

# Actor oriented performance assessment

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Nowadays, the awareness concerning the real meaning and impacts of the SDI is rising. The SDI society acknowledges that there are many complexities, in numerous different domains, connected to a certain SDI initiative. For example not only technological issues are important, but one should also take into account economic, legal, social and organizational aspects when planning or assessing SDI activities. The problem is however, that all those issues are still tackled in a separate way, without taking into account the cross impacts and repercussions they might have on each other. These combined effects are very important though, especially when one is evaluating the performance of a certain SDI initiative.

Assessments of SDIs are still rather scarce (Nedovic-Budic et al, 2008). When they do occur, the same methods, like Cost-Benefit Analyses, are used in almost every situation. Though, they are actually only suited for very specific objectives (like justifying major funding for a long term plan for example). Also, they require exclusively monetary information, which can cause severe difficulties in many situations. For instance, which money value should be given to “higher SDI reliability” or “more fluently decision making” (Ayan, 2003)?

An additional problem is that the current evaluation research is still more concerned with subjects as access to, and exchange of information than with the use and utility of the SDI. However, it is precisely this “use”, and how it is experienced by the potential user, that determines the true success of the SDI (Nedovic-Budic et al, 2008). So only by investigating who the different users of spatial data are, what they are using the data for, and how the current SDI serves their various needs, one can assess if the SDI is truly doing what it was designed for. Up until now, there is no clear evidence about those users, their objectives, or how well they are served by the existing infrastructures (Askew et al, 2005).

This user based thinking thus clearly calls for a new type of assessment approach, one that does take into account the perceptions of the various stakeholders of the SDI society. The Multi Actor Multi Criteria Analysis, or MAMCA, developed by Macharis (2000), could be an excellent tool for this type of performance investigation. The MAMCA is an extension of the original Multi Criteria Methods (MCAs). Like all the MCAs, the MAMCA also enables the analyst to take into account a high amount of conditions, effects and impacts that surround a certain problem situation. That way, technological, legal, economic, social and organizational aspects, as well as their cross impacts can be added to the analysis. The MAMCA goes even a step further, as it allows for structured and profound stakeholder participation during the complete evaluation process. And this is of course exactly what is required in a “user” and “use” focused performance assessment.

The MAMCA starts with the search for all the relevant stakeholders involved in the investigated SDI or initiative. Those stakeholders will then state their needs, wishes, preferences and experiences concerning the current situation. These clarifications are very useful, since it is precisely these users' perspectives that matter most and a distinct knowledge about that will ensure successful applications of SDI products and services (Nedovic-Budic, 2008). These objectives of the stakeholders will form the criteria upon which the SDI initiatives will be assessed. In practice, the initiatives will be scored on all the criteria formulated by the stakeholders. With this information, the actual assessment in the MAMCA will be completed using appropriate techniques, such as PROMETHEE developed by Brans (1988) or AHP developed by Saaty (1982). In the end, the analyst obtains total scores, which serve as performance indicators for the SDI initiatives.

This actor oriented quality approach allows the analyst to focus the performance investigation on the needs and perceptions of the users. The ultimate criterion for SDI performance, namely the contribution of the SDI to the achievement of the individual and organizational goals (Nedovic-Budic, 2008), is exactly what is focused on in the MAMCA assessment.