Pilot Report

Background and goal

When planning a city's development, new buildings, neighborhoods, or the restoration of current ones, it is getting common for municipalities, regions and cities to include participatory governance and align the development process and expected outcomes with the needs and wishes of the affected citizens and other relevant groups of stakeholders.

This document includes the insights and learnings from Pilot study 1 in Stockholm, in the EU JPI Urban Planning project InSight & EnLIGHT - with the aim to democratize urban planning.

The City of Stockholm has in the document "Vägledning medborgardialog och delaktighet" a number of points deemed important to consider regarding citizen dialogue:

"To realize the vision of a Stockholm for everyone, the citizens of Stockholm need to be involved. This means that all citizens should have the opportunity to influence the city's development.

Citizens' dialogue is about an exchange of opinion as part of the decision-making process, where citizens' views are taken into account, although the citizens' ability to influence decisions can be varied."

In the report "Citizenship dialogue as part of the governance process" ("Medborgardialog som en del i styrprocessen"), *Sveriges Kommuner och Landsting* (SKL) have identified six main usage of citizen dialogue, in different phases of the decision-making process:

- *Tidigt i processen för att kartlägga behov av en viss utveckling eller förändring*
- *När behov är kartlagda och [staden] vill ha idéer kring lösningar för att genomföra förbättringar*
- *När det har tagits fram ett antal lösningsidéer och analys av konsekvenser behöver ske och där medborgarnas erfarenheter är viktiga att beakta*
- *Inför beslut där dialogen primärt syftar till att uppmärksamma beslut man avser att ta ställning till*
- *I implementeringsfasen där medborgarna kan ge sin syn på hur implementeringen av ett beslut ska ske*
- *I utvärderingsfasen där medborgarna kan ge återkoppling på om det önskade resultatet nåddes*

Figure 1. SKL - citizen dialogue in different phases

One of these phases is what the InSight & EnLIGHT project addresses:

"When a number of solutions have been developed and consequence analysis is needed and where citizens' experiences are important consider" (*"När det har tagits fram ett antal lösningsidéer och analys av konsekvenser behöver ske och där medborgarnas erfarenheter är viktiga att beakta")*.

There is, however, a problem in finding suitable projects for testing; it is sensitive to raise hopes among citizens about the opportunities to influence projects that can then not be realized. There are also legal requirements that must be followed. Therefore, one must be careful in the choice of test project and also limit the scope.

Method

In the InSight & EnLIGHT project we propose a method based on both qualitative and quantitative data, which can enhance public decision making. The process bridges two already established methods, namely Allies' *Association Wheel* (AW) and Preference's decision analysis framework, commonly referred to the *Delta Multiple Criteria Framework* (DMC).

The InSight & EnLIGHT method can be used in a variety of situations, but a few prerequisites must be met:
- the participatory process must be carried out digitally,
- there must be a number of alternatives to choose from (not only one),
- it should be a strategic question worth investing the time and effort to evaluate
- multiple stakeholders and/or multiple objectives.

The idea is to use the method within spatial planning and infrastructure planning.

In the first pilot we aimed to bridge these two methodologies, working together with City of Stockholm in the context of the development of Nytorps Gärde, an area in the southern parts of the city which is to be developed as a meeting place with more activities, housing, preschools, sports halls, businesses and trade.

The chosen area of interest was "local services" (närservice) as listed above.

Insight Wheel - Citizen inclusion Nytorps gärde

To get the best effect out of the two methods combined, as described above, an in depth analysis of the planning situation is needed. The hypothesis for the two methods to work together is a clear "idea" and "strategic question" with specific alternatives to evaluate (such as "Förbifart Stockholm", https://trafikverket.ineko.se/Files/sv-SE/10533/RelatedFiles/2005_70_nordsydliga_forbindelser_i_stockholmholsmomradet_sammanfattning_av_vagutredning.pdf).

It was decided that the first pilot should aim at the important purpose of getting a "technical proof of concept", and to test the technical ways to connect and transfer data from IW to DecideIT. Therefore the pre analysis of the strategic decision situation in the project was not done in depth. It was decided that "local service" was of interest and according to that broad scope the questionnaire was set up to embrace an early stage-perspective. There were no identified alternatives for strategic choices had by the time for the field study.

