Construction Industry Transformation Programme 2016-2020

Midterm Review for Enhancement

January 2019
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Preface for CITP Midterm Review

The Construction Industry Transformation Programme or CITP, as a national collaborative effort for the continued growth and success of the Malaysian construction industry, has implemented a wide range of programmes, initiatives and activities since its inception. The construction industry has been growing significantly over the years with rising demand for construction and the marketplace is becoming more competitive for both local and foreign players. Taking cognizance of the challenges ahead, CIDB had engaged an independent consultant – RSM Malaysia, to undertake the CITP Midterm Review. The objective of the review is to carry out an assessment of the midterm achievements of the CITP and to recommend the necessary adjustments and refinements to the CITP in enhancing the achievability of the aspired end-states of CITP.

A wide range of internal and external stakeholders including ministries and agencies, as well as industry players, professional boards, associations and industry experts has therefore been engaged in the midterm review, as their input and support for re-alignment and implementation are critical for the CITP to be successful. In ensuring that all aspects of the industry ecosystem is addressed in supporting the transformation agenda, the review has reckoned that a re-alignment of the CITP KPIs and initiatives are inevitable to pave the way in achieving the CITP end-states. To this end, several transformative recommendations have been proposed to realign the current Thrust KPIs and to introduce new Thrust Output KPIs such that the end-state desired can be better achieved by 2020.

Moving forward, the construction industry need to focus on enforcement for construction worksite safety, where CIDB, DOSH and other agencies are crucial in playing their roles. Construction Design Management (CDM) will be enacted by 2020 to ensure health and safety issues are properly considered during the project’s development. QLASSIC assessment for affordable housing is introduced to ensure quality of workmanship are up to standard. CIDB will continue to ensure the quality of construction materials and compliance with standards. Besides that, BIM-enabled national specification for construction will be developed and adopted by both the public and private projects using BIM by 2023. Another key highlight is the adoption of “Gerbang Nilai”, a Gateway Review Process comprising 4 phases (planning phase, design phase, tender phase and handover phase) that will be made mandatory for JKR projects to improve the delivery of projects and to provide assurance that projects can progress successfully to the next phase. On the agenda of creating sustainable construction environment, more emphasis will be given to ensuring resilient construction and sustainability aspects of infrastructure and buildings by encouraging the adoption of sustainability tools such as MyCREST and Sustainable INFRASTAR.

CIDB encourages the construction industry to embrace the Industry 4.0 and to enhance the productivity levels through the adoption of modern construction technologies such as IBS and BIM. CIDB will be launching the National Construction Industry Information Center (NCIIC) with six key strategic information and digital analytics components by 2020. Construction cost forecasting model will be rolled out by 2020 to ease the strategic decision-making process based on latest dataset. Digital tracer study leveraging on modern technologies such as artificial intelligence and blockchain will be introduced to keep track on the industry absorption rate of the trainees graduating from CIDB training centres. The Malaysian construction industry players will also need to enhance their capabilities & competitiveness in order to compete at the international level. CIDB will focus on enhancing the access to financing for overseas construction projects which will allow the Malaysian construction-related companies to export their products and services. To improve their overall competitiveness in the industry, contractors’ capability and capacity improvement exercise via SCORE rating will be strengthened and widely promoted for better take-up. The midterm review outlines four thrusts to support the transformation of the construction industry in Malaysia. The First Thrust is to improve Quality, Safety & Professionalism across the construction industry, followed by the Second Thrust to emphasize Sustainable Construction in the value chain. The Third Thrust aimed to enhance the construction industry’s Productivity, while the Fourth Thrust is to create greater business Competitiveness and Internationalization of construction companies.

The CITP signify a major step toward streamlining the construction industry and preparing it for a major leap forward. As such, the leadership position taken by the Ministry of Works in spearheading inter-ministries collaboration is vital. With the new priorities and emphases in the remaining CITP period, all government agencies, private sector players, professional boards, associations and industry expert must collaborate synergistically to ensure the success of the CITP implementation.
The CITP review journey have gone through the “5-R” process methodology
Revalidate, Review, Reset, Refine, Result

5R process for the Midterm Review Exercise

**CURRENT CITP**

**CONSTRUCTION INDUSTRY TRANSFORMATION PROGRAMME**
2016 - 2020
Driving Construction Excellence Together

- 4 End-State
- 9 Thrust KPIs
- 21 Initiatives
- 115 Active Initiatives KPIs

**REVISED CITP**

- Finalization of Thrust KPI, Initiatives & KPIs
- Finalization of implementation program

**R1: Revalidate**
- Assessing existing Thrust KPIs, Initiatives & KPIs
- Revalidate existing KPIs and relevancy of the KPIs

**R2: Review**
- Prioritization & feasibility
- Root-cause analysis
- Developing potential solutions

**R3: Reset**
- Exploring improvement areas & enablers
- Syndication Workshops
- Re-alignment of KPIs

**R4: Refine**
- Refinement of Thrust KPIs, Initiatives & KPIs
- Develop governance structure

**R5: Result**
Case For Change
### Pain Points Analysis

<table>
<thead>
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<th>Pain Points</th>
<th>Resolution</th>
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<tbody>
<tr>
<td><strong>1</strong> KPIs achieved but the impact is not felt due to more than 80% are input and process KPIs</td>
<td>Ensuring all KPIs are Output KPIs to set the right direction towards end-states with more resource focus on impactful KPIs</td>
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<tr>
<td><strong>2</strong> Downside on the CITP governance structure</td>
<td>Strengthen the CITP governance structure with detailed RACI to sprint towards the end states</td>
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<td><strong>3</strong> Not fast enough take-up rate for quality assessments in public and private projects</td>
<td>Mandate quality assessment with minimum score required in both public and private projects</td>
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<td><strong>4</strong> Increase in fatality rate at construction sites</td>
<td>Impose legal regulation for non-compliance on high risk activities and at least one safety officer at construction site</td>
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<td><strong>5</strong> Youth trained in low impact trades are not absorbed into industry</td>
<td>Continuous refinement on training programs based on industry feedback via post-training Tracer Study on trainees</td>
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<tr>
<td><strong>6</strong> Fragmented policy formulation and ineffective collaboration leading to inefficient implementation of CITP</td>
<td>Prioritise and improve collaborative engagement to achieve meaningful outcome</td>
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Positional Assessment on CITP KPIs through CITP Review

The CITP Review shows that there are disconnections between Initiative KPIs, Thrust KPIs and End-States. There are 115 active initiative KPIs where only 95 of them are SMART and only 12 out of 95 are SMARTER.

Based on preliminary positional assessment, out of the 115 KPIs assessed, most of the Initiative KPI are found to be Input and Process Nature. Only 17% of Initiative KPI are Output driven which can drive Thrust KPIs directly.

<table>
<thead>
<tr>
<th>Initiative KPI</th>
<th>INPUT KPI</th>
<th>PROCESS KPI</th>
<th>OUTPUT KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 KPIs</td>
<td>43%</td>
<td>45 KPIs</td>
<td>39%</td>
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<tr>
<td>20 KPIs</td>
<td>17%</td>
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Using our SMARTER methodology:

- **S** – Specific: KPI is clear and focused towards achieving target
- **M** – Measurable: KPI is able to be expressed quantitatively
- **A** – Attainable: KPI is reasonable and achievable as impactful
- **R** – Relevance: KPI is directly pertinent towards achieving target
- **T** – Time-Phased: KPI is on-track and able to achieve if timeframe given
- **E** – Efficiency: KPI is using optimal resource to achieve the KPI (both human resource & financials)
- **R** – Result-Oriented: KPI is impactful and output-driven to initiative and thrust KPI

Our Initial Findings on KPIs Positional Assessment shows there are disconnections between Initiative KPIs, Thrust KPIs and End-State.

Aside from the disconnection mentioned above, we have also revealed some challenges faced by the CITP. These challenges are mainly surrounding the topics of Governance, Strategy & Impact, Implementation, and Data Integrity. Without proper intervention and improvement, these could potentially bring adverse impact to the achievability of CITP.
Public Views and Suggestions In Relation to CITP (Before CITP Re-Alignment)

Online Public Survey

Need detailed studies and implementation to achieve the standards of CITP on 2020

A good effort towards a better systematic planning

Initiatives proposed are on the right track, however some of the initiatives and its enforcement need to be given deep thoughts on how to maintain and remain relevant in the years to come.

Question:
What are your views/comments/suggestions in relation to CITP?

