

**AT FORT**  
**Implementation plan**  
**SUOMENLINNA**



English Summary  
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### 1. Introduction / Tuija Lind

Year 2014, the third and final year of AT FORT project was dedicated to accomplishing an implementation plan. Our organization had just published - in close cooperation with other national world heritage sites - a new management plan for Suomenlinna in 2012. It was clear since the beginning of the project AT FORT in 2012, that final output, an implementation plan could not cover the whole site, only a part of the activities run by the Governing Body.

In addition to the management plan, the AT FORT project helped us and forced us to get further with some topics on an implementation level. Due to large number of subjects of interest, Suomenlinna chose to tackle three subjects, the landscape of the fortification, the possibilities of the use of alternative labour-force and the economic impact of Suomenlinna.

The implementation plan of Suomenlinna landscape is still an ongoing project. It shall result on *landscape maintenance cards* as final product in May 2015. These cards are going to be tested in summer 2015 by our gardeners. With the feedback from maintenance work carried out during the spring and summer they will be revised in autumn. The delay of this implementation plan is due to the change of nature of the project. The project became more ambitious than thought at first hand: a true research project collecting existing data on Suomenlinna's landscape and its maintenance since 40 years aiming to find the best but feasible practices for the future. The ongoing process of a new detailed city plan of Suomenlinna by Helsinki Municipality and National Board of Antiquities must be taken into consideration when revising the *landscape maintenance cards* as well.

In Suomenlinna there is a long tradition of cooperation with county prison and receiving budget money for restoration from the Ministry of Justice. This cooperation has been satisfactory, and the need for creating other kind of labour models had not been judged necessary so far. During the AT FORT project

meetings and visits we saw project partners all over Europe dealing with different kinds of alternative working models, and we were encouraged to develop further this form of work. We elaborated cooperation with students of gardening. The preparation of this new type of collaboration and collecting the feedback after summer was carried out in the frame of the AT FORT project. Encouraged by this experience – that shall be renewed years further – the alternative work has been studied in more general context considering the *focii* of all Suomenlinna stakeholders. This project has given birth to a world heritage volunteers camp to take place in Suomenlinna next August 2015.

Funding heritage maintenance has been one of the important topics discussed during the AT FORT projects workshops and visits. The Governing Body is the owner of Suomenlinna fortification and responsible for its administration, maintenance, restoration, development and presentation. It receives all of its investment money from the state and about 35-40% of the running costs (covering the salaries of 80 to 90 employees). About 60-65% of the running costs come mainly from rents (apartments, workshops and conference facilities). In 2014, 880 000 people visited Suomenlinna, but since there is no entrance fee to the site, the growing number of visitors does not increase our income directly, even though it increases some of the maintenance costs. One of Governing Body's employees was encouraged by the AT FORT project to study this topic in her master theses finished in November 2014 for Helsinki University, Department of Geoscience and Geography.

## 2. Developing fortified landscape maintenance in its diversity / Iina Johansson

### 2.1 Guidelines for ethics and quality

*"In Suomenlinna the Governing Body has a beautiful landscape in its hands. Since almost forty years, the gardeners and employees mow the lawn, cut the trees, pick up the trashes, water the plants; they rake, comb, sweep, clean, fertilize, root out - and even burn the growth once in a while. The Governing Body is responsible for every possible space and corner except a few private areas. There is almost 80 hectares of landscape to maintain."*

Protected sites like Suomenlinna have a historical value. In these places all acts and tasks must be considered through argumentation. Therefore landscape maintenance, as well as management and planning, does always have to be based on examined knowledge.

During this process we have realized that all our daily acts are, or at least should be based on a long list of references, such as:

- How is the site protected? How does the legal frame guide our work?
- What requirements does the status of a national and world heritage bring along?
- What requirements does the status of being part of Helsinki city give? How do we co-operate with the municipality?

- Do the accomplished surveys, inventories and studies give us all database needed? Is it enough or is there a lack of some critical information?
- How can we adjust the national directions and guidelines used in green areas with maintenance of a historical site?
- What is the effect of recreational use on landscape?
- Do we have enough resources to function in a sufficient way?

In the context of maintaining a fortified landscape the archived data from the field work has a significant role, as well as the plans and theories already established, the most important of them being the *Suomenlinna Landscape, Renovation Plan*, published in 1987.

