

software pilots

TRIFORK.

Velkommen til GeekNight

Trifork A/S · Margrethepladsen 4 · DK-8000 Aarhus C. · Danmark



Velkommen til GeekNight



14. september, 2011

Introduktion til Kanban v.2

– Resultaterne kan ikke ignoreres!

Taler: Jesper Boeg

Abstract:

For 1,5 år siden holdte vi den første GeekNight om Kanban. Siden er der sket meget og vi er blevet meget klogere. Kanban er modnet og forståelsen for effekterne og de mere langsigtede perspektiver har udviklet sig voldsomt i takt med, at vi selv og andre har haft mulighed for at benytte principperne på et langt bredere udsnit af projekter og opgaver

Trifork A/S

Trifork A/S udvikler, sælger og leverer IT løsninger til den finansielle og offentlige sektor i Danmark. I vores Academy afholder vi konferencer, kurser og organiserer teknologiske netværk nationalt og internationalt.

Trifork Mobile udvikler applikationer og frameworks til smartphone og webbaserede platforme.

Som for eksempel:
Tribank, Danske Mobilbank,
Tridocs, Mnesia, GOTO guide osv.



GeekNights



Udvid dit netværk!

Trifork Academy holder jævnligt GeekNights for engagerede udviklere, arkitekter og projektledere, der når arbejdsdagen er ovre har lyst til at dele deres passion for softwareudvikling med kolleger fra andre virksomheder.

Til vores GeekNights giver vi deltagerne muligheden for at netværke i et uformelt forum, samtidig med at de bliver udfordret fagligt.



EVENTS

14.09.2011-14.09.2011

Introduktion til Kanban v.2 –
Resultaterne kan ikke
ignoreres!



15.09.2011-15.09.2011

Introduktion til Kanban v.2 –
Resultaterne kan ikke
ignoreres!



28.09.2011-28.09.2011

Fremtidens signatur - Attribute
Based Credentials (ABC)



11.10.2011-11.10.2011

ScrumForum User Group
Meeting at GOTO Aarhus 2011



11.10.2011-11.10.2011

Ruby User Group Meeting at
GOTO Aarhus 2011



11.10.2011-11.10.2011

Clojure User Group Meeting at
GOTO Aarhus 2011



11.10.2011-11.10.2011

Design and Usability User
Group Meeting at GOTO
Aarhus 2011



Se flere events på www.trifork.com eller www.gotocon.com

TRIFORK.

GeekNights



Fremtidige GeekNights

- Har du en ide til det næste GeekNight emne?
- Eller har du lyst til at holde en GeekNight selv?

Så skriv en e-mail til; Tine Grarup (tgr@trifork.com)



Du kan også følge os på Twitter
[#GeekNight](https://twitter.com/GeekNight) og få de nyeste opdateringer.

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Næste ScrumForum finder sted under GOTO Aarhus 2011

Mød Jean Tabaka & Dave Farley som vil snakke om Continuous Delivery

“An excellent opportunity for all interested in Scrum to interact with speakers and other peers. Learn, share experiences and exchange ideas. Everybody is welcome, but space is limited, so sign up now. Come along to debate, learn, listen, shape, join in and network.”

Tilmeld dig og læs mere her; <http://gotocon.com/aarhus-2011/upcomingevents/>

Se flere events på www.trifork.com eller www.gotocon.com



Kurser

Trifork har et bredt program af kurser til udvikleren, arkitekten og projektlederen og er altid klar til at møde efterspørgslen efter nye.

OKT	NOV	DEC
iPhone/iPad Development part I - Fundamentals <i>Claus Myglegaard Vagner & Morten Holm</i> 3.-4. oktober, København Mobile	JavaScript part I - Fundamentals <i>Karl Krukow</i> 1.-2. november, København Web	Certified ScrumMaster <i>Jens Østergaard</i> 5.-6. december, København Process
GOTO Aarhus - 10.-12. oktober, Aarhus Java Web .Net Process Mobile	Lean Architecture for Agile Software Development <i>James O. Coplien</i> 7.-8. november, København Process	JavaScript part II - Advanced JavaScript Topics <i>Karl Krukow</i> 8.-9. december, København Web
Coaching Agile Teams <i>Lyssa Adkins and Michael Spayd</i> 13.-14. oktober, København Process	Certified ScrumMaster <i>Jeff Sutherland</i> 7.-8. november, Zürich Process	Core Spring <i>Niels Steen Hansen</i> 12.-15. december, København Java
Certified ScrumMaster <i>Jens Østergaard</i> 13.-14. oktober, Aarhus Process	Design and Usability <i>Janne Jul Jensen</i> 14.-15. november, Aarhus Web	HTML5 Fast Track <i>Peter Lubbers</i> 12.-13. december, Aarhus Web
Certified ScrumMaster <i>Jeff Sutherland</i> 13.-14. oktober, Aarhus Process	TDD Test Driven Development <i>Die Østergaard</i> 14.-15. november, København Process .Net Java	REST Hands-on <i>Jakob Roesgaard Færch</i> 14. december, Aarhus Java Web

.NET

JAVA

METODE OG PROCES

MOBILE

WEB

Se flere kurser på www.trifork.com

.. eller

Kontakt vores kursusafdeling på

Tlf.: +45 8732 8782

Mail: training@trifork.com

TRIFORK.

Kanban Training

By attending Kanban training you will have the chance to learn directly from the father of Kanban, David J. Anderson. Through a combination of theory, case studies and extensive exercises you will learn the theory behind Kanban, get tools to try it out in practice as well as experience the feeling of working in an actual Kanban system.

Teacher: David Anderson and Jesper Boeg.

Language: English

Location: Margrethepladsen 4, 8000 Aarhus C

Duration: 2 day from 9:00 am to 5:00 pm

Price: 13.500 DKR. pr. person ex. VAT. Course materials and meals are included.

Se flere kurser på www.trifork.com

.. eller

Kontakt vores kursusafdeling for yderligere information.

Tlf.: +45 8732 8782 · Mail: training@trifork.com

Lean Architecture for Agile Software Development

Agile has long shunned up-front design. When Agilists force themselves to do up-front work, it usually is limited to a symbolic use of User Stories for requirements and metaphor for architecture, with much of the rest left to refactoring.

Teachers: James O. Coplien and Gertrud Bjørnvig

Language: English

Location: Trifork A/S, Spotorno Alle 4, 2630 Taastrup

Duration: 2 days, both days from 9 a.m. – 5 p.m.

Price: 11500 ex. Vat, including course materials and meals.

Se flere kurser på www.trifork.com

.. eller

Kontakt vores kursusafdeling for yderligere information.

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GOTO Aarhus 2011

We look forward
to seeing you at
GOTO 2011

Google to unveil World News at GOTO Aarhus.

The whole world will be on alert when Google presents a new programming language "Dart" in the opening keynote speak on conference monday. Join us and GOTO Aarhus and get all the details.

