Industry Centre of Excellence (ICOE): Graduate Employability through BIM Initiatives

By

Dr. Haji Mohd Yuhyi Mohd Tadza
Director
ICOE Construction Cluster
Industry Relations Division
Ministry of Higher Education Malaysia
Introduction

- The education and higher education system in Malaysia has come a long way.
- Malaysian education system has had fair share of critiques and challenges.

World is changing. To keep pace with the challenges of the 21st Century.

Internet of Things.
Internet of Everything

Accelerating PACE of CHANGE due to DIGITAL age.
What kind of future generation do we want?

Graduates that can meet the 21st century challenges
Critical thinking skills, entrepreneurial, holistic and balanced
Balanced between character and knowledge

We want to make sure that as we go global, Malaysians have the character of **good citizenry**, someone who can contribute to the country and society via his/her ability to generate wealth for the country (by being entrepreneurial and a job creator) and able to enhance the social well-being of society at large via the knowledge acquired and transferred.

In short bringing back soul to the Malaysian education system developing **learned values-driven talent**
We want to move from the word human capital to human being (talent)
End game is to make the Malaysian Education system to be referred, respected and relevant

How can we achieve this??
Academy-Industry Cultural Gap

The Research Cycle
- Identify research area
- Design research study
- Carry out research
- Analyse research results
- Publish research results

Cultural Gap
- Industry (KPI: Profit)
- University (KPI: Quality Teaching, Publications)

Teaching
- Non Product Oriented
- Fundamental Research
- Applied Research
- Product Oriented

Product
- Non Product Oriented
- Fundamental Research
- Applied Research
- Product Oriented
## Human Capital Demand

**Economic Transformation Programme**

- 12 National Key Economy Areas (NKEAs)
- 3.3 millions new jobs by 2020
- 60% are middle & high-income jobs

### New Jobs Created (2020) in Thousands

<table>
<thead>
<tr>
<th>Industry</th>
<th>Jobs Created (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil, Gas &amp; Energy</td>
<td>52</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>42</td>
</tr>
<tr>
<td>Financial Svcs</td>
<td>275</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>595</td>
</tr>
<tr>
<td>Tourism</td>
<td>497</td>
</tr>
<tr>
<td>Business Svcs</td>
<td>246</td>
</tr>
<tr>
<td>E&amp;E</td>
<td>157</td>
</tr>
<tr>
<td>CCI</td>
<td>43</td>
</tr>
<tr>
<td>Healthcare</td>
<td>181</td>
</tr>
<tr>
<td>Education</td>
<td>536</td>
</tr>
<tr>
<td>Agriculture</td>
<td>75</td>
</tr>
<tr>
<td>Greater KL/KV</td>
<td>553</td>
</tr>
</tbody>
</table>

What is Industry Centre of Excellence (ICOE)?

- MOHE Signature program
- Industry demand driven
- Enhanced human capital
How does ICOE work?

ICOE: Human Capital Development

- Lead University working closely with Universities, Polytechnic, Community College and other training agencies.

Anchor Company

- Anchor Co provide number of job opportunity
- Anchor Co specify skill criteria & standard to achieve

Lead University

- Skilled
- Semi Skilled
- Un-Skilled

Experts / Specialist and Training infra
- Collaborators (other training agencies)

IHL, Poly, Community Colleges
- MRRD + MOHR + MYS + EPU ++
### HCD Program Structure

**Training**
- Hard & Soft Skill

**Industrials Training**
Placement provided by the anchor company and its supply chain

**Structured Internship Program**
- Courses within the curriculum
- Student project from companies
- Training during semester or semester break
- Expert lecturers from the industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Sem</th>
<th>Student Training</th>
<th>Lecturer &amp; Trainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Structured Internship Program</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Industrial Training</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>Talent Development</td>
<td></td>
</tr>
</tbody>
</table>

Training of Trainers - Continuous
11th Malaysia Plan

MOHE
Graduate Employability Blueprint

MOW
Construction Industry Transformation Plan

ICOE INITIATIVES
ICOE ACHIEVEMENTS – SINCE 2012

4200 STUDENTS

500 TRAINERS

(61% BIM related)
ICOE BIM INITIATIVES

- BIM Outreach programs
- BIM-Academia- Industry Dialogue
- Established BIM technical lab
- BIM technical training (beginner & advance training)
- 5D BIM technical training
UMP ICOE-CONSTRUCTION
BIM OUTREACH PROGRAM

1st BIM Academia
OUTREACH PROGRAM

KPTM Kuantan 202014
ICOE BIM TECHNICAL LAB
BIM ICOE ACADEMIC–INDUSTRIAL DIALOGUE AT MOHE
National ICOE CONSTRUCTION BIM-TT
beginner TRAINING

To achieve the following purpose:

a) Delivering Technical Training

b) Providing technical data for each institution involved

c) BIM support and advisory for each institution

d) *To better understand the current level of BIM Readiness

*3 out of 11 institutions are ready for Physical BSC
CONCLUSION

* Malaysians deserve the best education the country can offer.
* Nurturing future-ready graduates
* HOLISTIC, ENTREPRENEURIAL AND BALANCED GRADUATES
thank you!