

► Capacity building study tour to UK higher education institutions

Report	National partners study tour to UK higher education institutes
Date	Cohort 1: 24 Oct. 2022–4 Nov. 2022 Cohort 2: 31 Oct. 2022–11 Nov. 2022
Participating national partners	1. Ministry of Education, Culture, Research and Technology (MoECRT) 2. Politeknik Negeri Batam (Polibatam) 3. Politeknik Maritim Negeri Semarang (Polimarin) 4. Politeknik Perkapalan Negeri Surabaya (PPNS) 5. Politeknik Negeri Manado (Polim Manado) 6. Universitas Klabat (Unklab)
UK higher education institute partners	1. City of Glasgow College (CoGC) 2. University of Strathclyde (UoS) 3. University of Gloucestershire (UoG) 4. Solent University (SU)
MoECRT, Polytechnics and UK higher education institution partners	1. Polibatam – COGC 2. Polimarin – SU 3. PPNS – UoS 4. Polim Manado and UNKLAB – UoG 5. MoECRT delegates visited all 4 UK higher education partners

1. BACKGROUND

The Skills for Prosperity (SfP) Programme Indonesia, funded by the UK Government, aims to increase national capacity to achieve sustained and inclusive growth of the maritime sector through the enhancement of skills development and technical and vocational education and training (TVET) policy and systems. The programme takes targeted action to promote skills for employment

industry upgrading efforts through an industry-led institutional mechanism via establishment of Industrial Advisory Boards. The programme facilitates dialogue and partnership between social partners (employers and workers) and polytechnics to promote joint skills training, upskilling and reskilling training.

The programme is structured around three pillars:

Equity: Improving equity and inclusiveness in access to and delivery of maritime skills training, and promoting economic opportunities for disadvantaged communities.

Quality: Improving the quality of curriculum development to international standards through capacity building of polytechnics as Centres of Excellence.

Relevance: Improving the relevance of study programmes, teaching and learning, and the wider skills infrastructure in response to industry needs.

The Skills for Prosperity Programme facilitated the establishment of partnerships between four Indonesian polytechnics and one university with UK higher education institutions as follows:

In addition to the four polytechnics, one university, namely Universitas Klabat (Unklab) participated in the Study Tour. Unklab is also an ILO-UK SfP partner in delivering local economic development in North Sulawesi.

2. OBJECTIVES

The objective of the Study Tour of the programme partners to UK higher education institutions was to develop capacities of polytechnic teachers and leaders in vocational education through learning from the UK institutions' experiences in designing and delivering vocational education and research that is in line with global practices and standards.

Indonesian polytechnic	Province	International academic partner	Title of D4 study programme in development
Polibatam	Riau Islands	City of Glasgow College	Logistics and International Transport (LIT)
Polimarin	Central Java	Solent University	Seafaring Engineering
PPNS	East Java	University of Strathclyde	Shipbuilding Engineering
Polimanado	North Sulawesi	University of Gloucestershire	Global Tourism Management

and decent jobs for young women and men, including disadvantaged groups, in four maritime sub-sectors: logistics and international trade, seafaring engineering, shipbuilding and maritime tourism.

The programme is implemented through four partner polytechnics with the following aims: (1) improve the relevance of vocational education in terms of industry needs and global practices through consultation with industry and international higher education; (2) increase capacity and qualification of teachers, in line with international standards and following modern vocational pedagogy; (3) strengthen industrial engagement for work-based learning and employment services; (4) strengthen the inclusiveness and equitability of polytechnic strategies as well as their implementation for increased participation of marginalized, vulnerable and unemployed young women and men, including small and medium-sized enterprises (SMEs); and (5) improve the readiness of the systems to meet skills challenges of the future of work. While the focus is on the enhancement of skills, TVET systems and programme delivery, the programme also strategically connects skills development and

The specific objectives of the capacity development were as follows:

- ▶ **Equity:** To improve the knowledge and skills of polytechnic teachers and leaders in responding to local community needs, developing an appropriate strategy to provide more opportunity to vulnerable, marginalized and disadvantaged communities to access skills training at polytechnics by learning from the experiences and best practices of UK higher education institutions.
- ▶ **Quality:** To improve the knowledge and skills of polytechnic teachers and leaders in developing and updating curricula to ensure relevance to industry needs, global standards and best practices by learning from the experiences of UK higher education institutions.
- ▶ **Relevance:** To improve the knowledge and skills of teachers and leaders at polytechnics in developing and strengthening the relevance of the study programmes, teaching and learning, and the wider skills infrastructure in response to industry needs.

3. OUTCOMES AND OUTPUTS

The outcome of the study tour was the improvement of participants' understanding and ability in delivering and managing vocational education in line with the aims of the three pillars of Equity, Quality and Relevance. This improvement will guide changes in the Polytechnics' approaches and strategies on designing and delivering quality, relevant and inclusive vocational education. Below are specific outputs as a result of the capacity development activities:

- ▶ At least 10 individual reflections from each participant highlighting the lessons learnt from the UK higher education institutions' experiences and best practices for application in the local context.
- ▶ Institutional recommendations developed by each polytechnic reflecting a strategic and practical approach.
- ▶ Further potential partnership with UK partners identified.

4. TIME FRAME, PARTICIPANTS AND UK HIGHER EDUCATION INSTITUTION HOST

This capacity development was conducted in two batches as follows:

Date	Polytechnics	UK Partners
24 Oct.–4 Nov. 2022	Polibatam	City of Glasgow College (CoGC)
31 Oct.–11 Nov. 2022	Polimarin	Solent University (SU)
31 Oct.–11 Nov. 2022	PPNS	University of Strathclyde (UoS)
31 Oct.–11 Nov. 2022	Polimanado and Unklab	University of Gloucestershire (UoG)
26 Oct.–4 Nov. 2022	MoECRT delegation	CoGC, SU, UoS, UoG

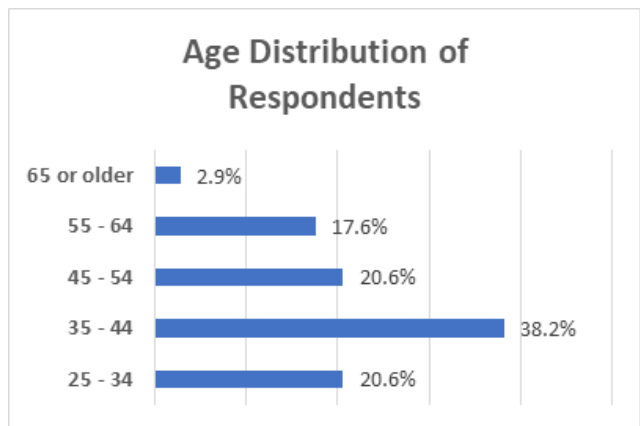
5. PARTICIPANTS

The total participants in this programme numbered 35 teachers at polytechnics and 4 MoECRT delegates. Each polytechnic delegation included the participation of the Director to ensure that decisions and good practice resulting from the study tour would have the necessary strategic support for implementation. Two Deputy Directors also attended.

Aside from this, participants were nominated and selected on the basis of their involvement with the Skills for Prosperity project implementation in their respective polytechnics, as well as their motivation and capacity to implement the learning and recommendations resulting

from the Study Tour. It was stipulated that participants should have a minimum two years of expected service within the polytechnics, in order to permit time to implement learning and recommendations. Typically the delegations included a range of teaching and management staff, which provided a broad age range across the delegation.

