CONSTRUCTION MANAGEMENT
STATUS AND MARKET OUTLOOK IN INDONESIA

SOUTH KOREA, CMAK- ConsMa 2018 Seminar , March 13th 2018

Darma Tyanto Saptodewo,
Vice Chairman of IAMPI
(Indonesian Society of Project Management Professionals)

CONSTRUCTION MANAGEMENT (CM) IN INDONESIA

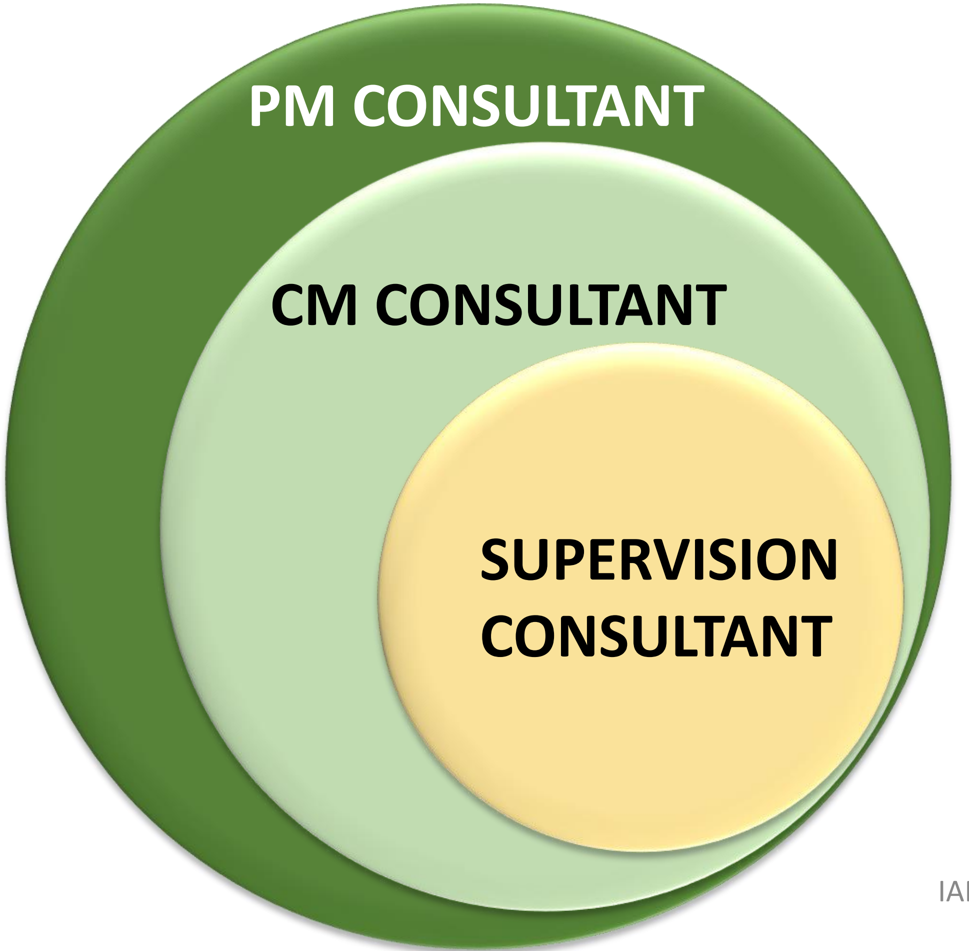
The first time CM Implemented in Indonesia in 1977 on Hydrocracker project Dumai Pertamina Sumatera (Oil and Gas Company).

The Project was on planned Time, Budget and Quality.

PM Consultant (Best Practice)

There are 2 parts CM in Indonesia:

1. Construction Management Consultant (CM) Reg.
2. Supervision Consultant (SV) Reg.



Procurement Construction arrangement refer to:

1. Indonesian Construction Regulatory act No. 02 year 2017
2. Government Regulation Act No. 29 year 2000 (Construction)
3. President Regulatory Act No. 54 year 2010 (Procurement)
4. President Regulatory Act No. 73 year 2011 (State Building)
5. Public Work Ministerial Regulation No. 45 year 2007 (State Building)
6. Public Work Ministerial Regulation No. 19 year 2015 (Integrated Procurement)
7. Gov. Own Company Ministerial Regulation No. 15 year 2012 (Procurement)
8. Public Work Ministerial Regulation No. 66 year 2018 (Safety)
9. Institution Procurement Regulation