GOTO Aarhus 2011:

Training: October 9, 13-14, 2011 // Conference: May 10-12, 2011



Mere Agile på GOTO Aarhus 2011

TRACK	AGILE AT MID-LIFE
ROOM	Store Sal, Musikhuset
Day	Tuesday (11th Oct.)
10:20	Fractal TDD. Using tests to drive system design Steve Freeman
11:30	Tell Me Why: The Golden Circle of Agile Transformation Jean Tabaka
13:20	Agile Coaching: A Bigger Job Than You Might Imagine Lyssa Adkins Michael Spayd
14:30	Measuring Progress and Performance in Large Agile Developments: Lessons from the Centrica Experience Andy Carmichael



Kanban Intro v.2

Jesper Boeg, Agile/Lean Coach,
VP Trifork Agile Excellence
jbo@trifork.com





In general

- Who are we?
- Let me know if:
 - You have questions (The most important thing is not covering every single slide)
 - What I am saying does not make any sense at all
 - You need a break



Trifork A/S

- Agile Coaching and Training
 - Kanban, Scrum, Lean, Agile, XP....
- Software development:
 - Public, Mobile, Security and Finance
- Technical Training
 - Mobile, Java, .Net....
- Conferences
 - GOTO and QCon



Agenda

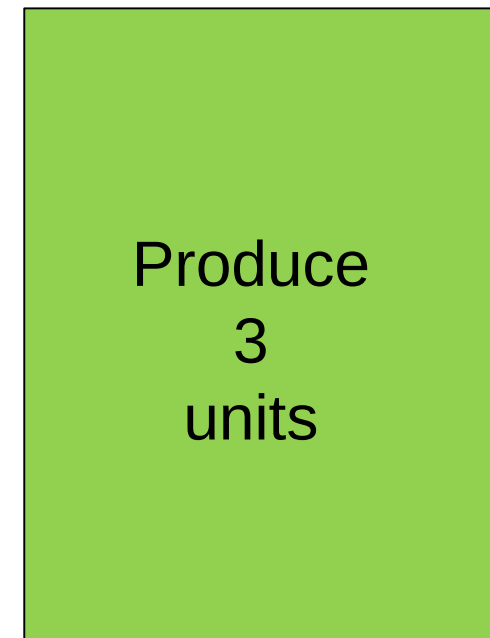
- What is kanban?
- A simple example of a kanban pull system
- The 5 principles of software Kanban
- How does Kanban differ from traditional Agile methods?
- Classes of Service
- Discussion Topics



KANBAN IS JAPANESE AND MEANS “VISUAL CARD”

Work permit

- Kanban cards are used as work permits to control flow in Lean production systems





LET US LOOK AT A VERY SIMPLE KANBAN PULL SYSTEM

Paper inventory

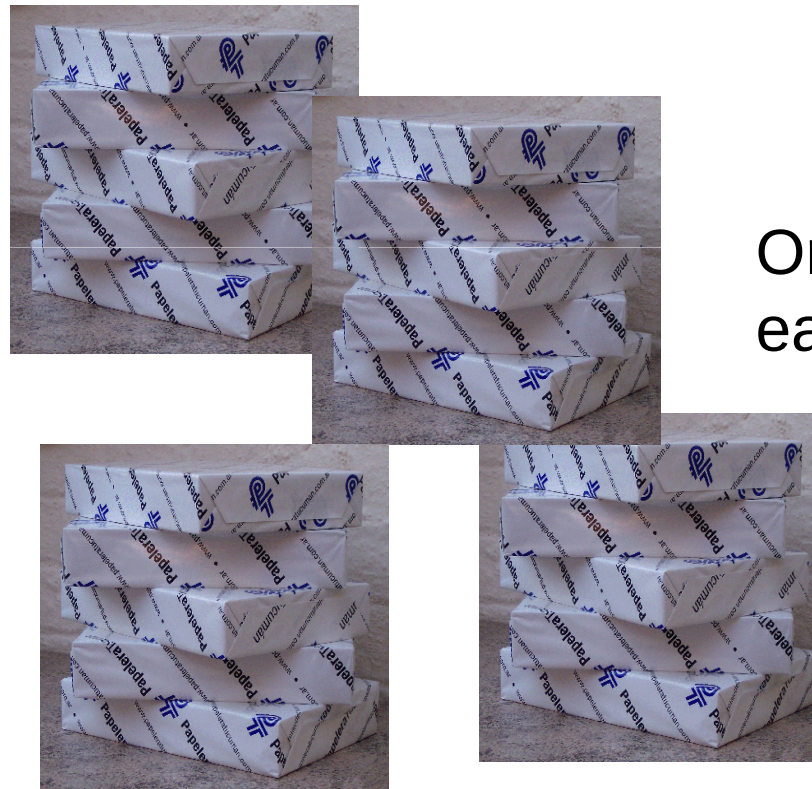




TWO DIFFERENT WAYS OF SOLVING THE PROBLEM

A push scheduling system

Average use = 5 boxes every week



Order 20 boxes
each month

Or a Kanban pull system



Order
7

Capacity

- You can never overload a Kanban pull system!





WHAT HAS THIS GOT TO DO WITH SOFTWARE?



Kanban (Software)

- ...Kanban (capital K) is the evolutionary change method that utilizes a kanban (small k) pull system, visualization, and other tools to catalyze the introduction of Lean ideas into technology development and IT operations
 - *David J. Anderson, Kanban 2010*



KANBAN PROVIDES US WITH A SIMPLE SET OF PRINCIPLES TO APPLY LEAN TO PRODUCT DEVELOPMENT



Kanban principles

1. Visualize Workflow
2. Limit Work-In-Progress
3. Make Policies Explicit
4. Measure and Manage Flow
5. Identify Improvement Opportunities



1. PRINCIPLE VISUALIZE WORKFLOW



Visualize Workflow

PO Inbox	PO specification	Breakdown	Development			Code review	Test locally with PO and tester	Test on DT	Release
			Planned	In progress	Done				



2. PRINCIPLE LIMIT WORK IN PROGRESS

Limit Work in Progress

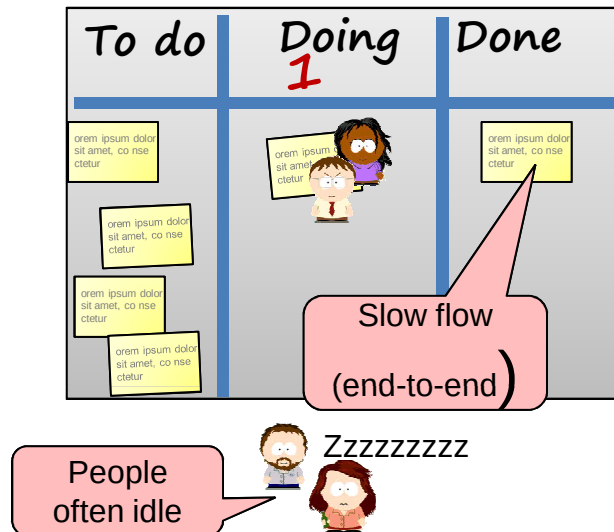
PO Inbox	PO specification	Breakdown	Development			Code review	Test locally with PO and tester	Test on DT	Release
			Planned	In progress	Done				
☐	☐	☐				☐	☐	☐	
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↑
WIP
Limit = 2