InsightWheel module in survey:

1) Main question: "The development of Nytorps gärde and your neighbourhood is planned to be completed in 2025. One of the focuses and results will be better "local service". To help us in this planning process - what expectations - in relation to the new development - do you have when it comes to local services?". Swedish: Utbyggnaden av Nytorps gärde och utveckling av ditt närområde kommer att vara klart 2025, en viktig förbättring är att

närservicen kommer att utvecklas – vad förväntar du dig att det kommer att finnas för närservice (affärer, restauranger mm)?"

2) Ranking of mentioned expectations: "What expectations are most important to you?". Swedish: "Vilka förväntningar är viktigast för dig?"

3) Evaluation of the expectations provided already today: "To what extent to recognize this expectation to be provided already today?". Swedish: "I vilken grad anser du att detta uppfylls redan i det område du bor idag?"

4) Explanation rank 1: "You mentioned XXX as your most important expectation. Can you develop why?". Swedish: "Du nämnde xxx som din viktigaste förväntning när det gäller närservice. Kan du utveckla varför du tycker det så vi förstår ännu bättre?"

5) Explanation: "You mentioned XXX as the most important expectation of service that today is not provided where you live today - can you explain why and if possible recommend what should be done?". Swedish: "Du nämnde XXX som en närservicefunktion som inte tillgodoses på ett bra sätt i det område du bor idag – hur tycker du att man på ett bättre sätt kan tillgodose detta då man planerar ett nytt område?"

Results

The result from the main question is presented as a "learning canvas" (1x2,5 meters) to maximize instant understanding of the method and stakeholder views (see below).
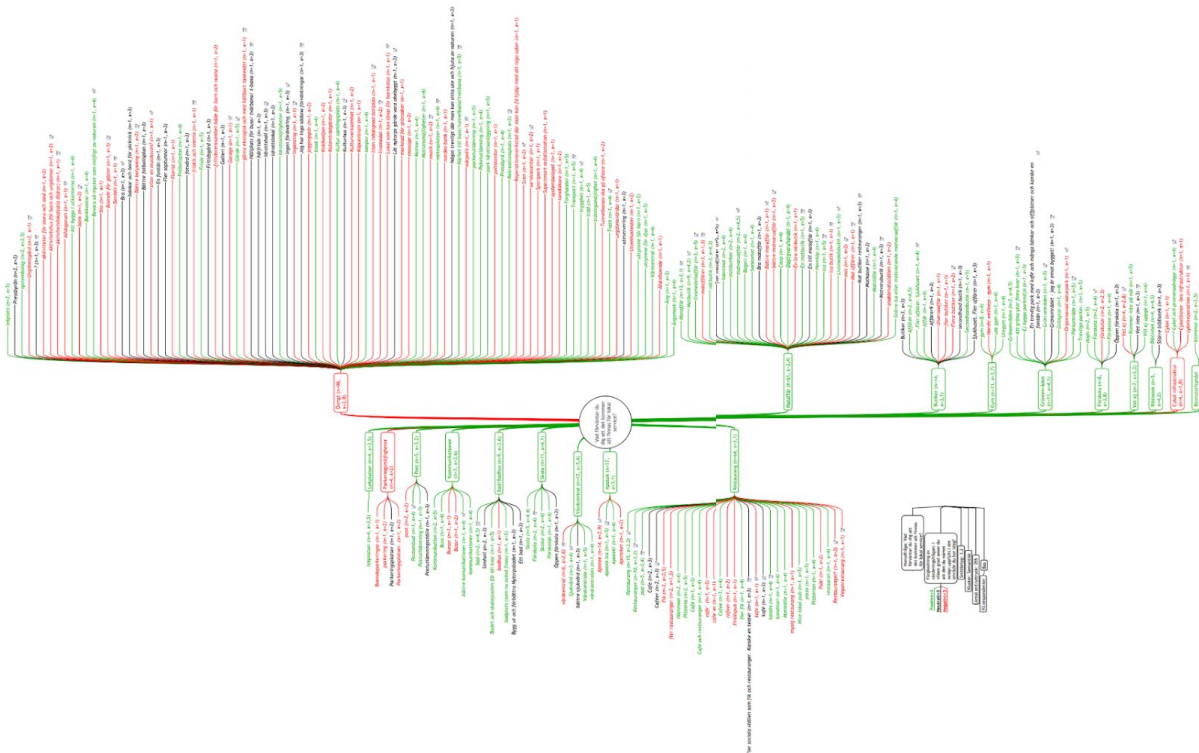