The AT FORT -experience brought along even more aspects to consider. We now know for sure, that in fortifications earth and vegetation are parts of architecture, or at least closely related to it. Therefore can we no longer treat landscape as a solitary green part on its own, but as an equal fortification element that should be preserved by maintenance as well as renovation.

## 2.2 From theory to a feasible practice

In the maintenance point of view, we have now asked ourselves here in Suomenlinna: What type of those best practices that we have learned during these three years should we, at least, execute, and, more importantly, are we missing something? For example, the wall-maintenance by climbing, in order to root out vegetation, as done in Besancon, would be profitable in Suomenlinna as well.

There is an obvious need to analyse mistakes made in the past in order to develop good practices and in this field we definitely want to continue networking with other European sites. In the future we have to find solutions for many questions, such as:

- How to solve the erosion problem in a sustainable way?
- Which techniques would be best in repairing earth-covered tops of the walls and how can we maintain the shapes afterwards?
- What to do with ramparts that are slowly crumbling?
- How to develop our service areas and optimize the waste management as well as re-cycling?

## 2.3 Landscape maintenance cards

During the three years of AT FORT project we have had a lot going on in Suomenlinna's green sector. As for the implementation case dealing landscape our question was: how do we integrate the already known theories and guidelines into our daily work? How to make sure, that all requirements are thoroughly considered in everyday basis? The gardeners and other landscape workers can't carry along piles of data in their everyday tasks. Would there be a simple way to array all the information needed?

We ended up by dividing the 5 main islands of Suomenlinna into pieces in order to create so called landscape maintenance cards, or files, for every green section

there is. Each card is two-sided, with a map and overall information on the one side and more detailed instructions on the other side. The cards function not only as an advisory tool, but also as a device for checking that set quality aims are reached. With a tablet base derived from these files it is also possible to document the yearly accomplished tasks.

### 3. Alternative labour-force

#### 3.1 Forty years of cooperation with the prison / Tuija Lind

Anticipating the departure of Army in 1973 an open prison under the Ministry of Justice was founded in Suomenlinna in 1971. Its target was to accomplish – according to a *master plan* - restoration works in Suomenlinna. Eight temporary barracks, a refectory and a sauna building were transferred to Suomenlinna to house about 90 inmates. Some existing buildings were transformed to office use. Actually it was thought that there would be work for 20 years - and that the prison would only be a temporary solution to fulfill the restoration task.

Today the work has been going on for over 40 years and it still not 'ready'. During these decades we have learned, that a monument can never be 'ready', because the restoration/repair of monuments is not an investment project limited in time –, but a long lasting process where the '*nature*' of the work varies between repair and maintenance, but the process never stops. The average number of inmates has been 60 during the last years. In the restoration works in cooperation with the prison, the Governing Body of Suomenlinna is the developer and the prison is the contractor, but the funding comes from the contractor side (Ministry of Justice). In this system the prisoners get paid for their work, but they have to pay for the housing and for the food. Today most of the buildings in the prison area have either been renovated or totally renewed.

What is excellent in this system is the fact that it guarantees a continuity for the restoration works. When there is some seven kilometres of fortifications, it takes ages to restore and maintain the structures. The cooperation with prison is a good model to keep things going.

#### 3.2 Pilot project: gardening students 2014 / Iina Johansson, Vesa Tuisku

The Governing Body of Suomenlinna (GBS) has already in previous years made close collaboration with the Work Efficiency Institute (TTS), which offers education leading to vocational qualification in gardening sector. An idea of organizing together a specific course for fortress landscape maintenance was raised up in the spring 2013. Combining vocational studies with training module in fieldwork would benefit students as well as the employer and the educational institute.

The preparatory meeting for designing the content and frames for the pilot course was held in December 11<sup>th</sup> 2013 and the agreement in long-term educational collaboration between GBS and TTS was signed in January 2014.

The pilot course of maintenance in cultural fortress landscape started up with a three week E-course elaborated for the purpose. The use of existing research data was the ground basis for the studying material, naturally including the historical context of the site in general. Other modules of the E-course dealt with e.g. best practices from the field work collected during the past ten years in Suomenlinna and the issues dealing with visitor management, erosion problems and waste management. One important part of the E-course was the educational material concerning the specific vegetation of Suomenlinna, of which the students had to make a specified study of their own. This herbal study was graded and the students got evaluation of the E-course based on the grade and overall participation in group discussions.