All delegations included a balance of male and female representation. Overall, 59 per cent of participants were male and 41 per cent were female. The focus on ensuring strong female representation, particularly in maritime subject areas which tend to be more male-dominated, is intended to support further growth in female participation in the maritime sector.



6. ATTENDANCE

All participants from four polytechnics and one university attended all sessions, a 100 per cent attendance rate.

7. IMPLEMENTATION STRATEGY

A. DEVELOPMENT OF STUDY TOUR ITINERARIES

Capacity development at UK higher education institutions was part of the initial plan of the ILO-UK SfP programme, which aimed to provide an opportunity for polytechnics to learn how these institutions

develop and manage their skills education and training programmes in response to industry and local needs. Due to the travel restrictions brought about by the Covid-19 pandemic, this was not possible at the start of the Skills for Prosperity programme implementation in 2020, so was rescheduled to October/November 2022. This delay in the scheduling of the Study Tour had the unintended benefit that the partnerships between the UK and Indonesian institutions had been in place for about 12 months by that time. Consequently, the UK higher education partners had considerable knowledge of their partner institutions and were able to tailor their itineraries accordingly.

The itineraries were developed through intensive consultation with both Indonesian and UK partners, and every activity was aligned with one of the three SfP pillars with a balance across equity, quality and relevance.

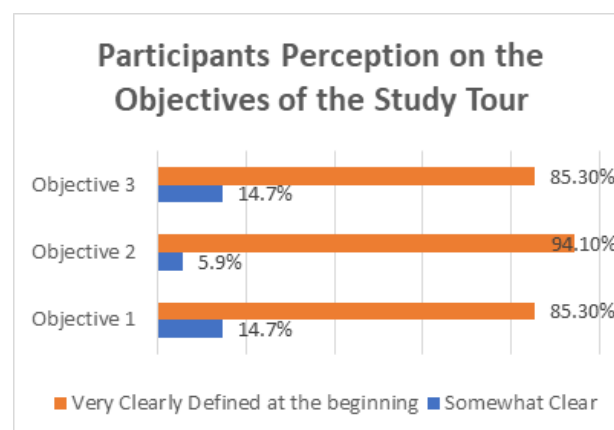
Daily reflection was scheduled into all itineraries so that participants had the opportunity to capture and articulate their learning and good practice insights, and consider these in the context of their home institution.

B. PRE-DEPARTURE

Prior to the departure, all participants were requested to prepare to ensure the effectiveness of all activities while in the UK. This preparation covered:

- ▶ Self-observation and reflection. Participants were requested to conduct individual and institutional reflection and observation (individual and group observation) related to polytechnic strategy and the three pillars of equity, quality and relevance. Conducting observation and reflection helped teachers select and package strategic and practical initiatives to meet the challenges they face in the polytechnics. It also helped teachers prioritize actions based on urgency for short- and long-term solutions.
- ▶ Reading materials. Participants were requested to read some materials prior to the capacity building prepared by UK partners. The reading materials were related to sessions prepared by the UK partners and not necessarily academic materials.
- ▶ Self-preparation for personal logistics. Personal logistics were prepared during pre-departure, including issues related to prayer times and facilities, illness and medicine, insurance and access to health services in the UK, local food in city destinations, weather and so on. The purpose was to ensure that all participants were able to undertake effective personal preparations so they could participate fully in all activities.

From the post-participation survey, it was clear that more than 85 per cent of participants agree the three pillars were very clearly defined during pre-departure and in the introduction of the agenda of each UK higher education partner. This indicates that participants had a clear idea of what they were going to learn through the two weeks of capacity building and could make necessary preparations individually and as a group.



C. PARTICIPATIVE AND SELF-REFLECTION STRATEGY

- ▶ The capacity development was designed to have a participative approach, with interaction between resource persons and participants. Resource persons requested all participants share their experiences and opinions. In this way, participants were expected to pick interesting ideas from the UK partners' experiences for their own knowledge as well as for follow-up at the polytechnics when they return. This participative approach also demonstrates the typical learning dynamic of these UK institutions, in which participants play an important role in their individual and group learning experience.
- ▶ At the end of each day, participants were requested to conduct self-reflection on the sessions, identify lessons and good practices from the sessions, and identify the relevance to their own polytechnics.

D. IDENTIFICATION OF FOLLOW-UP ACTION PLAN AND RECOMMENDATION TO POLYTECHNICS

- ▶ Following the study tour, each participant submitted an action plan based on their daily reflections that they can implement in their individual roles and/or teaching practice.
- ▶ Each of the Indonesian institutions then collated and prioritized learning, insights and ideas from the individual reflections. These were submitted as summary action plans based on good practices from

the UK partners and modified as needed for their individual contexts.

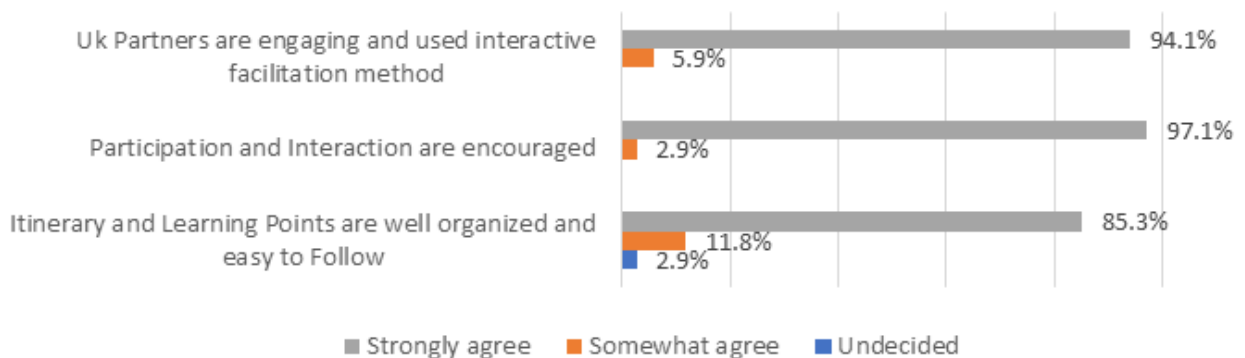
8. HIGHLIGHTS AND SUMMARY OF PARTICIPANTS' REFLECTION

Every participant contributed to both individual and institutional reflection. This meant all participants not only gained knowledge from UK higher education partners' experiences, but also identified areas of intervention that can be improved based on those experiences. Common areas of interest appeared in the reflections of participants from the four polytechnics, such as student well-being and career guidance.

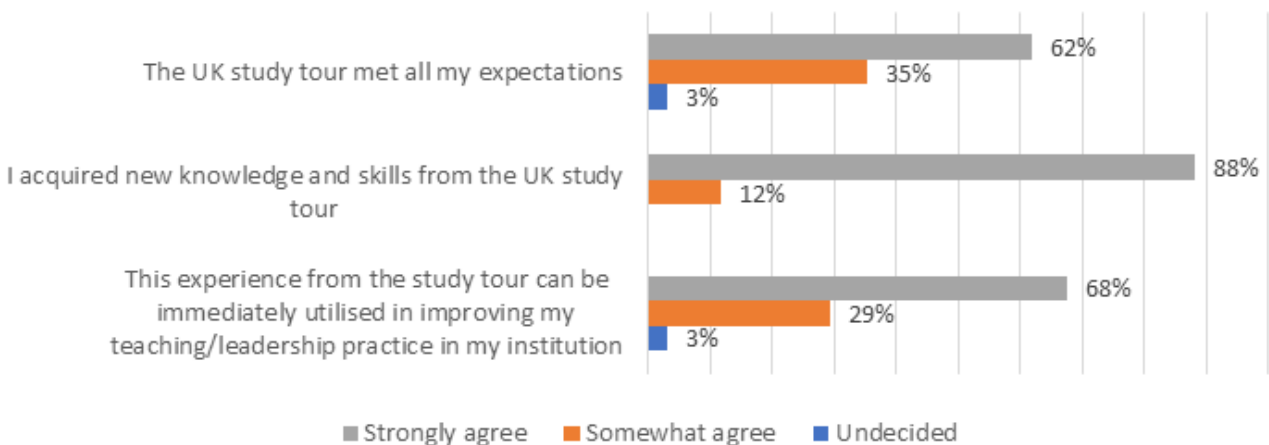
The tables below reflect the participants' responses to various aspects of capacity building reported through the post-participation survey.

