

Produktutvikling hos Cisco

Olve Maudal, Cisco Systems in Norway



Verdens fremste fagmiljø for utvikling av videokonferanseløsninger og avansert samhandlingsteknologi ligger på Lysaker. I dag er vi ca 400 ingeniører hvor de fleste jobber med programvareutvikling. Dette foredraget gir et innblikk i en organisasjon som i stor grad på egen hånd har oppdaget prinsipper som i dag gjerne omtales som Lean og Agile, eller som vi liker å si det - prinsipper basert på sunn fornuft.

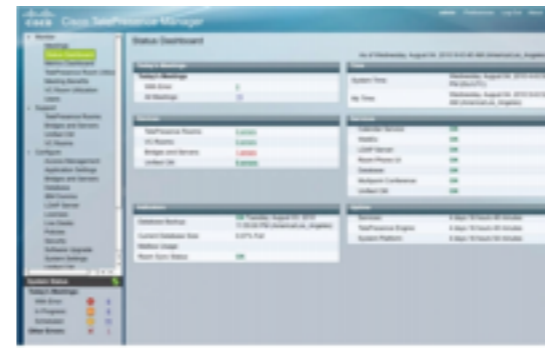
En 40 minutters presentasjon, Software2014
26. februar 2014

Cisco Systems in Norway



I joined this organization in 2004

advanced systems and innovative solutions



What did I see?



“... an organization that develops spectacular products and outperforms all competitors”

The secret sause



- Brief History
- Observations from Lysaker
- Facts about product development
- Principles for effective product development
- Q&A

Brief History



+



Jan Chr Opsahl

Videofonprosjektet

= **TANDBERG**

ca 1990

TANDBERG Vision



ca 1991

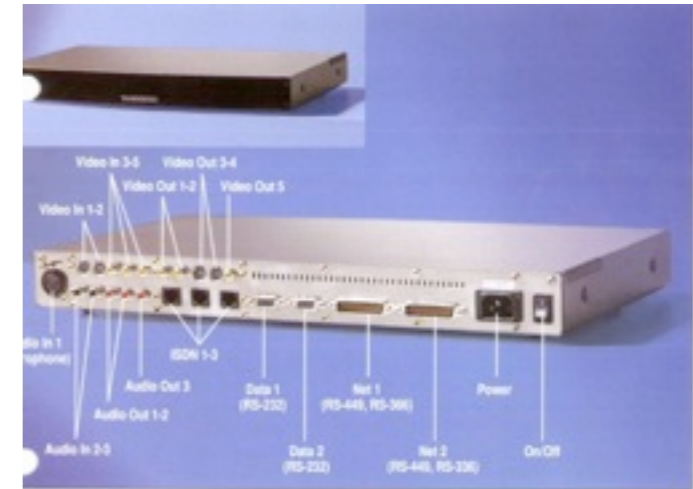
Example of products (1990-2000)



1991



1997



1995



1995



1997



1997



2000

Example of products (2000-2010)



