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WILDLIFE FENCE MARKET ANALYSIS OF SWEDEN

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#### Abstract

This research introduces a Finnish territory safeguarding company VS Turva-Aidat Oy and their potential situation to expand their business to Sweden. The company is Finland's best known wildlife fence manufacturer and supplier, among other fence products. The most popular product of VS Turva-Aidat Oy was chosen for exporting: the deer and elk wildlife fence.

The paper contains an analysis about the business environment and market situation of Sweden's wildlife fence market. The reasons to choose Sweden are the similarities with Finland in business culture and environment, future governmental investments and already established contacts in the country which express interest towards the products of VS Turva-Aidat Oy.

The business environment of Sweden was studied in the form of Pestle analysis. The market was analyzed regarding the target markets and competitive environment. Two target markets were recognized; The Swedish Transport Administration and its supplier companies / main contractors. Competitive environment showed that while there are some domestic competitors to VS Turva-Aidat Oy, the number for direct competitors is low in regards to the wildlife fence, expertise and additional services. Target markets were contacted to recognize their current project involving wildlife fences. In addition, meetings with VS Turva-Aidat Oy were suggested. Additionally, subcontracting was chosen as the market entry method for VS Turva-Aidat Oy.

Conclusions show that even though the business environment and market situation are indeed potential, there are currently no ongoing projects to take part in. However, The Swedish Transport Administration guaranteed to be in contact about their future wildlife fence projects in the country.

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#### Keywords

Wildlife fence, business environment, market analysis, market entry, exports, sub-contracting

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- Appendix 1 Specifications of the wildlife fence of VS Turva-Aidat Oy
- Appendix 2 Swedish wildlife fence specifications sent by Swedish Transport Administration, 2013
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# **1 INTRODUCTION**

## **1.1 Background**

The manufacturing company VS Turva-Aidat Oy (recognized later in the text as Turva-Aidat) specializes in territory safeguarding. The main products include fences and gates. With its current growing situation in the domestic market, the company is aiming its international expansion at Sweden. Being a neighboring country to Finland, Sweden serves as a potential opportunity, not only because of the convenient location, the similar business environment and culture, but due to already established contacts formed in previous attempt of expanding in 2013.

## **1.2 Aim of the research**

The aim of this research is to analyze the Swedish business environment and market situation regarding road projects and wildlife fence markets. According to the results, possible partners and clients will be identified and contacted. Finally, Turva-Aidat will be offered suggestions for a market entry method. The main exported product will be the company's deer & elk wildlife fence.

## **1.3 Research methodology**

Descriptions about the business environment is based on secondary data found from the websites of The Swedish Transport Administration (Trafikverket, the governmental authority responsible for roads and railways in the country). In addition, primary data was gathered from Trafikverket by interviews to obtain an understanding of the future road and highway projects including wildlife fences. Also, the main players of the construction markets in the country (Svevia, NCC, Peab, Skanska) were contacted about their upcoming projects.

Turva-Aidat made some contacts to the industry during their international expansion project in 2013, and this thesis uses these reports as its source of secondary data. These include a market research and final consultation report by Seppo Hoffrén Oy Consultation. Permissions have been obtained to utilize these papers from both VS Turva-Aidat Oy and the consulting participant.

#### **1.4 Outline of the report**

This study consists of five parts. First, the paper introduces the company along with the previous attempt of internationalization in Sweden. Next, an analysis on the Swedish business environment regarding fences is given. The third part identifies the current market situation. The fourth part focuses on a market entry strategy for Turva-Aidat. Finally, the fifth part concludes and summarizes the findings.

## 2 VS TURVA-AIDAT OY

### 2.1 Basic information

Turva-Aidat, located in Juuka, Eastern-Finland, is a company offering a diverse and varied selection of products designed for territory safeguarding. The main production lines include wooden, metal and steel fences and gates among other products and materials. Turva-Aidat falls into the manufacture of metal structures and parts of structures in its industrial classification (TOL 25110 in Finland).

The company has been operating in Finland since 1987. Customers include state or municipality and private companies. The company has had constant growth, and in 2016, the turnover neared 7.5 million euros (Figure 1). The company owns over 90% of the market share of wildlife fences in Finland. (VS Turva-aidat Oy 2016.)

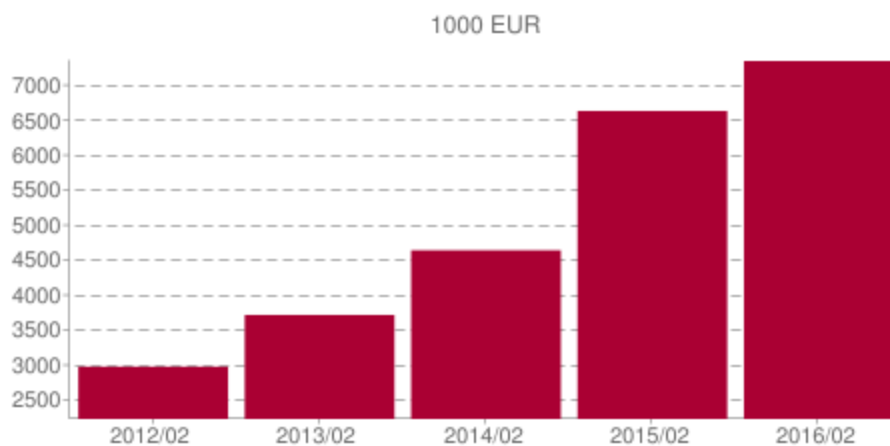


Figure 1. Turnover of VS Turva-Aidat Oy, 2012-2016 (Taloussanomat 2016).

The product lines of the company include (but are not limited to):

- welded steel fences and gates
- wrought iron fences, gates and terrace railings
- reinforced fences
- triple-wire element fences
- deer, elk and game fences – wildlife fences

- gates and road barriers
- gate machinery and passage control equipment
- wooden fence posts
- fence element renting

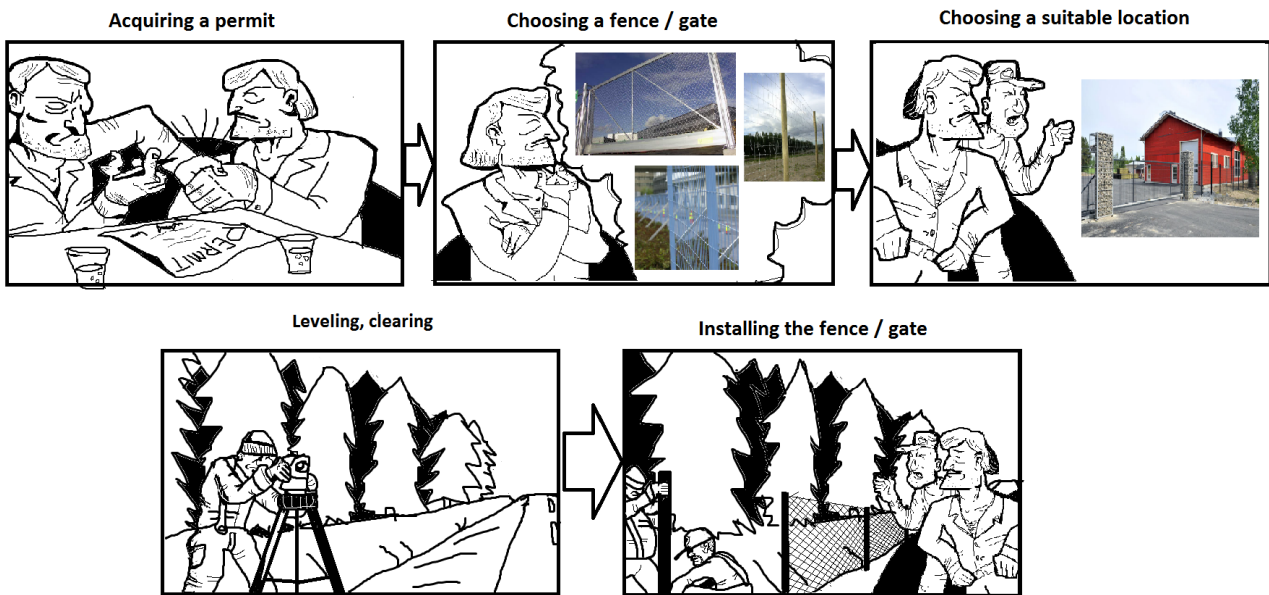
Additionally, the company provides services and solutions for the process of installing a wanted product for a desired location. The diverse range of services that Turva-Aidat provides includes:

- designing
- fence installation services
- fence renting
- maintenance services
- road marking
- installation of fog poles
- clearing of fence lines
- workshop services
- earth construction work

A customer has the option to seek out the services of the company to ensure reliable construction and installation. Intended use, permit applications, materials, measurements and other engineering aspects are examples of the issues that may be encountered during the process.

