

FING PROJECT

FING: FAROE ISLANDS | ICELAND | NORWAY | GREENLAND

A network in vocational training and education

FING project looks to establishing an innovative network of quality within oil and gas training and education, while taking into account environmental and safety issues.

First semester report | August 2016

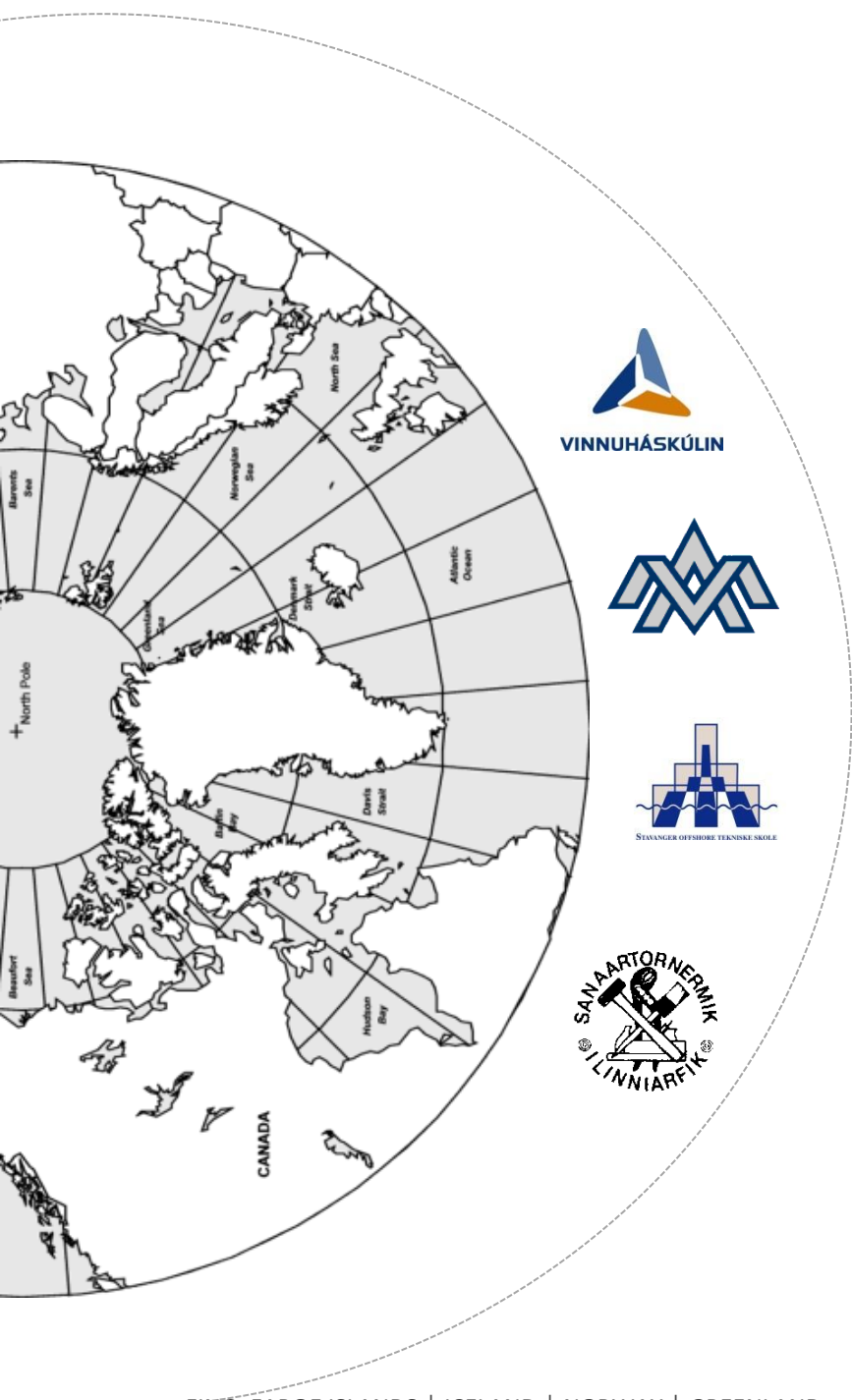


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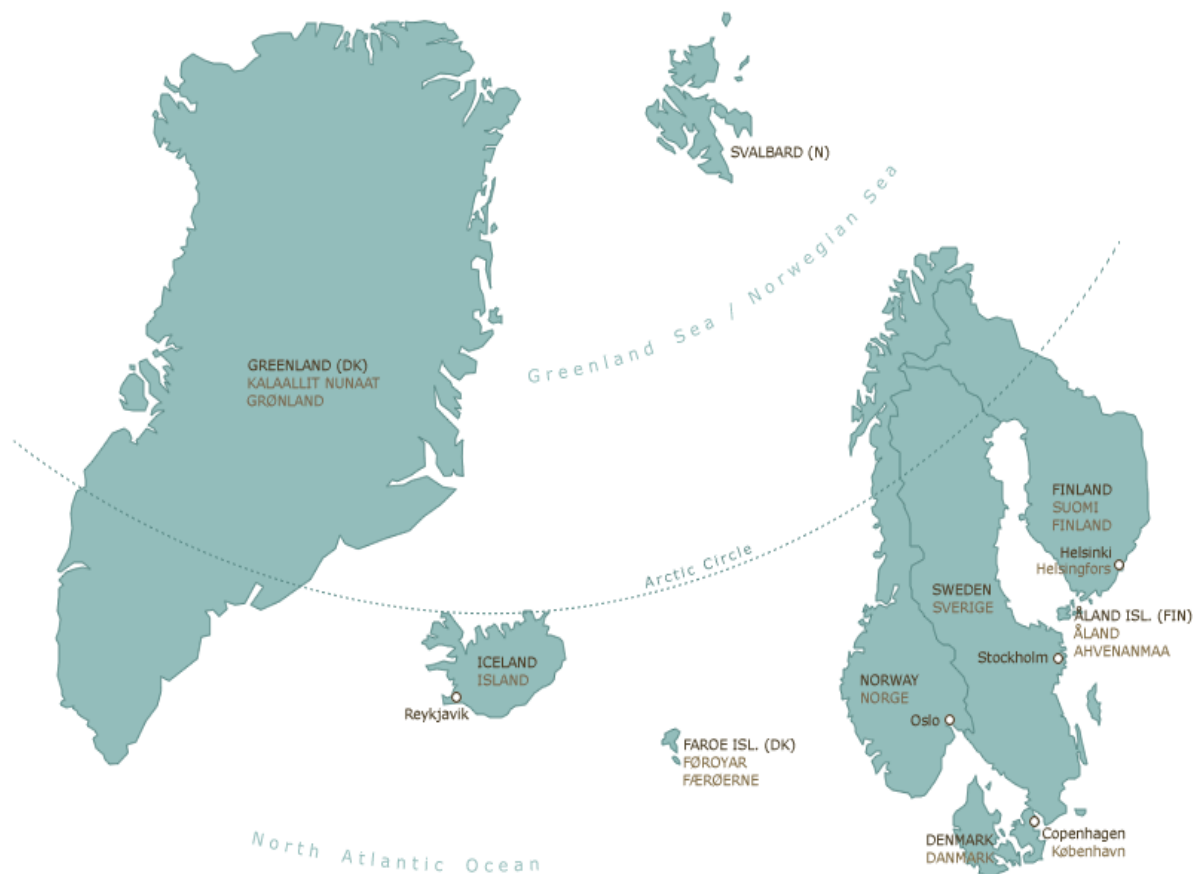
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Foreword

This project activity involves cooperation and collaboration among four educational institutions of four Nordic countries:

- Vinnuháskúlin Centre of Maritime Studies and Engineering, Tórshavn, Faroe Islands,
- Akureyri Comprehensive College, Akureyri, Iceland,
- Stavanger Offshore Technical College, Stavanger, Norway,
- Greenland School of Minerals and Petroleum, Sisimiut, Greenland.

The combination of the first letter of the participating partner nation (Faroe Islands, Iceland, Norway and Greenland) results in the acronym FING. To facilitate, this acronym will be used throughout when referring to all partners in the project as well as the project name itself.



1. Introduction

The main purpose of this project has been to establish an innovative network of quality within Oil & Gas education and training, while taking into account environmental and safety issues. At the same time, it has looked to promote intercultural exchange among the four participating nations.

Changing educational trends and employability demands in the international labour market brought attention to the need to build up and strengthen local educational standards and, improved skilled labour. The need to build up and strengthen local skilled labour continues to be a central concern raised at several levels. In order to ensure the highest standards of safe working conditions of all workers in the industry, while respecting the environment; education and training certainly have major roles.

