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Lapland University of Applied Sciences

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ENVI SIMULATION CENTER

Development proposal

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Thesis

Lapland University of Applied Sciences

International Business

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Lapland University of Applied Sciences

Opinnäytetyön tiivistelmä

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Tämän opinnäytetyön tarkoituksena on kartoittaa Lapin Ammattikorkeakoulussa toimivan ENVI-Simulaatio keskuksen kehittämis- ja käyttömahdollisuuksia. Miten ENVIn toimintaa voitaisiin kehittää tuloksellisempaan suuntaan ja mitä toimenpiteitä vaaditaan jotta toivottu kehitys onnistuisi.

Voitaisiinko jo olemassa olevia simulaatio-opetuksessa käytettäviä menetelmiä tuotteistaa ja simulaatio opetuksessa mukana olevien opettajien ammattitaitoa profiloida, jotta palveluita voitaisiin markkinoida sekä myydä toisille ja kolmansille osapuolille. Mitä toimenpiteitä vaaditaan organisaatiotasolla ja mitä henkilöstötasolla? Mitkä ovat tarvittavat resurssit toimenpiteiden suorittamiseen?

Opinnäytetyö suoritettiin kvalitatiivisia ja toiminnallisia tutkimusmenetelmiä käyttäen. Haastattelin opinnäytetyötäni varten alalla toimivia lääkäreitä, lehtoreita ja toimihenkilöitä. Lapin AMKin simulaatio opetuksessa mukana oleville opettajille järjestettiin työpaja, jonka avulla kartoitettiin kehittämistarpeita heidän näkökulmastaan katsottuna sekä identifioitiin mahdolliset haasteet ja ns. ongelmakohdat joihin lähdin etsimään ratkaisua.

Tämän opinnäytetyön avulla pyritään löytämään keinoja, joilla Lapin AMK voisi hyödyntää ENVI- simulaatio keskuksen kokonaisvaltaisen käytön sekä profiloida simulaatio opetukseen erikoistuneiden opettajien ammattitaidon. Simulaatio opetus on keskeisessä ja hyvin tärkeässä asemassa hoito- ja hyvinvointialojen opetuksessa niin kansallisesti kuin kansainvälisestikin.

Avainsanat: Simulaatio, kehitys, erikoistuminen, ammattitaito, tavoitteellisuus, resurssit, profilointi

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Abstract of thesis

School of Business and Culture
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Author	Satu Johanna Niemelä	Year	2016
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The purpose of this thesis is to research what kind of functional and operational possibilities ENVI-Simulation Center has. ENVI-Simulation Center is part of the Lapland University of Applied Sciences learning environments. What should be done in order to develop usage of ENVI Simulation Center and how to reach the set goals? How to develop ENVI's operations to become more profitable and what measures are required in order to succeed.

Could the expertise of the simulation teachers be identified and therefore profiled, in order to be able to market and sell ENVI services as well as profiled expertise to the second and third parties. What measures are required at the organizational level and what at the personnel level? What are the necessary resources to carry out the measures?

I used qualitative research methods mixed with practice-based thesis approach. I interviewed for my thesis several doctors, lecturers and personnel operating in the simulation and health care field. There were also workshop held to the personnel involved with ENVI-Simulation center, which allowed me to identify the development needs as seen from their perspective as well as identify potential challenges and the so-called problem areas in which I searched for a solution.

With this thesis I am aiming to find the ways of Lapland University of Applied Sciences could take comprehensive advantage of the ENVI-Simulation learning environment, as well as to profile the teachers specialized skills in simulation education. Simulation has a very important role in the care and welfare sectors, both nationally and internationally.

Keywords: Simulation, development, specialization, expertise, goal orientation, resources, profiling

CONTENTS

SYMBOLS AND ABBREVIATIONS

ENVI	Simulation environment in Lapland UAS, Rovaniemi
SKY	Simulation environment in Lapland UAS, Kemi
SEESAM	Society in Europe for Simulation Applied to Medicine
UAS	University of Applied Sciences
RAMK	Rovaniemen Ammattikorkeakoulu
HOISIM	Nursing Simulation Alive
USP	Unique Selling Proposition
RDI	Research, Development, Innovations
LSHP	Lapland Hospital District

1 INTRODUCTION

The thesis topic was chosen while I was working on Nursing Simulation Alive, abbreviation HoiSim2016 as a Project Secretary. That particular project gathered together simulation experts from all around the world. It was fascinating to realize from the business side of view that there are such a great potential in simulation know-how in Lapland University of Applied Science. Business side of view meaning that this type of know-how level surely could be identified and therefore sold as tailored services to healthcare sector parties. Simulation top leaders all around the world were interested and willing to come here in Lapland to learn and hear more about simulation.

As the project proceeded the ENVI-Simulation learning environment became more familiar to me and I started to notice that it did not utilize its full potential in any manners. I started to imagine ENVI as the leading simulation and training center in Lapland region and being a bit more ambitious even the leading simulation-training center and education provider in the developing Arctic Region. The personnel involved with ENVI are all specialized in different kind of simulations and the level of the expertise is very high. The ENVI environment is very well equipped, having 13 different simulation learning environments suited equipment's in it. Those environments could be used more comprehensively or finding mobilization tools to be able to move the environments depending on customer needs. It became apparent that ENVI environment it is not used in a way that it would add the most possible value to its operations.

The topic is extremely interesting as well as rewarding as it is very concrete and current. Thesis will analyze the current situation of ENVI, identify the current problems in it and find an answer what has to be done in order to develop. This thesis gives structure of measurements of what ENVI's personnel will reflect together and then decides the road that is most suitable for them. Objective is to clarify development needs and

ideas of how to deliver the results. Main question through the whole thesis was; what needs to be done in order to develop ENVI's operations. Thesis is targeted to ENVI personnel. This thesis integrated two different research methods; qualitative and practice-based.

2 THESIS PROCEDURE

2.1 Focus in Thesis

Despite partly studying simulation as an educative matter this thesis will not focus on simulation techniques or simulation in accustomed entity. Thesis will focus on viewing the current situation from the business point of view, particularly favorable to Lapland UAS and how it could be developed to become more effective and profitable. Profitable in this case does not only mean monetary aspect, rather partnerships, national and international cooperation's and having a well-known expertise level and reputation.

Development proposals in this thesis is based on my personal conclusions made from personnel interviews, cooperative company personnel interviews, literature related to the topic, personal opinions and information gained through the whole thesis process.

The aim of this thesis is to provide new approaches and ideas; how ideal ENVI simulation center could function, how it would look like, what it would consist and how that could possibly be achieved. Thesis will give tools and instructions of variety of actions that by being implemented can lead to progressive development process. In order to keep my scope clear, this thesis was proceeded from independent and individual aspect.

2.2 Research Methods

Nature of every research is the 'research problem' of what every particular research is trying to find a solution by using different kind of research methods. Research problem can also be a necessity of development or achievement of change, as it is the case in this thesis. Research problem in this thesis is identifying the needs of developments and possible tools to implement those identified needs. (Kananen, J. 2013, 22-23) Research methods used in this thesis are qualitative and practice based. By using

two distinctive research methods enabled the results to be more comprehensive. One research method did not overhaul other, rather completed the information. Qualitative data was gathered through interviews, workshops and observation of operational functionality. Practice-based data was gained through actual operations and actions implemented in researched area.

Qualitative research method is considered to be the ”mother” of all other research methods. (Kananen J. 2013, 26). Qualitative research is aiming to understand the phenomena, explain the structure of the phenomena and explain the variety of affecting factors of the phenomena and relation between them. Challenge of the qualitative research is that there are always a possibility that researcher may have an influence to the end results knowingly or unknowingly. Qualitative research differs also from data collection methods, in qualitative research a data do not have a direct numerical value. In qualitative research focus is on gathering verbal data and analyzing literature as well as surveying information and importance of the phenomena. There are no exact questions because the phenomenon is unknown; the phenomenon will open up through the process and by using conversational research methods in data collection. (Kananen J. 2013, 26)

Typical features of qualitative research are (Kananen J. 2013, 27):

- Research takes place in a natural environment
- Data is collected from interested parties in interactive methods
- Researcher is the operator and collector of the material
- Researched material is diverse, text, charts, pictures, interviews etc.
- Data analysis is inductive, recursive and interactive
- Attention is in researched point of view
- Objective is comprehensive understanding of researched phenomenon

Practice-based research methods, sometimes called ‘action research’ methods are combination of qualitative and quantitative research methods. It is considered to be more as a ’action strategy’ rather than research. Focus in action research is to achieve the change in researched phenomenon.

Typical features of action research (Kananen J. 2009, 10-12):

- Development/ change
- Collaboration
- Research

Action research is the most suitable in situations where the actions are targeted to a group or the operational structure of the group. (Kananen J. 2009, 13) I collected comprehensive understanding about researched phenomenon and factors related to its operations, therefore I was able to make conclusions and future development ideas for ENVI’s development process.

3 SIMULATION IN HEALTHCARE

3.1 Simulation Shortly

What means simulation? To most of the people, simulation means different kind of simulators example ones used in aviation education. Simulation has been one of the teaching methods already for duration of several decades. As early as 19th century it is believed that chess players attempted simulating game situations to advance their skills in actual game and armies have used simulation in their training since the Second World War (Poikela, Poikela, Hanhimäki & Tieranta, 2012, 9). For the health care education simulation established its position in USA as an educative tool in late 1960's. Simulation was mostly at that time used via computer-controlled patient for anesthesia and resuscitation skills. Simulation became more common in Finnish Universities comparatively late, after 2006. Many people have either tried or seen "Rally Car" simulators where you can experience how does it feel in actual rally car when exploding the narrow roads 120km/h. The main idea of simulation is to reflect real-life actions in a safe environment. Simulation is also a learning method in which you are able to experience variety of situations, as it would be in real-life. David Gaba is one of simulation pioneers, especially in health care sector. He categorizes simulation into categories (Poikela *et al*. 2012, 31):

- Verbal simulation, i.e. role-play, real patients
- Anatomical models of body parts that can be used in comparing the normal state and the state of illness
- Simple computer-based patients
- Complex virtual and computer-based virtual patients that resemble humans and can be used for repeating and training complex interactional health care procedures.

David Gaba has described simulation as "it is a technique–not a technology–to replace or amplify real experiences with guided experiences that

evoke or replicate substantial aspects of the real world in a fully interactive manner.” (Gaba, D. 2007, 2-10) Simulation is producing practical thinking and operational competence especially in fields in where safety plays an important role. As much pilots needs flight simulation as much physicians needs patient simulation education and training. Paula Poikela, who can be seen as a Finnish simulation pioneer says; “Simulation could be utilized as a pedagogic method also in other professional fields in which achieving the core work-related competence efficiently already during the education in comparison with previous methods would be beneficial” (Poikela *et al.* 2012, 19). Clearly stating simulation is a field of development and it is not a sector of shrinking capability.