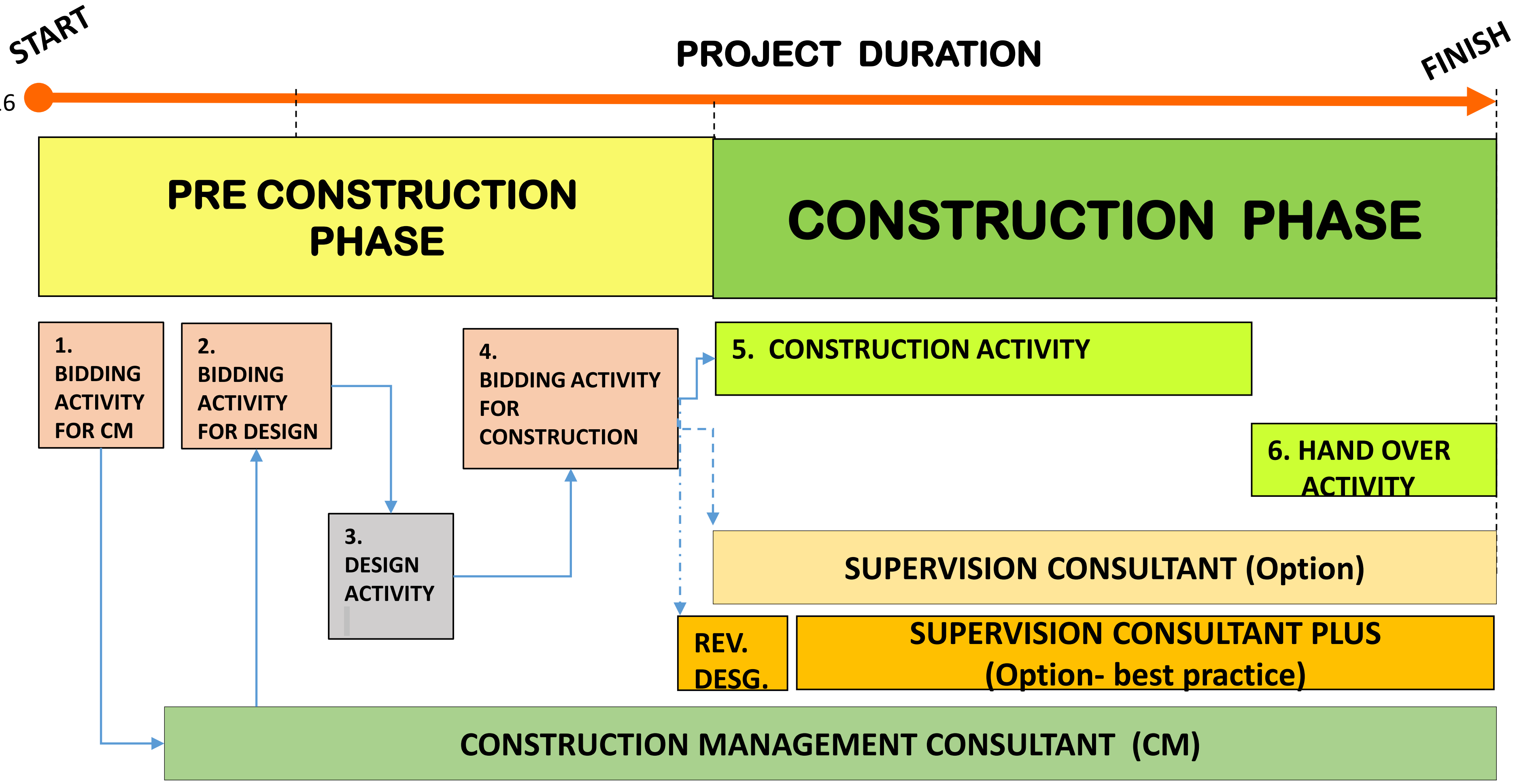
CORRESPOND TO PROJECT DELIVERY METHOD,

THE CM ON TRADITIONAL (DESIGN – BID – BUILD) :

The owner or owner's agent produces a set of plans and specifications in sufficient detail that all component contractors will have a good understanding of what is required. A contract is awarded to the cheaper cost qualified bidder.