All participants agreed that the study tour was interactive and the resource persons encouraged their active involvement during the sessions. Most participants agreed that learning points were well organized and easy to follow, indicating that the individual sessions were pitched at an appropriate level for the audience, and were well-understood by participants. All participants, indicated they learned new knowledge and skills from the study tour. At an individual level, 68 per cent of participants strongly agreed and a further 29% somewhat agreed that the experiences and knowledge they gained from UK higher education partners could be immediately utilized in improving their teaching and leadership practice at the polytechnic level. This indicates that almost all participants were able to identify practical and strategic lessons from the experiences of the UK higher education partners.

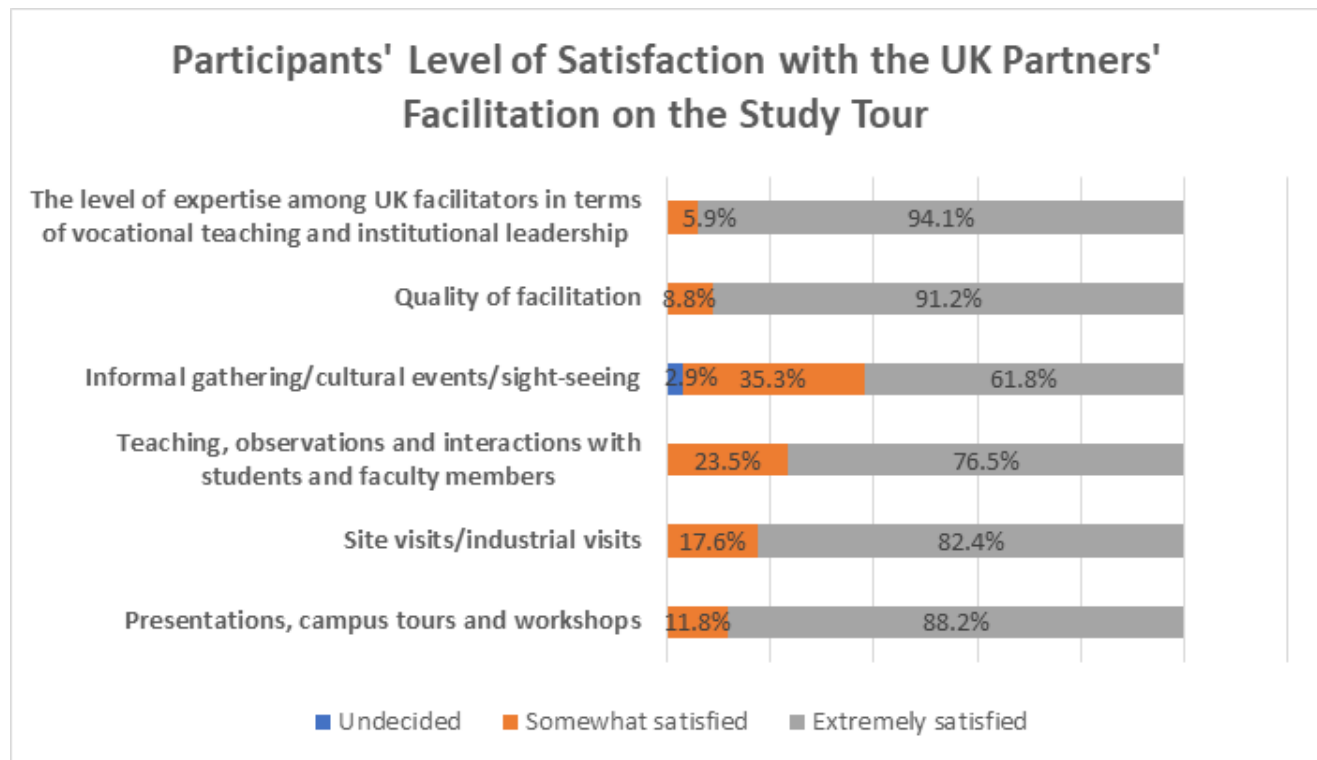
Participants' Experience with the Study Tour Plan and Facilitations-1



Participants' Experience with the Study Tour Plan and Facilitations-2



The table below reflects the satisfaction level of participants.



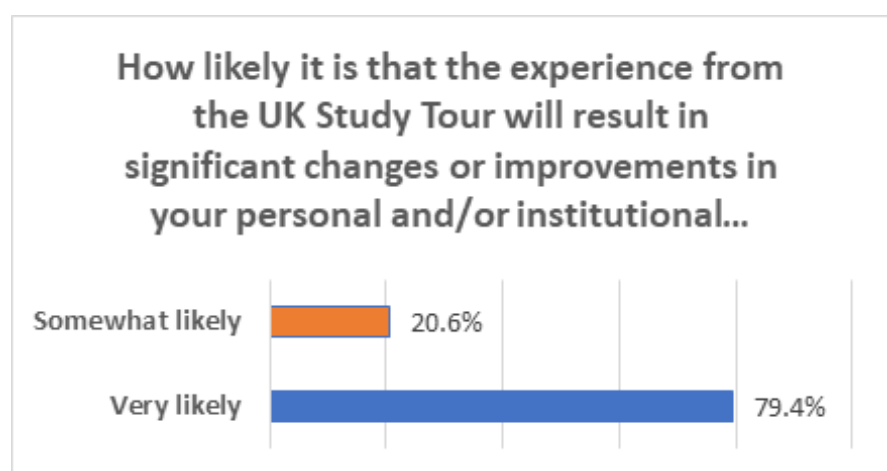
All participants reported their satisfaction with the study tour, in terms of level of expertise of facilitators; quality of facilitation; teaching observations and interactions with students and faculty members; site visits/industrial visits; and presentations campus tours and workshops.

All participants responded that their study tour experiences are likely to result in significant changes or improvements in their personal and/or institutional practices. 79% confirmed that this was very likely.

All but one participant was satisfied with informal gatherings, cultural events and sight-seeing activities.

These responses indicate that the Study Tour was well planned and executed by all four UK institutions, with itineraries clearly aligned with the expectations of the Indonesian institutions.

One of the ultimate goals of the study tour was to empower teachers and leaders of polytechnics in initiating new approaches or strategies at individual and institutional levels by equipping them with new knowledge and skills based on their Study Tour experiences.





Directorate General Vocational Education of Ministry of Education, Culture, Research and Technology delegates and Polibatam had strategic discussion on current and global trends on vocational education with City of Glasgow College Senior Management Team.

THEMES OF INDIVIDUAL REFLECTIONS

Below are some key themes reported through the individual reflections of participants. These are presented under the headings of the three Skills for Prosperity pillars of equity, quality and relevance.