## **2.2 Operating process of VS Turva-Aidat Oy**

To begin the construction, a customer needs the appropriate permits for the construction of the fence or gate. Handling of the matter can sometimes take time, so the consumer is advised to begin this phase as soon as possible to ensure timely construction.



Picture 1. Operation process of Turva-Aidat.

The fence type is chosen according to the intended use. The website of Turva-Aidat provides the description and pictured examples of all the different fences that can be used for the situation at hand. The planned location should also be thought out well before implementation, as it smoothens the installation and maintenance processes and saves costs. Location determines many factors, such as patches with soft soil, power lines, underground cables, as well as mechanical snow removal work carried out during the winter season (VS Turva-Aidat Oy 2016).

After the location is chosen, measured and marked, Turva-Aidat begins the process of clearing and levelling. This ensures the stability and thus the reliability of the fence. The construction site is marked, and the area is cleared and levelled. The gate of the fence is placed on a flat area, taking into consideration traffic and lighting conditions. After these procedures, Turva-Aidat can begin the installation of the fences. The delivery and installation is performed by Turva-Aidat personnel. After the installation process the maintenance of the fence is moved on to the final client, which has often bought some property maintenance service from a local firm or roadway maintenance contractors.



The raw materials Turva-Aidat uses consist of timber and metal. The company receives their timber for their wooden products from Russia, and the fencing materials come from Germany and Poland. (VS Turva-aidat Oy 2016.)

### **2.3 Previous attempt on expanding to Sweden**

This is not the first time for the company is considering expanding to Sweden. At the end of 2013 Turva-Aidat hired a consultant to carry out a market research and obtain possible connections. The objective was to develop international operations by offering wildlife fences to Sweden. This provided Turva-Aidat with information about the Swedish market in the context of construction, maintenance and infrastructure industries. (Voltaire, 2013)

The objects of the project were to conduct a market research for identifying ten potential customers. Meetings were held with three out of the four players with the largest market shares in the Swedish construction industry. In addition, one of the companies could not attend in the meeting, but added Turva-Aidat to their supplier database. The business trip was organized for the parties to meet for two days in Sweden. Shortly after the meeting, one of the three potential customers, NCC Roads, sent an inquiry to Turva-Aidat, asking for their offer for a wildlife fencing project. Turva-Aidat responded with their proposal. However, the companies did not come to an agreement regarding the proposed deal. (Voltaire, 2013)

The CEO of Turva-Aidat was happy with the outcome of the project and consultation. The case company concluded that it continues its plans of expanding to Sweden in the future. For the follow-up meeting Voltaire suggested that the next company presentation should be more product-specific along with close-up images of the final wildlife fence products. Also it was noted that the installation and assembly process would need to be demonstrated with pictures. (Voltaire 2013.)

After three years, no further contact attempts of proposals have been made. Granted with the permission and support from both the CEO of Turva-Aidat and

Seppo Hoffrén Oy Consultancy, this study continues from where the previous conclusion left off.

### **3 THE BUSINESS ENVIRONMENT OF FENCE MARKET IN SWEDEN**

Sweden is one of the global leaders in Europe in competitiveness, leading in the areas of innovation, business environment and talent. A key feature of Sweden is its openness and liberal approach to international trade. Smooth business procedures, proficient personnel and open attitudes towards international parties make Sweden a relatively easy country in which to operate a business. The environment is modern and enterprise friendly. What makes the markets more accessible is the fact that starting a business requires no local businesses to partner with. International companies are attracted to Sweden for several reasons. The country has a high level of competitiveness, productivity and globalization. In addition, sophisticated consumers, stable economy, highly skilled labor force and international ownership across a wide selection of industries make Sweden especially attractive. (Business-Sweden 2016.)

#### **3.1 Political environment**

Sweden is part of the European Union. This means that companies within the EU find trading with the country easy because of the single trading policy of the united Europe. *The Free movement of goods* eliminates customs duties and quantitative restrictions, and prohibits measures with an equivalent effect. This ensures the fluid flow of goods and services between the member countries. (European Parliament 2015.) To add, the governmental authority Swedish Transport Administration is constantly lowering the entry barriers for both foreign and Swedish companies (especially SMEs) and trying otherwise to make sure that the market functions as well as possible. (Swedish Transport Administration 2016.)

The government of Sweden has allocated SEK 522 billion (54.19 billion euros) for infrastructure plans, offering excellent opportunities for the years 2014-2025 (Figure 1) for international construction companies to take part in future projects of the industry. In addition, there are projects also in the regional and local level.

Estimations for the additional investment level is around SEK 500 billion during the same time period. This implementation is the largest investment in infrastructure expansion ever. (Business Sweden 2016)

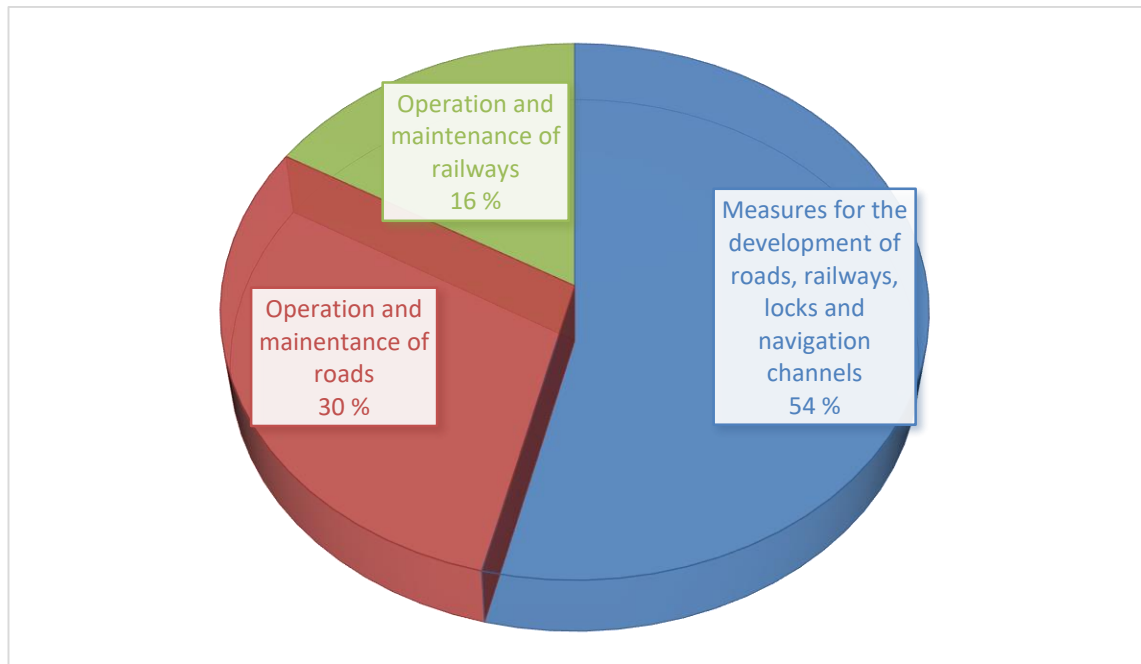


Figure 1. National investment plan for infrastructure and construction projects (The Swedish Transport Administration 2016).

