ASEM Technical & Vocational Education & Training Seminar
Riga, Latvia
25th – 26th April 2018

INSPIRING BRUNEIANS TOWARDS EXCELLENCE
PRESENTATION

AGENDA

- Introduction of IBTE
- Alignment to National and Ministerial Initiatives
- Transformation of Technical Education
- IBTE’s Strategic Initiatives:
  - Course restructuring
- Way forward
INTRODUCTION
OF IBTE
VISION:
A Leading National Institution in Post-Secondary Technical Education and Training by 2018

MISSION:
To produce highly skilled and employable graduates that meet stakeholders’ expectation through holistic learning environment

"Long term benefits for the individual, economy, society and nation"

"A whole new world of technical education for future generation"
CORE VALUES

1. Competence
2. Integrity
3. Teamwork
4. Collaboration
5. Innovative
6. Excellence
SCHOOLS run the programmes and courses

CAMPUS is where the schools are located that run the academic affairs and administrative matters of the Schools
STUDENTS POPULATION IN 2015

3906 students in total

By Campus

- IBTE Sultan Saiful Rijal Campus: 686 students
- IBTE Jefri Bolkiah Campus: 502 students
- IBTE Nakhdra Ragam Campus: 635 students
- IBTE Sultan Bolkiah Campus: 449 students
- IBTE Mechanical Campus: 834 students
- IBTE Business Campus: 540 students
- IBTE Agro Technology Campus: 260 students

By Type of Programme

- BDTVEC: 1903 students
- IBTE: 1225 students
- ICF: 778 students
ALIGNMENT TO NATIONAL AND MINISTERIAL INITIATIVES
Three main changes to ensure that the Brunei education system stays relevant at all times and brings about high quality education and these include:

**THREE PILLARS OF SPN 21**

- **Education Structure**
- **Curriculum and Assessment**
- **Technical Education**
MOE 4 CHECK POINTS

QUALITY EDUCATION TOWARDS A DEVELOPED, PEACEFUL AND PROSPEROUS NATION

Reduce Unemployment Rate by 80%

Top 50 in PISA

Improve Brunei Rank in GCI

Employers’ Satisfaction

NOTE: PISA: Programme for International Student Assessment
TRANSFORMATION OF TECHNICAL EDUCATION
TVET SYSTEM
CASE FOR CHANGE

- Not immune to challenges
- Responding to national aspirations (SPN-21 and Wawasan 2035)
- Lack of focus on skills development and alignment with national manpower needs
- Challenge is to build a first-class post-secondary technical education institution
- Department of Technical Education (DTE) system no longer relevant or responsive in a modern-day competitive economy
Department of Technical (DTE) was established in 1993

DTE is no longer relevant and responsive to the rapid changes in global environment

Lack of focus on skills development and alignment with national manpower needs

A need of a new system of governance to stay relevant and responsive
“...In this regard, it is also appropriate for the Ministry of Education to re-assess the position of technical and vocational education to ensure that this education can contribute to the requirements of industries and employment for locals.”

Translation of excerpt from His Majesty’s Titah in conjunction with the New Year 2013
IN RESPONSE to the need to restructure and establish a new system of technical and vocational Education and training which is better aligned with the social and economic needs of the country, Institut Pendidikan Teknikal Brunei (IBTE) was established on 27th May 2014, following the consent of three documents by His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam:

- The White Paper
- Upgrading Plan for Technical Education
- Institute Brunei Technical Education Order 2014
A whole new world of technical education for future generation

Building a first-class post-secondary education institution

Maximising the potential of every individual especially those inclined towards hands-on

TVET system that allows social/career mobility and Education Progression
PROPOSED KEY CHANGES

6 IBTE STRATEGIC INITIATIVES

Course Restructuring
Expanding Apprenticeship Scheme
New Scheme of Service
Progression Opportunities & CET
Communication & Rebranding
Upgrading Training Environment
IBTE STRATEGIC INITIATIVES: COURSE RESTRUCTURING
COURSE RESTRUCTURING

30% Theory
70% Practical

COMPETENCY BASED PROGRAMMES

This is to ensure the programmes run in IBTE meet the industrial standards and produce job-ready graduates.

