Ideas worth sharing:
Learning for sustainability

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1. Introduction

1.1 Background to this report

The University of Iceland approved a policy on sustainability and the environment in March 2012. The policy had been prepared by a working committee appointed by the rector for that purpose in April 2011. On approval of the policy a standing committee was appointed by the rector and it met for the first time in June 2012 and reported on progress to the rector at the end of October 2012. The standing committee has met about once a month during the academic year 2012-2013.

This report is an independent research study on education for sustainability in academia. In January 2013, Julia Vol (JV) was employed as a researcher at the School of Education to work on two sustainability education (SE) projects with Allyson Macdonald (AM), over an eight-month period. Funding was obtained from three sources: earlier project funds secured by AM, a grant from the School of Education, and a grant awarded to AM from the Research Fund of the university for a project on sites of adult learning for sustainability. The researchers set themselves two main tasks: to monitor, assess and report the implementation of the UI policy on sustainability and the environment, and to work on the research project on adult learning for sustainability. They have been supported by Sigurlaug Lövdahl from the committee and we thank the many individuals who have provided the authors with information.

As the research took shape, we suggested to the chairman of the standing committee Ólafur Páll Jónsson associate professor that the committee may find it useful to receive the report and have a discussion on its findings. The first author will deliver this report to the standing committee on 15 May 2013.

Julia Vol (JV) completed her master’s degree in the environment and natural resources program at the University of Iceland (UI) in 2012. In her thesis she addressed the issue of corporate social responsibility (CSR) change management process at Landsbankinn.

Allyson Macdonald (AM) (School of Education) was the chairman of the committee which developed the UI policy on sustainability and the environment which was approved in March 2012, and chaired the working committee for implementation of the policy until December 2012, when Ólafur Páll Jónsson (ÓPJ) assumed the chairmanship.

Sigurlaug Lövdahl (SL), from the central administration of UI, participated in all the committee work with AM and Ölafur Páll Jónsson (ÓPJ), the current chairman. She has also taken part in the activities of the Nordic Sustainable Campus Network (NSCN) and secured the participation of UI in the NSCN workshop held in Helsinki in March 2012, where she, AM and JV presented an evaluation of the implementation of UI policy so far.

JV and AM then went on to Jakobstad in western Finland to take part in the 4th seminar of a Nordic network Education for Sustainable Development in Academia in the Nordic countries (ESDAN). ESDAN is a network of academics involved in education for sustainability in Nordic universities and was funded for two years by the Nordic Council of Ministers. AM had been invited to give a presentation on ESD at the network meeting, and JV presented a poster on the evaluation of the UI policy.
1.2 Objectives
This main objectives of this report are:

- To provide a summary of current sustainability related activities in universities in the Nordic countries.
- To draw out highlights from the evaluation carried out by JV, in cooperation with AM and SL, in Jan-Feb 2013.
- To discuss the findings of the evaluation in light of feedback received, and networking, and exchange of experience, with other Nordic universities.
- To make recommendations on fostering, and improving, incorporation of sustainability policy into practice.

1.3 Sustainability and innovation in academia
The importance of the concept of sustainability is rapidly growing, and it is becoming an essential part of both education and preparation for the challenges of tomorrow. The trends and problems we currently face, that are likely to escalate in the future, demand action to promote learning for innovation and sustainability. Universities worldwide, and in particular those in the Nordic region, are taking a proactive approach towards incorporation of sustainability into every aspect of their operations, including infrastructure, research, teaching, and learning elements, in order to explore and promote social, economic and environmental sustainability. Sustainability principles can improve students’ quality of learning; increase the sense of responsibility towards relationships with university’s stakeholders; be a source of university pride; a tool for innovation and excellence; and an attraction for students and staff.

In light of the uncertainty regarding the future of the global society, and the role of higher education particularly, it has become apparent that the successful universities of the future will be those capable of creating knowledge and innovative solutions for the multitude of economic, social, environmental and cultural challenges we will have to face. Additionally, innovation is the main driver for job creation and economic growth, and the only way to ensure a sustainable future. International studies show that the most successful economies are those that are capable of nurturing creativity and encouraging innovative research and high quality education. Given global climate change, social-demographic change, and the on-going financial crisis, the relevance of sustainability will continue to grow in Iceland. Therefore, education for sustainability and innovation are integral parts of any Icelandic university’s social and ethical responsibility towards its students and society. It is a university’s obligation to prepare its students for the challenges they will face in the work market, and to be leaders of innovation within Icelandic society. The University of Iceland, being the largest education provider and the biggest employer in the country, is well placed to address those challenges. These responsibilities are also in line with national policy, such as Vision 20/20, the Green Economy and Sustainable Prosperity.

1.4 Structure of the report
The report is divided into several sections: first, several interesting student initiatives in Nordic universities are discussed - an area in which Iceland has much to learn. Secondly, some results from the ESDAN project are reported, and lastly an evaluation of the progress being made in implementing the University of Iceland’s policy on sustainability and the environment. What UI can learn from others is considered, and several recommendations are made. Work since January has shown that for UI’s policy to become visible, and for implementation to become a reality, a project management post should be created.
2. State of sustainability among Nordic peers

An important part of the research was to look not only at what UI is doing, but also learn about the trends among peer institutions in the Nordic region. JV and AM participated in two workshops in Finland that brought institutions from all the Nordic countries together to present and share their experience, practices, and knowledge on how to incorporate sustainability within higher education. With SL we had a presentation on the implementation of sustainability so far in Iceland. The first meeting was held by the NCSN and the second by ESDAN.