The Norwegian offshore industry clusters have been the backbone to Norway's rise to become one of the top ten oil and gas producing nations in the world. Unquestionably, it has been the catalyst to economic development and social prosperity within Norway. The hopeful prospects of discovering oil reserves in new territories in the North Atlantic, North Sea and Arctic regions in the near future is a reality. The Faroe Islands, Iceland and Greenland are among those nations to benefit from such resources. There is much in common with the Norwegian experience in regard to environmental issues and complex operations in harsh climates, and therefore much can be gained from collaboration among nations.

This project has been based upon good faith with the following main aims:

- To share experiences and exchange knowledge,
- To promote educational equality,
- To present new opportunities for economic prosperity and employability through education and training
- To create intercultural bonds,
- To keep environmental issues at the forefront in regards to securing the interests of already existent local economies such as; fishing and coastal farming,
- To provide information on various levels, not only about project activities but also in regards to other interests such as cultural exchange and employment opportunities,
- To assist in the development and adaptation of regulations concerning the sector's interests and how to maintain the balance,
- To empower individuals by acquiring specialized skills.

2. FING Project: Outputs

FING project activities have involved cooperation within education and training that are solid counterparts in the fields of Oil & Gas. Access to educational programmes and training in several of these areas have been limited to a degree, and oftentimes interested parties in those partner nations where the Oil & Gas industry is not yet well-established are required to go abroad to obtain this kind of specialized training. Often, lack of funding and logistics can also make it difficult. FING network set out to create solutions.



The tables that follow outline Project FING outputs and outcomes thus far:

FING Project outputs

ACTIVITY	DESCRIPTION	VENUE	PARTICIPANTS	
SEMINARS & WEBINARS	1	A seminar was held to present FING project to the general public. Title: <i>Network in training & education within oil & gas, safety & environment.</i> Q&A session	VMA, Akureyri, Iceland	<ul style="list-style-type: none"> • Staff & students from local educational institutions. • Local media • Public
	2	International webinar/seminar was broadcast live from Sisimiut to Akureyi, Tórshavn and Stavanger Title: <i>Training and Education in Oil & Gas for the Arctic Region</i> Presentation topics: <ul style="list-style-type: none"> • <i>Introduction: the history of oil, oil reserves in the Arctic Region, geology of the North Sea and Arctic, oil companies and other actors.</i> • <i>What is the need for training & education, local market, products, bases and services?</i> • <i>The Cycle of Oil & Gas</i> Key stage 0: Licensing (A Norwegian perspective) Key stage I: Seismic exploration Key stage II: Site surveys Key stage III: Exploration drilling Key stage IV: Appraisal drilling Key stage V: Development Key stage VI: Production Key stage VII: Decommissioning • <i>HSE, quality, risks and hazards</i> • Q&A 	Greenland School of Minerals and Petroleum, Sisimiut, Greenland Live video feed of seminar broadcast to Stavanger, Tórshavn and Akureyri	<ul style="list-style-type: none"> • Staff & students from local educational institutions at all four venues. • Local media • Greenland local responsible for education/training • Public • Seminar given by field specialists Børge Harestad (Petroleum Engineer) and Anna Marita Braaten (Geologist)
	3	A seminar was held to promote HSE and Quality Assurance in the O&G industry Title: <i>HSE and Quality Assurance in the Oil and Gas Industry</i>	Vinnuháskúlin Centre of Maritime Studies and Engineering, Tórshavn, Faroe Islands	<ul style="list-style-type: none"> • Staff & students from local educational institutions. • Local media • Public



	4	<p>A seminar was held as part of FING project aim to extend network within education and training that will positively advance further opportunities for specialized skills and competences development. It also served as an opportunity to disseminate project activities, as well as promote the various cultures of FING partner nations.</p> <p>Titles of presentations:</p> <ul style="list-style-type: none"> • <i>Project FING: Working in the international offshore oil & gas industry</i> • <i>HSE (Health, Safety & Environment) for onshore & offshore personnel</i> • <i>Electrical Studies at Verkmennaskólinn á Akureyri, Iceland</i> • <i>Greenland: Oil activities & capacity building for the growing mining industry</i> • <i>Use of bridge & engine room simulations at Vinnuháskúlin, Faroe Islands</i> 	Faculty of Engineering of the University of Porto, Portugal	<ul style="list-style-type: none"> • Staff & students from local educational institutions. • Local media • Public
WEB PAGE & SOCIAL MEDIA	1	<p>The web page offers the following information:</p> <ul style="list-style-type: none"> • Links to press coverage of project activities • Useful links related to employment opportunities and skills/training/education requirements in the oil and gas related sectors; for example basic offshore safety training requirements. • Links to online resources and audio-visual materials • Project reports, studies and presentations • Arctic related articles • Glossaries • Gallery • Contact information for general enquiries. <p>Marketing tool for FING institutions and sponsors.</p>	Web page: http://www.fingoffshore.com/	<ul style="list-style-type: none"> • Responsible for development & maintenance: FING project partners • Open to public
	2	<p>Publications vary in content for example:</p> <ul style="list-style-type: none"> • Articles related to Arctic issues, • NORA newsletter, • FING project activities, • Links to training/education opportunities or events, • Publications of other topics considered of interest to the group • Others. <p>This medium enables reaching out to a wider public.</p>	Facebook: https://www.facebook.com/groups/fingproject/	<ul style="list-style-type: none"> • Responsible for development & maintenance: FING project partners • Open to public