Ref:

- FIDIC Red Book
- PMBOK Construction ext 2016
- Indonesia Public work 2007
- Indonesia Reg 2011



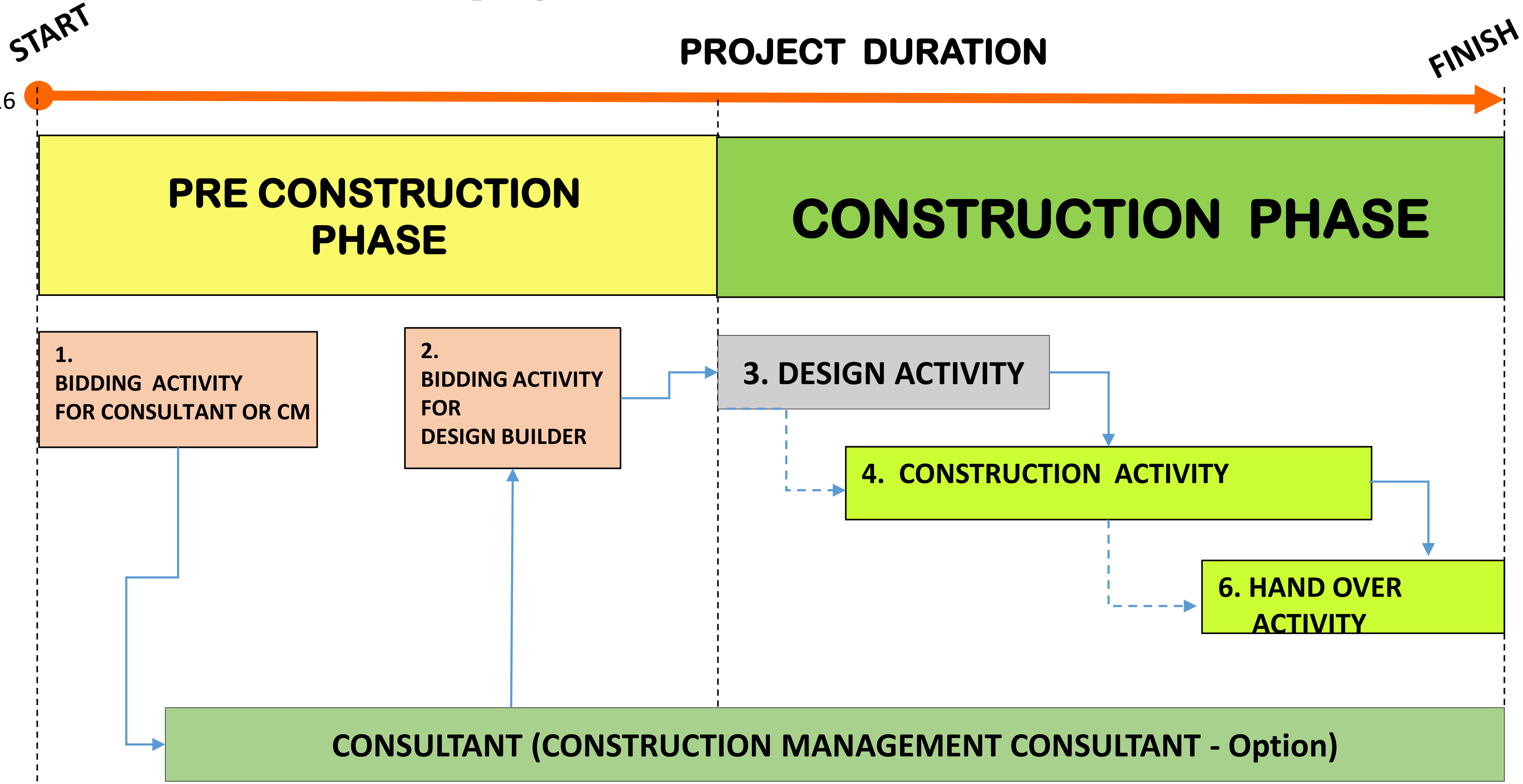
CORRESPOND TO PROJECT DELIVERY METHOD,

THE CM 0N DESIGN AND BUILD (INTEGRATED) :

The owner or owner's agent produces a partial design (basic design) and or a set of functional specifications and then hires a Design builder/contractor to complete the design and construct the resulting project. Much of the design is performed while construction is in progress.

