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Public Works with CCPM

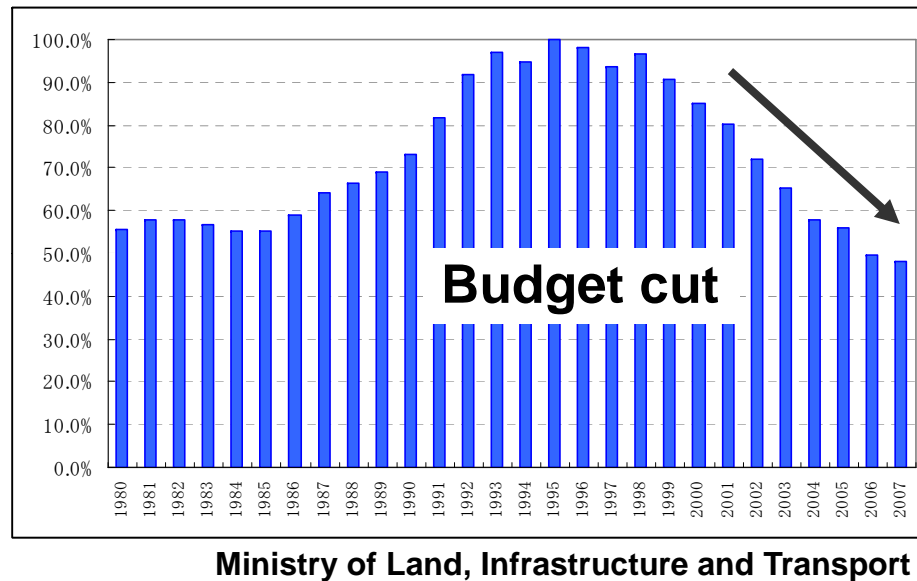
Presented By: Keita Asaine , Juntos (Goldratt Schools Japan)

Date:

Current reality – Companies related to Public works

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Trend of Public Works budgets



The public works budgets decreased to about half of the peak.

The challenge for many construction companies:

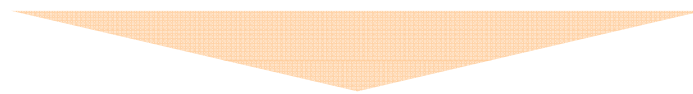
- To reduce costs.
- To shrink project lead time.

We want to manage projects better !



Challenges for Implementing CCPM

- Most contractors engaged in public works try to implement CCPM .



However, here are some comments from the companies.

- Some people follow the way of CCPM exactly, but others revert back to previous way.
- As time passes with the implementation CCPM, the tendency to revert back to previous way occurs.

