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# The value of FM for a healthy urban environment; application of the FM Value Map to Urban FM

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## ABSTRACT

**Background and aim** - Facility management is the art of facilitating the core process of a company, providing an inspiring and healthy environment for both employees and clients. When the perspective would be broadened from healthy buildings to healthy cities, what value could be added by an “Urban FM” approach, facilitating living in a city, striving to offer a healthy and inspiring urban environment? In 2010 the FM Value Map was introduced, offering a conceptual framework that can be used in general, to provide a better understanding of the value and contributions of FM to a business and its surroundings. The aim of this paper is to discuss if the FM Value Map can also be used as a conceptual framework to understand and explain how Urban FM can contribute to a healthy and inspiring urban environment.

**Methods** - The FM Value Map was applied to the Molukkenpark, an urban park in a Groningen neighbourhood. To fill in the model, desk research was combined with the findings from interviews and attentive observations of phenomena related to facility management and management of the urban environment.

**Results** - Insight into the applicability of the FM Value Map from an Urban FM perspective.

**Originality** - This is the first time that the FM Value Map is tested concerning Urban FM.

**Practical or social implications** - The results are relevant for the development of the (Urban) FM profession and the curricula of education in the fields of FM and the built environment.

**Type of paper** - Research paper (short).

## KEYWORDS

Facility management, Urban facility management, Healthy cities, City Parks, Added value, FM Value Map, Urban management.

## INTRODUCTION

In 2018, 55% of the world’s population resided in urban areas and this is expected to increase to 68% by 2050 (UN, 2018). Urban living is associated with several environmental and social issues, such as noise, pollution, traffic density and a lack of green spaces, which negatively influence health and well-being and discourage an active lifestyle (WHO, 2017). Michell (2013) emphasises that ensuring long-term sustainability is a permanent challenge in all cities and urban precincts. She stresses that in order to make the urban environment more sustainable, a better understanding of the relationship between buildings, people and the urban precinct is needed.

Contributing to sustainability is also an important objective of Facility Management (FM), as well as increasing health and wellbeing. So far, FM is mostly considered the art of facilitating the core process of a company, providing sustainable, inspiring and healthy buildings and services for both employees and clients. When that perspective would be broadened to healthy and sustainable cities, what value

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could be added by an “Urban FM” approach, facilitating living in a city, striving to offer a sustainable, healthy and inspiring urban environment? Tammo and Nelson (2012) distinguish five domains in which FM can contribute to community development, namely:

1. service management: providing facilities that enable effective delivery of services in response to local needs;
2. social inclusion: including social objectives and involving community members;
3. environmental performance: offering an eco-friendly and sustainable environment, raising awareness of environmental issues within the community;
4. economic sustainability: offering economically viable and sustainable services, affordable by the community;
5. strategic development: analysing the urban context, and applying principles of engagement with public space, such as the ones formulated by Gehl (1980), including striving for integration instead of segregation, inviting instead of repelling, and opening up instead of closing in.

The following definition of Urban FM is provided by Temeljotov Salaj and Lindkvist (2020):

“Urban FM aims to provide integrated deliveries such as flexible solutions, well maintained and adaptable buildings, and activities/services in the space between buildings oriented towards the customer’s satisfaction and needs.”

Kuijlenburg (2020) points out that the tangibility of the FM manager is an issue, asking what the added value of FM could be.

The FM Value Map (figure 1), which was introduced by Jensen (2010) to clarify the added value of FM to the core process of a company, might help to also shed light to the added value of FM for an urban environment. The FM Value Map offers a conceptual framework that can be used as a generic model, to provide a better understanding of the value and contributions of FM to a core business as well as its surroundings. The main structure of the FM Value Map corresponds to the following general process model (Jensen & van der Voordt, 2017):

*Input → Throughput → Output → Outcome = Impact = Added Value*

This paper aims to discuss if the FM Value Map can also be used as a conceptual framework to understand and explain how Urban FM can add value to an urban environment. This will be done by applying the FM Value Map to practice, to the Molukkenpark, an urban park facilitating the residents of Groningen, a city in the North of the Netherlands.