Find way how to be less dependence on foreign workers

CITP should involve wider spectrum of people in the construction particularly the views of professional and major investors of the industry

Competent Project Managers to play a leading role. To make it mandatory all G7 Contractor’s Project Managers are CIDB Certified Construction Project Managers.

Need more campaign and awareness

CITP must include modern construction contract

Insufficient publicity or related program.

To adopt new technology such as BIM

To reduce complex requirements that are not reliable

Strengthen KPI if needed

Increase the implementation ways for all party about the CITP such as from media or seminars especially to the stakeholders.
Human competency, quality & safety and labour are the top three challenges

**Question:** What are the top issues facing Malaysia construction industry now?

<table>
<thead>
<tr>
<th>Issues</th>
<th>Initiative Project Owner Meeting</th>
<th>Steering Committee Meeting</th>
<th>Online Survey to Public</th>
</tr>
</thead>
</table>
| Human Competency     | • Lack of professionalism  
• Competency of workers, supervisors and managers  
• lack of project management skills, bribery  
• Low integrity amongst industry players  
• Lack of maintenance consideration during design stage | • Low productivity, labour intensive, too much reliance on foreign workers  
• Couldn’t care less attitude of contractors on safety  
• Competition from foreign consultants n contractors  
• Low wages and no enforcement of professional fee  
• Lack of meaningful collaboration in addressing major issues | • Worker knowledge and professionalism  
• Project complexity  
• Delivery on time and on budget  
• Lack of productivity  
• Difference of generations  
• Lack of communications/coordination between stakeholders  
• Unreliable contractors |
| Quality & Safety     | • Frequent occurrences of accidents and deaths  
• Site Incident  
• More qualified safety officers  
• Insufficient designers who can design for safety  
• Construction disputes  
• Quality of material  
• Low quality of built environment | • Quality, safety and Health issues  
• Safety issue  
• A lot of incidents at the work sites  
• Poor workmanship  
• high fatalities  
• Poor quality | • Safety measures being complied  
• Construction disputes  
• Quality in construction works |
| Labour               | • Lack of skill workers  
• Locals workers aren’t interested in working together with foreign workers  
• Increase in unskilled foreign workers  
• Need more qualified project managers | • Unskilled foreign workers  
• High reliance on Foreign workers  
• Lacking Of Malaysian labour  
• Lack of local skilled workers | • Over dependence on foreign labour  
• Shortage of qualified workers |
| Environment          | • Dirty construction sites  
• No proper accommodation for workers | • Quality issue, Sustainability Issues | • Working environment at site  
• Environment sustainability  
• Wastage/Disposal management |
| Regulatory Framework | • Too many standard form of contract  
• Lack of policies in the environmental agenda in the construction industry | • Reliance on foreign workers Low wages  
• Policy matter | • Unfavourable contract terms |
| Governance           | • Lack of government support  
• Lack of sustainability for all projects | • Lack of enforcement by PBT  
• High cost on construction | • Government support  
• Funding availability & support |
| Technology           | • Low technology  
• Slow adoption of new technology | • Technology issue  
• Technology adoption and low sense of urgency to adopt | • Technology adoption  
• High cost of equipment & machineries |
What’s New in CITP Review
CONSTRUCTION INDUSTRY TRANSFORMATION PROGRAMME
2019 - 2020

Driving Construction Excellence Together

Quality, Safety & Professionalism
Environmental Sustainability
Productivity
Internationalisation & Competitiveness

36 Thrust KPIs
4 Sponsors
19 Owners
30 OICs
8 Focus Areas
50 SME Pool
36 SME Buddies
CITP
KEY OUTCOMES
BY 2020

01
Quality, Safety & Professionalism
Improved quality, safety and professionalism across the construction industry

02
Environmental Sustainability
Sustainable construction emphasis in the value chain

03
Productivity
Double construction industry productivity from 2011

04
Internationalisation & Competitiveness
Greater business competitiveness of construction companies
CITP Implementation Goals

Construction Industry Transformation Programme for 2019-2020

**THRUSTS**

1. **Thrust 1**
   - Quality, Safety & Professionalism
   - Quality, safety & professionalism to be ingrained in industry culture

2. **Thrust 2**
   - Environmental Sustainability
   - Malaysia’s sustainable construction to be a model for the emerging world

3. **Thrust 3**
   - Productivity
   - Productivity of the industry is more than doubled, matched with higher wages

4. **Thrust 4**
   - Internationalization & Competitiveness
   - Malaysia champions to lead the charge locally and abroad

**END-STATES**

1. **Thrust 1**
   - Quality, Safety & Professionalism
   - Improved quality, safety and professionalism across the construction industry

2. **Thrust 2**
   - Environmental Sustainability
   - Sustainable construction emphasis in the value chain

3. **Thrust 3**
   - Productivity
   - Double construction industry productivity from 2011

4. **Thrust 4**
   - Internationalization & Competitiveness
   - Greater business competitiveness of construction companies

**INTERMEDIATE END-STATES**

1. **Thrust 1**
   - Quality, Safety & Professionalism
   - Improved quality, safety and professionalism across the construction industry

2. **Thrust 2**
   - Environmental Sustainability
   - Sustainable construction emphasis in the value chain

3. **Thrust 3**
   - Productivity
   - Double construction industry productivity from 2011

4. **Thrust 4**
   - Internationalization & Competitiveness
   - Greater business competitiveness of construction companies

**THRTS OUTPUT KPIS**

1. **Thrust 1**
   - 11 Thrust KPI

2. **Thrust 2**
   - 6 Thrust KPI

3. **Thrust 3**
   - 9 Thrust KPI

4. **Thrust 4**
   - 10 Thrust KPI

**Which can be categorized into 8 Focus Areas**

1. **Focus Area 1**
   - Quality

2. **Focus Area 2**
   - Safety

3. **Focus Area 3**
   - Professionalism

4. **Focus Area 4**
   - Sustainability

5. **Focus Area 5**
   - Skills Training

6. **Focus Area 6**
   - Technology

7. **Focus Area 7**
   - Export

8. **Focus Area 8**
   - Competitiveness

**KPIs**

1. **4 KPIs**
2. **2 KPIs**
3. **5 KPIs**
4. **6 KPIs**
5. **3 KPIs**
6. **6 KPIs**
7. **4 KPIs**
8. **6 KPIs**

**Annual Targets + Weightage + Activities**
FOCUS AREA 1: QUALITY
Current Status vs Anticipated Outcome

### Quality

#### Current Status - 2018

**QLASSIC Assessment**
- QLASSIC assessment is mostly done by private sector on residential buildings. From 2016 to Q2 2018, on average around 500 projects scored >70% in QLASSIC assessment

#### Construction Material
- There are 13 products and materials categories that are under regulation of Construction Product and Material Under CIDB Act 520 in accordance with the standards specified in the Schedule 4 (about 70 construction material product standards at present)

### Anticipated Outcome - 2020

**QLASSIC Assessment**
- More than 30% of total number of residential building projects achieve a minimum QLASSIC score of 65 by Q4 2020
- 25% of non-residential buildings with project value more than RM 10 million adopt QLASSIC and achieve minimum scoring of 65 from Jan 2021 onwards
- 100% public affordable housing projects achieve minimum QLASSIC score of 65 by Q4 2020

**Construction Material**
- 5 new construction material product standards (Schedule 4 of CIDB Act 520 – Conformance to Material Standard) adopted by the industry by Q4 2020
What is new in CITP Midterm Review?
Quality Assessment and Improvement

**AFFORDABLE HOUSING**
QLASSIC assessment includes residential and non-residential buildings as well as affordable housing in the assessment.

**CONSTRUCTION MATERIALS STANDARD**
Regulate conformance of Material Standard to 5 new construction material products.
FOCUS AREA 2: SAFETY
Current Status vs Anticipated Outcome

**Safety**

**Current Status - 2018**

Worksite Fatalities
- Construction worksite fatality rate has been increasing from 2012 onwards and recorded worksite fatality rate of 14.6 per 100,000 workers in 2017.