Ref:

- FIDIC Yelow Book
- PMBOK Construction ext 2016
- Indonesia Public work 2015



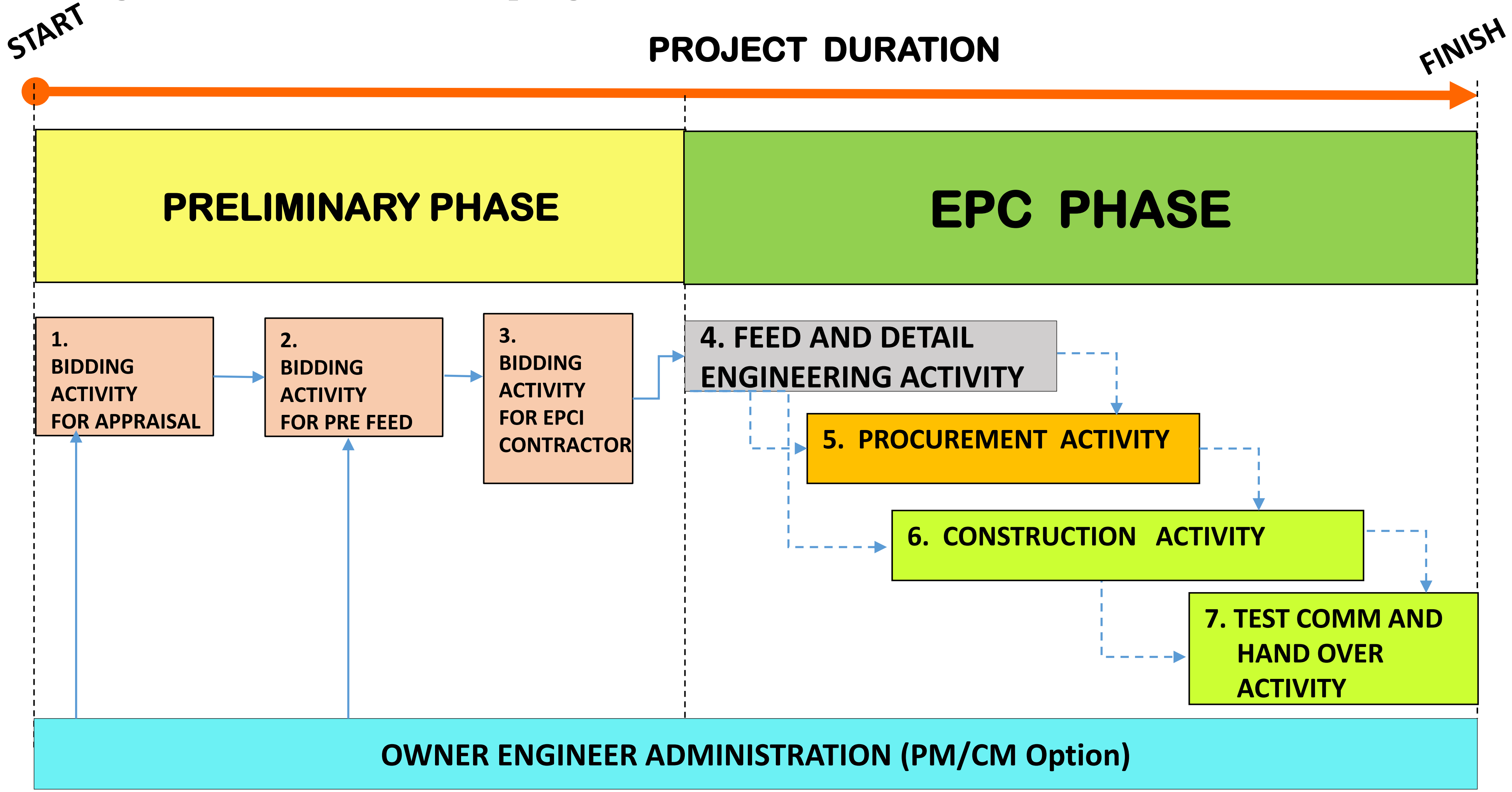
CORRERESPOND TO PROJECT DELIVERY METHOD,

THE CM 0N EPC (INTEGRATED):

The owner or owner's agent produces a Pre Feed (Pre front end engineering design) and or a set of functional specifications and then hires a EPCI Contractor to meet the desired performance. Much of the Procurement is performed while engineering and construction is in progress.

