Drink Lean From the Source Learning Kaizen From Toyota

Kenji HIRANABE

Change Vision, Inc.
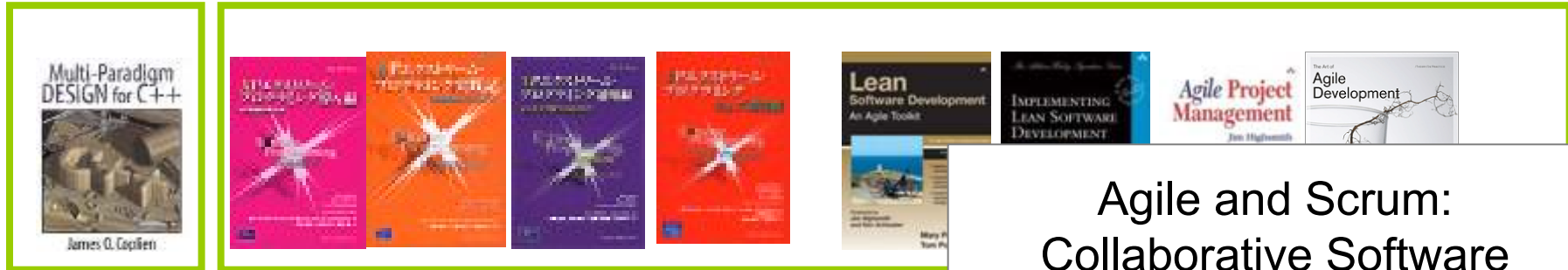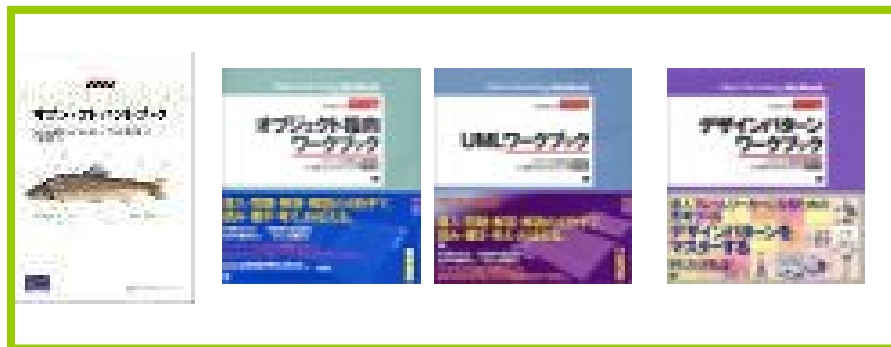
Kenji HIRANABE(1/2)

- (co-)Translator of …

C++ book

XP/ Agile books

Agile and Scrum:
Collaborative Software
Development That Connects
Customers, Engineers and
Management

- (co-)Author of …

OO, UML books

Mind Map book

Scrum book

Seeing is understanding.

Kenji HIRANABE(2/2)

