Third Thematic Workshop of the Infrastructure Financing and Public-Private Partnerships (PPP) Network of Asia and the Pacific

Increasing Access to Digital Healthcare through ICT Infrastructure in Public-Private Partnership: The Role of PT SMI (Persero)

IFRAD, D.D.S., M.B.A., CP3P
VP – Senior PPP Health Specialist
PT Sarana Multi Infrastruktur - SMI (Persero)

Panel Discussion
Jakarta
September 30th, 2021
IFRAD, D.D.S., M.B.A., CP3P
Senior PPP Health Specialist

Education/Certification:
• Doctor Dental Surgeon, University of Sumatra
• Postgraduate/Master Business Administration, Berlin School of Economic Law
• APMG International Certified PPP Professional

Career History:
• Within 10 years experience as Technical Advisory of German Technical Cooperation (GIZ)
• 6 Years experience as PPP Health Transaction Advisory, PT.SMI (Persero)
• Role & Responsibilities:
  • Developed the guideline of PPP in Health Sector and contributed to publish Ministry of Health regulation of PPP in health sector no.40/2018.
  • Provided direction and support to project preparation & transaction of PPP healthcare project
  • Socio Economy impact assessment from the health infrastructure perspective and ensure proper due diligence and promote good practices
  • Provided recommendation how lessons learned during the establishment and operation of Project Development Facility (PDF) can best inform future efforts to build similar infrastructure

SKILLS

- FINACIAL MODELLING, PROJECT FINANCING & PPP PROJECT DEVELOPMENT: 80%
- HEALTH ECONOMIC & EQUITY-EFICIENCY ISSUE: 80%
- APPRAISAL FEASIBILITY PROJECT & RISK PROJECT MANAGEMENT: 90%
- STRATEGIC PLAN & COSTING DEVELOPMENT: 70%
01. PT SMI’s Business Pillars and Role in PPP Healthcare in Indonesia

02. Current Healthcare Situation: Infrastructure & Digital Healthcare

03. The Framework of PPP Healthcare in Indonesia

04. How PPP Procurement can Boost Innovation in Digital Medicine
Regulation

- OJK Regulation No. 46/POJK.05/2020 on the Infrastructure Financing Companies

Legality

- PP No. 66/2007 jo PP No. 75/2008 jo. PP No.53/2020 as an Infrastructure Financing Company
- KMK No. 396/KMK.01/2009 as an Infrastructure Financing Company (Non-Bank Financial Industry)

Purpose and Objectives

- Accelerating the provision of infrastructure financing; and
- Acceleration of provision of other development financing based on Government Assignments

Vision

Become a catalyst in accelerating national infrastructure development

Mission

1. Become a strategic partner that provides added value in the infrastructure development in Indonesia
2. Creating flexible financing products
3. Providing quality services with good governance
### PT SMI’s Business Model

#### Source of Funds

<table>
<thead>
<tr>
<th>Conventional</th>
<th>Sharia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Injection from GOI</td>
<td>Sharia Capital Market (Sukuk, Sharia Hedging)</td>
</tr>
<tr>
<td>Capital Market (Bonds, Notes, Securitization, Green Bond)</td>
<td>BPJS / Sharia Insurance</td>
</tr>
<tr>
<td>Loans and Grants</td>
<td>Hajj &amp; Syirkah Funds</td>
</tr>
<tr>
<td>Sale of Assets and Other Receipts based on GMS</td>
<td>Sovereign Wealth Fund</td>
</tr>
</tbody>
</table>

#### PT SMI’s Business Pillars

<table>
<thead>
<tr>
<th>Pillar #1</th>
<th>FINANCING &amp; INVESTMENT</th>
<th>Pillar #2</th>
<th>ADVISORY SERVICES</th>
<th>Pillar #3</th>
<th>PROJECT DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sharia Financing</strong></td>
<td>Commercial Finance &amp; Sustainable</td>
<td>Financial Advisory</td>
<td>PPP Project Development</td>
<td>Renewable Energy Project Development &amp; Energy Efficiency</td>
<td></td>
</tr>
</tbody>
</table>

- Senior loan
- Junior Loan
- Mezzanine
- Cash Deficiency Support
- Bailout
- Equity Investment
- Arranger & Underwriter Services
- Credit Enhancement
- Standby Financing
- Fund Management

