❑ Design Principles for Efficient Services in Smart Cities

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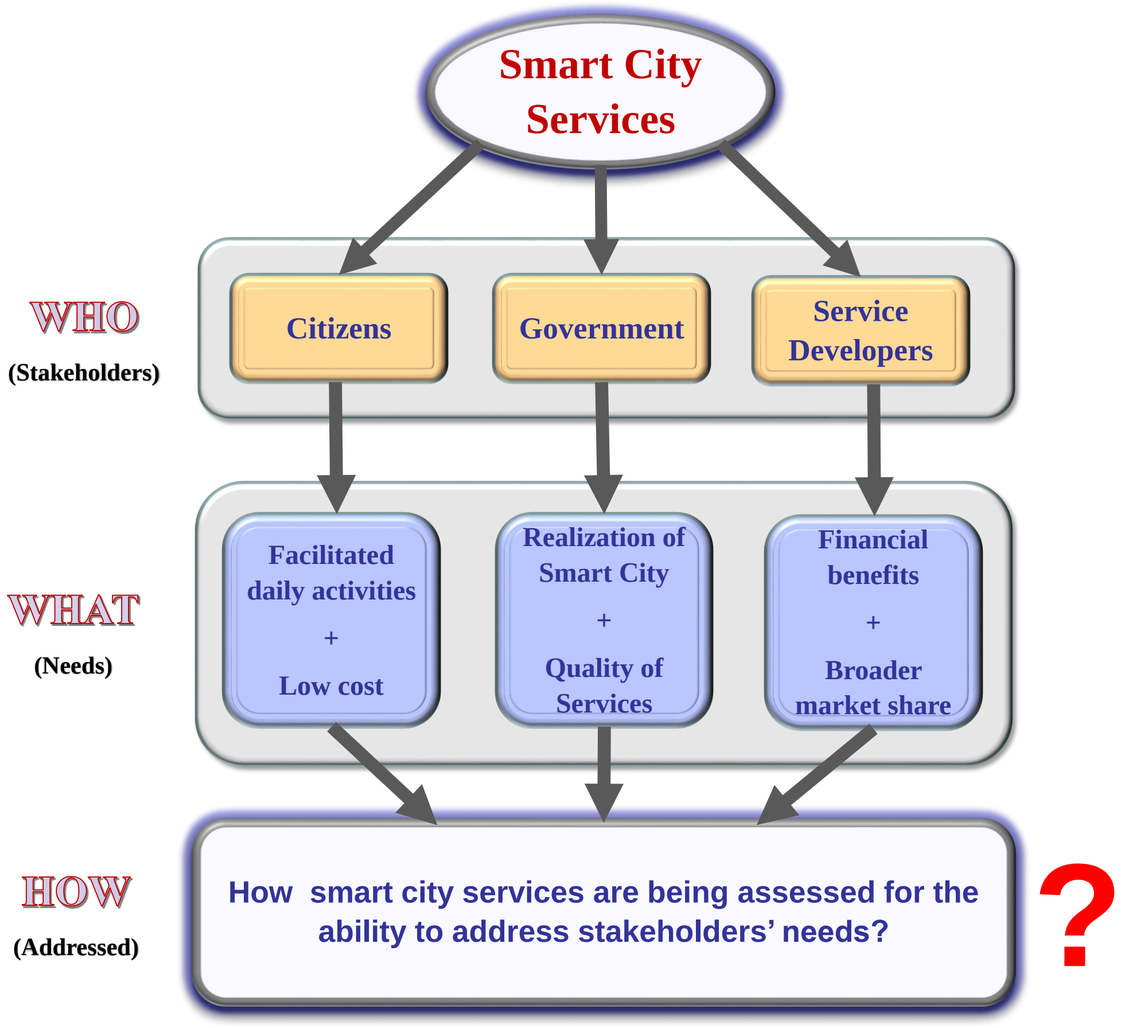
❑ Gap Analysis in Responding Stakeholders' Needs