**Anticipated Outcome - 2020**

Construction Design Management (CDM)
- Construction Design Management (CDM) or Occupational Safety and Health in Construction (Management) or OSHCIM to be enacted by Jan 2020

Worksite Fatalities
- Reduction of number of worksite fatalities and injuries by 10% annually from Q1 2021 onwards (2020 as baseline)
What is new in CITP Midterm Review?
Emphasis on Safety Culture

Worksite fatalities to be reduced by 10% annually

Each construction worksite must have at least 1 *SHO/SSS/DP (excavation, piling, concreting, demolition, scaffolding, blasting, traffic management, safety net & safety belt)

New regulation to be gazetted on high risk activities (falsework/temporary structure, lifting operation, working at height)

*Note: Safety Health Officer (SHO), Site Safety Supervisor (SSS), Designated Person (DP)
FOCUS AREA 3: PROFESSIONALISM
Current Status vs Anticipated Outcome

**Professionalism**

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<th>5 KPIs</th>
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**Current Status - 2018**

- **National Specification**
  - CIDB is currently planning on the development of National Specification for Construction (NSC) in Malaysia

- **MSCESMM**
  - From 2016 to Q2 2018, around 34 public and private projects implemented using MyCESMM

- **Anti-Bribery Management System**
  - CIDB has been actively promoting MS ISO 37001 (ABMS) among contractors and construction-related companies

- **Gerbang Nilai**
  - There are low application of Gerbang Nilai in JKR projects mainly due to non-mandatory requirements. KPKR has issued circular for all JKR projects worth RM 500,000 and above must adopt Gerbang Nilai on 24th Jan 2018. The Gerbang Nilai assessment is tested on 3 pilot projects.

- **Accreditation of Construction Manager**
  - Most of public sector personnel implementing construction projects are not accredited Construction Managers

**Anticipated Outcome - 2020**

- **National Specification**
  - All public & private projects using BIM to adopt National Specification for Construction by Q4 2023

- **MSCESMM**
  - All civil engineering projects for public and private sector to adopt MSCESMM by Q4 2020

- **Anti-Bribery Management System**
  - 400 CIDB registered construction-related companies have adequate procedures to combat bribery in line with MS ISO 37001:2016 (Anti-Bribery Management Systems) by Q4 2020

- **Gerbang Nilai**
  - All public projects to adopt Gerbang Nilai by Q4 2020

- **Accreditation of Construction Manager**
  - Construction projects with value RM50 million and above must be managed by accredited Construction Manager by Q4 2023
What is new in CITP Midterm Review?
Instilling Professionalism in Malaysia Industry

All public projects to adopt **Gerbang Nilai** for successful project delivery

**Professionalism in Construction Industry**

Adequate procedures by construction-related companies in gearing towards compliance to MS ISO 37001:2016 (Anti Bribery Management Systems)

Construction projects managed by **accredited Construction Manager**

BIM-enabled **National Specification** to be developed

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<td>Skills Training</td>
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<td>Competitiveness</td>
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FOCUS AREA 4: SUSTAINABILITY
Current Status vs Anticipated Outcome

Current Status - 2018

Sustainable Infrastructure
- CIDB has developed sustainable infrastructure rating tool called Sustainable INFRASTAR for large infrastructure projects and 5 pilot projects has been successfully assessed.

MyCREST
- CIDB is currently enhancing MyCREST for assessment of CO2 reduction in new public buildings. 8 projects worth more than RM50 million has been certified in MyCREST out of 84 projects registered to be assessed.

CO2 Emission
- There are no appropriate tool to measure CO2 emission from construction industry at the moment

Waste Management
- Regulation on waste management from construction has been gazetted on 1st November 2018 under Act 672 is currently adopted by 7 states only.

Anticipated Outcome - 2020

Sustainable Infrastructure
- 50% of new infrastructure projects more than RM100 million to be certified in Sustainable INFRASTAR or any acceptable sustainable infrastructure tool from Dec 2020 onwards
- Three guidelines on Resilience Construction focus in design and project management published by Q4 2020

MyCREST
- 70% of new public sector building projects more than RM 50 million adopted MyCREST and certified in MyCREST from Dec 2020 onwards

CO2 Emission
- CO2 emission study for Malaysian construction industry value chain (design to material manufacture to transport logistics to construction site) to be completed by Dec 2019

Waste Management
- Sustainable solid waste management assessment report on at least 20 randomly selected construction sites produced quarterly from Q1 2020 onwards
What is new in CITP Midterm Review?
Sustainable Development Goals

New infrastructure projects more than RM 100 million certified in
**Sustainable INFRASTAR**

**CO2 emission baseline** in construction industry will be studied

Three guidelines on **Resilient Construction** to be published

**Sustainable construction solid waste management** assessment report to be produced
FOCUS AREA 5: SKILLS TRAINING
Current Status vs Anticipated Outcome

**Skills Training**

### Current Status - 2018

**Skill Workers**
- As of Q4 2018, there are 73,000 registered skilled workers with CIDB

**Tracer Study**
- Tracer study on skills training is done manually, in 2017 around 69% only of personnel who undergo youth training in ABM and MBAM go back to industry.

### Anticipated Outcome - 2020

**Skill Workers**
- 10% increase in the annual no of accredited skilled workers registered with CIDB from Jan 2019 onwards

**Tracer Study**
- Mandating independent tracer study on all skill trainings by CIDB by Q2 2019 to measure the industry absorption rate and implementation of digital tools by Q4 2020
- Industry absorption rate of 80% of all skills training done by CIDB after Jan 2020
**What is new in CITP Midterm Review?**

**Upskilling Malaysia Workforce**

- **10% annual increase** in CIDB registered & accredited skill workers
- More effective CIDB skills training as there will be at least 80% absorption rate of the participants into related industry
- Mandatory **Tracer Study** for all CIDB skills training program via digital tool

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FOCUS AREA 6: TECHNOLOGY
# Current Status vs Anticipated Outcome

## Current Status - 2018

**BIM**
- In Q4 2018, there are 11 JKR projects that using BIM Level 2.

**IBS**
- As of 2018, according to ICU JPM Report, more than 80% of public projects have adopted IBS.
- The level of IBS adoption in private projects was 31.7% in 2016 compared to 14% in 2014.

## Anticipated Outcome - 2020

**BIM**
- 100% of all public building projects above RM 100 million (for JKR building projects) to use BIM Level 2 by Q4 2020
- BIM e-submission (Auto-Checker) by all PBT with city status (*bertaraf Bandaraya*) by Q4 2021

**IBS**
- 80% of total no of public projects with project value RM 10 million and above to achieve 70 IBS score by Q4 2020
- 80% of total no of private projects with project value RM 50 million and above to achieve 50 IBS score by Q4 2020 and 70 IBS score by Q4 2025

**Digital Construction and Industry 4.0 Roadmap**
- Digital construction and Industry 4.0 Roadmap 2020-2025 endorsed by CITP MC by Jan 2020
What is new in CITP Midterm Review?
Aligning with Changing Technology

Digital construction and Industry 4.0 Roadmap as a national agenda to guide the construction industry towards digital future

BIM adoption for private sector is also included as the KPI to ensure the transformation throughout the industry

More stringent roll out of IBS for private sector projects with statewide aspiration

Public sector is supportive in digital construction initiative by implementing **BIM e-submission (auto checker)** in all the PBT with city status
FOCUS AREA 7: EXPORT
## Current Status vs Anticipated Outcome

### 4 KPIs

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<tr>
<th>Export</th>
<th>Current Status - 2018</th>
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<tbody>
<tr>
<td></td>
<td>Overseas Construction Projects</td>
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<td>• Between 2016 to 2018, 20 more Malaysian construction-related companies have exported construction services in the global market worth RM7.35 Billion with 90 projects across 25 countries.</td>
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<tr>
<th>Anticipated Outcome - 2020</th>
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<tbody>
<tr>
<td>Overseas Construction Projects</td>
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<tr>
<td>• 6x increase in volume of overseas construction projects &amp; construction related products secured by Malaysian companies by Q4 2020</td>
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<td>• 30 new construction-related companies export construction services in the global market before Q4 2020 (2015 as baseline)</td>
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<td>Overseas Construction Project Financing</td>
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<td>• First investment of newly setup GLC equity fund for overseas project investment to compliment Malaysian companies equity portion by Q4 2020</td>
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<tr>
<td>• 2 Malaysian companies utilizing new overseas guarantee mandate by Syarikat Jaminan Pembiayaan Perniagaan Berhad (SJPP) for overseas construction projects by Q4 2020</td>
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<tbody>
<tr>
<td>Skills Training</td>
<td>Technology</td>
<td>Export</td>
<td>Competitiveness</td>
</tr>
</tbody>
</table>
What is new in CITP Midterm Review?
Exporting Construction Services

Introduce more implementable **financing products** such as GLIC equity financing and SJPP unsecured loan guarantee for overseas construction projects

**30 new construction-related companies** to export construction services in the global market by Q4 2020

**6x increase in volume** of overseas construction projects & construction related products secured by Malaysian companies by Q4 2020
FOCUS AREA 8: COMPETITIVENESS
Current Status vs Anticipated Outcome