Although, very important point is not to make the mistake of thinking that the simulation is more important than the actual education from any verified sector. Edgar J. Figueredo from Washington D.C United States stated his concerns of the trend that more simulators have been bought and used but not the actual expertise trainer with it, resulting having unclear educational objectives, undefined goals and unqualified educators who aren’t able to educate in adequate manner. Simulation process itself is complex procedure, which requires expertise educators who are able to educate, evaluate and analyze and give constructive feedback to trainees. The goal of simulation in educational use, including technical skills, is better known and the goal is clarified; “to improve or excel in the desired outcomes” (Figueredo, E. 2016, 270-271). “Ideally a simulation center should have a multidisciplinary nature, with different specialties working together to develop a curriculum and creating a system to evaluate each student” (Wright, Kim & Pellegrini, 2011, 94-96).

3.2 Importance Of Simulation

Society in Europe for Simulation Applied to Medicine (SESAM) have stated that interest toward simulation and using simulation for improving patient safety have rapidly grow in last years. It is clear that by using simulation as a part of the training and education in health care sector, it will

improve patient safety. Simulation gives an opportunity to “face” the situations as they would be in real-life and make decision without exposing anyone to danger. It will be also useful and needed action to professionals who are already in working life to keep them up-dated. (Gaba, 2004,13). Many times working life situations vary significantly from the classroom studying behavior and it has been noticed that sometimes the nurses lack generic skills. Simulation is interactive learning. (Poikela *et al*. 2012, 36). Simulation education serves both; experienced and novice learners. It allows rare situations or situations that are too risky to be practiced with real patients to be practiced without causing physical harm to anybody, it will also help learners to gain self-confidence to act and do the actual procedure when it has been successfully done already. Publication “Toward Simulation Pedagogy” gives expertise insight ‘Simulation education offers a new perspective for considering the ethical aspects of nursing. It provides the opportunity for practicing technical nursing skills before they are used in the treatment of real people’ (Poikela *et al.* 2012, 52).

The costs and benefits of simulation cannot be clearly determined; most of the effects will be seen over longer time period. But it is sure simulation has established its position in providing essential practice tools to improve patient safety. (Gaba,13-15) "The most important prerequisite for a successful simulation of a simulation is considered knowledgeable instructors." (Hallikainen J., Väisänen O. 2007, 436) Lapland UAS certainly has simulation expertise, as Hallikainen called “knowable instructors” but what is missing in ENVI simulation center is the pulling force, which would lead ENVI’s development to even higher level. ENVI needs to profile its expertise, profile it services and products, it needs to build a brand around its operations, commercializing and in general reformed organizational structure.

4 SIMULATION IN FINLAND

4.1 Simulation Development In Finland

Simulation in Finland, especially the so-called "full scale"-simulation training is still fairly young. The first computer-controlled simulation dolls were purchased to Finnish Military Defense Forces and Arcada University of Applied Sciences in 2000. The Arcada UAS has been a forerunner in Finland in the field of simulation-based learning. It established the first Finnish simulation center called; 'Arcada Medical Simulation Center', in 2004. After Arcada and Finnish Defence Forces comes Lapland UAS (previous RAMK), Lapland UAS started simulation education in 2005 just less than a year after simulation education had reached Finnish simulation pioneers. Although, Lapland UAS simulation expertise Paula Poikela had have the first simulation project plan already in a year 2000. Since then, simulation centers have been established widely around the country and nowadays it is almost a standard in university education.

Simulation training in Finland began the development of the nominal expenditure in simulation-based learning despite the fact in general simulation training was established fairly late compared to many other countries. Finland introduced simulation education model where the learning was outsourced from the hospitals. In year 2000, Europe and Finland began focusing also on patient safety and minimizing health care malpractices. In 2008, the Council of the European Union decided that the Member States must establish reporting and learning systems concerning adverse events in health care settings. (Hallikainen, Väisänen 2007) In the following year, 'Finland's Ministry of Social Affairs and Health (STM 2009) published a patient safety strategy for 2009–2013, which gives recommendations on the effectiveness of the education on preventing treatment injuries and adverse events involving patients. This contributed to the adoption of simulation as a teaching method in nursing education.' (Poikela *et al.* 2012, 35).

4.2 Transparency Of Simulation In Finnish Universities

When researching how simulation is implemented in Finnish Universities nowadays, I was a bit disappointed and surprised about the lack of information I found. Since being part of HoiSim 2016 conference in where I worked with participant information and based on that I know by fact that there were participant all around Finnish Universities, which can be taken as a proof that simulation education is at least somewhat existence widely. However, when searching from online, almost nonexistence.

Simulation is evidently part of modern healthcare education. Nearest simulation center to Lapland UAS's simulation center ENVI, geographically is in Oulu. Oulu UAS has very clear websites in Finnish and English. Easy to approach, informative and gives visitors image of possibilities and services they do. SimLab Oulu demonstrates in their website wide range of simulation services and educational opportunities. Helsinki Metropolia UAS, simulation environments and newest technologies are displayed clearly in Finnish and English. They also mention they partners and cooperation companies. Seriously taken and convincing, in my opinion. A bit surprisingly the actual forerunner and pioneer; Arcada UAS, which has a good reputation in simulation, I couldn't find any information about simulation in their website, none. However, Arcada UAS simulation unit is the sole simulation unit in Finnish UAS's that is mentioned in international simulation platforms. Other UAS's; LAMK, Laurea and Centria I couldn't find any information about simulation. Not in English or in Finnish. Comparing Lapland UAS Finnish sites to above-mentioned list, information found about ENVI and simulation in health care in general are fairly good. But that is not enough if seeking development and stronger existence.

4.3 Simulation In Lapland UAS

Lapland UAS's (RAMK at that time) simulation education started officially 2005 and was one of the first simulation pioneers in Finland. Paula Poikela, who is simulation 'lead person' spark of the simulation in Lapland by

creating a first project plan according simulation learning in a year 2000. Five years later at that time Head of Heath Care education, Kerttu Oikarinen gave the management support to realize simulation development in order to reach the international high-end standards. Management support was so significant that simulation environment development and simulation education moved on fast and was already established in Lapland UAS before it was thoroughly found its way to Finland in nationwide. Therefore it can be stated that Lapland UAS (RAMK) has been simulation education pioneer in Finnish Universities. Simulation environment in Lapland UAS (RAMK) was branded to carry the name ENVI.

ENVI is located in Lapland UAS, Jokiväylä campus, B-building 3th floor. Still in nowadays, if compared to other Finnish universities, Lapland UAS simulation education environment is one of the biggest and best equipped in nationwide. They have 13 different simulation environment ready to use when needed, whilst compared to other, UAS's 8 simulation environments seems to be the maximum capacitate. However, ENVI doesn't hold the pioneer status no longer despite the fact that it could almost effortlessly be the best known simulation center in nationwide as well as internationally, based on the expertise know-how and equipment level it holds. According to Poikela 'At ENVI, it is possible to simulate the patient's journey from the site, via paramedic treatment and transportation, to acute treatment, to the hospital ward and, eventually, home via rehabilitation. Therefore, ENVI helps the student to conceive the overall treatment path of the patient' (Poikela *et al.* 2012, 12).

In another publication about ENVI; 'Hyvinvointialojen simulaatio- ja virtuaalikeskuksesta oppimis- ja kehittämisympäristö' in where it says that care teams in hospitals, doctors, nurses, assistant nurses and ambulance drivers came to refine the acute and intensive care patients in need of treatment skills and multi-professional cooperation. In there it is described that based on users experiences; almost everyone liked the environment and felt they had learned a lot, even beyond expectations. Users felt that they had the opportunity to train verified manner for real-life situations.

Satisfaction was increased by the fact that the skills could be utilized directly in work also sense of responsibility and self-confidence increased. (Oikarinen, Kangastie & Tieranta 2013, 30) Three years after that publication, despite the positive user experiences, the overall development of ENVI's services and operations has not increased together with the expertise know-how. Expertise's involved in ENVI are educating themselves further but the actual operations inside has not been proceeding together with personnel development. That is a contradiction to its operation structure.

4.4 Envi-Facilities And Training Environments

ENVI is an interactive, virtual learning center in where is possible to practice care and service processes as well as individual health care actions. ENVI simulates a multi-sensor and real-life health and social work situations that help to control thinking and active learning process by doing.

ENVI have following learning environments:

1. Home Environment
2. Therapy And Home Nursing Area
3. Child healthcare clinic
4. Children And Maternity Unit
5. Reception Area
6. Equipment Maintenance Area
7. Pharmaceutical Service Area
8. Internal Medicine ward
9. Intensive Care Unit
10. Surgical Unit
11. Operational Unit
12. The Virtual Event Environment

13. Debriefing Mode

In addition:
ENVI has redesigned knowledge and problem-based learning to support virtual and simulation modeling, ambulance simulation, electronic patient information system as well as physiotherapy laboratory gameplay environments. ENVI also enables learning via various application-based situations; it has wide technological ability to correspond to ever changing situations.

Facilities were modernized in 2014. After that the know-how of ENVI expertise has been continuously been updated but the actual development of the environment usage have been somewhat in same position.

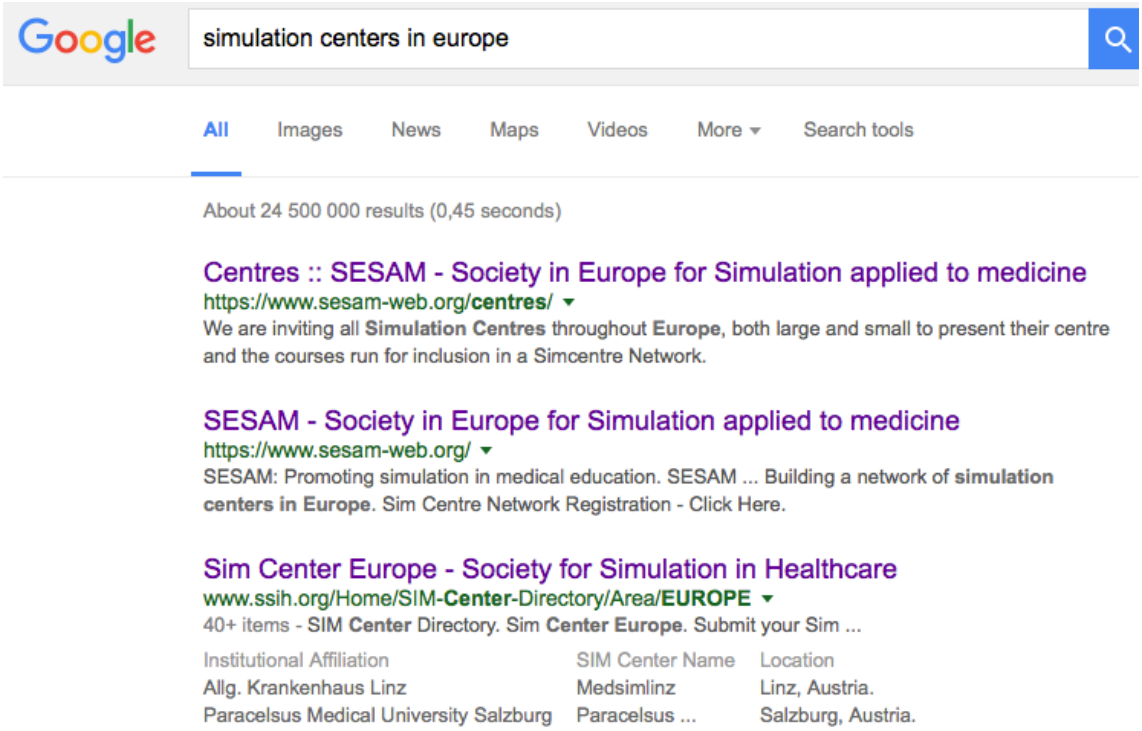
However, quit frankly there are two different simulation centers in Lapland UAS; ENVI and another one that carries the name “SKY”. SKY was established in 2013, a year before realization of current Lapland UAS. Lapland UAS is a result of two Universities of Applied Sciences; Kemi- Tornio Polytechnic and Rovaniemi Polytechnic merging. SKY is a very similar simulation education environment as ENVI, only in smaller scale.