- IMBT/Lease with Option to Own
- Murabahah/Installment Sale with Deferred Payment
- MMQ/Diminishing Partnership
- Musyarakah/Joint Partnership
- IMFZ/Indent Lease with Option to Own

- Public Sector Finance
- Financing Adviser
- Investment Advisory
- Investment Advisory & Financial Advisory (Syariah)
- Capacity Building and Technical Assistance

#### Infrastructure Sectors

- Transportation
- Road
- Irrigation
- Telecommunication
- Electricity
- Oil and Gas
- Energy Efficiency
- Train Rolling Stock
- Waste Water
- Natural Resources
- Sports Facilities & Infrastructure
- Art Facilities & Infrastructure
- Renewable Energy & Energy Conservation
- Informatics
- Social Infrastructure
- Penitentiary
- Tourism
- Urban
- Regional

#### PT Sarana Multi Infrastruktur (Persero)

- Provision of other development financing according to government assignments
01. PT SMI’s Business Pillar and Role in PPP Healthcare in Indonesia

02. Current Healthcare Situation: Infrastructure & Digital Healthcare

03. The Framework of PPP Healthcare in Indonesia

04. How PPP Procurement can Boost Innovation in Digital Medicine
**Health Expenditure 2012 – 2019**

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Expenditure</th>
<th>Non-Public Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>255.5 T (52.1 %)</td>
<td>234.8 T (47.9 %)</td>
</tr>
</tbody>
</table>

**Total Health Expenditure (THE), Indonesia**

- Total Health Expenditure (THE), Indonesia: 490.3 T

**The Proportion of Health Expenditure towards GDP**

- Health Expenditure towards GDP: 3.1 %

**Health Expenditure per Capita / Year**

- Health Expenditure per Capita / Year: IDR 1.8 Million

---

*Pusat Pembiayaan & Jaminan Kesehatan, the Ministry of Health Republic of Indonesia, 2021*
More than half of respondents living in urban areas said hospital access is easy while those who lives in rural areas still have difficulties to reach the nearest hospital.

Source: Riset Kesehatan Dasar, 2018
People in Papua, Maluku, & East Nusa Tenggara face long travel time to reach clinic/private practice/private dental practice/private midwives. This probably contributes to higher morbidity and mortality rates and inefficient use of potentially productive time by the patients as well as accompanying family members.

Source: Riset Kesehatan Dasar, 2018
Number of Hospitals Applying Hospital Management Information System in Indonesia

- Most of hospitals in Indonesia have initiated their own HMIS.
- Accelerating the implementation of HMIS and optimizing the use of digital health innovations are the critical long-term investments for Indonesia.

85% of hospitals in Indonesia owned Hospital Management Information System
15% of them none/not well-functioned

Source: Ministry of Health, Republic of Indonesia
Digital Gap between the Poor and the Rich in Indonesia

Those whose economic status are better (69.1%), younger (>70%), and highly educated (around 70-90%), has a bigger opportunity of accessing the internet.

https://theconversation.com/ketimpangan digital antara kaya dan miskin menentukan kemampuan bertahan seseorang selama pandemi 163019
Inequity of Telecommunication Access

The number of Indonesian villages covered by 4G sites has reached 12,002 villages out of a total of 83,218 villages throughout the country. The number of Indonesian sub-districts covered by 4G sites has reached 3,394 sub-districts out of a total of 7,175 sub-districts.
01. PT SMI’s Business Pillar and Role in PPP Healthcare in Indonesia

02. Current Healthcare Situation: Infrastructure & Digital Healthcare

03. The Framework of PPP Healthcare in Indonesia

04. How PPP Procurement can Boost Innovation in Digital Medicine
Scope of Cooperation*
Design-Build-Finance-Operate-Maintain-Transfer

*Ministry for Health Regulation No.40/2018
Scope of cooperation
Level of Complexity Scope of PPP/B to B

Growing Complexity

Non Clinical Services
SIMRS, Medical or Non Medical Equipment Maintenance services, Laundry, Park, Security, Building Management, Hard/Soft Facility

Specialized Clinical Services
Dialysis, Onkology Center, Radiotherapy, Ambulances, Trauma Center, etc

Clinical Support Services
Diagnostic, laboratory, cath labs, etc

Hospital & Health Networks
Detailed designs, building construction or refurbishment, medical equipment

Ambulatory Care

Full Concession
PPP Scheme Advantages

Transfer of Knowledge
Through the PPP, it is expected that there will be a transfer of knowledge and technology from the private sector to the Regional Government.