### *Road safety*

According to The Swedish Transport Administration (Trafikverket), highway and road traffic is expected to annually kill 30,000 badgers, 50,000 deer and 10 million birds. Also the road kills in railways can have major consequences for species that are on the National Red List of threatened species. Around 5-10 human lives are lost annually, and harms is done to around 1,000 people. This means major costs to the Swedish society. (The Swedish Transport Administration 2012.) Even though Sweden enjoys the reputation of having some of the safest road traffic in the world, the survey conducted by Swedish Transport Administration reveals that the number of accidents brought by wildlife could still be lowered. Their survey showed that the number of road kills could be 83% smaller in 2,000 identified locations where the animals would be directed towards bridges and underpasses. The study has been presented to the government. (World Highways 2016.)

When human lives are considered, Sweden had Europe's safest and most accident-free road traffic alongside Great Britain and Malta, with 28 deaths per million in 2014, in comparison to Germany, which had 42 deaths per million in the highways (Mest Motor 2016). In 2016, Transport Analysis Sweden (governmental agency) reported 2,252 road traffic accidents with fatal or severe personal injury. 51 of these were caused by wildlife (Transport Analysis Sweden 2016.). The Swedish Transport Administration has set the plan to tackle this subject by constructing more wildlife crossings, bridges and passes along with fences worth 321 million euros to reduce the roadkill number of the country. Trafikverket believes that this is a worthy investment to lessen the unfortunate accidents and delays caused by road kills. (World Highways 2016.)

In September 2016, the government of Sweden relaunched an infrastructure program called *Vision Zero*. This program sets the goal for increased transport safety in all modes of transportation. This means the implementation of slow zones and increased police enforcement of speeding laws, for example. Safety within the pedestrians and motorists in Sweden has increased, but there are still improvements to be done. (Government Offices of Sweden 2016.)

### **3.2 Economic environment**

Sweden's GDP was worth 441 billion euros in 2015. The present inflation rate in Sweden is 1.1% The financial value of the krona in 2016 was 9.9 SEK for 1 EUR. (Statistics Sweden 2016). The economy is developing constantly and is expected to continue doing so over the next few years. (Sveriges Riskbank 2016.) Employment rate is also rising, with the unemployment rate being 6.60%, in comparison to the Finnish unemployment rate of 7.20%. (Trading Economics 2016.)

According to the forecast of the National Institute for Economic Research, the Swedish economy showed resilience during the time of the financial crisis and kept growing in their GDP. (Gov.uk 2015.) On a yearly basis, the economy has advanced by 3.4 percent. (Trading Economics 2016.)

Sweden is the seventh-richest country in the world by its GDP per capita, and people all around the country experience a high standard of living. Sweden has an export-oriented mixed economy, meaning that the economy system combines private and public enterprises. After the Second World War the country's economy stood well. This led to the provision and management of pro-business policies and a sovereign welfare state. (Medium.com 2015.)

### *Construction and infrastructure sectors*

Growth is forecasted in both construction and infrastructure sectors. About half of Sweden's national wealth is spent on construction and infrastructure investments. (Gov.uk 2015.) In a forecast of the European Construction Market 2015-2020 all Scandinavian countries are expected to be successful in their growth, Sweden having the strongest potential in this region.

Final expectations for growth in the construction industry was 4% during 2016. (Building Radar 2015). To add, according to the Budget Bill for 2016, government investments are being made to reduce unemployment and increase employment in housing, climate adaptation and infrastructure, among others. (Government Offices of Sweden 2016.)

International development, overall building investments and infrastructure investments have a significant impact on the Swedish Transport Administration's cost trends and the number of tenderers. Input goods such as steel, copper and oil have decreased substantially in price over the past year, which has been favorable for the Swedish Transport Administration. (The Swedish Transport Administration 2016.)

### **3.3 Social environment**

In addition to wildlife fences found near roads and highways, other varieties of fences are used around Sweden – from the industrial areas to private households. The styles vary from wildlife fences, industrial enclosures, barbed wire and easily disposable or transferable fencing of festival areas. Moreover,

private households have traditional round pole fences (*Gärdesgård*), farm fences as noise barriers and garden fences, to name a few. (Swedish Wikipedia 2016.)

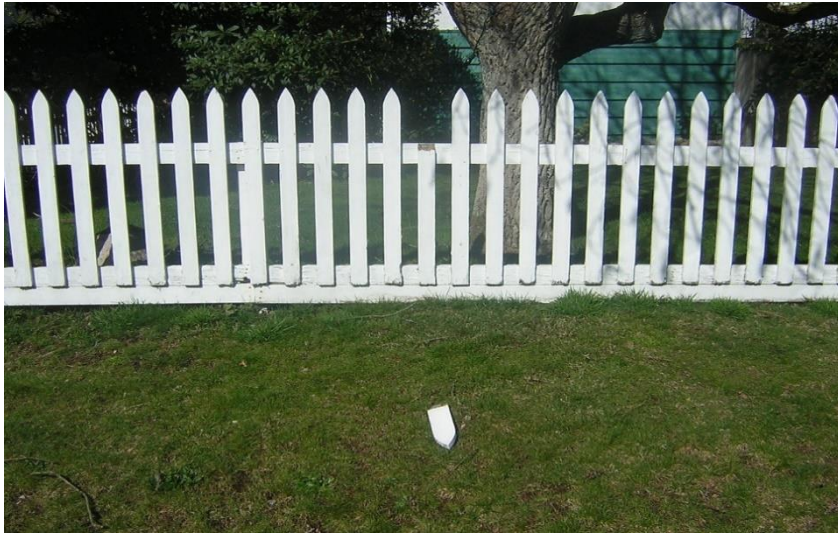
Currently, out of 98,400 km of State roads, 41,000 km of municipal streets or roads and 76,100 km of private roads with state subsidy, there are 3,000 km of wildlife fences in the country, designed by The Swedish Transport Administration. (Swedish Transport Administration 2016; World Highways 2016.)

Industrial fencing is usually made out of thick and durable material such as metal and steel, and is higher, more intimidating and formidable than those found in private households. This is due to its nature of preventing unauthorized access and offering security for industrial goods and services. The Swedish architecture of these gates is not usually based on aesthetics but rather usability and durability, because of the harsh climates, much like in Finland. This is not to say that some distinguishable features and designs cannot be found. Due to high quality and durability, the amount of maintenance needs also stays low.



Picture 3. Typical industrial fence type seen in Sweden (ABAS 2012).

Fences are quite common in the Swedish countryside and residential areas. In these areas it is likely to notice red or white painted fence made out of sparse wooden slats – *statek*. *Stateks* usually surround small private plots. In addition, farm fences and cattle fences are common in the countryside. On Gotland it is possible to find a special type of *statek* called *bandtun*, consisting of electrodes, pole and taping. (Swedish Wikipedia 2016.)



Picture 4. *Statek* standing in a private household (Swedish Wikipedia 2016).

The more traditional *Gärdesgård* is varied in its appearance and design in different regions around Sweden. It is commonly made out of natural materials. The traditional *Gärdesgårds* can be found in the countryside. In more recent years, modernized round pole fences can often be found surrounding households in Sweden. These fence types are quite common all over Scandinavia. (Swedish Wikipedia 2016.)



Picture 5. Modernized version of the traditional round pole fence (Franck 2013.)

When fence types are concerned, sustainability, functionality and simplicity seem to be the present key characteristics that the society favors in their fence types. These characteristics speak about the Scandinavian culture and love for traditionalism. According to the inspections of the author, in comparison to



territory safeguarding in industrial areas, the number of natural materials used is notably larger and reflects society's passion for nature in terms of architecture.

### **3.4 Technological environment**

Sweden is known to strive for innovative solutions for quality, long-term and sustainable products due to the sometimes extreme climates of the country. Quality and product lifetime are of overriding interests. (Business-Sweden 2016.)