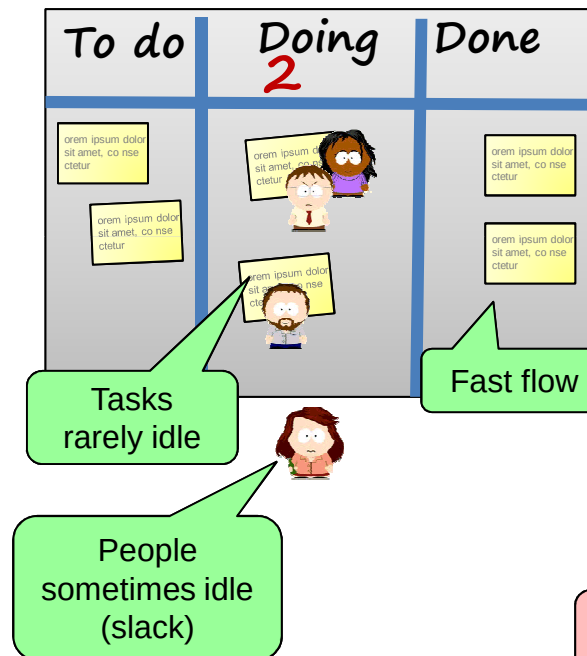
↑
WIP
Limit = 3

Optimizing the WIP limit

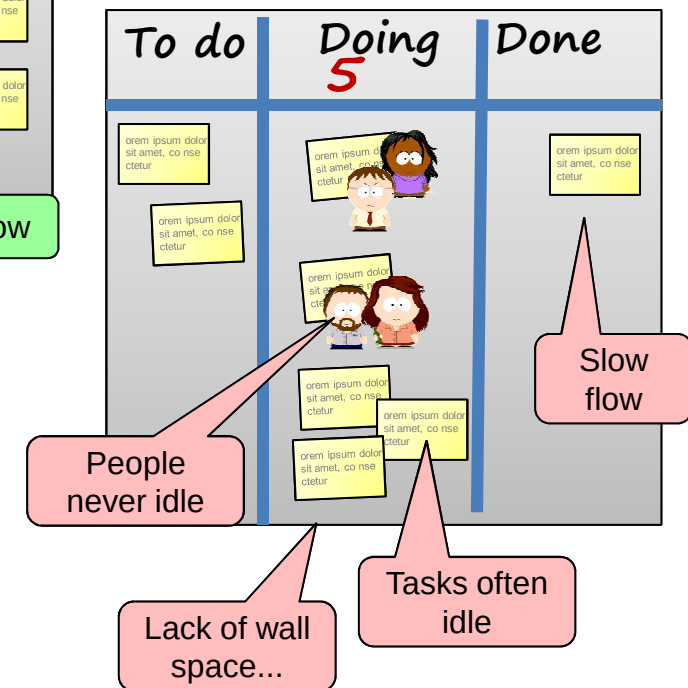
Too low WIP limit



Just Right WIP limit



Too high WIP limit





3. PRINCIPLES: MAKE POLICIES EXPLICIT



System Quality Matters!

- Most projects do not measure the cost of quality issues
- Teams will spend up to 90 percent available time on quality issues
- The cost of fixing bugs early vs. when the code has reached production can easily be a factor of 100
- Quality issues demand high attention and stress the system



Proces Quality Matters!

- If we are not diciplined about the way we develop software we will never achieve dependable and consistent results



Make Explicit Policies Visual

PO Inbox	PO specification	Breakdown	Development			Code review	Test locally with PO and tester	Test on DT	Release (Every Tuesday)
			Planned	In progress	Done				
		Plan pairing				Cover: Unittest Int. test Coverage Depl. issue	Give Tester and PO 10 min. preparation		
									Write end date and update cycle time
Write start date								Only Core functionality	Update CFD and track defect rate



4. PRINCIPLE MEASURE AND MANAGE FLOW



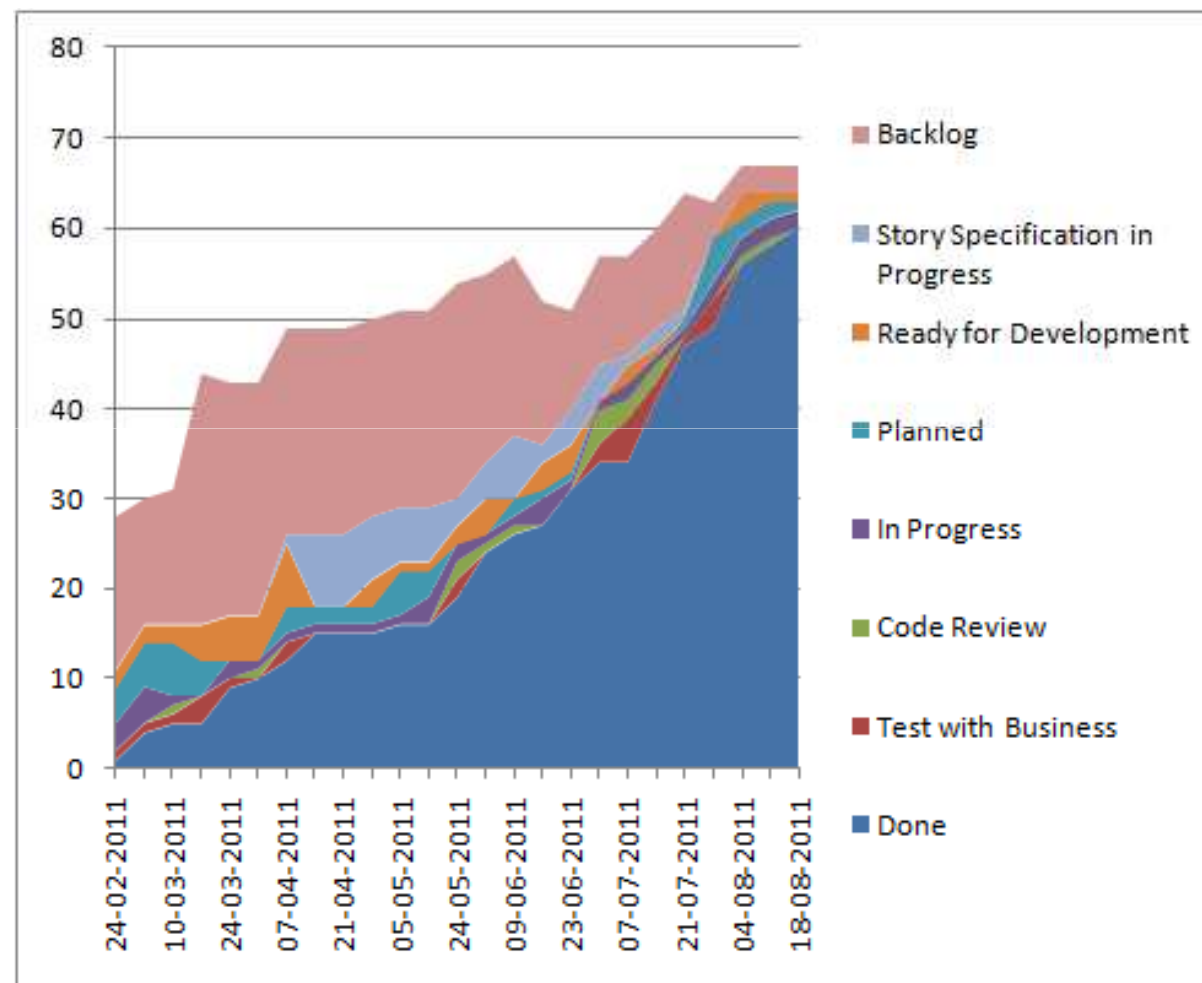
What to measure

- Kanban's continuous-flow system means that we are less interested in reporting on whether a project is “on time” or whether a plan is being followed. What is important is to show: that the Kanban system is predictable and is operating as designed...
 - David J. Anderson, Kanban 2010