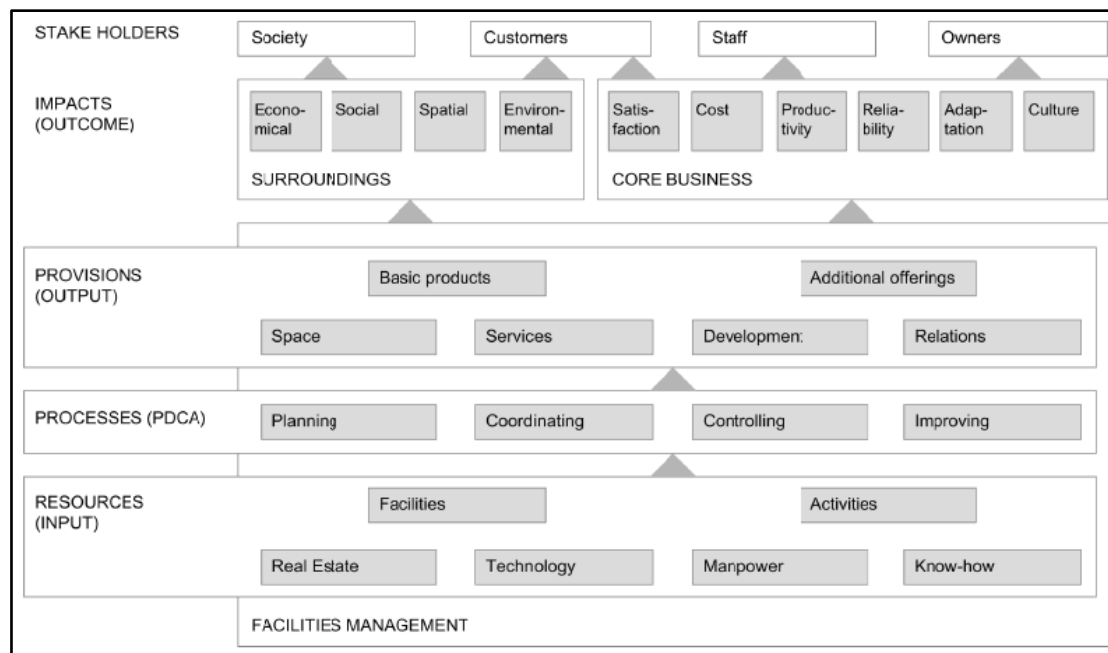


Figure 1 Generic FM Value Map (Jensen, 2010).

## METHOD

The Molukkenpark was chosen as our research object by means of a mix of purposeful sampling and convenience sampling (Patton, 1990), because relevant data concerning this park had already been collected in a previous research project of Hanze University of Applied Sciences Groningen. During the autumn of 2021, three groups of students from Hanze University investigated the current situation in the Molukkenpark and advised on how to improve its attractiveness (Gruppen et al., 2021; Jongstra et al., 2021; WCG, 2021). They gathered data by desk research, by observation of the park and by interviewing different stakeholders involved.

For this paper, desk research concerning Urban FM and concerning the FM Value Map was combined with the results from students' research. Furthermore, the project manager who is responsible for improving the Molukkenpark was interviewed about possibilities to apply urban FM in relation to the park. These results were used to fill in the fields of the FM Value Map with regard to the Molukkenpark, considering this park as an urban facility.

## RESULTS

Based on the main structure of the FM Value Map, the results of filling in this model in relation to the Molukkenpark are presented. The bottom part of the model, containing "Input", "Processes" and "Provisions" (figure 2) is presented first, followed by the top part, containing "Impacts" and "Stakeholders" (figure 3).

### Resources, Processes and Provisions

The *Resource* Molukkenpark is located in the north-eastern part of the city of Groningen, in a neighbourhood called "Indische buurt". It has a size of approximately 6.5 ha. The park is part of the green belt around three northern and eastern pre-war districts. The Molukkenpark has an English landscape appearance, with asymmetrical lines and flowing paths. Special trees have been planted here, such as weeping willows, special evergreen oaks, stately ash trees, a double row of lime trees and alternating shrubbery patches. The edges of the various ponds are largely ecologically designed. The

park contains over 200 different species of plants and animals (Gemeente Groningen, 2015). In the middle of the park there is an elementary school; this part of the park has been given a more movement-oriented character aimed at schoolchildren.