2009



2002



2009



2008



2009



2010



2004



2004



2001



2004



2006



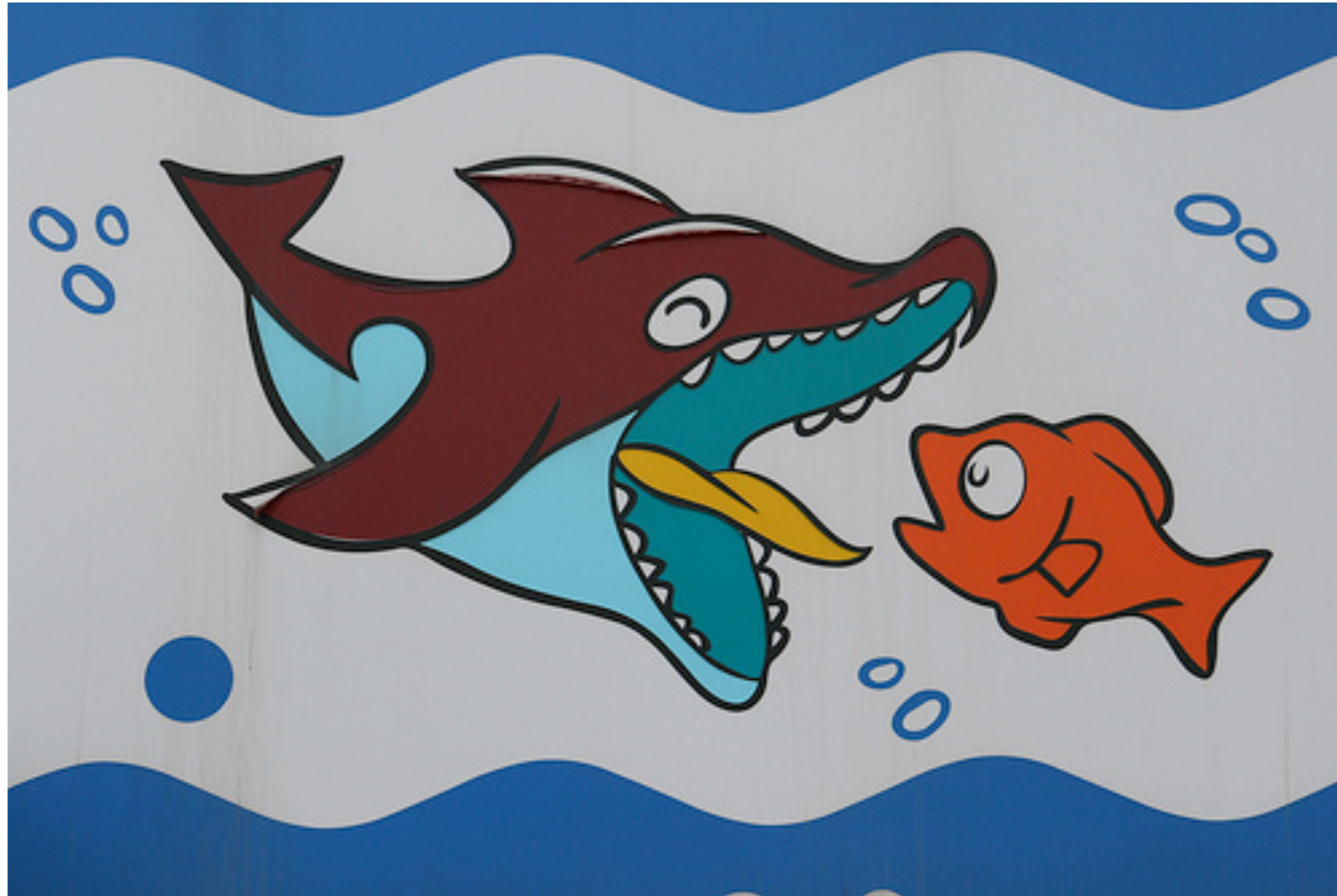
2010



2004



2006



Presseklipp 19. April 2010

**TANDBERG solgt for 19 mrd NOK til
amerikanske Cisco Systems**

Example of products (2010-now)