Ref:

- FIDIC Silver Book
- Indonesia ptk 007 - 2015



THE INDONESIAN GOVERNMENT SPIRIT FOR INFRASTRUCTURES DEVELOPMENT .

For all 245 projects and 2 programs, it will required around Rp 4,197 trillion, with funding sources from the State Budget Rp 525 trillion, State-owned Enterprises (BUMN/D) Rp 1,258 trillion and Private Sector Rp 2.414 trillion.

https://kppip.go.id

THE INDONESIAN GOVERNMENT SPIRIT FOR INFRASTRUCTURES DEVELOPMENT .

INDONESIA NATIONAL STRATEGIC PROJECTS

A. Road Sector

B. Railway Sector

C. Airport Sector

D. Port Sector

E. Public Housing Sector

F. Energy Sector

G. Water and Sanitation Sector

H. Flood Embankment Sector

I. Cross-Border Sector

J. Dam Project

K. Irrigation Sector

L. Technology Sector

M. Strategic Zone Sector

N. Smelter Sector

O. Agricultural / Maritime Sector

P. Electricity Program

Q. Aircraft Industry Program

CONSTRUCTION BUSINESS IN INDONESIA

LIST OF 37 KPPIP PRIORITY PROJECTS

Indonesia Construction Snapshot

- Contribution to GDP: 10% (2016)
- Number of Contractors: 77,000 (2015)
- Number Employed in the Sector: 7 million (2016)
- Standardised Qualification: ASEAN Chartered Professional Engineer (ACPE) certificate and the National Construction Services Development Board (LPJKN) certification.
- Relevant Law: Presidential Regulation No. 39 of 2014 on the Negative Investment List reserves low-technology and low-risk construction services for local SMEs and cooperatives.
- Foreign companies can establish representative offices in Indonesia and execute complex and high-technology projects in partnership with local companies, Minister of Public Works Regulation No. 10/PRT/M/2014 provides the guidelines.

Government focus on the development of the country's infrastructure ahead of the 2018 Asian Games is expected to support growth in the Indonesian construction industry over the forecast period.
Under the National Medium-Term Development Plan (RPJMN) 2015–2019, IDR4.8 quadrillion (US$360.6 billion) will be invested in the country's infrastructure projects in the 2015–2019 period.

To improve the country's infrastructure, reduce logistics costs and enhance connectivity in Southeast Asia's largest economy, the government is focused more on the expansion of the country's rail, road, harbors, airports and other core transport infrastructure. Accordingly, in its 2017 budget, the government increased expenditure on infrastructure development by 22.1%, going from IDR317.1 trillion (US$24.0 billion) in the 2016 budget to IDR387.3 trillion (US$29.3 billion) in the 2017 budget.

CASES ARISING IN THE CM BUSINESS

1. CONSTRUCTION ACCIDENTS.

There have been several accidents such as 1.Pasuruan-Probolinggo Toll Road Development Project, 2.Jakarta LRT Project,3.Jakarta-Cikampek II Toll Road Project,4. Pakubuwono Spring Apartment Construction Project (collapse of plafond at podium area of apartment) ,5. Depok-Antasari Toll Road Project.The Ministry of Public Works and Public Housing (PUPR) has made various efforts such as :

1. Formation of Investigation Team,
2. Issuance of Circular Letter and Publication of Circular
3. Establishment of National Construction Safety Committee (KNKK).
4. Improvement of SOP of construction and to the managerial system on supervision,
5. Contractors and CM consultants have been asked to improve and tighten job ovesight and will be given sanctions.

CASES ARISING IN THE CM BUSINESS

1. NATURAL DISASTERS.

Indonesia is a vulnerable area of disaster, so it must be prepared infrastructure that is able to respond to disaster challenges. The strategy of The Ministry of Public Works and Public Housing (PUPR) are :

1. Preventive measures should be put forward compared to the aspects of post-disaster rehabilitation and reconstruction.
2. Disaster risks should be calculated from the planning, programming, budgeting, infrastructure development stage by creating a mitigation program..
3. Improvement coordination with relevant Ministries and Agencies. One of them with BMKG (Meteorology, Climatology and Geophysics Agency) in sharing weather and climate forecast information that is very supportive of infrastructure development.