### Competitiveness

**6 KPIs**

<table>
<thead>
<tr>
<th>Competitiveness</th>
<th>Current Status - 2018</th>
<th>Anticipated Outcome - 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One-Stop Portal on contractor registration</strong></td>
<td>One Stop Portal on contractor registration integrated with systems by 6 key regulators (PETRONAS, UPKJ, SPAN, ST, PUKONSA, BPKU)</td>
<td>One Stop Portal on contractor registration to be rolled out by Q4 2020 and system integration with at least 5 key regulators</td>
</tr>
<tr>
<td><strong>Ease of Doing Business</strong></td>
<td>Construction permit taking too long, 14 procedures and 78 days</td>
<td>14 State Capital PBTs to publish Dealing with Construction Permit (DCP) Manual and 6 PBTs to implement OSC 3 Plus Online by 2020</td>
</tr>
<tr>
<td></td>
<td>OSC 3 Plus Online currently being developed for 9 Local Authorities</td>
<td>OSC 3 Plus Online currently being developed for 9 Local Authorities</td>
</tr>
<tr>
<td></td>
<td>DCP manual currently being rolled out for 5 Local Authorities (DBKK, MBJB, MBI, MBPP and MPSP)</td>
<td>DCP manual currently being rolled out for 5 Local Authorities (DBKK, MBJB, MBI, MBPP and MPSP)</td>
</tr>
<tr>
<td><strong>NCIIC &amp; MyN3C</strong></td>
<td>The National Construction Industry Information Centre (NCIIC) is still under development</td>
<td>National Construction Industry Information Centre (NCIIC) with 6 Key Strategic information launched by December 2019 with digital analytics by Dec 2020</td>
</tr>
<tr>
<td></td>
<td>7 out of 10 products are completed under MyN3C</td>
<td>Model for forecasting construction cost rolled out by 2020</td>
</tr>
<tr>
<td><strong>SCORE Rating Assessment</strong></td>
<td>From 2017 to Q2 2018, around 80 contractors have achieved SCORE rating of 4 star and above.</td>
<td>100 companies, of which at least 30 are Bumiputera controlled companies, to achieve 4 star SCORE rating &amp; above by Q4 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 SCORE rated companies progress by at least 1 star SCORE rating by Q4 2020</td>
</tr>
</tbody>
</table>
What is new in CITP Midterm Review?
Competitiveness in Construction Industry

- **100 construction companies** to achieve **4 star SCORE rating** & above by Q4 2020 including 30% Bumiputera companies
- **One-Stop Centre** on contractor registration integrated with systems by 5 key regulators
- **Dealing with Construction Permit (DCP) manual** will be published by 14 state capital PBTs and 6 PBTs to implement OSC 3.0 Plus **online system** to ensure the DCP initiative can roll out throughout Malaysia
- **National Construction Industry Information Centre (NCIIC)** to be launched by 2019 and focus on digital analytics
- **Construction cost forecasting model** to be rolled out by 2020 to ease the strategic decision-making process based on latest dataset
PUBLIC RELATION (PR)
What is new in CITP Midterm Review?
Public Relation (PR) to steer the path for transformation journey

Public Relation (PR) will continue to play an important role in promoting each KPI to the public

**01** Mini PR activities for each of the KPI

**02** Create more awareness of policies and regulations through promotions

**03** Organise Annual CITP Conference to bridge the communication between public and private sector

**04** Give awards to recognise the contribution and outstanding performance of industry players to support CITP initiatives
NEW GOVERNANCE APPROACH
What is new in CITP Midterm Review?
Effective governance structure is responsible for implementing transformation program

More focus on implementation

Introduction of Sponsor Working Group (SWG)

Introduction of Subject Matter Expert

Simplification of Progress Reporting

SME buddy assist CIDB owner to deal with industry issues

Facilitation role to drive the transformation

PMO role as Transformational Delivery Partner

Analysis on the progress and action plan review

Sponsors have more involvement in implementation and direction
CITP Governance Structure

Majlis Pembangunan Negara
Chair: YAB Prime Minister

CITP Ministerial Committee (CITP-MC)
Chairman: YB Minister of Works
Members: KKR, MOF, MITI, KDN, KSM, KPKT, MESTECC, EPU, JKR, ICU, CIDB & Industry Leaders

Thrust Working Group (TWG)
Chairman: Tan Sri Dr. Ir. Ahmad Tajuddin Ali
Industry Collaboration

Inter-Government Collaboration (IGC)
Chairman: Dato’ Dr. Syed Omar Sharifuddin
Inter-Government Collaboration

Pengurusan Pelaksanaan Program (PPP)
Chairman: Dato’ Ir. Ahmad ‘Asri Abdul Hamid
Inter-Division Collaboration

4 Sponsor Working Group (CITP-SWG)

<table>
<thead>
<tr>
<th>Group</th>
<th>Chair</th>
<th>KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWG 1</td>
<td>Sr. Sariah Abd Karib</td>
<td>12</td>
</tr>
<tr>
<td>SWG 2</td>
<td>Datuk Ir. Elias Ismail</td>
<td>18</td>
</tr>
<tr>
<td>SWG 3</td>
<td>En. Megat Kamil Azmi</td>
<td>3</td>
</tr>
<tr>
<td>SWG 4</td>
<td>Sr. Ida Zuraida Mohd Yusoff</td>
<td>3</td>
</tr>
</tbody>
</table>

Members: Owner, OIC, PMO, SME Buddy & SME Pool of relevant KPI

Roadblocks and Issues Escalate Up
Policies & Decisions Cascade Down
## Membership for TWG

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Organisation</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tan Sri Dr Ir Ahmad Tajuddin Ali, FSAc.</td>
<td>Chairman, CIDB</td>
<td>Chairman</td>
</tr>
<tr>
<td>2.</td>
<td>Dato’ Dr. Syed Omar Sharifuddin Bin Syed Ikhsan</td>
<td>Secretary General, Ministry of Works (KKR)</td>
<td>Co-Chairman</td>
</tr>
<tr>
<td>3.</td>
<td>Ir. Kamaluddin Bin Haji Abdul Rashid</td>
<td>Deputy Director General (Expert Sector), JKR</td>
<td>Member</td>
</tr>
<tr>
<td>4.</td>
<td>Dato' Noor Ihsan Bin Haji Che Mat</td>
<td>Director General, Jabatan Kerajaan Tempatan (JKT), KPKT</td>
<td>Member</td>
</tr>
<tr>
<td>5.</td>
<td>Ir. Hj. Omar bin Mat Piah</td>
<td>Director General, DOSH</td>
<td>Member</td>
</tr>
<tr>
<td>6.</td>
<td>Dato’ Ir. Ahmad ‘Asri Abdul Hamid</td>
<td>Chief Executive, CIDB</td>
<td>Member</td>
</tr>
<tr>
<td>7.</td>
<td>Tan Sri (Dr) Ir Jamilus Hussein</td>
<td>President/Chief Executive Officer, KLIA Premier Holdings Sdn Bhd</td>
<td>Member</td>
</tr>
<tr>
<td>8.</td>
<td>Dato' Ir Soam Heng Choon</td>
<td>President, REHDA</td>
<td>Member</td>
</tr>
<tr>
<td>9.</td>
<td>Dato’ Tan Kia Loke</td>
<td>Senior Managing Director, Sunway Construction</td>
<td>Member</td>
</tr>
<tr>
<td>10.</td>
<td>Dato’ Sri Kandan Kanagainthiram</td>
<td>Managing Director, KPK Quantity Surveyors S/B</td>
<td>Member</td>
</tr>
<tr>
<td>11.</td>
<td>Sr Sariah Abd Karib</td>
<td>Senior General Manager, CIDB</td>
<td>Presenter</td>
</tr>
<tr>
<td>12.</td>
<td>Datuk Ir Elias Ismail</td>
<td>Senior General Manager, CIDB</td>
<td>Presenter</td>
</tr>
<tr>
<td>13.</td>
<td>En. Megat Kamil Azmi Megat Rus Kamarani</td>
<td>Senior General Manager, CIDB</td>
<td>Presenter</td>
</tr>
<tr>
<td>14.</td>
<td>Sr Ida Zuraida Mohd Yusoff</td>
<td>Senior General Manager, CIDB</td>
<td>Presenter</td>
</tr>
<tr>
<td>15.</td>
<td>Policy &amp; Strategy Division</td>
<td>CIDB</td>
<td>Secretariat</td>
</tr>
</tbody>
</table>
### Key Ministries – Central to CITP Success