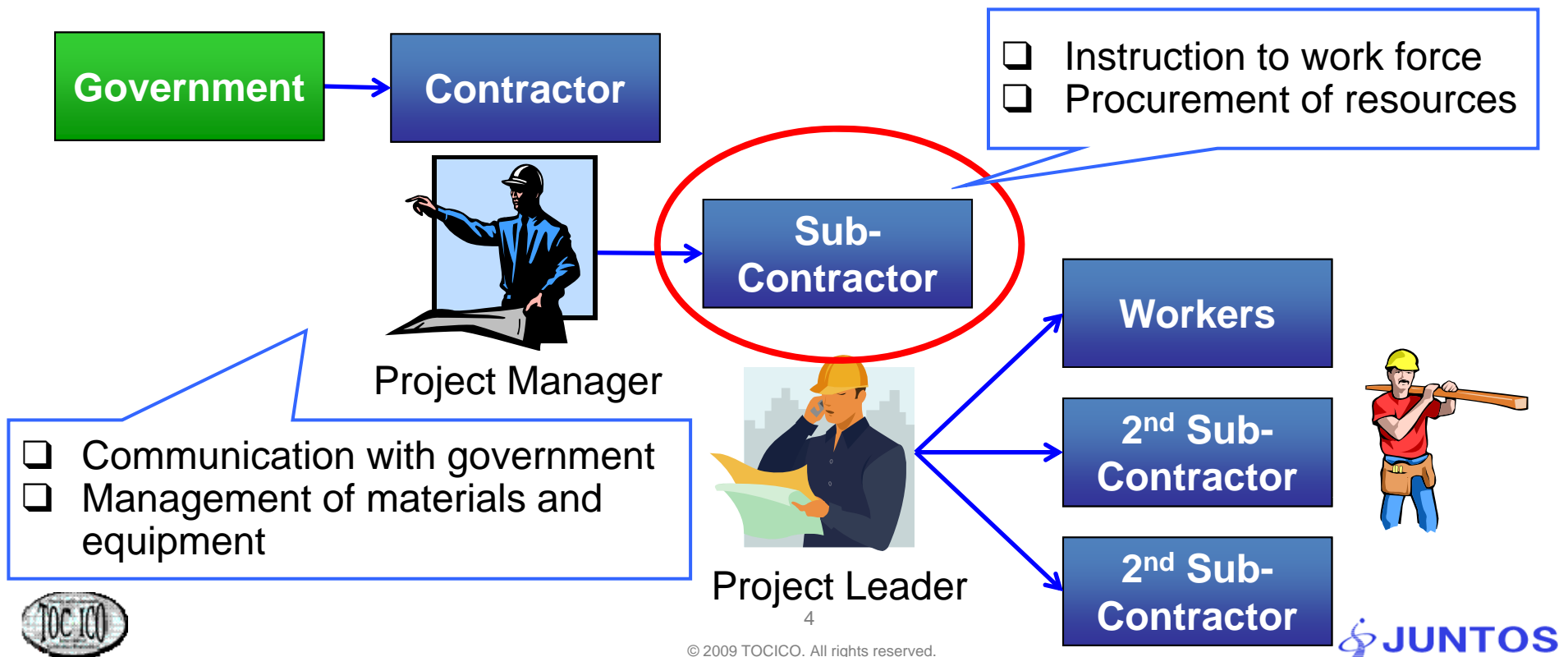
Why is it difficult to continue the use of CCPM ?



