Contents

1. FEASIBILITY STUDY

The objective of the project was to collect information systematically and to demonstrate the market potential of the Dust Shelter (DS) products using the customer pilots. In addition, the objective was to specify the EU-level and the national level regulatory requirements related to the products.

Much of the feasibility study has been done by ordering reports from third parties, thus ensuring objective view on subjects.

2. MARKET STUDY

Market research has been done in Finland as well as at wider area, covering overall EU-18 area. EU-18 covers countries as follows: Estonia, Netherlands, Latvia, Ireland, Finland, Slovakia, Greece, Malta, Slovenia, Belgium, Luxembourg, Germany, Austria, Italy, France, Portugal, Spain and Cyprus.

2.1 Size of the markets

Calculations based on information gathered from large construction companies has been made about DS-innovation products. Looking into costs of deconstruction work it can be stated, that when total cost of renovation of residential building is 300.000 €, sheltering costs of internal structures is around 12.600 €, which corresponds about 4.2 % of total costs.

Renovation and deconstruction construction markets are, based on research by Technical Research Centre of Finland (VTT), in direct correlation to Gross Domestic Product, especially in Europe, and correspond as average 4.4 % of GDP (Pekka Pajakkala/earlier VTT). If it is **assumed that dust sheltering from total costs is only i.e. 3 %** - which is lower than in reality – then calculating from EU-18 GDP of 10.220 billion € from year 2014 (Eurostat), it means that from only renovation and deconstruction business the **total markets of sheltering in Europe** is about 13.5 billion € as in following:

Total European markets	with GDP (EU average 4,4 %)	Size/market share
Renovation and deconstruction Market share from GDP of EU-18:	Average value: 4,4 % 10 220 bn. €	≈ 450 bn.€
Assumed part of sheltering in aforementioned market:	**3 %** x 450 bn. €	**≈ 13,5 bn. €**
Assumed share of Dust Shelter Finland in EU-18 market of renovation and deconstruction work	Assumptions with different market shares:	0,1 % ≈ ca. 13.5 M € 0,5 % ≈ ca. 67,5 M € 1,0 % ≈ ca. 135 M €

From sheltering market of 13,5 bn. € at EU-18 Finnish part – from 4,6 % share of EU-18's GDP – is accordingly ca. 620 M €, from which for example market share of 2 % of Finland would mean substantial 12 M € turnover, which is totally realistic, and, according to experts, even small-scale.

From the DS products Dust Shelter Wall is also suitable for protection of facades of new buildings. As for share of facade protections of alone industrial, business and office building, costs of protection of one 800 m² floor can be calculated to ca. 28 000 €, which means that protection costs of facades for new buildings of, for example, 3-floors are ca. 84.000 € / site with current method. Alone in Finland the volume of new sites of industrial, business and office-buildings at year 2014 was, according to statistics, 608 sites, which means that potential sheltering market at that sector is 17 M €. Above that there was 182 extension targets and 729 repair targets. If it is assumed that all industrial, business and office-building targets to be in average 3-floors, it means that in Finland their market size in facade sheltering is ca. 127 M €

As conclusion from this it can be said that by the calculations mentioned above, the desirable share of market potential of facade sheltering of renovation and new buildings within EU-18 area is dozens of billions and yet alone in Finland it can be spoken of ca. 750 M €.

During the research current methods in dust sheltering in some individual countries, like i.e. Poland and Germany has researched. Considering these two countries, information was gathered e.g. from TAKO-Klimbud SP. Z o.o. and Förderagentur Augsburg GmbH -companies. By the research it seems, that in every targeted country dust sheltering is done still in much same way as in Finland – meaning with plastic foil, tape, wooden strip and zipper.

Thus, when calculating the market potential same principles can be used in calculations. Some of the target companies of DS-products, namely construction machinery rentals, are already international, which helps moving to different countries. Also it helped to gather some country-specific data, from e.g. ERA Rental Statistics –publication and Rental Equipment Register -service. Last information is from December 2015.