Figure 2. Result of survey in form of "learning canvas"
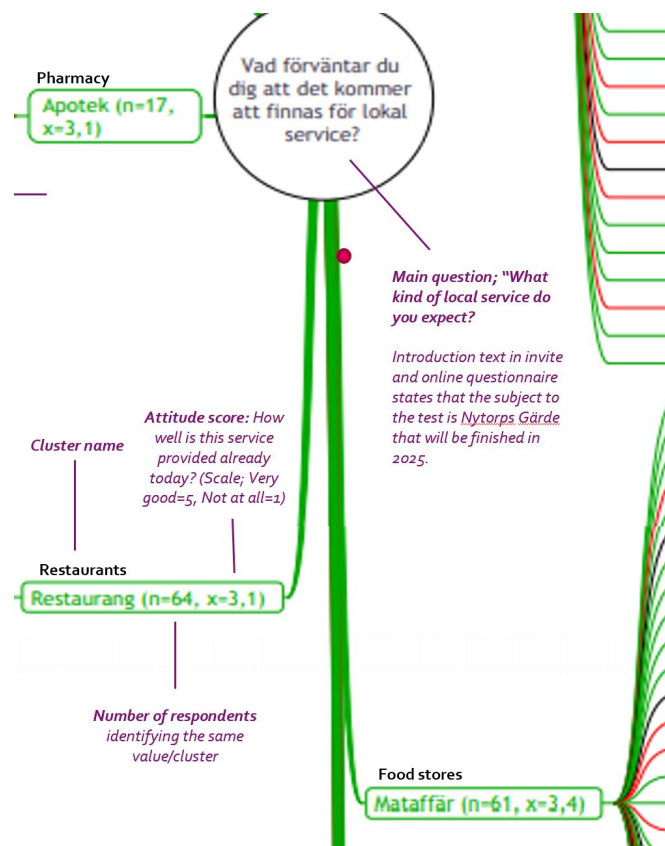
Zoomed in with explanations:

Figure 3. Zoomed in "learning canvas"

How to "read" the graphic - exemple - pharmacies

All associations (expectations) are colored. The color indicates how the association (expectation of local services) is addressed and met in the respondents current living area. So for instance the service "pharmacy" as clustered is an expected service in the new developed area Nytorps gärde, but is already today provided if we ask the close by living neighbours. In the down below example you understand that there are both positive (green) and negative (red) "ratings" of how the expected service is provided already today, but when looking at the ALL expectations mentioning "pharmacy" the overall attitude is positive, therefore the cluster/topic is green.

Figure 4. Cluster - overall attitude

Where to locate a pharmacy - possible application

From further analysis a planning department can also analyze which nearby living neighbours (Kärrtorp, Hammarbyhöjden, Björkhagen och fler) are most positive/negative. This can be used in planning where a pharmacy should and could be located, within the development (Nytorps gärde).

Another example - Bicycle infrastructure

Figure 5. Cluster - overall attitude

Above you can read that there are both positive and negative expectations, but in this case the stakeholders as a whole are negative towards how the "bicycle infrastructure" works today.

About the Association/Insight Wheel - and wide usage

The InsightWheel is developed from being used as a test within personal testing based on coping theories. The method is developed to map out a phenomenon from a group of individuals perspective using an open and interactive questionnaire that could be used online, in interviews, group discussions and even just as a structured way of coding/handling stakeholder testimonials in print, mail or chats.

The method is primarily used in innovation and compliance related projects where the purpose is referred to as "stakeholder dialogue and innovation". The way of approaching stakeholder inclusion aligns with international standard ISO 26000 Guidance for Social responsibility.

To involve citizens and other important stakeholder groups into the decision making process is getting common. However, vital insights often get lost in vast materials with no effect at all.

The InsightWheel is a stakeholder dialogue tool which produces insights and makes it possible to ask questions to the material gained in an early stage throughout the process, resulting in that stakeholders interest can be included even in small decisions which also leads to a cost efficient use of resources. A potential center part of any project or innovation- and communication process that faces a complex stakeholder reality. This also aligns with the increasing interest for citizenship dialogue.

The method is used in gathering knowledge from experts or to setting up systematic decision metrics for default decisions leading up to the decision making forum.

Bridging module

In order to be able to use the information from IW in the DMC method, a bridging module is needed to convert the input data to a suitable format.

A main challenge was to enable a method that takes into account that different respondents are allowed to propose different value drivers and thus provide preferential statements on differing entities. This was addressed through a clustering approach, together with a conservative quantitative interpretation of the data, but still enabling for capabilities of discriminating between the value drivers proposed by the respondents. However, from the IW survey only the first two questions have been used in further analysis.