Case study : Bridge construction company

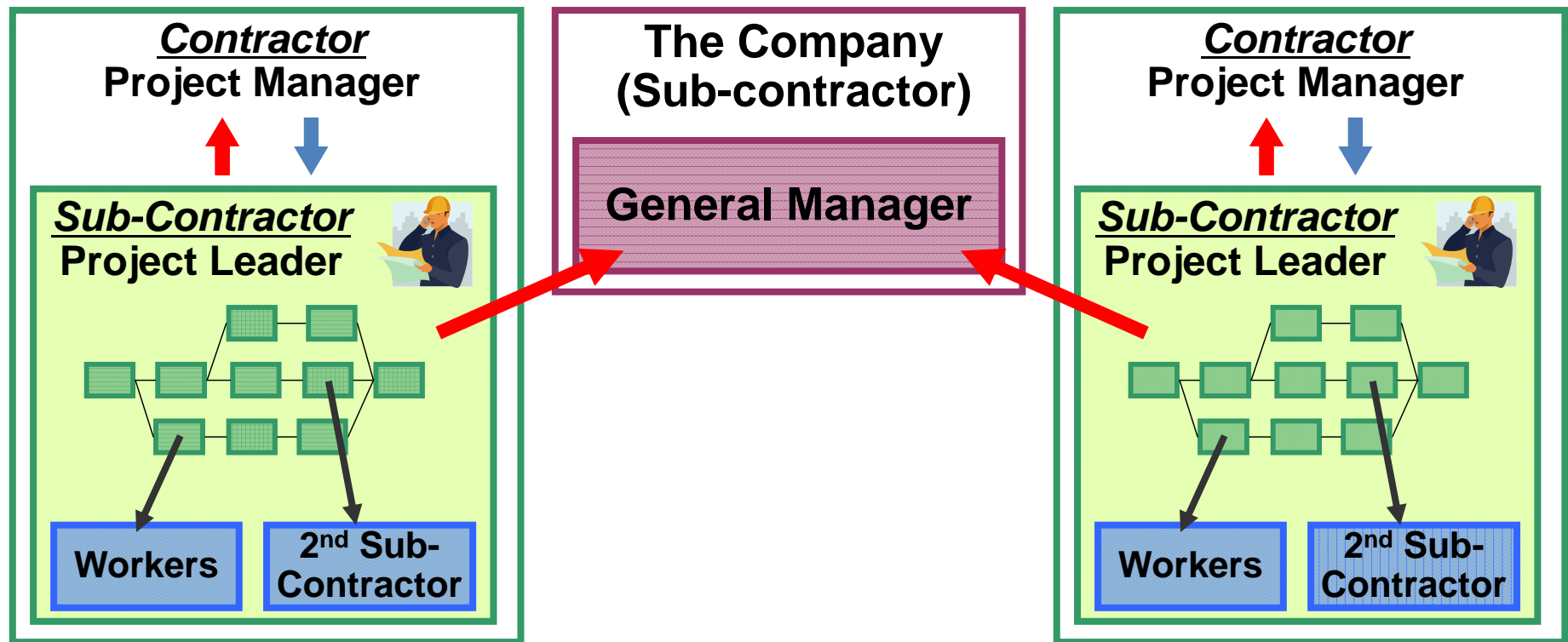
Company Profile

The company entered the concrete bridge construction business as a sub-contractor. A member of the company works for the client's project as a Project Leader who helps the client's project manager and manages labor - external resources. The company is in single-project environment.



Case study : Bridge construction company

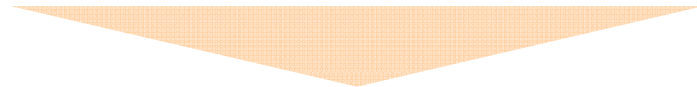
- ❑ The project leader has to manage workers and 2nd sub-contractors while communicating with a contractor.
- ❑ Each project leader reports the progress of the project to the general manager, and asks for support if necessary.



Implementing CCPM

The company implemented CCPM.

- Performed an internal seminar of CCPM and software training for all the project leaders and the general manager.
- The followings was determined...
 - The project leaders made Buffered Critical Chain schedules.
 - The project leaders obtained the estimation of completion of running task, and updated the software every day.
 - The project leaders gave the Buffer Penetration Report to higher management.



Some project leaders continued to follow the new set procedures. But others didn't.

Why not ?



The voice of project leaders who stopped following the rules

- ❑ **The project leaders made Buffered Critical Chain schedules.**

Project leaders side	General manager side
<ul style="list-style-type: none"> — I cannot communicate well with the project manager about schedule. — Therefore, I follow the plan that the project manager determined about scheduling and delivering of materials and equipment. 	<ul style="list-style-type: none"> — The general manager is always saying “shrink project lead time”. — However, there is no suggestion or advice on how to shrinking project lead time.

- ❑ **The project leaders got the estimation of completion of running task, and updated the software every day.**
- ❑ **The project leaders gave the Buffer Penetration Report to higher management.**

Project leaders side	General manager side
<ul style="list-style-type: none"> — I don't know how to manage according to the buffer. — Therefore, I perform tasks instead of managing. 	<ul style="list-style-type: none"> — General manager doesn't take a recovery action immediately, even if I report the buffer status. (buffer color is Red.)



The reasons why CCPM is not used

- Managers regularly collect information according to the rules.



- The managers who get information don't know how to make decisions for management accordingly.



- Project leaders cannot direct the workers clearly.
The general manager cannot direct the project leaders clearly, either.



- Some project leaders cannot obtain the desired effects.
Therefore, they stop following the rules.

Ambiguous guidelines and instructions for management

The major elements of successful CCPM implementation

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Improve the process flow to function CCPM and realize an effect.

Process Flow



— How to utilize information.