Country	The share of the repair construction and deconstruction work	GDP (billion USD)
Italy	5.6 %	1774
Denmark	5.6 %	332
Germany	5.5 %	2570
Finland	5.1 %	171
Netherlands	4.7 %	800
France	4.4 %	2214

Great Britain	4.1 %	2258
Spain	4.1 %	1490
Belgium	3.8 %	512
Norway	3.8 %	486
Ireland	3.7 %	217
Sweden	3.4 %	538
Switzerland	3.1 %	636
Austria	2.5 %	418
Poland	2.2 %	515
Hungary	2.1 %	140
Czech republic	2.1 %	215
Slovakia	1.4 %	99
Portugal	1.1 %	238
The average value / Total	**4,4 %**	**15623**

It is worth noting, that all data about market potential of sheltering are estimates, and are based primarily on information about costs of sheltering compared to total costs, questioned from construction companies doing business in Finland. In the conclusion there is used 3 % for sheltering costs from total costs, which is lower than typical real amount. In EU the sheltering markets are 13,5 bn. €, from which country-specific figures for sheltering are, based on GPD:

Germany	abt. 2,23 bn. €,
United Kingdom	abt. 1,95 bn. €,
France	abt. 1,92 bn. €,
Sweden	abt. 465 M€,
Switzerland	abt. 550 M€,
Austria	abt. 360 M€,
Finland	abt. 148 M€ etc.

Conclusion about size of markets:

Turnover goal of DS-products at 2020 from renovation and deconstruction works of EU-18 area is 120 M €, from which Finland's share is ca. 10 % which means 12 M €. If that is connected with new buildings business in Finland, the share from turnover of renovation can be reduced with similar amount, or added as top of total turnover.

2.2 Knowledge of environment and production aspects within targeted markets

As of key target markets from countries of EU-18 was chosen Sweden, Denmark, Germany, Austria, Benelux-counties, France, United Kingdom and Ireland, Norway and Switzerland. Environment and production aspects at these target markets differ minimally from ones in Finland and other northern countries. Even so, it is important to find out and identify country specific practices and working methods, which may differ to some extent e.g. From Finnish and Swedish ones.

Likewise, it is important to establish country-specific administration relations, since without them and certificates, results might not be met. On the other hand, reaching European markets through Finnish Cramo PLC is viable alternative, as environmental and production aspects could be organized by Cramo. In addition, company's own potential to get information for the decision making is weak without international construction machinery rental businesses. Information gathering from target markets is usually best achieved through some local partner. Evaluation of basic information and contact persons can be launched before end of the year 2015. The operating environment of Sweden and Norway is largely comparable to Finland, although also there the significance of partnership network is great. Contact persons reached have been: From Poland TAKO-Klimbud Sp. z o.o., Tadeusz Tarach , Varsova and in Germany a co-operation has been agreed with Förderagentur Beratungshaus, Andreas W. Huber, Augsburg. There have been also other contacts to be evaluated, but some have been finished / contact established only after the Feasibility Study. This includes such as Ramirent from Finland, which then covers also Sweden, Norway, Denmark and few other countries. Also Benelux countries and separate connection to Norway has been established and agreed.

2.2.1 Market knowledge

Preliminary information suggests that traditional sheltering solution is used also in Germany and Poland, like in all other countries investigated.

Company does not currently have knowledge of all targeted markets. To get truthful internationalization concept, it is important to reach for comprehensive investigation of target markets. To be successful at central European markets, it requires typically also developing local network for workers and purchasing's, and many times also commercial agent network. As an opening solution it is likely to establish partnership with some local construction machinery rental business, since for example local laws and practice of acknowledgement set their own special questions to be solved. The production based establishing might also be way to get competitive advantage.

