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University of Applied Sciences
Degree Program in International Business Management

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MANAGEMENT OF INTERNATIONALIZATION PROCESSES
WITH THE HELP OF MOVEON V3.1
Master’s thesis 2014
ABSTRACT

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International Business Management

BUDIN, GRIGORY Management of Internationalization Processes via MoveOn v.3.1

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In recent years, International mobility and collaboration between HEIs has proven to become a big
part of higher education in and outside Europe. Educational institutions need to be active and even
proactive on the international arena to remain attractive for future and existing students.
Kymenlaakso University of Applied Sciences has defined internationalization as its strategic goal.

The present study was aimed at utilizing ERP software for optimization of handling
internationalization processes in the field of higher education. Due to the fact of growing impact
of global cooperation in the educational field, as well as the increasing demand in internationally
educated professionals, the overall volume of international cooperation has increased recently. It
became clear that taking into use an ERP software would simplify and reduce the time consumed
while handling the routine processes.

As using ERP software to maintain international activities of educational institutions is a relatively
new tendency, and, thus, there is little information about the best practices of utilizing such
software, the study was based on the analysis of data collected from potential benefactors of
utilizing such software to conduct their professional tasks. Interviewing the professionals involved
in handling the designated processes and observation of the overall situation as an insider created
the grounds for carrying out an action research, which was aimed at in-depth analysis of the
current situation and at proposing effective solutions to be adopted in the work process.

This study has provided hands-on solutions for optimizing the internationalization processes and
activities undertaken at the Kymenlaakso University of Applied Sciences. As a side outcome, gaps
in the process handling were outlined, and further development actions were proposed. The
practical approach has shown its effectiveness and also created a ground for important
improvements which should be done in order to increase the attractiveness of the HEIs on the
international market.
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1. INTRODUCTION

1.1 CURRENT SITUATION

Close cooperation with partner institutions and work-life organizations around the globe provides students an opportunity to experience a different educational and cultural environment, and improve language skills. Student mobility has been available in two forms – education and training. Training is more oriented on gaining professional skills, whereas education exchange concentrates more on social and cultural skills improvement or diversification. The main reason for this is the environment. Working conditions do not provide a comprehensive cultural environment, including sufficient communication and integration into new social circumstances. However, these assure the acquisition of different an approach to implementation of working tasks, experience and confidence at a work place.

From the students’ point of view global mobility opens new horizons. From the educational institutions’ point of view such cross-border cooperation enables experience exchange, diversification of activities and as a result improvement in the quality of offered study programs.

Such cooperation within education was declared as one of two main goals of the Bologna declaration. The other goal is to assure competitiveness of the European System of Higher Education (Bologna Declaration, 1999).

To achieve the goals changes are required. The main change to achieve the recognition of degrees was the creation of a unit of studying, which would be used in evaluating different programs in different educational institutions. To build trust among the educational institutions quality evaluation is essential.

The Bologna Declaration (1999) specifies the role of administrations in order to achieve the stated goals. Regional administrations are assumed to work in the following dimensions:

- supporting mobility of students and staff;
- promoting the development of quality evaluation and the relevance of the programs;
- ensuring that academic and professional accreditation is consistent with the defined goals;
- defining a policy for lifelong learning;
- promoting national and international co-operation;
- supporting European transnational education offer outside the European Space;
- Financing institutions through schemes that favor the objectives defined.
Finland as a member of Bologna Process, initiated in 1999, has been following its objectives and actively establishing grounds for implementation of the main aims. According to CIMO (Centre for International Mobility) Finland has produced the following results:

1. Introduction of the European Credit Transfer System (ECTS), which enables recognition and assessment of students’ workload as well as clearly defines learning objectives and outcomes;
2. Promotion of international mobility via accepting ECTS, providing grants for studies and simplified formalities and bureaucracy;
3. Quality assurance of higher education;
4. Lifelong learning support.

Finnish higher education institution’s (HEI) graduates also receive Diploma supplement in English that enables further recognition of studies in other countries.

Positive points of the Bologna Process are obvious – internationalization as a part of HEI’s strategy made possible mobility and experience and knowledge exchange as a result. From the students’ point of view, increased number of education options is a benefit. Mobility figures show the eagerness of students to spend a semester, a whole year or receive a complete degree in Finland: in 2010 the number of international students (including exchange students) in Finnish Universities has reached 7815 students and in Universities of Applied Sciences - 7892 students (see Appendix 1 for Educational system of Finland). For comparison, in year 2000, the year after the Bologna declaration was signed and the cooperation goals and strategy were declared, the number of international students in Universities was 3732 students, and in Universities of Applied Sciences – just 2640 students (Key figures, 2010).

Among Finnish Universities of Applied Sciences Kymenlaakson Ammattikorkeakoulu, University of Applied Sciences has been struggling to secure its ranking in Finland. Education is divided into three faculties, which comprise six departments: Technology, Seafaring and Logistics, Business, Health care, Social care, Design and Media. In 2010 the total number of students reached 4250 (KyAMK, 2011).

Kymenlaakso University of Applied Sciences (KyAMK, 2011) has stated its Vision 2015 as follows:

*Kymenlaakso University of Applied Sciences is an achiever of success: a first-rate modern, international higher education institution where we succeed together.*
Internationalization is a clear strategic goal, counted as a necessary success factor. Recent statistics show how the international has been developing in the University of Applied Sciences (UAS).

According to the official statistics on international mobility (Opetushallinon Vipunen, 2011) in 2010 Kymenlaakso University of Applied Sciences received 113 long-term (over 3 months) exchange students from abroad, including 2 trainees, and sent abroad 148 students, including 70 trainees. In 2011 the figures changed: the number of received students dropped to 98, including 7 trainees, whereas the number of outbound students reached the level of 168 students, including 78 trainees. To compare, in 2009 the total number of incoming exchange students was 99 students and number of outgoing students was 98 (Korkeakoulut, 2011). Figure 1 projects the figures above:

The mobility figures include also double degree students, who either come to or go from Kymenlaakso University of Applied Sciences for a period of one academic year and are eligible for a degree diploma at a host university.

In the fall 2012 a new English double degree program in Energy engineering was started. That means that KyUAS can expect an increase in inbound mobility numbers.

Due to the constant increase in incoming and outgoing students KyUAS has decided to start using a mobility administration software called MoveOn (www.moveonnet.eu), which is developed
especially for simplifying and minimizing work of International affairs offices. The software allows automatic statistics retrieval, e-nominations, and smoother cooperation with partners worldwide. Besides, this software enables a simplified way of international mobility quality control.

1.2. **REASONS OF INTERNATIONALIZATION**

The process of globalization affects “development of skills, knowledge, attitudes and values that are important for one to compete in the global marketplace” (Delgado-Marquez et al., 2011, 269-270). In its Annual responsibility report (2011, 22-23) Kymenlaakso University of Applied Sciences underlines the recent rapid change of education environments on all regional, national and international levels and points out the importance of international cooperation within the field of higher education and sets internationalization as one of the main strategic courses, where various international activities are an important part of strategic indicators.

According to the results of a survey conducted by the International Association of Universities in 2003 (Knight, 2003, 3) “student, staff and teacher development; academic standards and quality assurance; and international research collaboration are ranked as the three most important benefits of internationalization.” Results of 2005 IAU Global Survey Report (Interim report 2007, 81-82) showed that benefits had not changed since 2003; besides, the key elements of internationalization were listed. International institutional agreements/networks, outgoing mobility opportunities for students, international research collaboration, outgoing mobility opportunities for faculty/staff, visiting international scholars and international dimension of curriculum were the first six elements in the list; joint and double degrees and international recruitment of foreign students were placed in the middle of the list under numbers 10 and 13 respectively.

1.3. **DEFINITION OF INTERNATIONALIZATION**

There have always been many different terms used in connection to internationalization of higher education (Hans de Wit, 2010, p.8).

In the early nineties, Knight (2008, 19) defined internationalization as “a process of integrating an international and cultural dimension into the teaching, research and service functions of the institution.” Since then internationalization of higher education has developed into a more complex substance. “Internationalization is changing the world of higher education, and globalization is changing the world of internationalization,” as Knight (2008, 1) puts it. Now
internationalization of higher education is often discussed in terms of globalization. Altbach, Reisberg and Rumbley (2009, 7) state that “Internationalization is defined as the variety of policies and programs that universities and governments implement to respond to globalization.”