Risk Sharing
There is an allocation of risk for both parties (private and government) which will also increase the attractiveness of the project.

Project Delivery
The specific target for the construction period leads the private sector complete the project according to the agreement to avoid a multi-year budget cycle.

Investment Potential
The success of a region in organizing a PPP can be an entry point for investment for other private parties.
PPP is carried out when the private sector and the public sector collaborate to achieve value for money through optimum risk allocation.
**PT SMI Support as A Project Preparation Catalyst in the Provision of Healthcare Infrastructure**

### PT SMI’s Activities that Support to Catalyse PPP Project Preparation in the Provision of Healthcare Infrastructure in Indonesia

<table>
<thead>
<tr>
<th>1</th>
<th>Capacity Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>• PT SMI has been supporting the Ministry of Health the Republic of Indonesia by drafting, developing &amp; disseminating the healthcare sector PPP project framework in Indonesia.</td>
<td></td>
</tr>
<tr>
<td>• The Capacity Building is held regularly by delivering various topics including the introduction of financial management and analysis of financing alternatives for infrastructure development of the healthcare sector PPP project.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT SMI can provide the assistance to the Institutions/Ministries and Local Governments to identify and prepare priority projects including pre-feasibility studies of the healthcare sector PPP project.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>Project Preparation &amp; Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Project Preparation</strong>: Pre-feasibility Study, Outline Business Case, Final Business Case of the healthcare sector PPP project</td>
<td></td>
</tr>
<tr>
<td>• <strong>Transaction Assistance</strong>: Request for Qualification &amp; Request for Proposal, Cooperation Agreement, Financial Close of the healthcare sector PPP project.</td>
<td></td>
</tr>
<tr>
<td>Project preparation activity and transaction assistance are conducted by the experts and consultants.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fund mobilization for the healthcare sector PPP project.</td>
<td></td>
</tr>
<tr>
<td>• If PT SMI has assisted in project preparation and transaction assistance, PT SMI will not take the position as lead arranger in the similar project.</td>
<td></td>
</tr>
</tbody>
</table>

### PT SMI’s Role in PPP Project Cycle in the Provision of Healthcare Infrastructure

<table>
<thead>
<tr>
<th>Planning</th>
<th>Project Preparation</th>
<th>Transaction</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Capacity building</strong> for alternative infrastructure financing of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provide assistance to <strong>identify</strong> and <strong>prepare</strong> priority projects of healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provide assistance in <strong>coordination</strong> with stakeholders of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provide <strong>review</strong> for Outline Business Case of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conduct <strong>market sounding</strong> and <strong>public consultation</strong> of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prepare the <strong>Final Business Case</strong> of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prepare <strong>tender documents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assistance and assistance in the <strong>auction process stage</strong> of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provide assistance to <strong>achieve financial close</strong> of the healthcare sector PPP project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Syndicated Financing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sharia Financing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Municipal Financing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Challenges and Key Factors of PPP Project in Indonesia

**MAIN CHALLENGES**

**Project Preparation**
- Needs for Project Screening
  - Non-standardized project documentation
  - Gap in ability
  - The need for harmonization of sectoral regulations
  - Limited funds for project preparation

**Project Financing**
- Limited government funding
  - Ensure the feasibility and bankability of the project to attract financing from the private sector
  - The need for optimizing risk allocation
  - Political uncertainty

**Project Implementation**
- Contract execution
  - Ensure projects are completed on time and no cost over-run
  - Strong implementation of monitoring and evaluation is needed

**GOVERNMENT INITIATIVES**

**Project Preparation**
- Project Development Facility & Guarantee
- KPPIP for debottlenecking
- Establish the PPP units
- Fiscal tool strengthening
- Establish LMAN for land acquisition

**Project Financing**
- PPP scheme as an alternative financing
- Project Screening
- Utilizing Blended Finance
- Regional Financing
- Fiscal and regulatory support

