

Construction Procurement and Project Management in Japan's Public Sector

“Win-Win-Win” A case study in collaboration and change

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Overview

Since the mid 2000's Japan has made a radical shift in how public sector construction procurement is managed. This has resulted in faster and more efficient delivery, improved value for money, and higher profitability for contractors. This report describes the changes they have made.

PMMS believe this must be one of the largest scale examples of collaborative procurement in action. One of the world's largest construction organisations made this change happen and reaped the benefits that traditional competition by itself was not delivering. It came from a thorough understanding of what drove cost, managing risk and removing waste, and finding ways in which all parties could achieve more of their objectives. Interestingly this change did not require the client to favour a handful of key suppliers, outsource its responsibilities, or to sign any long-term frameworks. Competition was still used to select contractors, and SME's could do as well as large contractors.

There are lessons and opportunities from this case which can be used by public and private sector organisations – both clients and main contractors – around the world.

Introduction

This report describes the significant changes made by the Japanese Government in the management of their public works capital programme. It is based on a meeting in Tokyo which the author had in November 2011 with Yuji Kishira (now MD of Goldratt Consulting in Japan) and Masanori Seta, Senior Manager: Construction Procurement Policy & Strategy at the Ministry of Land Infrastructure and Transport (MLIT).

Japan's "Win-Win-Win Public Works" initiative started with a single pilot project delivered by a regional contractor in 2004. Within 4 years it had been adopted across the whole programme managed by MLIT. Japan's public infrastructure annual capital programme is over ¥12,000 billion (£100 billion) - almost a third of the country's construction market. Public sector projects support some 5 million construction employees across 500,000 contractors. As Japan's largest government department, MLIT directly manages around

10% of this, and influences the rest through the policy and guidance it provides to regional and local government.

In 2011 MLIT's approach was adopted by other ministries in Japan as a basis for improved project performance, and it has a growing use across regional and local government. The change programme was called "Win-Win-Win" to link it to the objectives of the key stakeholders:

Government:	Improved infrastructure assets, built with higher reliability and improving value for money. Ensuring a healthy construction sector to maintain infrastructure in a land exposed to extensive natural disasters. Increased tax revenues from the construction sector
Construction Sector:	Improved profitability and corporate strength. Higher skills and motivation for their staff
Public:	Improved infrastructure, with more projects and less local disruption. Higher project quality and user satisfaction.

Changes Made

The focus for this case is on project execution, rather than project definition and scoping. This is not because the Japanese have not worked on the latter, but rather (i) the benefits from more efficient execution alone are significant and worthy of note, and (ii) it is often overlooked as an improvement opportunity – it is easy to assume that it is just "handle-turning", and that "it will be what it will be".

The Win-Win-Win initiative delivered significant benefits through:

1. Adopting a project management methodology which reduced durations whilst increasing reliability
2. Focusing on speed of execution, and integrating the government "clients" into the process
3. Motivating contractors to join in, rather than forcing them.

The first step involved managing projects according to a methodology called Critical Chain Project Management (CCPM). CCPM allowed contractors to shorten their programmes, complete works faster whilst at the same time becoming more reliable, and significantly reducing their costs.

Although CCPM is quite a simple methodology to understand, it is not easy to implement. It requires people to work in ways which conflict with many established customs and practices (though it does formalise what many excellent project managers do by instinct). It cannot be implemented without changing behaviours and providing the appropriate support. CCPM was a very strong match with the Japanese psyche. As soon as people saw that CCPM

allowed them to deliver better and faster projects, whilst also collaborating and working in harmony with other project members, the uptake soared. Few people wanted to return to the “good old days”.

Once CCPM was implemented, it quickly became clear that the main blockage to project progress was the government staff, and in particular the speed at which decisions were made throughout the project lifecycle. This became the next improvement target, with this part of the project called “One-day Response” to emphasise the importance of speed and sustaining project progress.

Interestingly MLIT decided not to mandate the use of CCPM by contractors (though it seriously considered doing so). Instead they let results drive the uptake. Contractors who stuck to their old methods won less and less work, and found margins vanished. Those who adopted it could reliably bid better prices, whilst knowing they would be more profitable. It also helped SMEs compete with the larger companies, because “being smart” brought much greater benefit than “being big”.

Benefits

The MLIT is clearly a strong advocate of their Win-Win-Win approach. However most of their data on the benefits is qualitative (the author was lucky to get time with Mr Seta, and concrete data is hard to come by).

Examples abound of quotations from the owners and staff of main contractors. They cite faster projects, improved collaboration, fewer disputes, increased staff motivation, higher profits and increased capacity amongst the benefits.