The *Processes* part contains the Plan-Do-Check-Act circle (in this model addressed with the terms Planning, Coordinating, Controlling and Improving). "Planning" is where Strategy finds its place in the Added Value Model. In facility management, strategy is usually aiming at supporting the core business in the best way possible. As the owner of the park, the City of Groningen is responsible for the relevant Processes. In its policy plan for green infrastructure, the City of Groningen states:

"Within the robust green network, the parks and larger green spaces are the most important links. They are destinations for residents to take a short walk, enjoy a barbecue, go jogging or just relax in a quiet spot. As the city grows and becomes busier, so does the pressure on the parks. Sufficiently attractive and diverse parks help to disperse the pressure. (...) the neighbourhood parks are actually important for daily contact with greenery. They therefore deserve our special attention" (Gemeente Groningen, 2020).

However, as nowadays far from all residents perceive the Molukkenpark as a pleasant environment, improvement is required. For example, there are residents who find the park unsafe because of poor sightlines, steep banks of the ponds (danger of drowning), poor maintenance or loitering youths. In 2021 a project has been launched, aiming to improve the park's attractiveness.

Hence the Molukkenpark is intended to be an attractive *Provision* for all neighbourhood residents, both children and adults. It already contains facilities aiming at different target groups, especially a playground for children, a fitness park for adults including elderly as well as places where you can just relax. In addition, there are plans to create an experience garden for people with early onset dementia near the Odensehuis, a meeting place for people who are dealing with dementia.