The above mentioned approach has been tested in the first pilot and the result can be seen in the below diagram, where each criterion has been assigned a min/mid/max weight according to the input from the respondents:
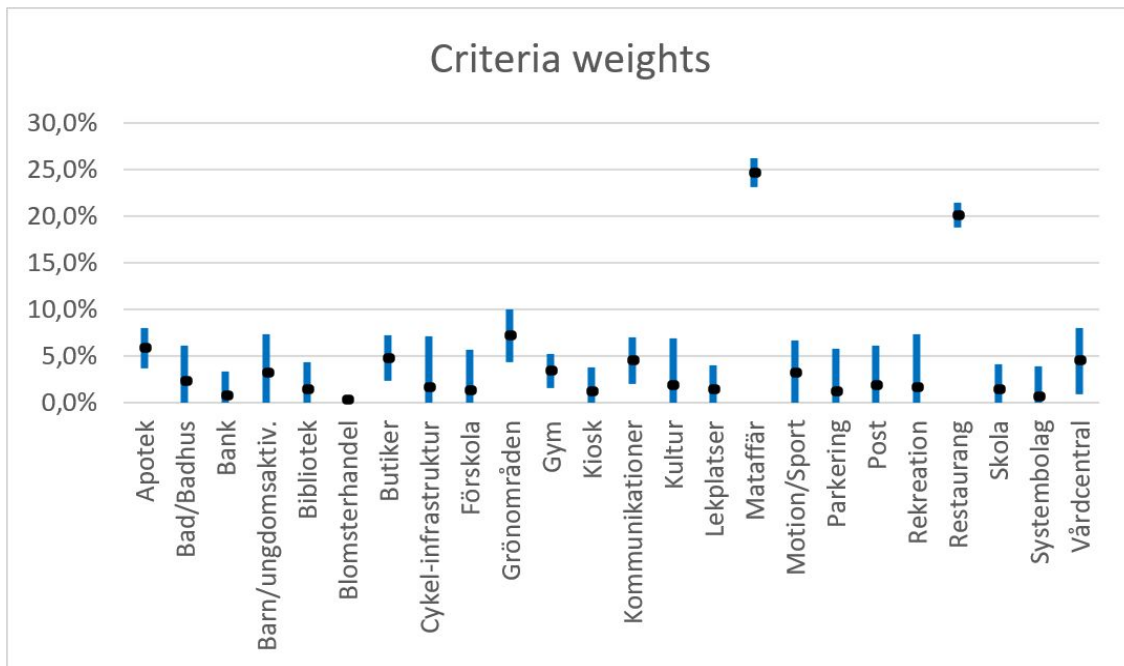

Diagram 1. Weight given to each criteria (min/mid/max).

The scenario setup and valuation has been carried out internally (through estimation), as this merely is a proof-of-concept. In the below diagram we can see how well the two different scenarios fulfill each criterion:
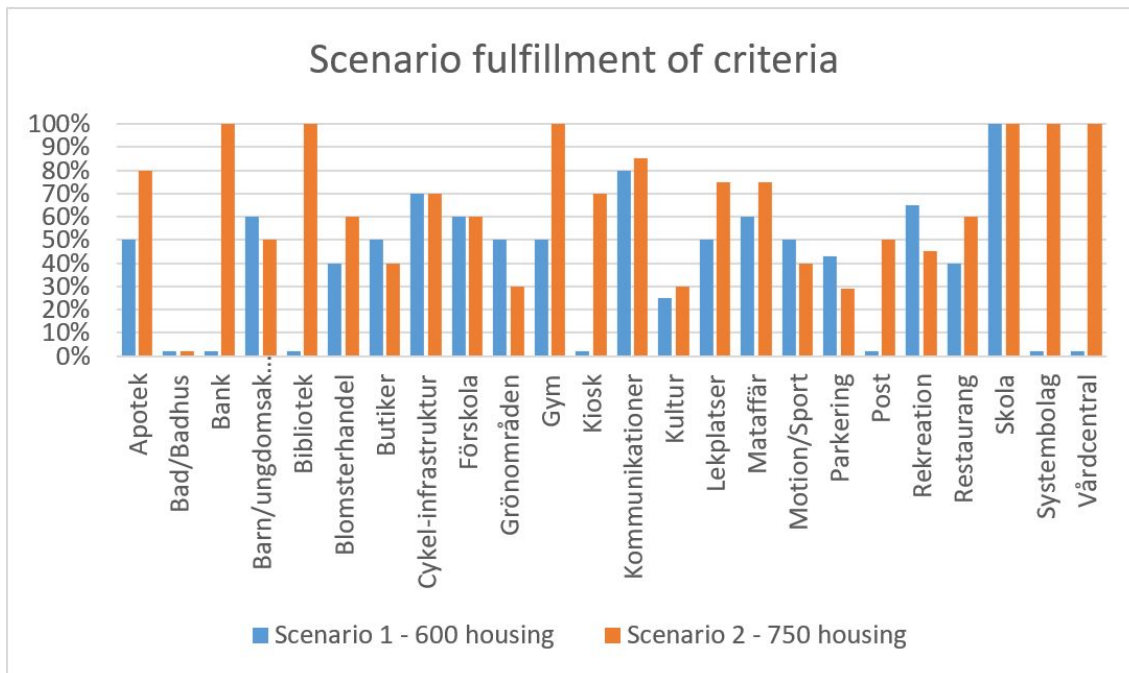