Decisions Flow

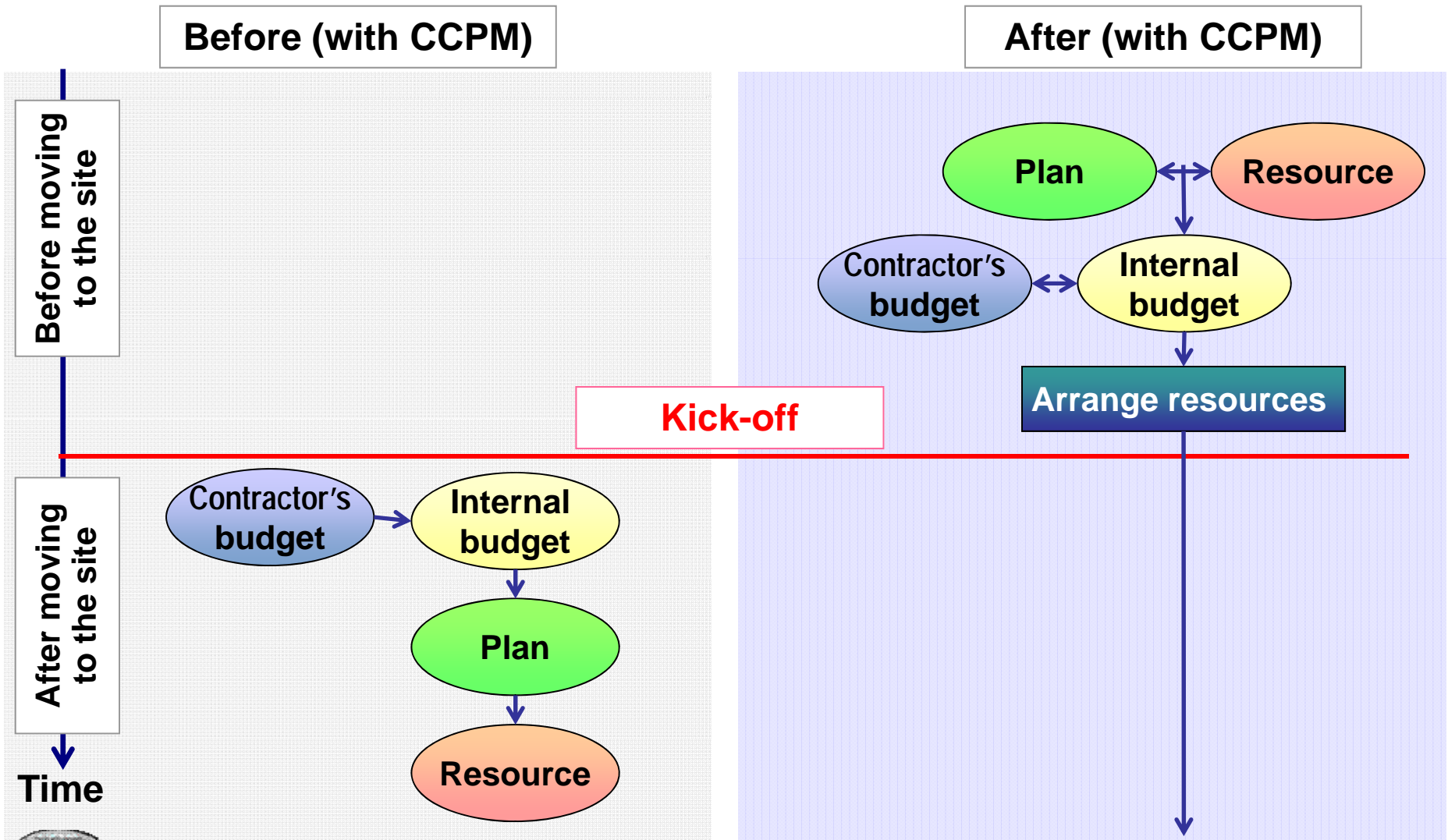


— How to obtain information.

Information Flow



Case1 :Change Planning Process



Information & Decision Flow (Planning)

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Information Flow

- Create the project planning diagram
 - Create the dependency diagram
 - Assign the resources to each task
 - Estimate the duration of each task
- Critical Chain and Buffers

Decision Flow

- Perform quality check of project plan
- Approve the project plan
- Determine the time of starting the project



Information & Decision Flow (Planning)

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Show example



Information & Decision Flow (Execution and Control)

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Information Flow

- Ask remaining duration of a current task
- Report the data which indicates the status of Buffers
- Determine the “wake-up time” per each item
- Check the list of "wake-up call” per each item

Decision Flow

Project leader

- Assign priorities to tasks within the project in charge
- Allocate resources based on priorities

General manager

- Assign priorities to projects
- Produce the resource allocation plan
- Hold the Buffer Management meeting



Information & Decision Flow (Execution and Control)