Hawawini (2011, 2-3) in his critical review of internationalization of HEI suggests focusing on an import-export model of internationalization that calls for initiatives such as the internationalization of the curriculum, the creation of student and faculty exchange programs, and the participation in international academic and research partnerships, outlining the extreme complexity of the internationalization phenomenon. Attempting to simplify and adopt the meaning of internationalization Hawawini (2011, 5) proposes own definition of this phenomenon: “The internationalization of higher education institutions is the process of integrating the institution and its key stakeholders – its students, faculty, and staff – into a globalizing world.”

1.4. COMPONENTS OF INTERNATIONALIZATION

Knight (2008, 22-24) states that there are two components evolving in the internationalization of higher education. One is internationalization at home – activities that help students to develop international understanding and intercultural skills.(...) And the second movement is that of internationalization abroad, including all forms of education across borders: mobility of students and faculty, and mobility of projects, programs and providers. These components have not to be seen as mutual exclusive but are intertwined in the policies and programs.

Hawawini (2011, 4) describes components which determine internationalization in HEIs: international reach and international richness. International reach is explained as a model of implementing internationalization within a HEI, whereas international richness is introduced as a variable which indicates how HEI’s stakeholders interact with the outcomes of implemented international process. Although international richness deserves certain attention, within the given work it creates value only as an indicator of internationalization assessment and will be considered as a part of the indicators proposed in the following chapters.

Nevertheless, international reach as an approach can be used to outline the main models of internationalization in HEIs. Hawawini (2011, 13-20) highlights five models of international reach:
1. the **import model**, which aims at attracting students, faculty and staff from around the world to the institution’s campus;

2. the **export model**, which concentrates on sending students, faculty and staff members to partner HEIs;

3. the **academic joint-venture model**, which offer possibilities for students to receive a joint or double degree via studying in a partner HEI abroad;

4. the **partnership model**, which is often very complex system of enabling students enrolled in one HEI attending courses and having access to the placement services of the partner HEI;

5. the **foreign-campus model**, which is based on establishing campuses abroad.

Since the above described models are not mutually exclusive, each institution can utilize several models at the same time. However, “higher education institutions should refrain from claiming that their aim is to become global universities: they should instead focus on the successful implementation of an import-export model of internationalization that calls for the internationalization of the curriculum, the creation of student-exchange programs and the participation in international JVs and partnerships,” Hawawini says (2011, 35).

Table 1 summarizes the main international actions within the import-export and partnership models:

<table>
<thead>
<tr>
<th>International reach model</th>
<th>Corresponding International Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Import</strong></td>
<td><strong>Curriculum and programs</strong></td>
</tr>
<tr>
<td></td>
<td>1. Offer special courses on the international dimension of the subject taught (when relevant)</td>
</tr>
<tr>
<td></td>
<td>2. Infuse an international dimension in all the courses (when relevant)</td>
</tr>
<tr>
<td></td>
<td><strong>Student body</strong></td>
</tr>
<tr>
<td></td>
<td>1. Enroll foreign students in the institution’s programs</td>
</tr>
<tr>
<td></td>
<td>2. Attract international students enrolled in study-abroad programs offered by foreign institutions</td>
</tr>
<tr>
<td></td>
<td><strong>Faculty and research</strong></td>
</tr>
<tr>
<td></td>
<td>1. Invite visiting foreign faculty</td>
</tr>
<tr>
<td></td>
<td>2. Host international seminars and conferences</td>
</tr>
<tr>
<td></td>
<td>3. Recruit foreign faculty</td>
</tr>
<tr>
<td></td>
<td>4. Recruit local faculty trained abroad</td>
</tr>
<tr>
<td><strong>Export</strong></td>
<td><strong>Curriculum and programs</strong></td>
</tr>
<tr>
<td></td>
<td>1. Help foreign institutions design and deliver a program to its students</td>
</tr>
<tr>
<td></td>
<td>2. Offer online courses and programs to students from around the world</td>
</tr>
<tr>
<td></td>
<td><strong>Student body</strong></td>
</tr>
<tr>
<td></td>
<td>1. Offer study-abroad, work-abroad, and exchange programs</td>
</tr>
<tr>
<td></td>
<td>2. Involve students in international consultancy and development assistance projects</td>
</tr>
<tr>
<td></td>
<td><strong>Faculty and research</strong></td>
</tr>
<tr>
<td></td>
<td>1. Encourage sabbaticals abroad</td>
</tr>
<tr>
<td></td>
<td>2. Train foreign faculty</td>
</tr>
<tr>
<td></td>
<td>3. Involve faculty in international consultancy and development assistance projects</td>
</tr>
<tr>
<td></td>
<td>4. Set-up research centers abroad</td>
</tr>
</tbody>
</table>
Table 1. Import, Export and Partnership International reach models (Hawawini, 2011)

| Partnership | 1. Offer dual-degree programs with a foreign institution | 2. Offer joint-degree programs with a foreign institution | 1. Each institution recruits students separately | 2. Students are recruited through a common admission process | 1. Set-up joint research projects | 2. Join international research agreements | 3. Set-up joint research centers |

1.5. ASSESSMENT OF INTERNATIONALIZATION

De Wit (2010, 6), referring to Deardorff, Pysarchik and Yun (2009), emphasizes the importance of understanding and clear assessment of the results of internationalization within the globalizing world. Knight (2008, 43-48) concludes from the Internationalization Quality Review Process “that institutions need a way to monitor internationalization and collect information on an ongoing basis.” Both quantitative and qualitative measures should be used. To identify these measures, she states, is a challenge. “They need to be relevant, clear, reliable, consistent, accessible, and easy to use.”

Brandenburg and Federkeil (2007, 8) also warned of avoiding the generation of “dead” data which may occur as a result of using “wrong” indicators of internationalization. The indicators shall be built in such a manner that “every individual HEI has a clear idea of what internationality means in the different performance areas”. Attempting to outline the most common indicators for assessment, they conducted a research. As a result they proposed eight main indicators which may be useful in evaluation and ranking of internationalization implementation (see Table 2):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of professors appointed from abroad relative to the total number of professors</td>
</tr>
<tr>
<td>2</td>
<td>Number of international visiting researchers (minimum duration 1 week)</td>
</tr>
<tr>
<td>3</td>
<td>Proportion of international students with non-German education relative to the total number of students</td>
</tr>
<tr>
<td>4</td>
<td>Proportion of incoming international exchange students relative to the total number of students</td>
</tr>
<tr>
<td>5</td>
<td>Proportion of outgoing exchange students and students with an international internship relative to the total number of students</td>
</tr>
<tr>
<td>6</td>
<td>Number of lecture stays abroad undertaken by lecturers (Teaching Staff (TS) Mobilities) in relation to the total number of lecturers (Outgoing=Incoming)</td>
</tr>
<tr>
<td>7</td>
<td>Proportion of graduates with joint or double/multiple degree relative to the total number of graduates</td>
</tr>
<tr>
<td>8</td>
<td>Proportion of graduates of foreign nationality</td>
</tr>
</tbody>
</table>
Table 2. Indicators of overall aspects of internationalization (Uwe Brandenburg, Gero Federkeil (2007, 37-38))

NAFSA (National Association of Foreign Student Advisers)\(^1\) and ACE (American center for Education)\(^2\) propose their own lists of criteria for measuring internationalization. However, these lists include more or less the same categories (Hans de Wit, 2010, 18-19).

Summarizing the findings of survey conducted by The Association of Universities (IAU), Knight (2003, 3) states that “mobility of students and teachers is considered to be the most important reason for making internationalization a priority and is identified as the fastest growing aspect of internationalization.” Concluding the report, Knight (2003, 24) describes data collection and analysis as a “powerful tool for advocacy and development at the institutional, national and international levels”.

The Association of Universities, the Association of Universities and Colleges of Canada (AUCC), the American Council on Education (ACE) and the Council on Higher Education Accreditation (CHEA) underline the extreme importance of ongoing collecting and sharing of information which concern internationalization practices and implementation (Final statement 2005, 5).

1.6. RESEARCH GAP

Integration of international mobility administration software is not described in academic works because of the fact that this kind of software is new and just getting into use by educational organization around the globe. However, this software is based on the best practices of enterprise resource planning systems (ERP), which are meant for integrating internal and external information across an entire organization (Hossein, 2004).

The main aim of such software is to optimize the work and control quality of resources. International exchange flow is one of the resources to be identified and controlled in order to influence the efficiency of institutional cooperation.