5 CURRENT SITUATION ANALYSIS

5.1 Lack Of Existency

Universities of Applied Sciences have basic standards of the effectiveness of regional and territorial development. Healthcare service training of UAS's aims to promote practice based learning of nursing work and evidence-based learning as well as response efficiently for the local region development needs in healthcare sector. Education and training is to increase expertise in the area and to improve service quality and safety of services. (Oikarinen *et al* 2013, 59)

Lapland UAS once had a pioneer position in simulation field (RAMK at that time), nowadays the simulation education and services are minimized according to information available for 'outsiders', meaning people who are not involved with ENVI's operations. If viewing or searching "ENVI" from outside of the Lapland UAS, it does not exist if you are not familiar with it already. Millions of euros have been used to build modern facilities where to practice, educate and perform simulation training, but when trying to find information of ENVI (or SKY) they do not exist. When searching simulation centers from the most popular search engine 'Google' by using words 'simulation centers in Europe', results are; first two:



Appendix 1: Search engine results (Google, screen capture 24.8.16)

SESAM (Society in Europe for Simulation Applied to Medicine) states in their website:

“Centres List: We are inviting all Simulation Centres throughout Europe, both large and small to present their centre and the courses run for inclusion in a Simcentre Network. This will be accessible to everyone via our website in due course and we believe will provide:

…better communication with simulation enthusiasts.
…information sharing between sim centers.
…an updated list of sim centers in Europe” (SEESAM website information, 18.8.16)

Not a word about ENVI or SKY. From Finnish centers there are mentioned, Arcada and Emergency Services College and University of Eastern Finland.

A third result given by search engine was SIM Center Europe – Society

for Simulation in Healthcare. They have a similar list of simulation centers in Europe, but not a word about ENVI or SKY. Only one mentioned simulation center from Finland and that is Central Finland Health Care District. (SIM Center Europe website information 18.8.16)

That kind of networking platforms simply shouldn't be ignored. Both of the simulation network sites clearly states that their 'invite simulation centers in Europe' to post their details to their platform in order to increase networking in that field. Surely the problem is not about ENVI's personnel not having good networking skills, because it is proven during many years through various successful international simulation projects that there are expertise's that have globally convincing network in the field. Example only Nursing Simulation Alive conferences had simulation professionals from 11 different countries. But unfortunately it is not enough for the ENVI's development that personnel have wide networks in individual level. To increase ENVI's brand value it has to be more visual and preferably visual in all networks that have something to do with simulation.

5.2 Merging

Hospitals, healthcare centers, private healthcare sector and cooperative partner such Rescue and Emergency field are using simulations in their continuous training. For outsider as author itself, Lapland UAS is one organization. One faculty, one strategy and common goals everyone is trying to reach together. Based on that it is a bit difficult to understand why one organization that has merged, has not merge its operations. Now Lapland UAS have two separate simulation centers, ENVI in Rovaniemi and SKY in Kemi. I believe and understand that for the faculty itself, who are working in ENVI or SKY, the actual differences are clear and everyone knows their position. What other simulation center in 100km distance is doing may not be the main interest. But if approaching this from the customer and business point of view, how different individuals and customers whom would example like to buy some educative services related to simulation, can make the difference? Both centers have simulations

that they are specialized, it raises the question; how clients could know the difference what kind of simulation services these two centers can provide and how to choose the right one for some particular services? Either they both should list clearly in website in what they are specialized, which is not done so far, or unify they services and increase the strength to provide wider range of services.

It really seems a bit weird that one company has two different simulation centers, which in some form even compete with their services. Would it be everyone's favor if simulation services would be centralized and that how provide even stronger reputation in simulation field? It does not mean one would override another, those two separate locations could stay and operate as before but with common operational structure and wider service repertoire. Merging could be one of the development paths to ENVI. Of course with a certain reserve as it requires willingness from other parties as well. Merging means; "Voluntary amalgamation of two firms on roughly equal terms into one new legal entity. Mergers are effected by exchange of the pre-merger stock for the stock of the new firm. Owners of each pre-merger firm continue as owners, and the resources of the merging entities are pooled for the benefit of the new entity" (Definition of merger, Business Dictionary 20.8 2016) Mergers and acquisitions are normally done in order to expand a company's operations, expand into new segments, or gain better market share. So would be in this case also. Merging ENVI and SKY would mean both of them could expand its operations and probably gain better market position, as they would have more services, more equipment's and more expertise's.

Merging should not be thought, as it would take off some advances from either one of the centers. It would rather provide more opportunities and allow more, new kind of businesses and wider partner cooperation's in whole organization level. Main concerns usually about merging are losing decision making power and lose of jobs. It could rather be seen as expansion of currently available opportunities. In some sense it would need

humbleness from both sides, one would may need to lower he/she decision making power or one of the centers or both would may need to change the name. It would require lots of flexibility from personnel but at the end that would probably be most profitable from all the aspects.

Lapland UAS recent strategy and profiling report made by organization RDI-Manager Eila Linna and Development Manager Helena Kangastie highlights the simulation know-how in Lapland region. According to them "Simulation expertise will serve the entire province of Lapland, the know-how is well known and recognized at national and international level." (Linna, E., Kangastie, H., 2016) Based on that statement merging is supported from the organizational level as well. In that very same report Lapland UAS strategy and development experts Eila Linna and Helena Kangastie states that a good strategy is not too bold, it is rather flexible and elastic entirety that lives together with organization and society. Good strategy means good communication inside the organization as well as stakeholders. According to that principles of Lapland UAS strategy development are; trust, open-mindedness and communal spirit. All those above-mentioned factors support 'united strengths'. The most important statement in that report is that 'sharing of knowledge and expertise as well as an open working culture both the individual and organizational level, to ensure a communal-spirit and increase a team-spirit. (Linna, Kangastie, 2016) All the things mentioned in that report are waving to the direction of 'togetherness', unifying the expertise and strengths.

5.3 Attitudes Towards Merging

In general attitude towards ENVI and SKY merging were positive. Interviews were made only to ENVI's personnel. Attitude about centralizing the strengths and operating as one were much more positive than the attitudes towards how merging could in practice be implemented. Often the first impression after hearing the idea of merging was always kind of disbelief and rejection. But after discussing and digesting the idea it started to appear more appealing. Main concern according the results was

about the name and the prevailing attitudes. Interview about merging was not made to SKY personnel. The fact is that either one of the centers has huge brand value behind their name, which can be proved by the fact that when searching information about simulation or simulation centers; either one appeared. When going a bit further with the search and adding more specific words with simulation such as “Lapland”, ENVI’s existence started to show. Although almost all material found was in Finnish. From SKY I could not find information at all. Based on the search results it would not cost harm unbearable creating a new name in case of merging. Reason why ENVI has stands stronger with the name wise is the fact that ENVI has been one of the first simulation centers in Finland and among simulation professionals ENVI’s name has acquaintanceship.

5.4 Challenges

Currently the biggest challenge that ENVI personnel have is the lack of time resources. Development cannot proceed ‘on its own’, and any kind of development requires actions what eventually creates reactions. According to informal interviews made to ENVI’s personnel, personnel simply does not have time enough to do anything extra. They do not have time enough to think new kind of service modules, how to reactivate old business partnerships or less catch the new leads not even mention actually implementing those development needs. Personnel currently have several hours in a year basis that they can use to ENVI. There is no person who could with current resources sort of take the lead. Basically, in ‘real working-life’ all the teams, working groups, organizations, associations, clubs and businesses needs someone who “drives” it to a right direction, keeps it on the track, makes sure it reaches planned destination and so on. To simplify ENVI needs person who can take the position of a contact person, operational manager, a person who takes the responsibility of its services and development processes. It is not possible right now. Personnel are teaching full time or they are tied up with other projects. ENVI itself it is not a project, currently the only way to develop its services is; sort of ingrate ENVI with some projects. That is not sustainable develop-

ment. To be integrated with projects means it will always start something and that development will end when the project ends.

5.5 Problems With Communication

After having a general picture of ENVI's operations I wanted to find out how cooperative parties see it. I contacted LSHP (Lapland Hospital District). I interviewed one Senior Physician, who I will call in this as Doctor-A. Reason why keeping this doctor anonymous is Finnish Personal Data Act (523/1999) (4 luku, Henkilötietojen käsittely erityisiä tarkoituksia varten, Tutkimus,14 §) Persons identification in this case could affect future business partnership, in due to avoid any speculations in future, LSHP doctor identity is kept anonymous.

I asked Doctor-A, how simulation is implemented in their organization?

- "We do have simulation training to our personnel on regular basis but their educators and simulation equipment comes from Helsinki. It has been working well and that's why we haven't even searched other simulation providers."

I asked would they be interested about simulation services Lapland UAS can provided?

- "Yes, of course would be great to work with the local company but it has to be suitable in all matter"

It is somewhat interesting that simulation training comes from Helsinki despite the fact Lapland has one or actually two country leading simulation centers including excellent expertise within them?

Why does the service come from Helsinki?

- "I can't remember exactly why but I know that years ago, for some rea-

son, LSHP started to order the service from Helsinki and from there on we haven't been offered anything else, so far I am aware of it."