The training module started in July 21<sup>st</sup> 2014 and lasted for 10 weeks. The five students gained guidance in accomplishing various types of maintenance tasks. The training module can be seen successful in many ways. It enabled the students to get a part-degree in their gardening education and also gave them the opportunity to improve professional skills in practise in fieldwork. The GBS as an employer gained valuable input and true help for work with low costs. The designing and implementation of the pilot course in 2014 took us responsible over 200 hours of work. Implementing the up-coming course next year is considered to take only 25 % of this time.

### **3.3 A new project, a world heritage camp to be implemented in August 2015 / Petteri Takkula**

Inspired by the AT FORT project and visit to Medway, the Governing Body started to study other forms of alternative labour. During this process, the existing stakeholder groups: state, Helsinki municipality, educational institutions, business, NGO's and voluntary work were analysed on a general level in relationship whether their main focus is Suomenlinna or something else. It was important to analyse when commercial and non- commercial missions are overlapping and when not.

The Governing Body is not an educational organisation, but as a world heritage site, a part of our mission is to present Suomenlinna's significance and importance. In this context, the cooperation with *Allianssi Youth Exchange* – organization seemed a good channel to make the first steps toward voluntary camps. It relates the educational mission of a world heritage site and the aims of gaining results of a voluntary work. The active European umbrella organization *Alliance of European Voluntary Service* has organised many world heritage camps, but only few in Nordic countries.

The first two weeks camp to be organized in August 2015 aims to gather experience that helps us to find the most profitable model for both the volunteers and us organizers and develop this activity in future. The number of participants (18-30 years age) will be between 10 to 20.

Our preliminary programme for WHV 2015 aims to include the WHV volunteers in all facets of our mission. They will be given a chance to participate in the restoration and the maintenance of the fortress as well as the presentation and

the spreading of information about the site. We have also penciled in joint activities with local tourism operators, artists & artisans, youth workers and residents. The volunteers will also be expected to provide us with their views and experiences about World Heritage in their native countries. Suomenlinna will be active with the volunteers in getting a maximum amount of exposure for the WHV experience via social media as it happens. The volunteers will, for example, be provided with a video camera so that they can document their own work. That will be used to promote Suomenlinna's World Heritage status and the continuing need to protect and develop it.

#### **4. The economic impact of Suomenlinna to Helsinki region**

##### **4.1 Measurement method PAAVO / Nina Roikonen**

The Natural Heritage Services decided to estimate the local economic impacts of national parks in Finland by using a model developed by the Michigan State University. They called their adaptation PAAVO. The model uses three inputs to measure the economic impact: number of visits, average visitor spending and multipliers. These three inputs are relatively easy to obtain which makes it possible to use the same model for measuring the local economic impact of Suomenlinna. In today's world it is important to back up financial claims by showing that cultural and natural services are important and valuable not only for immaterial but also for financial reasons. State funding has become more difficult to obtain during the last years and organizations that provide cultural and natural services have started to see the need to prove their economic importance. In addition to the Natural Heritage Services, also the museums of Finland have made and published a study (2013) about their economic impact, which received a lot of attention.

##### **4.2 Suomenlinna's local economic impact / Laura Heikkilä**

Laura Heikkilä's Master's thesis is made for Helsinki University, Department of Geoscience and Geography.

#### **SUMMARY**

#### **SUOMENLINNA'S LOCAL ECONOMIC IMPACT / LAURA HEIKKILÄ**

##### **Objective and background of the study**

A key objective of the study is to assess Suomenlinna's local economic impact in terms of income and employment in its nearby area of Helsinki.

The goal is to show how the money tourists spend in Suomenlinna circulates in the local economy, what kind of income impact the spending by visitors has and how this affects local employment. The results show an estimation of the direct use value of the culture heritage site, not the total

use value. The study also aims to assess the suitability of the PAAVO application, created jointly by Metsähallitus Nature Heritage Services and the Finnish Forest Research Institute, in the assessment of the local economic impact of the World Heritage Site located in the Helsinki area.

The study of Suomenlinna's local economic impact will influence the appreciation of the cultural heritage and work carried out at the site as well as the development of viable tourism operations. The study results can potentially be used as a basis for proactive argumentation in stakeholder and funding negotiations related to the Governing Body's budgetary estimate, operating plan and budget as well as development cooperation. Securing funding is an important part of developing and maintaining the Suomenlinna World Heritage Site. The context of the sustainable tourism principles is used to support the protection and maintenance of Suomenlinna and its tourism service providers. The economic impact study is part of the assessment of sustainable tourism.