1.7. RESEARCH SETTINGS

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\(^1\) For more information, please, check [http://www.nafsa.org/](http://www.nafsa.org/)

\(^2\) For more information, please, check [http://www.ace.edu.sg/](http://www.ace.edu.sg/)
Assuming mobile students and staff are an asset, the use of ERP software could help to maintain the high quality and transparent administration of internationalization processes such as conducting cooperation with foreign partners, staff and student exchange.

Thus, exploring technical capabilities of the MoveOn software is the main objective of the thesis. To meet the stated objective it is necessary to answer the main research question:

*How can the internationalization processes be executed via MoveOn software?*

Splitting the main research questions into two logically consequent parts would simplify finding the correct answer. Since the main question concerns both technical capabilities and ways of their implementation, the following questions shall be studied:

1. What tasks are expected to be executed via MoveOn?
2. How can they be technically implemented?

Obviously, the first part is based on the opinion and needs of the users of the software, namely the personnel of the International relations office. To do that an interview/ open question research will be conducted. The objective of the research is to understand expectations of each team member.

The second part of the main research question refers to technicalities of implementation the finding of the first question. Provided instructions and customer support as well as shared experience of the other users of the software in Finland will help answering the question.

Due to the fact that most of the higher educational institutions use one or another ERP software similar to MoveOn, developing an optimized way of utilizing the features of ERP software in international office work and creating of a simplified and time-efficient method of implementing routine work would be a valuable impact into other institutions’ operations.

### 1.8. METHODOLOGY AND FRAMEWORK

Kananen (2011, 147-149) classifies typical research methods as qualitative and quantitative. In addition, common methods include case research, development research and action research. Due to the nature of the research problem neither case nor did development research methods fit in the framework. Table 3 outlines the main features of quantitative, qualitative and action research, which were considered as methods of data gathering:
Since the research project is aimed at optimization of internal internationalization processes with the help of MoveOn software, the researcher’s role is defined as change agent whose actions are based on investigated and structured results of the main findings. In practice this means that the data needed for further work shall be real and can only be obtained through focused interviews and knowledge of the software attributes.

Kananen (2011, 48) proposes three main data collection methods: observation, focused interviews and use of different kinds of documents. Defining the observation method, Kananen (2011, 48-50) claims that this method is suitable if there is little or no information available on the studied phenomenon. In our case, the phenomenon is known, and the data shall be converted for the computer application. Thus, focus interview and documents on later stages shall be used to achieve the settled goal.

Interview as a method can be used when the theme is known and more detailed information is needed. Kananen (2011, 51) outlines two common types of interviews: individual and group interview. The main difference is the number of participants at the same time. Although group interview can save time, it is not always applicable. Group interviews produce consolidated information. Individual interviews produce more accurate and reliable information. Due to the small focus group, I decided to conduct individual interviews to create detailed portfolio about each subject in question.

According to Kananen (2011, 52-53), and Bryman and Bell (2007, 497-498), in qualitative research, there is no minimum number of interviewees required for a reliable research. One should analyze the data all the time to determine when there is enough data. In my case the number of interviewees was limited which required very deep coverage of the studied phenomenon. Kananen

<table>
<thead>
<tr>
<th></th>
<th>Qualitative research</th>
<th>Quantitative research</th>
<th>Action research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Understanding</td>
<td>Cause-effect relationship</td>
<td>Change</td>
</tr>
<tr>
<td></td>
<td>Interpretation</td>
<td>Forecasting</td>
<td>Development of activities</td>
</tr>
<tr>
<td>Theory/practice</td>
<td>Induction</td>
<td>Deduction</td>
<td>Abduction</td>
</tr>
<tr>
<td>relationship</td>
<td>From practice to theory</td>
<td>From theory to practice</td>
<td>Theory/practice interaction</td>
</tr>
<tr>
<td>Researcher’s role</td>
<td>Outsider</td>
<td>Outsider</td>
<td>Active actor</td>
</tr>
<tr>
<td></td>
<td>Participant (possible)</td>
<td>Observer</td>
<td>Change agent</td>
</tr>
<tr>
<td>Conception of knowledge</td>
<td>Interpretative</td>
<td>Technical</td>
<td>Critical</td>
</tr>
<tr>
<td>Research questions</td>
<td>Open</td>
<td>Structured</td>
<td>Mostly open</td>
</tr>
<tr>
<td>Answers to the research questions</td>
<td>Descriptive</td>
<td>Numbers</td>
<td>Mostly open</td>
</tr>
</tbody>
</table>

Table 3. Common research methods
(2011, 55) advises that questions shall proceed from general to specific. Using leading questions is a common way of proceeding through the interview. On the other hand it is important not to lead the interviewee to give wanted answers. However, I decide to avoid using any kind of leading or introductive question as the interviewed group was selected among the insiders who possess the required information and have the answers.

Based on the theoretical framework of the data collection methods, action research is chosen as the primary method. The Figure 2 below visually represents the action plan framework which was outlined as the base plan for the given paper.

1.9. RELIABILITY AND VALIDITY
Due to the small number of available interviewees and the nature of the research sampling in its general meaning was not possible. Bryman and Bell (2007, 497) discuss sampling in qualitative research only from the point of view of ethnographic differentiation of interviewees, which is not always applicable. Kananen (2011, 52) states that in qualitative research “one cannot talk about sampling” at all as it is more quantitative research concept.

I divided the respondents into three groups depending on their responsibilities: 1) international office personnel of Kymenlaakso UAS; 2) program heads of Kymenlaakso UAS; 3) international office personnel of Haaga-Helia UAS. The third group of respondents is chosen as an additional source of information which might be later utilized in applying the gained knowledge, if needed. Only the first and the second group’s responses are used in research work. The total number of respondents within groups 1 and 2 is 17 people.

Group 1 was selected as the main source of information needed for the intended transition from old style utilization of international activities data to new style electronic handling of it. The results of the Group 1 interview are used as the ground for the further research, whereas the results of the Group 2 interview are used as additional information source defined from the different angle, which is crucial in qualitative and action research. Different occupation levels of the respondents created added value to the responds and enabled three dimensional approach to the problem. Groups 1 and 2 were first asked to submit their replies electronically by means of filling Google based questionnaire. After the replies were checked, individual face to face interviews were arranged for Group 1 respondents. Group 3 was approached electronically. This enabled more detailed investigation of the research questions. Use of different types of information gathering is called triangulation. Kananen (2011, 69-71), and Bryman and Bell (2007, 412-413) referring to other sources define triangulation as combination of different research methods approaching the problem from different angles, aimed at finding confirmation for the research results. Denzin (1970, 310) defines fours triangulation methods:

1. Data triangulation
2. Theory triangulation
3. Methodological triangulation
4. Investigator triangulation

In my study I used data and methodological triangulation by diversifying the data sources and methods of revealing the data. Kananen (2011, 71) describes these two triangulation methods as the best ones in qualitative research.
Respondents within Group 1 were asked to describe in details the technicalities of international processes with referrals to available documents and instructions. Later they were asked to share their expectations and preferences about the handling the processes with MoveOn application. Group 1 interviews were the most demanding. Estimated time needed to respond – 30-45 minutes. All respondents were informed about the time required beforehand. The questionnaire is attached as Appendix 2.

The questions prepared for Group 2 were aimed at collecting information about the main criteria important for selecting incoming or outgoing exchange students. The questionnaire was much shorter and the respondents were expected to share own opinion about the mobile students selection. This information is used to create additional fields which could add value to the information about international activities and improve the selection procedure. Estimated time needed to respond – 15 minutes. The questionnaire is attached as Appendix 3.

The arranged interviews were aimed at finding the respondents’ opinion on how to improve the weakest points they indicated in their electronically submitted responds. This created ground for deeper understanding of the problem in question.

Group 3 respondents were expected to submit electronic replies to Google based online form. Due to low respond rate some of the respondents were interviewed face to face at MoveOn training arranged in Haaga-Helia UAS (Helsinki, Finland). The questionnaire is attached as Appendix 4.