Diagram 2. Valuation of how well each scenario fulfills the different criteria.

Decision analysis - DMC method

The decision tool *Decide*IT is implementing the DMC method and is the tool that is used in this first pilot. The DMC method is based on multi-criteria decision analysis (MCDA), where weights and values are used to calculate the weighted average of each scenario.

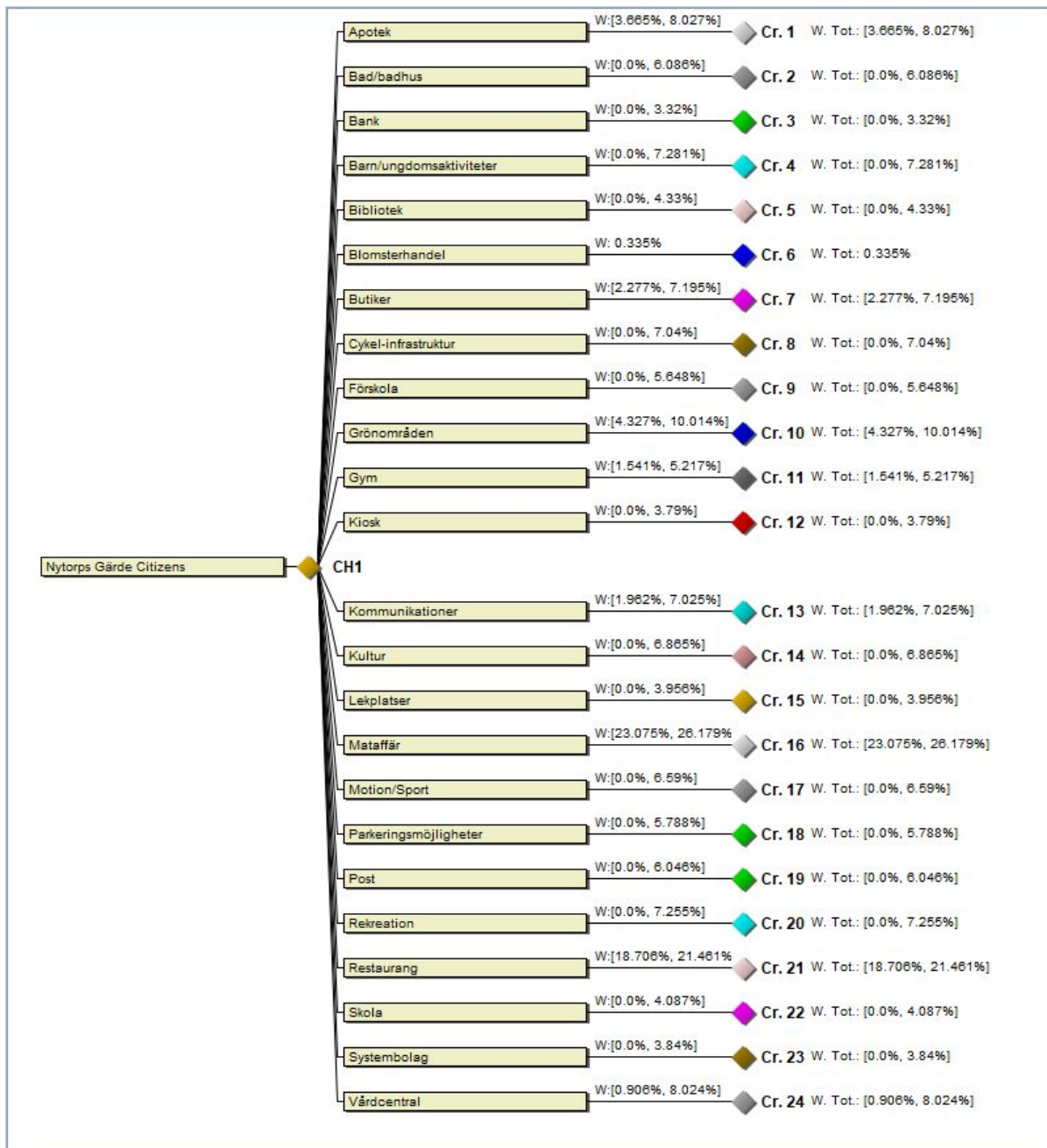Below the resulting value tree based on table 1 can be seen:

Figure 6. Value tree with input data from the bridging module.

The different labels correspond to the criteria, the "W" is the weight interval of that particular criterion. Below is the result of the analysis, given the input data from the bridging module (table 1):
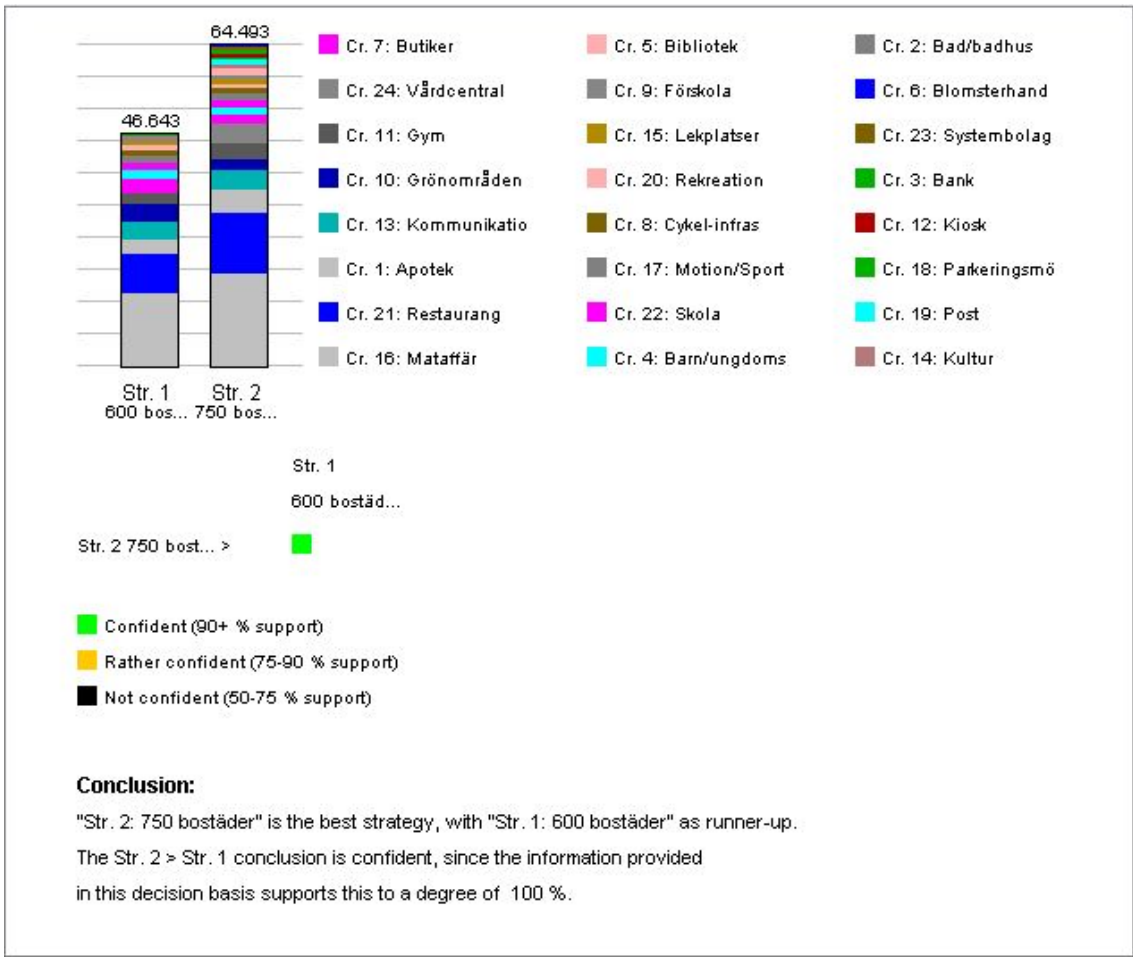
Figure 7. Resulting analysis - citizens