No serious offers from Lapland UAS, or active contact to reactivate the cooperation in simulation education. Although, they do have projects and simulation training occasionally but not in sustainable and efficient way. Doctor-A did not want to speak behalf the other wards but he remembered that one of the main problems was that they needed to have newborn baby simulator instead of 4 months old baby simulator and as Lapland UAS does not have what they need, the cooperation is difficult if not impossible.

After the interview I contacted ENVI personnel to ask whether it would be possible to have one of those "new born baby" simulators and how big investments we are talking about. In money wise it would be around 17 000€, so fairly big investment. Next I found out that SKY-Kemi has one of those newborn baby simulators LSHP were talking about. This is a very unfortunate situation. Here is a potential and fairly big customer, who in theory is interested Lapland UAS services but thinks that Lapland UAS is unable to provide services they need. Despite the fact that it would actually be easily possible if branches inside the organization would cooperate or somehow unify services.

Another problem that became apparent while talking about the situation was that they need to have the trainings in the hospital incase of emergency, now they are in believe that the main trainings would need be mainly implemented in Lapland UAS and trainings inside the hospital would not be possible. Other mentionable obstacle was experiences where LSHP have tried to rent some simulation equipment from ENVI and almost without exception it have not worked out, mainly because ENVI/ Lapland UAS happens to need the same equipment's at the same time to their own education needs. Very understandable as it is University and the main purpose of it is to educate students, future expertise. How-

ever, this could be solved by reorganizing together with the personnel who does the timetables and space planning for Lapland UAS and ENVI facilities.

Problem from the ENVI's behalf according to cooperation together with LSHP was that in some cases LSHP only wanted the equipment's but not ENVI personnel to come together with it to lead the simulation training. From here the very same problem that Edgar J. Figueredo from Washington D.C United States stated can be found. He is concerned of the trend that more simulators have been bought and used but not the actual expertise trainer with it, resulting having unclear educational objectives, undefined goals and unqualified educators who aren't able to educate in adequate manner. (Figueredo, 2016, 270-271). That is also a risk to ENVI with a equipment wise, those equipment's are very valuable so it is concerning just to send them on the use of others. Responsibilities have to be clarified so both parties are aware of compensation policy in case of misconduct or accident.

I also interviewed another LSHP physician, to be called in this thesis as Doctor-B. Identity of Doctor-B is kept anonymous because of the very same reason about Personal Data Act. Because Lapland UAS/ENVI are not having current partnership contract in simulation training, revealing doctors names in this work could have favorable or unfavorable matter in possible future cooperation's and that is the reason to keep doctors anonymous. Doctor-B works in mental health unit. Doctor-B was not too familiar or aware of simulation possibilities in mental health sector but example the "Aggressive patient"- simulation training could be modified and build up together with mental health personnel to respond to the challenges personnel in that field faces in everyday basis. Doctor B was not aware of health care simulation possibilities in Lapland UAS. Both Doctor-A and Doctor-B would be interested to hear more about Lapland UAS's simulation services and new trainings and educative products.

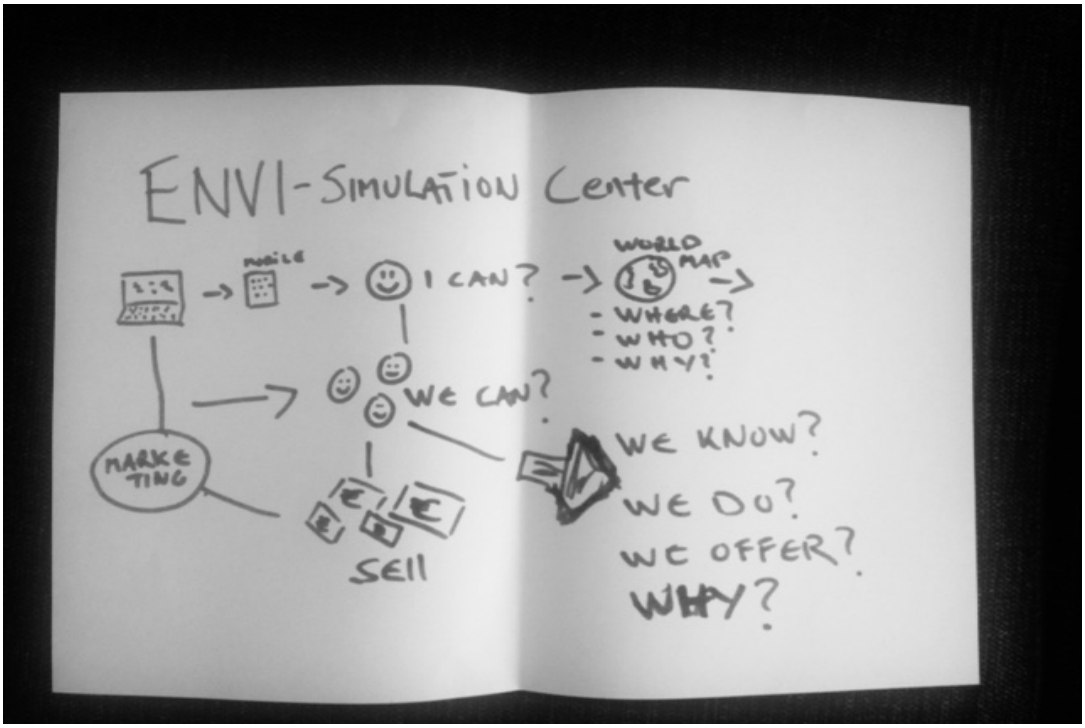
I believe all communicational issues preventing cooperation and partnership with example local hospital could be solved; the question is more ‘does ENVI in reality want to reorganize its operational strategy, and does Lapland UAS support simulation development’? Meaning, make a strategy where they list all simulation services they are able to provide, clarify the simulation services, clarify that all simulation services comes together with simulation educator/ expertise and make at least few different kind of proposals of simulation training and educational possibilities, implemented in ENVI environment and mobilized simulation training and education in any kind of location.

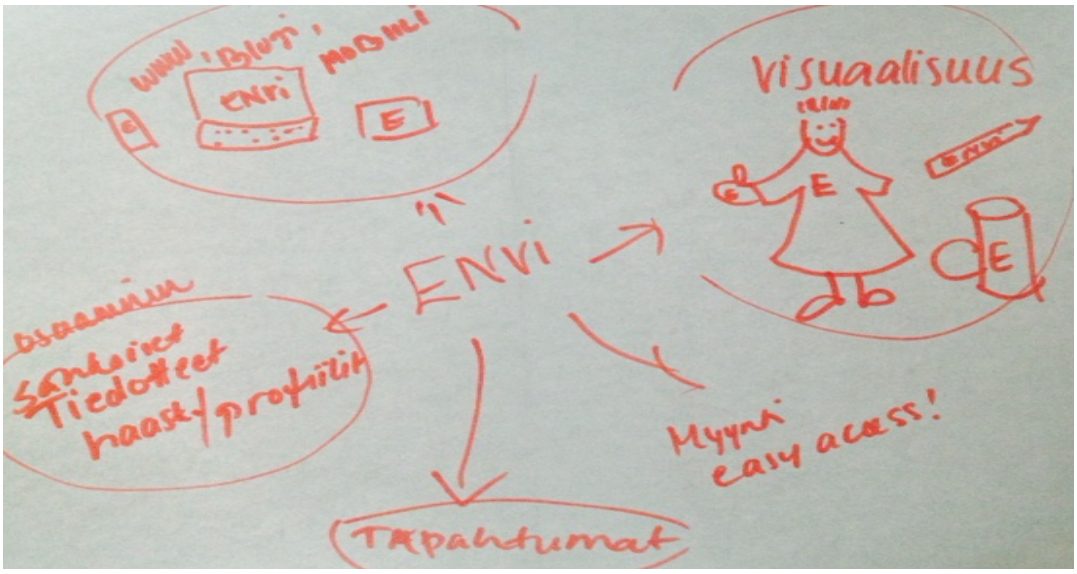
6 DEVELOPMENT ANALYSIS

6.1 Development Needs

Development analysis for ENVI's operations started with a workshop which purpose was to survey the actual development needs. Workshop was organized by Lapland UAS lecturer and simulation expertise Marko Vatanen. Mr. Vatanen gathered together majority of personnel who is involved with ENVI and initiate the workshop with the several brainstorming exercises. Objective in the workshop was to find actual development needs and causes that may prevent ENVI's development as well as insight information about the prevailing attitudes. Workshop also expected to give ideas in what direction ENVI should be developed from the personnel point of view.

Workshop started with a warm up exercise. Warm up session desire was to provoke brainstorming within the participants. After the warm up session it was time for decisive exercise, scope of that exercise was to lead participants into creative thinking and eventually design service paths and operational forms for ENVI. That exercise supported attenders to search





and find actual solutions, ideas and to give personal opinions of how ENVI should be developed?

Appendix.2 Sample of drawn service paths (workshop material)
Appendix 3. Sample of drawn service paths (workshop material)

Personnel highlighted the urge of certifications and qualification criterions. Certifications are internationally common practiced and that would increase the trustworthiness and recognition of ENVI's knowledge level. Results gotten from the workshop also pinpointed the importance of visibility, visuality and reachability (have to have person to who to contact). Very important facts were presented about services and products; services have to be identified and presented to everybody in order that they could be marketed. Word 'service' is used in this case as we are talking mainly nontangible services. Adequate pricing to the services is as important as the actual services. To be able to sell the services it was wished that organizational bureaucracy could be minimized and operational decision power would stay in hands of ENVI. Selling the services should be easy. Other development ideas was to create events to promote ENVI's services, blogs and interviews to increase the visibility of its operations as well as taking to students to be part of the development. ENVI could also be seen as testing laboratory to companies, that would widen its operational model.

Phenomenon that stands out from the results almost without exception was the unanimous urge to clarify and profile ENVI's expertise profiles as well as it services. Critical point here is that, if personnel itself, personnel who works in that environment desires clarification, how the environment then appears to others? Workshop gave comprehensive insight development needs. Based on the workshop results, personnel eagers clearer operational structure, clarification in general, better organized operational model; 'who does, when and how', more time resources and verified service models.

6.2 Clarification

First thing in the development process would be clarification. That should be done before any other development actions. It could be compared to be as a base of ENVI. When the base is firm, it is easy to build lasting frame around it. Scope of clarification is to define responsibilities, identify expertise profiles, pinpoint strengths and specializations and establish far-reaching function model.