<table>
<thead>
<tr>
<th>No.</th>
<th>Ministry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kementerian Kerja Raya (KKR)</td>
</tr>
<tr>
<td>2</td>
<td>Kementerian Perumahan dan Kerajaan Tempatan (KPKT)</td>
</tr>
<tr>
<td>3</td>
<td>Kementerian Sumber Manusia (KSM)</td>
</tr>
<tr>
<td>4</td>
<td>Kementerian Tenaga, Sains Teknologi, Alam Sekita &amp; Perubahan Iklim (MESTECC)</td>
</tr>
<tr>
<td>5</td>
<td>Kementerian Kewangan Malaysia (MOF)</td>
</tr>
<tr>
<td>6</td>
<td>Kementerian Hal Ehwal Ekonomi (MEA)</td>
</tr>
<tr>
<td>7</td>
<td>Kementerian Perdagangan Antarabangsa dan Industri (MITI)</td>
</tr>
<tr>
<td>8</td>
<td>Kementerian Pembangunan Usahawan (MED)</td>
</tr>
<tr>
<td>9</td>
<td>Kementerian Pembangunan Luar Bandar (KPLB)</td>
</tr>
<tr>
<td>10</td>
<td>Kementerian Air, Tanah &amp; Sumber Asli (KATS)</td>
</tr>
<tr>
<td>11</td>
<td>Kementerian Komunikasi dan Multimedia (KKMM)</td>
</tr>
<tr>
<td>12</td>
<td>Kementerian Kesihatan Malaysia (KKM)</td>
</tr>
<tr>
<td>13</td>
<td>Kementerian Pendidikan Malaysia (KPM)</td>
</tr>
<tr>
<td>14</td>
<td>Kementerian Belia dan Sukan (KBS)</td>
</tr>
<tr>
<td>15</td>
<td>Kementerian Dalam Negeri (KDN)</td>
</tr>
<tr>
<td>16</td>
<td>Kementerian Wilayah Persekutuan</td>
</tr>
<tr>
<td>17</td>
<td>Pejabat Setiausaha Kewangan Negeri Sarawak (UPKJ)</td>
</tr>
<tr>
<td>18</td>
<td>Jabatan Perdana Menteri</td>
</tr>
</tbody>
</table>
New Governance Structure for CITP based on RACI

**Initial Phase of CITP Structure**
- 387
- 16 MC
- 44 TWG
- 323 IWG (Sponsor is included)
- 4 PMO Team
- 13 Owners
- 21 OICs

**New Structure**
- Note: IWG member count might be inaccurate as some members might be sitting in more than one IWG committee.

**Informed**
The person who must be informed about the decision/action taken

**Consulted**
The person who must be consulted before a decision/action taken

**Accountable**
The person who takes the final decision and has ultimate ownership

** Responsible**
The person who is assigned to do the work

- Management Team – MC, CIDB BOD, PPP & TWG
- 4 PMO Team
- 6 PMO Transformational Delivery Partners (TDP)
- 50 SME Pool
- 4 Sponsors
- 36 Owners
- 36 SME Buddy
- 36 OICs
- 36 Organizational Partners / Subsidiaries (Optional)
- 36 Assistant OICs

SME – Subject Matter Expert
Role and Responsibilities in New Governance Structure

<table>
<thead>
<tr>
<th>PIC of RACI</th>
<th>Roles &amp; Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Management team consists of Ministerial Committee (MC), CIDB BOD, PPP and Thrust Working Group (TWG)</td>
</tr>
<tr>
<td>4 PMO Team</td>
<td>PMO manages priorities based on timelines, budgets, resource loads and what-if analysis information and accordingly provides the right resources at the right time and being supported by PMO PTP</td>
</tr>
<tr>
<td>6 PMO TDP</td>
<td>Assist PMO in research, analytics, action facilitation, presentation, reporting, negotiation, rescue and deep-dive</td>
</tr>
<tr>
<td>50 SME Pool</td>
<td>Provide consultation on issues faced by sponsors, owners &amp; OICs to connect the implementors with industry recommended solutions</td>
</tr>
<tr>
<td>4 Sponsors</td>
<td>Oversee the Thrust Output KPIs under its Thrust and ensure the Thrust Output KPI is progressing according to timeline and working towards End-State</td>
</tr>
<tr>
<td>36 Owners</td>
<td>Being accountable for the OICs decision, work closely with OICs &amp; SME Buddy during the implementation and has ultimate ownership for the Thrust KPI</td>
</tr>
<tr>
<td>36 SME Buddy</td>
<td>Act as Subject Matter Expert (SME) to the Owners/ OICs of Thrust Output KPI and work on the ground with “do-er” in implementing the activities and fronting the industry when necessary</td>
</tr>
<tr>
<td>36 OICs</td>
<td>Act as “do-er”, fully in charge of the Thrust Output KPI and work closely with SME Buddy during the implementation</td>
</tr>
<tr>
<td>36 Organizational Partners/Subs. (Optional)</td>
<td>Being organizational partners and act as “do-er” that work closely with OICs if required</td>
</tr>
<tr>
<td>36 Assistant OICs</td>
<td>Act as the assistant to the “do-er” during the implementation of Thrust Output KPI</td>
</tr>
</tbody>
</table>

Informed
The person who must be informed about the decision/action taken

Consulted
The person who must be consulted before a decision/action taken

Accountable
The person who takes the final decision and has ultimate ownership

Responsible
The person who is assigned to do the work
New Organisational Framework

**Informed**
The person who must be informed about the decision/action taken

- CITP Ministerial Committee (MC)
- Thrust Working Group (TWG)
- CDB Board of Directors (BOD)
- Management Meeting (PPP)

**Consulted**
The person who must be consulted before a decision/action taken

- SME* Pool (Active IWG members & others)
- PMO Team
- PMO Transformational Delivery Partners

**Accountable**
The person who takes the final decision and has ultimate ownership

- Sponsors
- Owners
- SME* Buddy

**Responsible**
The person who is assigned to do the work

- OICs
- Assistant OICs
- Organizational Partners / Subsidiaries (if any)

**Meeting Frequency**

- Meeting half yearly for MC
- Quarterly meeting for TWG
- Meeting once in 2 months for PPP

**Monthly Meeting**

- Sponsor Working Group (SWG)
  - with Sponsors, Owners, SME Buddy & selected SME Pool
  - Chairman: Sponsors
  - Members: Owners, OICs, SME Buddy, selected SME Pool, Organizational Partners / Subsidiaries

**Weekly meeting**

- with Owners, OICs, SME buddy, organizational partners / subsidiaries (if any) & assistant OICs

*SME = Subject Matter Expert
CITP Achievability After Review
## Expected Contribution Towards Achieving End State

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE CITP REVIEWED</td>
<td></td>
<td></td>
<td>Jun 2018</td>
<td>Dec 2020</td>
<td>Dec 2020</td>
<td>Dec 2025</td>
<td></td>
</tr>
<tr>
<td>Thrust 1</td>
<td>3 32</td>
<td>Quality, safety &amp; professionalism to be ingrained in industry culture</td>
<td>11%</td>
<td>28%</td>
<td>11</td>
<td>44%</td>
<td>65%</td>
</tr>
<tr>
<td>Thrust 2</td>
<td>2 15</td>
<td>Malaysia’s sustainability construction to be a model for the emerging world</td>
<td>12%</td>
<td>25%</td>
<td>6</td>
<td>49%</td>
<td>63%</td>
</tr>
<tr>
<td>Thrust 3</td>
<td>1 47</td>
<td>Productivity of the industry is more than doubled, matched with higher wages</td>
<td>30%</td>
<td>50%</td>
<td>9</td>
<td>65%</td>
<td>82%</td>
</tr>
<tr>
<td>Thrust 4</td>
<td>3 21</td>
<td>Malaysia champions to lead the charge locally and abroad</td>
<td>47%</td>
<td>67%</td>
<td>10</td>
<td>80%</td>
<td>91%</td>
</tr>
</tbody>
</table>

### TOTAL KPIs

| 9 | 115 | 36 |
Internal CITP Stakeholders gained confidence in CITP Achievability by 2020 after CITP Mid-Term Review

Q: In your opinion, do you think current CITP will be achieved by 2020?