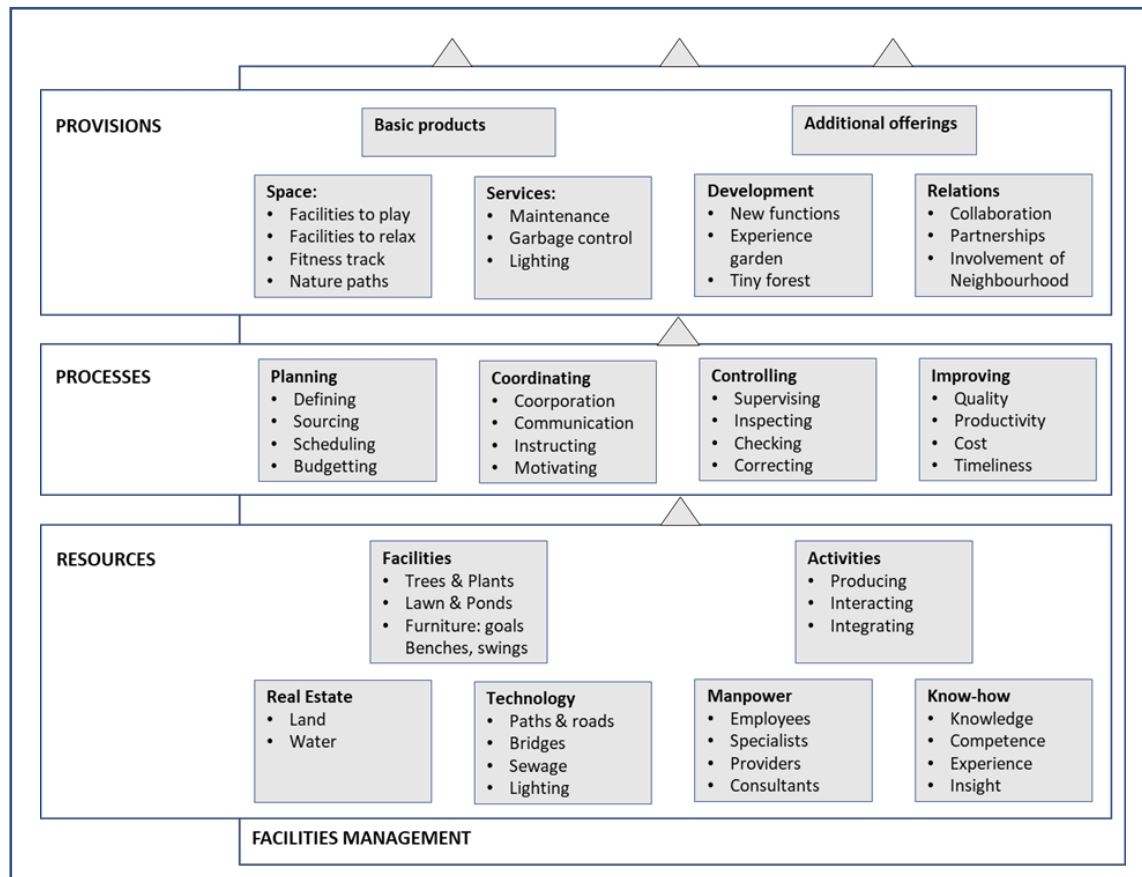


Figure 2 The Molukkenpark Value Map - bottom part.

### Impacts & Stakeholders

The four aspects of the Added Value model concerning impact on the surroundings of the Molukkenpark can be concretised as shown in figure 3. Parks contribute to a rise of the local tax base and increased property values and also provide significant indirect revenues to local and regional *Economies* by being a place for sports tournaments and special events. A park also provides places to *Socialise*, to meet, to walk, sport and play together with other people, while available for everyone no matter age or income. Access to parks may lead to reduction of crime and of juvenile delinquency (NRPA, 2010). However, at the Molukkenpark loitering youths and poor maintenance give the residents an unsafe feeling. Important possible positive *Environmental* effects of parks are noise buffering combined with the production of natural sounds, less exposure to air pollution and reduction of the urban heat island effect (WHO, 2016). Parks function as a water-buffer in case of severe rainfall, improve the air that we breathe and offer room for wildlife and plants (200 different species in the Molukkenpark!). In the Added Value model *spatial* is linked with landscaping and townscaping, meaning that a well-designed park contributes to a perception of aesthetic space, not only of the park, but also of the adjacent neighbourhood.

From the urban FM perspective, the core business of the Molukkenpark is not immediately clear. In order to be able to describe the impacts the Molukkenpark has on that core business, it is necessary for it to be determined. According to the project manager who is responsible for the improvement of the Molukkenpark, the challenge for the park is “to ensure that it is a safe, attractive, pleasant park for the entire neighbourhood”. Both this challenge and the policy as expressed by the City of Groningen suggest that “facilitating the life of everyone in the neighbourhood” can in this case be assumed to be the core business. Based on that assumption, the six impacts on the core business have been filled in in the

Added Value model. By offering inspiration and by contributing to regeneration, the park helps to boost the *Productivity* of its visitors and therefore of the neighbourhood. *Costs* are being made by the city government, covering operational costs, costs of staff and investments needed.

Looking at *Stakeholders*, since the Molukkenpark is open for everybody, every neighbourhood resident can be considered a potential customer and the same holds for animals. Under *Society* the different stakeholders involved in the park are mentioned.