2.1 Nordic Campus Sustainability Network (NCSN)

The most significant and impressive aspect of the NCSN meeting was the student leadership for sustainability and peer outreach. The most inspiring part of this seminar was the realisation of the power of individual and student driven initiatives to create a real change. The source of change in the system does not necessarily have to come from structured policy and planned activities. In fact, the most efficient actions, those that managed to achieve a sense of change, came from individual driving forces. These small projects in combination are generating shifts within the Nordic campuses.

Examples of such initiatives, as well as other types of projects, and their contribution to promoting sustainability within university and society are discussed here:

Aalto University, Finland

Aalto University is a key example to consider in regards to implementation of sustainability throughout the entire organization. The university is part of the International Sustainability Campus Network (ISCN) and is committed to implementation of three sets of sustainability goals throughout the entire university organization. The university emphasises its mission to incorporate sustainability simultaneously in operations, teaching material, research and life on campus. The on-going process during the past 10 years includes multidisciplinary cooperation across schools and disciplines throughout the university to realise sustainable solutions for campus operations; and incentives for researchers in the sustainability field, including themes of sustainability in teaching materials throughout different disciplines.

The University of Aalto has stated that its implementation will be complete by 2015. Recently, the university published its first full report for ISCN, reporting on progress and addressing goals, and setting new targets for improvement for the years to come. Link: http://www.aalto.fi/en/about/sustainability/

One of the most important and impressive aspects of sustainability efforts in Aalto is the encouragement and engagement of students to become part of the driving force for change. The university supports and reinforces student initiatives, and solutions for a more sustainable campus, such as the next topic.

Beef Finland

This is an initiative aimed at reducing meat consumption among student and university members. This initiative aims not only to reduce animal suffering in the meat industry, but also to reduce waste and create environmentally friendly, healthy and sustainable eating habits in the university and society generally. The project produces a newspaper, short films and a blog to inform and to maintain a dialogue between stakeholders. Link: http://www.beeffinland.org/

Sustainable Aalto Catering

Cooperation between students and university staff led to the establishment of environmentally friendly and sustainable canteens on the university’s campuses.

- One of the restaurants, at Oteinemini campus, focuses on sustainability by using local products, minimising waste, emphasizing healthy nutrition, and minimalising the use and consumption of

- In another campus of the university, a group of master’s students working with the campus management found creative solutions to promote waste reduction and healthy eating habits among the students and the staff. For example, the use of fewer plates, waste management, healthier dining options, and a reduction of meat are being examined and implemented.

*Sustainergies (in Sweden)*

This is a student organization and is run for and by all five universities in Stockholm, University of Gothenburg and University of Uppsala. It connects businesses and students with an interest in sustainability in order to work together, enhance sustainability ideas and practices, and raise interest in the issues among parties. The initiative targets all students and all companies, irrespective of their field of study or work, and aims at stronger multidisciplinary approaches and cooperation. Examples are connecting students and career opportunities within the field of sustainability, an annual competition on sustainability solutions, organization of conferences and introductory meetings to exchange knowledge and experience, company visits, and lectures from experts. Link: http://sustainergies.se/omsustainergies

*University of Oslo, Norway*

The university states that it is its duty to address global challenges relating to climate change and the environment, through research, providing environmentally relevant courses of study, and practicing sustainable operations. In 2012, the university published a ten year strategic plan for the implementation of sustainability throughout the university: in the curriculum, research and operations. The plan consists of specific goals, indicators and measurements, which are included in the university's annual reports. One particularly interesting idea was the ‘nudging’ initiative brought into action by the environmental coordination office within Oslo University.

*Nudging, Oslo*

This is an initiative taken on by the University of Oslo to promote environmentally-friendly behaviour. The intention is to consider and implement creative ideas that will motivate people to make more sustainable choices, by making the sustainable choice more attractive and easy.

*Sustainability at the University of Gothenburg, Sweden*

The university has taken some significant steps towards incorporating sustainability within the university’s activities and curricula. In addition, the university has put within its goal statement an aim to be one of the leading institutions in Europe for education and research on sustainability. Among the actions taken to achieve such goals:

- An environmental committee and coordinator were appointed several years ago, to promote and monitor the implementation process.
- The university has undergone both the EMAS and ISO 14001 certification process, and has been revisited every 3 years since implementation. In addition, annual GRI reporting takes place.
- Schools are asked to determine which courses across the curricular are related to SD, and these are then labelled as ESD and become part of a quality course scheme.
- An information and tool kit is offered for teachers who are interested in promotion of ESD among their students.
- A system of monitoring the number of publications related to SD published by the university’s scholars.
Green action plan at University of Tampere, Finland

The university has undergone comprehensive educational reform in the past two years, shifting away from subject-based degrees towards a broader, multidisciplinary model. As part of the shift towards a greater emphasis on sustainability, each school was offered a workshop to help identify the relevant aspects of sustainability according to its speciality. Workshop participants looked at what competences students need in order to promote sustainability; what expertise teachers need in order to promote sustainability among students; and how to evaluate the results of ESD. The university also undertook an integration of ESD into the curricula, labelling courses that were relevant for SD, and offering a sustainable development multidisciplinary module for all the students at the university.