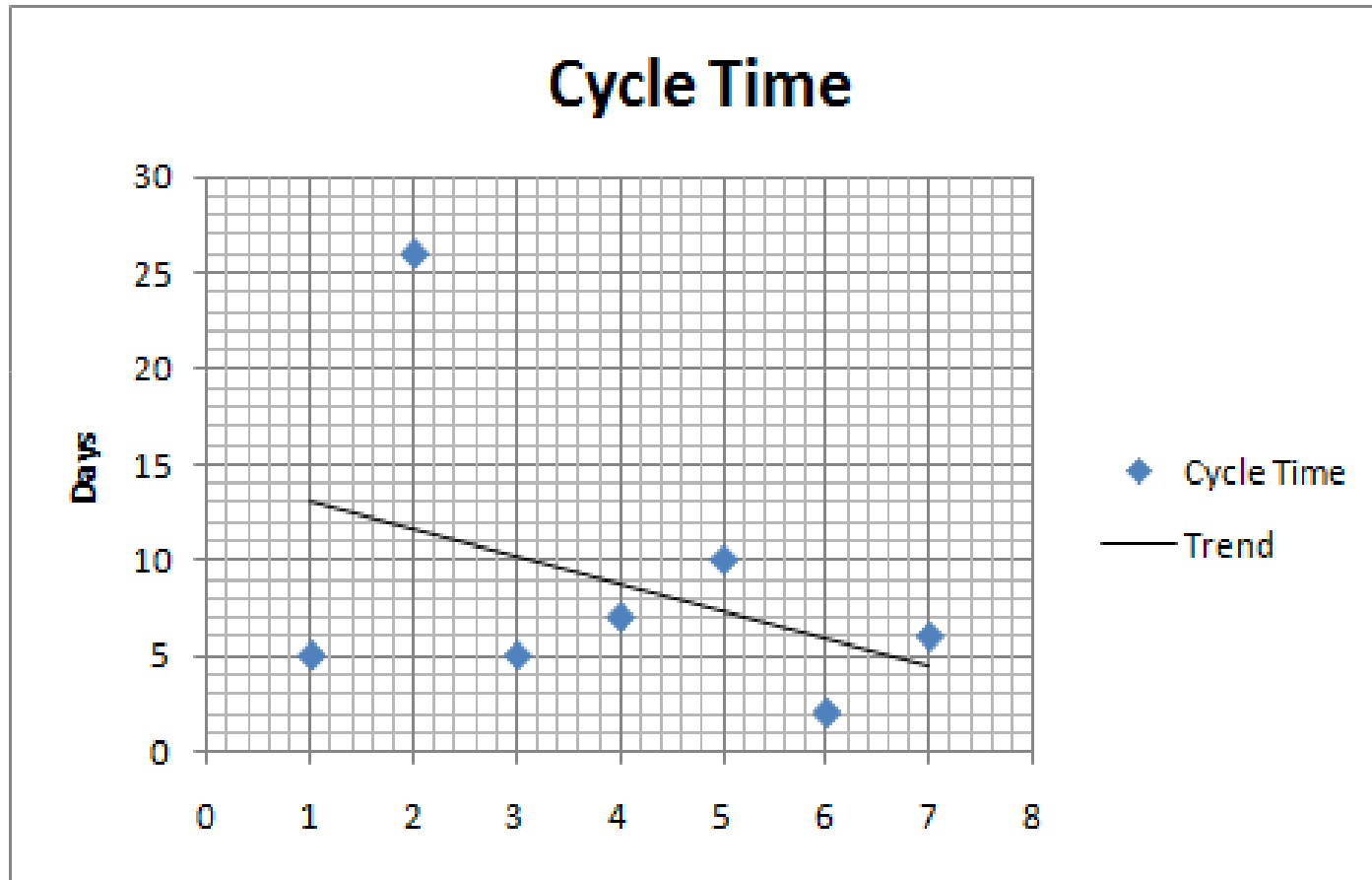


EXAMPLES

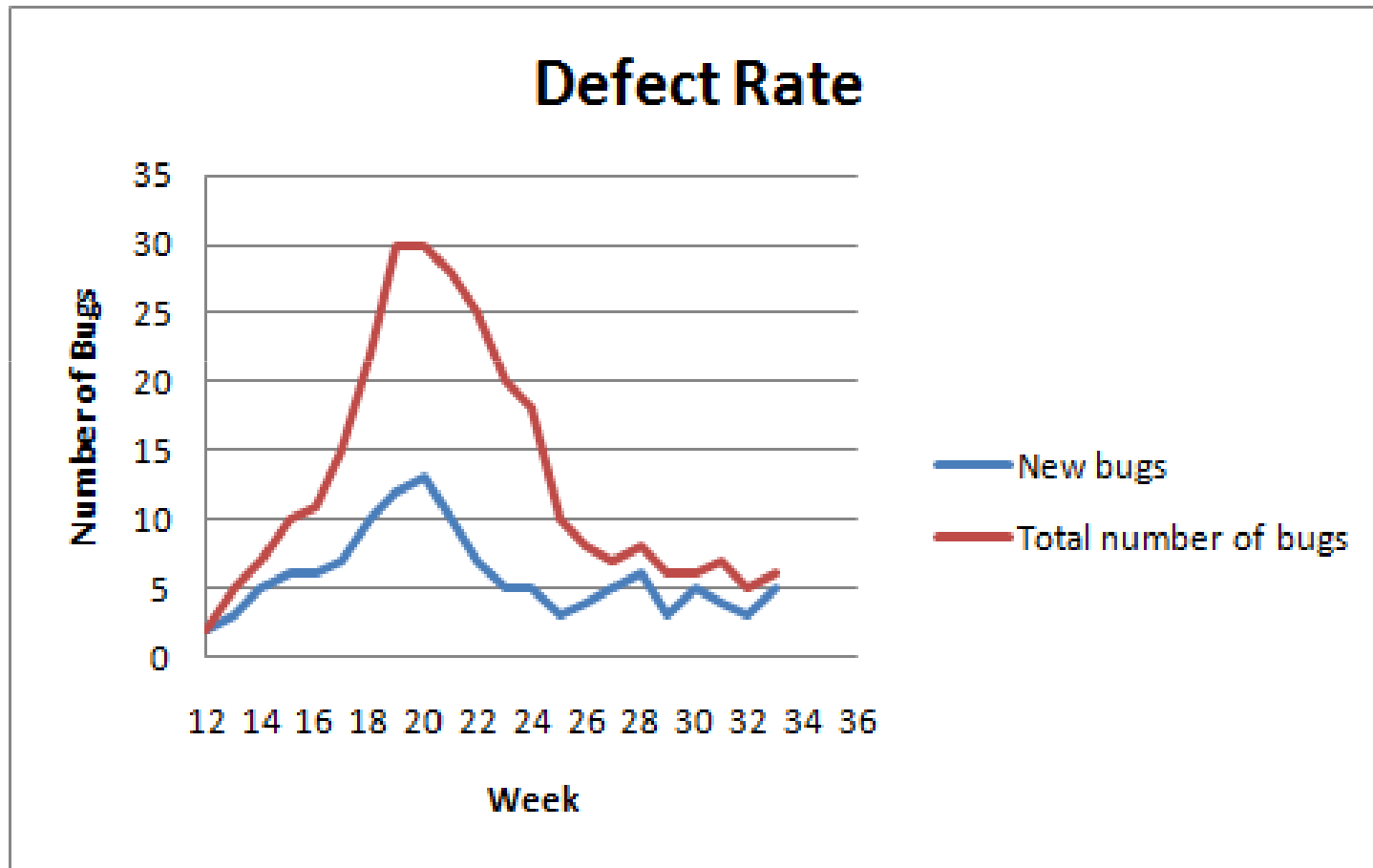
Measure Flow



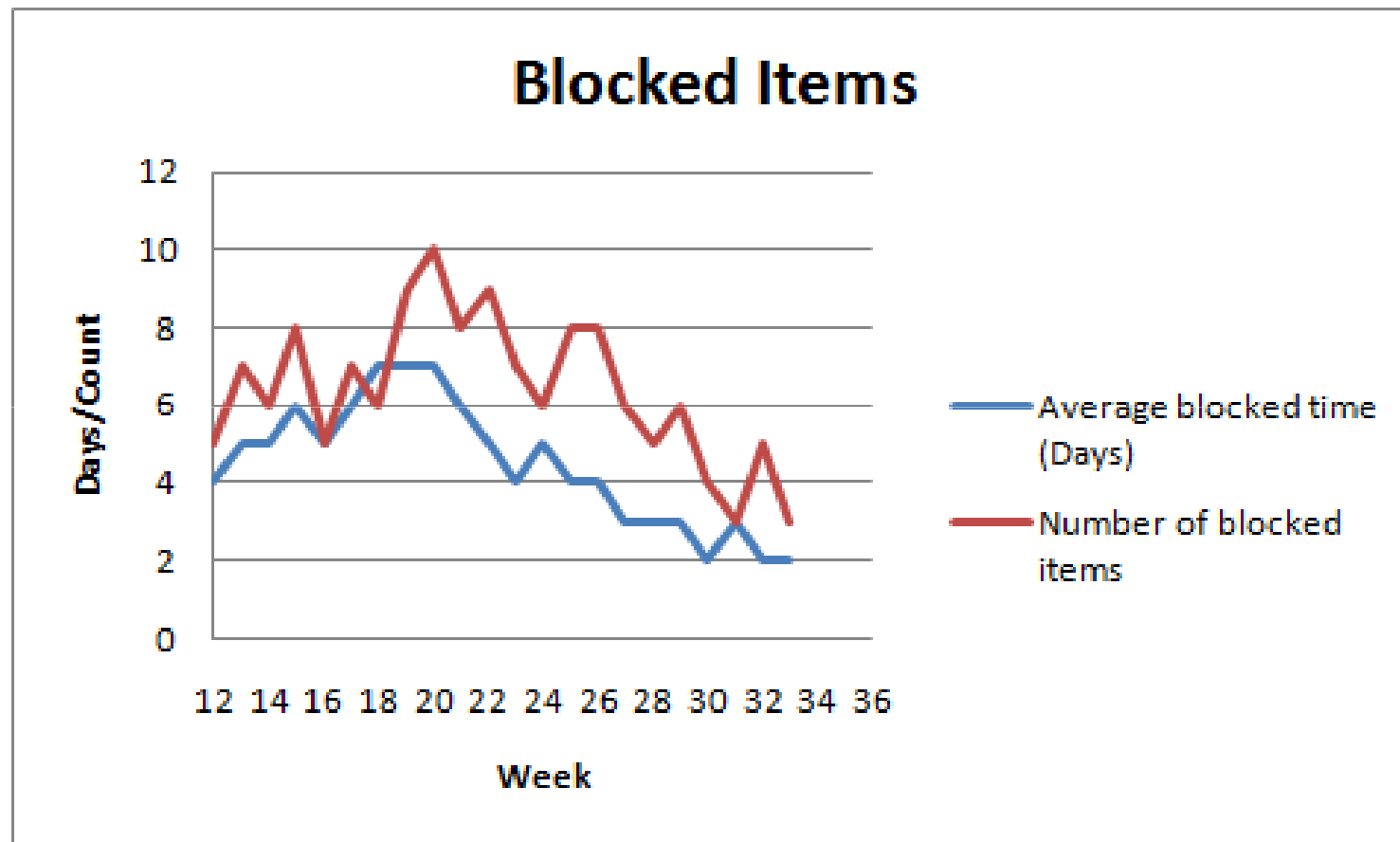
Track Cycle Time



Track Defect Rate