MLIT says that tax income from the construction sector has grown markedly. They believe that they have achieved significant improvements in value and productivity of their public works investment. Interestingly MLIT saw increased tax as the main way in which they shared in the contractors' cost savings. They did not look for big up-front price reductions.



“Win-Win-Win” Project Workshop in Fukushima

Although it is difficult to link it to this one initiative, the costs of public works construction have continued to fall over the past 10 years, both in absolute terms and as a proportion of the total construction market (from 35% in 2001 to 27% in 2010). MLIT's cost benchmarks, have shown similar improvement (18% reduction from 2003 to 2008)

Public confidence in projects has increased. Projects are hitting their planned dates, more facilities are being improved, and public involvement and awareness of projects is greater than it has ever been. In 2008, Yuji Kishira's book on the Win-Win-Win implementation even became the number 1 best seller on Amazon Japan.

Where Next for Japan?

Although MLIT is continuing to accelerate the spread of the Win-Win-Win approach and embed it as the main method used, Japan is a big country and it takes time. One area of current concern is that, with budgets reducing and competition increasing, many contractors are bidding at cost or lower, just to fill their order books. MLIT are very worried by unprofitable contractors. They know it will increase the risk of delayed projects and lower quality, and so increase the total cost as well as the risk of contract variations. Up until now public procurement rules favoured the lowest bidder, but MLIT is planning to change this. They are developing new rules to require the true impact of quality and reliability to be taken account of, and this they believe will further strengthen the position of contractors who have adopted the Win-Win-Win approach.

Amongst the improvement plans shared by MLIT, one in particular might sound warning bells to global construction groups. Despite the high post-earthquake workload in Japan, MLIT are encouraging major contractors to use the skills they have learned and practiced at home, to win overseas contracts. The Japanese economy needs income, and this is one area where they are looking to exploit a decisive competitive edge over more traditional contractors.

Footnote – UK comparisons

- From a single pilot project in 2004, within 4 years over 4000 projects across Japan were using CCPM/Win-Win-Win, without any central government mandate.
- At around the same time the UK's DTI funded a study which used CCPM on three residential construction projects under the Partners in Innovation Programme. The method was proven. 6 years later, in the Government's Strategy for Construction, there is no reference to the pilot, or even to CCPM.
- In the mid 1990's CCPM was successfully used on a road project in the UK. Despite its documented success, it is not believed that the method has been adopted consistently by the contractor involved. Yuji Kishira quoted this case as one which encouraged him that CCPM could work in construction!

For further details on how Japan implemented this change, or to discuss how CCPM and collaborative procurement can be used to help your business, please contact the author.

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ABOUT THE AUTHOR



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Ian Heptinstall is a UK-based consultant whose procurement experience has seen him sitting in most of the seats around the buyer-supplier table. He has in-depth expertise in indirect and CapEx procurement, and has led significant organisational change projects. As a chartered engineer, working in the chemicals industry, early procurement experience was as a project manager in ICI and Zeneca, selecting and managing suppliers with little professional input. It was in Zeneca that he moved into his first procurement role.

After 15 years with ICI and Zeneca, Ian then moved into the supplier's seat working at the engineering consultancy Eutech. Ian and his team managed capital projects for clients in the process industry, and he also designed and delivered training and development assignments in project management and procurement. One of his major projects used an innovative project alliance approach to its management and contract. As well as winning an award for Supply Chain Excellence, the project brought significant benefit to the client Rohm and Haas.

He returned to procurement as Engineering Procurement Manager for Glaxo Welcome, leading teams at the four main production facilities in the UK and Singapore. When Glaxo merged with Smithkline Beecham he moved to the central Capital Procurement team as Sourcing Group Manager. From GSK he joined a small global management consultancy, initially working in the USA on a major procurement change programme with Sears. Back in Europe Ian worked on a number of short analysis projects across several industries, before joining a 12 month assignment with steel manufacturer Arcelor.

Immediately prior to joining PMMS Ian was Supply Chain Director at NG Bailey, a leading UK construction company, where he led the transformation of procurement from a distributed, inconsistent and transactional overhead, to a centrally-led, integrated, value-adding part of the business. The training part of this work was recognised with a UK National Training Award in 2007. Ian enjoys all aspects of procurement improvement, from strategic operational and organisation design, to training and coaching. Particular interests include procurement of capital projects and commercial awareness training for non-procurement staff. Ian can work in French as well as English. He can be contacted at pmms.uk@pmms-group.com.

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