Competency Based Training and assessment
Experiential/authentic teaching and training environment
Life skills, entrepreneurship, life long learning skills, MIB & IRK

IBTE PROGRAMMES
- ISQ
- NTEC
- HNTEC
- COP
- Diploma (Level 5)

As of 2016
INTERNATIONAL/INDUSTRY ACCREDITATION/CERTIFICATION IN IBTE

**MANAGEMENT LEVEL**

ISO 9001:2008 – Quality Management System (For all the Schools, Curriculum Division & Registrar Office)

**SCHOOL AND PROGRAMME LEVEL**

- Brunei Marine Academy: Provisional International Maritime Organisation (IMO) certification
- Rigger programme: LEEA (Lifting Equipment & Engineer Association)
- CIT Programmes: Computing Technology Industry Association (COMPTIA)
- HSSE Programme: OPITO – International Minimum Industry Safety Training (IMIST)
- School of Aviation: BAR PART 147/ PART 66
CURRICULUM DEVELOPMENT CYCLE
-ADDIE MODEL

1. ANALYSIS
2. DESIGN
3. DEVELOPMENT
4. IMPLEMENT
5. EVALUATION
DATA COLLECTION FOR EVIDENCE BASED PLANNING

FEATURE ANALYSIS
The factors identified for ranking the programmes:

1. Ratio of 1st choice applicants for a programme to vacancy(Quota) for the programme
2. No. of 1st Choice Application for a programme
3. Success Rate (Passing Rate) of graduates per programme
4. Employment Rate of graduates from a programme (6 months after graduation)
5. TRP (Training Related Placement) Rate – match between Qualification against Job of graduates
6. Industry Demand for programme
Case:
Industry Competency Framework (ICF)

Outcomes derived from ICF:

- The collaborative and strong government commitment (EID & MOE)
- Partnership with the industry (EID, MOE & Oil and Gas Industry)
- Career Chart defined for each program
### Potential Demand for Industry Competency Framework (ICF) Critical Occupations

#### EICF Phase 1 Programmes

<table>
<thead>
<tr>
<th>HNTec Phase 1 Programmes</th>
<th>Immediate Vacancies and Positions filled by Expatriates</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Electrician Engineering</td>
<td>290</td>
</tr>
<tr>
<td>b. Instrumentation and Control Engineering</td>
<td>105</td>
</tr>
<tr>
<td>c. Plant Engineering</td>
<td>365</td>
</tr>
<tr>
<td>d. Mechanical Engineering</td>
<td>180</td>
</tr>
</tbody>
</table>

#### ISQ Phase 1 Programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Immediate Vacancies and Positions filled by Expatriates</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Rigger</td>
<td>355</td>
</tr>
<tr>
<td>b. Welder</td>
<td>684</td>
</tr>
<tr>
<td>c. Scaffolder</td>
<td>605</td>
</tr>
<tr>
<td>d. Marker/Pipefitter</td>
<td>516</td>
</tr>
</tbody>
</table>

**Total 3100**

#### ISQ Phase 2 Programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Immediate Vacancies and Positions filled by Expatriates</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Mason</td>
<td>271</td>
</tr>
<tr>
<td>b. Carpenter</td>
<td>331</td>
</tr>
<tr>
<td>c. Industrial Painter &amp; Blaster</td>
<td>283</td>
</tr>
</tbody>
</table>

#### Logistic and Warehouse Management

<table>
<thead>
<tr>
<th>Programme</th>
<th>Immediate Vacancies and Positions filled by Expatriates</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Crane Operator</td>
<td>343</td>
</tr>
<tr>
<td>b. Forklift Driver</td>
<td>343</td>
</tr>
<tr>
<td>c. Service Driver</td>
<td>343</td>
</tr>
<tr>
<td>d. Logistic Foreman</td>
<td>343</td>
</tr>
<tr>
<td>e. General Helper</td>
<td>343</td>
</tr>
</tbody>
</table>

**Total 1228**

#### EICF Phase 2 Programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Immediate Vacancies and Positions filled by Expatriates</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Completion and Well Intervention Operator and technician, b. Roustabout, c. Workshop Technician</td>
<td>343</td>
</tr>
</tbody>
</table>