Needed actions:

- Define 'who, what and how' (Figure 1)

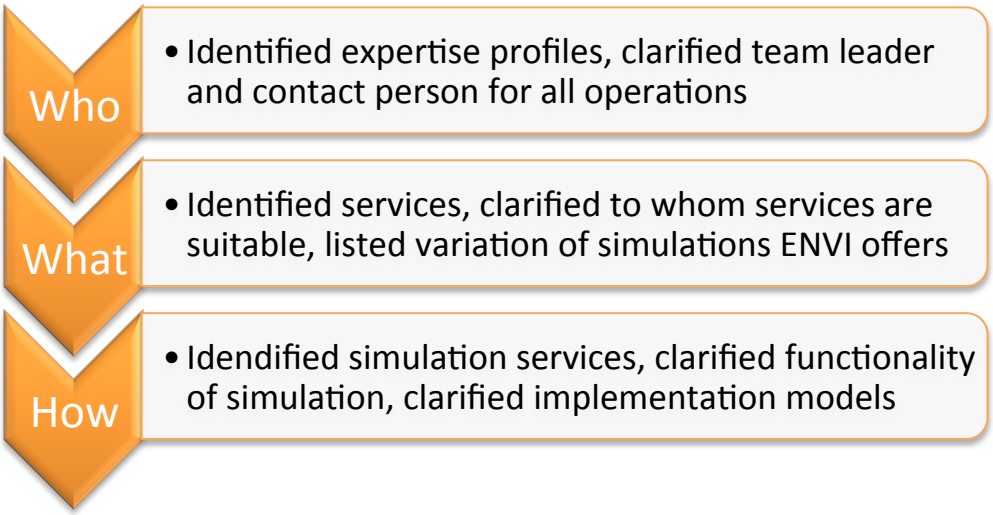


Figure 1. Demonstrate actions of clarification

Identifying ENVI's expertise profiles should be done as soon as possible. It is not enough that a personnel knows what kind of specializations they have, it has to be profiled and identified. Every personnel operating in ENVI should write a bio of themselves. Bio's would be displayed online and in printed/ electric brochures. Bio's could be send to targeted customers and partners, together with quote of ENVI's simulation services.

- Profile and identify personnel expertise (Figure 2)

Figure 2. Example of profiled expertise

Expertise profiles clients could clearly identify what kind of expertise's ENVI Simulation Center can offer.

Contents in the profiles:

- Name
- Education
- Identified expertise
- Merits and Experience
- Compact narrative about you
- Written as third person

- Written in a way it will sell
- Contact details

By clarification of ENVI's services and expertise profiles, its operational structure would become in logical form. Currently ENVI is operating without having assigned personnel who is taking care of customer relationships and overall development. Question; 'who, what and how?', have to be answered. Current time resources given to ENVI are not enough to keep up with sustainable development. That can be seen directly in the fact that in recent years ENVI's once had pioneer position has vanished due the lack of time resources personnel has to use on it. It is very logical; it cannot evolve just by letting it stand on its own. And personnel cannot do more than they can do. ENVI simulation center needs clarification and time resources to its development.

6.3 Ideal Scenario And Worse Scenario

During the workshop participants had a change to write down factors that would lead to an ideal situation of ENVI as well as factors that would lead to a worse scenario based on their personal opinions. In ideal situation ENVI's visibility would be drastically increased, ENVI would have its independence to work and develop it services, it would have more time resources and personnel would have possibility to specialize to their own specialization fields rather than just multitasking and doing everything at once. Personnel also wished to have better commitment to ENVI and its operations, more open-minded attitude and clear operational structure were also in the list. Working areas could be moderate to be less 'institute like' and more interactive and support innovative thinking. In ideal situation ENVI would get certifications to its services and quality criteria's to be shown its trustworthiness and expertise level. Operations would be based on researched knowledge and international standards.

Ideal ENVI would consist the following factors:

- Independent
- Better communication
- Better commitment
- More resources
- More open-minded attitude
- Possibility to concentrate own specialized field
- Compact teams
- New operational models
- Innovative working areas
- Certifications
- HR-trainings

Whereas the worse scenario would consist lack of development, lack of resources and poor operational planning. One of the biggest fears was that ENVI would stand still, without development of its personnel or its facilities and operations. Concerns were also on top of topics such projected development, where all the development would be tight up in projects. Decreasing expertise quality, which is connected to the resources. If personnel do not have enough time resources or they are not allowed to specialize to the fields of their personal strengths, multitasking and 'all over' being might affect quality of some simulations or development of simulations. Worst scenario to ENVI would be standstill position. Personnel's unanimous opinion about worst scenario was that if ENVI would stay as it is without any improvements.

Worst scenario to ENVI would have the following factors:

- Things undone
- No development
- Decreased quality and expertise level
- Poor facility planning
- Facility planning that doesn't serve ENVI

- Corridor stays as it is
- No TV screens or other technology
- Lack of resources
- Less working hours to personnel
- ENVI's development would be tight up to projects

6.4 Functional Procedure

What make some organizations, businesses or associations successful? I claim that very often success is a matter of variety of 'correct' factors that are puzzled together and when all pieces are correctly placed the end picture will just look right. ENVI needs is a clear functional procedure. Structure where ENVI's vision is pointed out, simulation activities, trainings and educations are listed, facilities and mobilizations possibilities identified, expertise profiles presented, what kind of marketing actions are needed to increase the operational profitability, who take the responsibility of all the actions and etc. ENVI needs someone who takes the lead and carries it to the right direction, a person who could concentrate to its operations, services and development. Team leader would organize and manage ENVI's operational direction, be a contact person, be the face of the ENVI, share information to its personnel, keep active relationship with cooperative companies, do networking, identify and sell its services, work on to strengthen their products example by developing some specific simulation training, share the responsibilities, keep other staff informed, actively seeking new trends in the field and mostly make sure that the very first purpose is to be realized; to be a simulation educator continues as planned and new professionals are being produced.

Currently there is no person who would have the position of a team leader; ENVI's personnel are trying to interspersed ENVI's operations and development with their teaching work. It is very clear; that in order ENVI to become profitable, successful side branch in Lapland UAS it needs someone who takes the responsibility of its operations. And profitable in

this case does not necessarily mean in monetary wise, it can mean example increase reputation. It needs a person who can concentrate and focus on ENVI's services, products, operations, partnerships, development and so on. There are extremely motivated experts working in ENVI that could easily hold that position if given opportunity to do so. Fulltime teaching and fulltime ENVI 'leader' is not possible equation.

However, ENVI cannot proceed efficiently if the Lapland UAS management does not support the actions. To have functional procedure, open-discussion, strategy plan, transparency and actual actions in organizational level are required to initiate any changes. ENVI needs a strategy to its operations, to use its human resources, marketing strategy and strategy to development its products and services.

6.5 Indirect Affecting Factors

Business operations in Lapland UAS organization level that are targeted to employers are too complicated. There are factors that are not in the hands of ENVI but which are affecting ENVI indirectly. Lapland UAS website can be found in three different language Finnish, English and Swedish. Finnish and English sites are the most used. Finnish and English websites differs a lot with its content. Different kind of information is given at the same place of the website but in different language versions. Example in English site in "development environments" area- there are three names listed whilst in Finnish there are 24 different development environments. In Finnish version where long list of shortcut names are presented, if you are not familiar with all shortcuts it is impossible to find information to any specific field unless going through them all.

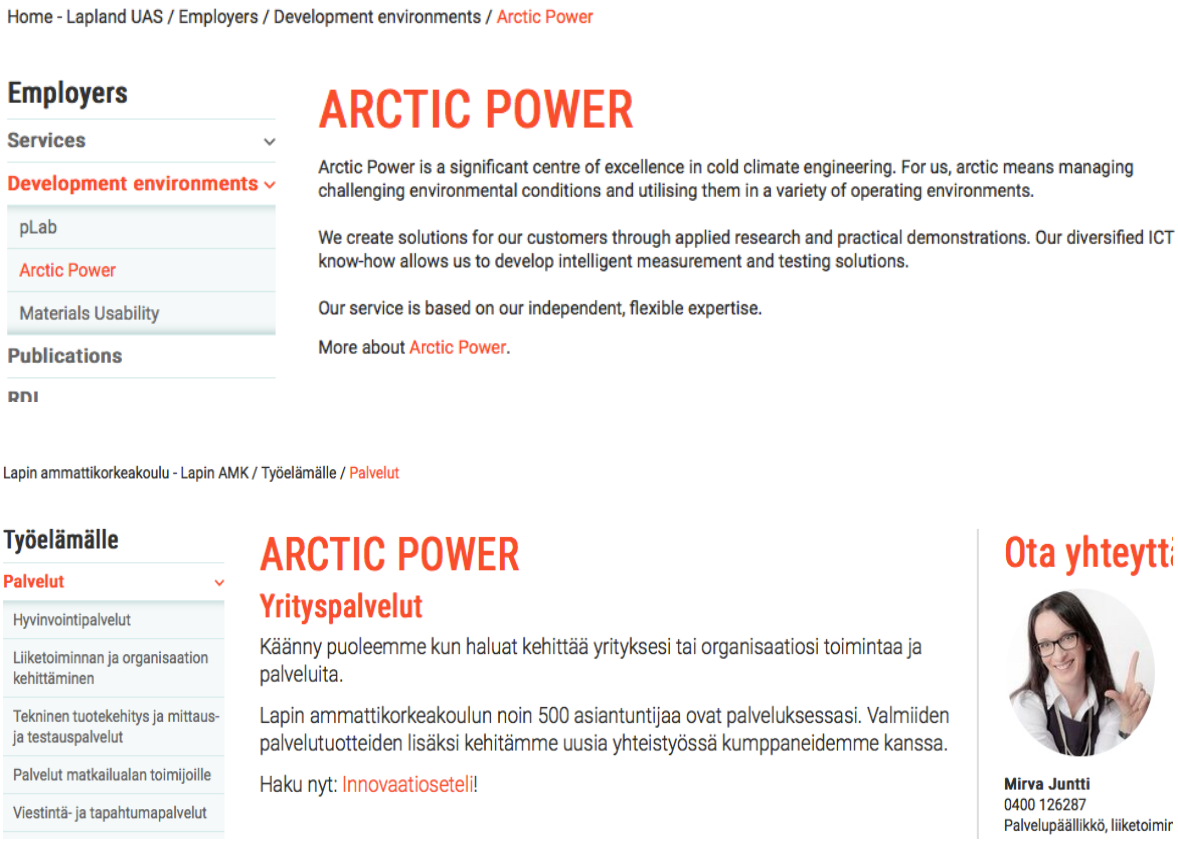
Appendix 4: Comparison of Lapland UAS website, FIN/ ENG

When customer enters to Lapland website, I believe that before they find themselves to the right place they have already given up. In the official website of Lapland UAS, ENVI is stated to stand for; Welfare sector virtual center and SKY as Social- and Healthcare simulation and development environment. But when following the link to 'ENVI-virtual environment' it provides information that claims it to be a 'simulation environment'. Confusing.

When searching Lapland UAS's services to employers, from the Finnish website version I found place specialized in business services "Arctic Power". Arctic Power announces to offer tailored business services, innovations and comprehensive solutions. (Palvelut työelämälle, Lapin AMK website). From there I found place specialized in welfare services, I assume from there I could possibly contact somebody if seeking simulation services but unfortunately another problem occurred, how to choose the correct service? Problem number one here is that ENVI is simulation center but in the official website listed as virtual environment. Virtual environment is underestimated noun to ENVI and to its services.