- CEO of **Astah.net.**

- **astah – UML editor (formerly known as "JUDE")**
  - **With Mind Map, ERD**
  - **http://astah. net/**
  - **Runs on**
    - **PC, Mac, Linux, iPad**
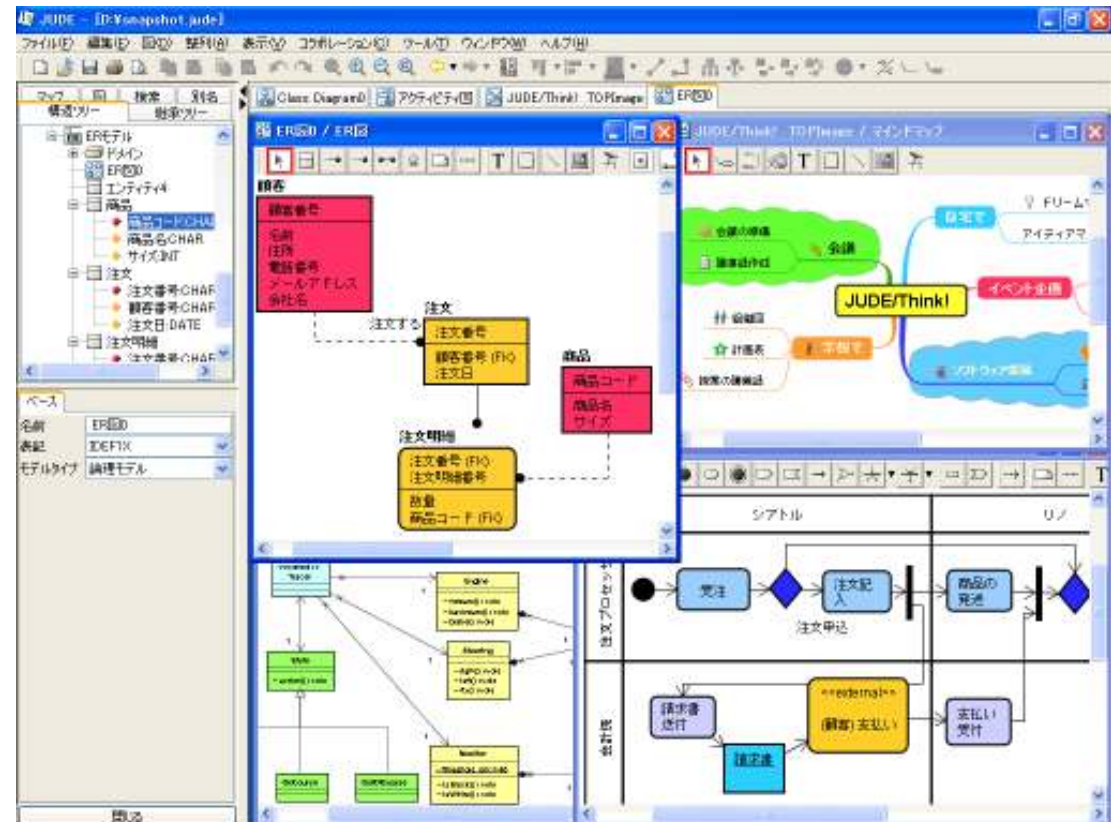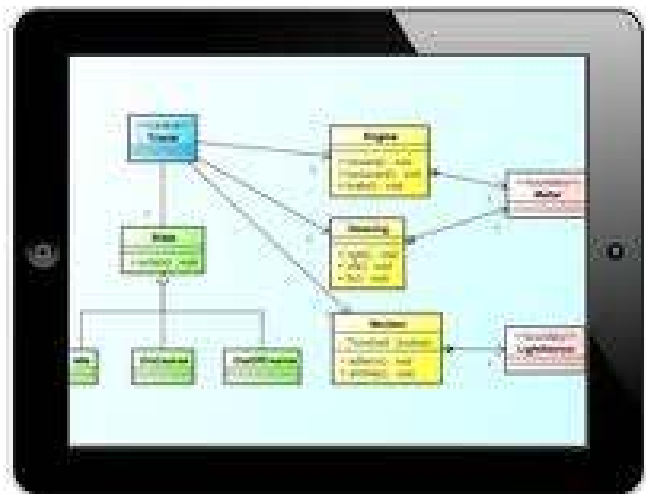
Agenda

- The Big Picture of Lean and Agile and Japan's implication
- A video of a Factory Reconstruction
  - 5 Parts
- Share findings using a mind map

Seeing is understanding.