#### BMA (Brunei Marine Academy)

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Requirements (2013 - 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECK</td>
<td></td>
</tr>
<tr>
<td>1. Master</td>
<td>127</td>
</tr>
<tr>
<td>2. Chief Officer</td>
<td>109</td>
</tr>
<tr>
<td>3. Second Engineer/Second Mate</td>
<td>119</td>
</tr>
<tr>
<td>4. Officer Trainer</td>
<td>52</td>
</tr>
<tr>
<td>5. Deck Officer Cadet</td>
<td>137</td>
</tr>
<tr>
<td>6. Boatswain</td>
<td>69</td>
</tr>
<tr>
<td>7. Able Bodies Seaman</td>
<td>348</td>
</tr>
<tr>
<td>8. Ordinary Seaman</td>
<td>173</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>1117</strong></td>
</tr>
<tr>
<td>ENGINE DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>1. Chief Engineer</td>
<td>87</td>
</tr>
<tr>
<td>2. Second Engineer</td>
<td>111</td>
</tr>
<tr>
<td>3. Third Engineer</td>
<td>55</td>
</tr>
<tr>
<td>4. Trainer Engineer</td>
<td>41</td>
</tr>
<tr>
<td>5. Engineering Cadet</td>
<td>62</td>
</tr>
<tr>
<td>6. Deck Rating/Mechanist</td>
<td>253</td>
</tr>
<tr>
<td><strong>Sub-total:</strong></td>
<td><strong>602</strong></td>
</tr>
<tr>
<td>CATERING DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>1. Chief Cook</td>
<td>21</td>
</tr>
<tr>
<td>2. Cook</td>
<td>17</td>
</tr>
<tr>
<td>3. Steward/Mess Boy</td>
<td>65</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>103</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>1846</strong></td>
</tr>
</tbody>
</table>

**Note:**
- Projected manpower requirement (from local BSP marine companies) excluding Onshore Base
- Demand figures as of November 2013 (EICF, Workforce Development Group)
- *Demand data being evaluated*
CHARACTERISTICS OF ICF PROGRAMMES

Strong ownership and support from industries:
- Development of curriculum,
- Delivering (Subject Matter Expert) and
- Competency Based Assessment

✓ Selection of students (Industries and MoE)

70% hands on

30% theory

✓ Dual certificate

✓ Conditional offer of Employment (COE)
EICF: CAREER LADDER FOR PLANT ENGINEERING - OPERATOR/MAINTAINER & TECHNICIAN

INDUSTRY EXPERIENCE

Timeline
0 yr
2 yrs
4 yrs
8 yrs
12 yrs
16 yrs
20 yrs
24 mths
HNTec
NTec
Operator/Maintainer
Junior Operator/Maintainer
Competency: Assessed Competent Knowledge
Competency: Assessed Competent Skill
HNTec
Degree
Diploma
Training/Support/Development

Operations Installation Manager
Operations/Maintenance Superintendent
Senior Technician
Operation/Maintenance Lead
Competency: Team lead / player,
Good knowledge in Planning, Emergency Response
Opt to change career Path (require further training)
Competency: Skill Passport
Recorded throughout the progression stage

Trainee
Basic
Skilled
Supervisory
Leader
Basic salary: $750 - $950
$950 - $1,300
$1,300 - $2,300
$2,300 - $3,200
> $3,200
First Key Performance Indicator (KPI): **Employment rate** (self-employed & employed)

- The percentage of graduates being employed 6 months after graduation from IBTE courses (80% by 2017)

### Employment Rate of IBTE Graduates

<table>
<thead>
<tr>
<th>Year</th>
<th>Employability Rate</th>
<th>Job Relevant to Program (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>64.2%</td>
<td>n/a</td>
</tr>
<tr>
<td>2011</td>
<td>66.9%</td>
<td>74%</td>
</tr>
<tr>
<td>2013</td>
<td>63.8%</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>67.3%</td>
<td>65%</td>
</tr>
<tr>
<td>2015</td>
<td>71.5%</td>
<td>74%</td>
</tr>
<tr>
<td>2016</td>
<td>74.5%</td>
<td>74.8%</td>
</tr>
<tr>
<td>2017</td>
<td><strong>61.3%</strong></td>
<td><strong>66.3%</strong></td>
</tr>
<tr>
<td>2018</td>
<td><strong>80%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Graph and Table based on 2017 report
Second Key Performance Indicator (KPI): Employers’ satisfaction rate