Foreign competitors for DS-products are not yet sufficiently known, and neither are known all construction machinery rental services considering the delivery. Although using such Finnish companies that already do operate at central Europe, i.e. Cramo PLC, will help to get started. Still it is probably necessary to carry out own evaluation of competitors and customers during the current year along with the market potentiality evaluation, specifically since i.e. at Germany, France and United Kingdom has also local construction machinery rental businesses. Considering Sweden it means mostly partnering with Cramo PLC/Peab PLC, but also own research of markets and competitors like in other countries. More about larger construction machinery rental businesses are written later in this report.

2.3 Market Stakeholders

Finnish construction machinery rental services have established foothold at EU markets, for example Cramo PLC works already in 15 countries. It is also possible to get subcontracts through Finnish renovation builders.

Company has negotiated with YIT PLC/Caverion PLC and Cramo PLC about co-operation and delivery of products. Negotiations are continued also with environmental service –company SITA Finland Ltd as soon as products are ready. In addition, evaluation of co-operation possibilities have been started with Dustcontrol Worldwide Finnish subsidiary Dustcontrol FIN Ltd.

It was decided to continue evaluation on market to market basis: On first hand with Cramo/Peab to Sweden and with international consultant-, engineer- and architect offices to other parts of Europe.

In Finland the company has operated in close co-operation with Swedish Peab, so it is natural partner considering Swedish markets, i.e. through Cramo, whose largest market is Sweden. New and renovation construction markets at EU are very large, but size of dust sheltering among them needs further research, and so does choosing of right method for entering the market.

Small size of company, narrow ownership structure, current economical and intellectual resources, means of internationalization and its current state as well as local market status are at the moment in favor of internationalization, as primarily – and currently as only option - through construction rental service-companies as operative choice. Sweden seems most potential due to its closeness and size, but in the end that is in the hand of the rental service company. Company's export options of DS-products to Sweden are, at least in first stages, better than at central Europe or United Kingdom.

At first, networking locally offers more secure way to enter target markets and offers grow-possibilities. To get to EU markets more widely might need system supplier establishment to Poland in future after few years of work. This can be achieved through local trusted product- and aluminum-products manufacturer.

In addition, publications and articles are to be produced into professional publications. Also, using linguistic keyperson to give speeches in professional events and other such networking are relevant. In target countries/Sweden publicity is to be sought and used in co-operation with Cramo PLC/Peab.

2.4 Customers

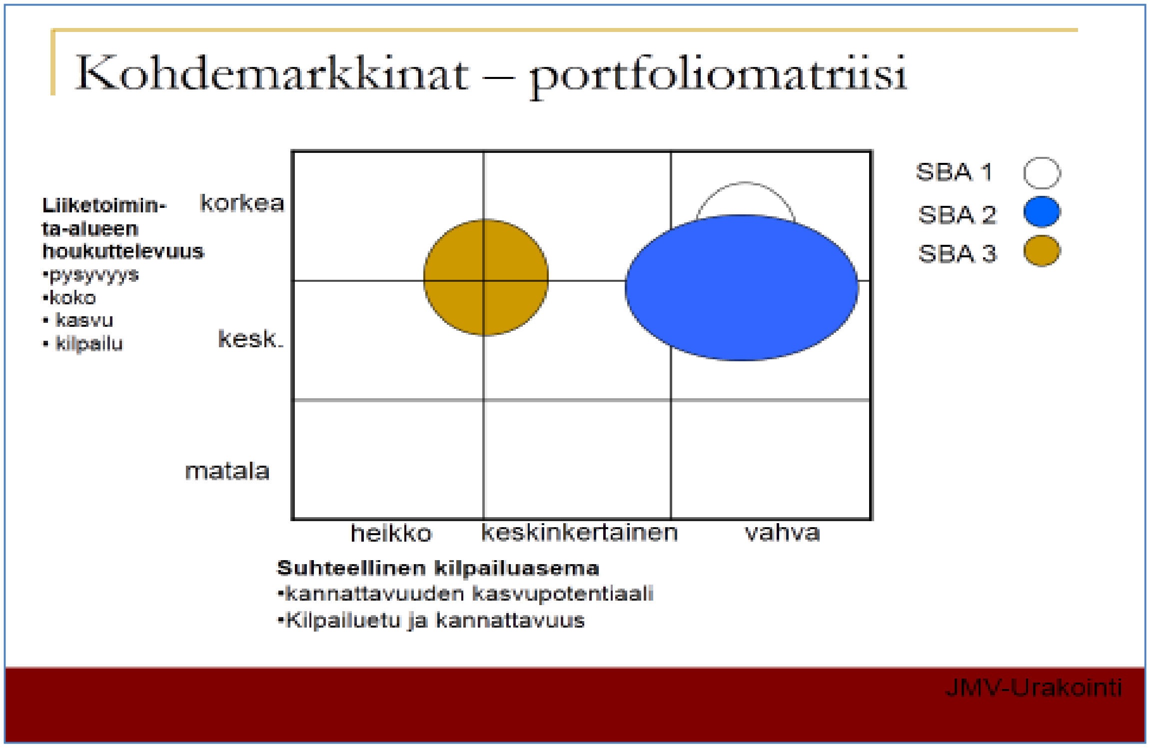
Renovation and dust sheltering markets in Finland and Sweden are very similar and partly mature, whereas other EU countries offers market potential due to growing infra- and building renovation.

