***Fact Sheet***

**29 Business Partners Participating in the Project**

1. Saha Crane Service Co.,Ltd
2. Maltech (Thailand) Co.,Ltd
3. Pixelwall Co.,Ltd
4. Chep 49 Co.,Ltd
5. Chusin Concrete Co.,Ltd
6. K. Engineering Consultants Co.,Ltd (KEC)
7. Ground Data Probe Co.,Ltd (GDP)
8. Dura Technology Sdn Bhd Co., Ltd.
9. STS Instruments Co.,Ltd
10. Rockdale Group Co.,Ltd
11. Pattanakit 49 Engineering Co.,Ltd
12. BD Agriculture (Thailand) Co.,Ltd
13. PERI Formwork & Scaffolding (Thailand) Ltd
14. Tri-Aor Construction Co.,Ltd
15. Tanabordee Intertech Co.,Ltd
16. Sorawee Karnchang Co.,Ltd
17. MPC Engineering Co.,Ltd
18. Icon Technologies Builder Co.,Ltd
19. Resolution Engineering Co.,Ltd
20. STC Concrete Product Public Company Limited
21. KN (2002) Proconcrete Co.,Ltd
22. Suvarnabhumi Concrete Co.,Ltd
23. Siam Masters Concrete Co.Ltd
24. Por Thawatchai Concrete Co.,Ltd
25. Petchaburi Charoen Concrete Flooring Limited Partnership
26. S.P. Lampang Engineering Limited Partnership
27. Empower Engineering Co.,Ltd
28. Channakorn Engineering Co.,Ltd
29. Analyzer Service Co.,Ltd

**Solutions Jointly Developed by CPAC and Partners**

1. **Farm Solution** offers design advice on the speedy construction of pig farms that meet standards using precast technology and efficient construction management and material sourcing methods.

* Construction Solution: Designs, sources for materials and offers construction services for pig farms by professional teams
* Energy Solution & Smart Farming System: Offers design and construction services for biogas system as well as design smart farming system using information technology
* Farm Equipment: Provides quality equipment for farms at competitive price points

**Benefits of Farm Solution**

* Lessens construction period from 6 months to 2 months
* Helps farmers generate their first income quicker and pay lower loan interests due to shorter construction time period
* Higher quality of construction work and less maintenance required
* Lower the risks of diseases from outside factors
* Control costs by using precast construction materials

1. **Lifetime Solution** offers services in repair, maintenance, renovation, and corrosion protection for factories, medium and large buildings, bridge and port structures, and homes by civil engineers who will advise, analyze, and provide solutions in line with engineering principles together with an experienced and qualified team.

* Repair & Maintenance Solutions are offered for building structures that have been damaged from use or from degrading materials in order to strengthen the structure. The team will seek appropriate solutions and select high-quality materials to repair and maintain the structure with the help of expert teams
* Renovation Solutions are offered in cases where the original structure requires improvements or adaptations to increase more functionality to the structure or to completely change the function of the structure
* Corrosion Protection Solutions are offered to prevent steel structures and reinforced concrete from rust so that it can be used for a longer time period. The solution is targeted at new construction projects and repairing problematic structure especially in high-risk areas for corrosion such as near the ocean or in areas with high moisture or constant tides where rust in the structure will affect the weight-bearing quality of the structure and cause widespread damages.

1. **Structural for Building Solution** offers building design services for high-rise and low-rise buildings by considering the appropriate construction system, from architectural, structural, and electrical and plumbing systems, to the right building structure that stays within the budget, utilizing co-design and value engineering that will allow the quality of construction to meet international standards.

* Design Service: Applying for permits, from architectural, structural, electrical to plumbing
* Co-design, Value Engineering & Budget Analysis: In cases where clients have an original construction plan that needs to be adapted to gain the highest value yet stay within the budget
* Installation, Training, and QC services: Ensuring that all structural work meets international standards

1. **Structural for Infrastructure Solution** provides advisory services for structures such as beams and bridges, offering various solutions to cater to the client’s needs.

* Design & Consulting: Starting from the design concept, materials, construction methods, to maintenance
* Material & Installation Services
* Post-Tension System: Allowing for smaller structures that is lower in costs yet meets standards
* Precast Service: For both on-site and off-site uses

1. **S&M Solution** offers machinery and operation development services for precast concrete factories in order to decrease manpower, costs, and working time, as well as offers advisory services for designing precast concrete factories from the layout, feasibility studies, to machinery and equipment sourcing.

* Innovation Machine: Developing machinery in the manufacturing operation for precast concrete factories in order to decrease manpower, costs, and working time
* Develop software to help factories save time, save duplicated work processes, and save costs with technologies such as Warehouse Management, Machine Monitoring, and Process Monitoring
* Maintenance Systems: Offering systems to bring machinery up to standards and ready for use
* Equipment & Accessory Supply: Providing high-quality machinery and equipment for precast concrete factories
* One Stop Service: Improving a total solutions for precast manufacturing service

1. **Earthwork Solution** offers services relating to earthwork from addressing problems to designing earthwork solutions and irrigation solutions for clients, especially in the central region with high rates of soil consolidation

* Underground System: Designs and constructs underground systems that are durable in order to alleviate the issue of soil consolidation and ease complicated construction operations, from laying plumbing systems, pipe jacking, to retaining walls. Solves the issue of underground air gaps from soil consolidation or water corrosion.
* Pavement Solution: Improve the conditions of roads, from concrete roads, paved roads, to concrete block road, with earthwork technology that can enhance the characteristics of the base and subbase.
* Drainage and Irrigation System: Install efficient irrigation systems using technologies from concrete fabric, porous concrete, and foamed concrete.
* Circular Economy: Reuse leftover materials from construction projects in line with circular economy to promote efficient use of resources such as concrete, paper, and plastic.

1. **Oversea Solution** offers export solutions for quality construction materials to customers worldwide, starting from those in ASEAN countries

* Material provider: Sources quality construction materials for export to countries worldwide
* Design & Consulting: Provides advisory services for solutions from design, construction methods, to construction materials

1. **Precast Fulfillment Solution** caters to the needs of precast concrete customers with high-quality design and installation services that can be easily accessed nationwide

* Design: Design services for precast concrete or adapting cast-in-place concrete slabs to the precast concrete system
* Manufacturing: Manufacturing precast concrete with high-quality materials made from factories that meet standards
* Installation: Installation services for precast concrete from precast foundation piles, beams, to floors

1. **DPC (Design + Project Management + Construction)** offers design services for building, industrial structures, and construction projects such as new factories and factory buildings, warehouses, power plants, including advisory services and problem shooting for issues relating to design and construction. Moreover, DPC includes co-design services and value engineering during the design process and sourcing for appropriate solutions for customers with professional services and modern technology.
2. **ALLRENT** is a marketplace platform that gathers the ecosystem of businesses’ machineries through management system and technology. This initiative was driven by the idea of the sharing platform where resources are shared in line with circular economy in order to better manage the energy and pollution from long-distance machinery deliver and facilitate contractors. ALLRENT now tracks over 5,000 machineries on its platform comprising of machinery across Thailand, from mobile cranes, excavators, loaders, crane trucks, trucks, trailers, cable cars, forklifts, transport vehicles, among others

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