Agile and Lean

Patterns

The New New Product
Development Game

Manufacturing Industry in Japan

XP

Toyota Production
System

Scrum

Lean Software
Development

Agile

Lean

Kanban

Lean Startup

Four steps
to the epiphany

Startup
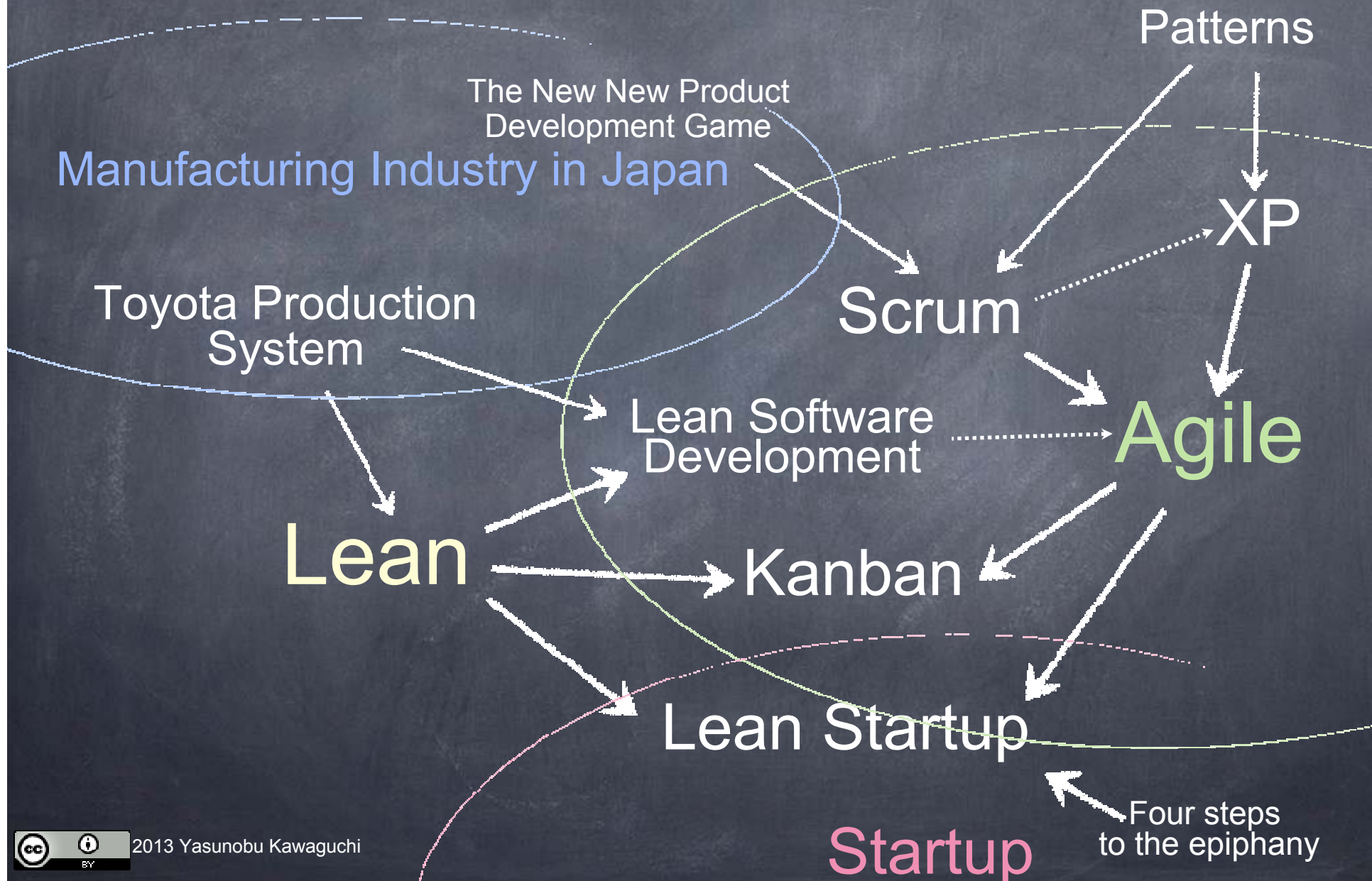
Quote from the first Scrum Book

Agile Software Development with Scrum

red
yellow
green
blue
red
blue
yellow
green
blue

Ken Schwaber ▪▪▪ Mike Beedle
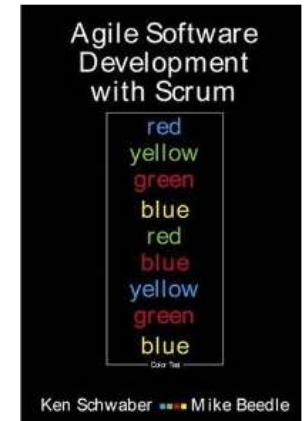
- *"Agile Software Development with Scrum"* (by Ken Schwaber, Mike Beedle) starts with the following quote.