STRATEGIC BUSINESS AREAS (SBA)

In the image below is illustrated dust sheltering markets as portfolio matrix, in view of DS-products. This is done by means of naming so called Strategic Business Areas (SBA) and showing view of company board about company's goals and possibilities. Size of the circles describes its market share in the business and accordingly the position describes the business profitability and attractiveness.

Markets can be divided to business areas as such:

- SBA 1. Deconstruction dust sheltering market
- SBA 2. Renovation dust sheltering market
- SBA 3. New buildings dust sheltering market



From the image it can be told that dust sheltering market at renovation is largest and most crucial and where DS-products are thought to have best relative competitive position.

Since at that segment large part of the equipment used are from construction machinery rental services, those were selected as primary (customer) segment, and construction companies as end-users.

Still, evaluation is continued at target market by target market: Primarily through co-operation with Cramo/Peap to Sweden, and through consultant-, engineering and architecture offices to other parts of Europe.

Product conceptualization requires, among Feasibility Study of market and competitor analysis, also more research from individual rental services about foreign target markets. For example about competitor status. During and after usability study from construction companies, a DS-system is to be developed based on DS-products instead of single products. Products of DS-system need to stand out from the crowd, since rental companies receive all the time hundreds of offers about different kind of products. Most relevant thing is that rental companies see the need for offered products, meaning mostly need from construction companies, reference sites and usability experiences.

It is important therefore to underline competitive advantages in product conceptualization: **It is feature of DS-system that dust sheltering products are useable dozens of times, allowing also heat regulation at sites besides dust control, and decrease in amount of waste. Thus they can be described as Cleantech-products.**

Construction machinery rental companies are primary target for sales, since their personnel does large amount of marketing of DS-products straight to end-user area without direct costs to company itself. To get same market coverage towards end customers/end-users could not be accomplished through company's own resources and purchased advertising. On the other hand, Cramo PLC requires then to include Cramo-logo into DS-products. DS-products need to be made known to key personnel of rental companies. Constant conversation is to be started with Finnish construction companies and Peab by keeping to-be-developed DS-system as spearhead of sales to get leading role in dust sheltering in local and target markets.

2.5 Competitive products and methods

In Finland the competitors are companies offering traditional sheltering methods, from which mainly Espoo-based, 1995 founded company ASTQ Supply House Ltd has some products concerning dust sheltering. Also Lainapeite Ltd. offers dust sheltering products, but only tarps and mainly outside sheltering of buildings.

As conclusion about competitors and competition can be said, that all competitors are more or less concentrated in traditional methods of dust sheltering, which are typically one-time-use –type. DS-products has been built to fix that, thus bringing clear competitive advantage.