### **3.5 Legal environment**

Sweden is a member of the EU. This in turn means that most legal requirements for products placed on the Swedish market are based on European legislation. However, in some cases, Sweden has set additional, stricter rules for these requirements. (Frisk 2011.)

Following these legal requirements is necessary when importing to Sweden. This is how the quality and safety of the product placed on the market are ensured and negative impacts on the environment reduced. The exporting party should be aware that the products that do not meet the legal requirements will be rejected from the market. Several mechanisms are established to withdraw non-compliant products and communicate about it throughout the whole EU. (Frisk 2011.)

### **3.6 Environmental factors**

Sweden is known for its harsh climatic conditions, and therefore the domestic companies and industries seek for solutions for all weather conditions, such as cold, moisture and rain. This means that fences are expected to have a high endurance and resistance to corrosion and density. (Business Sweden 2016.)

### **3.7 Concluding remarks**

The business environment seems opportune for Turva-Aidat, as can be noticed from several aspects. Sweden has welcoming approach to international trade, existing demand for wildlife fences to lower the accident rates, and their current state of economy is positive. Infrastructure program Vision Zero and investments on infrastructure and construction industries are also clear opportunities. The fence design and national environment share similarities between Finland and Sweden, so there would be little to no need to adapt or change the product for the new markets.

## **4 ANALYSIS OF SWEDEN'S WILDLIFE FENCE MARKET**

This chapter offers information about the clients and the competitive environment of the fence markets in Sweden. It describes parties affecting the process of planning, constructing and maintaining the fence. The market size is determined by analyzing the target customer and creating a profile of the expected customer. When the target market is analyzed and understood, key success factors for a market entry can be determined. Turva-Aidat seeks to obtain a contract with one of the companies conducting the construction of the roads. This chapter describes the functions of the parties considered.

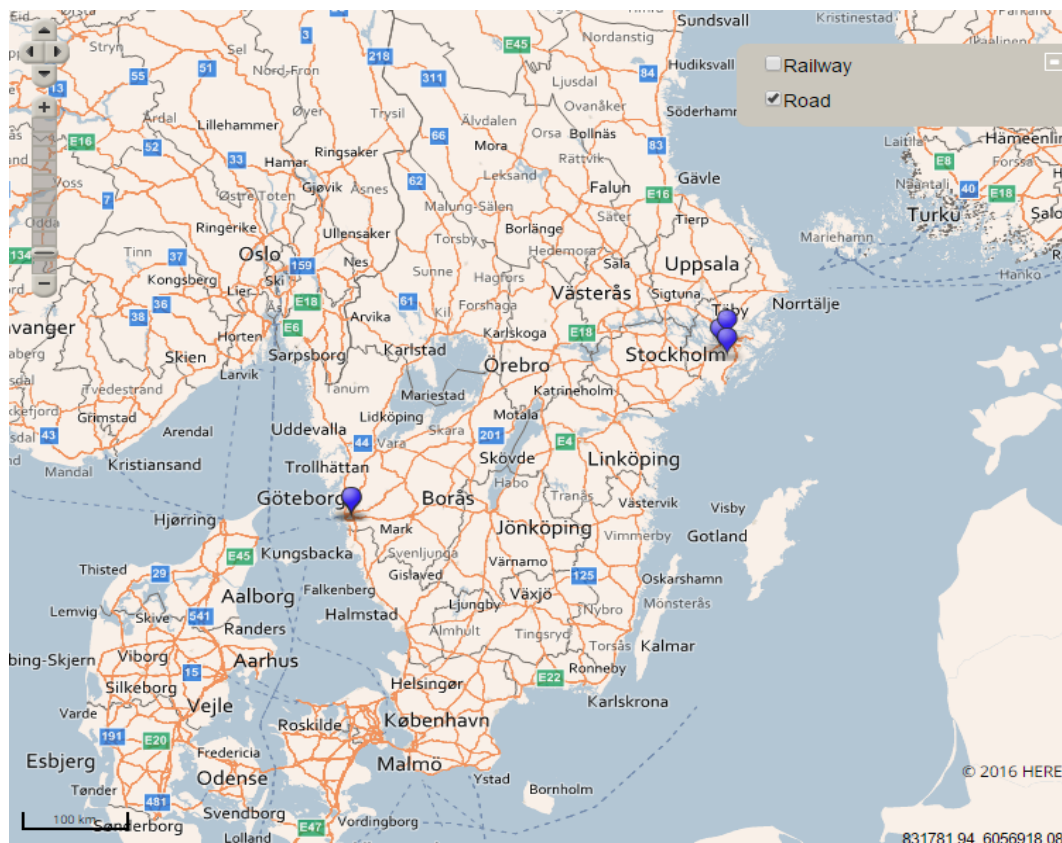
### **4.1 Supply and demand of the wildlife fence markets**

Demand for a product is often understood by gathering as much information about an operating environment as possible, and then slicing that cake into smaller pieces to identify the final customer. The demand for the wildlife fences was defined by studying how the construction and maintenance of the roads works in the country – how the public and private sectors operate together. This meant gathering information about the governmental authority and construction companies. Demand for the wildlife fences is figured out by analyzing the future road and highway projects and plans of The Swedish Transport Administration. This sets the bar for all operating possibilities for construction works and wildlife fences. In addition, it was important to identify the top players from the construction industry for their current and future road and highway projects.

The suppliers are relatively low in number, and often do not even have wildlife fences in their production catalog, hence the need for outsourcing. The Swedish Transport Administration and main construction players were asked to identify their main wildlife fence providers in the country. Unfortunately, their answers about this aspect didn't meet the paper deadline.

## 4.2 The role of The Swedish Transport Administration

The principal who orders the construction on which Turva-Aidat is set to take part in Sweden is the governmental authority called The Swedish Transport Administration (*Trafikverket* in Swedish). The Swedish Transport Administration takes the responsibility for long-term planning of all types of traffic within the transport system. The main tasks include building, operating and maintaining the roads and railways in Sweden. The Swedish Transport Administration is responsible for ensuring that the Swedish infrastructure promotes safe and environmentally sound transportation. (The Swedish Transport Administration 2016.) Demand for the wildlife fences is determined by analyzing the future road and highway projects and plans of The Swedish Transport Administration. This sets the bar for all operating possibilities for construction work and wildlife fences.



Picture 6. Current Road projects in Sweden for 2016-2017 (The Swedish Transport Administration 2016).

The Swedish Transport Administration has various business areas. Executive and central functions operate in Borlänge in Middle-Sweden, whereas regional offices are found in Luleå, Gävle, Stockholm, Eskilstuna, Göteborg and

Kristianstad. The budget for activities in 2014 was SEK 52.6 billion (5.4 billion euros), with 40 billion being financed from appropriations. (Business-Sweden 2016.) To add, fees and income from commissioned work fund some of the activities. Loans and subsidies fund some of the road and railway projects. (The Swedish Transport Administration 2016.) In addition to The Swedish Transport Administration municipalities and public liability companies can be the customers. These big investments in infrastructure are a clear opportunity for international companies which want to take part in future infrastructure projects.

To support this, The Swedish Transport Administration arrange several activities for new companies seeking to do business in Sweden, such as:

- international suppliers' day in Sweden
- seminars and newsletters for foreign suppliers
- chamber of commerce and company visits
- removes demands for Swedish paperwork
- increases its lead in purchase planning

The Swedish Transport Administration strives for more approachable international access with the entry barriers being lowered all the time. A full list of these activities can be found in Appendix 3. (The Swedish Transport Administration 2015.)