Blocked Items





CAN'T FIND BOTTLENECKS?

45

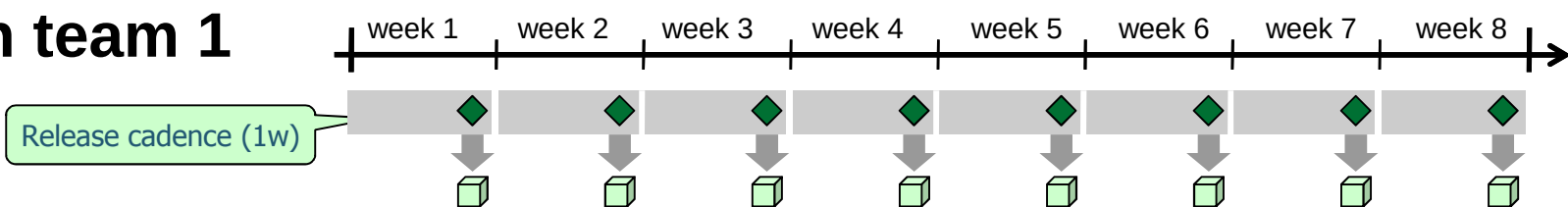


FIND THE RIGHT CADENCE

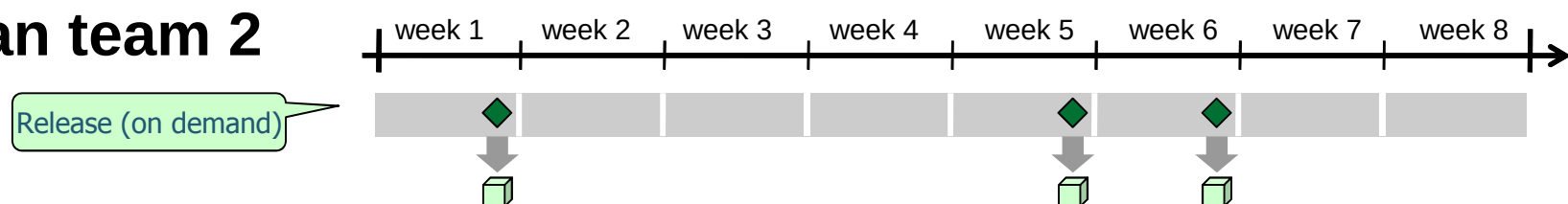
Timebox or on Demand?