When searching same information in English website I found myself to the 'same' Arctic Power site but this time the information was about electronic snowmobile development laboratory. Serious miscommunication

placed from the organization behalf. Arctic Power found from English website was about electronic snowmobiles that are internationally won remarkable prizes and is fairly well known and branded product and the other Arctic Power is about tailored business services. It really does not make much sense, that kind of indirect affecting factors makes business development very hard. Mixed messages and different kind of information depending on which site you enter does not give image of trustworthy and seriously taken business. The fact is that it is very hard to build any kind of services, if service provider cannot be found and official website of the organization does not give adequate information. Would it be whole organization benefit to unify and clarify services, especially to be more customers friendly?



Appendix 5. Comparison of Arctic Power services, Lapland UAS website FIN/ ENG

7 MARKETING NEEDS

7.1 Branding

ENVI needs branding, not because nowadays everybody talks about branding and it sounds selling but because its urgency to stand out and act on the level of efficiency it is capable of. Not in solid name wise branding, but branding to its operations and services. By branding ENVI could identify its competencies and clarify the field it operates for. Brand consists several elements; name, logo, company image and identity. It kind of represents the company, its values, personality, services and overall character. Brand does not mean the name of the company or logo of the company; it goes way beyond that. It can rather be considered as a quality of service, tone of voice personnel talks to client, willingness, friendliness, flexibility and so on. (Budelmann, Kim & Wozniak, 2010)
According to brand specialist Warren Mearns “If staff, especially those who are brand representatives, do not understand and embrace brand related behavior, there is little chance of brand success externally.” (Warren Mearns, Business Review 2007) Currently as ENVI does not have any named contact person and it can hardly be found online based on that it can be claimed that ENVI so far does not have brand value.

Branding to ENVI would most likely mean; branding its geographical position, its expertise level and uniqueness. Highlighting the areas of strength. Geographical position can be seen as one of the brand factors, starting to build the brand around the arcticness. Building the brand and services to be specialized in simulation training in harsh conditions. Starting to build brand of ENVI to be the Arctic Region simulation education and training center. It is not irrelevant idea; the point here is to look future. Of course serving Lapland region hospitals and health care centers would be the first goal but vision could be much more further than local. Another brand factor to ENVI could be expertise profile’s, this requires ambition and willingness from ENVI’s personnel to fulfill expectations. If stating that one of ENVI’s brand element is its expertise level, professionalism, it has

to also stack up. Presenting the personnel bio's and given qualification and certification can be one proof of it but as important or even more important is affirming the expertise through the practice. Meaning that always when talking, acting, communication, cooperating etc. with customers and partners the professionalism would be present. Uniqueness as one of the ENVI brand factor would present all above-mentioned as well as it services. Simulation services could be developed to specialize in some specific sectors such as 'nursing in harsh climate conditions, 'cold environment survival', 'childbirth in unexpected environment' or example some simulations build together with mental health care unit? It could be whatever; right people to create those would be ENVI personnel who know simulation thoroughly.

"Solid branding reinforces your identity, drives positive sentiment, and is essential to ensuring proper representation of your business." (Institute of Recruitment Professionals 24.8.16)

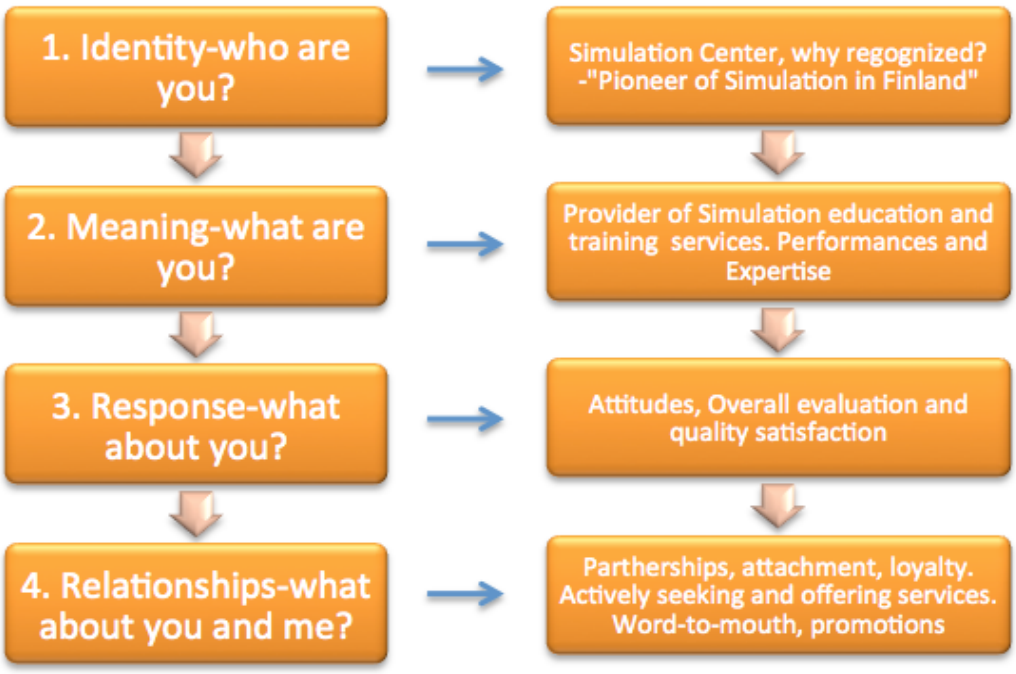


Figure 3. Branding process. (Kotler, P. 2016)

Brand elements such as name and logo has important role of visual recognizing but according to world marketing experts slogans seems to be as important as example the brand name. “Slogans are extremely important in a means to build brand equity. They can help consumers to grasp what the brand is and what makes it special”. (Kotler, P. 2016) Slogan to ENVI could example be; ‘ENVI-Pioneer of Simulation’ or ‘ENVI-Simulation excellence in Arctic conditions’. Finnish cultural features may now start to reasoning that that would be too much to say but the purpose of the slogan is to lift the brand up, help it to stand up from the pool of many. It is okay here to throw the humbleness aside and convince people to choose exactly your company and your services.

Customers learn to recognize brands through several different touch points; personal experience, word of mouth, interactions with company personnel, online and telephone experiences and payment transactions. It is essential to company to pay much attention to make all above mentioned customer touch points as satisfied as possible from the customer point of view in order to build and strengthen its brand value. (Kotler, P. 2016) Branding to ENVI would mean, establish its role in simulation field and increase awareness and visibility of its services.

7.2 Identified Target Customers

Principal of any kind of marketing is to know to who the product is targeted. Target marketing means that the product or service is segmented to any particular group or groups, which might be interested of those products and services. Example in ENVI’s case different kind of simulations are segmented to the targeted customer groups; childbirth simulation to the children ward and to the personnel in Lapland region health care centers and ambulances who may have a sudden childbirth case to deal with. Target marketing is essential in order that the marketing message would reach the right people. The reason why it is so important is that after the target group identified the products and services can be developed based on the customer needs and demands as well as the customer responds to the product or services. This helps the company to keep

a good market position and increase customer satisfaction, which will eventually lead to increase the firm's operational effectiveness. (Kotler & Armstrong, 2008).

Target customers for ENVI's services are local and Lapland region welfare and healthcare sector organizations such as; hospitals, health centers, elderly homes, private health centers and third sectors. Target customers can be identified in this case fairly easy as ENVI operates in very specified field. Target customers should be reviewed in regular basis. Operative field could be goal oriented and expected to grow together with ENVI's development, meaning when every time ENVI is thinking to develop its services it could also be think; to who this service could be suitable.

The main customers to ENVI:

- LSHP (Lapland Hospital District)
- City of Rovaniemi-Health Centers
- Health Centers in Lapland region
- Private Health Centers
- Elderly homes
- Immigration Centers

Those are segmented customers groups to who simulation services can be marketed. Segmentation means when different customer groups are searched and identified for targeted marketing actions. The more courage it is used to define the actual customer group the easier it is to implement the marketing actions and develop services to meet the demand. (Bergström-Leppänen 2002, 54.) The main purpose of segmentation is to help to be consistent and to share limited resources properly.

7.3 Unique Selling Proposition (USP)

What makes ENVI unique, why would anyone want to use, or even more, buy its services? What differentiates ENVI from other service providers and why target customers would choose ENVI's services rather than any other service provider? It is said "Unless you can pinpoint what makes your business unique in a world of homogeneous competitors, you cannot target your sales efforts successfully."(Entrepreneur Encyclopedia, USP, 16.8.2016) ENVI's uniqueness simply is in its expertise level, geographical location, big facilities as well as wide range of equipment's. (Figure 3)

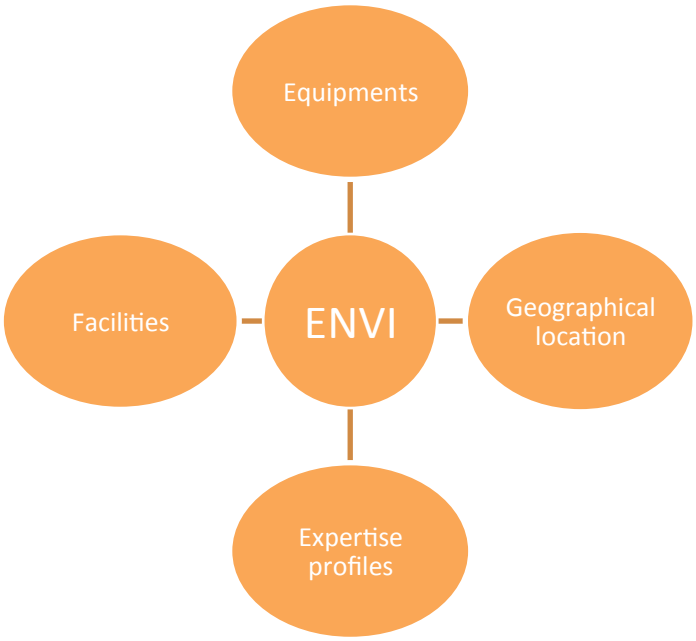


Figure 3. USP-model explains unique selling proposition

ENVI is in a fact a pioneer in simulation education in Finland. Why to hesitate and underestimate its actual value? The pioneering history should be brought up in all published material about ENVI. It is also the only player in simulation field in this region (together with SKY). But as these two simulation centers work under same organization I wouldn't build competition between these two centers, rather seeing these two centers unify they services in order to create better market position. Internationally and nationally well-known expertise level gives ENVI the leading position, can be concluded that personnel is ENVI's biggest

strength. Risk of having the expertise tight on ENVI's personnel is that if persons holding the expertise position doesn't share the information with others and if any changes happens in organizational structure the strength of ENVI may be lost and it will affect directly its operations. Let say example if simulation partnership would be made with any hospital children ward and the person who are specialized on childbirth simulation would suddenly resign; who could continue in that position? Sharing the knowledge and having more than one person specialized in simulations what ENVI can provide will help to reduce the vulnerability.