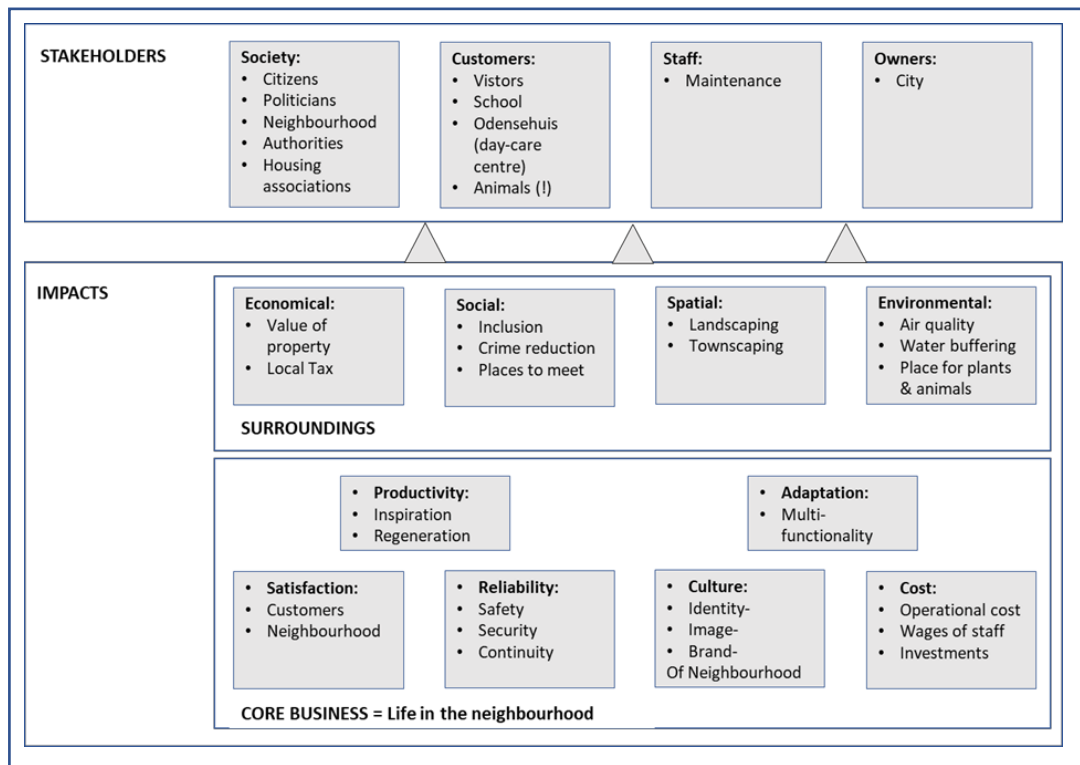


Figure 3 The Molukkenpark Value Map - top part.

## CONCLUSION AND DISCUSSION

From our exercise of filling in the FM Value Model concerning the Molukkenpark it can be concluded that this model might be applicable in an Urban FM context in order to shed light on its value. However, before it can really be used, there are still some challenges to overcome.

First of all, to provide a strategy with an aim in order to determine how to put the Molukkenpark to best use, a prioritisation of impacts is needed, which can only be realised when it is clear what the core business is. In the case of the Molukkenpark, the assumption that “facilitating life in the neighbourhood” is the core business, might work out well. But important questions remain, like: what to define as the productivity of this life in the neighbourhood? And also: if this counts for the Molukkenpark, will it also be applicable to Urban FM in general?

Secondly, to measure the effectiveness of a chosen strategy, it is essential to be able to measure the impacts the strategy is aiming at. Some measuring has already been done by means of a yearly survey in the neighbourhood of the park, but that is not covering all the aspects of the impacts.

Thirdly, some obvious impacts, like for example a positive influence on the health of residents and especially of visitors of the park, as well as stimulation of social cohesion and of environmental awareness by the park, were hard to place in the Added Value Map.

The assumed strength of applying the FM Value Map to an urban environment will lie in the fact that it supports a holistic approach of facilitating its core business by delivering support with the right choice of impacts, based on the ability to measure those impacts and to steer on them.

To be able to do so, it is important to agree upon a clear definition of the core business of a city or a neighbourhood. After having established this definition, the impacts that play an important role when facilitating this core business can be derived. New knowledge is also needed on how to measure these impacts. Facility management, with its holistic approach, has proved to be able to support complex organisations in steering on the right choice of impacts. In the future, Urban FM should be able to do so in the same way when facilitating complex cities. In order for this to become reality, our research efforts will have to focus on finding a clear definition of Urban FM, on defining the relevant impacts and on describing how to measure these impacts. This will lead to an Urban FM Value Map, offering a framework that can be used as a generic model, to provide a better understanding of the value and contributions of Urban FM to the core business of a city. Education in the fields of FM and the built environment will need to develop curricula to educate the Urban facility managers of the future. This model will help to bring structure in the holistic knowledge and vision that they need.

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