Kanban team 1



Kanban team 2



Thanks to Henrik Kniberg

47

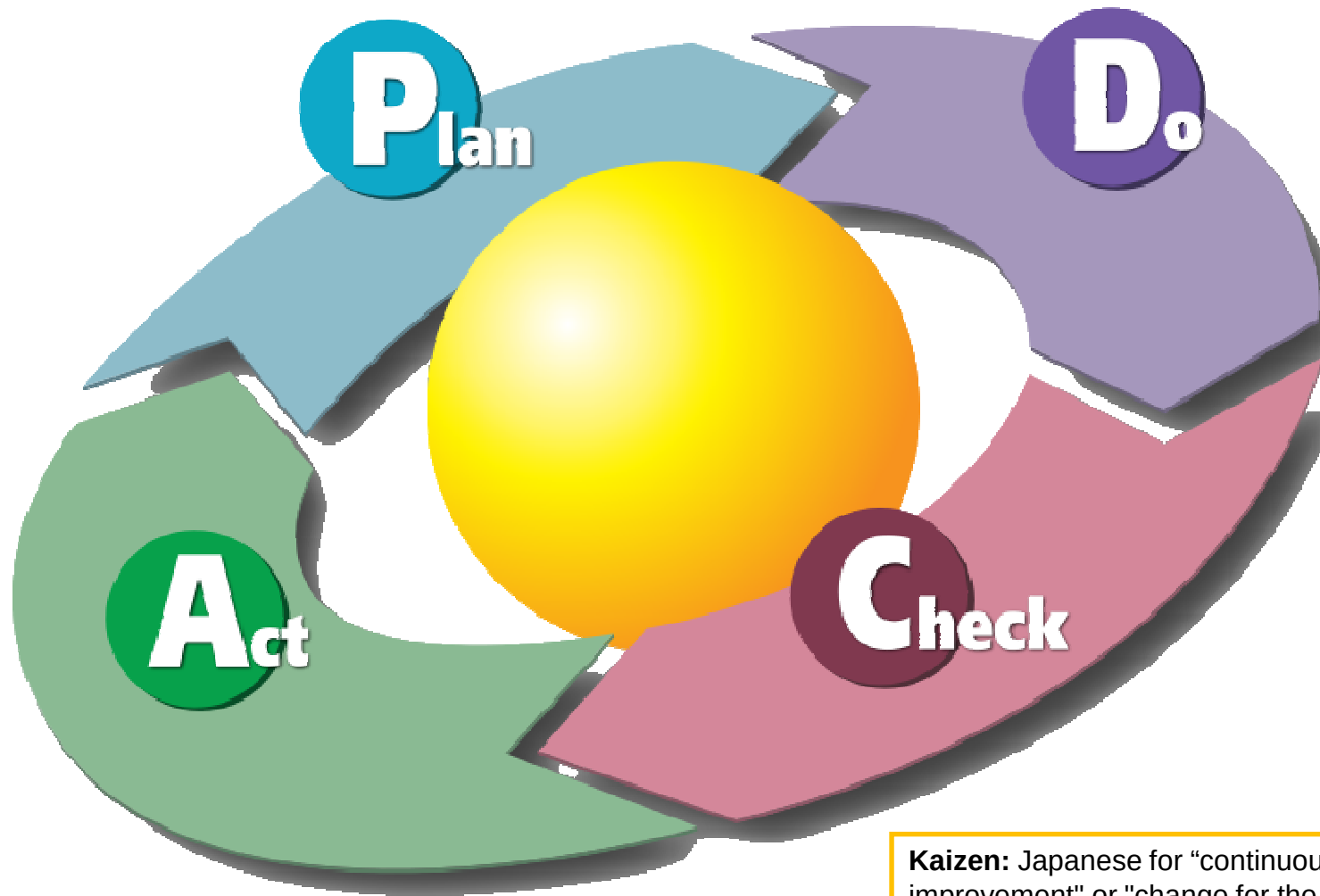


TRIFORK.



5. PRINCIPLE IDENTIFY IMPROVEMENT OPPORTUNITIES

Deming Circle



Kaizen: Japanese for "continuous improvement" or "change for the better"



Kaizen Culture

- Visualization of workflow, Visual WIP limits and total transparency seems to create Kaizen cultures far beyond those seen in traditional Agile projects

Go See





But that is not my practice!!

David Anderson:

“I don’t care about your practices”

- Keep your eyes on the ball
 - We are hopefully using best practices because they deliver value





GOALS OF IMPLEMENTING KANBAN



Goals

- 1. Optimize Existing Processes**
2. Deliver with High Quality
3. Improve Lead Time Predictability
4. Improve Employee Satisfaction
5. Provide Slack to Enable Improvement
6. Simplify Prioritization
7. Provide Transparency on the System Design and Operation
8. Enable Emergence of a “High Maturity” Organization



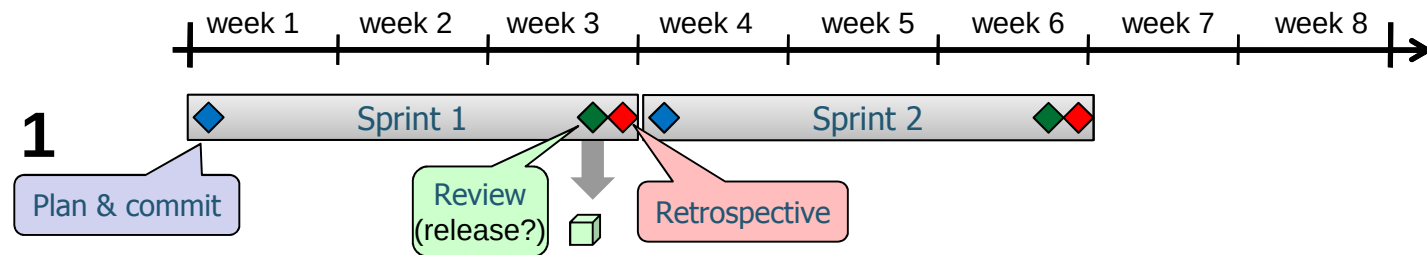
HOW DOES KANBAN DIFFER FROM TRADITIONAL AGILE METHODS?