2.2 Education for Sustainable Development in Academia in the Nordic countries

Education for Sustainable Development in Academia in the Nordic countries (ESDA) is an initiative developed in the context of The Baltic University Programme (BUP), which is a network of 225 universities and higher education institutes from the Baltic region and Uppsala University, Sweden. The purpose of this cooperation was to support higher education institutes in their movement towards sustainable development, as well as enhancing their role within, and increasing the contribution they make towards, SD. The ESDAN project received two years of funding in 2010 from the Nordic Council of Ministers.

ESDAN is built on cooperation between 11 universities across Sweden, Denmark and Finland. The initiative developed around the objectives of the UN Decade of Education for Sustainable Development.

The aim of the ESDAN project is to bring together the experience garnered by institutions across the Nordic countries, and to create a model which will contribute towards increasing ESD in higher education curricula. In addition, ESDAN is working towards combining implementation practices with quality management systems, in order to create a framework for the evaluation of the effectiveness of the ESD integration process.

The objectives of EDAN are to develop a process for including education for sustainable development in the higher education curricula, and as a result identify, and publish, examples of relevant sustainability issues within different degree programs at higher education institutes in the Nordic countries. It also seeks to support the implementation of ESD through a quality assurance approach (Figure 1).

Most of the Nordic countries have guidelines for ESD in higher education; however, none of them have developed indicators to monitor academic aspects of ESD, nor introduced quality assurance tools in that area. We also find noteworthy the great variety of ways in which ESD is being enhanced in higher education, indicating that there is no agreement on which approach is the most effective or efficient.

The two-year project has shown how different higher education institutions enhance ESD throughout their curricula and activities. A survey among the Nordic countries was carried out, asking questions related to ESD practices and quality assurance. The comparison study looked specifically at issues of equality, and environmental and integrated management systems used by higher education institutes to assure the quality of ESD. Part of the research team from ESDAN also looked into the integration of quality management systems such as ISO 9001 or 14001 into ESD within higher education.

The model developed by ESDAN was based on the four steps of the so-called Deming model: Act - Plan - Do - Check, moving ESD from the meso level to the micro level. The model provides a framework to include ESD in the curricula of universities and consists of:

1. Guidance for competence development among the faculty.
2. Guidance for identifying relevant aspects of ESD.
3. Checklists and questions for self-evaluation and audits.
4. A list of useful courses and materials.
During the two years of the project, four seminars were held, with the fourth being held in March 2013, and attended by AM and JV. In each seminar, new developments from the research groups were presented, and each of the 11 participating institutes presented their activities in the sphere of ESD quality management.

Earlier, in the third seminar, held in October 2012, the 11 participating universities presented their activities within the framework of the developed model for enhancing ESD in curricula and university policies (Figure 1). We were granted access to their materials. Among the most common practices and activities being implemented by the universities were:

- Certification of the entire institution in quality management system ISO 9001 and environmental management system ISO 14001.
- Constructing guidelines for competence development for SD throughout the entire institution.
- Training and introduction to ESD for every new member of staff and student.
- Inclusion of ESD as integrated parts of course goals and quality measurement indicators.
- Classification of courses according to SD relevance.
- Planning and implementing steps to incorporate SD principles into the university environment, and development of green campuses.

Practices that were planned by other universities, which were presented in posters included some of the following:

- Certification of the entire institution in quality management system ISO 9001 and environmental management system ISO 14001.
- Constructing guidelines for competence development for SD throughout the entire institution.
- Training and introduction to ESD for every new member of staff and student.
- Inclusion of ESD as integrated parts of course goals and quality measurement indicators.
- Classification of courses according to SD relevance.
- Planning and implementing steps to incorporate SD principles into the university environment, and development of green campuses.

Figure 1: ESDAN model of Act – Plan – Do - Check
**Copenhagen Business School**

Planning problem solving orientation in SD issues to encourage green innovation (e.g. increased rainfall conditions over Copenhagen).

**University of Gothenburg**

Use of computer programs (e.g. SUNET computer networking for research and education), discussions about eco-labels and the bibliometrics of ESD in publications.

**Chalmers University**

Investigating the number of programs and courses offered in relation to SD; one lecture on SD to all new students; attempts to integrate SD issues into various courses across the different programmes at the university; offering a variety of elective SD courses in master’s programmes; improving information and accessibility to information regarding SD courses for students. Actions for competence building: courses in pedagogy for teachers and program directors. Evaluation was often mentioned but without specific indicators. Here examples of ESD can be found in electrical engineering teaching and research.

**University of Gävle**

Establishing vision and policy: “University of Gävle develops the understanding of a sustainable living environment.” The aim of the policy is to integrate environmental management based on ISO 14001 into the working environment and activities of the university. **Actions**: staff and faculty trainings, making inspiration days, seminars, updating ESD websites. **Monitoring** (check): creation of checklists for courses, setting common goals for SD programs, and following the chosen indicators and checklists.