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Show example



Case study : Results

Improvement with CCPM

- DDP**

for internal commitment : about 30% \Rightarrow 86%

- Project lead time**

reduced by 20-23%

- Costs**

Reduced expense of materials/equipment : about 30%

- Comment of top management**

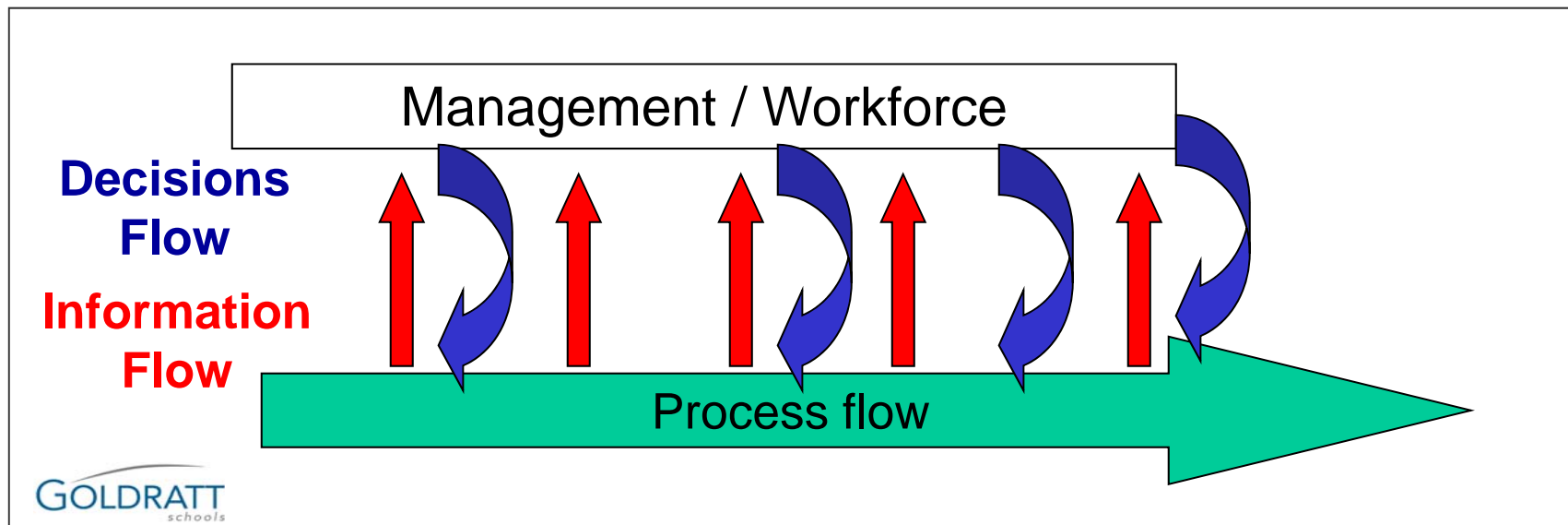
Reliability increased due to improved communication with clients.

Flow management in TOC

Developing the mechanics is essential to ever using CCPM.

To do that, Information Flow and Decisions Flow should be put in the statutory form as the procedures.

For roll-out of the use of the procedures, we have to build a consensus with the relevant key participants: PL/PM, general manager and top management.



The gap between Gemba and higher management

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**In Japan construction companies,
There is a huge gap between the people at site (Gemba)
and higher management**

**From the gemba point of views;
When we ask higher managers to help us, it is likely that
they say only “do your best”.
It leads to gemba’s mistrust to higher management.**

**From the higher manager’s point of views;
The gemba always calls for expensive action easily.
It leads to higher manager’s mistrust to gemba.**



Relationship between Gemba and higher management

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Gemba and higher management have a same objective.

But, they don't have the way how to understand each other's assumptions.

Therefore, they become to mistrust each other.

If they understand each other's managerial procedures clearly and manage according to them, they become to trust each other.



About [Presenter]

Keita Asaine is a director of Juntos, Co., Ltd.

Goldratt Schools faculty member since 2008.

He has been teaching TOC (CCPM for Project Management environment & S-DBR for Operation/Production environment) at Kyusyu University as a lecturer since 2006.

He has graduated as a System engineer from Kyushu Institute of Technology, Fukuoka. After his graduation, he joined Juntos. He started to work in the Bridge Design department and gradually engaged in the Sales, too. He was engaged in an internal TOC implementation project as a team member. He was recognized Jonah in 2005.

He always devotes himself to provide TOC implementation support as a consultant and to conduct seminars into Japanese market in line with the GS's plentiful latest information.