**Project Implementation**
- Improvement and strengthening in the regulatory framework
- Ease of doing business (licensing)
- Strengthen the capacity of the GCA and the existence of guidelines
01. PT SMI’s Business Pillar and Role in PPP Healthcare in Indonesia
02. Current Healthcare Situation: Infrastructure & Digital Healthcare
03. The Framework of PPP Healthcare in Indonesia

04. How PPP Procurement can Boost Innovation in Digital Medicine
Example of PPP Hospital Contract Structure

**CONTRACT STRUCTURE:**

- **GCA is the Minister/Head of Local Government (Governor/Regent)**
- **SPV’s Scope & Responsibilities:**
  - Financing, design, construction, operation (medical & non-medical support) and transfer at the end of the concession;
  - Provide medical equipment & other supporting facilities in hospital facilities;
  - Furnishing, maintenance and repair of the entire facility;
  - Operate commercial facilities
- **GCA’s Scope & Responsibilities:**
  - Provide skilled health workers;
  - Operate medical services in accordance with service standards;
  - Implement service management leadership;
  - Collect all hospital income from BPJS & non BPJS patients;
  - Monitoring & evaluation of SPV performance;
  - Return the investment cost.

*Source: Ministry of Health Regulation No. 40 Tahun 2018 on Guideline of PPP in the Health Infrastructure*
Healthcare Digitalisation Fostered by PPP Incentives

Financial payments based on the achievement of predetermined targets, goals, or outputs after being verified for quality.

Reduce costs (decreasing the cost of services for Public Actor/GCA) and cutting product obsolescence.

Contract PPP Hospital complementary to mHealth and remunerates digital efforts and convergence to electronic health records.

Digitalization improves availability and 24/7 monitoring, so reducing unavailability risk.

An information feedback mechanism can move healthcare delivery towards results-based practice and help make more efficient use of scarce resources.

The patients, in the form of better and more affordable services that improve value for money.

Valuable tool for GCA to guarantee transparency and accountability throughout the healthcare supply chain.

Digitalization may improve maintenance, with real-time monitoring of its standards.

Can improve the overall value for money of the investment—a key parameter in project finance selection.
Special Purpose Vehicle (SPV) Room for Innovation of HMIS

- SPV’s Innovation is an innovation that will be offered and fulfilled by the SPV during the Cooperation Agreement period.

- The criteria for the SPV Innovation can be negotiated at a predetermined time to reach an agreement with the Procurement Committee.

- The agreed criteria during the negotiation process will be bound by the Cooperation Agreement. The criteria must be fulfilled by SPV during the Concession period.

- The example of SPV’s innovation as follow:

<table>
<thead>
<tr>
<th>No</th>
<th>Deskripsi</th>
<th>Room of Innovation for SPV (example)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HMIS Modules</td>
<td>Provide more HMIS modules than required</td>
</tr>
<tr>
<td>2.</td>
<td>Hospital application</td>
<td>Have an app that can be accessed from a cell phone</td>
</tr>
<tr>
<td>3.</td>
<td>Integration with Building Management System</td>
<td>- HMIS is integrated with the Building Management System (BMS) and/or hospital medical equipment system;</td>
</tr>
<tr>
<td></td>
<td>(BMS) and/or RS medical equipment system</td>
<td>- Building Automation System with BMS reaches ‘control’ level</td>
</tr>
<tr>
<td>4.</td>
<td>Hospital digital service system</td>
<td>Develop a digital system to improve the service performance of the Hospital</td>
</tr>
</tbody>
</table>
### Output Specification of HMIS

- Minimum Technical Specifications are design & technical criteria that must be fulfilled by the Business Entity and will be evaluated on a knockout basis.

- Followings are the example of Minimum Technical Specifications for the PPP Hospital project that must be fulfilled by the Business Entity:

<table>
<thead>
<tr>
<th>No</th>
<th>Descriptions</th>
<th>Output Specifications (example)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Uptime</td>
<td>≥99% per month</td>
</tr>
<tr>
<td>2.</td>
<td>Database</td>
<td>RDBMS (Relationship Database Management System)</td>
</tr>
<tr>
<td>3.</td>
<td>HMIS Modules</td>
<td>The minimum modules include:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Registration and Billing Module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medical Record Reporting System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inventory and Distribution System (Pharmaceutical, General Warehouse &amp; Logistics)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Human Resource Department (HRD) System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accounting and Finance System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Laboratory Information System (LIS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Radiology Information System (RIS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Nutrition Counseling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hospital Indicators (Dashboard System)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Asset Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Electronic Medical Records (eMR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medical Check Up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ambulance and Corpse Car</td>
</tr>
</tbody>
</table>
Availability Payment (AP)

Availability Payment ("AP"): periodic payments by the Head of Local Government, as the Person in Charge of the Cooperation Project, to the Implementing Business Entity for providing the health infrastructure services in accordance with the quality and/or criteria as specified in the PPP agreement.