**Kristinstad University**

Development of university policy, with the aim to apply for ISO 14001 certification in 2013, promotion of interdisciplinary activities, integration of sustainability issues into all courses at the university, promotion of responsible behaviour in all spheres and activities, development of procurement policy, planning and promotion of carbon neutral communications.

**Novia University of Applied Sciences**

Has certification from ISO 14001 and 9001. The main objective of the SD policy is to support students’ progression into excellent and environmentally conscious professionals who take sustainable development into consideration in their future careers. The overall objective is to integrate SD into the curriculum of all university degrees by 2015. As part of the planning, a clear division of roles and responsibilities has been devised.

Each degree program chooses the material for ESD according to the curriculum. A checklist was made for the heads of each degree to identify which SD issues are relevant to their particular profession and curriculum. All courses are categorized according to SD content. Additional actions include: An introduction to SD for all new staff members, SD information intranet, integration of SD into course material through problem orientated projects and teaching. Use of methods such as problem based learning, critical thinking, reflective accounts, group discussion, fieldwork, lectures, case studies etc. **Monitoring**: Annual survey of students on how SD was addressed in their courses; survey among personnel; SD is also part of the management system audit. For ISO 9001 and 14001 certification, the university is reviewed every nine months by external audit.

**Roskilde University**

Focus on Lucerne Deceleration from 2007 regarding SD education in geography. The aim is to transform geography from a discipline to having a key role in ESD. They are trying to increase involvement and
interest of students in geography and to expand the subject into more global overall context. Also, there is ongoing promotion of using a multidisciplinary approach to problem solving, and group projects involving students from different disciplines.

*Zeeland University*

The SD process has been divided into four segments: overall strategy for the organisation, materials and curriculum, green campus, and networks and cooperation.

1. **Organisation:** Plan to integrate SD throughout the structure, by developing research in the field, increasing the visibility of issues, creation of a top-down and bottom up process.

2. **Materials and curriculum:** Two subjects chosen for focus – CSR and food waste and loss. Planning of conferences; establishment of waste management and reduction of resource waste; workshops and photo stories; several conferences and workshop with participants from multiple stakeholders; organising competitions and promotional acts; incorporation of CSR and food waste into learning material; monitoring will take place through evaluation of the conferences and activities, and gathering feedback from the participants. The annual conference will remain in the curriculum and more cooperation of the university with the community will be established.

3. **Green campus:** Plan for green accountability for the campus; mapping of resource usage; account for sustainable procurement; performing 4 courses of 4 weeks related to green accounting issues; and visiting “green” companies. The monitoring process includes presentation of photo stories about the activities, and surveys of the participants.

4. **Network and cooperation:** Build and develop internal and external knowledge, and network partners in order to strengthen SD in the university, nationally and internationally; develop skills and interconnect different sustainability sectors in everyday behaviour e.g. agriculture, energy consumption, waste management, etc. through cooperation between university stakeholders and the community.

*University of Tampere*

Here a new strategy for integrating SD into university curricula is being planned. Give workshops and seminars throughout the university; a university website for SD issues has been set up, create a new interdisciplinary program for SD available to all degree students (starting next year). Monitoring will be according to checklists that assess the program, student feedback, and reports. These actions aim to help develop teacher competence, encourage educational methods that support SD, promote research in the area/field, and find new resources, which will enable the continuing integration of sustainability into education. On the campus actions in the area of waste management; reduced use of materials; energy management, and ethical trade are being promoted.

*UEF university*

There is a strategic plan for 2015, in which ecological, social, economic and ethical aspects of sustainable development are considered in the development of the university’s activities. The university promotes equal opportunities, gender equality and career possibilities of all members of the university community, and those principles have been put into university policy; a SD committee has been established, and is part of a quality management system. SD has been included in staff and student orientations; SD annual days have been organised; as well as seminars with local institutions, a SD webpage, SD audit interviews and benchmarking. Monitoring is through an annual SD audit; internal benchmarking; and use of checklists such as Green Office goals, national SD indicators, and an internal university Green checklist. According to the monitoring results, planned actions are to include SD in the
next strategy (2015-2020), analysis of current SD elements in the curriculum, more seminars and local cooperation, establishment of a suppliers’ policy.

2.3 Summary
Almost all the parties present at the two meetings discussed the need to involve and empower student initiatives in the promotion of sustainability in order to increase efficiency and further the process. Students are the driving force, and are a source for the innovation and creativity needed for such process. In addition, nearly all the participating universities from the Nordic countries employed sustainability/environmental coordinators, to facilitate, communicate and monitor the process.