Since the research is aimed at creating a change action plan for Kymenlaakso UAS, verified validity and reliability of the research is crucial. Roberts et al (2006, 42-43) and Kananen (2011, 66) describes reliability as a sort of trustworthiness of procedures and data, and addresses to it as to consistency and repeatability of the research results. Bryman and Bell (2007, 410), referring to earlier studies made by LeCompte and Goetz (1982), divide reliability into external and internal. External reliability is defined as a degree to which a study can be replicated, which makes no difference from the above mentioned authors. Internal reliability is described as a level of agreeing about a study between researchers. However, internal reliability measure is not applicable in my study as the research was conducted solely.

Validity, as defined by Kananen (2011, 66), refers to whether thesis answers the questions it is intended to answer, i.e. were the right things researched. This is a simplified definition of what Roberts et al (2006, 44) and Bryman and Bell (2007, 410) call external and internal validity. Internal validity is assessed as a match between observations and the theoretical ideas researchers
develop. However, external validity, or generalizability, is more important concept as it shows if the results can be transferred or applied to other circumstances.

The given research is based on experts’ conclusions and official directives, and meets all reliability and validity conditions to be applied within higher education organizations of Finland, at least.

2. RESEARCH RESULTS

2.1 TRANSCRIPTION OF INTERVIEW DATA

After all the interviews were held and all the answers were collected, the replies were grouped in excel sheet according to their relevance and transcribed. Transcription, as defined by Kananen (2011, 57), refers to converting data into a document which can be managed manually or electronically. Although Kananen originally refers to recordings, same techniques can be used for processing any kind of collected unorganized data. Transcription is aimed at sorting the collected results by their relevance to the studied subject and at extracting any valuable data.

Within the given work I tend to optimize the internationalization routines by means of integrating features of MoveOn software into the work of International affairs office of Kymenlaakso UAS. As defined earlier, Kymenlaakso UAS acts within import, export and partnership internationalization models, explained by Hawawini (2011). These models emphasize student and staff exchange as well as implementation of double degree programs as internationalization tools.

The following Tables 4, 5, 6 display the end result of transcribing the replies. The replies are divided into 3 groups: incoming exchange student application details, outgoing exchange student application details, and statistics and reporting. Staff and teacher exchange process is excluded from this part and will be discussed later.

<table>
<thead>
<tr>
<th>Time</th>
<th>Stage</th>
<th>Documents related</th>
<th>Executor</th>
</tr>
</thead>
<tbody>
<tr>
<td>September - October or March - April</td>
<td>Stage 1: Students nomination by the sending institution</td>
<td>- Email with nomination or Online nomination</td>
<td>Partner institution IO staff</td>
</tr>
<tr>
<td>October or May</td>
<td>Stage 2: Online application</td>
<td>- Online application form</td>
<td>Students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Learning agreement/ Study plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Transcript of records</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Copy of ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Portfolio (Design/ Media students)</td>
<td></td>
</tr>
</tbody>
</table>
November or May-June
Stage 3: Application results:
- Information email
- Letter of acceptance
- Invitation (if needed)
- Info-letter (aka Dear student)
IO staff

December or April-May
Stage 4: End of exchange period
- Letter of confirmation
- Transcript of records
IO staff

Table 4. Incoming exchange student application procedure

Table 4 displays the main components of incoming exchange students handling as well as the relevant documents. The documents were compared and all data fields were sorted and listed.

Table 5 reflects similar data, but for outgoing student exchange formalities.

<table>
<thead>
<tr>
<th>Time</th>
<th>Stage</th>
<th>Documents related</th>
<th>Executor</th>
</tr>
</thead>
<tbody>
<tr>
<td>December-January</td>
<td>Stage 1: internal application:</td>
<td>- Internal application form</td>
<td>Head of program shall approve</td>
</tr>
<tr>
<td></td>
<td>Students shall return signed papers by the head of program</td>
<td><a href="http://www.kymk.fi/applyabroad">www.kymk.fi/applyabroad</a>, Transcript of records (from Winha)</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>Stage 2: Selection of students for Universities.</td>
<td>- Interviews, motivations</td>
<td>IO staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- grades</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- study plans</td>
<td></td>
</tr>
<tr>
<td>February-March</td>
<td>Stage 3: Nominations.</td>
<td>- Nomination message</td>
<td>IO staff</td>
</tr>
<tr>
<td>March-April</td>
<td>Stage 4: External application:</td>
<td>- Institutional application form</td>
<td>Student</td>
</tr>
<tr>
<td>May-July</td>
<td>Stage 5: Acceptance.</td>
<td>- Certificate of exchange or training</td>
<td>IO staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Valteri 1-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- grant application</td>
<td></td>
</tr>
<tr>
<td>After the exchange period</td>
<td>Stage 6: Student shall return final reports and papers to complete the exchange formalities.</td>
<td>- Erasmus report</td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Kyus report</td>
<td>Host organization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Letter of confirmation or Training certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Transcript of records</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Outgoing exchange student application procedure

Table 6 outlines the main reports produced for CIMO (Cooperation and International Mobility Organization), which acts as an independent agency under the Finnish Ministry of Education and Culture (www.cimo.fi).

<table>
<thead>
<tr>
<th>Time</th>
<th>Report</th>
<th>Documents related</th>
<th>Executor</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>ERASMUS mid report</td>
<td>- Number of outgoing and incoming mobilities (EU), incl. staff/teachers</td>
<td>IO staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of outgoing and incoming mobilities (non-EU), incl. staff/teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Short and long-term mobilities, incl. staff/teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Double degree students</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of agreements with other HEIs in EU and outside EU</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 outlines the main reports produced for CIMO (Cooperation and International Mobility Organization), which acts as an independent agency under the Finnish Ministry of Education and Culture (www.cimo.fi).
<table>
<thead>
<tr>
<th>Month</th>
<th>Report Type</th>
<th>Data Fields</th>
<th>Responsible</th>
</tr>
</thead>
</table>
| October    | FIRST report           | - Surname, Name, Sex, Date of Birth  
- Country of birth, Nationality  
- Mobility dates (start, end, duration)  
- Sending/ receiving Institution  
- Field of study  
- Grant amount | IO staff |
| November   | ERASMUS final report   | - Same as in Erasmus mid report                                            | IO staff |
| January    | AMKOTA (online)        | - Mobility year, student number/social security number for staff, gender, citizenship  
- faculty, department  
- mobility program, destination, duration of mobility, type | IO staff |

Table 6. Main reports and statistics

As the MoveOn database content is to a big extend defined by the layout of the final reports (ERASMUS, AMKOTA, FIRST, etc.) and internal UAS requirements, I divide the data fields into primary, secondary and extra fields in accordance with their importance. Primary data represents personal data of a student or staff member, such as: name, date of birth, passport data and contact details. This information is essential for internal student handling system (Winha, SoleOPS) as well as for final reports. Secondary data refers to mobility period: mobility program, sending/receiving institution, dates, student status (applicant, accepted, rejected, etc.), internal and external contact person, studies details and grants. Extra data gives additional information, which can help in qualitative evaluation of a subject in question (mobility, cooperation, etc.): English language possession level, average grade for the previously studied subjects, years studied prior to mobility, submitted documents, remarks, planned visits and meetings, etc. Besides the indicated fields, the database will contain information about available funding and paid grants. The systematic use of MoveOn shall create a new time efficient approach to overall data handling.

2.2 HANDLING OF INCOMING EXCHANGE STUDENTS IN MOVEON

Incoming exchange processes were partly applied already in MoveOn in August 2012; and have been used to full extend since November 2012. Decision to start adopting MoveOn with incoming exchange issues to handle internationalization processes was based on its relatively little complexity and smaller number of related documents and funding information.

2.2.1 APPLICATION AND STUDENT SELECTION
As described above, international students’ admission begins with nomination of these students by their home institutions and then with filling the application form by the nominated students. Former paper based application form was substituted with the online form in late October 2012. Use of the new online form allowed expanding the number of required fields and at the same time deleting unnecessary housing application form as since then it was integrated into the application form. Since the online form is linked to the database, International office staff does not have to create any additional spreadsheets and feed in the application data manually. This saves approximately 10 minutes per applicant or about 400 minutes (i.e. 6.5 hours) per all applicants per campus. Such cut in time consumption helps to rearrange other task in a better and more quality way what results in greater accumulated time saving.