This means that, given the input information from the respondents and the estimation on how well each of the strategies fulfill the different criteria the alternative with 750 housing is preferred. This can be seen in the bars in figure 3, where the bar for 750 housing is much higher, and this is also explained in the "Conclusion" section in the above chart. The colors in the bars show how big impact each criterion has on the different strategies. The size of these colors depends on the weight of each criterion, as well as how well the strategies meet the criteria specified.

We could extend this analysis to include also other stakeholders, such as the City of Stockholm, Cultural administration etc. An example of this is shown in figure 4 below:
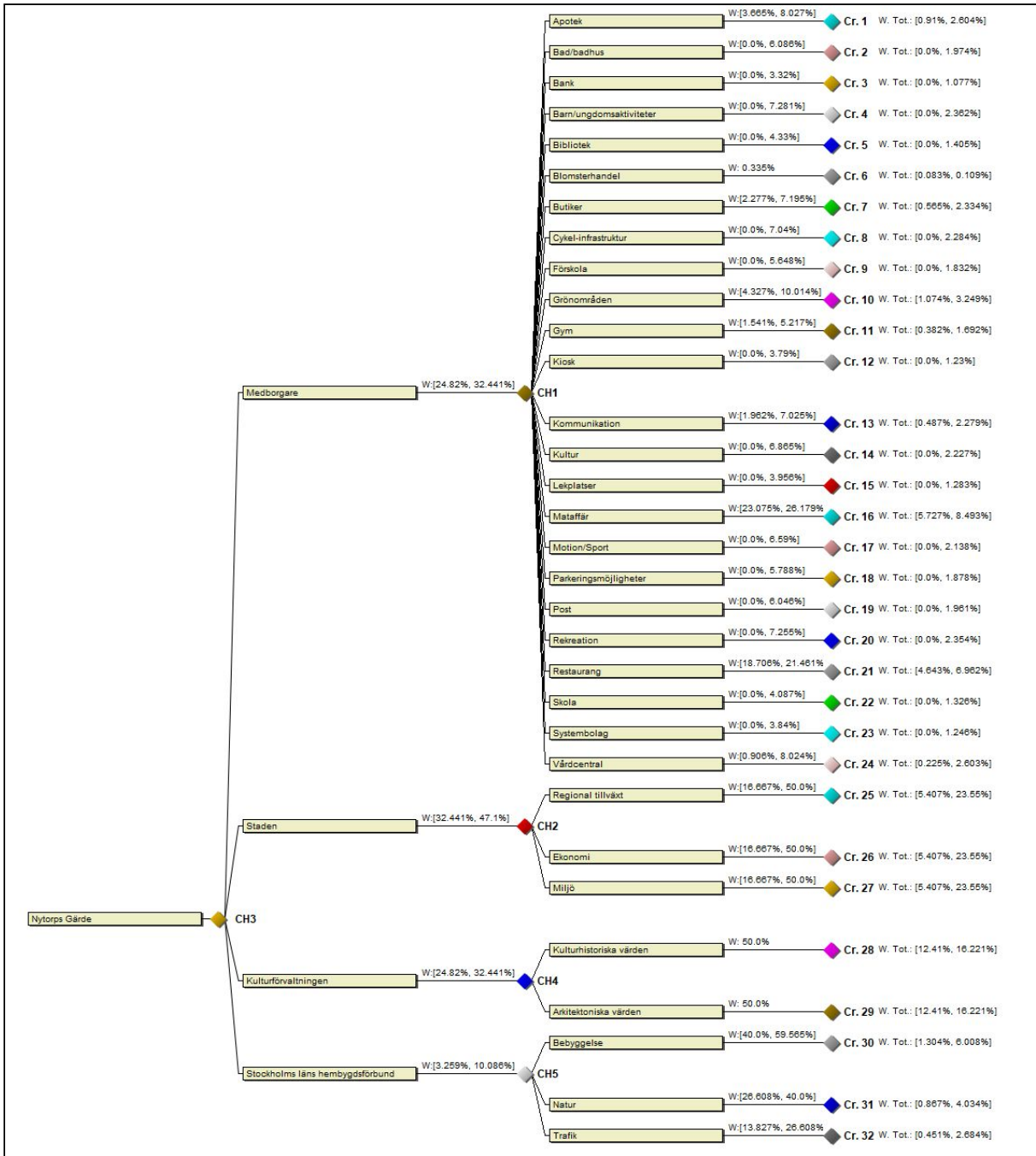
Figure 8. Value tree with additional stakeholders and corresponding criteria.