Key features among the different approaches of universities were:

- Encouragement of multidisciplinary activities.
- Initiation of a vast variety of activities, with participation of students and teachers from different fields, to generate cross-disciplinary cooperation.
- Incorporation of sustainability into study material generally, without separating issues of sustainability into particular topics. This allows sustainability to be an integral part of any education, and every discipline must identify and communicate the relevant aspects of sustainability for its field.
3. **Sustainability practice at the University of Iceland – early 2013**

UI expressed a commitment to sustainability, when a strategy statement for the years 2011-2016 was approved in March 2012, and a sustainability committee founded. Recently, as part of JV and AM’s research on education for sustainability in higher education, and supported by the School of Education, the change management process so far for the implementation of the policy in UI was reviewed. The assessment included a follow-up of the timeline set by the committee; assessment of the progress made on each of the eight areas of emphasis; and a review of sustainability efforts in action, through interviews with administrative and academic staff, and an analysis of items in the student survey regarding issues of sustainability.

Icelandic participants were invited to take part in the final ESDAN seminar, and two UI staff members (AM and JV) attended the seminar in March 2013. We were asked whether we like to apply the model being used in ESDA (Figure 1) (see previous section). In January and February 2013 JV undertook a series of interviews with key individuals, and developed a poster in consultation with SL and AM. The key findings are presented in the next three pages (taken straight from the poster), which were organised according to the first seven of the eight categories in the UI policy on sustainability and the environment:

- Research
- Teaching and syllabus
- Learning
- Daily life on campus
- Connections with society
- Organisation
- Design and management

(Overall policy was not included)

This is followed by a SWOT analysis of the current situation and a related matrix on the interaction of:

- Strengths and opportunities
- Weaknesses and opportunities
- Strengths and threats
- Weaknesses and threats

This is followed by a discussion of the findings.
<table>
<thead>
<tr>
<th>Origin</th>
<th>Earlier action</th>
<th>Plan</th>
<th>Do</th>
<th>Check</th>
<th>Act</th>
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**Research**

- University’s schools identify and assess their ability to promote research within the field of sustainability
- Increase in cross-disciplinary topics related to sustainability in student research
  - Individual initiatives within School of Engineering and Natural Science
  - ENR program established (Environment and Natural Resources)
  - Students encouraged to conduct multi-disciplinary research
- Database of research relevant to sustainability throughout the entire university
- How to encourage student participation in such research?

**Teaching and syllabus**

- Enhance issues of sustainability in teaching and syllabus
  - Individual initiatives
  - ENR, ISE, sustainable tourism, law and SD courses. All courses conducted before creation of sustainability
- ENR and ISE courses: Program running for 5-7 years, ENR offers PhD
- Self-evaluation
- Increase multi-disciplinary programs. Develop Master’s in sustainability education

**Learning**

- Incorporation of issues of sustainability in learning materials
  - Individual initiatives
  - Dept. of tourism, ENR and ISE programs trying to address issues of sustainability, providing students with elective courses and incorporating ESD in mandatory courses.
  - The School of Engineering and Natural Science planning to incorporate ESD in curricula, include issues of SD in existing courses
  - Student survey questions on ethics, values and sustainability
  - Incorporate issues of sustainability in learning material and methods of education throughout the entire university
- Both initiatives scheduled to start operating in 2014

Figure 2  Research, teaching and syllabus

Figure 3  Learning
<table>
<thead>
<tr>
<th>Daily life in the university</th>
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<tbody>
<tr>
<td><strong>Support sustainable lifestyle</strong> for university citizens during their working day, promote environmentally responsible decision making</td>
</tr>
<tr>
<td>Students associations (GAIA and engineering environmental committee)</td>
</tr>
<tr>
<td>Raising awareness activities organized by students: lectures, movies, social events</td>
</tr>
<tr>
<td>Steps such as recycling, reduction of paper usage in bathrooms and certification of cleaning services, planning to reduce driving to school</td>
</tr>
<tr>
<td>Recycling system installed throughout the university, Certification of cleaning companies and materials</td>
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<tr>
<td>Consider further &quot;greening&quot; process, activities in cooperation with students on green activities</td>
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<table>
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<tr>
<th>Connection with society</th>
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<tbody>
<tr>
<td><strong>Support cooperation between university and society through firms, organization and municipalities.</strong></td>
</tr>
<tr>
<td>Local cooperation of students with NGOs</td>
</tr>
<tr>
<td>ENR programme, School of Engineering and Natural Sciences, Dept. of Tourism. As part of the learning and research process, local projects with stakeholders within Icelandic society</td>
</tr>
<tr>
<td>Generate mechanisms to connect academic research and social, economical and environmental needs throughout all disciplines, both nationally and internationally, including the UNU</td>
</tr>
</tbody>
</table>

**Figure 4 Daily life and connection with society**
<table>
<thead>
<tr>
<th>Organization, design and management</th>
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<tbody>
<tr>
<td>New buildings at the university to be designed in an environment-friendly manner in accordance with established standards</td>
</tr>
<tr>
<td>Reduce amount of waste, make sorting of waste systematic and convenient</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff development</th>
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</thead>
<tbody>
<tr>
<td>The university suggests that staff have opportunities to build knowledge and discuss issues related to sustainability</td>
</tr>
<tr>
<td>Incentives to be provided through public recognition of sustainability contributions and environmental projects</td>
</tr>
</tbody>
</table>

Figure 5 Operations and design and management
### Strengths
- Individual initiatives for learning and acting for ESD within the university are rising.
- More interest and willingness to cooperate within the university to promote issues of sustainability.
- Growing number of international students with deeper interest and understanding regarding sustainability.