Competitor knowledge of key personnel of company is restricted to Finnish markets. International competitor evaluation has been started by consultants and preliminary information suggests that traditional methods are in use at primary markets. On the other hand that means, that new innovative sheltering methods have not been interesting to construction business up to now. However new tightening EU directives about environmental and construction areas might force construction companies to seek new innovative sheltering methods – like DS walls and doors developed for this particular purpose. Main competitors are likely to work towards similar direction in future, but their solutions are currently behind in advancements of the DS-products.
In addition, underpressurized shelter door unit that is under development by the company, and its extension of innovative deconstruction- and waste handling system, are top of the industry when ready.

Foreign rental services for construction machinery or competitors of DS products are not currently known. Although companies already operating at central Europe – like Cramo PLC or Ramirent PLC – will be a way to start that. Still, it is imperative, among market potential evaluation, to independently evaluate competitors and customers too, since, for example, there is also many local rental services in Germany, France and United Kingdom. Concerning Sweden it is mostly issue of co-operation with Cramo/Peab, but also doing own research about markets and competitors, like at other target countries.

As a result from the study it is seen, that there is no straight competitors. This is partly as the product is new and innovative. In EU-18countries such as Poland, Germany and France there is used the traditional method of plastic-sheet + strip + tape + zipper –combinations, which is not a competitive product as this new product has been developed to replace that. In facade protection there is used tarps, which in similar way is not a competitive product as such. Same goes with all other countries studied. In Finland there is ASTQ-dust protection, but even that one is not seen as straight competitive product as it is also based on old method. Also, for exable, Mr. Sakarias Liimatainen, Dustcontrol FIN Ltd., has told us, that at least in Sweden they do not have any similar product for dust protection.

2.6 Potential distributors and partners

Like it is stated above, construction machinery rental companies and larger construction companies are seen as most potential first customers and partners. From these specifically Cramo PLC has stood out, since it has already international operations. This means that through them it is possible to have a foothold to outside of Finland. In addition from large construction companies Peab Ltd has also operations in i.e. Sweden, which makes it also a clearly seen potential partner.

In Europe the industry has moved from mostly family-owned small businesses to the creation of a number of international groups, some of which have an annual turnover close to €1billion. The large majority of companies in the industry however still have fewer than 5 employees and concentration in the industry is expected. The situation of the equipment rental industry still varies largely from one country to another in Europe. The industry is indeed more mature in some markets than others. Equipment sales penetration is for example lowest in Italy and Germany (around 10-11%) and highest in the UK and Northern Europe (up to 62%). Its growth potential is still important in Southern, Central and Eastern Europe, where some countries saw a double-digit growth rate for rental in recent booming years.

In this feasibility study was used information also from European Rental Association (ERA). From the countries the Rental market of UK is abt. 5,5 bn.€, France abt. 4,1 bn.€ and Germany abt. 3,4 bn.€. Those countries represent more than half EU-27 and EFTA countries.

The whole Rental market is growing as follows: The forecast for 2015 is showing an increase of 2.6% at 23.86 billion Euros at constant exchange rates over 2014 (22.628 bn.€). The main market is EU-12, which represent 93 % of EU27+EFTA countries. The Finnish Rental market 2015 was 433 M€, Sweden 1,477 bn.€, Norway 968 M€, Denmark 435 M€, Austria+Hungary 400 M€, Baltic+Poland+Kaliningrad 520 M€. In Poland the largest foreign rental company is reportedly Ramirent PLC who runs the dust protection using traditional methods. The turnover of the Rental companies in Poland 2014 was PLN 1,642 billion (367 M€).

The major rental companies: Ashtead Group PLC (UK) 2,6 bn.€, Aggreko PLC (UK) 2,0 bn.€, Loxam Rental Company (FR) 812 M€, Cramo Group (FI) 652 M€ (15 countries, Sweden 311 M€, Finland 104 M€, Norway 78 M€ ja Middle Europe 73 M€), Ramirent Group (FI) 614 M€ (Sweden 201 M€ ja Finland 152 M€), HSS Hire Service Group Ltd (UK) 370 M€, Zeppelin Rental GmbH&Co. KG (DE) 300 M€, HKL Baumaschinen GmbH (DE) 300 M€, Kiloutou (FR) 292 M€. In addition, the big are the Liebherr Rental Ltd (UK) and Hewden (UK) whose turnover could not be found.
Finnish Rental companies in 2014 had a turnover of 410 M €.