2012



2013



2011



2012



2012



2014



2014

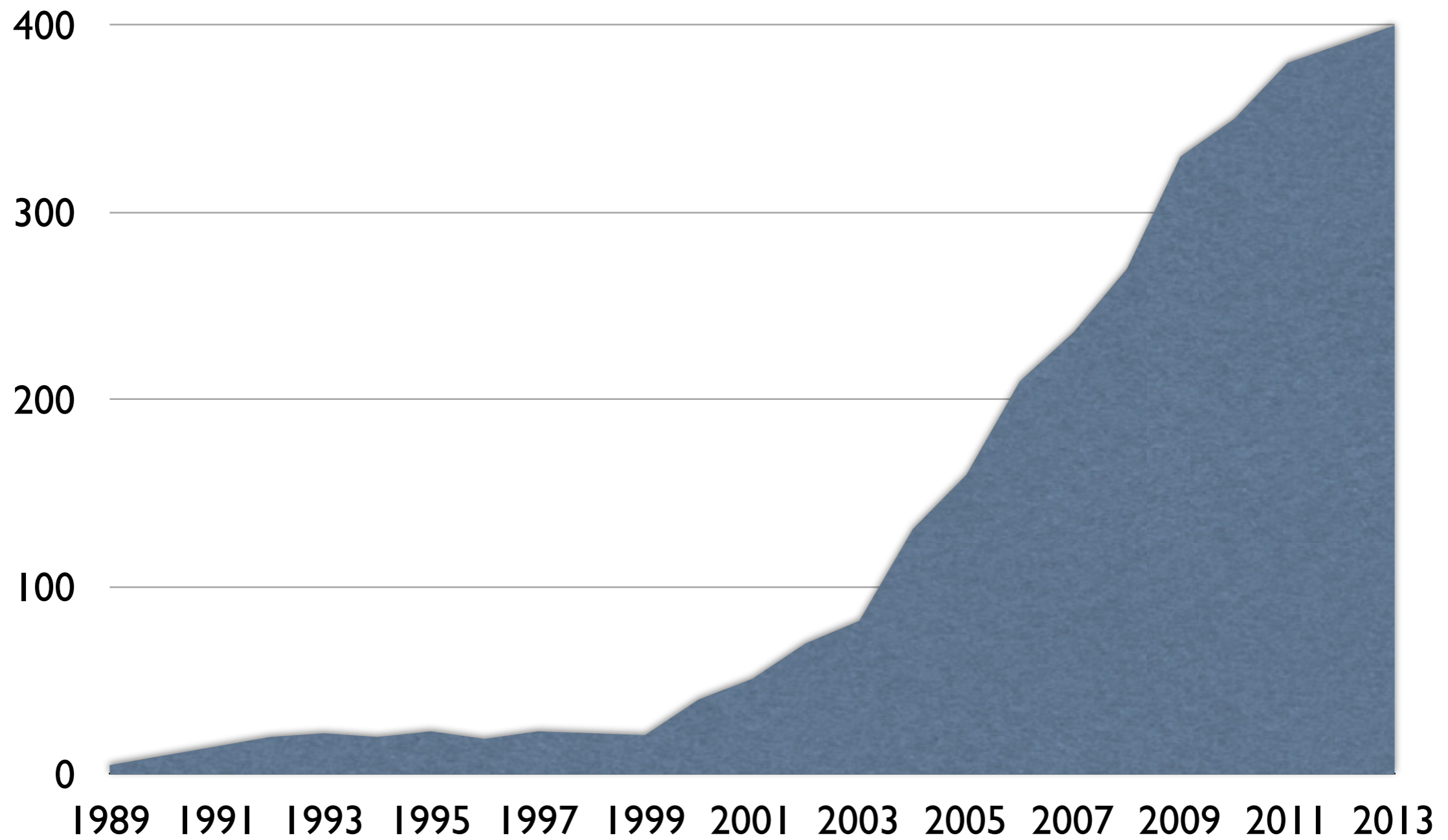


2012



2014

■ Approx number of engineers at Lysaker



(the numbers are not exact)

Observations from Lysaker, Cisco Systems in Norway

as an engineer joining the organization...

at first you might get this impression...

- No documentation
- No routines
- Just having fun
- Not following plans
- Decision are postponed
- Nobody decides
- Little respect for management
- Little modularization
- Lack of precision
- Sloppiness
- People are not working hard

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but then you start to notice...

- No documentation
- No routines
- Just having fun
- Not following plans
- Decision are postponed
- Nobody decides
- Little respect for management
- Little modularization
- Lack of precision
- Sloppiness
- People are not working hard
- People communicate
- Focus on important stuff
- Embedded slack
- Continuous planning
- Effective decisions
- Autonomous organisation
- Respect for the doers
- No integration period
- Spectacular products
- Fast deliveries
- Sustainable pace

... and while you still see the "negative" stuff, you will start to appreciate the "positive" stuff more.

- No documentation
- No routines
- Just having fun
- Not following plans
- Decision are postponed
- Nobody decides
- Little respect for management
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- No documentation
- No routines
- Fooling around
- Just having fun
- Not following plans
- Decision are postponed
- Nobody decides
- Little respect for management
- Little modularization
- Lack of precision
- Sloppiness
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Observations from Cisco Systems Norway

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Agile?