### Weaknesses
- Overwhelming emphasis on environmental aspect within the sustainability discourse.
- In cases where ESD does get included into curricula, it is in a very formal way, generating mainly instrumental knowledge.
- No division of responsibility, no coordination of the process.
- Very weak connection between sustainability policy and actions.
- Avoidance of collective responsibility.
- The university does not view promotion of sustainability as an integral part of its social responsibility.
- The university does not incorporate the national policy on sustainability into its own mandate.
- Narrow view on ESD incorporation – some key actors within the university view the process as including sustainability in learning material, without the need to walk the talk.
- Financial instability of ENR programme – currently the lead actor of sustainability in the university.

### Opportunities
- Growing public interest towards sustainability.
- National policy (n.d.) on sustainability (2020) presents opportunity for the university to address national efforts and social responsibility, along with receiving governmental support.
- Rise in interest and action regarding sustainability among other Icelandic universities, putting the issue on the agenda.

### Threats
- Lack of culture, awareness and interest towards sustainability within the Icelandic society. This might be a result of little pressure from a lack of resources, and feeling of unlimited access to water and renewable energy among the general public.
- Overly simplified perception of sustainability – focus on to know and to do, rather than transforming oneself and society (UNESCO sustainability principles).
- Sustainability is not included in research priorities throughout the university.

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**Figure 6  SWOT analysis**
<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>* The growing public interest towards sustainability is reflected by the growing number of individual initiatives throughout the university in sphere of ESD, and the overall willingness for cooperation and participation in those initiatives among staff and students.</td>
<td>* The growing public awareness influences the visibility of sustainability in the university, however, the focus, remains overwhelmingly on the environmental aspects.</td>
<td></td>
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<tr>
<td>* Increasing cooperation with industry could open avenues for cross-disciplinary projects.</td>
<td>* The national policy 20/20 (n.d.) puts great emphasis on sustainability in society, however there is no direct evidence that the academy is aware of the opportunities on a national level.</td>
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<tr>
<td></td>
<td></td>
<td>* Greater international cooperation, networking and benchmarking can address the current weaknesses of low interest and understanding. Having strong partners and examples has the potential to encourage a more proactive approach.</td>
</tr>
<tr>
<td>Threats</td>
<td>* Lack of cultural awareness and perception of importance regarding issues of sustainability, due and despite, the unique environment of Iceland.</td>
<td>* Narrow view on inclusion of ESD in curricula, which is still mainly done in formal settings, generating mostly instrumental rather than communicative knowledge. This leads to a simplistic approach towards sustainability in the general public.</td>
</tr>
<tr>
<td></td>
<td>* The phenomena above could be mitigated by the growing number of international students arriving from countries with stronger awareness and culture of sustainability, they can influence the Icelandic academy and contribute to research.</td>
<td>* The university does not actively encourage research in sustainability. No significant research teams exist.</td>
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<tr>
<td></td>
<td>* Innovation initiatives must be considered, especially with partners outside the academy.</td>
<td>* Despite the low awareness and the clear need to change in the society to be able to address future challenges, the university’s promotion of sustainability is weak, disregarding its social responsibility.</td>
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Figure 7  Interactional SWOT analysis
4. Key findings from evaluation of UI policy implementation

The findings indicate that implementation efforts are not in accordance with the timeline set in the strategy document, nor the work plan discussed in early autumn 2012. One of the main findings of the evaluation was the gap between the policy and the sustainability activities within the university. The policy was authorised over a year ago, and the working committee began operating in summer 2012. Almost all the sustainability activities found within the university are generated by individuals or independent group initiatives, such as ENR and ISE programs, an online sustainability course, cooperation with partners from the local community, and particular programs within the university. The committee has not been able to generate action.

A gap is also found with regards to communication and information flow. It was very challenging to get an overview of the state of sustainability activities throughout the university, since no one individual has the task of obtaining information. This has made the development of the web site difficult. Many of the actors involved in the sustainability process in the university, both committee members and individuals who are involved in sustainability in other ways, have little information about each other’s plans, policies and decisions, meaning that activities could have more impact. For example, the members of the committee were not aware of the online sustainability course undergoing development within the Institute for Sustainability Studies, while the director of Institute for Sustainability Studies and the chair of the environmental committee of the School of Engineering were not aware that evaluation regarding sustainability had been included in the large-scale student surveys. Examples such as these were common throughout the research. Channels of communication on the issues of sustainability and the environment among the interested parties in the university are weak, both formally and informally.

In the annual survey, it was found that awareness and concern regarding sustainability among the students is not rising, and in some cases it is even decreasing. For example, when asked whether their studies in the university strengthen student consciousness regarding issues of sustainability, the positive response rate in the School of Engineering and Natural Sciences was 68% in spring 2012, dropping down to 61% in a survey from winter 2012. The School of Social Sciences also registered a decline from 62% in spring 2012, to 60% in winter 2012. When asked about issues closely related to sustainability such as responsibility towards community and equality, the results were worrisome. For example, only 52% of MA students in the School of Education reported that their course of study strengthened their concern for issues of equality, and in the School of Health Sciences, only 27% of students.