When submitting the application form, applicants provide primary, secondary and extra data explained in the previous chapter. Figures 7 and 8 below shows the primary data collected via online application form:

<table>
<thead>
<tr>
<th>Persons</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Incoming students</td>
<td>Persons</td>
</tr>
<tr>
<td>Surname</td>
<td></td>
</tr>
<tr>
<td>First name</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>IBC - International Business and Culture</td>
</tr>
</tbody>
</table>

### Personal data

<table>
<thead>
<tr>
<th>Field</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>Surname</td>
<td></td>
</tr>
<tr>
<td>First name</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Female</td>
</tr>
<tr>
<td>Date of birth</td>
<td>04-10-93</td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
</tr>
<tr>
<td>Place of birth</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>Russian Federation</td>
</tr>
<tr>
<td>National ID</td>
<td></td>
</tr>
</tbody>
</table>

### Matriculation

<table>
<thead>
<tr>
<th>Field</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>IBC - International Business and Culture</td>
</tr>
<tr>
<td>Matriculation No</td>
<td></td>
</tr>
<tr>
<td>Graduation year</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Incoming exchange student identity
Figure 3 represents student’s personal data. All data except the matriculation number is submitted by the applicant; the matriculation number is added by an international officer and refers to the internal student administration system “Winha”. Remarks field allows adding comments about the applicant and can be used as an additional tool for student handling. As well the data provided under “identity” tab is required for statistics and reporting activities.

<table>
<thead>
<tr>
<th>Surname</th>
<th>Matriculation No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First name</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIC - International Business and Culture</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current address</th>
<th>Permanent address</th>
</tr>
</thead>
<tbody>
<tr>
<td>co</td>
<td>co</td>
</tr>
<tr>
<td>Street</td>
<td>Street</td>
</tr>
<tr>
<td>Obolovsky prospekt</td>
<td>Leninov street</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Postcode</th>
<th>Postcode</th>
</tr>
</thead>
<tbody>
<tr>
<td>197136</td>
<td>197136</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saint-Petersburg</td>
<td>Yevpatoria</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Federation</td>
<td>Russian Federation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phone</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>+7(911)1234567</td>
<td>+7(911)1234567</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valid until</th>
<th>Emergency contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.03.15</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mobile / Email</th>
<th>Name</th>
<th>Mobile phone</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lifemove</td>
<td>+7(911)1234567</td>
<td>+7(911)1234567</td>
<td><a href="mailto:lifemove@email.ru">lifemove@email.ru</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Privacy consent</th>
<th>The student agrees to the transmission of their personal data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
</tr>
</tbody>
</table>

Figure 4. Incoming exchange student contact details

Figure 4 refers to “contact details” tab of the online database and provides contact information of the applicant and his/her emergency contact person. All data is provided by the applicant in question and used for communication (postal address must be valid as it is used for sending letter of acceptance and invitation at the earlier stages and transcript of records and letter of confirmation after the exchange period). If any additional contact information is needed, such as social network accounts or Skype, it is possible to add extra fields to the “miscellaneous” tab.

“Mobility” tab provides information about each individual mobility made or planned by a student, which was earlier defined as secondary data. In case of the incoming exchange student number of
mobility normally equals to one as it concerns only Kymenlaakso UAS. However, in certain cases number of mobility can be bigger. This situation is possible if a student is accepted as a double degree student after his/her exchange period is over. Although double degree students are handled by student affairs office, it is agreed that international relations office keeps records of these student as they are included into annual reports. Besides they possess dual student status: on the one hand they are international mobile students and shall be treated respectively, on the other hand they are degree students and shall follow normal internal regulations.

Figure 5 gives an example of information related to student mobility period:

```
Figure 5. Incoming exchange student’s mobility data: general information
```

“General information” tab provides information about mobility period, status of the student and institutional contact persons as well as mobility program and name of the sending institution. Detailed information about studies in the host institution is kept under “studies” tab of the “mobilities” section. The MoveOn mobility tool allows keeping track on selected subjects and
number of acquired ECTS. Fall 2013 will be used for piloting this option. The academic records handling shall be taken into use in January 2014.

Besides the secondary data, “mobility” section provides access to extra data, which is handled in “miscellaneous” tab. Figure 6 shows the fields which have been in use since November 2012:

![Figure 6. Incoming exchange students: extra information](image)

The latest updated paper-based application form included additional fields about English language possession level. Adding these fields enabled more accurate applicant selection based on their language capabilities. Same criteria were adopted in the online application form. Although the new online form does not contain new fields, decision making process became easier as there is an opportunity to compare potential applicants by different criteria at once, what was not possible earlier. As well the whole procedure of modifying the application form items is simpler within electronic database environment. As an example, double degree applicants have to fill in preliminary thesis topic. Decision on having this field in the application form was made in
summer 2013 at the meeting devoted to the double degree related issues. New field was added and has been taken into use immediately.

Two years ago the exchange students of Industrial management and logistics program had to take English test in the beginning of their exchange period. Similar test was then arranged in the end of the exchange period. The results indicated a clear progress in language proficiency during the exchange period. The MoveOn software allows tracking of the progress. Although this information has little value in international mobility handling, it adds value to quality of exchange program and can be used in marketing and promotional activities.

Any application is submitted together with Learning agreement or Study plan, which contain information about the selected courses, and a transcript of records, which contains information about previously studies course. Based on application, transcript of records and learning agreement Head of program makes decision about admission of an applicant.

### 2.2.2 ADMISSION OF STUDENTS

After the decision about admission is made, international officer changes the status of the applicant to either accepted or rejected. Status helps to keep a track on all applicants. All students are informed on the admission decision by e-mail. MoveOn allows sending e-mails to all students or to groups divided under certain criteria. The accepted students besides the e-mail receive the following documents from Kymenlaakso UAS:

- Letter of acceptance
- Invitation (for students outside the EU)
- Information letter

MoveOn allows creating all the above mentioned documents instantly. This saves another 15 minutes per student or some 10 hours per application round per campus. “Selection of mobilities” feature allows creating a list according to required criteria, which in this case are:

- Academic year
- Start semester
- Status
- Field of studies
The list shown in Figure 7 contains all the exchange students accepted for studies in Kotka. Clicking the arrow (right-bottom corner of the interface) opens a new window (Figure 8) with further options, such as: under “correspondence” tab – e-mail communication and document template printing; under “reports-exports” tab – reporting tool; under “tools” – further data export options (reporting and exporting of data will be studied in the further chapters):
Besides, MoveOn gathers and prepares for printing the persons’ address labels (from “tools” tab of the “actions section”). Thus, the whole process from receiving nomination to inviting student for studies is time efficient and effective compared to routines used earlier.

### 2.2.3 SUMMARY AND FURTHER OPTIMIZATION

After almost a complete year use of MoveOn tool for handling incoming exchange students the following benefits can be highlighted:

- application handling takes less time and can be controlled better
- editable fields allow better navigation among applicants and selected students
- all data is kept in one place
- customizable document templates allow quick access to needed documents
- exporting to excel format adds value to the usability of the software
export to CSV (comma-separated value) format allow integration in other database software
- handling a group of students at once minimizes overall time consumption

However, there is still space for improvement of MoveOn features usability. The next step to take will be to adopt ECTS and learning agreement set-up in order to optimize data handling and minimize total time spent on student administration. This step implementation is planned for spring 2014 and will be available for the academic year 2014-2015 applicants.

Currently applicants attach their study plans to other application documents in paper version. In practice this means that neither heads of programs nor international office personnel have a clear picture of preliminary number of attendees of courses selected. Having this information would help to estimate student load per individual course and plan the activities better.

In future all applicants will have to submit their study plans electronically together with application form. Only predefined subjects shall be available for selection. All information about individual study plans will be stored in the MoveOn database and can be reviewed and manipulated easily. This shall result in better student selection and course preparation as besides students’ files head of programs will also receive detailed overview of the upcoming semester which shall include information about each course number of attendees, and other information which can be required to make better admission decisions.

### 2.3 HANDLING OF OUTGOING EXCHANGE STUDENTS IN MOVEON

Outgoing exchange student processes have been partly administrated in MoveOn since summer 2013 at the first stage of exchange application procedure “Internal application”, i.e. students who want to go abroad for studying or training have to fill in the online application form at www.kymk.fi/applyabroad.

