

Construction Management System in Japan

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1.Introduction

Introduction

Main characteristics of Japanese building construction system

- There are **three main characteristics in building construction system** of Japan.
- Those are as follows;
 - Existence of the continuing **long-term relationship** between the general contractor and the subcontractors.
 - Relationship and **mutual trust of the stakeholders** are strong.
 - Project procurement system is basically limited to a traditional way, either **“design-bid-build” or “design-build”**.
- However, those characteristics are changing gradually.
- **WHY?**

Introduction

Why main characteristics are changing gradually ?

- There are some reasons.
 - **Changing and internationalizing** of construction environment
 - **Diversification** of client's demands
 - **Shrink** of Japan's economy
 - Increasing of **sub-contractor's capability**
 - and so on
- Under these conditions, **the expectation for CM is high**, and CM is put into many projects of the private sector.
- **"WHY and HOW"**
Discussion of this point is the purpose of my speech.

2. History of introduction of CM

History of introduction of CM

History of introduction of CM

- The conditions to introduce CM into Japanese building construction system greatly differ between the public sector and the private sector.
- **In the public sector, there are investigations** being carried out by the Ministry of Land, Infrastructure and Transport(MOLIT); and there are some projects by using CM system. Last month the first CM project was ordered by the central government.
- **In the private sector,** although the legal system and contract stipulation are not yet adequately prepared for CM, **more and more projects are carried out by CM gradually.**
- The outlines concerning the introduction of CM in public and private sectors are described below.

History of introduction of CM

History in public sector(MOLIT)

- **1993 US-Japan Construction Talks**
The US Government demanded that Japan introduces CM, and implement a project to test this introduction.
- 1995 General Principle of Construction Industry Policy (for construction industry).
- 1996 Strategic Program for Construction Industry Reform (for small and middle-sized contractors).
- 1999 Construction Industry Revival Program (for large- scale general contractors).

History of introduction of CM

History in public sector(MOLIT)

- 2000 Innovation Strategy (for Specialist Contractor).
- **2001 CM Research Committee.** This is the first practical activity for introducing CM by MOLIT.
- **2002 CM Promotion Strategy Research Committee.** This is the second practical activity for introducing CM by MOLIT.
- **2004 Research Committee about Construction System under CM.** This is the third practical activity for introducing CM by MOLIT.

History of introduction of CM

History in private sector

- **1980's**-This was a period of development by private companies of such management systems as **TQC and VE, rather than CM.**
- **1990's-First half.** Consultants had been emerged to **provide partial services of CM such as bid management, separate contract, value management.**
- **1993** The **PM Special Research Committee** was established in Architectural Institute of Japan(**AIJ**).
- **1990's-Second half.** Along with the depression in the economy, **transparency in the process and the cost of construction projects** was demanded, and fee-business became increased. The project performed by using **CM became normal.**

History of introduction of CM

History in private sector

- 1998 JFCC (Japan Federation of Construction Contractors) suggests that CM charge the soft services.
- **1998 JIA** (Japan Institute of Architects) published **“JIA-CM Guidelines”**, which was claiming that services of CM should be the extensional services of the architect.
- **2001 CMAJ** (Construction Management Association of Japan) was established.
- **2004 CMAJ** started up **the qualifying examination system.**

3. Present situation about CM in Japan

Present situation about CM in Japan

- **The share in the construction market is about 2%** in the construction amount base.
- **Public sector**
 - **MOLIT** is formally started the **experimental projects in 2002**.
 - **Last month the first CM building construction project** was ordered by the central government.
 - **Some local governments are also started CM projects.**
- **Private sector**
 - Many large-scale **general contractors** are beginning to **establish CM departments**, or CM groups within their companies, and are carrying out full CM services mainly for the construction projects of foreigners' investment.
 - However, the rich CM experience obtained from overseas