### **Operating environment**

The Governing Body of Suomenlinna, established in 1973, is a government agency operating under the Ministry of Education and Culture. The duties of the Governing Body of Suomenlinna include the protection, renovation and maintenance of the World Heritage site and development of tourism operations. The budget of the Governing Body of Suomenlinna was EUR 11.95 million in 2013. The operations of the Governing Body of Suomenlinna are funded from the state budget and from the returns of its own operations (ia income from rents), which cover 60 per cent of the expenses. The projects carried out by the Suomenlinna Prison are funded by the Ministry of Justice. Suomenlinna was nominated as a World Heritage Site in 1991. Currently, it is one of the most important tourist



attractions in Helsinki with approximately 30 different service providers. A total of 828,000 people visited Suomenlinna in 2013.

### Local economic impact

The local economic impact of tourism refers to the spending by visitors at the site and its nearby area as well as the direct, indirect and multiplier impacts generated by the spending. The impact does not depict the total use value of the research area, but the direct use value generated by spending, such as recreational and landscape values (Figure 1).

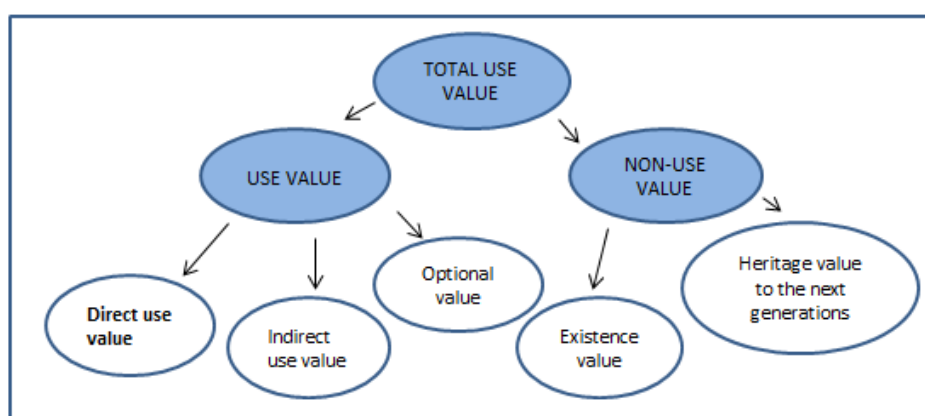


Figure 1. The consistence of the total use value.

A direct income impact is generated when a visitor spends money on local tourist services and products at the site, and the income impact is reflected in the turnover of local companies and salaries of employees. An indirect income impact is generated when a tourist service provider purchases services or products from other local providers. An indirect employment impact is generated when lines of business associated with tourism employ people. A multiplier impact is generated when local residents directly or indirectly employed by tourism spend money in the study area. The multiplier impact and its extension outside the area are

attributable to the local economic structure and business operations. Figure 2 shows the spending cycle resulting from visitor spending.



Figure 2. Visitor spending and multiplier impacts.

The extent of the local economic impact is also influenced by the capability of the site to receive visitors. This in turn is influenced by the site's appeal, accessibility, geographical location, services offered, vicinity to other tourist destinations, level of infrastructure, safety and ownership structure.

### The PAAVO application

The PAAVO application, created jointly by Metsähallitus Nature Heritage Services and the Finnish Forest Research Institute, is based on an international input-output model. The foundation of the calculation model is the Michigan State University Money Generation Model 2 (MGM2). The model calculates the local economic impact by means of the number of visitors to the site, spending by the visitors as well as coefficients depicting the local economy, derived from the input-output model. Metsähallitus Nature Heritage Services has got an authorization from the Finnish Forest

Research Institute to use the application in this research. Figure 3 shows the calculation formula for the PAAVO application.

The total income and employment impacts are affected by the regional classification and the definition of the area of influence based on the division by Metsähallitus (a population centre, greater Helsinki area, and a tourist centre). The area of influence is based on the population density of the neighbouring area and the special characteristics of the economic area. Suomenlinna's area of influence is the greater Helsinki area.