Scrum?

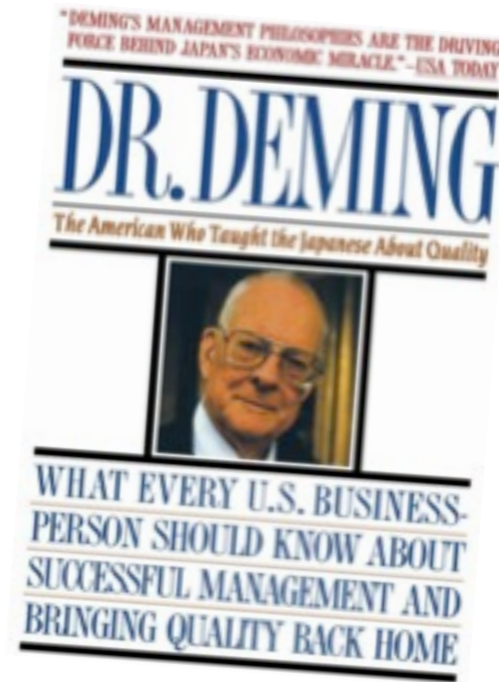
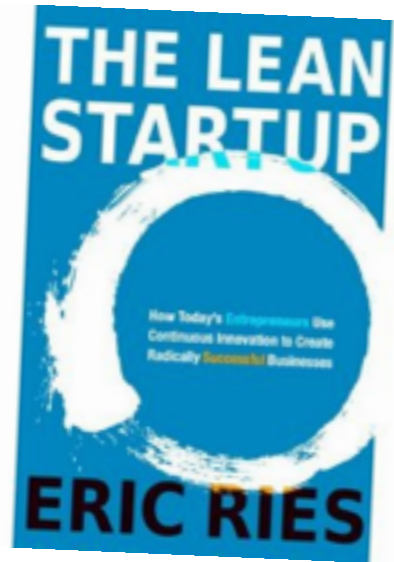
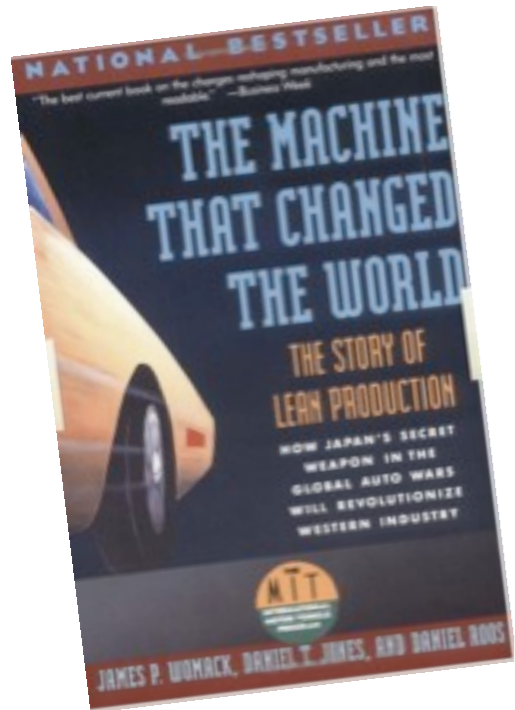
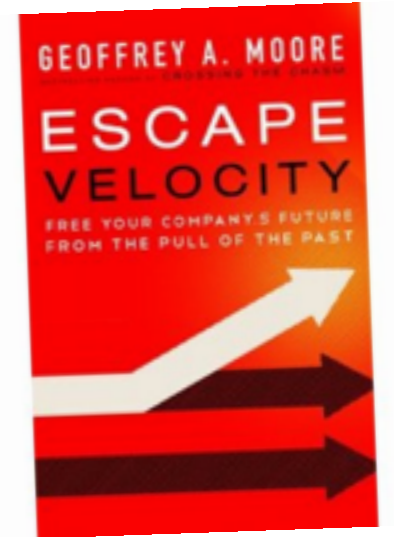
