Guideline for MSC decision process

EFFECT4buildings Toolbox:

Multi Service Contracting; Annex 2

The project "Effective Financing Tools for implementing Energy Efficiency in Buildings" (EFFECT4buildings) develops in collaboration with public building managers a comprehensive decision-making support toolbox with a set of financial instruments: **Financial calculation tools**; **Bundling**; **Funding**; **Convincing decision makers**; **Energy Performance Contract**; **Multi Service Contract**; **Green Lease Contract**; **Prosumerism**. The tools and instruments chosen by the project has the biggest potential to help building managers to overcome financial barriers, based on nearly 40 interviews with the target group. The project improves these tools through different real cases.

To make sure building managers invest in the best available solutions, more knowledge on different possibilities is needed as well as confirmation from colleagues that the solutions performs well. EFFECT4buildings mapped **technological solutions** for energy efficiency in buildings with the aim to share knowledge and experiences of energy efficiency solutions among building managers in the Baltic Sea Region.

This document is a part of the Multi Service Contracting (MSC) toolbox and is a guide to the MSC decision process. It includes various exercises and attention points that can be useful in phase 0 of MSC. This guide can assist the decision makers on whether to choose the MSC model, and afterwards to help the decision process of phase 0 when designing the idea and scope of the MSC project. The exercises introduced in this document can also be accessed in tool 9, "Example of MSC training", to be found on www.effect4buildings.se.

Partners

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MSC project characteristics

- Projects that can focus on several services. By using MSC instead of creating several separate projects, one can lower the risk of sub-optimisation.
- Projects that deal with renovation and retrofitting of a larger building portfolio in the existing building stock, since the MSC model benefits from the effect of repetition and economy of scale to gain higher efficiency and quality.
- Fast execution of a larger portfolio of projects. The MSC supplier has the necessary resources and competences. Every new project/task must not be tendered and have a start-up with a new supplier. The work gets more efficient because of the effect of repetition and economy of scale.
- Complex projects with a need for external expert knowledge and a need for flexibility to adjust to specific needs in different buildings. MSC is an early cooperation model where the MSC supplier has a delivery team with all necessary competences. In the MSC supplier and building owner develop and plan the project, which is customised to the building owner's needs, project to project.
- Projects where the building owner are not yet fully aware of which type of measures to choose. Based on open book and a framework agreement, the building owner can decide on the concrete content of the project at the end of phase 1, when more knowledge of the existing buildings has been gained.
- Projects where the solution must be coordinated with many users and stakeholders. In phase 1 the users can be involved in both the solution and the planning of the execution. For example, various test lights can be installed before the final choice of lamps.
- Provides the opportunity to test new methods and solutions when using performance requirements. The parties can also agree on demonstration and test of new installations/methods which can provide a better solution over time.
- Building owners with a wish to have a more professional operation of its building stock and follow-up on performance in the buildings. From the beginning the model focuses on securing performance by designing key performance indicators (KPIs) and methods for follow-up and evaluation for each service both with regards to who, what and when.
- MSC makes it possible to fund the project across budgets for maintenance, energy, indoor improvements and construction. If the building owners have access to favourable energy funding, it can be an advantage to let the energy savings finance most of the project and let other funding supplement. Learn more about how to fund projects by bundling several services in the EFFECT4buildings guide to 'Bundling'[1].

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[1] to be found on www.effect4buildings.se.

Framework establishment

When starting up an MSC project, it is essential to agree upon the framework of the project, among other things which buildings to include in the building stock, which resources and expertise are available, etc. Below 8 proposed issues to discuss are listed. They are equally important and will all influence the implementation and success rate of the project.

1. **Scope**: Determine the expected scope in terms of building stock, project types and services.
2. **Economy**: Identify financial frameworks as a guide to level of ambition, e.g. economy derived from planned maintenance, energy savings, indoor climate funds, etc.
3. **Time**: Within what time frame is the project expected to be completed?
4. **Competences**: Map the relevant competences and identify the right resources in your organisation.
5. **Organisation**: How should the project be organised in all phases – including the involvement of operations and users.
6. **Consultancy** (advice): Perhaps entering into an agreement with an adviser in case of a need for assistance for tender development and support for the project implementation.
7. **Model of cooperation**: Determine what successful cooperation looks like and what type of supplier may be included in the desired cooperation.
8. **Market dialogue**: Do not hesitate to ask the market and/or get advice from the suppliers on how to reach the project objectives.

The next sections will elaborate on how to set the scope of the project by aligning expectations and objectives, and furthermore how to map the needed competences and which points to pay attention to when setting the project organisation.