#### 2.3.1 INTERNAL APPLICATION AND STUDENT SELECTION

At the moment applicants provide only technical data needed for exchange:

- Personal data (name, date of birth, student number, address, etc.)
- Details of current education (degree program and specialization in English, etc.)
- Details of the universities they wish to apply to (country, university name, department, study language, etc.)
- Bank account details (including SWIFT and IBAN codes) for grant payment

This information is sufficient for all the arrangements, but do not provide *extra* data, which could be useful to select the right students. Adding following fields shall increase the quality of the application form from the point of view of student selection procedure:

- average grade and total number of ECTS studied before the mobility (from transcript of records)
- motivation letter field in the end of the general part of the application form
- graduation year as mandatory field

With the help of these extra fields applicants can be preliminary evaluated by the same criteria already at the first stage of the application procedure, and the international office staff can get prepared for the second stage of the application, thus improving the overall procedure and reducing the time needed for the student selection. Figure 9 shows the data an international officer receives when the internal online application is submitted by a student:
Application allows an applicant to select up to 3 mobilities. Each individual mobility application has to be checked by an international officer for further nomination of the student. Once the mobility is confirmed it shall be transferred to mobility. The status of the applicant shall be changed to a relevant one. Figure 10 shows the interface of the “application” section:
International officer can make remarks which can be used as an additional criterion for student selection. Once application for mobility is transferred to “mobilities”, it appears in the main menu.

Before the second stage of outgoing application process, i.e. interviewing the students, an international officer has to overview the application preferences of the students and makes a preliminary selection of applications. MoveOn database allows doing this by using “selection of applicants” link in the main menu and certain adjustments. Unfortunately, MoveOn v3.1 does not have any special interface for handling big number of application. However, these features shall be realized in MoveOn v4.0 in January.

Selection of applicants link leads to selection menu, which allows specifying search criteria. In this case the criteria are:

- academic year
- application status (applicant)
- person type (outgoing student)
- type of mobility (studies, internship)
For academic year 2013-2014 there are 288 applications destinations for studies, although the number of applicants is three times smaller. All the records can be exported into excel format spreadsheet with certain data (Figure 11):

![Figure 11. Application analysis](image)

MoveOn allows saving search criteria for later use. Exported report can be handled by excel “sort by value” feature to check number of applicants per one institution or exchange program. Since international exchanges are regulated by the agreed exchange flows it is essential to select the most suitable students for each individual exchange destinations.
Figure 12. Example table of selection of applications

Figure 12 shows the layout of the generated excel spreadsheet, which contains application information of all students planning to spend a semester or the whole academic year abroad. By applying filter on Institutions it is possible to see total number of applicants per institution and decide who suits for it better in case of big number of applicants.

Figure 13. FH Joanneum applicants

For example, there are two applicants from two different study program who selected FH Joanneum, Austria, as their first choice destination. According to the bilateral agreement signed by Kymenlaakso UAS and FH Joanneum, FH Joanneum can host up to two Business students, 1 Design student and 2 Technology students per semester (Figure 13). In this kind of situation host university tends to meet the quantitative requirement of the agreed flows (Figure 14).
When students are eligible for host institution application, international office shall first nominate the students for exchange place. That is an official procedure that confirms that an applicant is selected by an international office and is not self-nominated. MoveOn v3.1 allows nominating students through its interface. Every institution which is a part of MoveOnline network receives e-nomination through the MoveOn interface (Figure 15). Institutions which are outside the network receive e-mails with nominated students data: name, surname, date of birth, faculty and contact e-mail.
When the host institution accepts the nomination, an applicant has to fill in and return the application documents to the International office of the host organization. Since application process includes many details and requires a lot of paperwork both from an international officer and an applicant, MoveOn database allows keeping track on every step undertaken by an applicant or an officer. “Miscellaneous” tab of “mobility” section is fully customizable, i.e. responsible international officer can add or delete the fields in this tab if needed. Figure 16 shows the interface and fields belonging to it. Bank details are needed for grant payment and are filled in by an applicant at filling in the online application form. Identity document is not a mandatory section, thus most of the students prefer to skip this part. On the right hand side there is a list of optional fields which can be modified according to the requirements. So far there are only two additional fields:

- Valtteri, which refers to completed Valtteri tasks, indicated in stage 5 of the outgoing exchange application process
- Report, which refers to Erasmus report in stage 6.

If needed, all relevant documents and stages can be added.
2.3.3 AFTER THE EXCHANGE PERIOD

After students return from abroad, they have to submit various documents to complete the exchange period:

- Erasmus report
- Kyuas report
- Letter of confirmation or Training certificate
- Transcript of records

Adding these fields to the optional part of the “miscellaneous” tab of “mobility” section shall help to keep a good track on the exchange process progress. However, to improve the quality of the information received from a student, it could be useful to add the following fields, which shall be also included in to the final report as a part of it:

- availability of courses English at the host institution
- overall evaluation of the main aspects of exchange

In a long run this shall help to evaluate individual partner institutions and manage the cooperation relatively.

### 2.4 HANDLING OF STAFF AND TEACHER EXCHANGE PROCESS IN MOVEON

Teacher and staff mobility process handling is more complicated than student international mobility handling due to no application time limits and additional internal documents which shall be submitted. Because of technical difficulties teacher and staff exchange process will not be realized through MoveOn the earliest until January 2013 as the current version of the database does not support such online processes which are required. Never the less, it is planned to integrate the teacher and staff exchanges into MoveOn v4.0 which shall be issued in the beginning of 2014.

Currently, staff and teacher mobility (hereinafter staff mobility) is divided into two stages:

| Stage 1: Internal application | Staff work plan | - Department  
- Name, Surname, e-mail  
- Host institution and department  
- Contact person and details  
- Duration of mobility  
- Objectives of mobility and added value  
- Expected results  
- Activities to be carried out;  
- Teaching program  
- Level of teaching  
- Number of teaching hours  
- Subject area of teaching (code)  
| Exchange staff  
*Forms shall be returned to the International office |
| Teaching assignment (additional fields) |

| Stage 2: Final report | Final report | - Personal and contact details  
- Host institution and dates of mobility  
- Organization of stay abroad: preliminary contacts, preparation for the mobility period  
- Content of activities  
- General evaluation of the mobility period  
| Exchange staff |

Table 7. Teacher and staff application and reporting exchange process

Final report shall be uploaded to internal online archive. At the file upload each report is given a document identification number. The link to the document can be used in MoveOn database as another tool for handling partner cooperation processes.
Currently the international office personnel is responsible for keeping the records of staff mobility by creating database entries based on the documents submitted. Manual database update is not time efficient and shall be improved.

There is a one clear way to improve the whole process – to make the application and reporting processes electronic. Meeting in person and discussing the issue with the representatives of the MoveOn software specialists allowed agreeing on inventing a new function into the database – follow up of personal mobilities by the means of creating each person an own profile. Profile can be created by a user of the database (i.e. mobile person) and can be kept updated with the time. Thus, a staff member can submit an online application prior to mobility and link a report to the application after the mobility. This will result in a simplified way of keeping a record in the database without active participation of the International office staff members. All the applications and reports can be printed if needed. This improvement shall save up to 20 minutes time of an international officer per each individual staff exchange.

![Figure 17. Teacher and staff mobility periods](image)

Figure 17 above projects all the mobility periods taken by an individual teacher or staff member. It allows fast access to the mobility data. The MoveOn software can generate statistical report based on the mobilities. Due to the fact that MoveOn v.4 will make it possible for staff members to
submit travel reports online, the electronic database shall be the most reliable and up-to-date source of information.

The online reporting system will include such information about staff members as: identity, contact details, bank details and grants paid for mobility periods (see Figures 18-19). At the moment the system lacks most of the information about the staff members. This information needs to be gathered and filled in by the International office staff. Once the system is upgraded to the version 4 it will be possible for each staff member to maintain personal information individually. Since most of the reports require personal data, such fields as date of birth and nationality will be compulsory data to be submitted.

Figure 18. Staff mobility: identity

Once the mobility data is submitted the International office staff may maintain the data in accordance with the national and international requirements as well as adding grants information to the system. Figure 24 shows the grant paid per individual mobility, which took place in November 2012. So far, only FIRST (Finnish-Russian Student and Teacher Exchange Program) has been handled with MoveOn software as a piloting project due to its smaller amounts.
However, starting from January 2014 it is planned to handle all available funding with the MoveOn application.

Figure 19. Staff mobility: grants

Maintaining grants information in MoveOn allows keeping all the data on amount planned and paid at one place and gives a full control over the available funds. The grants information window (see Figure 20) allows selecting the grant source, amount and keep a track on each payment made.