PUBLICATIONS AND DEVELOPMENT OF TRAINING/EDUCATION RESOURCES	<p>Publication: <i>An enquiry into the feasibility of a network in training and education for the oil & gas industry in the North Atlantic and Arctic region.</i> This document is 123 pages in length and includes a bibliography. Main items on table of contents:</p> <ul style="list-style-type: none"> - The Nordic area - Arctic cooperation - Oil & Gas industry: downstream, midstream and upstream - Status of the Oil & Gas industry in the Faroe Islands, Iceland, Norway and Greenland - Education and training standards in FING partner countries - Existing programs and facilities at partner institutions - Potential (needs and requirements) for future education and training programs <p>Each of these items has corresponding presentations that were made so as to be used as teaching resources as well as to facilitate understanding of those specific topics.</p>	<p>Web page: http://www.fingoffshore.com/</p>	<p>Stella Aguirre (FING Project Manager, PhD specialist in learning and skills development sector at SOTS CC), Øystein Førsvoll (Director at SOTS CC and Oil Sector Vocational Skills specialist), Dan Heering (Navigating Officer and specialist in Maritime Affairs at SOTS CC), Inge Rune Bøe (Course Coordinator in Cranes at SOTS CC), Børge Harestad (Petroleum Engineer at SOTS), Anna Marita Braaten (Geologist at SOTS), Benedikt Barðason (Course Director at VMA and Chemical Engineer), Sigridur Huld Jonsdottir (Vice Principal at VMA), Sigurdur Hlynur Sigurdsson (Curriculum Manager at VMA), Don Juul Madsen (M.Sc. in Environmental Engineering, Råstofskolen), Hans Hinrichsen (General Manager at Råstofskolen), the late Vilhjálmur Gregoriussen (Director at Vinnúhaskúlin), Wilhelm Petersen (PhD, Managing Director at Vinnúhaskúlin), Ingolf Joensen (M.Sc Economics, Lecturer at Vinnúhaskúlin) and Jógvan Horn (B.Sc. Ship Surveyor at Vinnúhaskúlin).</p>
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TRAIN-THE-TRAINERS	1	<p>Train the trainers program to obtain certification in the following:</p> <p>Module 1.1 <i>Working Environment, Responsibilities and Consequences common to Crane, Truck and Digging Equipment</i></p> <p>Module 2.3 <i>G11 Lifting Tools</i></p> <p>Module 2.7 <i>G 4 - Bridge and Overhead Cranes</i></p> <p>The programme was based on the Norwegian Coordination Council for crane, truck and digging equipment as mandated by the Norwegian Directorate of Labour Inspection (Regulations on the use of work equipment # 555, adopted on 26 June 1998)</p>	Stavanger, Norway	<ol style="list-style-type: none"> 1. Per Jørgensen, Instructor, Greenland School of Minerals and Petroleum 2. Curtis Chapman, Instructor, Greenland School of Minerals and Petroleum 3. Vilhjálmur G. Kristjánsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 4. Jóhann Björgvinsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 5. Poli Hansen, Instructor, Vinnuháskúlin Centre of Maritime Studies and Engineering 6. Frífinn Nolsøe, Instructor, Vinnuháskúlin Centre of Maritime Studies and Engineering
	2	<p>This Train the Trainers programme was the second phase and the six participants obtained Rigger and Operator certificates in accordance with Norwegian Standards. They are now fully qualified to provide instruction within:</p> <ul style="list-style-type: none"> • Crane G4 • Rigging: O-1.1 (lifting gears); O-2.2 (fall protection equipment, wall crane, hoist and winches) and O-3.2 (rigging) <p>This training was to gain practical training necessary in order to obtain certification according to NORSOK standards.</p> <p>The programme was based on the Norwegian Coordination Council for crane, truck and digging equipment as mandated by the Norwegian Directorate of Labour Inspection</p>	Stavanger, Norway	<ol style="list-style-type: none"> 1. Per Jørgensen, Instructor, Greenland School of Minerals and Petroleum 2. Curtis Chapman, Instructor, Greenland School of Minerals and Petroleum 3. Vilhjálmur G. Kristjánsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 4. Jóhann Björgvinsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 5. Poli Hansen, Instructor,