CASES ARISING IN THE CM BUSINESS

4. As an effort to maintain the quality of infrastructure development, in the planning stage has been applied design certification issued by the Commission consisting of experts. For example for the dam by the Dam Security Commission, while for the design of long bridges and tunnels should get approval from the Bridge Security Commission Long and Road Tunnel (KKJTJ).

5. Created an adequate maintenance and infrastructure program to keep the condition in good condition so that it can function optimally. Applied disaster preparedness status, take emergency response, rehabilitation and reconstruction to ensure the fulfillment of public services, under the coordination of BNPB.

6. Together with experts has compiled and launched the Indonesia Earthquake Resource Map in 2017. This map is the result of updating the 2010 earthquake map.This earthquake map is expected to be an input and limiting parameters for the planners.

1. Under Law No 18 of 1999 (Construction Services Law), a construction services provider must generally be appointed by way of a public or limited tender, or in limited cases by way of direct appointment. While the language appears to apply to any appointment (public or private), in practice its applicability has been limited to public sector appointments.

2. The Construction Services Law does not distinguish between local and international projects, although sector-specific regulations may apply under a separate legal regime. For example, the Electricity Law applies to electricity supporting services and the Oil and Gas Law applies to oil and gas supporting construction services. Under the Electricity Law and Oil & Gas Law, the licences required in that sector can only be obtained by a company established in Indonesia.

PROCUREMENT ARRANGEMENTS

3. Special rules apply if part or all of a project is financed from the state budget. This requirement is separately regulated under a presidential regulation and has been strictly implemented.

4. For private projects, the employer or project company directly designates the construction service provider at its sole discretion. Government officials are of the general view that the authority to appoint the construction service provider for a private project lies with the employer, as it does not affect state interests.

5. At the centre of the project stands the employer, or project company, which is tasked with hiring a construction contractor to implement the project.

PROCUREMENT ARRANGEMENTS .

6. The employer is often a special purpose vehicle (SPV) established in Indonesia for the sole purpose of developing the project. The employer may be managed by a sponsor who is an equity investor that oversees the bidding and project development.The contractor may execute work such as planning, general contracting (actual construction work), supervision or a combination thereof (integrated services).

7. As well as the construction contract between the employer and the contractor, the employer generally enters into separate contracts to engage architects or design engineers to prepare design documents, and with specialist engineers to assess, for example, ground conditions.

PROCUREMENT ARRANGEMENTS

The following procurement arrangements are also frequently used:

- A single contract for design and construction.
- Construction contracts on a turnkey basis at a fixed price, including engineering, procurement and construction (EPC).
- Construction management contracts, including EPC management (EPCM).These arrangements are generally the same if some or all of the main parties are international contractors or consultants.

CASES ARISING IN THE CM BUSINESS

- NEGOTIATED PROVISIONS

- The following provisions are usually the most heavily negotiated:
- Costs and payment schedule in relation to the work (for example, milestone payments throughout the construction cycle).
- Timing of work performance and liability for failure to meet intermediate deadlines.
- Risk allocation in the event of a change in laws and regulations.
- The allocation of responsibility between the contractor and employer to obtain the licences needed for the building or facilities to be constructed.
- The parties' liability for failure to meet the contractual terms and conditions.
- The procedure for conveyance of risks and work acceptance (that is, whether the employer accepts the work and relevant risk phase by phase or accepts all the works and risk only on completion).
- Performance security such as a bid bond, performance bond, guarantees and retention amount, and the circumstances in which the employer can call on the performance security.

MARKET OUTLOOKS IN INDONESIA

Indonesia is currently intensively building infrastructure in accordance with the direction of the President of Indonesia Joko Widodo in order to improve Indonesia's competitiveness in the global level. "In an effort to increase the competitiveness, the President ordered to focus on three things, namely :

- Deregulation of regulations,
- Infrastructure development, and
- Improvement of human resource quality.
- Note : Over the past three years, Indonesia's competitiveness rating has increased from 41 to 36.
- One of the drivers of the increased global competitiveness is the massive infrastructure development that is carried out in the sharing of areas, both roads, water resources, transportation, and energy.