The information about grants can be accessed from different places: mobilities (grants per mobility), persons (grants paid or planned per person), funding (all grants paid and planned).
Presetting the minimum and maximum daily allowance guarantees avoiding mistakes caused by human factor: the grand confirmation system ensures that the operator (i.e. international officer) will not in any case pay the grand over its limits. Payment timestamp enables simple follow-up of the transaction. Since the payment interface is directly related to the individual student’s profile, the software allows generating payment slip based on the student’s data and the amount of paid grant. The payment slip is a word based document that collects data about the amount of the payment, date of birth of the entitled student, name and address where the slip shall be sent to. The bank account data and fund details are preset, but can be changed if needed.

2.5 FUNDING AND GRANTS

In order to manage grant payments correctly proper maintenance of overall funds is essential. The Funding menu allows submission and follow-up of available resources information. Figure 21 gives an example of FIRST (Finnish-Russian Student and Teacher Exchange Program) money allocation in accordance with the application results. The page contains the name of the funding in use (FIRST 2013/14), relevant year in a drop down menu (2013/14), time of creating the resource (14.05.13) and total sum (20900,00) for the whole academic year. As well it gives an overall information about utilized money and available resources.
The resources allocation is defined under the Utilization types tab. Planned amounts can be changed if needed. Each type refers to the relevant activity, which can be covered by the fund. The Figure 22 gives an example of FIRST funding available in academic year 2013/14.

According to the rules of the funding (www.cimo.fi) only teacher and student exchanges and intensive courses can be financed. Since Kyuas do not carry out any intensive courses this activity
is not listed among other utilization types. FIRST coordinator can define the amount of resources available per each activity and set the payment rules. Due to the fact that the rules of the fund allows each institution to decide on the grant amount for exchange students, International coordinator has to set the minimum and maximum amounts according to the institutional requirements and planned capacity of the student exchange. As shown in Figure 23, exchange students are entitled to up to 400 €/month grant and teachers – up to 400 €/exchange period. Count shows the total number of persons and duration – total number of exchange months.

![Figure 23. Payment rules](image)

Exact information about paid amounts is given under Grants tab. It involves the following data (see Figure 24):

- Name of the exchange person
- exchange period and duration
- planned and paid amounts and balance per one student (if “zero”, then the planned grant is fully paid).
FIRST funding utilization via MoveOn v.3 was has been used to pilot the fund maintenance feature of the software and has shown its strong and weak sides: although electronic fund information storage is faster and more accurate than excel based (as it was earlier), the process cannot be automated to its full extend and still requires control and follow-up of the fund coordinator. Such features as email reminders and notifications about operations with the funding could add value to the accuracy of the whole process.

2.6 STATISTICS AND REPORTING

Statistical overview enables effective use of data stored in the database. Since there is no specific statistics used on a regular basis, the software shall provide multiple options and manual setup of statistical reports in accordance with particular requirements. In the field of international cooperation in higher education the most demanded statistical data refers to student and staff exchanges as one of the main measure of active cooperation.

Figure 25 below gives an example of generating a statistical report and the results of the report in Excel format:
The fields selection allows narrowing the search results if needed. In the example above a wider selection was used to better represent the possibilities provided by the software. The generated report compares mobilities to/from partner Institutions within a certain mobility program (see Figure 26). The Excel report contain such fields as mobility programs, number of incoming and outgoing exchange students per country, per institution and in total. Unfortunately, MoveOn v3 does not generate graphical representation of the results; version 4 of the software, which shall be launched in spring 2014, will have this option. So far, graphical interpretation is only possible with the help of Excel features.
Flexibility of the software tools utilization makes it possible to create big variety of reports and analysis. However, one of the most important issues remains the necessity to prepare annual reports on fund utilization. As it was described in the previous chapters, the only funding which was maintained with the MoveOn v3 software was FIRST scholarship due to its relative simplicity and limited capacity, what was essential at the piloting stage of the software.

The Figure 27 below shows the report of FIRST fund utilization:
The report is generated by the MoveOn v3 software in accordance with the payments done during the exchange period. Reporting had always been a problem before MoveOn was in use as it had required collecting the payments slips, inquiring financial reports from the accounting department, checking the paid amounts, etc. Creating same report would have taken a whole working day or even more. MoveOn v3 allows creating such report in 5-10 minutes in a required format. It also can be edited further if needed. The setup of the report takes some 10 minutes once and can be saved as a template. The given report indicates the students’ data and the place of destination as well as the period and field of study. The last column shows the scholarship paid during the exchange period. Similar report is also made for teacher mobility.

3. CONCLUSION

The role of internationalization in higher education institution has been rising in the recent years and as a result created a precedent of building a comprehensive way of managing the internationalization processes. As described in Chapter 1.5, student and staff mobility is considered as one of the main aspect of internationalization, and requires a well prepared and thought over way of controlling the flow and using the results for further development of the international activity of a program, department and the whole institution.

As for Kymenlaakso University of Applied Sciences, in academic year 2012/13 the total number of incoming exchange applications from the partner institutions was 86, whereas in the academic year 2013/14 this number grew to 131. The number of outgoing applications grew from 69 to 85 for the same time periods. Obviously, handling this big load of information is difficult. Purchased
MoveOn software was meant to solve the problem of students and personnel mobility handling in the first place, and organize the data received from analysis of these exchanges in the second place. However, clear understanding of the software capabilities was missing, what affected the selection of the research question, which was set to find the ways of operating the internationalization processes via MoveOn ERP software in order to optimize the procedures involved and to create time-efficient approaches to maintain the above mentioned processes. Due to the complexity of the research subject it was decided to split it into two logically related and consequent steps – to define the tasks and to find the ways of implementing them. Also these steps determined the structure of the research and divided it into theoretical and empirical parts.

The selection of the methodological approach was based on the classification of the research methods explained by Kananen (2011). Since the main research question is targeted at implementing a certain change in the internationalization administration practicalities, action research was selected as the primary approach. The data collection was implemented through oral and written interviews, observation and direct questionnaires among the people involved into the internationalization processes handling.

As a result, the actual ways of utilizing the MoveOn v3.1 software capabilities were described. These solutions are applicable not only to MoveOn v3.1, but also to other ERP software which can be used in HEIs. The work done to outline the possible solutions to simplify, systemize and optimize the procedure of maintaining the studied processes reflects the real situation and, thus, can be applied directly without additional corrections.

The programmability of the software features allows decreasing dramatically the time required for individual actions implementation (in some cases up to 600% depending on the overall data amount, for example preparing letters of confirmation for 40 students can be reduced from 20 to 3 minutes). Exact ways of using the features of the software are explained in the previous chapter.

Summarizing the findings, the software capabilities are much diversified and allow optimizing the handling of internationalization processes, such as:

1. incoming and outgoing student and staff exchanges, including possibility to gather the information electronically through the use of online forms

2. reporting and statistics, based on the previous mobilities and relations

3. funding and grant payments in accordance with the mobility specifications.
Besides the main above mentioned processes, the software can also be used to track the relationship with existing partners and evaluate the depth of cooperation in order to outline key or strategically important partners around the globe.

In March 2014 MoveOn3 was updated to an online version 4 with a number of new possibilities, including option to grant viewing rights to other stakeholders within internationalization, such as program heads and departmental coordinators.

MoveOn4 is an improved version of Moveon3, which means that the main features and layout have not changed after the upgrade. However, a number of new features were added. Among them grouping users according to their "roles" in the process of the internationalization handling became possible. In practice that means that any involved user can get a viewing and browsing right for the database features utilization. That shall enable easy tracking of the processes by the other users within internationalization handling. As an example of the increased efficiency through rights granting can be used the recently initiated development of Russian oriented strategy within the educational programs. Due to the lack of access to the database by the responsible staff members, the evaluation of the previous Russian relations was done by the International office (see figure 28).

![Data analysis flow chart](image)

Clearly, the International office could be excluded from the chain as an unnecessary element. That could have save a lot of time needed for communication and task handling, which is directly related to the workload of an international officer. The time needed for obtaining information about the previous mobility numbers was determined by:
1. time of the information inquiry

2. time when the inquiry was received by the international officer

3. availability of the international officer to handle the task

4. time of receiving the inquired information results by the responsible person and his/her accessibility to email box

In practice this process took more than a week for the inquiry sender to receive the information. Excluding International office from the chain could reduce the time needed to minutes.