  The "relay race" approach to product development ... may conflict with the goals of maximum speed and flexibility. Instead a holistic or "rugby" approach – where the team tries to go the distance as a unit, passing the ball back and forth – may better serve today's competitive requirements.

  -- "The New New Product Development Game"

The new new product development game

Stop running the relay race and take up rugby

Hirotaka Takeuchi and Ikujiro Nonaka

In today's fast-paced, fiercely competitive world of commercial new product development, speed and flexibility are essential. Companies are increasingly realizing that the old, sequential approach to developing new products simply won't get the job done. Instead, companies in Japan and the United States are using a holistic method—as in rugby, the ball gets passed within the team as it moves as a unit up the field.

This holistic approach has six characteristics: built-in instability, self-organizing project teams, overlapping development phases, "multilearning," subtle control, and organizational transfer of learning. The six pieces fit together like a jigsaw puzzle, forming a fast and flexible process for new product development. Just as important, the new approach can act as a change agent: it is a vehicle for introducing creative, market-driven ideas and processes into an old, rigid organization.

Mr. Takeuchi is an associate professor and

The rules of the game in new product development are changing. Many companies have discovered that it takes more than the accepted basics of high quality, low cost, and differentiation to excel in today's competitive market. It also takes speed and flexibility.

This change is reflected in the emphasis companies are placing on new products as a source of new sales and profits. At 3M, for example, products less than five years old account for 25% of sales. A 1981 survey of 700 U.S. companies indicated that new products would account for one-third of all profits in the 1980s, an increase from one-fifth in the 1970s.[1]

This new emphasis on speed and flexibility calls for a different approach for managing new product development. The traditional sequential or "relay race" approach to product development—

Exhibit I   **Sequential (A) vs. overlapping (B and C)
phases of development**

Type A

Phase   1   2   3   4   5   6

Type B

Phase   1   2   3   4   5   6

Type C

Phase   1   2   3   4   5   6

Innovation Sprint 2011

Jeff Sutherland

me

Ikujiro Nonaka

http://www.publickey1.jp/blog/11/10_innovation_sprint_2011.html
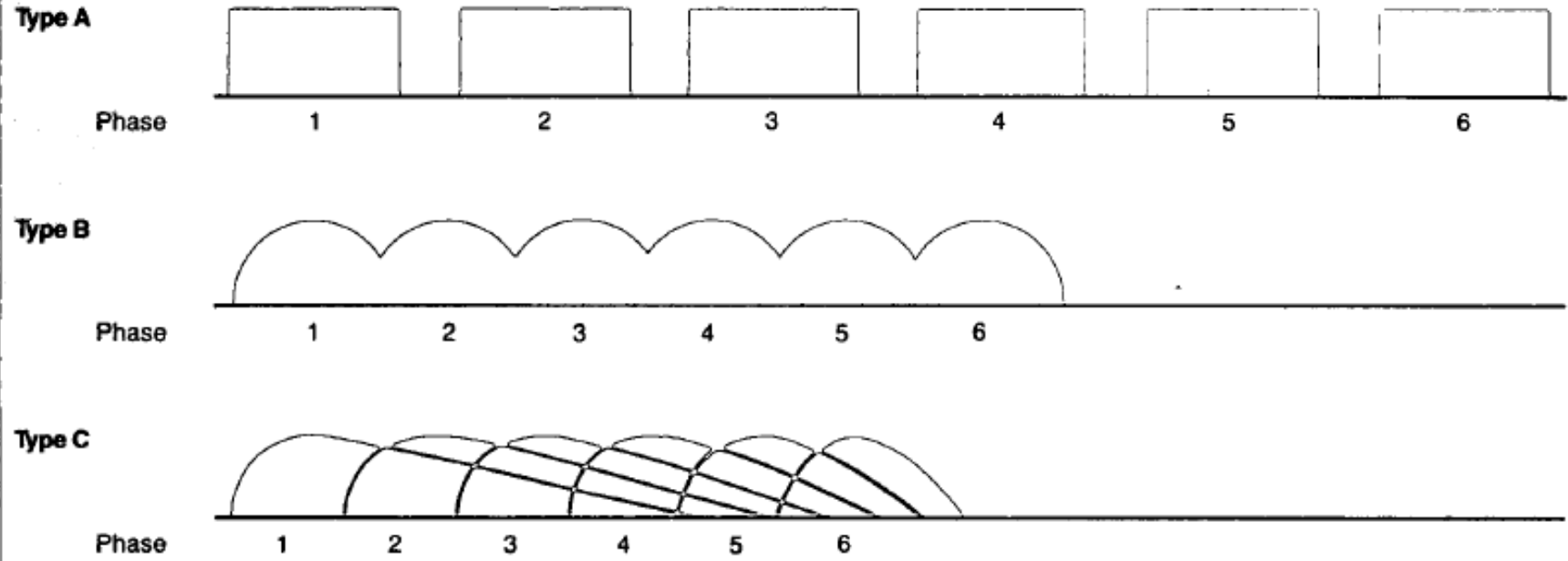
Nonaka's Text