A. EQUITY

- ▶ **Promoting and achieving gender-equity in study programmes:** In general, participants agree on promoting female participation in the maritime sector, recognizing the importance of institutional action through promotional strategy and other affirmative actions. A noted example of this is applied by Strathclyde University, which applies the Athena SWAN (Scientific Womens' Academic Network) equality charter framework and accreditation scheme managed by Advance UK.¹ This recognizes institutions for their efforts in promoting gender equity. Although both genders have equal opportunities to study in UK higher education in all subject areas, where imbalances do exist, i.e. subject areas dominated by either male or female students, UK institutions continuously allocate resources to promote and improve the gender balance.

- ▶ **Equal opportunity to study for marginalized and vulnerable students:** Participants agree that polytechnics should provide more access and study opportunities for marginalized and vulnerable groups of young people. This includes students with disabilities, indigenous groups, and those from low-income families. Some observe that this cannot be achieved effectively through nationally managed student admission mechanisms. Increasing polytechnics' autonomy to respond to local needs may provide the solution, for example, Polibatam may be able to take affirmative action to attract young people from under-developed areas such as the small islands around Batam Island.
- ▶ **Student recruitment and student journey:** Participants noted that all the UK higher education partners had a dedicated unit responsible for managing student recruitment. This unit is responsible for identifying youth groups that could become potential students, conducting promotional activities and leading the recruitment process. In the Indonesian context this would include those from the SMA/SMK level (vocational secondary schools) as well as employees. Various recruitment strategies include presentations to

¹ Athena SWAN Charter. Available: <https://www.advance-he.ac.uk/equality-charters/athena-swan-charter>

schools, youth groups and parents' groups. The units are also open for one-on-one consultation, including with potential students with specific needs.

In the UK institutions, this unit is responsible not only for enrolling students, but also for helping students select courses that are most suitable for them based on their interest, capacity, typical related employment opportunities, and the demands of the local labour market. The units also provide advice to students who want or need to change their study courses after commencement of the course, for example if the student is struggling to keep up in the first few lessons.

Participants considered this a function that could bring benefits to polytechnics, providing opportunities to identify target groups and develop communication with them for recruitment, such as local government, or targeted SMKs. Early intervention offering support for students experiencing difficulties in their study programme may help to increase successful completion rates. Promotional strategies of UK higher education institutions include official websites, presentations, open days, one-on-one consultation, and ongoing arrangements with specific target groups.

- ▶ **Student well-being and safeguarding:** One lesson highlighted by participants was that UK higher education institutes are really concerned about student well-being, allocating sufficient resources to ensure every student will have support when they need it. UK higher education institutes have definitions for levels of well-being and support intervention, based on factors such as financial vulnerability and mental health needs. Where professional support is required, the UK institutions have mechanisms through which they can refer individuals or cases to its professional institutional partners that have professional certification

and licences to provide relevant services. Moreover, the UK higher education partners do not tolerate bullying based on religion, race, gender or physical condition, taking a firm stand against such actions. As a result, every student feels safe on campus.

Participants were keen to establish a special, professional units to handle student well-being as many of their students come from financially vulnerable groups or other regions of the country. A noted example was COGC's scheme to provide loans for students to purchase laptops via a simple process, and their established cooperation with a professional association to help students or teachers who report mental health problems.

- ▶ **Diversity and Inclusion:** UK education policies are inclusive, making provision for all students to have an opportunity to study regardless of physical or non-physical limitations. Every UK partner provides access and facilities for people with disabilities to enter the university/college. This includes both physical access, such as for wheelchairs, as well as facilities to participate in the learning process. For example, workshops are designed to accommodate the needs of students with disabilities. Moreover, the UK higher education partners mainstream gender equity and inclusion principles into teaching and learning activities, particularly in subject areas where there are typically gender imbalances or disability issues. The UK higher education partners incorporate gender equity and inclusion principles into organizational values (such as closing the gender pay gap, "Investors in People", "Disability Confident" and flexible working arrangements) that directly keep university/college commitments to promote and accommodate equity and inclusion in their institutions. Participants recommend polytechnics replicate these methods by adopting more inclusive policies and strategies.



Directorate General Vocational Education of Ministry of Education, Culture, Research and Technology delegates and PPNS had strategic discussion on further collaboration to improve the quality of vocational education into international standard with University of Strathclyde Senior Management Team.

B. QUALITY

► **Curriculum development and competency standards:**

The UK higher education institutions develop curriculum and competency standards in response to not only national and local context, but also to global industry trends. International students make up a significant proportion of the university/college student body, providing diversity in the learning environment and indicating global confidence in the quality of the UK education system. This provides a permanent incentive for UK higher education institutions to ensure their quality is internationally competitive and meets global industry needs. UK universities use many strategies to keep developing their curricula, such as updating information about industrial needs, compiling alumni information, and conducting their own research on global and future trends. The UK partners also established a quality management cycle to ensure the quality of education in all courses. The time frame for curriculum updates varies, with some universities/colleges conducting reviews every five years. However, every teacher and curriculum team must provide inputs every year.

Participants recommend a review of the curriculum at polytechnics in order to meet global standards. Although there is a national standard of competency (KKNi), participants did not feel this was sufficient to drive global competitiveness through the curriculum.

► **Student-centred learning approach and vocational pedagogy:**

The UK higher education partners have applied a student-centred learning approach for many years. This approach is a teaching/learning method focused on students rather than teachers. The student-centred learning approach reduces teacher-led learning activities, providing more opportunities for student-led activities and student decision-making roles, thus embedding soft-skills development of students through their learning activities. Meanwhile, the emphasis is that teachers are required to *facilitate* the learning process. Participative learning is central to the concept of a student-centred teaching and learning approach. Higher level students are involved in the design of learning, taking increasing responsibility for their own learning while also reflecting on and evaluating their own progress. As part of quality assurance, UK college teachers are required to attend and pass several pedagogical trainings before they are allowed to teach. The trainings include facilitating a student-centred learning approach.

Although a student-centred approach has been implemented in polytechnics to some degree, the finding highlights the need to strengthen this approach at a practical level.

- **Work-based learning:** Work-based learning is an educational strategy of the UK higher education partners. Work-based learning gives students an opportunity to learn from real industry and reflect on what they learned in university/college. The UK partners apply many strategies to help students understand real industry, such as project-based field trips, industrial attachments, and apprenticeships. Work-based learning takes place in collaboration with industry, with the option that some learning activities are conducted on campus. The design, development and growth of work-based learning programmes are explored using some basic questions (such as what does an institution do when it identifies an unmet skills need? How does an institution engage new employers to participate? How does an institution maintain its technical relevance in key industry sectors?).

The UK higher education curricula are designed to ensure the knowledge and skills to be learned on campus complement real industry. Some advanced or specific knowledge (such as technology) might be learned in the industry via work-based learning.

Work-based learning is cited by participants as an important lesson from the UK partners. Apprenticeships are the most common work-based learning model applied in Indonesia. Some progress has been made, such as the teaching factory at PPNS or TechnoPark at Polibatam, but areas for development in skills infrastructure remain in order to ensure a match between polytechnic output and industry needs.

- **Apprenticeship programmes:** One example of work-based learning is apprenticeship programmes. Apprenticeships traditionally involve students being attached to industry to learn and practice skills. However, in the Scottish system, apprenticeship programmes are delivered in the workplace with complementary study taking place on campus, in order that students obtain a competency certificate through their apprenticeship programme.

In the Scottish system, the apprenticeship programme is divided into four levels:

- *Foundation Apprenticeship (FA):* a work-based learning opportunity for senior secondary school pupils, equivalent to an SQA higher certificate. Typically the FA will last one or two years, and the pupils begin them in either S5 or S6 (15-17 years old).