#### **4.2.1 Current wildlife fence projects**

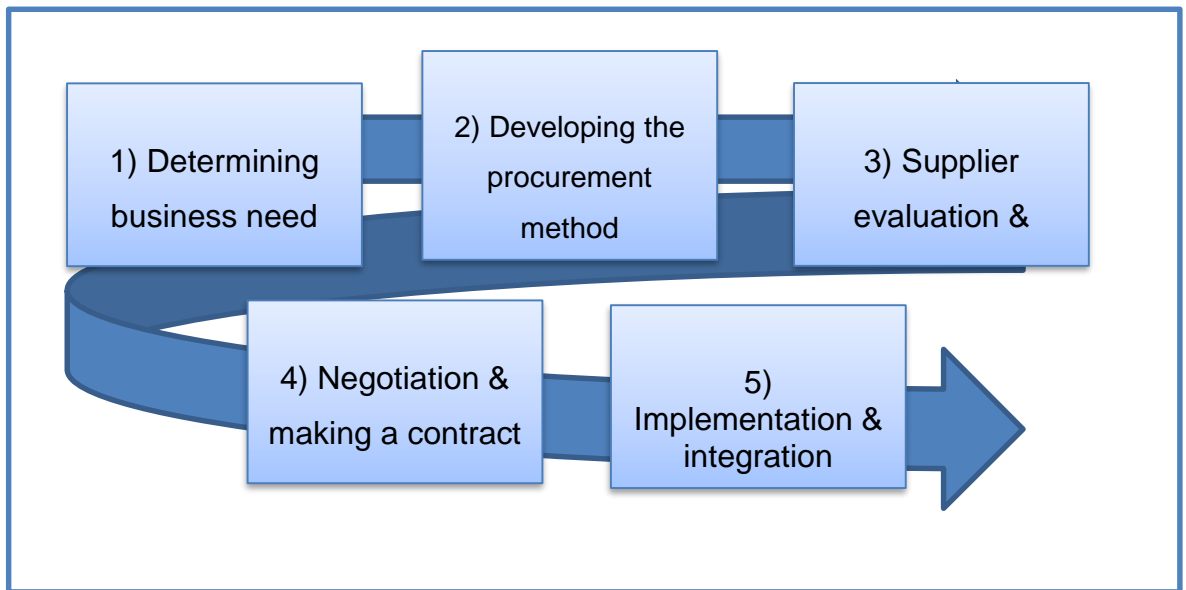
Since the Swedish Transport Administration orders the construction of all the road constructions in the country, current projects that include wildlife fences were identified for study. However, during the time frame of this thesis (September 2016 – January 2017) there weren't any ongoing wildlife fence projects in the country. The last one was for Highway 27 from Gothenburg in the west to Karlskrona in the South. This area served an important regional and national function. The project started in 2014 and finished in the spring of 2016. (The Swedish Transport Administration 2016.) This was later confirmed by Johanna

Laine of Purchasing and Logistic department of The Swedish Transport Administration (see part 5.4.).

#### **4.2.2 Tenders and procurement process**

The Swedish Transport Administration is responsible for budgets, procurements and bids. A thorough procurement process is used to determine the quality, sustainability and environment friendliness of the road and railway projects. From approximately 110 road maintenance contracts, around 25 contracts are tendered every year. (The Swedish Transport Administration 2016.) Current procurements and planned procurements can be found in The Swedish Transport Administration's websites, alongside instructions and steps for submitting a tender. To make the procurement process easier, the authority arranges activities for tender enquiry documents (along with translations), and to answer other supplier related questions. Procurement time is scheduled in English. The tender is evaluated according to two factors: qualification criteria and lowest price. The contract period is four years with one plus one year optional. (The Swedish Transport Administration 2016.)

A tender is a formal offer submitted as a response to an invitation for a bid or request for tenders. This is why the supplier needs to understand *the procurement process* and which role tenders plays in this method. Shortly, the procurement process translates as a systematic way of approaching the provider markets, so that the party executing the process gets to choose the best possible tender from the provider for its current need. A formal and professional procurement process saves time, money and lower risks. It also ensures that the client pays the right price and avoids overlooking vital steps that could backfire later on. (Purchasing Insight 2016.)



Picture 7. Procurement process (Purchasing Insight 2016).

1. Determining business need – *Defining the need is a critical part, as this step finds what is needed, how often, in which form and so on.*
2. Developing procurement method – *How the purchaser will approach the market includes a decision on the preferred procurement route to be pursued. This also includes wider social and environmental considerations*
3. Supplier evaluation & selection – *After the market research, an evaluation of solutions is needed. The solution is determined by which tender best matches the key criteria.*
4. Negotiation & making a contract – *When the supplier/provider is chosen, detailed negotiations should be conducted. The negotiation should include a discussion about price, logistics and maintenance along with terms of payments and invoicing, among other things.*
5. Implementation & integration – *After the contracts have been signed, goods and services can be ordered and delivered. To ensure an effective implementation process, the P2P process needs to be in place and understood by both parties. Evaluations should also be done regularly.*

The Swedish Transport Administration has to follow the Public Procurement Act (LOU) and the Act on Procurement in the Water, Energy, Transport and Postal Services Sectors (LUF). The procurement's rules are defined by European Union Procurement Directives. In practice, for the tendering process this means following thresholds until a certain point set by the European Union. If thresholds

are not exceeded, the contract will be given to a tender-qualified company. (The Swedish Competition Authority and the National Agency for Public Procurement 2015.)

### **4.3 The role of construction and infrastructure companies**

Whereas The Swedish Transport Administration is responsible for organizing and overlooking the whole process, companies conduct the planning and construction activities themselves. To add, the contractor may decide on production methods, materials and labor for a certain stage. (The Swedish Transport Administration 2015.) Wildlife fences are usually not required by railroads (if they are not close to a larger road) so this chapter will only target those companies building and maintaining the roads.

Currently, the construction and infrastructure sector of Sweden is experiencing a trend of internationalization, alliances, joint ventures and acquisitions. This means that the markets are available for international companies to participate when it comes down to major road projects. (The Swedish Transport Administration 2015.)

Construction, infrastructure and maintenance companies (Table 1) are the main suppliers to The Swedish Transport Administration and thus also the main target market for Turva-Aidat. The Swedish Transport Administration seeks to actively monitor and develop its supplier database. This offers greater professionalism and coordinated and uniform communication through supplier teams along with clearer requirement specifications with suppliers. This ensures increased supply control and better assignments and long-term sustainability which ultimately leads to greater profit. (The Swedish Transport Administration 2016.)



Table 1. Ten largest suppliers for The Swedish Transport Administration from years 2013-2015 in SEK millions (The Swedish Transport Administration 2016).

Market shares	2013	2014	2015
<b>The Swedish Transport Administration's 10 largest suppliers:</b>			
Svevia	4 248	4 249	4 219
NCC	3 001	2 728	3 316
Peab	3 517	3 107	3 120
Infranord	3 036	3 080	2 839
Skanska	3 234	2 655	2 844
Strukton Rail	797	1 429	1 506
Sweco	1 248	1 223	1 337
ÅF	503	512	834
Bombardier	526	495	604
Implenia	0	454	556

Svevia, NCC, Peab and Skanska are the dominating forces in the markets of conversion and new construction of roads. Veidekke and Implenia are foreign competitors, and seek actively to challenge the domestic suppliers. Svevia is the controlling force in the markets, whereas Peab, Skanska and NCC are challenging the company firmly. Svevia dominates the maintenance sector of the roads. NCC Skansa and Peab follow behind. (Swedish Transport Administration 2016.)

Additional potential comes from using the secondary data found from a 2013 market research, where the main suppliers showcased their interest in Turva-Aidat's products. Meetings were held with Svevia, NCC and Peab. All of the aforementioned companies were interested in the product selection of Turva-Aidat. This chapter provides brief information about these companies and describes the conclusions of the previous meetings of 2013.

### *Svevia*

Svevia is a state owned enterprise. Their activities consist of road construction, operations and maintenance in Sweden and Norway. Svevia is the main target of Turva-Aidat, as it maintains over 50 percent of all the roads owned by state. Svevia's main customer is The Swedish Transport Administration, alongside municipalities and public liability companies (Voltaire 2013.)