Source: Minister of Home Affairs Regulation no. 96/2016 on Payment for Service Availability in the context of Cooperation between Local Governments and Business Entities (PPP) in the Provision of Infrastructure in the regions
Scheme of Availability Payment (AP)

Parameter:
- Growth and service productivity
- Efficiency and service quality
- Utilization of Healthcare Social Services Agency user
- Service Satisfaction
- Implementing Key Performance Indicator scoring system
- Fairness on service performance (potential penalty if service quality is lower than promised)

Availability Payment (AP) Calculation Formula = CAPEX + OPEX + MARGIN (Fair Profit)
Private is not applied for Demand Risk, paid according to agreed parameters

Availability Payment:
During the operation period, after the Business Entity provides services to users, and paid within the agreement period.

Rasio Insentif:
IT Downtime:
- 9 – 16 jam = 0,975
- 17 – 24 jam = 0,95
- Lebih dari 24 jam = 0,90
Lessons Learned

1. **Project Screening.** Identifying whether the hospital development project funded by the Local Budget (APBD) or PPP mechanism.

2. **Commitment of Government Contracting Agency (GCA).** The full involvement of the PPP Team in planning, preparation, and transaction processes of the project as well as the intensive coordination with the Local Members of Parliament (DPRD) regarding its approval, especially with the Working Group which oversees Local Members of Parliament’s approval of the project.

3. **Technical regulations.** The need for technical regulation and/or guidelines and/or PPP technical modules regarding Local Members of Parliament’s approval and procedures for considering payment for service availability issued by the Ministry of Home Affairs. Moreover, the establishment of a joint Coordination Team between the Local Governments in order to obtain the Governor's consideration regarding the payment of Service Availability.

4. **PPP Project Knowledge within GCA.** GCA should understand the knowledge regarding PPP project’s concept, structure, and information.
Challenges of ICT Healthcare in Indonesia

1. **Cultural conditions**: referring to a set of shared attitudes, values, goals and practices that characterizes the environment within which medical technology, in particular telemedicine is deployed and taken up (risk-taking vs. risk-aversion of practitioners and patients);

2. **Regulatory and policy conditions**: i.e., regulations and the means to enforce them, usually established at national level to regulate the healthcare sector and associated activities (incl. tax incentives);

3. **Social security conditions**: e.g. lack of incentives for doctors to provide care via telemedicine solutions; no clear support policy from social security providers for telemedicine; difficulties in implementing cross-border healthcare project because of national barriers (different social security schemes);

4. **Industrial and technical conditions**: referring to the availability, presence of medical technology in the global telemedicine market, the presence and the quality of the technological infrastructure, systems, networks and information flows;

5. **Knowledge conditions**: referring to a system of higher-education and research organizations (universities, research centers, industry-specific training institutions etc.), their ability to deliver workforce relevant to the update and deployment of telemedicine solutions;

6. **Financial conditions**: referring to a system of players and vehicles providing funds and incentives to support the deployment and update of telemedicine (availability of budgetary allocation, grants from foundations, loans/borrowing etc.); and

7. **Market conditions**: referring to factors influencing the exchange of medical technology, goods and services, interaction of supply and demand, and the presence of competition.

Source: ec.Europa.eu
Terima kasih,

PT Sarana Multi Infrastruktur (Persero)
Sahid Sudirman Center, Lantai 48
Jl. Jenderal Sudirman No. 86
Jakarta 10220, Indonesia
Telepon : (62-21) 8082 5288 (hunting)
Faksimile : (62-21) 8082 5258
Surel : corporatesecretary@ptsmi.co.id

www ptsmi.co.id
infralib.infralib.ptsmi.co.id
@ptsmi
ptsmi_id
PT Sarana Multi Infrastruktur (Persero)