BEFORE

64% of Internal CITP stakeholders* think it is challenging to achieve CITP end-states by 2020

AFTER

86% of Internal CITP stakeholders** are confident to achieve CITP end-states by 2020

*Note: Survey based on 24 respondents

**Note: Survey based on 28 respondents
Reviewed Thrust Output KPIs
- Sponsors, Owners & OICs
### Reviewed Thrust Output KPIs - Sponsors, Owners & OICs

<table>
<thead>
<tr>
<th>KPI CODE</th>
<th>KPI DESCRIPTION</th>
<th>SPONSOR</th>
<th>KPI OWNER</th>
<th>OIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>QT-01</td>
<td>More than 30% of total number of residential building projects achieve a minimum QLASSIC score of 65 by Q4 2020</td>
<td>Datuk Ir. Elias Ismail</td>
<td>En. Mohammad Faizal Abdul Hamid Senior Manager Quality Division</td>
<td>Pn. Noor Fazierah Yaakub Manager Quality Division</td>
</tr>
<tr>
<td>QT-02</td>
<td>25% of non-residential buildings with project value more than RM10 million adopt QLASSIC and achieve minimum scoring of 65 from Jan 2021 onwards</td>
<td>Tn. Hj. Razuki Ibrahim General Manager Quality Division</td>
<td>En. Mohammad Faizal Abdul Hamid Senior Manager Quality Division</td>
<td></td>
</tr>
<tr>
<td>QT-03</td>
<td>100% public affordable housing projects achieve minimum QLASSIC score of 65 by Q4 2020</td>
<td>Pn. Noor Fazierah Yaakub Manager Quality Division</td>
<td>En. Mohammad Faizal Abdul Hamid Senior Manager Quality Division</td>
<td></td>
</tr>
<tr>
<td>QT-04</td>
<td>5 new construction material product standards (Schedule 4 of CIDB Act 520 - Conformance to Material Standard) adopted by the industry by Q4 2020</td>
<td>Tn. Hj. Sazali Che Atam General Manager Construction Material Division</td>
<td>Pn. Azlina Omar Manager Construction Material Division</td>
<td></td>
</tr>
<tr>
<td>QT-05</td>
<td>Reduction of number of worksite fatalities and injuries by 10% annually from Q1 2021 onwards (2020 as baseline)</td>
<td>Ir. M. Ramuseren General Manager Safety, Health &amp; Environment (SHE) Division</td>
<td>Pn. Mazurah Ismail Manager SHE Division</td>
<td></td>
</tr>
<tr>
<td>QT-06</td>
<td>Construction Design Management (CDM) or Occupational Safety and Health in Construction (Management) or OSHCIM to be enacted by Jan 2020</td>
<td>Sr. Sariah Abd Karib</td>
<td>En. Chuang Kuang Hong Manager SHE Division</td>
<td></td>
</tr>
<tr>
<td>QT-07</td>
<td>400 CIDB registered construction-related companies have adequate procedures to combat bribery in line with MS ISO 37001:2016 (Anti-Bribery Management Systems) by Q4 2020</td>
<td>Pn. Haslina Abdul Halim Senior Manager Policy &amp; Strategy Division</td>
<td>Pn. Nur Hafizah Mohd Nor Manager Policy &amp; Strategy Division</td>
<td></td>
</tr>
<tr>
<td>QT-08</td>
<td>All public projects to adopt Gerbang Nilai by Q4 2020</td>
<td>Sr Mohd Zaid Zakaria General Manager Business &amp; International Division</td>
<td>Sr Nazir Muhammad Nor Senior Manager Business &amp; International Division</td>
<td></td>
</tr>
<tr>
<td>QT-09</td>
<td>All public and private projects using BIM to adopt National Specification for Construction by Q4 2023</td>
<td>Sr Nazir Muhammad Nor Senior Manager Business &amp; International Division</td>
<td>Pn. Nur Sazwawizi Salehudin Manager Business &amp; International Division</td>
<td></td>
</tr>
<tr>
<td>QT-10</td>
<td>All civil engineering projects for public and private sector to adopt MSCESMM by Q4 2020</td>
<td>Sr Nazir Muhammad Nor Senior Manager Business &amp; International Division</td>
<td>Pn. Hanishahani Othman Manager Supervision &amp; Management Competency Division</td>
<td></td>
</tr>
<tr>
<td>QT-11</td>
<td>Construction projects with value RM50 million and above must be managed by accredited Construction Manager by Q4 2023</td>
<td>En. Megat Kamal Azmi</td>
<td>Pn. Hanishahani Othman Manager Supervision &amp; Management Competency Division</td>
<td></td>
</tr>
</tbody>
</table>
# Reviewed Thrust Output KPIs - Sponsors, Owners & OICs

## THRUST 2 – ENVIRONMENTAL SUSTAINABILITY

<table>
<thead>
<tr>
<th>KPI Code</th>
<th>KPI Description</th>
<th>Sponsor</th>
<th>KPI Owner</th>
<th>OIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-01</td>
<td>50% of new infrastructure projects more than RM100 million to be certified in Sustainable INFRASTAR or any acceptable sustainable infrastructure tool from Dec 2020 onwards</td>
<td>En. Zuraihi Abdul Ghani Senior Manager Safety, Health &amp; Environment (SHE) Division</td>
<td>Datuk Ir. Elias Ismail (MAMPAN)</td>
<td></td>
</tr>
<tr>
<td>ET-02</td>
<td>Sustainable solid waste management assessment report on at least 20 randomly selected construction sites produced quarterly from Q1 2020 onwards</td>
<td>En. Khairul Nizam Anuar Bashah Researcher (MAMPAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-03</td>
<td>70% of new public sector building projects more than RM 50 million adopted MyCREST and certified in MyCREST from Dec 2020 onwards</td>
<td>Cik Emasria Ismail Manager (MAMPAN)</td>
<td>Cik Fuhairah Ahmad Fuad Manager Safety, Health &amp; Environment (SHE) Division</td>
<td></td>
</tr>
<tr>
<td>ET-04</td>
<td>CO2 emission study for Malaysian construction industry value chain (design to material manufacture to transport logistics to construction site) to be completed by Dec 2019 (working with Ministry), including possible incentive / disincentive for budget submission</td>
<td>En. Mohd Rizalman Mohd Ali Research Assistant (MAMPAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-05</td>
<td>4 Mt CO2 equivalent reduction per year (to be reviewed by Jan 2020)</td>
<td>Pn. Aminah Abd Rahman General Manager (MAMPAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-06</td>
<td>Three guidelines on Resilient Construction focus in design and project management published by Q4 2020</td>
<td>Tn. Hj. Mohd Khairoldeen Ghani Manager (MAMPAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPI CODE</td>
<td>KPI DESCRIPTION</td>
<td>SPONSOR</td>
<td>KPI OWNER</td>
<td>OIC</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>---------</td>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td>PT-01</td>
<td>10% increase in the annual no of accredited skilled workers registered with CIDB from Jan 2019 onwards (January 2019 as baseline)</td>
<td>En. Megat Kamil Azmi</td>
<td>Ir. Raslim Salleh</td>
<td>Cik Haniza Soid Hamidi Senior Manager Skills Competency Development Division</td>
</tr>
<tr>
<td></td>
<td>Industry absorption rate of 80% of all skills training done by CIDB after Jan 2020</td>
<td>Sr. Sariah Abd Karib</td>
<td>En. Mohd Idrus Din</td>
<td>En. Roswadi Muhammad Manager Skills Competency Development Division</td>
</tr>
<tr>
<td>PT-03</td>
<td>Mandating independent tracer study on all skill trainings by CIDB by Q2 2019 to measure the industry absorption rate and implementation of digital tools by Q4 2020</td>
<td>Sr. Sariah Abd Karib</td>
<td>En. Mohd Idrus Din</td>
<td>En. Muhammad Fariq Abd Hamid Manager Policy &amp; Strategy Division</td>
</tr>
<tr>
<td>PT-04</td>
<td>80% of total no of public projects with project value RM10 million and above to achieve 70 IBS score by Q4 2020</td>
<td>Datuk Ir. Elias Ismail</td>
<td>En. Ahmad Farrin Mokhtar</td>
<td>En. Mohamad Razi Ahmad Suhaimi Manager IBS Division</td>
</tr>
<tr>
<td>PT-05</td>
<td>80% of total no of private projects with project value RM50 million and above to achieve 50 IBS score by Q4 2020 and 70 IBS score by Q4 2025</td>
<td>Datuk Ir. Elias Ismail</td>
<td>En. Ahmad Farrin Mokhtar</td>
<td>En. Rosaiman Hassan Chief Executive Officer (MyIBS)</td>
</tr>
<tr>
<td>PT-06</td>
<td>100% of all public building projects above RM100 million (for JKR building projects) to use BIM Level 2 by Q4 2020</td>
<td>Datuk Ir. Elias Ismail</td>
<td>Tn. Hj. Razuki Ibrahim</td>
<td>En. Jasni Ismail Manager Quality Division</td>
</tr>
<tr>
<td>PT-07</td>
<td>70% of private and public building projects above RM 10 million to adopt BIM by Jan 2021</td>
<td>Datuk Ir. Elias Ismail</td>
<td>Tn. Hj. Razuki Ibrahim</td>
<td>En. Jasni Ismail Manager Quality Division</td>
</tr>
<tr>
<td>PT-08</td>
<td>BIM e-submission (Auto-Checker) by all PBT with city status (bertaraf Bandaraya) by Q4 2021</td>
<td>En. Rofizlan Ahmad Chief Executive Officer (CIDBEC)</td>
<td>En. Roslan Ezhar Abdul Karim</td>
<td>En. Roslan Ezhar Abdul Karim Chief Executive Officer (CIDBEC)</td>
</tr>
<tr>
<td>PT-09</td>
<td>Digital construction and Industry 4.0 Roadmap 2020-2025 endorsed by CITP MC by Jan 2020</td>
<td>En. Rofizlan Ahmad Chief Executive Officer (CIDBEC)</td>
<td>Pn. Maria Zura Mohd Zain Manager (CREAM)</td>
<td></td>
</tr>
</tbody>
</table>
## Reviewed Thrust Output KPIs
- **Sponsors, Owners & OICs**