Present situation about CM in Japan

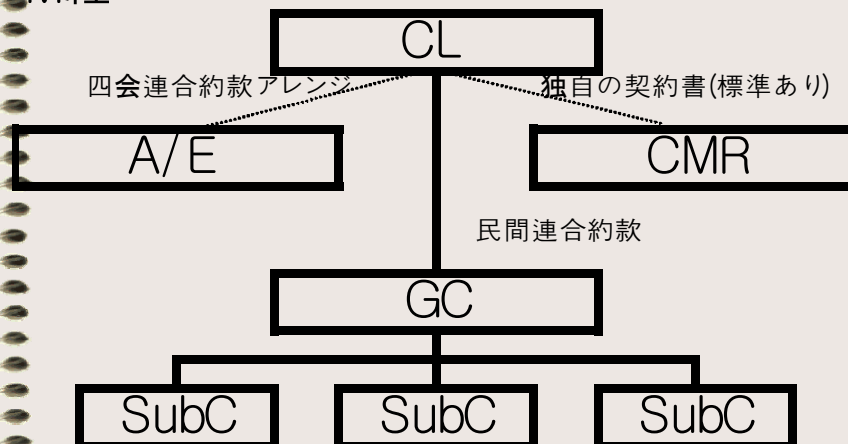
- **The general contractor** is also now **in conflict** as to choose **whether the profit of design-bid-build project or the fee of CM project.**
- However, if public sector chose to introduce CM as one of the procurement systems, the organization of the general contractor should become very flexible immediately. Time when CM system is adopted is approaching.
- **Architect's offices have positively started** to embrace CM services. Large firms are beginning to establish CM departments or subsidiary companies within their groups.
- **The firms specialize in CM** services are gradually increasing.
- **The specialist contractors**, especially equipment contractors, **hope for the adoption of CM system.**

Present situation about CM in Japan

- There are **few CM system of At-risk CM** in Japan. The reason is that there is a restriction on Construction Industry Law.
- We have **two typical fee base CM** systems.
General Contractor use type
Specialist Contractor use type
- There is **no law concerning CM** at all.

GC use type

M社





4.Current issues

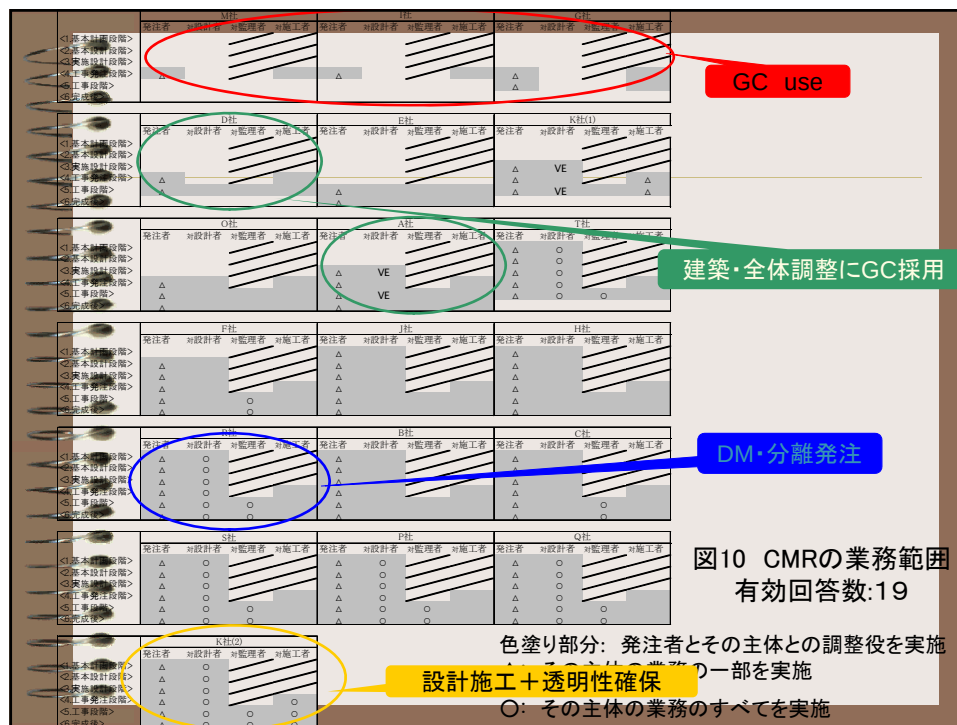
1.Scope of the work and responsibility of GC

- **The scope of the work of GC** under GC system is not specified.
- The scope of **GC** under CM system is limited.
- **The relationship between GC and CM systems** is not necessarily adjusted, therefore **confusion** is caused.