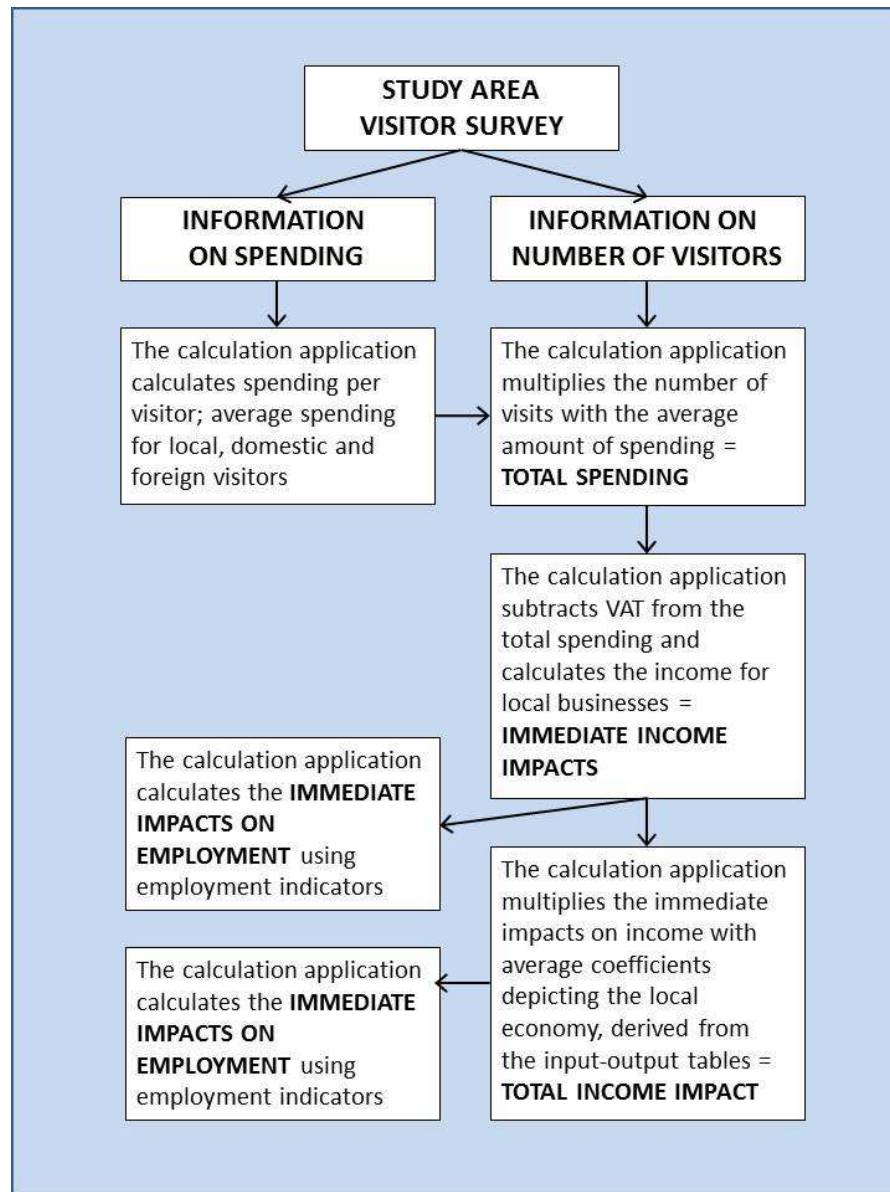


Figure 3. The formula of the PAAVO application.

The impacts applied by PAAVO-application are compared to local maintenance expenses. The application doesn't include the employment impacts derived from governmental funding meaning the wage impacts of the persons employed by the government. The application does not assess inflation, tax or value added impacts.

Aspects that should, in particular, be taken into consideration in the PAAVO application include the definition of the area of influence, share of local visitors in the sampling, effect of zero spending on the results, importance of the site in travel decisions, and consideration of the money leaking out from the area of influence.

### **Study implementation**

The study was carried out as quantitative research based on random sampling of the visitors to Suomenlinna between May and August 2014. The material was collected using a questionnaire in accordance with the requirements of the PAAVO application. The target sampling was 700 questionnaires. The sampling was relatively divided over four sampling months based on the monthly visitor volumes.

### **Results and conclusions**

The study sample contained an equal number of men and women, and the largest age group was 25–34 years. The share of Finnish visitors in the study was 39% and the share of foreign visitors was 61 %. The share of Helsinki residents among the Finnish visitors was 45%, and the share of visitors from the greater Helsinki area among the Finnish visitors was 61%. The most foreign visitors who participated in the study came from Great Britain, Germany and the USA. The share of Russian and Swedish visitors in the sample was small. The share of people visiting in the evenings was also small.