Expectations and objectives

This exercise is relevant in phase 0 when designing the idea and scope of the project. The purpose is to align expectations and objectives and to become aware of whether objectives are conflicting and if so, prioritise between them.

Based on the project or projects in focus in your organisation, follow the steps in the exercise. The exercise will lead you to create an objective hierarchy (see figure 1).
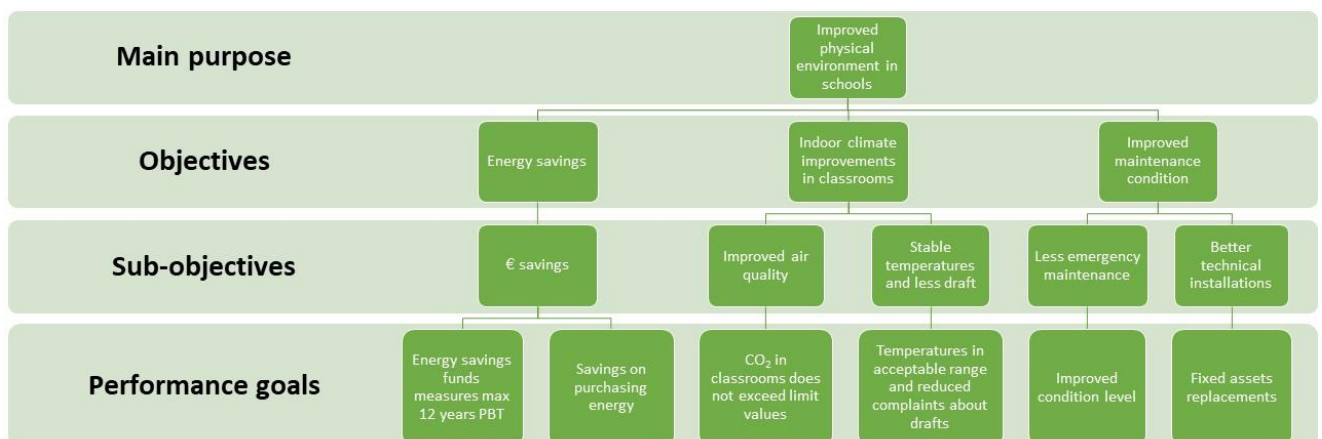
Objective hierarchy

Figure 1 example of an objective hierarchy with 4 levels

In phase 0 there is a broad focus, but the exercises can also be reused in phase 1 with a narrower focus on a specific building. Furthermore, this exercise is closely related to setting KPIs and a program for evaluation and verification in phase 1.

Purpose and objectives exercise

Purpose of exercise: To map and define guiding objectives with related performance goals.

Participants: Responsible leader/decision maker, project leader and relevant stake holders in designing the model.

Purpose and objectives Part 1

Brainstorm on objectives (one by one) and place them on a blackboard without talking

Arrange objectives that are related together

Arrange objectives in a hierarchy with main purposes first

Purposes and objectives Part 2

Find relevant sub-objectives and corresponding performance goals (at least have 4 levels in the hierarchy)

Discuss whether there are conflicting objectives

Discuss how to prioritise between conflicting objectives – write the prioritisation on the board

If the group finds new objectives during the exercise, these are added to the map.

Example of objective, sub-objectives and performance goals

It is important to break down objectives, since objectives can be reached in many ways. In the illustration of the objective hierarchy (figure 1 and figure 2), follow the energy-savings objective. This objective is in this case broken down into the sub-objective 'to save cost for energy on your budget'. This sub-objective can be reached in different ways: Production of sustainable energy, convert to a cheaper fuel, energy efficiency, reduce square meters of building stock, be flexible in your use and save money buying when energy is cheap and so on. The exercise will help you to align expectations on how to reach your common objectives. It can be very helpful to break down some of the main objectives into a sub-level 5 (figure 2 has 3 levels of objectives).