Changing our view on iterations

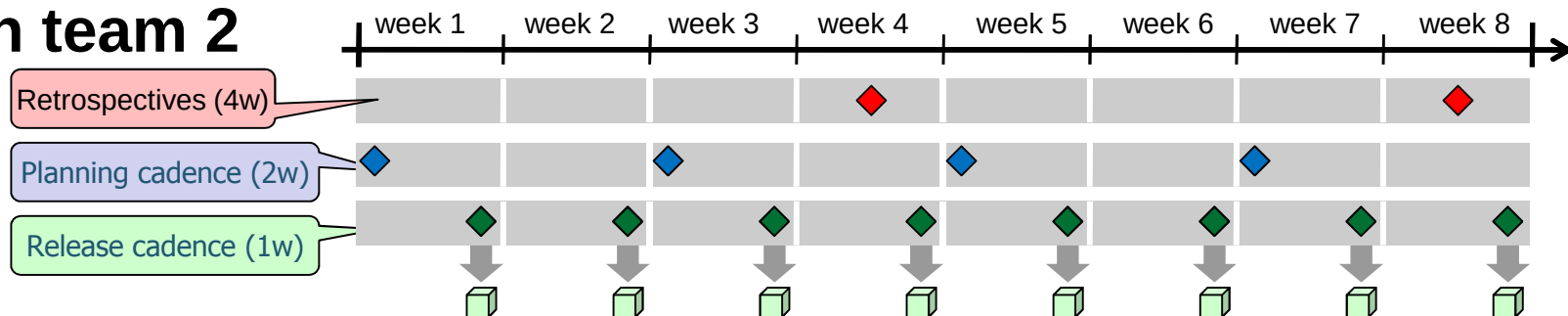


Scrum team

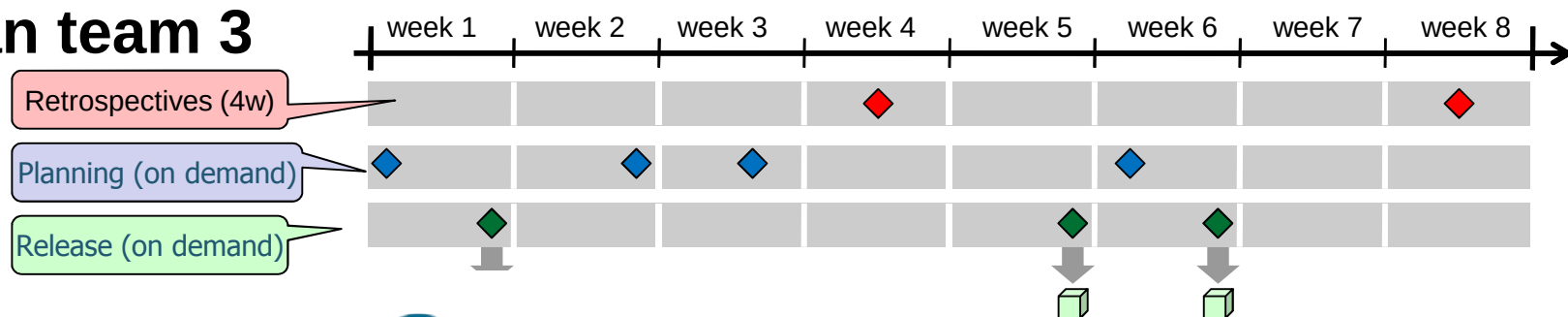
Kanban team 1



Kanban team 2



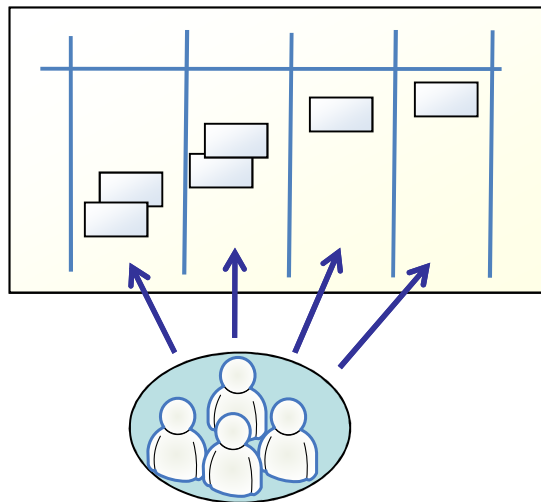
Kanban team 3



Thanks to Henrik Kniberg

Specialists & generalists

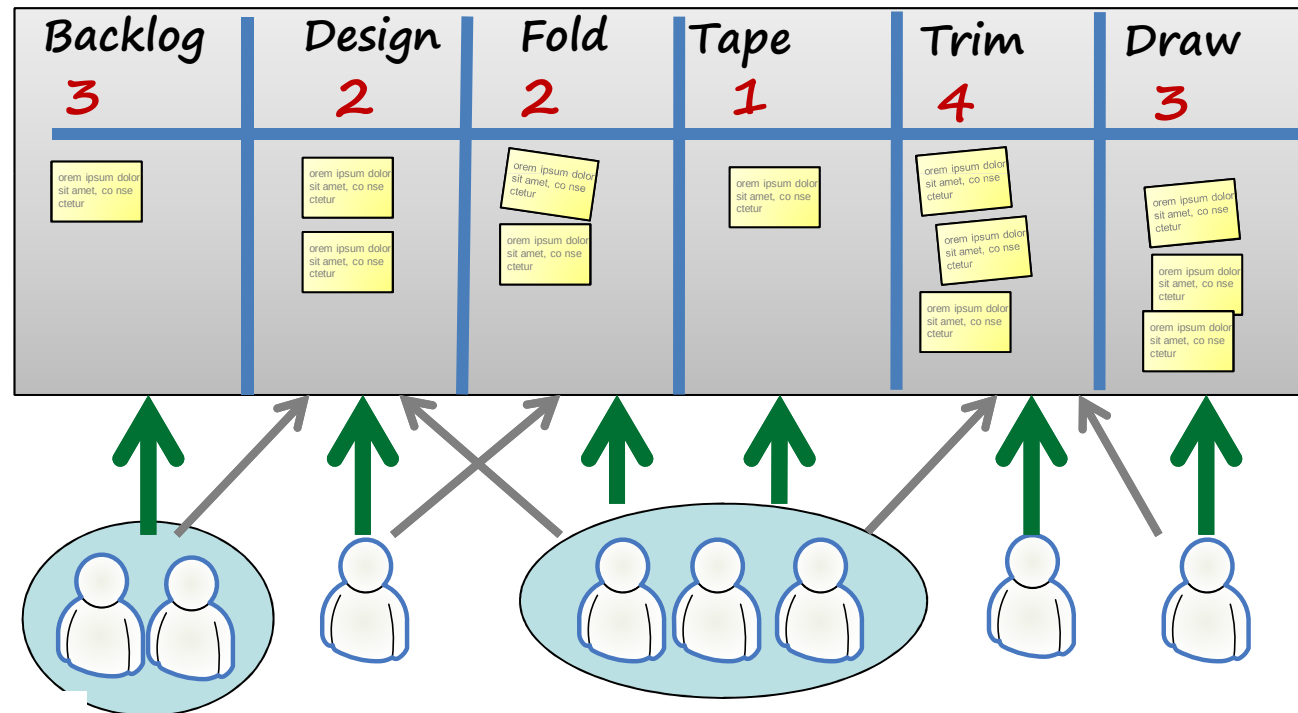
Scrum team
Kanban team 1



Cross-functional team



Kanban team 2



Thanks to Henrik Kniberg

Flow vs. Plan driven Iterations



- Traditional Agile (Scrum)
 - Plan the exact amount of work to do in the iteration
 - Build commitment to establish focus
 - Freeze the iteration to allow for an undisturbed period of work
 - Gain predictability from velocity
- Kanban
 - Release based on flow
 - Limit WIP to establish focus
 - Gain predictability from sustainable pace, variability pooling and measuring flow