The majority of the study participants (73%) was on holiday in Helsinki and spent three to six hours in Suomenlinna with a party of 2 to 5 people. Nearly every second visitor (48%) said Suomenlinna was one of many destinations during their trip, and Suomenlinna was a fairly significant

factor in their travel decision (51% ranked it at 8-10 on a scale of 0 to 10). Suomenlinna is an important tourist destination in Helsinki, and foreign visitors are an important visitor group in terms of external income, in particular. Suomenlinna is an important tourist destination for visitors from the greater Helsinki area as well. The local economic impact of visitor spending in Suomenlinna should be examined also on behalf of those visitors that named Suomenlinna as one of many destinations visited.

Of the study participants, 93 per cent said they had spent money in Suomenlinna and its neighbouring area of Helsinki during their visit. Foreign visitors staying overnight spent the most money (Table 1).

<b>Total number of visitors, 2013</b>	<b>828,000</b>
Summer season visitors, 2013	580,900
<b>Total income impact:</b>	<b>EUR 316.3 million</b>
<b>Total employment impact:</b>	2,842 person-years
<b>Minimum income impact:</b>	<b>EUR 34.9 million</b> EUR 24.5 million*
<b>Minimum employment impact:</b>	<b>307 person-years</b> 216 person-years*
<b>Average spending by Finnish visitors:</b>	<b>EUR 72</b>
Day visitors	EUR 35
Overnight visitors	EUR 128
<b>Average spending by foreign visitors:</b>	<b>EUR 334</b>
Day visitors	EUR 112
Overnight visitors	EUR 409

<b>Average spending by local visitors:</b>	<b>EUR 17</b>
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\*Including summer season visitors only.

Table 1. Suomenlinna's total income and employment impact, minimum income and employment impact and spending by visitor.

Suomenlinna's total local economic income impact is EUR 316.3 million, according to the study. According to the experts at the Metsähallitus Nature Heritage Services, however, this total income impact was considered to be considerably high, and they instructed to focus on the minimum income and employment impact, which potentially provide a more realistic picture of the local economic impact of spending by visitors. The minimum impact was calculated for those visitors who reported Suomenlinna as the most important destination during their trip (26%).

Suomenlinna's minimum local economic income impact is EUR 34.9 million. In the summer season, the minimum impact is EUR 24.5 million. Suomenlinna's local economic impact considerably centres around the summer season, which accounts for 70% of the entire year's visitors to the site. Suomenlinna's direct minimum income impact for the entire year is EUR 16.8 million, whereas the indirect impact is EUR 18.2 million. The higher share of the indirect impact indicates that the local economy in the nearby areas of Suomenlinna is viable and active.

According to the study, the direct minimum employment impact for the entire year was 216 person-years, whereas the indirect minimum employment impact was 91 person-years, focusing on accommodation (109 person-years) and café and restaurant operations (75 person-years). The spending by visitors to Suomenlinna generates a considerable proportion of the direct employment impact on the local economy. This is

attributable to the powerful concentration of the accommodation and restaurant business, which is a considerable employer in the tourism field, on the greater Helsinki area. The employment impact in the service sector is highlighted.

The income impact of foreigners was the highest (in terms of the total impact) and targeted accommodation (EUR 75.7 million), café and restaurant spending (EUR 33.2 million) and entertainment and recreational services (EUR 10.6 million). The income impact of Finnish visitors targeted cafés and restaurants (EUR 3.5 million), accommodation (EUR 2.1 million) and local transportation (EUR 1.1 million). The income impact of local residents targeted cafés and restaurants (EUR 0.9 million), local transportation (EUR 0.3 million) and entertainment and recreational services (EUR 0.15 million). The higher spending by foreign visitors is attributable to their longer stays in the region. Foreign visitors also spend more money on entertainment and recreational services, such as museums, guided tours and exhibitions as well as other expenses, such as souvenirs and other shopping. According to the study, the impact of retail was very low. This deviates from other studies concerning the economic impact of tourism.