SWOT (strengths, weaknesses, opportunities, threats) analysis is used here to examine of ENVI's internal strengths and weaknesses, its opportunities and the threats the external environment can present. The aim of the SWOT analysis is to collect and evaluate current data, so that further development is possible. Once the data have been collected and analyzed, the organization's capabilities of all of those areas are assessed. Strengths and weaknesses can be taken as ENVI's own factors and opportunities and threats are something that comes outside of ENVI. (Jeffrey P. Harrison, Strategic planning and SWOT analysis 2010)

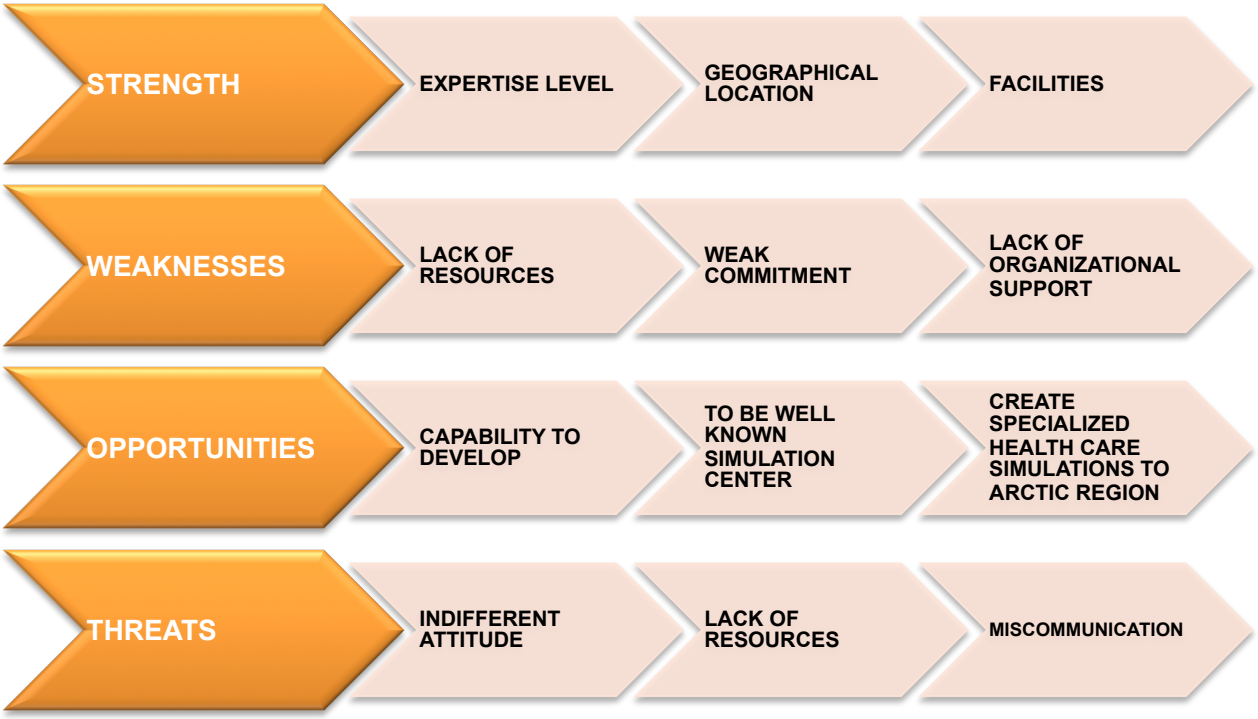


Figure 4. SWOT-analysis for ENVI

7.4 Pricing And Positioning Strategy

ENVI's positioning in market could be ranked in top three nationwide. To be in top three nations wide is relevant expectation based on the variety of simulations and geographical location. Organization (Lapland UAS) pricing policy supposed to be lined together with competitive field prices. Pricing should be based on currently trending factors in simulation field and in this case organizational support is fundamental. Although organization has its own pricing system, which should not be too bold, fields are different and pricing that is accurate in generalized business level are not accurate when talking about simulation education in health care sector. Therefore pricing of ENVI's operations should be made together with ENVI's key personnel and Lapland UAS business operations coordinator.

Rigorous pricing is in key role of selling ENVI's operations. ENVI's offered services are always coming for need. ENVI's targeted customers need simu-

lation as part of their education and professional training. Services that ENVI offers are not to build to produce the most monetary profit out of it. Therefore the pricing should not be based on generalized business pricing policy. In healthcare simulation, the services almost always tailored to fit its customer needs; therefore there are no exact pricing policies what to follow. Price will be summed depending on following factors; how many educators, where simulation is realizing, how long training, hours, days, months or years, equipment's and so on. However, ENVI could create standard pricing policy to rent its facilities and after ENVI have identified at least few standard simulations that they offer, those could be given some standard price that could be determined if needed.

Because the main point of ENVI's services is its educative value, increase professionalism and actively update health care personnel knowledge the pricing should not be build directly from business point of view. Rather think long-term, loyal customer relationships that would eventually create monetary profit to organization. Profitable business in this case mean growing reputation and seriously taken, trustworthy education and training center.

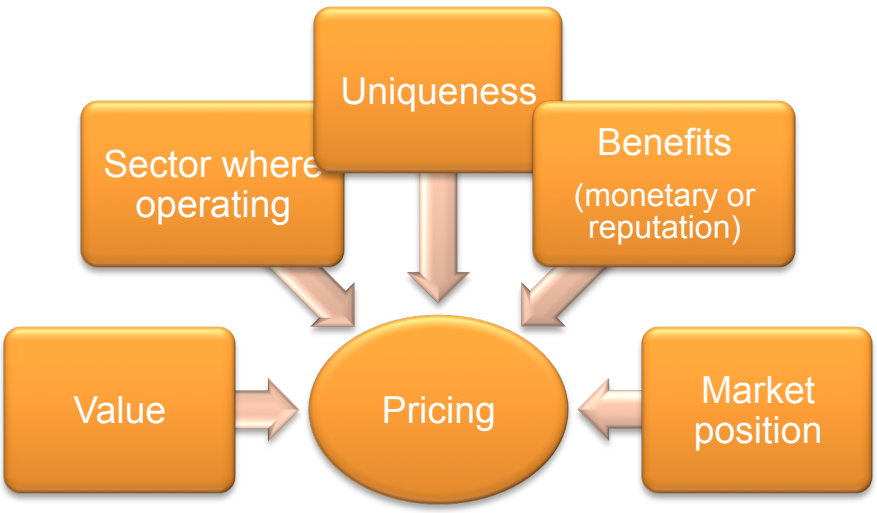


Figure 5. Factors affecting ENVI's pricing policy

What makes ENVI unique, why would someone pay for its services? (Figure 5) Can it provide something that other simulation centers cannot? Uniqueness is one factor that effect pricing; example having some simulation service that others cannot do could affect the pricing to be higher. Beneficial in ENVI's case is not only monetary profit, so when finalizing its pricing policy it have to be keep in mind that what kind of reputation profitability it could bring. Market position is low at the moment; it doesn't give any advances to pricing. Value of services are based on the actual deal, how many people is needed, how long is the contract, how big efforts are needed, how expensive equipment's etc. (Figure 5) Pricing also has to be adequate to the sector where operating.

7.5 Channels To Contact And Share

In order to be able to sell anything to anyone, it is crucial to find out what possible future customer need. As found earlier, one of ENVI's main targeted customers LSHP Children ward needs occasionally new born baby simulation mannequin, other times they might need 4months old simulation baby mannequin and some other times possibly childbirth simulation. Possibilities are basically unlimited, but essential to identify. After found out what are the main demands it is mandatory to be able to reach to client and let them know the services ENVI can provide to them. Example in this case, ENVI's personnel could contact LSHP and provide them with the information of the simulations they are able to provide like that new born baby and find out whether there are room for any new tailored simulations.

Nowadays company without website is company that does not exists. Fact that organization (Lapland UAS), which under ENVI is operating has website does not help in this case. This field is so specified that it needs to be identified clearer. Best possible information sharing channel to ENVI would be websites, if organizational structure do not allow that then at least the organizational website structure should be changed in a form where not only ENVI but also other laboratories, testing and development environments are clearly presented. That would also increase the Lapland UAS reputation as a seriously taking educator

and business service provider. Not that these environments does not exist or not in reachable form it is very hard to sell or develop any kind of business services. In the website the main content of the information would determine; who is the contact person, what services their offer, to who and where. (Figure 6) What are the facilities and mobilization ability of their services, equipment's and expertise profiles?

Other distribution channels would be maintained by networking, participating actively to conferences internationally and nationally and keeping touch with already existing simulation center contacts. ENVI have to be listed to those European simulation platforms mentioned earlier in this thesis. Direct information sharing would consist brochures that are send to targeted customers as well as personal contact to the companies that could possibly be interested of ENVI's services and indirect contact would happen through cooperative companies and partners, in seminar and network meetings. (Figure 6) Social media is listed here in the bottom of the triangle; it does not mean it would hold the least value in it. (Figure 6) Social media in ENVI's case would mean LinkedIn profiles primarily, other social media sites could be used after the main information channel which is website is existence.