### THRUST 4 – INTERNATIONALISATION & COMPETITIVENESS

<table>
<thead>
<tr>
<th>KPI CODE</th>
<th>KPI DESCRIPTION</th>
<th>SPONSOR</th>
<th>KPI OWNER</th>
<th>OIC</th>
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<tbody>
<tr>
<td>IT-01</td>
<td>6x increase in volume of overseas construction projects &amp; construction related products secured by Malaysian companies by Q4 2020</td>
<td>Sr. Sariah Abd Karib</td>
<td>Sr Mohd Zaid Zakaria General Manager Business &amp; International Division</td>
<td>En. Muhammad Rizuan Hamzah Manager Business &amp; International Division</td>
</tr>
<tr>
<td>IT-02</td>
<td>30 new construction-related companies export construction services in the global market before Q4 2020 (2015 as baseline)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT-03</td>
<td>First investment of newly setup GLC equity fund for overseas project investment to compliment Malaysian companies equity portion by Q4 2020</td>
<td>Sr. Ida Zuraida Mohd Yusoff</td>
<td>Sr Azizah Mohd Yusoff Contractor Development Division</td>
<td></td>
</tr>
<tr>
<td>IT-04</td>
<td>2 Malaysian companies utilizing new overseas guarantee mandate by Syarikat Jaminan Pembiayaan Perniagaan Berhad (SJPP) &amp; Credit Guarantee Corporation (CGC) Board for overseas construction projects by Q4 2020</td>
<td></td>
<td>En. Mohd Firdauz Mukhzanee Mohamed Ghazali Manager Business &amp; International Division</td>
<td></td>
</tr>
<tr>
<td>IT-05</td>
<td>100 companies, of which at least 30 are Bumiputera controlled companies, to achieve 4 star SCORE rating &amp; above by Q4 2020</td>
<td>Sr. Ida Zuraida Mohd Yusoff</td>
<td>Sr Azizah Mohd Yusoff Contractor Development Division</td>
<td></td>
</tr>
<tr>
<td>IT-06</td>
<td>200 SCORE rated companies progress by at least 1 star SCORE rating by Q4 2020</td>
<td>Sr. Ida Zuraida Mohd Yusoff</td>
<td>Sr Azizah Mohd Yusoff Contractor Development Division</td>
<td>En. Nazirul Munib Abdullah Hanif Manager Contractor Development Division</td>
</tr>
<tr>
<td>IT-07</td>
<td>One-Stop-Center on contractor registration to be rolled-out by Q4 2020 and system integration with at least 5 key regulators</td>
<td>Pn. Fatin Amira Mohd Anor Manager Contractor Development Division</td>
<td>Pn. Fatin Amira Mohd Anor Manager Contractor Development Division</td>
<td>Pn. Zalina Mat Manager Contractor Registration &amp; Levy Division</td>
</tr>
<tr>
<td>IT-08</td>
<td>14 State Capital PBTs to publish Dealing with Construction Permit (DCP) Manual and 6 PBTs to implement OSC 3 Plus Online by 2020</td>
<td>Sr. Sariah Abd Karib</td>
<td>Ar. Sharina Intan Abdullah Pengarah Bahagian Kawalan Pemajuan, JKT, KPKT</td>
<td>Cik Nurul Hayati Khalil Manager Policy &amp; Strategy Division</td>
</tr>
<tr>
<td>IT-09</td>
<td>National Construction Industry Information Centre (NCIIC) with 6 Key Strategic information launched by Dec 2019 with digital analytics by Dec 2020</td>
<td>Pn. Che Saliza Che Soh Senior Manager Business &amp; International Division</td>
<td>Pn. Che Saliza Che Soh Senior Manager Business &amp; International Division</td>
<td>Cik Nisrinah Mat Kail Manager Business &amp; International Division</td>
</tr>
<tr>
<td>IT-10</td>
<td>Model for forecasting construction cost rolled out by 2020</td>
<td>Sr Nazir Muhamad Nor Senior Manager Business &amp; International Division</td>
<td>Sr Nazir Muhamad Nor Senior Manager Business &amp; International Division</td>
<td>Pn. Siti Aieshah Ghazali Manager Business &amp; International Division</td>
</tr>
</tbody>
</table>
Reviewed Thrust Output KPIs
- SME Buddy
## Reviewed Thrust Output KPIs
- **SME Buddy**

<table>
<thead>
<tr>
<th>Thrust 1 Quality, Safety &amp; Professionalism</th>
<th>End-state</th>
<th>Intermediate End-State (by 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality, safety &amp; professionalism to be ingrained in industry culture</td>
<td>Improved quality, safety and professionalism across the construction industry</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reviewed Thrust Output KPIs</th>
<th>Focus Area</th>
<th>SME Buddy</th>
</tr>
</thead>
</table>
| **QT-01** | Quality | Haji Yahya Haji Ariffin  
Executive Director, IKRAMXPERT Sdn Bhd |
| More than 30% of total number of residential building projects achieve a minimum QLASSIC score of 65 by Q4 2020 | | |
| **QT-02** | Quality | Mr. Lee Chee Seng  
CEO, Skyworld |
| 25% of non-residential buildings with project value more than RM10 million adopt QLASSIC and achieve minimum scoring of 65 from Jan 2021 onwards | | |
| **QT-03** | Quality | Ir. Dr. Ishan bin Ismail  
Vice President, Permodalan Nasional Berhad |
| 100% public affordable housing projects achieve minimum QLASSIC score of 65 by Q4 2020 | | |
| **QT-04** | Quality | Ir. Dr. Mukhtar Che Ali  
Managing Director, Pearl Impulse Enterprise |
| 5 new construction material product standards (Schedule 4 of CIDB Act 520 - Conformance to Material Standard) adopted by the industry by Q4 2020 | | |
| **QT-05** | Safety | En. Rozaimy bin Amirudin  
Senior Manager SHE, IJM Construction S/B |
| Reduction of number of worksite fatalities and injuries by 10% annually from Q1 2021 onwards (2020 as baseline) | | |
| **QT-06** | Safety | Ir. Kamarulzaman bin Musa  
Managing Director, KPH Synergy Sdn Bhd |
| Construction Design Management (CDM) or Occupational Safety and Health in Construction (Management) or OSHIM to be enacted by Jan 2020 | | |
| **QT-07** | Professionalism | Dato’ P. Ganason S.Periathamby  
CEO, Malaysian Anti-Corruption Academy |
| 400 CIDB registered construction-related companies have adequate procedures to combat bribery in line with MS ISO 37001:2016 (Anti-Bribery Management Systems) by Q4 2020 | | |
| **QT-08** | Professionalism | Ir. Mohd Mukhlis Jaya Abdullah  
Jurutera Awam Penguasa, Bhgn. Pengurusan Projek JKR |
| All public projects to adopt Gerbang Nilai by Q4 2020 | | |
| **QT-09** | Professionalism | Ar. Jasmeet Singh Sidhu  
Director, Arkitek Jazsidhu |
| All public and private projects using BIM to adopt National Specification for Construction by Q4 2023 | | |
| **QT-10** | Professionalism | Datuk Ir. Abdul Kadir Mohd Din  
Advisor, Ranhill Holdings Berhad |
| All civil engineering projects for public and private sector to adopt MSCESMM by Q4 2020 | | |
| **QT-11** | Professionalism | Mr. Dennis Tan Soo Huang  
Vice President, MBAM |
<p>| Construction projects with value RM50 million and above must be managed by accredited Construction Manager by Q4 2023 | | |</p>
<table>
<thead>
<tr>
<th>Reviewed Thrust Output KPIs</th>
<th>Focus Area</th>
<th>SME Buddy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>End-state</strong> Malaysia’s sustainable construction to be a model for the emerging world</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intermediate End-State (by 2020)</strong> Sustainable construction emphasis in the value chain</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Reviewed Thrust Output KPIs</th>
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</tr>
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<tbody>
<tr>
<td><strong>ET-01</strong> 50% of new infrastructure projects more than RM100 million to be certified in Sustainable INFRASTAR or any acceptable sustainable infrastructure tool from Dec 2020 onwards</td>
<td>Sustainability</td>
<td>Ir. Mohd Zaini Abu Hassan Ketua Penolong Setiausaha MESTECC</td>
</tr>
<tr>
<td><strong>ET-02</strong> Sustainable solid waste management assessment report on at least 20 randomly selected construction sites produced quarterly from Q1 2020 onwards</td>
<td>Sustainability</td>
<td>Ir. Mohd Azwan Moh Nor Rezan Jurutera Bhgn. Sisa Binaan, (SWCorp)</td>
</tr>
<tr>
<td><strong>ET-03</strong> 70% of new public sector building projects more than RM 50 million adopted MyCREST and certified in MyCREST from Dec 2020 onwards</td>
<td>Sustainability</td>
<td>Ir. Gopal Narian Kutty Vice President - M&amp;E Dhaya Maju Infrastructure(Asia) Sdn Bhd</td>
</tr>
<tr>
<td><strong>ET-04</strong> CO2 emission study for Malaysian construction industry value chain (design to material manufacture to transport logistics to construction site) to be completed by Dec 2019 (working with Ministry), including possible incentive / disincentive for budget submission</td>
<td>Sustainability</td>
<td>Prof Madya Dr Zainura Zainon Noor Associate Professor and Director Research Institute for Sustainable Environment (RISE), UTM</td>
</tr>
<tr>
<td><strong>ET-05</strong> 4 Mt CO2 equivalent reduction per year (to be reviewed by Jan 2020)</td>
<td>Sustainability</td>
<td>Noor Akmar Shah National Project Coordinator Gesellschaft Fuer, International Zusammenarbeit (GIZ) GmbH</td>
</tr>
<tr>
<td><strong>ET-06</strong> Three guidelines on Resilient Construction focus in design and project management published by Q4 2020</td>
<td>Sustainability</td>
<td>Dato’ Zakaria Mohamad Chairman Geomapping Technology Sdn Bhd</td>
</tr>
</tbody>
</table>
### Reviewed Thrust Output KPIs - SME Buddy