- The proportion of employers (i.e. supervisors) being satisfied with the work and performance of our hired graduates (90% or above by 2017)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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</thead>
<tbody>
<tr>
<td>Employers’ satisfaction rate [% of employers satisfied with our graduates]</td>
<td>96.5%</td>
<td>91.0%</td>
<td>90.9%</td>
<td>81.8%</td>
<td>85.2%</td>
</tr>
<tr>
<td>Number of employers’ responses</td>
<td>97</td>
<td>134</td>
<td>208</td>
<td>237</td>
<td>297</td>
</tr>
<tr>
<td>Number of employers’ approached</td>
<td>190</td>
<td>239</td>
<td>237</td>
<td>407</td>
<td>450</td>
</tr>
</tbody>
</table>

Note: Graph and Table based on February 2018 report
EMPLOYER'S SATISFACTION SURVEY REPORT 2018

85.2% SATISFIED on overall work and performance of hired graduates

297 SUPERVISORS

24TH NATIONAL CONVOCATION (graduated Nov 2016)

PERCEPTION OF TVET

AGREED
that IBTE is producing enough supply of TVET graduates to meet the industrial needs

AGREED
that IBTE has been providing appropriate skills to its graduates

Proportion of Employers SATISFIED + VERY SATISFIED by Industry Sector

INFORMATION & COMMUNICATION TECHNOLOGY
67% (n = 3)

OIL AND GAS
74% (n = 84)

CONSTRUCTION
81% (n = 42)

AUTOMOTIVE
82% (n = 11)

RESTAURANT & CAFES
86% (n = 14)

EDUCATION
86% (n = 14)

RECREATIONAL & HOSPITALITY
89% (n = 18)

PUBLIC ADMINISTRATION
93% (n = 14)

PRIMARY RESOURCE PRODUCTION AND MANUFACTURING
94% (n = 17)

TECHNICAL AND PROFESSIONAL SERVICES
96% (n = 47)

BANKING, FINANCE & INSURANCE
100% (n = 7)

LOGISTIC AND TRANSPORTATION
100% (n = 10)

MEDIA
100% (n = 4)

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100% (n = 10)

MEDIA
100% (n = 4)
11% keeping curriculum up to date with industrial requirements

8% strengthen the industrial attachment

6% expose students to real work environment

5% Diversify IBTE courses to open up more opportunities

4% Improve teaching & learning

15% strengthen students’ life skills

14% more emphasis on practical skills

4% strengthen IBTE instructors’ skills and knowledge

6% strengthen students’ literacy & numeracy

4% strengthen students’ technical knowledge

EMPLOYERS’ SATISFACTION SURVEY REPORT 2018

87 RESPONDENTS provided feedback, comment and suggestions

34 RESPONDENTS provided feedback, comment and suggestions
IBTE graduates from the 24th National Convocation are employed in a wide range of public and private agencies. Our graduates are employees of
IBTE graduates from the 24th National Convocation are employed in a wide range of public and private agencies. Our graduates are employees of...
Third Key Performance Indicator (KPI): **Completion rate**

- The number of students who successfully complete the program divided by the number of students registered (90% by 2017)

### Students' Completion Rate

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' Completion Rate [% of students who successfully complete the program divided by the number of students registered]</td>
<td>80.9%</td>
<td>89.7%</td>
<td>87.3%</td>
<td>87.0%</td>
<td><strong>86.2%</strong></td>
<td>90%</td>
</tr>
</tbody>
</table>

**Target**

- Before Transformation
- After Transformation
- KPI Target
- KPI Achieved
THANK YOU

For more information, you can find us

ibte.edu.bn
facebook.com/brunei.technical.education
instagram.com/ibteignite