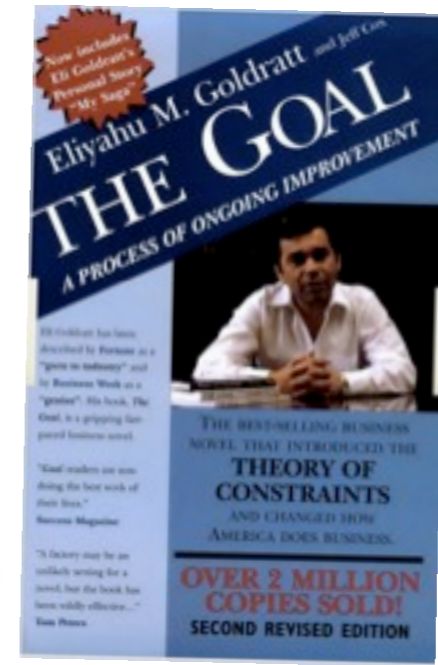
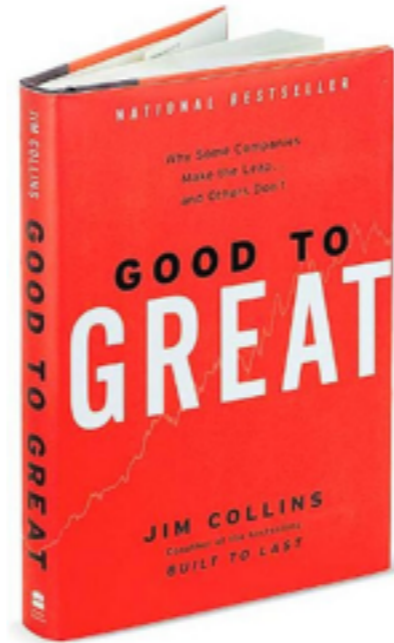
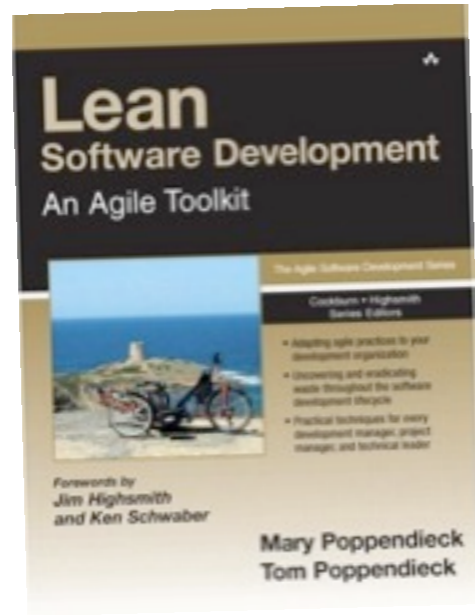
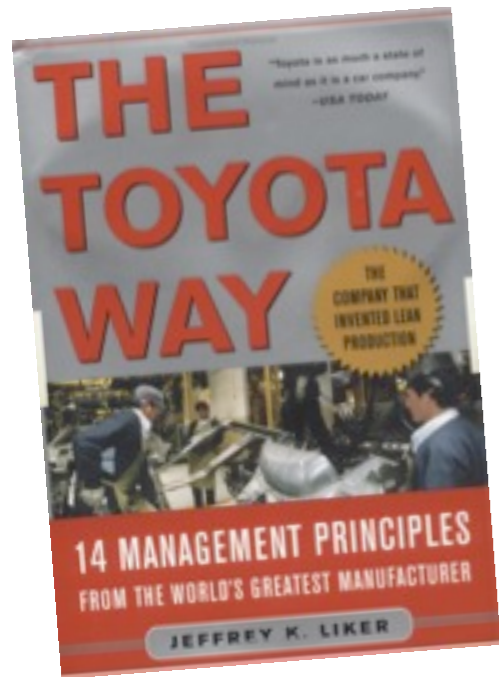
Lean?