- **Modern Apprenticeship (MA):** a job that lets people earn a wage and gain an industry-recognized qualification. MAs learn on the job, gaining skills, experience and qualifications that will improve their career. There is no official age limit, but the programme is aimed at people aged between 16 and 24.
- **Graduate Apprenticeship (GA):** this is also called a technical or professional apprenticeship. They are typically for people looking to move into supervisory or management level jobs in the future. There is no maximum age limit for them, but the apprentice must be at least 16 years old and is usually either a graduate or has equivalent lived experience.
- **Master level Apprenticeship:** this programme takes place three to six months after the student's master's degree has finished. It is typically for people in established leadership positions. It is verified by either the Chartered Institute of Management or the Institute of Leadership and Management.

Skills Development Scotland (SDS), the national skills body, aims to deliver the best outcomes for Scotland's people, business and economy, working with industry leadership groups, employer bodies, the Scottish Funding Council and Scottish Enterprise to develop and promote the value of work-based learning. The apprenticeships and curriculum developed by the SDS and is constantly revised to reflect the needs and conditions of Scottish young people, businesses and the economy.

- ▶ **Digital teaching and learning process:** The UK partners have implemented the use of technology to support the learning process, integrating it into the curriculum. Digital and online technology support teaching and learning to enhance the student experience, widen and improve accessibility and inclusion, create opportunities to expand the university beyond the campus and develop staff skills. The campus facilities are equipped with technology covering all aspects of education, including free internet access for students and teachers, high-quality TV monitors in classrooms and a digital library. The integration of technology in the learning process is important in developing student engagement and digital literacy, while improving crucial technology and digital skills that are essential for industry.
- ▶ **Research and publication:** UK university partners have a strong research capacity. They invest in research as one strategy to meet global standards. Teachers are encouraged to take part in research, not only in the UK or at a university level, but also globally. Research results are published on the university website, in regional or national publications, and in international journals.

UK universities encourage and facilitate teaching staff in their search for research opportunities. They build engagement with industry and create partnerships with the global education community for collaborative research and publication. Initiatives can be taken by individual teachers or by university departments or teams.

Participants agree that emphasis on research and publication is one lesson they can take from the UK university partners.

- ▶ **Quality management system:** Participants highlighted that an important part of the education system in the UK is the robust quality assurance and management infrastructure. The quality of the curriculum and learning processes is evaluated every year to ensure they met the standard of quality and process delivery as planned. In addition to evaluation, quality assurance and management is a support system to ensure a department and its teachers have an adequate environment and sufficient tools to deliver the curriculum. This department is responsible for integrating the quality standards established by through government policy. Considering the high standards for curriculum set up by the university/college and the responsibility to integrate government targets, the role of quality assurance and management are crucial. Participants stated that establishment of a quality assurance and management department on campus with sufficient capacity would help polytechnics to grow and raise standards as a quality skills supplier to industry.

Continual professional development (CPD): Participants noted CPD is strongly supported by the UK partners, as individual teachers are provided rooms for capacity building. Teachers are encouraged to continuously develop their knowledge and skills based on their interest and the institutions' advice. CPD can take the form of reading, attending international seminars, professional certification, technical and focus-subject short courses, or even degree-based study. Collaboration with a global university is also considered part of CPD. In general, in addition to advanced degrees such as PhDs, UK university teachers also have various professional certificates and attend international seminars on topics relevant to their area of expertise. Financially, universities/colleges do not always allocate funds for teacher capacity building, but they do support teachers in acquiring financial support from other institutions where available.



Solent University shared knowledge and practice on seafaring during the visit of Ministry of Education, Culture, Research and Technology delegates and Polimarin.

C. RELEVANCE

► **Soft skills integration in the curriculum and learning process:** Participants reflected on how UK universities/colleges embedded soft skills in their curriculum. Soft skills are integrated within the competencies expected from students when they graduate. Soft skills are neither defined nor set up by the university/college for each department; instead, the UK partners encourage curriculum teams and teachers in each department to identify and set up soft skills goals based on global and industry needs analysis. Teachers are encouraged to learn and provided opportunities to improve their knowledge and abilities in teaching soft skills. As soft skills become an integrated part of the curriculum and learning process, the capacity of teachers is improved and the quality of soft skills is updated.

► **Industrial partnership:** Participants strongly highlighted the importance of industrial partnerships. All of the UK partners had at least one university/college foundation that is an industrial partnership. Institutional interaction with industry representative bodies includes local employer boards, professional bodies and accreditations, national institutions, Sector Skills Councils and individual company collaborations.

Universities/colleges indicated that industry is not only a partner to receive graduates, but also

a partner in building a quality curriculum and learning experience. Industry provides information on needs, trends and future jobs, while offering work-based learning and collaborative research opportunities. As a partner, industry has an equal responsibility for steering education to meet their needs, according to the UK partners. This takes place at departmental or subject levels; through institutional collaboration arrangements; and regionally and nationally through sectoral skills bodies, professional bodies and local enterprise partnerships.

One example of an industrial partnership with a university/college is teaching factories on campus, developed in tandem with industry R&D (research and development) departments. The company invests in R&D done on the campus and hopes to receive benefits from the research. The universities/colleges benefit from the financial support and the experience working with companies. Some polytechnics in Indonesia have started building teaching factories to allocate space for partnerships with industry. However, the polytechnics still need to strengthen their approach based on lessons from the UK universities/colleges. One example of partnership is PNDC, a research and testing hub founded by the government, industry and academia to advance innovative ideas in business.²

² Pndc.co.uk. PNDC is an established whole energy systems research, test and demonstration environment, supporting the development and deployment of novel energy and transport technologies.

In practice, industrial partnership is not always initiated by universities/colleges, nor is it entirely their responsibility. Universities/colleges encourage and fully support individual teachers building partnerships with industry, and this is often facilitated and incentivized through specific targeted policies.

In Indonesia, industrial partnership is considered to be one aspect in which polytechnics can improve.

► **Career guidance – skills analysis and job hunting:**

Participants reflected on the role of career counselling units at polytechnics in supporting students as they prepare for their careers and search for jobs. UK universities/colleges have strong units responsible for supporting students in their career-planning and job-hunting opportunities. This unit includes all study programmes/courses as well as presentations on skills analysis and how to access job opportunities. The purpose is to ensure students can plan a future career that reflects their capacity, interests and the labour market. The unit helps students with skills analysis tools, identifying both technical and soft skills required in the jobs they desire so students can develop their skills from the start of enrolment. Upon graduation day, the unit also helps students to search for a job and prepare a CV for a job interview. Universities/colleges do not always target domestic jobs, but they can help students intending to work abroad by preparing important information.

Alumni employment metrics at departmental level are published annually, and are an important criteria in student selection of one institution over another.

► **WorldSkills – Skills Academy and Skills Olympics:**

City of Glasgow College is one of the leading UK institutions in participating and recognition of students, teachers and industry collaboration in Worldskills competitions. WorldSkills is a global hub for skills

excellence that supports alignment with international standards. It is best known for its “Skills Olympics” competition, and as of 2022 it counts 84 countries as members. Through research and international cooperation, WorldSkills promotes the fast-tracking of skills development, benchmarking and gaining national and global best practices for skills excellence. Skills can be technical, but also transferable, such as meta skills or soft skills. Transferable skills can be relevant and helpful across different parts of life, both socially and professionally. This includes motivating people, making decisions, negotiating, organizing, solving problems and leadership.