Different ways of implementing Agile



- Traditional Agile – Revolutionary change
 - Dramatically change the way you do software development
 - Kaikaku (Dramatic change)
- Kanban – Evolutionary change
 - Start with what you have got and change it one step at the time
 - Kaizen (Continuous improvement)



CLASSES OF SERVICE



Explanation

- Some requests are more valuable than others while some is needed quicker. To account for this situation we introduce different “Classes of Service”



Example

Standard Class

- **SLA:**
 - Mean: 15 days
 - 90 percent within: 21 days
 - All within: 30 days
- **Extra cost:** 0
- **Work types:** Cosmetic Bugs, User stories
- **Special treatment:** None

Priority Class

- **SLA:**
 - Mean: 8 days
 - 90 percent within: 13 days
 - All within: 18 days
- **Extra cost:** \$500
- **Work Types:** Critical bugs, High priority user stories.
- **Special treatment:** Takes priority at each stage.

Fixed Deadline Class

- **SLA:**
 - 98 percent within deadline
- **Extra cost:** \$ 0-2000
- **Work Types:** User Stories
- **Special treatment:** Takes priority at each stage if deadline is deemed unsafe. Otherwise treated as a standard class. Emergency deploy if necessary.

Expedite Class

- **SLA:**
 - Mean: 2 days
 - 90 percent within: 3 days
 - All within: 4 days
- **Extra cost:** \$3000-5000
- **Work Types:** Blocker Bug
- **Special treatment:** Break WIP limits, stop existing WIP, emergency deploy



DISCUSSIONS



HOW DO YOU COMPARE A CHANGE MANAGEMENT METHOD TO SCRUM?



WHY IS KANBAN AS GOOD A FIT FOR DEVELOPMENT AS IT IS FOR MAINTENENCE AND OPERATIONS?



WHY IS KANBAN A CATALYST FOR IMPLEMENTING LEAN PRODUCT DEVELOPMENT PRINCIPLES?

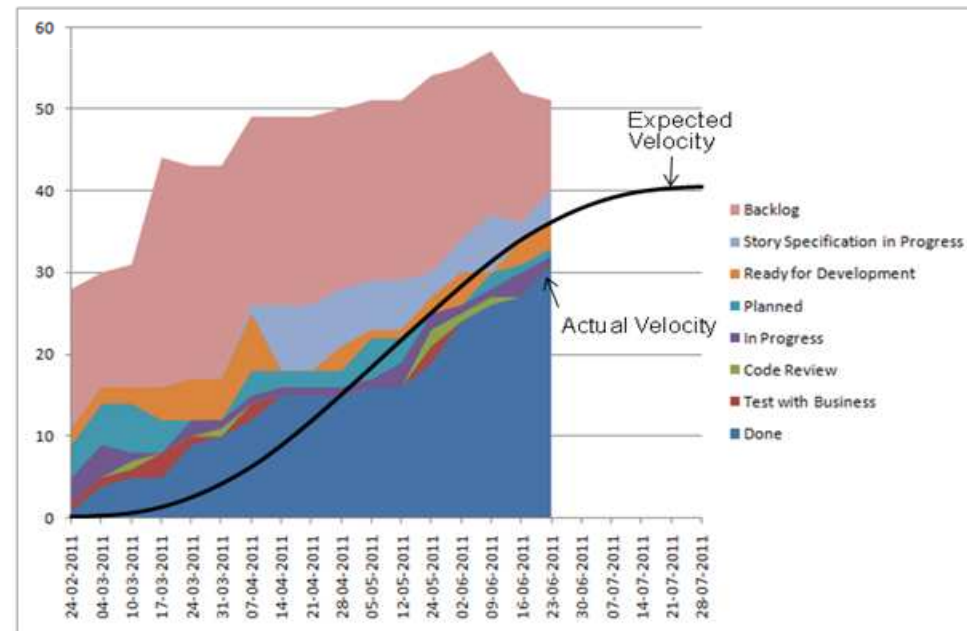


HOW DO YOU AVOID KANBAN PROJECTS BECOMMING A VICTIM OF PARKINSON'S LAW?

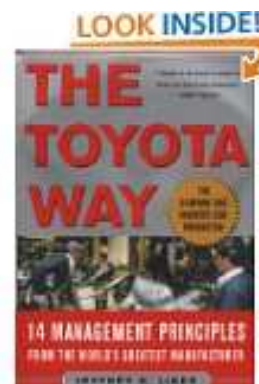
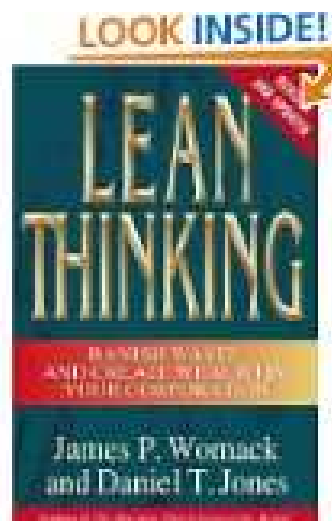
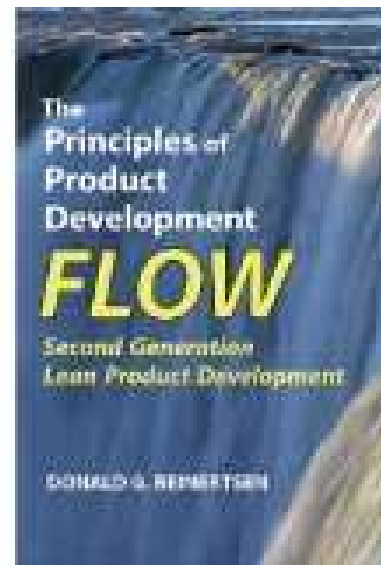
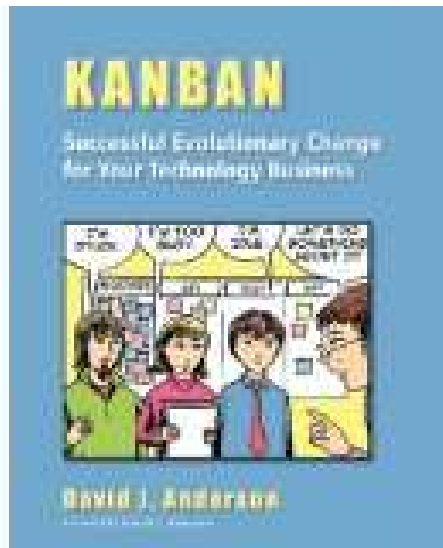


HOW DO YOU START WITH KANBAN?

HOW DO WE WORK WITH PLANS IN A FLOW BASED SYSTEM?



Further Reading





Contact information

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 - Mobile: +45 51 54 28 20
 - Twitter: J_Boeg