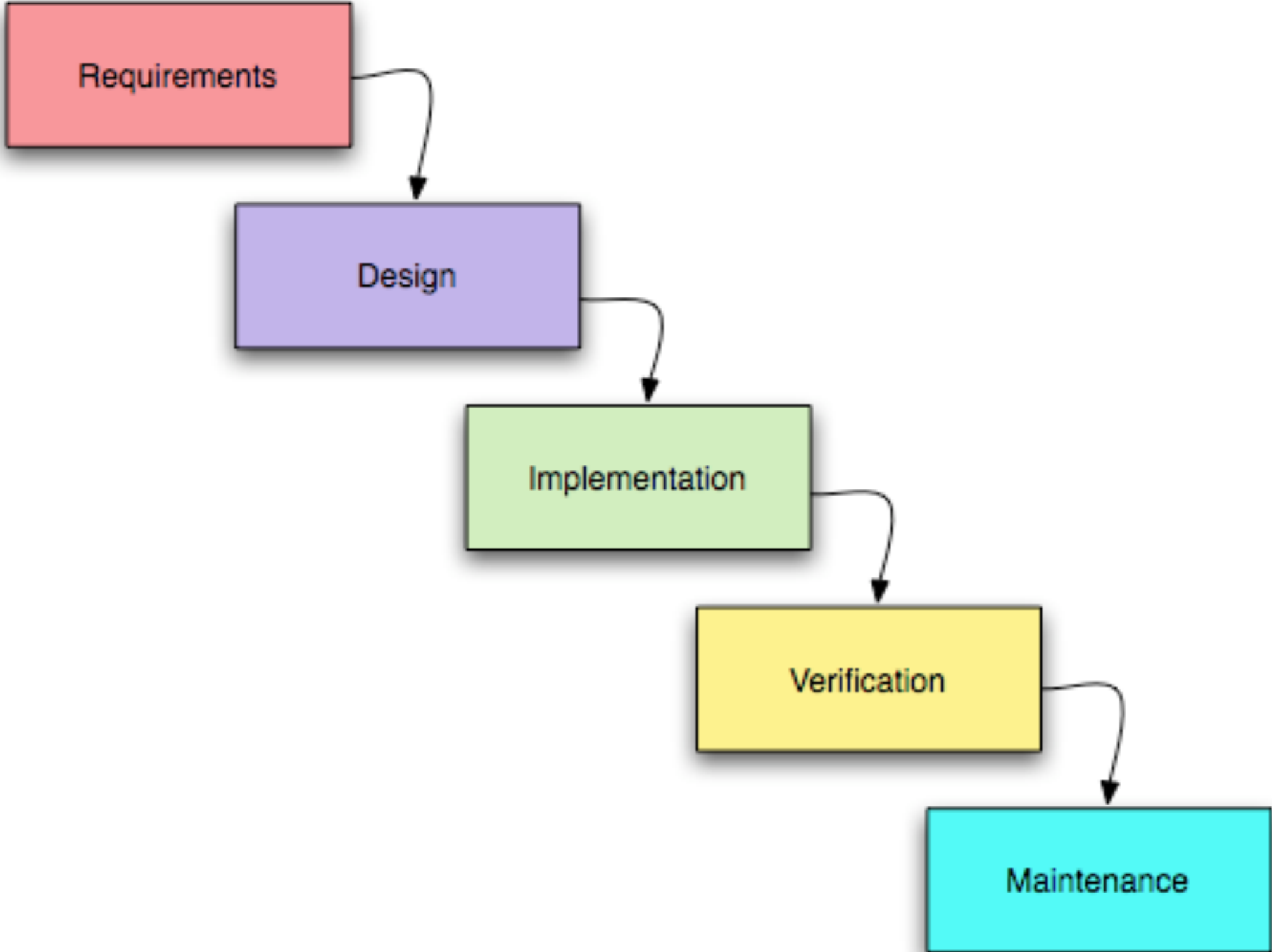
Deming?