Until MoveOn v.3 was taken into use by the international office, all the data was stored as Excel tables in various places, often duplicating itself. Utilization of the MoveOn enabled the data to be stored, accessed and used in one place by many individuals at a time. However, the database has been used to full extent only for handling student mobility. That was made on purpose – the new software had to be checked and piloted in order to avoid unexpected data loss and its misuse.

With the MoveOn v.3 upgraded to v.4 it is essential that all the data related to student and staff exchange and funds is kept and maintained via the software. With the additional viewing rights granted to other users it is crucial to keep the database updated and the information there reliable and valid at all times. The user rights shall be distributed as follows:

1. Administration rights granted to two responsible users
2. Editing rights granted to all international office staff members
3. Viewing rights granted to program heads and other staff members directly involved in the internationalization processes handling
4. Viewing rights granted temporarily on demand to other staff members for a certain task execution

Such division of rights shall assure secure data maintenance and accessibility within the organization, and allow fast data browsing and analysis in case of need.

MoveOn v.4 allows recording the communication history with any contact within the database. Communication tab includes the following types (see figure 29):
As the figure above shows, the database can store information about any document and email sent or received, a planned or past meeting, all kinds of notes and even about phone calls made. Assuming that all the users who handle the cooperation with partner universities of student and staff members reflect their actions via the communication feature in MoveOn, the collaboration process with any contact would be transparent and informative as any database user could track the past and planned activities.

The database as it was mentioned earlier enables simple tracking of all the international activities between partner institutions. That allows making an in-depth analysis of existing cooperation and creating assumptions on development the cooperation further. The recently introduced policy oriented on building strategic partnerships has initiated a lot of discussions about the criteria for strategically important partners selection and how to implement the strategic cooperation. With the help of the database and with the possibility of easy data collection and its analysis, the users of the MoveOn v.4 can practically conduct the process of strategic cooperation development.

With the new possibilities, came along together with MoveOn v.4, there are three major development areas which shall be paid the most attention to:

1. maintenance of strategic partnership relations according to new Erasmus Plus
2. optimization of the process of mobility reporting via using online forms
3. facilitation of funds in according with the Erasmus Plus and other mobility programs

According to the new Erasmus Plus setup, Key action 2 of the program is devoted to development of strategic partnerships for Innovation and Exchange of Good Practices (Key Action 2), which is
aimed at sharing, developing and transferring innovative practices in education and training between the participating countries.

This question requires studying the problem from two points of views: firstly, the Erasmus Plus definition of the strategic partnerships, expectations, potential benefits and application guidelines; and, secondly, the MoveOn v.4 use for optimization of the partner selection and maintenance of the strategic cooperation effectively.

Obviously, the study will be demanding and time consuming; however, it shall be conducted as soon as possible as it gives the new cooperation and funding opportunities for the Kymenlaakso University of Applied Sciences and meets the internationalization strategy plan. Moreover, the vast majority of the European HEIs are working within the Erasmus Plus program, which has been recently introduced, and such a study would be actual timing-wise.

The second major development area aims at optimization of staff mobility handling through introduction of additional online forms via MoveOn v.4. Building such forms shall not take long time and should be implemented during the Summer 2014/15. However, it requires close cooperation with other units of the Institution, especially the financial department, in order to build a comprehensive and easy-to-use application and reporting tool for the personnel.

Building such a tool would simplify the overall process of international mobility at the personnel level and reduce a certain amount of paperwork created by the current procedures and necessity to use several application and reporting means, which are not connected to the MoveOn database.

The new application and reporting form shall be based on the MoveOn v.4 online application handling capabilities and should involve all the data which is required for further reporting. As a proposal, the staff international mobility application form would require a staff member to register in the MoveOn database by creating an account. After the account with personal data is created, a staff member would then only need to add information on each individual mobility, which would then be automatically processed by the MoveOn v.4.

The third area for further research should focus on studying the funds maintaining possibility via the database. Unfortunately, it is still problematic to maintain the grant payment process only with the MoveOn v.4 as this area has been utilized only to a minor extent and requires better understanding of the way to use effectively.
SOURCES

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Uwe Brandenburg, Gero Federkeil, 2007. How to measure internationality and internationalisation of higher education institutions. Indicators and key figures, Working paper No. 92, Berlin
APPENDIX 1. EDUCATIONAL SYSTEM OF FINLAND
APPENDIX 2. INTERNATIONAL MOBILITY

International mobility

The given questionnaire is aimed at collecting detailed information about international mobility and processes involved in Kymenlaakso UAS. The collected data will be used in the Master's thesis oriented at optimizing the internationalization administration realizes processes and creating guidelines for utilizing the features of inter - national mobile platforms (Kavoch). The questionnaire consists of 7 sections:

Sections 1-3: Student mobility
Sections 4-5: Staff mobility
Sections 6-7: Funds and statistics (only for international office staff)

Please, post your replies in the relevant sections. However, if you have something to comment on in any other section, do not hesitate to do so!

I appreciate your participation in the survey! Working together we can improve the routines and develop new approaches!

Please, submit the replies latest on 3rd March 2011.

Thank you in advance!

International affairs coordinator

Gregory Smit

* Required

1. Name and surname *

2. Job title *

STUDENT MOBILITY

SECTION 1. INCOMING STUDENT EXCHANGE

This section contains questions related to the inbound student mobility. COMPELLARY FOR: incoming exchange colleague.

However, comments of each respondent are welcome!

3. 41. Please, describe in detail all stages of application process.

   For example: it is expected to contain time frames of each stage as well as strong and weak points. For example: E. g. Application deadline: 10th May - Autumn semester; 1st November - Spring semester. Stage 1. Students must be nominated before [date]; nomination contains the following student data: name, gender, etc... Stage 2. Application submission before the stated deadlines. Etc.

4. 42. Please, list the attachments when must be submitted together with the application form. E.g. 1. Application form [print out and signed]; 2. Learning agreement [link to the form]; etc.

5. 43. Please, describe the process of application selection.

   Who makes the decision? Based on what criteria? What other data would be useful in student admission?

SECTION 2. OUTGOING STUDENT EXCHANGE
APPENDIX 3. EVALUATION OF APPLICANTS FOR INTERNATIONAL MOBILITY IN KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

Evaluation of applicants for international mobility in KyAMK

The done questionnaire is aimed at collecting detailed information about criteria used in selecting applicants for international mobility in Kymenlaakso UAS. The collected data will be used in the Master’s thesis oriented at optimizing the internationalization administration related processes and creating guidelines for utilizing the features of newly acquired ENVI software (MeveOn).

The questionnaire shall not take longer than 15 minutes of your time. However, your replies are very valuable and will provide information which shall be used in improving international mobility application procedure.

I appreciate your participation in the survey! Working together we can improve the routines and develop new approaches.

Thank you in advance.

International affairs coordinator
Grigory Bush

1. Name and surname *

2. Job title *

STUDENT SELECTION

This section contains questions related to the student selection procedure.

3. Q1. What data is required to select the “right” incoming exchange applicant? How to identify how suitable the applicant is for a particular program? What criteria are considered?

4. Q2. How to evaluate an outgoing exchange applicant? What criteria are considered when approving an outgoing exchange application? What criteria are considered when there is a need to choose only one applicant amongst many for a particular exchange destination?
APPENDIX 4. MAINTENANCE OF INTERNATIONAL COOPERATION WITH MOVEON V3

Maintenance of international cooperation with MoveOn v3

https://docs.google.com/forms/d/1vh4kPuwYpO/B4-ZpBzOi4hKJ0...

Section 1. International student mobility

This section contains questions regarding student academic exchange and internship.

1. Do you use MoveOn for handling international student mobility?
   - Yes
   - No

2. Do you use MoveOn online application form within the application procedure for international exchange (outgoing)?
   - Yes
   - No
   If yes, list the additional questions you included in the form (e.g. English skills level A1-C2, motivation, etc.)

3. Do you use MoveOn online application form within the application procedure for international exchange (incoming)?
   - Yes
   - No
   If yes, list the additional questions you included in the form (e.g. English skills level A1-C2, motivation, etc.)

4. What additional optional fields do you have in the "International" tab of the Mobilitee's data (Main window > Mobilitee)?
   Please, list the fields you created and for what purposes (e.g. English level - Listening/Reading etc.)

5. Do you use the "Course units" tab of the Mobilitee's data?
   - Yes
   - No
   If yes, explain how you feed the information about courses in (manually or importing).

Section 2. International staff mobility

This section contains questions regarding outgoing and incoming staff exchanges.