Conclusion from the meeting with VS Turva-Aidat Oy in 2013:

- Svevia thought the dimensions and materials of VS Turva-Aidat Oy would not meet the Swedish standards – Turva-Aidat clarified that the standards would be met with the final product
- Svevia praised the wildlife fence products and asked for material + installation prices together and separately
- VS Turva-Aidat Oy should contact Svevia's purchasers in Northern Sweden
- Answer to the request for a 10 km wildlife fence project

#### *NCC Roads*

NCC is a Nordic construction and property development company. They develop and construct residential and commercial properties, industrial plants, public buildings and roads, to name a few. (Wikipedia 2016.) The Road Services of NCC and NCC Construction divisions respectively are relevant for wildlife fencing. In 2013, NCC had limited experience in looking for suppliers but it was about to start tendering local projects in all three Nordic countries.

Conclusions from the meeting with Turva-Aidat in 2013:

- NCC was interested in testing and comparing the wildlife fences to competition in their first project in January 2014
- Make an offer before January 2014
- Jenny Käck, the Manager of Road Services should have been contacted in February 2014 if not heard from before

The tender was sent, but the two companies did not come to signing a contract.

#### *Peab*

Peab Group is a Swedish construction company. The group employs some 14,000 people in the Nordic countries, about 800 in Finland. (Peab 2014.) Its sectors include residential construction, non-residential construction and

renovation. The division called Civil Engineering includes wildlife fencing. It has six regions for road operations and maintenance in Sweden. (Voltaire 2013.)

Conclusions from the meeting with Turva-Aidat in 2013:

- Peab was interested in the material and installation of Turva-Aidat
- Peab was interested in other products of Turva-Aidat
- When the time for tendering comes, it is allowed to respond in English and calculate prices in euros
- Peab asked for certification regarding the wildlife fences meeting the requirements for wildlife fences set by The Swedish Transport Administration

### *Skanska*

Skanska is a Swedish, globally operating real estate development and construction group. Skanska is included among the world's ten largest construction companies. It is also one of the top suppliers for The Swedish Transport Administration. The company is listed on the Stockholm Stock Exchange, and its head office is located in Stockholm. The Group has some 57,000 employees. (Skanska 2016.) There was no meeting held with Skanska back in 2013, and it is therefore a new company to be contacted. The purchasing manager of the company was contacted.

### *Veidekke*

Veidekke is the largest foreign competitor to the previously mentioned companies operating in Sweden. Originating from Norway, it is the fourth largest construction and civil engineering company in Scandinavia and Norway, respectively. Their operations include a network of Scandinavian construction and engineering operations and other relative business sectors, including asphalt operations and maintenance of public roads. (Wikipedia 2016.) There was no meeting held with Skanska back in 2013, and it is therefore a new company to be contacted. The purchasing manager of the company was contacted via email.

#### 4.4 Competitive environment

This chapter introduces and describes the main Swedish competitors VS Turva-Aidat Oy will face in the territory safeguarding the markets in Sweden. The competition in Sweden is represented mainly by domestic fence and gate producers. This section analyzes the main fence suppliers of Sweden. The competitive environment was analyzed using different questions to identify if it were a real competitor to Turva-Aidat.

1. Does the company's product selection include wildlife fences?
2. Does the competitor provide assembly and additional services among their product selection?
3. How is the website design and navigation and social media presence?

Turva-Aidat suggested including website design and Facebook activity analysis in the comparison, understanding the effectiveness of these communication platforms. Website design was analyzed by its design, navigation and language selection. Facebook presence was compared by the number of likes on page and number of posts. This shows the companies consumer market and how actively they monitor and maintain this communication platform (more likes on page should equal to more active posting). It's notable that Turva-Aidat needs to improve in their Facebook presence. For example, Turva-Aidat is missing their contact information in Facebook, and the last post is from 2012. The number of likes on page is 12.

The reason for the missing price levels in this chapter is because the information was either not available or then the companies did not answer within the time frame of this thesis. To add, Turva-Aidat's prices are not fixed but are always determined according to the situation at hand and thus are not found in the websites.

The three main competitors were identified: Heras Stängsel AB, ABAS Protect AB and Upplands Stängsel AB. These companies were contacted via email with the following questions:

- Do you provide wildlife fences (or game fences) on the side of larger construction projects as a sub-contractor? Who are your main customers (Svevia, Peab, NCC)?
- Do you have any incoming projects with the Swedish Transport Administration (or other municipalities) that consider wildlife fences?
- Could you provide some general price information about your wildlife fence price range? Say, for 50 meters / 10 kilometers?

### *Heras Stängsel AB*

Originally known as Tuvan-Stängsel AB, the company was founded in 1990. It was sold in early 2007 to an Irish business CRH organization. Nowadays, the firm is known as Heras Stängsel AB. As the largest provider of perimeter security and access control in the country, the company is known as an international group with great experience and economic strength. The headquarters as well as factories are located in Ystad, southern Sweden, along with minor offices around the country. The turnover of the company in December 2015 was 207.3 million SEK (22.7 million EUR). (Largestcompanies.com 2016.)

The comparison between products of this company and Turva-Aidat was made. Like Turva-Aidat, Heras Stängsel AB delivers and assembles everything from mesh fence, panel fencing and palisades to manual and motorized gates, road barriers and electric fence alarms. (Heras Stängsel AB 2016.) However, the wildlife fence products of the company seem to be made solely out of galvanized steel wire. The websites of the company - where the information about wildlife fence is available - are only in Swedish, but the company also has international websites (lacking information about wildlife fences). The international websites are modern, easily navigable and informative. Heras Stängsel AB has a relatively simple Facebook presence. Their last post is older than a year and the number of likes for the page is less than 100. The company's contact information can be found from the website and Facebook.

### *ABAS Protect AB*

ABAS is a family owned company specializing in manufacturing of perimeter protection products. The company has been serving the Swedish market for over 80 years. Solutions offer adaptations for the climatic conditions of the Northern hemisphere. ABAS Protect has products under brand names, for instance the market's most appreciated ProGate sliding gates. The company is located in Ambjörnarp, in the south of Sweden. (ABAS Protect 2016.) The turnover of the company was 50 million SEK (5.1 million EUR) in December 2015 (Largestcompanies.com 2016).



Game fences of Abas Protect AB (Abas Protect AB 2016).

The comparison between products of this company and Turva-Aidat was made. ABAS Protect AB offers wildlife fences (named game fence in the website) in two sizes: 1400 mm / 11 sections and 2000 mm / 22 sections. The mesh can be measured according to the size determined by the client. (ABAS Protect AB 2016.) Much as with Turva-Aidat, price of the wildlife fence is set according to the situation and length. ABAS Protect AB subcontracts other companies for the installation. ABAS Protect AB has their websites both in Swedish and English, and the information is clear and easily available and navigation is effortless. The Facebook like count on page is less than 50 likes to the page. However, the posting is more regular, their last post being from December 2016.

*Upplands Stängsel AB*

Upplands Stängsel AB was founded in 2004 and is an independent supplier and installer of security and protection. The company delivers and assembles anything from the villa fence to complex solutions for large industries. As the name suggests, the headquarters can be found in Upplands Väsby, Middle-Sweden. (Upplands Stängsel 2016) The turnover of the company in December 2015 was 43.8 million SEK (4.8 million EUR) with a profit margin of 3.15%. (Largestcompanies.com 2016.) The comparison between products of this company and VS Turva-Aidat Oy was made, and it was found out that Upplands Stängsel is not a direct competitor to VS Turva-Aidat Oy, as their product selection does not include wildlife fences. However, they do provide industrial area fencing, such as chain-link fences. According to the chat service provided by the website, their main operating environment is Stockholm. Their main customers are NCC, JM and Skanska.

The company has their websites only in Swedish. Their websites are clear and easily navigable. Upplands Stängsel has an active Facebook presence, meaning that they post once or twice per week, and answer usually within a day to the questions provided in the chat. Upplands Stängsel AB has definitely the most modern and professional Facebook presence of all the competitors, with over 5000 likes on page and contact information available on many platforms.