Need to research on GC and Lump sum contract

2.Scope of the work and responsibility of CMR

- The main purposes to adopt CM system are **to make clear the cost composition and decision process** and **to reduce the construction cost**.
- To achieve those purposes, CMR provides partial services of CM such as bid management, separate contract, value management.
- At present, there exist two types of CMR. One is a **specializing type**, another is an **integrated type**.

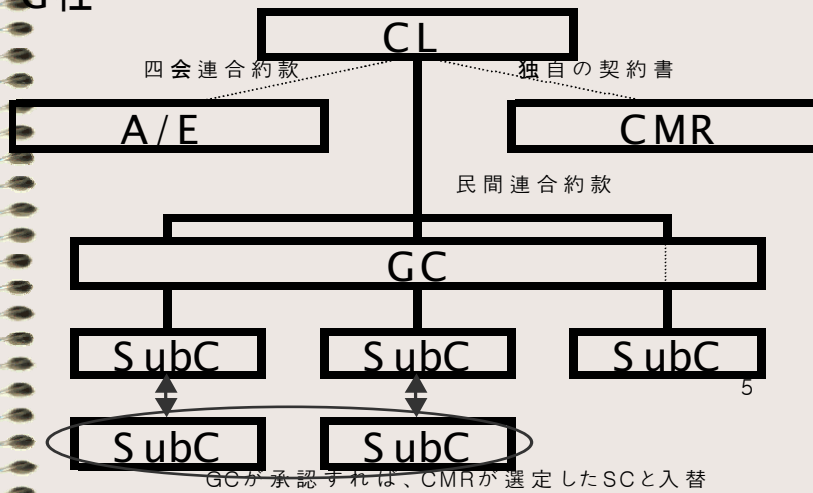


3.Unilateral contract 片務性(Henmu-sei)