By the study made at 2006, amount of rental companies was 36 400.
Turnover of field at 2008 was 33.6 billion.
In this research there was 11 countries involved: Belgium, Denmark, Germany, Finland, France, Italy, Holland, Norway, Spain, Sweden and United Kingdom

The European Rental Association (ERA) announced the publication of The European Equipment Rental Industry 2014 Report with the most comprehensive data available on the European equipment rental industry.

This report has been produced by ERA in cooperation with IHS Global Insight. The European Equipment Rental Industry 2014 Report contains a country-by-country analysis of over 12 European countries. It includes detailed market size information for the years 2011-2014 and key ratios among with fleet size and investment as well as penetration rates. The report also contains forecasts for years 2015 and 2016 per country.

A special focus in this 2014 edition has been the validation of the French rental market with the French stakeholders. It has been possible, thanks to their input, to validate and/or to improve the classification of products and markets categories first established for the UK rental market in

2013. Furthermore, the dedicated taskforce intended to breakdown the rental turnover by different channels to markets including rental companies, equipment distributors and equipment manufacturers.

Thanks to the new NACE rev. 2 classification of economic activities, they have moved almost entirely to official data sourced from National Statistics Offices since they offer the most robust and reliable information on a transparent basis across all countries.

Highlights of some of the key findings in the report include:
- In 2013, the total size of the European equipment rental market (without operators) was 22.63 billion Euros, an increase of 1.0% at constant exchange rates over 2012.
- The estimate for 2014 is showing an increase of 2.8% at 23.25 billion Euros at constant exchange rate over 2013.
- The forecast for 2015 is showing an increase of 2.6% at 23.86 billion Euros at constant exchange rates over 2014.

As with the overall economy, national rental markets across Europe remain quite heterogeneous. The picture shows huge differences among countries in 2013 with maximum growth in UK at almost +10%, and maximum decrease in Poland at – 19%.

For the first time, the report introduces a new additional ratio for rental penetration against GDP, besides the traditional ratios against total construction output and against country population. The 2014 Report contains 75 pages of statistical information with expanded details per country. Each country contains 4 pages of detailed information in local currency in order to better measure the trends, independently from the variation of the currency exchange rate against the Euro.

Based on the study, even many large construction companies use rental services instead of purchasing their own equipment. Thus in most countries the rental companies are seen as main customers. At some countries there are exceptions though, for example in Norway. Companies in Norway are contacted by local partner there, and this connection has been finalized after this Feasibility study.

2.7 IPR items and Risk analysis

The following DS products has been patented:

DUST SHELTER DOOR (public)

Finnish patent application has been set 16.1.2013 and PCT-application 15.1.2014.

Temporary decision to Finnish application has been received at 03/2014, where parts of the innovations attributes (patent demands) are stated to be new. Temporary decision has been answered at 06/2014.

Novelty research report for PCT-application has been received 04/2014, in which one attribute (patent demand) was new and innovative, and that it was qualified to receive statement to recommend patent approval.

DUST SHELTER FRAME (public)

Finnish utility model has been registered 20.3.2013. PCT-application has been set 31.1.2014.
Novelty research report for PCT-application has been received 06/2014, where most innovation attributes (patent demands 3-9) were stated as new and innovative, meaning that any of them were able to receive recommendation for patent approval.

DUST SHELTER WALL (public)

Finnish patent application was set 15.1.2014.
Temporary decision to Finnish application has been received at 08/2014, where parts of the innovations attributes (patent demands) are stated to be new.