When comparing the minimum income impact to the costs of investment and maintenance in Suomenlinna, it can be seen that money invested in Suomenlinna is multiplied fivefold as a result of the spending by visitors. The profitability calculation takes into consideration the net expenses consisting of operating expenses and investments, derived from the financial statements of the Governing Body of Suomenlinna. Funding by the Ministry of Justice or the share of lease income are not included in the net expenses. The Governing Body of Suomenlinna annually calculates the



spending of tax funds per visitor, based on the net expenses and the annual number of visitors. In 2013, the spending per visitor was EUR 8.25. Comparing the minimum income impact to the number of visitors shows that the minimum impact by visitor is approximately EUR 42. Proportioning the minimum impact to the net expenses shows that the cost-income ratio is five-fold; in other words, for every euro spent by the State, the spending by visitors to Suomenlinna brings five euros back to the area.

*Net expenses EUR / Number of visitors = Spending of tax funds per visitor EUR*

$$6,828,416 / 828,000 = 8.25$$

*Minimum impact EUR / Number of visitors = Minimum impact per visitor EUR*

$$34,998,654 / 828,000 = 42.3$$

*Minimum income impact EUR / Net expenses EUR = Cost-income ratio*

$$34,998,654 / 6,828,416 = 5.13$$

When interpreting the profitability of maintenance costs, one must keep in mind the investment needs of areas which are functionally different, the timing of staggered expenses, service selection as well as the nature of the destination and the visitors' length of stay. In Metsähallitus' national parks, the average cost-income ratio is seven-fold compared to the income (Table 2).

It should be noted that the estimate of the minimum impact of the Suomenlinna sea fortress is only based on 26% of the sample. Approximately half of the visitors to Suomenlinna stated that Suomenlinna was one of their multiple travel destinations, whereas Metsähallitus'

destinations, for example, are the primary destinations for the majority of visitors. For 55 % of the foreigners Suomenlinna counted as one of many destinations visited.

Among those visitors who reported Suomenlinna as one of their many destinations, foreign visitors on average gave option 2 (1= most important destination, 2= one of the destinations, 3= unplanned destination) as their answer when asked about the importance of Suomenlinna in their travel plans. With Finnish respondents, the average was 1.73.

This indicates that when assessing the local economic impact of spending by visitors to Suomenlinna, spending by those who visit multiple destinations should also be taken into consideration. The local economic impact of spending by the visitors for whom the fortress is one of multiple destinations is EUR 165.6 million. Based on this calculation, the cost-income ratio would be 24-fold.

$$\begin{aligned} & \textit{Local economic impact (one of multiple destinations) EUR /} \\ & \textit{Net expenses EUR = Cost-income ratio} \\ & 165,580,130 / 6,828,416 = 24.25 \end{aligned}$$

Compared to other studies using the PAAVO application Suomenlinna's local economic impact is high (Table 2). It is affected by Suomenlinna's location in the central tourist destination of Helsinki, by the cultural heritage significance of the site and by the high annual amount of visitors. Applying the PAAVO application to Sea fortress of Suomenlinna was successful. However, the character of the site, the varied visitor profile and the spending behavior of the visitors brought about a need to analyze the results from a slightly different point of view compared to Metsähallitus'

sites. Therefore, even though the minimum results on the local economic impact come across as fairly moderate, the highlighting of the impacts left behind by the visitors for whom Suomenlinna was one of many destinations visited is justified.

DESTINATION	NUMBER OF VISITORS	MINIMUM INCOME IMPACT (million EUR)	MINIMUM EMPL. IMPACT (person/year)	MIN. COST-INCOME RATIO (EUR)
Suomenlinna sea fortress	828,000 (580,900) *	34.9 (24.5)	307 (216)	5.13 ***
Pallas-Yllästunturi national park	418,978 **	9.6	126	8.34
Nuoksio national park	179,686	0.8	6	2.40
Metsähallitus national park average	55,515	1.2	15	7

*\*Number of visitors in 2013. The figures in parentheses are calculated based on the number of summer season visitors. \*\*The visitor volumes of the Metsähallitus national parks are based on the spending by summer season visitors in 2009. \*\*\*Annual minimum income impact divided by maintenance costs. The Metsähallitus cost-income ratio is an average.*

Table 2. Minimum income and employment impact of local economic impact assessments made using the PAAVO application and cost-income ratios.

### Follow-up

The goal is to follow up on the local economic impact in the future in order to obtain comparison figures on the subject. This study provides a foundation and tools for future assessment of the local economic impact.