<table>
<thead>
<tr>
<th>Thrust 3 Productivity</th>
<th>End-state</th>
<th>Intermediate End-State (by 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Productivity of the industry is more than doubled, matched with higher wages</td>
<td>Double construction industry productivity from 2011</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reviewed Thrust Output KPIs</th>
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<th>SME Buddy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-01 10% increase in the annual no of accredited skilled workers registered with CIDB from Jan 2019 onwards (January 2019 as baseline)</td>
<td>Skills Training</td>
<td>Dr. Amat Taap Manshor CEO, AJM Academy Sdn Bhd</td>
</tr>
<tr>
<td>PT-02 Industry absorption rate of 80% of all skills training done by CIDB after Jan 2020</td>
<td>Skills Training</td>
<td>Ir. Chuan Yeong Ming Technical Director, MBAM</td>
</tr>
<tr>
<td>PT-03 Mandating independent tracer study on all skill trainings by CIDB by Q2 2019 to measure the industry absorption rate and implementation of digital tools by Q4 2020</td>
<td>Skills Training</td>
<td>Prof Madya Sr. Dr. Fadzil Hassan Associate Professor, UiTM</td>
</tr>
<tr>
<td>PT-04 80% of total no of public projects with project value RM10 million and above to achieve 70 IBS score by Q4 2020</td>
<td>Technology</td>
<td>En. Hasnan bin Ab. Hamid Pengarah, ICU JPM</td>
</tr>
<tr>
<td>PT-05 80% of total no of private projects with project value RM50 million and above to achieve 50 IBS score by Q4 2020 and 70 IBS score by Q4 2025</td>
<td>Technology</td>
<td>Ir. Ahmad Ridzuan Abu Bakar Jurutera Awam Penguasa, Caw. Perancangan Aset Bersepadu, JKR</td>
</tr>
<tr>
<td>PT-06 100% of all public building projects above RM100 million (for JKR building projects) to use BIM Level 2 by Q4 2020</td>
<td>Technology</td>
<td>Dr. Ahmad Tarmizi bin Haron Pensyarah Kanan Fakulti Kejuruteraan Awam &amp; Sumber Alam, UMP</td>
</tr>
<tr>
<td>PT-07 70% of private and public building projects above RM 10 million to adopt BIM by Jan 2021</td>
<td>Technology</td>
<td>Ar. Husam Abdul Fatah Haron Arkitek, Total BIM Consultants</td>
</tr>
<tr>
<td>PT-08 BIM e-submission (Auto-Checker) by all PBT with city status (bertaraf Bandaraya) by Q4 2021</td>
<td>Technology</td>
<td>Datuk Nik Ahmad Faizul Abd Mallek Managing Director, CITYNEXUS Sdn Bhd</td>
</tr>
<tr>
<td>PT-09 Digital construction and Industry 4.0 Roadmap 2020-2025 endorsed by CITP MC by Jan 2020</td>
<td>Technology</td>
<td></td>
</tr>
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## Reviewed Thrust Output KPIs - SME Buddy

### Thrust 4: Internationalisation & Competitiveness

<table>
<thead>
<tr>
<th>Reviewed Thrust Output KPIs</th>
<th>Focus Area</th>
<th>SME Buddy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>End-state</strong></td>
<td>Malaysia champions to lead the charge locally and abroad</td>
<td></td>
</tr>
<tr>
<td><strong>Intermediate End-State</strong> (by 2020)</td>
<td>Greater business competitiveness of construction companies</td>
<td></td>
</tr>
</tbody>
</table>

| IT-01 | 6x increase in volume of overseas construction projects & construction related products secured by Malaysian companies by Q4 2020 | Export | Dato' Ir. Soam Heng Choon CEO / Managing Director IJM Corporation Berhad |
| IT-02 | 30 new construction-related companies export construction services in the global market before Q4 2020 (2015 as baseline) | Export | Mr. Girish Ramachandran Executive Director, 27 Advisory Sdn Bhd |
| IT-03 | First investment of newly setup GLC equity fund for overseas project investment to compliment Malaysian companies equity portion by Q4 2020 | Export | En. Azman Taufik Senior Vice President, CGC Corporation |
| IT-04 | 2 Malaysian companies utilizing new overseas guarantee mandate by Syarikat Jaminan Perniagaan Perniagaan Berhad (SJPP) & Credit Guarantee Corporation (CGC) Board for overseas construction projects by Q4 2020 | Export | En. Rahim bin Abdul Rahman CEO , SPNB Edar Sdn Bhd. |
| IT-05 | 100 companies, of which at least 30 are Bumiputera controlled companies, to achieve 4 star SCORE rating & above by Q4 2020 | Competitiveness | En. Zaky Moh Pengarah Kanan , SME Corp Malaysia |
| IT-06 | 200 SCORE rated companies progress by at least 1 star SCORE rating by Q4 2020 | Competitiveness | Pn. Norhamimah Ibrahim Consultant |
| IT-07 | One-Stop-Center on contractor registration to be rolled-out by Q4 2020 and system integration with at least 5 key regulators | Competitiveness | Ar. Ezumi Harzani Ismail President, PAM |
| IT-08 | 14 State Capital PBTs to publish Dealing with Construction Permit (DCP) Manual and 6 PBTs to implement OSC 3 Plus Online by 2020 | Competitiveness | Sr. Sanusi bin Md Yunus Principal, QSNS Construction Consultant |
| IT-09 | National Construction Industry Information Centre (NCIIC) with 6 Key Strategic information launched by Dec 2019 with digital analytics by Dec 2020 | Competitiveness | Sr. Husnan bin Hussin Ketua Penolong Pengarah Kanan Caw. Kontrak & Ukur Bahan, JKR |
| IT-10 | Model for forecasting construction cost rolled out by 2020 | Competitiveness | |
Thank You

Driving Construction Excellence Together