In application, it has sought to protect relevant features that were known by the set date about the structure. In the application there is shortly described a door by one wall element, but there was no demand for protection for that as such. Later application can be divided to have a separate application where protection is sought for door as its own element or as part of the system together with other wall elements. Before publishing date it is also possible to set new application only for the door.

3. Customer and stakeholder analysis

Pilots demonstrated the advantages and functionality of DS products at the construction sites. Customer pilots include, among other things, the following phases.
a. DS products was deployed at construction or deconstruction site
b. Collection of customer and user feedback
c. Verification of the user experience and customer benefits
d. Assessment of the impact on process

3.1 Customer interest and willingness, i.e. construction and rental companies

Tangible customer benefits to customer companies and individual users has been evaluated with interviews.
Benefits related to business operations and workflow arises for example because there is a special economic development needs at the dust control and material handling at renovation and deconstruction works, which DS products give good solution to. Specifically work states at deconstruction are quickened and intensified, which leads to profitability raise in renovation and deconstruction works and their work processes become faster and to be better handled. Those customers who understand to develop their work processes are advanced and future oriented ones. The development of those processes are made in a way that work systematics and productivity better through new sheltering solutions. This also emphasizes processes and business. The same is true to both renovation and deconstruction businesses.

Both environmental and labor protection issues can been taken simultaneously into account by using DS products. DS products can be used to create comprehensive system, where air circulation, dust control and material removal are integrated into one whole system and where also sufficient fresh air flow and illumination of work area are also taken care of. System consists of minimum hundred times of usage capable protective frame, wall modules and their doors, which together form current product family and DS system.

3.2 End user research to analyze cons and critical stages of current methods – constructor view

Peab Ltd sight of ULTIMES Business Garden has used as piloting target. To the sight there was installed 100 pcs of DS wall elements by Dust Shelter. Below there is an answer from corresponding master.

Usability experience - example

> ”Peab Ltd worksite at ULTIMES Business Garden has worked as Dust Shelter Finland’s pilot site for dust sheltering DS walls at address Karvaamokuja 2, 00380 Helsinki. ULTIMES Business Garden is, when finished, 21.000 brm² sized 7-floor office building and underground parking garage.
>
> DS walls for dust sheltering that had installed during the project were total of 100 pcs. Our experiences from installing the walls and their protective properties were very positive: Temperature and draft of air can be kept within acceptable limits, which is

very important during molding stage. As particularly good point I see the fact that product installation was quick, since 5 m2 of walls were installed by 2 persons within 3-5 minutes. With traditional method, using plastic and wood, same would take 1-2 hours.
Also one module can be installed and change the places many times at same job site, which brings significant savings compared to traditional plastic+tape+strip+zipper option. With using DS walls the internal construction work in job site fastened significantly due to walls quick installation and protective properties. Cost savings had made due to shortened time used to work, work areas staying cleaner and in decrease in amount of waste.

By our experience of very good experiences I can recommend DS walls to be used in both new and renovation sights."

Peab Ltd.
Kari Mehtiö
Corresponding master

3.3 Research of key stakeholders, who bring forward other companies marketing DS-products (consultants, environmental sector, research institutes)

We have used at the start a number of external stakeholder experts. Noticed key stakeholders are i.e.:

TEM - Ministry of Employment and Economy (Mr. Taavetti Mutanen)
Tekes - The Finnish Funding Agency for Innovation (Mr. Jukka Huikari)
VTT Technical Research Centre of Finland Ltd. (Mr. Aimo Taipale, Ms. Inga Mattila)
Hermia Group Ltd. (Ms. Ulla Nieminen).
As consultant has been used i.e. the construction technical expert Forecon Ltd. (Mr. Pekka Pajakkala, formely in VTT), the IPR-consultant Kolster Ltd. (Mr. Jami Wilenius), the internationalization consultant Tulosneuvo Ltd. (Mr. Juha Rautiainen, Ms. Sari Kaakkolammi), the Polish market consultant Tako-Klimbud Sp.z o.o. (Mr. Tadeusz Tarach) and the German and Austria market consultant Förderagentur Augsburg GmbH/DE (Dr. Andreas W. Huber).