Participants underlined the importance of participation and membership in WorldSkills competitions to improve the quality and profile of polytechnics in the global market. Some benefits from membership or participation in WorldSkills are as follows:

- Conducting research, finding evidence and learning how to influence policy and practices with support from international experience and experts.
- Exchange and professional development among organizations, practitioners, educators and young researchers.
- Collaboration to determine international best practices through an exchange programme.
- Developing transformative approaches to training and assessment as well as benchmarking.

9. SUMMARY OF POLYTECHNICS' PROPOSALS FOR FOLLOW-UP ACTION PLAN

Below is the summary of polytechnics' proposed follow-up action plans, based on reflection from learning during the UK study trip as well as the current practices of polytechnics. The proposals are also based on priority, considering urgency, technical and financial capacity.

Learning from UK universities/colleges, another strategy proposed by participants is seeking membership of international accreditation bodies that include female participation as a requirement (such as Athena SWAN). This can lead to an institutional commitment from polytechnics to promote and maintain female participation (such as number of female students, number of female teachers and amount of research by female teachers).



Polimanado and UNKLAB were received capacity building on tourism from University of Gloucestershire. The two higher education institutions also had an opportunity to explore local tourist destination in UK.

EQUITY:

A. Institutional approaches to promote greater participation of women in the maritime sector: Participants propose promoting female participation in the maritime sector. This could be the role of a student admissions team in cooperation with a study programme/department. Promotional activities are required, particularly to reach out to SMK students. However, one consequence is that polytechnics may need to adjust the teaching/learning approaches to improve participation of female students. Female participation can be for degree or non-degree programmes. For non-degree programmes, polytechnics need to build more joint skills training programmes with industry or professional associations.

B. Becoming an inclusive polytechnic: Participants propose ways for polytechnics to provide more opportunities and improved access for marginalized, vulnerable and disabled students to take part in vocational training and education in polytechnics. Learning from the UK partners, the participants said it is important to improve diversity and to establish an inclusive environment for students from different backgrounds.

Initiatives and proposals include:

- Strengthening the role of a student admission unit/team to respond to local community needs where the polytechnics are located and mapping out potential organizational partners to work on specific issues related to gender equality, disability and social inclusion

(GEDSI). It is important to equip this team with knowledge.

- Support for students with disabilities, including at campus facilities.
- Building an enabling environment for the implementation of GEDSI in general, including promotional activities and a policy against bullying.

C. Affirmative action to reach out to vulnerable and marginalized youth: Develop an affirmative action policy to provide opportunities for vulnerable groups to study in polytechnics. Affirmative action can be designed to reach out to indigenous people, gender-based groups or other categories. The policy would provide a special procedure to enter polytechnics.

D. Strengthening student well-being services: Student well-being was an area identified for enhancement because many students at polytechnics come from different areas, including low-income families and those needing additional support. Participants believe a strategic approach is for polytechnics to establish a Student Well-being Unit or strengthen and widen the role of the career counselling unit. The role of the unit would cover:

- Provision of direct support to students including financial support and, at the highest level, referral for professional support for mental health problems. The unit will build partnerships with organizations that work with specific vulnerable groups, such as those with disabilities.
- Build partnerships with relevant partners including industry to provide financial support for students in need via specific schemes (for example, cash for work).
- Build partnerships with philanthropic organizations that can provide funds to support students at polytechnics (particularly polytechnics that have received BUL status).

Support from the national level is required to create an enabling environment.

E. Strengthening D2 Fast Track curriculum with a MEME (multi entry, multi exit) system. D2 Fast Track is a polytechnic admission programme. The student admission mechanism of D2 Fast Track

gives more autonomy to polytechnics, developed in response to many polytechnic students coming from low-income families and potential students from SMK having financial limitations. It is important for polytechnics to design the D2 Fast Track with a MEME system where students receive competency certificates every year. The certificate can be used to study at the next level. For example, if students have financial challenges, they can complete the first year and receive a certificate, then go to work. They can return to the polytechnic in a later year and continue her/his education, starting directly in the second year. This method allows polytechnics to accommodate the needs of students and provide them an opportunity for education. An enabling policy is still required for this programme.

QUALITY:

A. Capacity building: Participants indicated capacity building is an important investment for polytechnics. Capacity building is proposed through the following forms:

- **Lecturer apprenticeship programmes in global industry:** Based on learning from the UK universities/colleges, participants propose strengthening the capacity of teachers through industrial experience. An apprenticeship programme in global industry would help with developing such capacity.
- **Internationally recognized professional certification:** Professional certification in internationally recognized professional standards was listed as necessary. This certification is important to enable teachers to design and deliver a world-class curriculum, while also raising the profile of the polytechnics.
- Polytechnics should be supported to conduct **world-class research in collaboration with UK higher education partners, publishing the results in international journals.** This is considered an effective strategy to increase the polytechnics' profile, enabling them to eventually work on collaborative research with local industry.
- Polytechnics should participate as **members of an internationally recognized professional organization** (RINA³, Athena SWAN⁴, CIPS⁵, WorldSkills). Participating as members of a global professional organization will increase

3. RINA is the Royal Institution of Naval Architects

4. Athena SWAN is a quality charter mark framework and accreditation scheme established and managed by the UK Equality Challenge Unit in 2005 that recognizes and celebrates good practices in higher education and research institutions towards the advancement of gender equality: representation, progression and success

5. The Chartered Institute of Procurement & Supply, formerly the Chartered Institute of Purchasing & Supply, is a global professional body working for the procurement and supply profession in many regions of the world

the recognition of polytechnics and showcase their commitment to improving the quality of teachers and ultimately education.

- **Improve the English language skills** of teachers and students: English language proficiency is cited as an important area for teacher skills development. English proficiency is an industry requirement, particularly for global industry. The four maritime sub-sectors are aligned with global industry, making English proficiency essential. There are two issues related to English. The first is while some students have sufficient English proficiency levels when entering polytechnics, many students have insufficient comprehension. More opportunities to learn English are needed on campus. The second issue is the English proficiency level of teachers. Many teachers have an insufficient level of English proficiency, particularly for academic purposes. A global standard required for learning modules referred to international best practices, which are mostly in English. Moreover, technical English, such as that used in the four maritime sub-sectors, is required to be used during the learning process so that students will be familiar with it and have a correct understanding of specific terminology. A sufficient English proficiency level would also contribute to the profile of the polytechnics (for example, teachers might be invited as resource persons to international workshops).

Investing in teacher English capacity is proposed as important by the participants. In addition to training and courses for teachers, it is also important to invest in English training materials.

- B. Curriculum development and competency standards:** Polytechnics propose improving the quality of curricula, not only in response to national policy, but also to meet global industry needs. The four maritime sub-sectors are part of global networks, meaning quality upgrades should respond to global industry needs. Moreover, as labour competition increases, polytechnics should be responsible for ensuring graduates are competitive in the global labour market.

Polytechnics would benefit from an international partner to assist them in strengthening curricula and implementation. The polytechnics intend to continue their partnership with UK universities/colleges. Support from the national level would help to continue facilitation.