		<p>(Regulations on the use of work equipment # 555, adopted on 26 June 1998).</p> <p>All 6 participants obtained full certification and are now qualified to provide similar training.</p>		<p>Vinnuháskúlin Centre of Maritime Studies and Engineering</p> <p>6. Frífinn Nolsøe, Instructor, Vinnuháskúlin Centre of Maritime Studies and Engineering</p>
	3	<p>This Train the Trainers programme was the third phase after the six participants obtained Rigger and Operator certificates in accordance with Norwegian Standards. This was for: Crane and Slings: Auditing, Quality Assessment and QHSE procedures.</p> <p>It was held in Tórshavn from Monday 9 May to Wednesday, 11 May 2016.</p> <p>Aims:</p> <ol style="list-style-type: none"> 1. How courses (training) are performed in accordance with own procedures. 2. How is quality assured trainer/teacher - checkout system. 3. What and how are the course materials, lesson referrals, etc. 4. Demonstration of deviation system. 5. Demonstrating own quality assurance system KS. 6. Review of risk analysis. 7. How learners are assessed. 8. How examination papers are reviewed. 9. Demonstration of teaching in classrooms - possibly practical. 10. Revision of certified equipment. <p>This training is now included in the Cadete Program at Vinnuháskúlin, Tórshavn. The training program is also in full operation in Sisimiut, Greenland. In Akureyri, the program is not yet on offer but looking at possibilities for local cooperation from industry for purchase of equipment.</p>	Tórshavn, Faroe Ilands	<ol style="list-style-type: none"> 1. Per Jørgensen, Instructor, Greenland School of Minerals and Petroleum 2. Curtis Chapman, Instructor, Greenland School of Minerals and Petroleum 3. Vilhjálmur G. Kristjánsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 4. Jóhann Björgvinsson, Teacher in Machinery, Akureyri Comprehensive College (VMA) 5. Poli Hansen, Instructor, Vinnuháskúlin Centre of Maritime Studies and Engineering 6. Frífinn Nolsøe, Instructor, Vinnuháskúlin Centre of Maritime Studies and Engineering 7. Inge Rune Bøe, Head of Division SOTS Course Centre 8. Wilhelm Petersen, General Manager, Vinnuháskúlin Centre of Maritime Studies and Engineering 9. Stella Aguirre, Senior



				Project Manager, SOTS Course Centre
OTHERS		<p>1. Discussions have been initiated at local levels both in Sisimiut and Tórshavn for official implementation of NORSOK standards into local curricula.</p> <p>2. Interest has been shown by all partners to explore cooperation with institution at higher level (university) for possible mobility among teachers/instructors.</p> <p>3. Greenland School of Minerals and Petroleum received crane and slinging specialist from SOTS Course Centre to assist in planning, layout and implementation of a crane centre in Sisimiut. This transfer of knowledge and experience includes exchange of teaching materials and other relevant resources. Now, they are fully operational and independent.</p>		FING partners



3. FING Project: Outcomes

FING partners are confident that the outcomes obtained thus far from this project have been overall positive and can be assessed in the table below.

ACTIVITY	OUTCOMES
SEMINARS	<ol style="list-style-type: none"> 1. Power point presentations have been published on web page and are accessible to the public in general. This material can be used as teaching/training resources. 2. Knowledge transfer to and acquisition by a broad spectrum of the population, those directly or indirectly impacted by the industry. 3. Knowledge acquisition by teaching/training staff that can in turn be transferred to other members of the respective educational institutions. This real knowhow contribution can be passed down. 4. Awareness of project activities has been strengthened among public in general and in turn greater knowledge about subsequent impacts has been made available. 5. Extension of network within training and education to include specialized skills and competences at higher level.
WEB PAGE & SOCIAL MEDIA	<ol style="list-style-type: none"> 1. Information regarding project activities is readily obtainable. 2. Access to important information about opportunities in employment within the industry is available to the public. 3. Innovative teaching/learning resources have been created and are available as new teaching resources. 4. Intercultural promotion of the four Nordic nations not only among partner nations but also extended further in Europe. 5. Frequent interaction (and open means of communication) with general public regarding project activities and other areas that are of common interest in this sector. Feedback has been positive, and to some extent in regards to demystifying negative impact of the Oil & Gas industry. 6. Promotion of main FING project funders: NORA and Nordplus.