Having these stakeholders along helps marketing of DS systems through consultations and their own work (for example researches, reports).

4 Legislation

New EU regulation: dust control must be used EU Directive (2008/50/EC) on the air quality and its improvement makes requirements for companies around Europe to improve dust control

This entered into force in 2008 and Communication from the EU commission on resource efficiency opportunities in the building sector (COM (2014) 445 final, 1.7.2014)

5 The plan for Internationalization of the company

The company is at development stage of the growth, where it has to carefully con-sider the various business and growth strategies: to choose right distribution channel at home and way of acting at internationalization at EU-markets. In Finland dust sheltering products have long been traditional strip+plastic+tape+zipper –type or tarp solutions, which markets have stayed quite stable. Similar solutions are knowingly also in many EU countries.

To find out true market potential of DS-products and for company's internationalization there is still starting up some country-specific market- and competitor analysis. The internationalization is in its early stages and no operative actions has done so far in Sweden or other EU-countries. Through current and potential co-operation partners (i.e. Peab Ltd./Cramo PLC, YIT PLC/Caverion PLC., Skanska Talonrakennus Ltd., NCC Rakennus Ltd., Dustcontrol Fin Ltd. ja SITA Finland Ltd.) have been made evaluation of strategic co-operation to find out if with their help it is possible to achieve most advanced dust shelter markets of EU-countries along with Finnish one. The plan for Internationalization.

Internationalization plan was made by Euro-Fincontact Oy based on TEM Global program, but it was made at 6-8/2015 in name of Dust Shelter Finland Oy and in Finish. Also due to size restrictions of this Feasibility Study it cannot be included here.

6 Conclusion of the action by the results

The results show a good opportunity and possible future for Dust Shelter products, and thus it plans to continue the developing of the business idea. Objectives has not been changed, although some more objectives have been seen, like other target markets than the construction industry. But even they have been seen they have not perceived as close future, and thus are not affected by this study. On the basis of the investigation, it has seen that the best target group is construction machinery rental companies, and that a co-operation with the international Finnish one would be most suitable strategic approach. Impact of that would be that company gets foothold to foreign countries without need of larger investments by itself.

It has remarked that to develop business further more funding is needed. Although if good results come from first sales, i.e. larger sales to some international rental companies, need for funding is reduced. Further funding would be needed to develop rest of the DS-system, namely DS-Door, and few other versions of the DS-Wall.

Product development needs are seen as a delivery for each studied country as they all are using old method. In Finland they are such as YIT, Children hospital by SRV, Agnico eagle etc. While the product itself is already a product able to replace the old method, further development has been planned and needed. This requirement has been seen mostly in-house. By feedback from pilot customer (Peab) and other contacted potential customers has been positive without further development suggestions. Product advantages, as reported by them have been:

- Environmentalism: Products are re-useable, there is no parts to throw away after usage
- Easy to use: No tools needed
- Quick to use: Time to protect certain area have been diminished from 1-2 hours to 3-5 minutes.
- No risk of broken plastic: Where traditional plastic sheets were easily broken, in DSF solution the protection is solid and hard to break.
- Insulation: As the product insulates heat and cold and also airflow, it allows faster making of some work requiring special conditions, such as molding.
- Complies with new EU-directive 2008/50/EC: old method has to be replaced by re-useable one if there is such.

During the Feasibility Study there was used following subcontractors
Losper Oy – for product development
Puristeteos Oy – for pilot manufacturing (100 pcs)
Euro-Fincontact Oy - for market study
Sensetrix Oy – for marketing material

All subcontractors delivered what was ordered, and results are used to combine this Feasibility Study.

At the time of proposal there it was seen that Business plan would be modified by the results of this study. However, the continuation of the development is to be made with company Dust Shelter Finland, while JMV Urakointi is about to be ended. Thus, there is no need to modify business plan of JMV Urakointi. The internationalization plan will give required feedback to modify business plan of Dust Shelter accordingly.