#### **4.4.1 Concluding remarks**

While these companies are the three main competitors to Turva-Aidat in fence market, research suggests that there's only one real competitor which offers wildlife fences, ABAS Protect AB. However, where Turva-Aidat uses their own employees, materials and methods for installing and maintaining the fence, ABAS Protect AB uses their network of subcontractors and partners. Turva-Aidat also uses its diverse range of services and expertise such as measurements and other engineering aspects (mentioned in chapter 2). Where Turva-Aidat's expertise and services may exceed those of ABAS Protect AB's and other competitors, the competitive companies still have the edge over national contacts and Facebook presence. It's safe to assume that the competitors have a better understanding

of the necessary paperwork and have a large number of Swedish speaking personnel in their payroll, easing up the communication.

Turva-Aidat is on the same level in its website design by navigation, ease of use and clearness but has the advantage over competitors in language selection. Turva-Aidat has multiple languages, whereas the competitors have only Swedish and English (minus the international websites of Heras chain).

In Facebook presence, Turva-Aidat takes the last place because of its low number of likes, activity and missing contact information. Heras Stängsel AB's is second to last, having second highest number of likes but low activity. Abas Protect AB's has a low number of likes but posting is more regular. Upplands Stängsel AB is the clear winner over this area, being relatively active in Facebook by posting often, and answering to inquiries on a short notice.

#### **4.5 Entry barriers for foreign companies**

Turva-Aidat is not alone in its efforts of expanding from Finland; many international suppliers are being accepted every year as partners and subcontractors with an already established supplier base in Sweden. The entry barriers for foreign companies were also addressed. (Swedish Transport Administration 2016.)

There can be some difficulties for foreign companies entering the Swedish markets. They often lack local administration and have difficulties in finding the right person to contact. Turva-Aidat has leverage on this subject, as they already have obtained the contacts and held meetings with them back in 2013. Also, most of the documents are still presented in Swedish. To add, Sweden is very much dominated by domestic firms, which already hold a large network of connections and understand the sectors as well as business environment they operate in. These are just some examples in addition to the more common factors such as business culture. (Swedish Transport Administration 2015.)



## **5 MARKET ENTRY**

### **5.1 Market entry as a subcontractor**

The suggested market entry for Turva-Aidat is by subcontracting to the main contractor. A subcontractor means a secondary contractor (VS Turva-Aidat Oy) who co-operates with the main contractor (Svevia, Peab, NCC...) to provide a material, product or service necessary for the performance of another's contract. In other words, a subcontracting firm is a business entity that takes care of some part of the another's work. (Dictionary.com 2016.) In this case, the main contractor outsources one of its activities (wildlife fences) of the whole road construction or maintenance project to Turva-Aidat. The company will use indirect exporting as its main means for subcontracting.

Subcontracting was chosen as a market entry method due to its desirable, convenient and cost-effective appeal for the main contractor in the execution of a large project. Because the subcontractor does a limited job on a large scale, the main contractor's costs are typically less, allowing the subcontractor to pass the savings on to the hiring company. With this method the contractor can focus on its core values, access higher value of skill, and ultimately reduce costs, improve the final quality and speed up the delivery. However, there are some risks, such as lack of control and sometimes variabilities in quality control and maintenance support. The main contractor should carry out thorough research about the subcontracted company to ensure effective business operations. (Brodzinski 2006.)

### **5.2 Product analysis and selection**

This chapter provides information about the main product line, the wildlife fence (AKA deer and elk fence). The requirements for wildlife fence will also be addressed in this chapter.

### 5.2.1 Wildlife fence

The market entry product will be the deer & elk wildlife fence of Turva-Aidat because of its reputation as a best-selling product of the company. The main function of a wildlife fence is to keep wildlife off the highway. The fence can also direct wildlife to safe crossing opportunities (such as underpasses or overpasses). Wildlife fences are usually built alongside highways, big roads and sometimes railways. The most common animals that face the dangers of the highways are deer and elk. Usually the material used for wildlife fences are metal and wood. In Sweden, there are some 3,000 km of wildlife fences. (World Highways 2016.)

Turva-Aidat installs the fences in Sweden using their own employees, material and methods. After the installation process the maintenance of the fence is often moved on to the final consumer, which has often bought property maintenance service from a local firm or roadway maintenance contractors. The specifications of the fence can be found in the appendix 1.

In addition to the predetermined sizes of the product, the wildlife fence can also be adjusted according to the client's wishes, with both wood and steel utilized as materials. The installation is fast and done by the personnel of Turva-Aidat. Due to the similar environment and climate that Finland and Sweden share, there is little to change about the product for new business environment. This, alongside the high quality raw material used, serves as an advantage for the company regarding its competitors. The final price of the product is determined according to the fence size. One of the main traits of Turva-Aidat is also the easy and timely transportation of the products. The fence is manufactured in Juuka, Finland and is delivered ready by Finnish carrier to the chosen installation site, according to the wishes by the main contractor. The fence will be distributed exclusively to the main contractor. (VS Turva-Aidat Oy 2016.)



Picture 9. Deer and elk fence (wildlife fence) of VS Turva-Aidat Oy (VS Turva-Aidat Oy 2016).

Even though the fences and gates are designed by The Swedish Transport Administration and chosen and measured by the construction company that is responsible for the construction site, Turva-Aidat provides planning services alongside the product, such being design and maintenance services, along with road markings, among others (see Chapter 2). The customer has the option to seek out the services of the company to ensure reliable construction and installation. Intended use, permit applications, materials, measurements and other engineering aspects are examples of the issues that may be encountered during the process. (VS Turva-Aidat Oy 2016.)



Picture 10. Example of a wildlife fence gate used in Sweden (Swedish Transport Administration 2013).

Sweden has its own requirements for wildlife fences and they differ from the predetermined sizes of Turva-Aidat. This was discussed in a meeting with Turva-Aidat and the main companies of the market back in 2013. Turva-Aidat ensured that they would meet the Swedish standard for wildlife fences in the future due to the customizability of the wildlife fence (Voltaire 2013) (See the comparison between Turva-Aidat's fence specifications and the specifications of the Swedish Transport Administration in Appendices 1 and 2).

### **5.3 SWOT Analysis**

To understand the strengths, weaknesses, opportunities and threats of Turva-Aidat in the foreign markets, a SWOT analysis was carried out.

<p style="text-align: center;"><b>Strengths</b></p> <ul style="list-style-type: none"> <li>- 90 % of the market share in Finland</li> <li>- Varied, customizable product selection</li> <li>- Contacts with the Swedish markets</li> <li>- High quality and long operations in domestic markets</li> <li>- Additional services for installation</li> <li>- Websites are in Swedish</li> </ul>	<p style="text-align: center;"><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- No previous experience or reputation from Swedish markets</li> <li>- No Swedish speakers in the company</li> <li>- Yet unknown location for operations</li> <li>- No previous export experience</li> <li>- Weak social media presence</li> </ul>
<p style="text-align: center;"><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>- Trend of international partnerships</li> <li>- Governmental investments in construction and infrastructure markets</li> <li>- Governmental investments to improve road safety and wildlife control</li> <li>- Low number of direct competitors</li> </ul>	<p style="text-align: center;"><b>Threats</b></p> <ul style="list-style-type: none"> <li>- Domestic competitive environment regarding other types of fence products</li> <li>- Solutions for innovative technology</li> <li>- Low number of road projects including wildlife fences</li> </ul>

Picture 12. SWOT analysis of VS Turva-Aidat Oy for Swedish markets.

### *Strengths*

The expertise and strong market control over the Finnish markets are clear strengths for Turva-Aidat when expanding to a similar business environment. To add, the already established contacts, the high quality and additional installation services should be mentioned. The website of the company is also presented in various languages, such as Swedish and Russian.