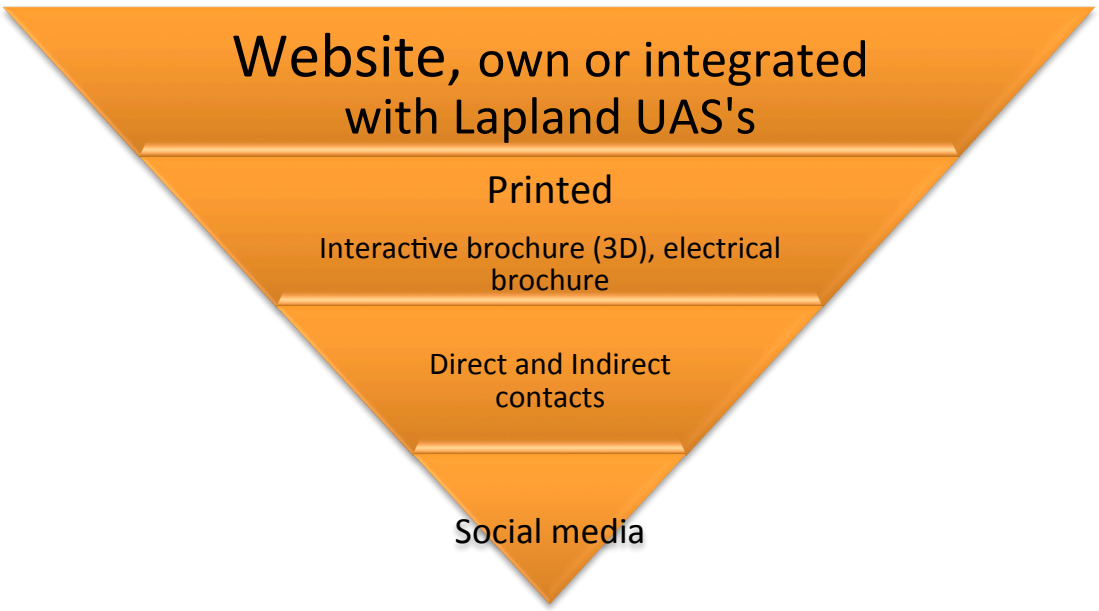


Figure 6. Information sharing channels

7.6 Marketing Material

Although printed material is not a current trend, would be good idea to have some new, modernized printed brochures that could be send to targeted customers. Brochures could also be electrical. The main idea of those brochures would be the interactivity of them; brochures could be made to 3D form in where they would stand out from the ordinary brochures, raise questions and curiosity. 3D brochures are more expensive but as here we are not talking mass production these brochures are sent and given to targeted customers. As found out earlier due the interviews, some of the LSHP wards haven't be offered any comprehensive simulation training/ education program to its personnel that could replace simulation services provided to them from southern Finland.

Printed brochure can be extremely effective despite the fact that current trend is to digitalize everything. Modern brochures can be interesting and innovative, matter of fact so "cool" that you want to keep them in front of you all the time. For ENVI I recommend to choose the brochure that would be interactive and innovative. There are unlimited possibilities to design 3D brochures that will capture readers' attention immediately. Below example of interactive brochure, made by Finnish company that operates from Helsinki.

Appendix 6: example1 of interactive brochure (Jukola7 gallery)

Modern brochures can also consist example a video message in them. That could be example a short description of ENVI's services, expertise profiles or example some targeted simulation promotion.

Appendix 7: example2 of interactive brochure (videoplusprint video brochure)

7.7 Investments

Financial efforts are needed from the Lapland UAS management and healthcare business unit. Financially efforts are not extensive. ENVI needs more human resources. Not more personnel but more hours to personnel who works in there already. Expertise's involved with ENVI are able and willing to implement needed actions to its development if given resources to do that. Resources in this case doesn't mean salary promotion, it means time. ENVI personnel simply need more time to be used in ENVI operations. It is irrelevant to even except any kind of development if personnel are not given hours to do that.

Website financial needs have to be negotiated together with Lapland UAS marketing and management team. Lapland UAS has inside the organization skilled personnel to proceed good quality website. Question is wheter ENVI is given permission to create their own website and if so can it be implemented together with organization web developers. That would save money and secure that organization brand image would be kept. There are several website solutions available, some of them totally free but if seeking advanced website which holds the seure online paying systems etc. Website cost range varies a lot starting from 0€ all the way to 10 000€ but in ENVI's case we are talking 0-5000€ depending whether online paying and buysing systems are made.(Figure7.) Marketing material, interactive brochures and possible additional material would cost approxmiately 1500€-2500€. (Figure 7.) We are talking fairly low financial investments. The biggest financial investement would be arranging the hours to the chosen contact person. Evitendamently the one taking the contact person role as well as responsibility of the operational function would not have time to teach the same hours as before and that would cause the financial needs to either pay more to already existing personnel or hire new teacher to take over the needed hours. Based on rough calculations, without considering possibilities of personnel inside of the organization could be arranged without financial needs the expected financial investment is around 20 000€ a year. (Figure7.) 20 000€ would be divided to 12 month period in where 1666,67€ would be used in monthly basis to pay the substituting teacher or already existing teacher added hours.

It could be think what for these invests are for? Purpose to these investments; personnel and financial is to build up a brand, a simulation education and training center in Lapland and Arctic region. Simulation Center that vision would be to become one of the biggest arctic region simulation trainers in the future. This simulation center could start to look up to the future and make future visions about arctic region development needs. Arctic region will develop unevitably and starting from year 2017 it is time to Finland to be the chair of actic council and show the direction of arctic operations. I see it as a massive opportunity to ENVI, they could start to develop simulations that would be

necessary in harsh conditions. Example, harsh climate patient rescue simulation or nursing in freezing environment. They could also aim to be the forerunners and start to build up a new educational simulations health care workers in whole arctic region? Look up to the future and be the pioneer. So based on those visions expected investments and time resources to personnel to create a base that would allow to operate, seems a very low investment. Could be rather calculated how much it could bring back?

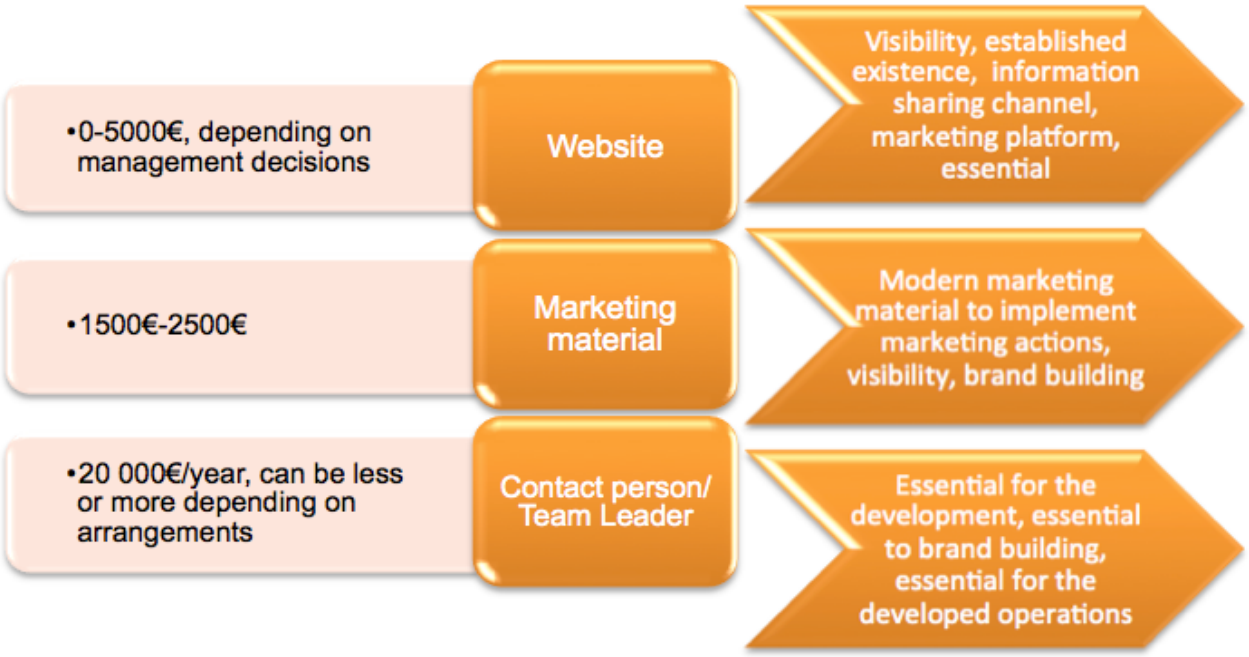


Figure 7. Explaining expected budget and benefits

7.8 Example Of Next Steps To Start Implement The Development Needs

1. **ENVI personnel meeting**

- Subject is to discuss about future direction.

Meeting agenda questions to be answered:

- How responsibilities are shared?
- Merging?
- Simulation services, what are they?
- Marketing actions and material?
- Few good chosen simulation services what to promote actively?
- Contact person?

2. **Strategic meeting together with Lapland UAS management and few key personnel's from ENVI.**

- Subject is to present ENVI's vision and areas where organizational support is needed.

Meeting agenda:

- Present direction to where ENVI is aiming for
- Present real needs of website and provide reasoning
- Present needed resources, monetary and time investments
- Give constructive feedback of current challenges ENVI is facing
- Present the needs of clarification and clearness from the behalf of organization (Artic Power and Arctic Power, Hyvinvointitorit-, pysäkit- ja apteekit should be in a form outsiders can understand the difference)
- Discuss together about the adequate pricing for ENVI's services and products, not too bold policy

3. **Website visible in English and in Finnish, ENVI-Simulation center to international platforms.**

4. **Every personnel in ENVI writes a bio of themselves, ENG/FIN**

5. **Marketing material ready.**
6. **Identified expertise profiles and identified simulation services**
7. **ENVI contacts targeted customers and offer them comprehensive simulation services**
8. **Customer relationships have to be obtained and kept alive**
9. **Willingness to find solutions to customers**
10. **Willingness to seek new operational models**

8 DISCUSSION

This thesis was implemented by using two different research methods, qualitative and practice-based. Relevance of this thesis is based on the research qualitative matter in where myself as a researcher of this topic was the main instrument for observing and gathering the researched data. Overall data of theoretical part is mainly gathered by interviewing individuals working in healthcare field. By securing that data gained by interviews is straightforward and therefore absolutely honest, I keep persons identities occulted.

Information gathered to this thesis started January 2016 while I was working in HoiSim2016 project when ENVI and simulation field became familiar for me. As a business student I was fascinated about the ENVI-simulation center. I was surprised that the very same university where I studied has a place like that but no one else than healthcare students are aware of it. I see it as a huge potential from the business point of view. Successful HoiSim2016 project gave me a proof that there are demands for this kind of operations and Lapland UAS's ENVI-simulation center is totally capable of operate and respond to all those demands. The most significant source to this thesis was the workshop made for ENVI's personnel, in where open discussion and teamwork ability lead personnel to speak up in personal level as well as reveal individual hopes, goals and future wishes. Also the not wished scenarios were revealed.

This thesis project has been a long journey. I founded much harder to write the topic open as just starting to implement the actual actions. I am a doer as my character and personally for me would have been easier to start to 'do it', rather than write it and research it. This project have teach me a lot about simulation in general but even more about the comprehensive research work. I truly hope this thesis will help ENVI personnel to identify the needed development needs and give useful recommendations of concrete actions. I also hope this thesis will help the whole Lapland UAS organization to develop it operations to be even better service and education provider, especially in simulation field.

Thank you very much for all who have helped me through this project.

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INTERVIEWS

Interviews in this thesis interviews are conducted as:

- Informal, conversational interview - no predetermined questions are asked, in order to remain as open and adaptable as possible to the interviewee's nature and priorities. Interviews "goes with the flow", information gained is open, personal and honest, based on interviewed persons own experiences.

WORKSHOP, brainstorming, norming and performing
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Marko Vatanen
Outi Tieranta
Melamies Sari
Pykäläinen Tarja
Kiistala Maria

OBSERVING
Personal experience

APPENDICES