



# Waste in Product Development

- Study of Industrial PD Projects -



Jin Kato, MIT March 22, 11:25-11:40

## Goal of This Study:

Develop ideas and methodologies of Lean PD into tools and processes that can:

- help **PD project managers**
  - **identify and measure the waste drivers** in their teams' processes;
  - **identify root-causes and measure their impacts on PD Processes;**
  - and finally, **learn the best thing to pursue to improve their PD processes.**
- be applied to **various PD organizations** regardless of **cultures and products.**

## Study of Industrial PD projects

Have been applying VSM, Waste Drivers and Root-Cause Analysis Chart to **three complicated PD projects** in **two big manufacturing companies.**

- *Company A: an American company developing test and measurement devices.*
- *Company B: a Japanese electric giant.*

**VSM** and **Root-Cause Analysis Chart** have been developed, tested, and improved through **intensive interviews** with both **project managers** and **engineers.**

## Preliminary Result from One of the Investigated Project:



The analyzed period is the first two months out of 12-month PD project -- more waste is expected to be detected in the later phases of the project.

Other analysis will include the following graphs:

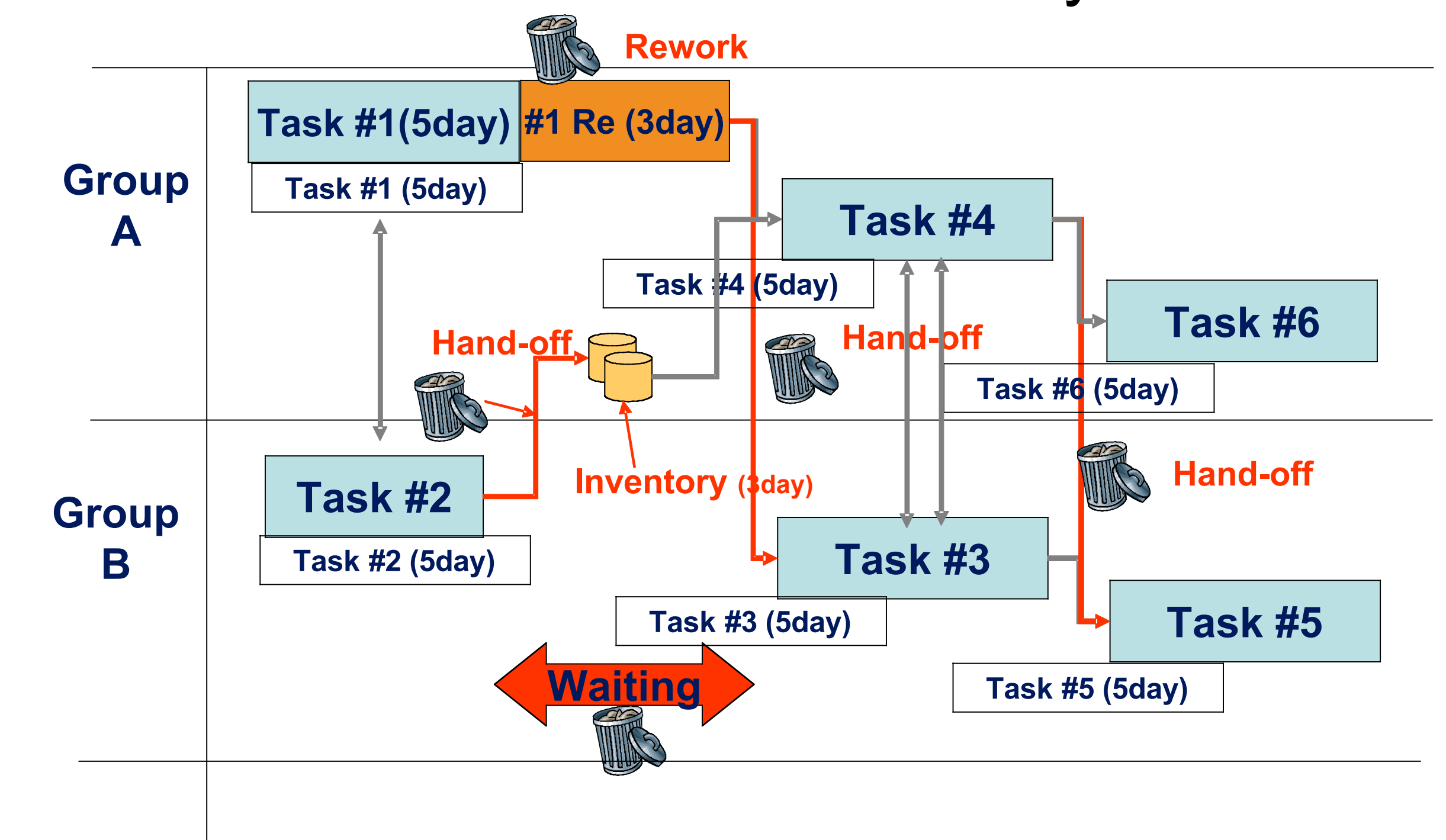
- **Waste Driver – Wasted Cost**
- **Waste Driver – Root Cause**
- **Root Cause – Wasted Time**
- **Root Cause – Wasted Cost**

## Preliminary Conclusion:

• **VSM, Waste Drivers and Root-Cause Analysis Chart** have made it possible to **identify both root causes of low PD performances** and their **quantitative impact on PD performances.**

## Tool 1: Swim-Lane VSM

- Helps Project Managers **identify and measure Waste Drivers.**
- **Visualizes Waste Drivers** effectively.



## Tool 2: Root-Cause Analysis Chart

Helps Project Managers **identify root causes** of waste.

