Ligerio Lasa et al., 2019): the checklist is based on the evaluation process steps included in the *hopscotch of evaluation* and it operationalizes the evaluation questions of the process as stated by the authors.
- ❖ *Evaluation Design Checklist* (Stufflebeam, 2004): the metaevaluation standards designed according to the hopscotch of evaluation were combined and integrated with the evaluation design checklist standards.
- ❖ *Criteria for Selection of High-Performing Indicators. A Checklist to Inform Monitoring and Evaluation* (MacDonald, 2013): given the relevance of the indicators

under the Lighthouse projects monitoring programs, a subset of standards was designed based on the checklist of MacDonald (2013).

❖ *Metaevaluación de políticas públicas: una visión desde la ciencia política* (García Sánchez, 2009): given the collaborative feature of the Lighthouse projects monitoring programs, and their relevance for stakeholders and citizens, specific standards addressing the relationships and the decision making of stakeholders were included, based on García Sánchez (2009).

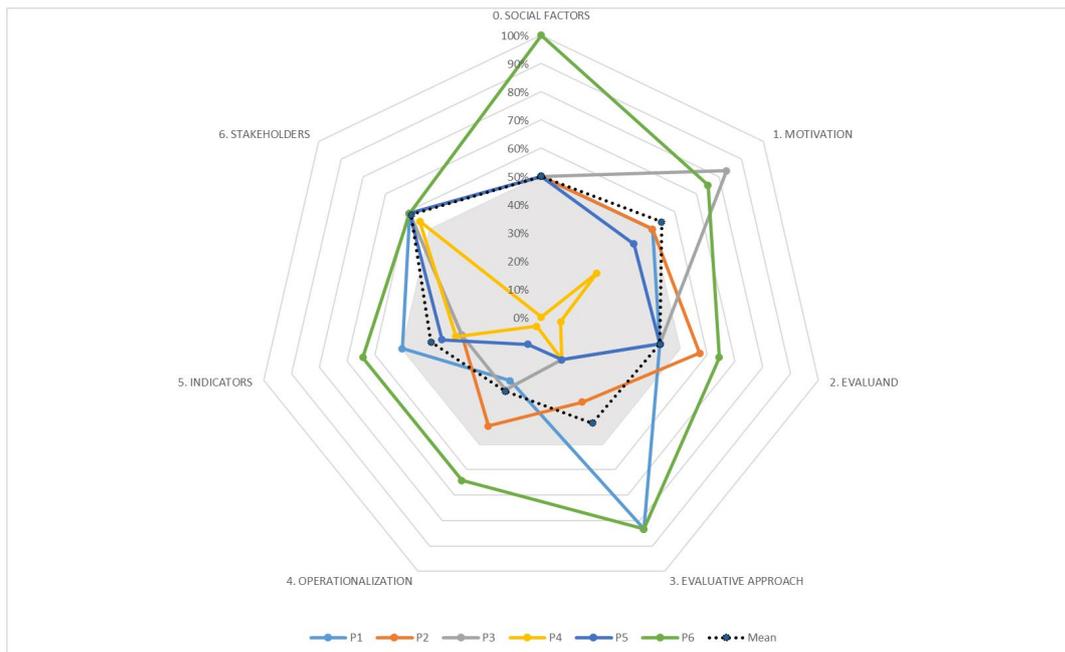
Besides, I identified the data sources to fill the metaevaluation checklist through a scoping survey to the evaluators of the sample Projects.

The collected information was analysed through a mixed method, qualitative and quantitative. For the qualitative analysis of the evaluation frameworks documents, I used the MAXQDA software for qualitative data analysis, and coded the text following a deductive approach based on the metaevaluation questions. The text segments were labelled according to the metaevaluation checklist standards. Besides, I assigned a quantitative score from 0 to 2 to the checklist items, according to their accomplishment level: no / partially / yes.

Results. The main conclusions of the metaevaluation highlight the following.

- The operationalization of the social perspective is weak, while some of the used indicators are not valid, not consistent with the evaluation proposal and not aligned to the relevant social dimensions. In particular, the improvement of the quality of life of users is one of the main goals of the projects, but this relevant dimension for the social perspective is barely operationalized through valid indicators.
- The methodological framework is consistent with current and previous practices in the field, it is based on consolidated indicators, applicable in different settings and selected through a collaborative process (although with the notable absence of the end users of the interventions) according to the relevance and the availability of information, ensuring the data accessibility to a greater extent. However, the methodological approach seems weak, since it doesn't approach the interventions underlying theory of change and attribution, while it doesn't analyse the projects from a systemic perspective.

Moreover, the social evaluation frameworks present a mild-low level of accomplishment across the seven dimensions: the social perspective, the motivation and the stakeholders' participation are tackled to some extent, while few in the rest of dimensions, as shown in the following Figure.



Accordingly, the following recommendations are proposed for the next projects:

- To research and agree the conceptual and epistemological boundaries of the social perspective within the Lighthouse projects evaluations.
- To involve social sciences professionals, able to bring valuable perspectives, knowledge and capabilities into the Lighthouse projects evaluations.
- To integrate the evaluation references to support the conceptual framework and the whole design of the Lighthouse projects evaluations.

Abstract References

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