In short, the evidence indicates that sustainability education in the overall curricula and sustainability in other university activities are uncoordinated with little impact. Factors that act as the main barriers to an efficient implementation process include:

- Poor communication and information flow regarding sustainability efforts and their significance.
- Lack of coordination among the different parties involved.
- No responsible body with authority to promote the process, to follow-up, and to be accountable.
- Low student interest and participation.

These factors give sustainability efforts low visibility throughout the university and send a larger message that the matter is of little importance and/or a low priority. The barriers listed above are behind some of the difficulties in moving sustainability from the strategy statements into action.

As shown above, part of the research was to look at implementation actions among other universities who are further along the path towards sustainability, and to learn from their experience in order to help overcome the difficulties within UI. The examples above presented a general overview of sustainability activities in Nordic universities, and also in UI. In the next chapter we will discuss those activities, which are
relevant to the specific case of UI, based on the evaluation findings, and feedback received in the workshops in Finland.

5. **Learning from others in the Nordic regions**

The main theme of the Nordic meetings we attended was to present examples from different universities with regards to sustainability on campus and in academia, and exchange ideas and experience in order to make improvements. During those meetings, it was seen that UI lags behind its Nordic peers with regards to the incorporation and/or visibility of sustainability within the core activities of the university. However, there was evidence that many peer institutions that are now far down the road, had similar difficulties in starting-up activities and had to overcome similar barriers to UI’s during the process.

The main methods and practices that helped other Nordic universities to overcome barriers similar to those being encountered at UI and that enabled them to establish effective activities were:

- Involvement and empowerment of student initiatives to promote sustainability, to increase efficiency and to further the process. Students can be a driving force, and a source of innovation and creativity needed for such a process.

- Facilitation and encouragement of multidisciplinary cooperation in research, learning and in addressing problems of sustainability in society.

- Establishment of clear communication between all the stakeholders involved in the sustainability process. In the current assessment, significant gaps in information and communication were found between the sustainability working committee members, academic and administrative staff, and students.

- Receiving explicit support from university management for the sustainability process. Receiving backing from management will emphasise the value of the issue to all the parties involved and help to foster, and increase the efficiency of, implementation.

- Employment of sustainability/environmental coordinator; some created an office or department to facilitate the process, and to carry out communications and monitoring. Having an authorised and responsible body for the process contributes to effective communication, helps foster the process, opens up opportunities for a broader range of activities, and ensures accountability to the academy and the society. In addition, establishing a sustainability focused body sends an explicit signal regarding the commitment of the university to the process.
6. Discussion of evaluation

The issues discussed throughout the research findings highlight the main problem of implementation evident from the assessment, i.e. the lack of coordination and a body to manage information, monitor the implementation process, and to be accountable for progress. Additionally, there is evidently a need to make sustainability more visible and increase awareness and interest throughout the university, among academics, staff and students alike.

The absence of one authorised body to take responsibility for the process causes confusion, since no one office or person is accountable, or able to develop lines of communication between different actors. This responsibility gap indicates a lack of clarity and coordination within the process, and a very significant barrier for the progress towards sustainability across the entire university.

Another aspect of the findings shows perceived low awareness of, interest in, or sense of importance regarding sustainability, in many parts of UI, among students, administration and academic staff. People involved in the process mentioned low involvement and interest from students as a key obstacle in implementation. However, it was also found that very little action to engage and raise interest among students had been taken, making it difficult to point out the exact cause-effect relationship. Whenever sustainability did get attention, and indeed is being addressed at different levels, there is an overwhelming focus on environmental sustainability, with very little attention to the social and economic factors of sustainability. This might indicate a narrow view of education for sustainability, presenting only one aspect out of three, equally important pillars of economy, society and the environment, or the alternate pillars of the teachers, students and institution proposed by ÓPJ last autumn.

By adopting a more holistic approach towards sustainability, emphasising its importance by giving a high priority to raising awareness, providing incentives and clarifying accountability a stronger message will be sent from management to aid the process and increase its effectiveness. The assessment found that the process in its current operation has little power: milestone goals have not been met; the actions generated from the policy and committee work are limited; information does not move among actors, due to a lack of coordination. All of these factors affect the quality of education and operations in terms of sustainability, diminish the ability of the university to be socially responsible towards its students and society generally, and causes the University of Iceland to lag behind its peers both in Iceland and in the Nordic countries.

Despite the negative tone running through this assessment, there is always room for revisiting the process and making improvements. This report (and the poster prepared for ESDAN) can act as a baseline evaluation for the current state of the university regarding sustainability. Such an audit is an important milestone in every change management process, providing assessment on strengths and the weaknesses, in order to modify, adjust and continue further development and implementation.
7. **Recommendations for further development**

As UI learns from analysing the difficulties it is facing, and learns from the ideas and experience of partner universities, a change could take place. The findings of this report suggest that UI needs to generate activities to raise the visibility of sustainability efforts throughout the entire university as soon as possible; establish projects to increase student involvement and interest; and improve information and communication flow regarding sustainability across all the parties involved. This report emphasises the importance of working with all the stakeholders within the university in order to make sustainability relevant and applicable within each area, in order to realise policy statements in practice.