- C. Student-centred learning approach and vocational pedagogy:** Participants propose the implementation of a student-centred approach in polytechnics. While polytechnics have started to adopt this approach, more improvement is needed. The priority for a student-centred approach is capacity building for teachers, learning various good practices from UK universities/colleges and adjusting training materials and facilities to accommodate the approach.
- D. Apart from digitalization of learning materials, polytechnics also consider online learning systems to be a worthy strategy:** Online learning is considered a new teaching/learning methodology that is here to stay. The proposals include the development of instructional materials, establishment of an IT team with all the required facilities, and capacity building for teachers on digital and online pedagogy.
- E. Research and publications:** Proposals include the ongoing partnerships with UK universities/colleges for the purpose of increasing collaborative research and publication activity. Technical assistance from UK universities/colleges would support this as they have established strong research cultures, industry collaborations and international knowledge sharing networks. Their experience would prove valuable for polytechnics and would help polytechnics obtain publication in international journals.
- F. Participate in the WorldSkills competitions:** Participating in WorldSkills competitions could improve the quality and profile of polytechnics in terms of alignment with global vocational training and education standards. Teachers can also participate in capacity building programmes through the WorldSkills experts category. This proposal could be implemented at the national level with technical support from WorldSkills experts, who have offered to support Indonesian government in participation.



Polibatam teachers visited Amazon Distribution Center to learn about the distribution system.

RELEVANCE

A. Strengthening partnerships with industry:

- **Teaching factory:** Polytechnics indicated partnerships with industry are important, particularly to reduce dependency on government budget. Polytechnics need to invest in a taskforce for promotional activities to build partnerships with industry.
- **Work-based learning, project-based learning and apprenticeship programmes:** Work-based learning, project-based learning and apprenticeships were proposed by many participants as targets for strengthening by polytechnics. The goal is to build more opportunities for students to learn from real industry. One proposal is to strengthen the apprenticeship programme by having a clearer objective and competency outputs after completion of the programme. An apprenticeship programme certificate could reflect national or industry standards. This method would demonstrate the apprenticeship programme builds competence in skills, that it is not merely a complement to the education programme. Encouraging polytechnics to develop or strengthen teaching factories was another idea from participants, which could be supported by technical assistance from UK universities/colleges. Another idea was strengthening the implementation of project-

based learning, allowing students to learn and practice skills with industry technical assistance. Promotion and a teaching/learning facility on campus would be required, including provision of a building/rooms/workshop.

- **Cash for work (part-time work):** Polytechnics can initiate partnerships with industry to develop a programme to allow students with financial problems to work in companies to gain financial support. This could be applied on a regular basis, such as twice a week or during school breaks (summer break or Christmas break). It is also possible to employ students part-time on campus.

- B. Strengthening the role of the career counselling unit:** Participants propose strengthening the role of the Career Counselling Unit (CCU) in polytechnics. Participants see the CCU as an integral part of the education system at polytechnics. The CCU could be more proactive in providing services to students, providing skills analysis to all departments to equip students, providing one-on-one services to students if needed, building partnerships with industry for job information, and assisting students with writing CVs and preparing for interviews. In UK institutions, this requires a professional capacity and is not considered an additional job for teachers.

- C. Centre for Small Business and Entrepreneurship:** Polytechnics propose strengthening their role and responsibility in assisting local small businesses

with training, capacity building and business networking. Polytechnics can become centres of excellence for micro- and small business development. Collaboration with industry is a possible strategy for polytechnics, but it would require capacity building for teachers of business-related skills and a learning facility on campus.

10. APPENDIX: SUMMARY OF PROPOSED ACTION PLANS OF POLYTECHNICS

A. Proposed action plan of Polibatam

Pillar	Action plan
Equity	1. Increasing access to Polibatam for people with disabilities, the community and students from undeveloped areas. The priority is creating an affirmative policy to allow young people from undeveloped areas to access the D2 programme for skills training (non-degree projects such as joint skills training with industry). Date: New academic calendar 2023 2. Establishing and strengthening a unit to handle staff and student well-being. Date: Proposal to senior management in January 2023 3. Strengthening the multi entry, multi exit (MEME) system, such as the D2 Fast Track. Date: New academic calendar 2023
Quality	1. Improving the capacity of teachers through industry experiences (lecturer apprenticeship in global industry). Proposed as part of staff mobility. Date: 1st semester of 2023 2. WorldSkills competition: Implemented at the local to national level, relevant to the curriculum (ask for technical assistance from CoGC regarding the implementation of WorldSkills). Skills competition at the Polibatam level. Date: 1st semester 2023 3. Establishing and strengthening a customer relationship management (CRM) unit at the polytechnic level. CoGC strategy can be replicated with some adjustment, where CRM is responsible for building and managing industrial engagement and business development. Date: 2nd Semester 2023 4. Develop non-degree programmes (technical training), reskilling and upskilling programmes. Date: 1st semester 2023

Pillar	Action plan
Relevance	1. CIPS can provide support as a centre of excellence, which is very relevant for development at Polibatam. Date: 2nd semester 2023 2. Strengthening the career and counselling units. CoGC has a unit for student services that caters to the different needs of students. Some of the support provided by this unit includes job information, career development and non-physical supporting facilities such as career centres and career path counselling. Date: 1st semester 2023 3. Strengthening the apprenticeship programme. The Logistics and International Trade study programme has developed a competency standard for the apprenticeship programme. Coordinate with senior management for the promotion of a structured apprenticeship programme to other departments/study programme. Date: 2nd semester 2023

B. Proposed action plan of Polimarin

Pillar	Action plan
Equity	1. Provide various kinds of stimulus in the form of directions, regulations and policies to provide awareness of the importance of inclusiveness in campus development towards the Polimarin vision as an international-standard polytechnic. (The timeline is March 2023, when Polimarin starts to build a new campus.) 2. Improve the curriculum by incorporating decolonization elements as one of the learning materials given to students in each study programme at Polimarin. (The timeline is April 2023, when Polimarin has several workshops to review the curriculum.) 3. The safeguarding team (PPKS Polimarin) must increase efforts to prevent incidents of harassment through various socialization activities about preventing harassment on campus. In the event of an accident, the team needs to choose an appropriate action based on the type of harassment that occurred. (The timeline is February 2022, when PPKS Polimarin held some events on staying safe during socializations).
Quality	1. A review of the curriculum needs to be carried out to add input from industry and stakeholders, ensuring the curriculum used matches current conditions. (The timeline is May 2023, when Polimarin has several workshops to review the curriculum.) 2. Improving English language skills pioneered by lecturers and then used by students so an English-speaking climate can be formed through learning processes and daily activities on campus. (The timeline is September 2023, when Polimarin starts a new semester.) 3. Increasing the professional competence of lecturers by carrying out various kinds of FGDs (focus group discussion) and workshops related to the learning process, including assessment, feedback and reflection activities by lecturers. (The timeline is June 2023, when Polimarin reaches mid-semester, meaning lecturers have some spare time.) 4. Improving the Polimarin Quality Management System (QMS) by developing an online system that allows for organizing, monitoring and evaluating data. (The timeline is July 2023, when Polimarin will build an online system for QMS.) 5. Socialization of the Learning Management System so that all system users can obtain maximum benefit from existing devices for learning activities at Polimarin. (The

Pillar	Action plan
	timeline is August 2023, when Polimarin reaches the end of the semester, meaning lecturers have some spare time.) 6. Management review of the use of simulators and laboratories. The review aims to improve performance and maximize the function of each piece of equipment at Polimarin. (The timeline is March 2023, when Polimarin has the 1st quarter management review meeting.) 7. Planning for periodic maintenance of safety training equipment in accordance with standards, and Polimarin budget planning for additional safety training equipment for seafarers. (The timeline is January 2023, when Polimarin does the maintenance planning for all equipment.)
Relevance	1. Polimarin is planning to sign a memorandum of understanding with Solent University. The Cooperation Division of Polimarin and Solent University want to collaborate on expanding its main industrial cooperation with foreign industries. (The timeline is April 2023, when Polimarin starts a new semester.) 2. On the industrial side, it is necessary to implement additional cooperation agreements with graduate user stakeholders. From the student side, academic and professional skills need to be improved so they can adjust to maritime industry standards. (The timeline is March 2023, when Polimarin starts a new semester.) 3. Maintain an ongoing dialogue between Polimarin and maritime institutions, especially members of PIAB (the Polimarin Industrial Advisory Board) to provide input on the development of education and improve the skills of Polimarin students, in line with the latest industrial developments. (The timeline is March, June, September and December 2023, which are the quarterly meetings of PIAB.)