MARKET OUTLOOKS IN INDONESIA

- The need for funding for infrastructure development in MPW for five years (2015-2019) reached ………………………………………………………………. Rp 1,915 trillion.
- While the funding ability of the government is only about…… Rp1,289 trillion.
- There is still a shortfall for infrastructure development,……… Rp 626 trillion

and this becomes an opportunity for private sector to be able to invest .

There are several investment schemes in the infrastructure sector, namely through:

- Public Private Partnership (PPP),
- Availability Payment, and
- Non Government Budget Investment (PINA).
- note : Each project has different characteristics and problems, so the type of financing scheme must be adjusted to the conditions and problems faced.

MARKET OUTLOOKS IN INDONESIA

INDONESIAN VISION OF 2045 is The idea of President Joko Widodo ,is a program to lead Indonesia as an independent nation and powerful nation.

Currently the government has started to strengthen the foundation by improving the development of good infrastructure.

In the vision of Indonesia 2045 there are 4 Pillars of development, namely:

- Human development and the ability of mastery of Science and Technology (Iptek),
- Sustainable economic development,
- Equitable development,
- National resilience and good governance government .

The 2045 program on infrastructure sector is to be realized :

- 100% Basic Infrastructure Access, 8% Logistics Cost to GDP, 100 gbps Broadband Connectivity, 2 International Hub Ports, 7000 Kwh Power Consumption per Capita, 100% Literacy ICT, 40% Share Marine Transportation, 0 % Backlog of Housing, 30% Role of Renewable Energy, 40% Irrigation Reservoir Service, 4 Aerotropolis City, 0% Urban Slum Area.

MARKET OUTLOOKS IN INDONESIA

- By studying the progress that has been achieved by the Korean and other East Asian Nations, I believe that Indonesia can progress and develop infra structure effectively and efficiently applying the rules of construction management.
- Projected by improving Indonesia's ability to build by applying good governance, in the next 10 years it will require investment of infrastructure worth 400 bilion USD.
- When calculated Construction Management consultancy portion of 3% of investment value, the portion of CM in the next 10 years in Indonesia is around 12 billion USD.
- The above targets can only be achieved if the Indonesian government succeeds in increasing the income from taxes with a 10% increase per year which is mainly generated from the process of increasing the added value of mining, agriculture, fishery and labor services abroad.

SOME MEGA PROJECT IN INDONESIA.

Trans-Java toll road
Estimated cost: approximately $5.5 billion The trans-Java toll road will stretch from the ports of Banyuwangi in the East Java to Merak in Banten province in the West Java. The length of the major highway road will be between 800 km to over 1,100 km.

SOME MEGA PROJECT IN INDONESIA.

Jakarta MRT (Mass Rapid Transit) Estimated cost: approximately $1.7 billion to $2.3 billion Completion date: 2018 (not confirmed) The Jakarta Mass Rapid Transit Project consists of three phases of MRT rail links across Jakarta. Phase 1 will be a 15.5 kilometre North-South corridor with 13 stations. Phases 2 and 3 will extend the line northwards, around 8 km through Harmoni and Kota to Kampung Bandan in North Jakarta and later east-west, from Tangerang to Bekasi.

SOME MEGA PROJECT IN INDONESIA.

Signature Tower Floors: 119 Estimated cost: $2 billion The anticipated fifth tallest building in the world will rise to a height of 638 metres, with 111 floors iin addition to 6 basement levels. It will be built in the Sudirman Central Business District in Jakarta. The construction is expected to start in 2019 and complete in 2024.

SOME MEGA PROJECT IN INDONESIA.

Pertamina Tower Floors: 99 Pertamina Energy Tower, the proposed headquarters of Pertamina power company will 523 metres tall and gather all its power from wind, solar, and geothermal energy. The construction is expected to start in 2019 and complete in 2024.

SOME MEGA PROJECT IN INDONESIA.

Kalibaru Port Estimated cost: $4 billion The Kalibaru Port project involves the large-scale development of new port facilities at the Jakarta port of Tanjung Priok. The construction of the facilities will take place in three phases and the first phase has been completed in 2017.

SOME MEGA PROJECT IN INDONESIA.

Central Java coal-power plant
Estimated cost: $4 billion
Indonesian firm PT Bhimasena Power Indonesia (BPI) is developing an ultra-supercritical coal-fired power plant, in Batang Regency, near Pekalongan. The plant, which will have a capacity of 2,000 MW, is scheduled to begin commercial operations in 2019.

Thank you