- Designated subcontractor
- Cost-on subcontractor
- Nominated subcontractor

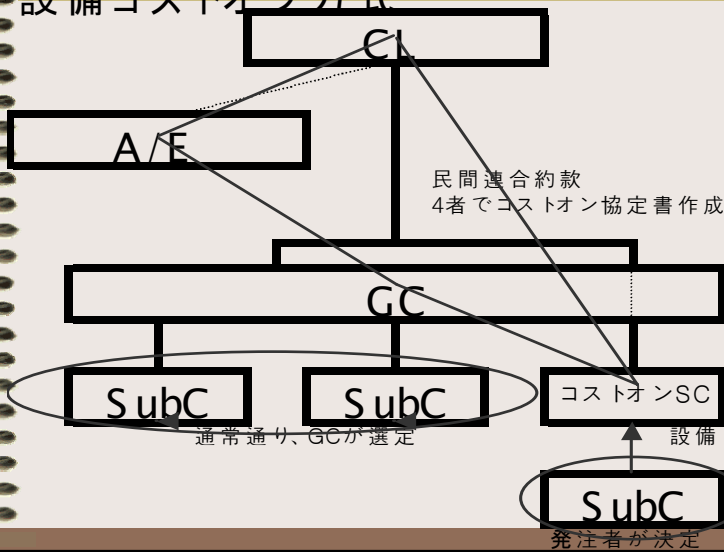
Designated subcontractor

G社



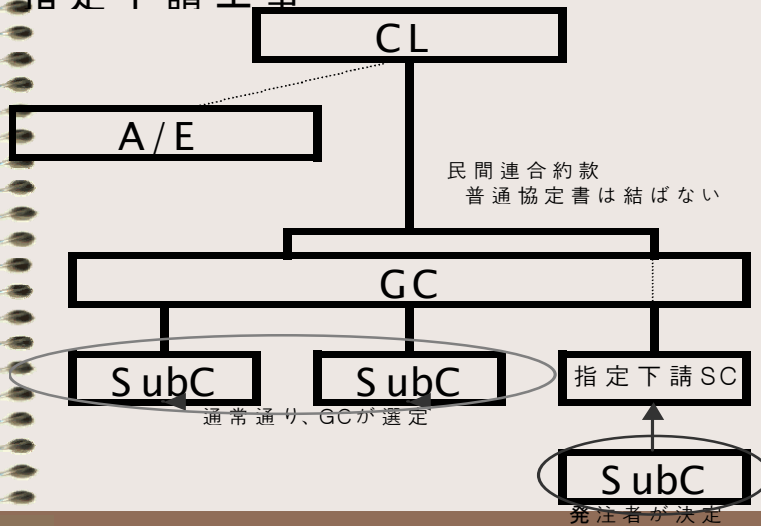
Cost-on subcontractor

設備コストオン方式



Nominated subcontractor

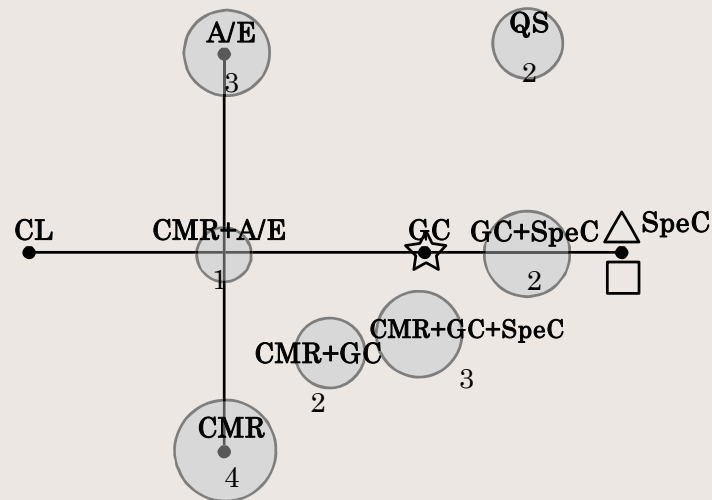
指定下請工事



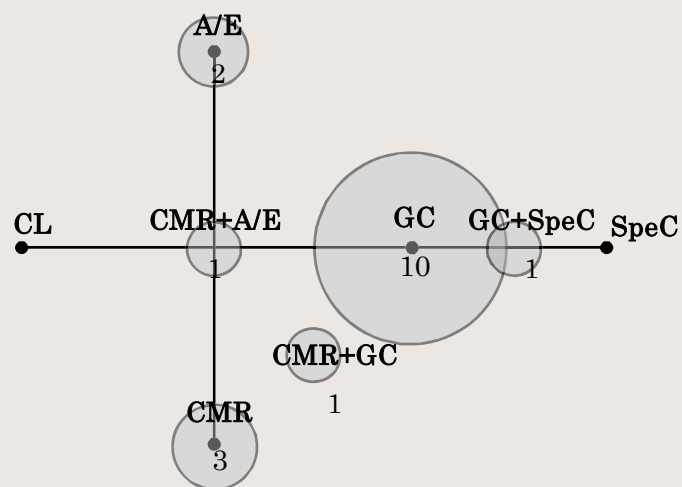
Unilateral contract vs Antitrust Law

- The scope of the ultimate responsibility of cost, quality, schedule among the client, the architect, CMR, GC and SC
- Bankruptcy of the subcontractor
- Occurrence of construction defects

4. Person in charge of estimation /quantity surveying



5. Person in charge of Sogo-zu



5.About CMAJ



About CMAJ

28, April, 2005

Shuzo FURUSAKA

President of CMAJ

**Associate Professor of
Kyoto University**

◆ CMAJ Outline

■ Started on April 16th, 2001

■ Goal

- ◆ To reconstruct the construction project delivery system
- ◆ To develop responsible professionals with ethics

■ Code of Ethics developed on June, 2002

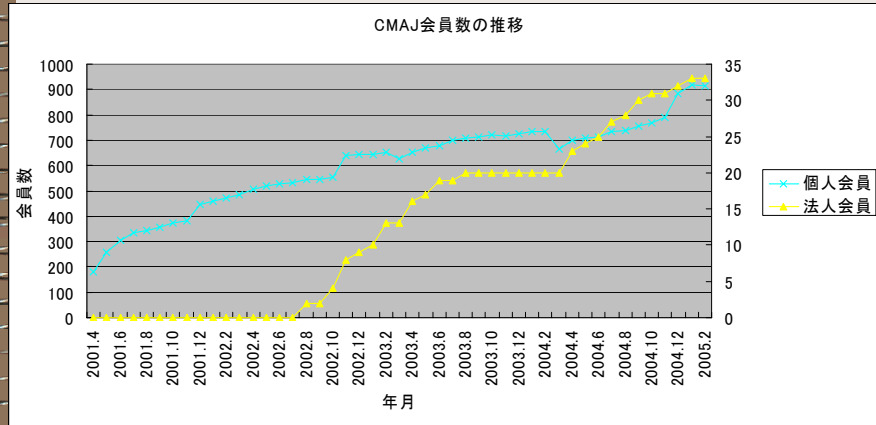
- ◆ Integrity/Dignity
- ◆ Neutral judgement
- ◆ Rational justification
- ◆ Continuous improvement
- ◆ Legal
- ◆ Relationship with Owners
- ◆ Relationship with CMAJ members and non-members
- ◆ Project stakeholders
- ◆ Discipline