<p style="text-align: center;">PUBLICATIONS & DEVELOPMENT OF TRAINING/EDUCATION RESOURCES</p>	<p>1. The 123 page long study – <i>An enquiry into the feasibility of a network in training and education for the oil & gas industry in the North Atlantic and Arctic region</i> – is available online to the public in general allowing for easy acquisition of information.</p> <p>This document can readily be used as a resource for teaching or transferring information/knowledge about the respective topics therein.</p> <p>The power point presentations developed according to the specific contents in the study have contributed to increasing teaching resources.</p> <p>2. Power point presentations from all the seminars held have been made readily available to teachers and trainers alike, as well as general public. This material can be used for training/teaching purposes.</p> <p>3. All material used in both Train the Trainers programmes is available for the partner institutions. As of October 2015, Greenland School of Minerals and Petroleum is using this material in the programmes they are now delivering as a direct outcome of the training the two instructors received. Vinnuháskúlin Centre of Maritime Studies and Engineering is soon to follow suit as plans are also underway to start a local training programme in Tórshavn.</p> <p>Some of this material has also been translated into English. Teaching materials include manuals, audio-visual aids, presentations and HSE documentation.</p> <p>4. Teaching staff have acquired actual knowhow that the respective partner institutions, staff and students can use. This is seen to be a real contribution left for the school, staff and students, which in turn extends into the local community and country.</p>
<p style="text-align: center;">TRAIN-THE-TRAINERS</p>	<p>1. After two intensive Train the Trainers programmes, the outcome is most positive:</p> <p style="padding-left: 40px;">1.1 All 6 participants obtained full certification and are now qualified to provide similar training.</p> <p style="padding-left: 40px;">1.2 Training programmes within Crane and Slinging are now being offered in Sisimiut, where until now this had not been possible due to lack of certified instructors. Greenland School of Minerals and Petroleum has now done its first rigging course by NORSOK standard and will two more courses this year. Equipment for the rigging course was sponsored by Cairn Energy, and the instructor training for staff at G.S.M.P. was taken care of by the FING collaboration with a “train the trainer” course in Norway. The eight students, who all pass the final test, have all a background within mining and will take these skills into the growing mining industry in Greenland. FING collaboration has made it possible to educate Greenlanders according to international standards.</p> <p style="padding-left: 40px;">1.3 Training programmes within Crane and Slinging are soon to be offered in Tórshavn.</p>



	<p>2. Knowledge acquisition and possibility to further transfer to others, whether other staff, students or public, has been the main positive outcome of the two Train the Trainers programmes.</p> <p>3. Path of studies and opportunities have been broadened for the students at all partner institutions.</p>
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4. The way ahead

FING partners are on the whole satisfied with project activities and outcomes thus far.

Some of the long term aims include further investment in Train the Trainers programmes with focus on two areas in specific that have been identified as relevant for further developing local industrial development.

Firstly; Train the Trainers programme for specialized training and education within hydraulics and secondly specialized education within Oil & Gas. This second programme would be made available online for staff at respective partner institutions.

Knowledge acquisition and possibility to further transfer to others, whether other staff, students or public, has been the main positive outcome of FING project.

FING partners aim to continue:

- promoting growth in skilled and semi-skilled labour,
- endorsing greater knowledge and involvement about the region,
- enhancing safety procedures and practices as well as environmental preservation,
- assisting in gaining more local access to employment in the oil and gas industry,
- fostering economic empowerment of Arctic communities through development of specialized skills, competences and knowledge to "handle" the boom that comes with new discoveries in natural resources, but also to further current industry practices,
- contributing to more control over safety practices in Arctic waters.

Other aims:

- improvement in the competence of social economy entities in the field of vocational education and training for people until now excluded from the labor market,
- contribution towards sustainable socio-economic development,
- greater experience gained and tested regarding professional vocational training,
- more qualified staff,
- consolidation of international standards in vocational studies,
- internationalization of partner institutions.