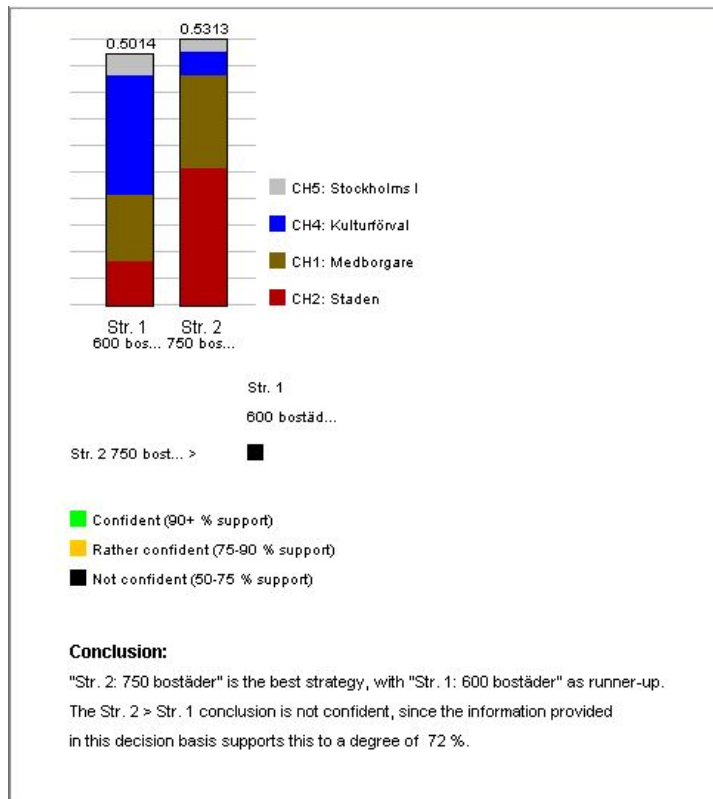Below is the result of the analysis with multiple stakeholders:

Figure 9. Resulting analysis - multiple stakeholders

The colors in the bars show how much impact each stakeholder has on the different strategies. The size of these colored parts of the bars depends on the weight of each stakeholder, as well as how well the strategies meet the criteria specified by each stakeholder.

The brown bars consist of the entire bars in the evaluation made only on the citizen perspective (in figure 7).

Next step

We have shown that the setup of IW -> bridging module -> DMC works well and we have a proof-of-concept. The next step is to find a suitable case for pilot 2 in collaboration with the City of Stockholm; a real-life decision situation and apply the InSight & EnLIGHT method.

Finding a partner who wishes to improve the current citizen participation and decision process is an important step in the next phase. Such a partner could also be a developer, e.g. Atrium Ljungberg and Telestaden. Important for this to work is to be able to show a financial advantage if the developer comes out with a number of options, instead of only one option as it is today. Perhaps it would be easier for the developer to get an approval of the suggested solution if we could create an early stakeholder dialogue?

For better use of the DMC decision framework, the InSight Wheel survey should provide for cardinal ranking of value-drivers. Also, we should aim for a thorough understanding of the strategic decision

problem such that the survey questions involving rating can be utilized (if possible) for the purpose of calibrating the rankings.

In pilot 2 we will strive to improve the preparations of the first stage of the analysis, an in-depth "needs analysis" together with the case client. The purpose of analysis of this kind is to maximize the output effect for the specific case client. This will test the InSight & EnLIGHT idea and concept. The analysis should strive for setting up a clear strategic decision at hand. Preferably and if possible also presenting 2-5 specific alternatives/strategies/scenarios that could be relevant and possible solutions and ways forward from today's current situation. This will develop a pilot that will be value creating to the project owners such as the municipality, entrepreneurs, involved stakeholders and employees involved.

This analysis will have to be facilitated by Allies and Preference in cooperation with the project group for the pilot case.