### *Weaknesses*

It is abundantly clear that the practical reputation from the Swedish markets is non-existing. Also, communication of the company is mainly done in Finnish and English. The unknown location for the project is also a weakness, as the analysis and distribution to the construction site cannot be made. Turva-Aidat also seriously lacks a Facebook presence, with only 13 likes on the page and no regular posts.

### *Opportunities*

The trend of international partnerships is currently present in Sweden. The aforementioned governmental investments for infrastructure and wildlife control

are clear signs that there is a need for wildlife fences in the country. Also, Sweden does not have as many direct competitors that focus mainly on producing wildlife fences and related services.

### *Threats*

The domestic competitors have an edge over the other types of fence products with more variable selection and already established contacts in the markets. Turva-Aidat does not provide any innovative solutions for wildlife fences which The Swedish Transport Administration is currently interested in. There are only three road or highway projects currently in Sweden, and none of them mentions wildlife fences.

## **5.4 Promotion**

The Swedish Transport Administration's international strategist Camilla Ahston was contacted in 3<sup>rd</sup> of November 2016 to identify the current and future road and highway projects that include wildlife accessible for Turva-Aidat. She responded calling the topic "very interesting", redirecting the email her co-worker more responsible for the topic, promising they would return as soon as she had the information. In January 2017, Johanna Laine of Purchasing and Logistic department of The Swedish Transport Administration responded and promised to help with this project in the future, but could not provide any additional information to the current situation. She confirmed that currently there are no projects in Sweden regarding wildlife fences.

The markets for wildlife fences are relatively small in Sweden, and thus the focus was kept on the main players of the industry. These companies were also the top providers for The Swedish Transport Administration: Peab, Svevia, NCC, in addition to Skanska and the foreign competitor Veidekke. The contacts (international business representatives, purchasing managers or road project executives) were obtained from Turva-Aidat's contact list, via companies' official websites and LinkedIn profiles. The executives were inquired about their future

contracts with The Swedish Transport Administration that would include wildlife fences. Contacting was done by email and phone calls.

Questions asked from the companies were as follows:

- Do you have any incoming projects with the Swedish Transport Administration (or other municipalities) that consider wildlife fences?
- Do you have other construction projects (industrial enclosures, factories, power plants etc.) which need fence/gate products?
- Would you be willing to attend a second meeting with the CEO of VS Turva-Aidat Oy in the future about the company's role as a sub-contractor?

In addition, the contact persons were given information about Turva-Aidat and its current situation in the Finnish markets with suggestions for future meetings in early 2017. Unfortunately, the answers from the supplier companies were not obtained during the time scheduled for this thesis. Contact attempts will follow in post-January 2017.

It is important for Turva-Aidat to meet the requirements of Swedish wildlife fencing set by Swedish Transport Administration. For future meetings, Turva-Aidat is suggested to provide comprehensive information about the wildlife fence with high quality pictures and specifications. Also it is advisable to learn what the Swedish business partners value in business: efficient negotiations, explicit offers and terms, high quality, punctuality, compliance with law, etc. (Finnpartnership 2011.) Finns share similar characteristics in business life.

When Turva-Aidat has enabled the first business-to-business relationships, the long-term plan is to become a regular supplier of wildlife fences (among other fence products) for The Swedish Transport Administration. Turva-Aidat has made a decision to enter the Swedish markets with its own brand name because of its current brand awareness in Finland. The aim is to make the brand name VS Turva-Aidat Oy recognizable in Sweden as well. For a sustainable stay in the markets, registration of a branch can be done for reduced costs. Foreign companies that wish to operate in Sweden can enable and manage their activities through a brand office with independent management. (Verksamt.se 2015.) If the

company does this, hiring Swedish speaking personnel is necessary for their future projects to ease the operations in the country.



## 6 CONCLUSION AND SUMMARY

Established contacts, governmental investment in the construction and infrastructure markets, along with country's openness and lowered barriers for international trade serve as opportunities for Turva-Aidat to expand its business to Sweden. Sweden's construction and infrastructure sectors are experiencing a trend of internationalization, alliances, joint ventures and acquisitions. As mentioned in Chapter 4.5, the contact persons can be hard to obtain for foreign companies. This works as a leverage for Turva-Aidat since it has obtained the contacts and pitched for them back in 2013. Other opportunities for Turva-Aidat are the investments on infrastructure and construction industries for years 2014-2025, the governmental plans to increase safety on the roads (Vision Zero), and the plan of Swedish Transport Administration to invest for the wildlife control to reduce the roadkill numbers of the country.

Both The Swedish Transport Administration and main construction companies were contacted for their future projects and suggestions for meeting with Turva-Aidat. The Swedish Transport Administration made it clear that currently there are no ongoing projects regarding wildlife fences but promised to keep on touch in the future, should there appear any. The other target market, main contractors, were not able to answer during the time frame scheduled for this thesis.

The competitive environment doesn't offer any straight competition in wildlife fence products in regards to the expertise and additional services but has the advantage over network. Turva-Aidat needs Swedish speaking personnel for effective communication in the target country. The company also needs to improve in its Facebook presence in the future, striving for more active use of the platform.

Subcontracting was chosen as the market entry method due to its appeal for the target markets, cost-effectiveness and the chance to focus on core service.

The author of this thesis will continue contacting the target markets, schedule meetings for Turva-Aidat, and help the company to provide detailed information

about the entry product according to the clients' wishes. Turva-Aidat is also directed to attend to the international fares organized by The Swedish Transport Administration in Sweden to promote the company.

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### **Specifications of the wildlife fence of VS Turva-Aidat Oy**

The height of the wildlife fence mesh is 2000 mm. The mesh consists of 17 horizontal wires, vertical wires are placed with the interval of 150 mm. In the bottom part of the mesh the horizontal wires are placed more densely, which also prevents small animals from passing through the fence. The height of a deer fence is 1500 ... 1800 mm. Wildlife fences are ideal for protecting rock or soiled areas. Also, wildlife fences are used in larger landfills or industrial sites, where the object is to prevent unauthorized access. (VS Turva-Aidat Oy 2016.)

## Swedish wildlife fence specifications sent by Swedish Transport Administration, 2013

09.10.2013

**Brief translation of request from customer/ the Swedish Transport Administration**

- Wildlife fence - 9 030 m
- "Edge" poles for ground - 150 pieces

Specifications:

Height of fence 2,2 m

Edge mesh/ threads must handle horizontal force of 6kN, and inner mesh/ threads must handle 3kn

Edge thread thickness not less than 3,5 mm, and inner threads not less than 2,5 mm

Distance between poles max 5,0 m

At least 40 mm diameter – poles

Install a complement mesh on the wildlife fence with a mesh width of 5 cm, height 1,0 m above ground and buried 0,5 m into the ground. The buried part should be away from the road.

- Gate in wildlife fence, simple, 1 m – 4 pieces

*Example from Gunnebo Protektion:*



- Gate in wildlife fence, double, width 4,80+4,80 m with inset simple gate, height 2 m – 4 pieces

*Example from Gunnebo Protektion:*

## Activities conducted by Swedish Transport Administration for more accessible international marketplace

### Preconditions for new players

The Swedish Transport Administration is constantly lowering the entry barriers for both foreign and Swedish companies (especially SMEs) and tries otherwise to make sure that the market functions as well as possible.

#### *Foreign players*

The Swedish Transport Administration conducts a series of activities that improve the preconditions for new players:

- arranges an international Suppliers' Day in Sweden
- visits chambers of commerce and companies
- arranges meetings at which suppliers can ask questions about, for example, tender enquiry documents
- increases its lead in purchase planning
- creates larger packages in larger projects
- translates parts of the tender enquiry documents into English
- produces a procurement time schedule in English
- removes demands for Swedish references
- reduces the number of competition-restricting requirements
- facilitates the introduction of vehicles into Sweden
- makes targeted marketing efforts in the rest of Europe prior to coming procurements (refers to major Transport Administration projects).