Agile/Scrum (Software)

"The New New Product Development Game"	1986
"Scrum"	
"The Knowledge Creating Company"(HBR)	1991
SECI-model	1993
	1994/1
	1994/2
Fractal Organization	1995
アメリカ海兵隊(U.S. Marine)	
	2001
	2001
Phronetic Leadership	
"Managing Flow"	2008
"Wise Leadership"(HBR)	2010
	2012

Org. Patterns(by Jim Coplien) (at PLoP)

First Sprint of Scrum by Jeff Sutherland

Second Sprint of Scrum (with Cope's Ideas)

Scrum Master   Daily Scrum

"Agile Software Development with Scrum"
(by Ken Schwaber, Mike Beedle)

"The Agile Manifesto"

"Software in 30 days"

2013

"アジャイル開発とスクラム-顧客・技術・経営をつなぐ協調的ソフトウェア開発"
Collaborative Software Development That Connects Customers, Engineers, and Management

A Video of Factory Reconstruction

A Video of Factory Reconstruction

- 20 minutes video
- Explain by a Mind Map (5 parts)
  1. Waste
  2. Change
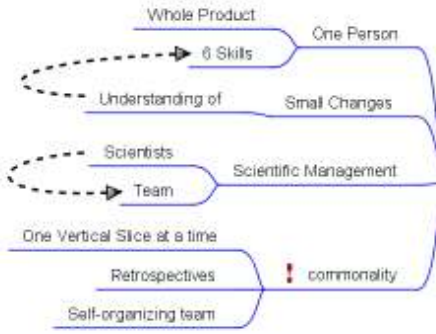 3. Conflict
  4. Yatai
  5. Kaizen
- Share findings, ideas

Seeing is understanding.

Yatai (or Hotdog Stand)

Seeing is understanding.

Drink Lean From the Source — Kaizen

1 Waste
- First Goto → Shipping → The Sales → Pull; Overproduction
- Then → Production Line → WIP
- Why? → Customer Needs Change; Overproduction is the WORST waste
- ! commonality
  - Value is in output
  - Produce only what your customer is waiting.
  - WIP → untested code; unimplemented requirements; anything between → Concept; Cash

2 Change!
- Remove → Symbol; Velt Conveyer
- Reduce → Between → Workers
- Introduce → Mult-Skill
- ! commonality → Vertical Slice; One piece flow

3 Conflict
- Between → Reality → Winsl; Ideal
- But...
- Experiment → Yatai; Need One Success Case

4 Yatai
- Whole Product → One Person
- 6 Skills
- Understanding of → Small Changes
- Scientists; Team → Scientific Management
- One Vertical Slice at a time
- Retrospectives → ! commonality
- Self-organizing team

5 Kaizen
- Gradually
- Management; Foster → Human Potential
- Quality; Company → Proud → Party !
- Stone Cutter Episode
- Respect for People; Motivation and Trust → ! commonality

Notes
- Go to Gemba; To solve Problems; Context is everything → PowerPoint Presentation → He Didn't
- Ask People at Gemba → tell what to do → He Didn't
- Really have to think and act → Sense of Urgency
- Sense of Contribution; Taking Part in the whole → Objectives of Kaizen
- "Think for yourself" attitude; Vehicle of Knowledge → People → Context
- Book or Manual
- PPP: improve → People; Process; Products; makes; Developing People Is the Point

Think — Do