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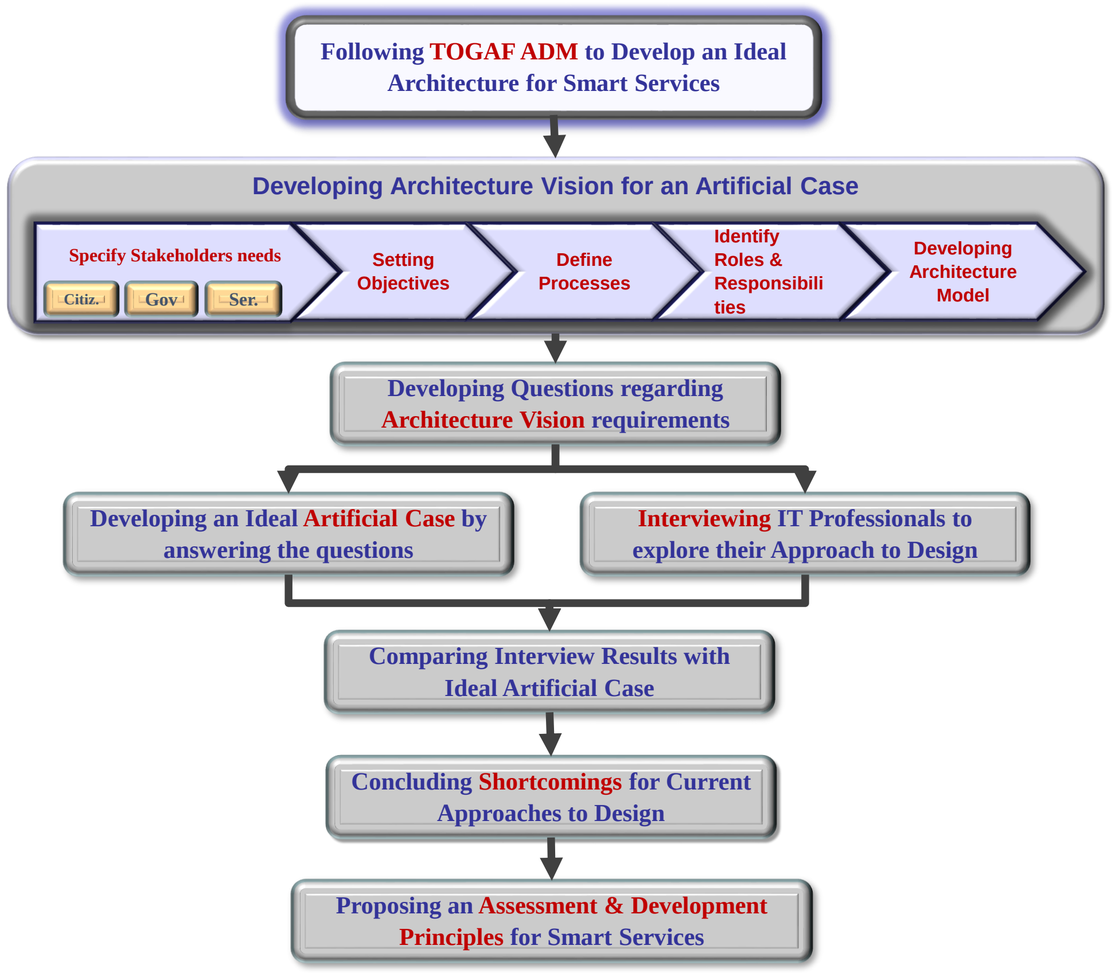
❑ Methodology to Develop Assessment Principles for Design of Smart Services



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❑ Principles for Assessment and Development of Effective Smart City Services

10 Principles for Assessment and Guideline for Development:

1. Clarification of the problem in terms of specifying stakeholders' concerns;
2. Specifying the issues as the stem of the stated problems;
3. Defining detailed and achievable objectives to address the issues;
4. Define the processes to address the issues and achieve the objectives as well;
5. Specifying responsibilities and roles for actors involved in the processes;
6. Specifying all the requirements for the proposed solution;
7. Specifying the constraints, e.g. what are excluded due to time or budget limitations;
8. Providing evidences for considering all the IT principles;
9. Visualizing final proposed architectural model which support the defined processes;
10. All the above mentioned items should be documented.

These principles could be useful for:

- An **Assessment Tool** for ***Authorities*** to assess innovative proposals in terms of complying with citizens needs and smart city priorities for investment;
- A **Guideline** for ***Service Developers*** to develop more efficient services.

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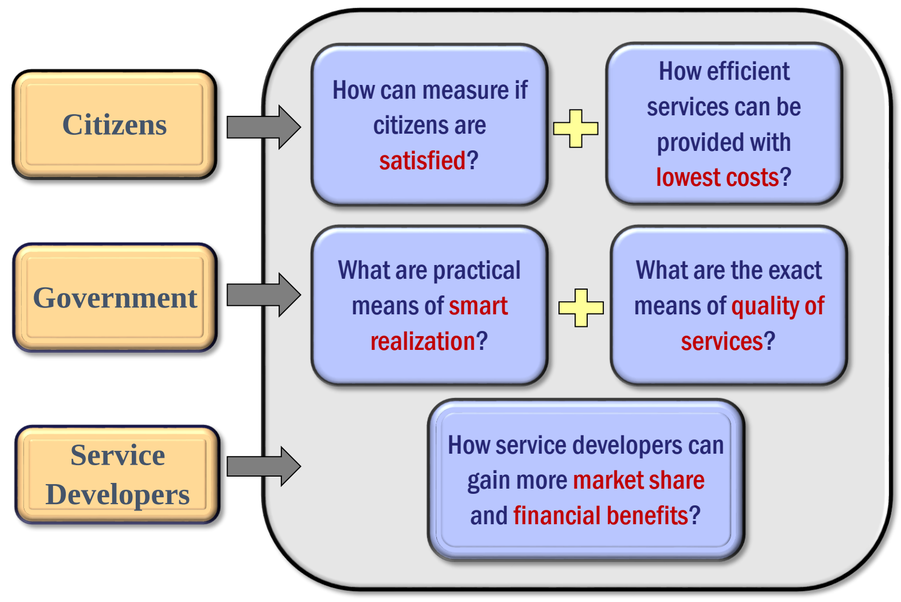
❑ Further Steps of this Research

More work is required for these principles in terms of elaborating stakeholders needs as below:



Publications:

- Pourzolfaghar, Z. & Helfert, M. (2016). Investigating HCI challenges for Designing Smart Environments. Human Computer Interactions International Conference, Toronto.
- Pourzolfaghar, Z. & Helfert, M. Vision Development for Designing Smart Environments. Submitted to Enterprise Modelling and Information Systems Architecture Journal.
- Pourzolfaghar, Z., Bezbradica, M. & Helfert, M. Types of IT Architectures in Smart Cities – A review from a Business Model and Enterprise Architecture point. Submitted to CONFENIS 2016
- Pourzolfaghar, Z., Bezbradica, M. & Helfert, M. 10 Principles for Development of Effective Smart Services. Ongoing paper.

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