◆ CMAJ Outline

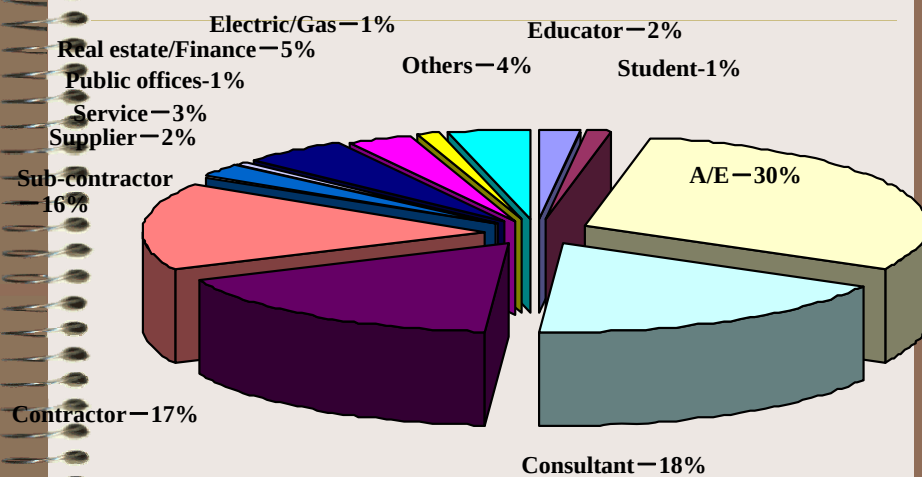
■ Mission

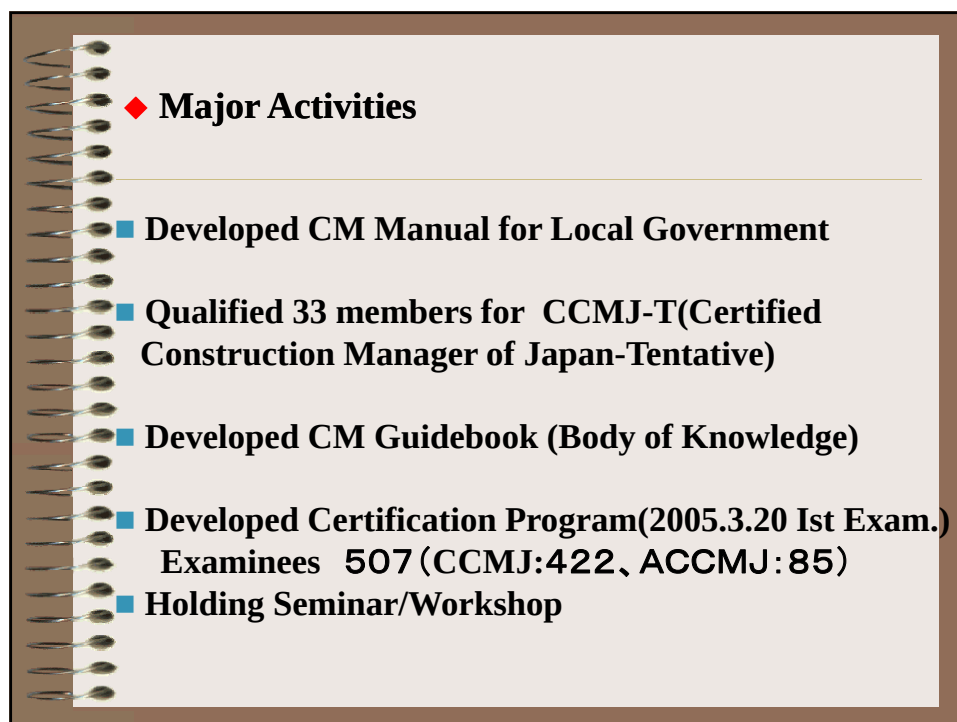
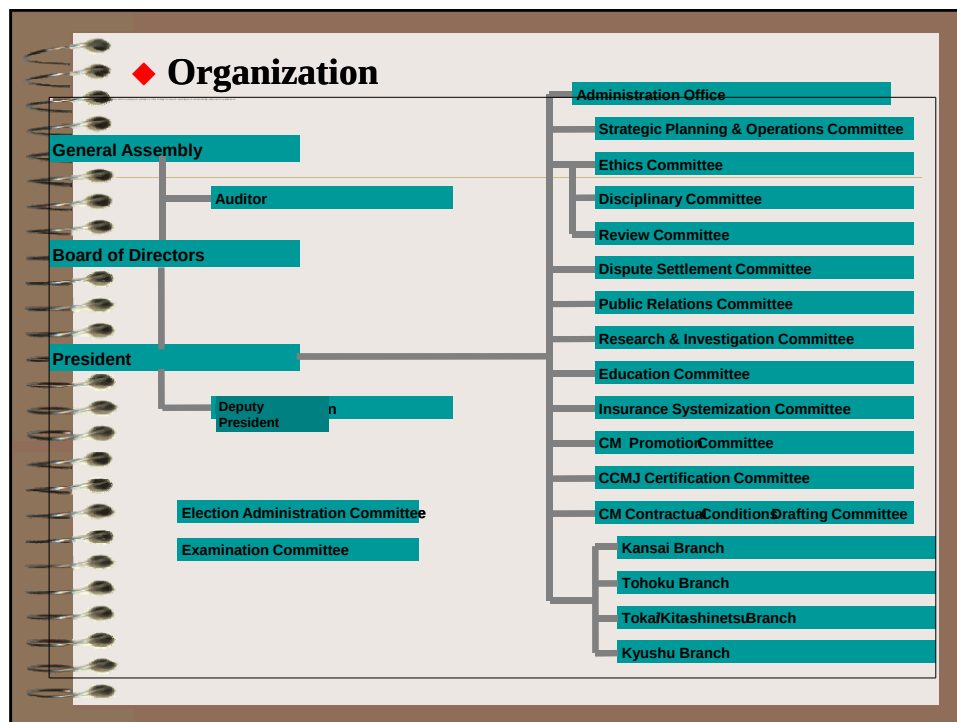
- ◆ Recognition of CM
- ◆ Expanding CM practice in the Japanese industry
- ◆ Research on CM
- ◆ Alliance with global and Japanese communities
- ◆ Education and training for CM

◆ CMAJ Members



◆ Member's industry





◆ Certification Program-1

■ Goal

- ◆ Contribute the development of CM professional
- ◆ Provide the guide toward CM professional
- ◆ Impact on the educational program for CM
- ◆ Expand CM market

■ Outline

- ◆ Multi-level
- ◆ Certified by the association
- ◆ Encourage continuous improvement
- ◆ Global recognition

◆ Certification Program -2

■ Basic concept for the certification program

◆ Associate level (ACCMJ)

- Knowledge for basic design and construction
- Knowledge for Construction Management based on the guidebook
- Knowledge Base with multiple-choice
- no experience required

◆ Core Level (CCMJ)

- Knowledge for basic design and construction
- Knowledge for Construction Management based on the guidebook
- Some experience required for pre-qualification
- Paper examination for experience

◆ Senior(not yet provided)

- Broader knowledge for project and construction management
- Longer experience required for pre-qualification
- Interview for qualification

◆ **Certification Program -3**

■ **CMAJ certification qualifying examination**

● **Ist Examination was done on March 20 in 2005.**

● **Examinees were 507 people.**
(CCMJ:422、ACCMJ:85)

◆ **The passing announcement is**
May 20 in 2005.

Thank you for your attention

28, April, 2005

Shuzo FURUSAKA

President of CMAJ

Associate Professor of Kyoto University

<http://www.cmaj.org/english/index-e.htm>