Implementing a sustainability and environment strategy in a university can seem an overwhelming task. By its very nature, working towards sustainability requires collective and distributed effort. The authors suggest that the sustainability and environmental committee needs the support of a project manager in order to monitor, evaluate, promote and develop activities. The committee itself would not be required to initiate many activities, as seeds of sustainability can be found in many areas of the university. What is needed is to open up a space for common learning and mutual enrichment within the university, and for the committee to be a catalyst for new activities as well as nurturing existing activities. To begin with, the project manager could work on ways to ‘connect the dots’ and make existing activities visible and more inclusive.

In addition, the role of a sustainability coordinator would be to bring together education, research, operations and outreach to advance sustainability within classrooms, on campus and in society. The duty of the project manager would be to motivate, assist and encourage individuals and units to develop actions towards sustainability by providing information, tools and incentives to do so. A web-site would be of key importance as the ‘place to shop’ when looking for sustainability ideas and initiatives.
Appendix 1 Terms of reference for a project manager

The role of the sustainability project manager might include:

1. *Distribution of information and communication* across all stakeholders within the university, gathering, processing and disseminating information about sustainability. This includes provision of information regarding sustainability to staff, students and society.

2. *Generation of student driven activities* to engage students in issues of sustainability, raising awareness and interest, and opening opportunities for students to apply their academic knowledge in practice in projects within and outside the university. Examples for such projects can be: working with Háma to find a way to make its operations ‘greener’, establishing cooperation between businesses and students who are interested in working towards sustainability for provision of innovative and sustainable solutions (see ‘Sustainenergies’ in Sweden and a project proposal being developed by JV).

3. *Making sustainability relevant* – plan and execute a cooperation scheme with representatives from each discipline/department to find the relevant aspects of sustainability related to the learning material, and find methods to incorporate those into the curriculum.

4. *Make sustainability visible throughout the university structure* – take action to increase information about sustainability and sustainability efforts at all levels of the organization: operation, study material, student activities and online information.

5. *Monitoring and enhancing implementation* – detection of problems and looking for solutions in cooperation with the relevant actors, and providing support for self-evaluation activities. Connecting and communicating with students, staff, and stakeholders within the society regarding issues of sustainability. Follow-up and accountability of implementation of sustainability throughout the university.

6. *Strengthening the connection between society and academia* in sustainability research and operation. Working closely with the five schools, the faculties, and other academic centres to identify aspects of sustainability relevant for their academic activities, building an action plan and looking for tools to incorporate those aspects and help to create positive environment towards sustainability.

7. *Coordination and conduction of training and learning sessions for staff and students*. Cooperation with student organisations and associations to organise sustainability related activities on campus.

The project manager could facilitate solutions for many of the hardships experienced in implementing the strategy by creating an open space for discussion, discussion which will be informed by what is being learnt by peers and partners. Requirements for the position of project manager would include a professional background regarding issues of sustainability and environmental management, some familiarity with the university, and the ability to work with a wide range of people and organisations. Being an active researcher in the field will provide to the position additional professional knowledge.
Appendix 2 Notes from the meeting with the Sustainability Committee

On the 15th May, the report was presented to the Sustainability Committee by Julia Vol. The committee members received a written copy a few days prior to the meeting, and at the meeting itself Julia presented the main points of the report, followed by discussion with the members.

The committee showed interest in the report, pointing out that the assessment is an important milestone in the process. The committee members referred to the factors and the findings in the report as being relevant aspects for their work and agreed that the recommendations are an essential part of moving beyond the current state. Here below the main points from the discussion are noted:

- Great interest was expressed towards experiences and practices gathered from other Nordic universities in working with the incorporation of sustainability.

- The committee members identify with the report’s findings regarding the grass-roots nature of sustainability activities within the university. They agree that most of the activities related to sustainability are generated by individuals on a local level, and they rely heavily on these individuals in continuing to make sustainability visible. There is still a low level of action and initiatives on department, school or university level.

- The committee strongly emphasized for the need to promote and act to increase student participation, interest and awareness in sustainability activities throughout the campus. Prior attempts to initiate student activities had been made by the student council, but these initiatives failed to last due to the feeling of students that they are “powerless” within the university structure. The committee decided to increase cooperation and dialogue with the student’s representatives.

- Lack of time and a clear mandate appears to be one of the key problems in implementation of sustainability process at all levels.

- One of the key solutions to overcome the difficulties found in the assessment is to appoint a project manager to promote sustainability on university level, to be the link between students, staff and administration, follow up and execute committee decisions, facilitate dialogue and communications and be accountable to the committee.

- The committee stressed that appointing a responsible body for the process is an important step to demonstrate management commitment and support, and sends a signal of importance throughout the university, which is essential for successful process.

- The members found great interest in the idea of labelling courses related to sustainability, a common practices among other Nordic universities. Indicators should be chosen and a certification process developed, along with follow-up and evaluation criteria and procedures. This step has the potential both to raise student awareness and interest in sustainability, and to increase the visibility of sustainability in study material and throughout the curricula.

The committee suggested presenting this report to the university management.
Photographs: Julia Vol