Since MSC includes several parameters and related sub-objectives, it is important to ensure that no conflict exists among them. For example, reaching a certain payback time with energy savings and obtaining a better indoor climate can create a conflict, if the latter objective can be achieved only by increasing energy use. With such conflicting objectives, the building owner must prioritise in the objective hierarchy (see figure 2) or redefine objectives or sub-objectives, so they do not conflict.
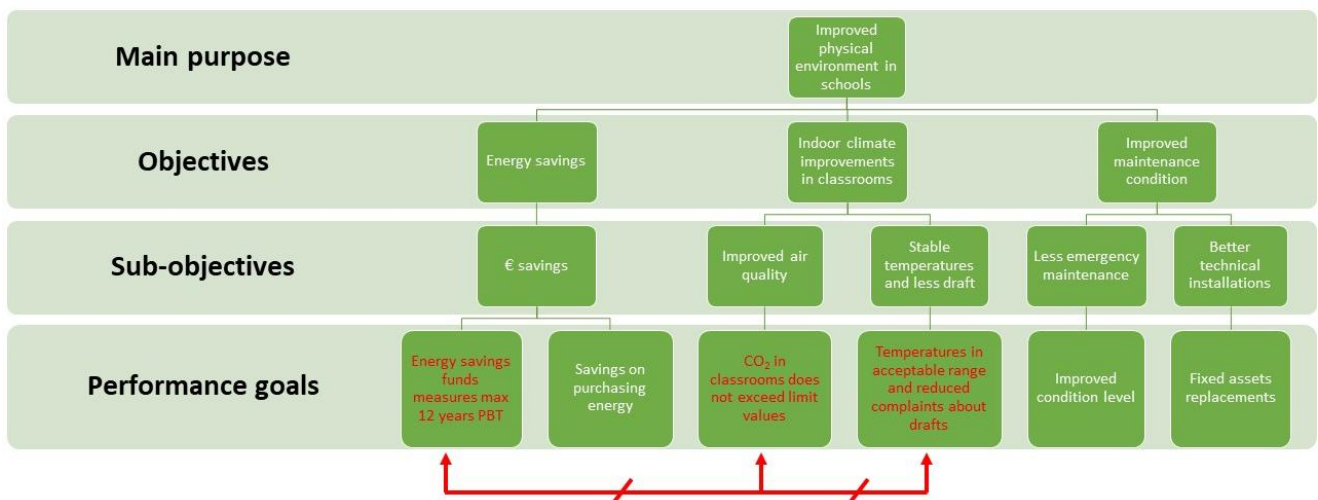
Identify conflicting objectives

Figure 2 Example of conflicting objectives, one must prioritise between them and redefine objectives

Competences

Relevant competences

It is relevant to have knowledge and experience within these categories when choosing to use an MSC model.

- Cooperation models

- Public Private Partnership models

- Procurement laws and regulation

- Functional/performance requirements

- Turnkey contracts, framework agreements and consultant agreements (related to building and construction work)

- Specific professional knowledge on multi services (e.g. energy, indoor climate, maintenance, Building Management System (BMS))

- Stakeholder involvement and communication

- Construction management

- Performance management

Mapping competences

Once the building owner has settled on an initial scope for the project, this exercise is relevant when setting the project organisation. Success depends on having the right competences to make good decisions throughout the project period.

Purpose of exercise: To become aware of competences needed in project and competence gaps in the project organisation, to take the necessary preventive actions.

Participants: Responsible leader/decision maker, project leader and relevant stakeholders in designing the model.

Mapping competences Part 1

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
DEFINE THE ROLES IN THE PROJECT	BRAINSTORM ON RELEVANT COMPETENCES	GROUP THE COMPETENCES, IF THEY ARE DIRECT RELATED	DEFINE FROM 1 TO 3 HOW EXPERT QUALIFICATIONS ARE NEEDED	EVALUATE FOR EACH ROLE (STEP 1) WHAT COMPETENCES ARE ADVANTAGEOUS TO POSSES

It is a discussion exercise, so it is more about the value of the process and discussion, than a precise result. The task at each step is to:

1. Use post-its or cards to write the roles in the project. When defining the roles, think of both steering committee, project owner, project leader, project group, politician level, resource persons, etc. Only use limited time, so do not map all stakeholders, this is an exercise in itself.
2. Brainstorm on competences needed to execute the project, both skills in relation to decision making, process and project management, types of expert qualifications (technical, financial, procurement, communication, etc.).
3. Group the competences, if related. Could they be possessed by the same person?
4. When discussing the level of experience and expertise of the qualifications needed in the project, think of knowledge that is not common in your organisation (e.g. a complex public procurement process with an MSC contract will be more difficult than a small normal construction contract).
5. Look at the roles and discuss what competences it would be advantageous to possess for the different roles.

Mapping competences Part 2

This part of the exercise is relevant, if you are beginning to or already have agreed on members in the project organisation. Part 1 gives criteria for 'the ideal project organisation'. In part 2 you compare this to reality and identify critical needs for preventive actions to achieve project goals.

Identify people in the future project organisation (already assigned or candidates)

Identify gaps in competence in the project organisation

Identify the strengths and weaknesses of the project organisation (a SWOT analysis might be helpful)

Brainstorm on possible preventive actions

If competences are not present in the project organisation, these possible preventive actions are suggested:

- Replace project participants or supplement with new participants
- Make an advisory board that can assist with necessary competences and decisions
- Courses or training activities
- Hire consultants
- Lower the level of ambition
- Give more responsibility to MSC supplier