C. Proposed action plan of PPNS

Pillar	Action plan
Equity	1. PPNS through the Skills for Prosperity Programme will assess the feasibility of all study programmes in accepting people with disabilities (PWD) to study at PPNS. The assessment will also involve shipyard industries to identify the availability of occupations for PWD. 2. PPNS will develop a better culture in terms of equality, diversity and inclusion (EDI) among the staff, students and wider community through the intensive socialization of EDI. The PPNS GEDSI Task Force will be responsible for the socialization.
Quality	1. PPNS through the SfP project has started to develop a management information system (MIS) for some aspects of management, such as MIS internships and alumni, and MIS for scheduling. Further development needs to be emphasized for research areas and the Learning Management System. 2. PPNS through the Industrial Advisory Board (IAB) will propose collaboration with industries on research in line with the government's matching fund. This programme will be introduced at the next PPNS IAB annual meeting. 3. PPNS will establish an International Class in 2023 to promote the programme to neighbouring countries. Assistance from UoS should accelerate the process.

Pillar	Action plan
	- PPNS will expand the facilities for students, both for supporting academic and non-academic activities. More comfortable co-working spaces for self-study or group study are needed to support an academic atmosphere. - PPNS needs to establish and strengthen a research group focusing on selected areas to support a clear and achievable research roadmap.
Relevance	- PPNS will involve student representatives in reviewing curriculum and teaching methods. A Quality Management Unit for Teaching and Learning at PPNS should develop a mechanism for student representatives to be involved in curriculum review and development. - PPNS plans to implement more virtual reality (VR) for teaching and learning processes. A few modules have been developed through the SfP project, however the quality and complexity of the VR module needs to be improved. - The implementation of student-centred learning at PPNS needs to be reviewed and improved. A method that can encourage students to be more active is needed.

D. Proposed action plan of Polimanado

Pillar	Action plan
Equity	- To develop a support system for students in the form of chaplaincy services (Polytechnics have a system, but it is still in the early stages). This will be led by lecturers in MKWU – Mata Kuliah Wajib Umum (there are four compulsory subjects). The quality and accountability of the process will be monitored by a Quality Assurance team. - To develop an online system to include student voices. - To empower an existing taskforce relevant to student problems (such as PPKS for sexual harassment).
Quality	- Centre for Business and Entrepreneurship: - Activate existing businesses and entrepreneurship: cafe, bar, polymart, tax centre, welding, furniture in each department. - Engage SMEs in industry relationships and channel their products to polytechnic customers through its business centre. - Empower SMEs through an outreach programme. - Project-based learning: - Assign a project manager for every project - Align projects with industry and SME needs - Online learning system: - Develop an online system of learning where students can access instructional materials and notes after the classroom session. - The IT team must develop a platform that every lecturer and student can freely access.

Pillar	Action plan
Relevance	1. Centre of Excellence for Sustainable Tourism • Activate the existing Polytechnic Centre of Excellence led by Rudy Mait. A centre focusing on civil and mechanical engineering products (such as furniture, virgin coconut oil and welding has been active and needs to expand to include tourism, as the trend is favourable. • Design a tourism task force working together with groups of lecturers in tourism to develop various project-based learning schemes related to sustainable tourism programmes. • Select target communities, sites or villages to be developed, trained and empowered by working together with local officials to ensure the sustainability of the programme. The programme was successfully replicated in Desa Budo with certain modifications. Among the projects that can be developed is building a digital village in collaboration with a national telecommunications company, developing a small Maritime Museum as a learning centre for students, or a providing a homestay with solar power or hydroelectric power. (Polytechnics have these resources and expertise.) • Facilitating the development of a destination management organisation (DMO) among villages and communities to strengthen their bonds and support targeted communities, in addition to its primary function of marketing and managing their attractions. • Apply for a budget from the Ministry of Education (under the matching fund scheme) and the Ministry of Tourism for a DMO to support the programme in the early stages. 2. Politeknik Negeri Manado can become a tourism destination by providing attractions • The Tourism Department has abundant resources of PBL (Project-based Learning), where students master various dance and music skills, the ability to play various instruments, culinary techniques, storytelling and guiding skills. They could be supported by the prevailing café, bar and investment gallery in terms of souvenirs. This soft and hard inventory has been slowly transformed into a tourism attraction, inserted into the agenda of tourists to Manado, where they can see live performances by students, enjoy fine dining and entertainment, and purchase souvenirs. • The task force will be led by the Study Programme Coordinator.

11. EMERGING FOLLOW-UP AS OF LATE FEBRUARY

The impact expected from the study tour was not only institutional, but extended equally to individuals. Although an institutional action plan will create a strategic direction for the polytechnics, individual impacts are equally important as the participants will drive change within their jobs and institutions. For example, when a teacher changes their teaching method by adopting those from the UK partners, it affects the learning process and results of hundreds of students. For this reason, the Skills for Prosperity programme encourages teachers to make both institutional and individual follow-up.

As of February 2023, the impact of the study tour has emerged both institutionally and individually. Several of these impacts recorded from the four polytechnics can be summarized below.

A. Polibatam

- ▶ Initiation of establishing an Academic Service Unit to handle student well-being and mental health. This unit is proposed as an HR unit at Polibatam.
- ▶ Proposal to senior management of Polibatam to establish an upskilling and reskilling training programme for students, alumni and employees.
- ▶ Proposal to senior management of Polibatam to provide career development and coaching services for unemployed students

and alumni by building cooperation with Polibatam Alumni Network and Alumni Association.

- ▶ Assigned the person in charge on skills competitions at the Business Management Department level. Logistics and International Trade study programme is under the Business Management Department.
- ▶ Participants changed their learning methods to be more participative and student-centred. For example, teachers use padlet and metimeter to encourage student participation during sessions.
- ▶ Teachers were motivated to improve English skills, not only for continuation of education, but also to enable them to follow and participate in global trends, seminars and international research. In addition, they were motivated to improve the English portions of learning activities. Some of the teachers took English courses after returning from the UK. Participants also set up an English environment between teachers to practice their English.

B. Polimarin

- ▶ Polimarin and Solent University are developing an academic partnership that covers various aspects of capacity building, including a teacher exchange, industry network and teacher training. The draft is being reviewed by SU.

C. PPNS

- ▶ A Joint Summer Camp programme between UoS and PPNS students is scheduled for July 2023, 15 UoS students already registered.
- ▶ A memorandum of understanding between PPNS and UoS is under review.
- ▶ Several articles from PPNS are being reviewed by UoS for submission to an accredited international journal. This is part of a plan for joint publication between PPNS and UoS.

D. Polimanado

- ▶ Extending soft skills integration to other study programmes (within the accounting department).
- ▶ Some lectures used the participatory learning method from UoG as teachers aim to raise student participation.
- ▶ Developed a business centre for Polimanado students, such as a café and bar.
- ▶ Some teachers used digital assessment tools after a course (Kahoot, padlet)