Observations from Cisco Systems Norway

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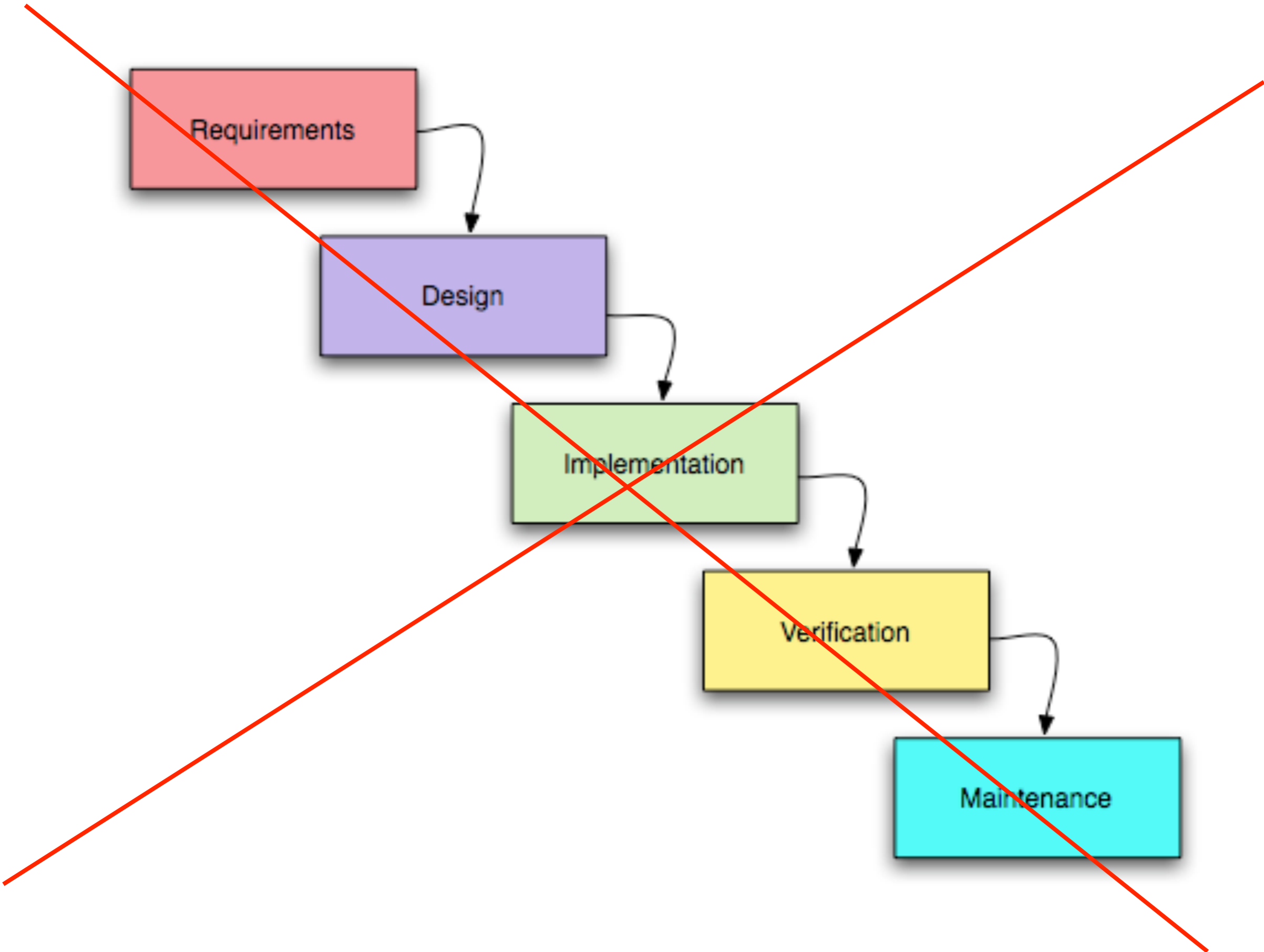
Requirements

Design

Implementation

Verification

Maintenance



Facts About Product Development



Few high tech projects are like running down on a paved road where you can always see...



... the finishing line in the end of the road.

Most projects are more like...



extreme orienteering

in impossible terrain





in the dark

ⓐ Except Museo del Jamon = go there are many in the city if you want a "to go" sandwich, go there for a Jamon y queso with croissant!



Plaza del sol

ⓐ cross to the other side and go slightly left. there is a quarter there all restaurant/tapas place - FULL OF ENGLISH & AMERICANS so be careful go to the right place! ~~for the road~~



with only a sketchy map as guidance

with a group of people



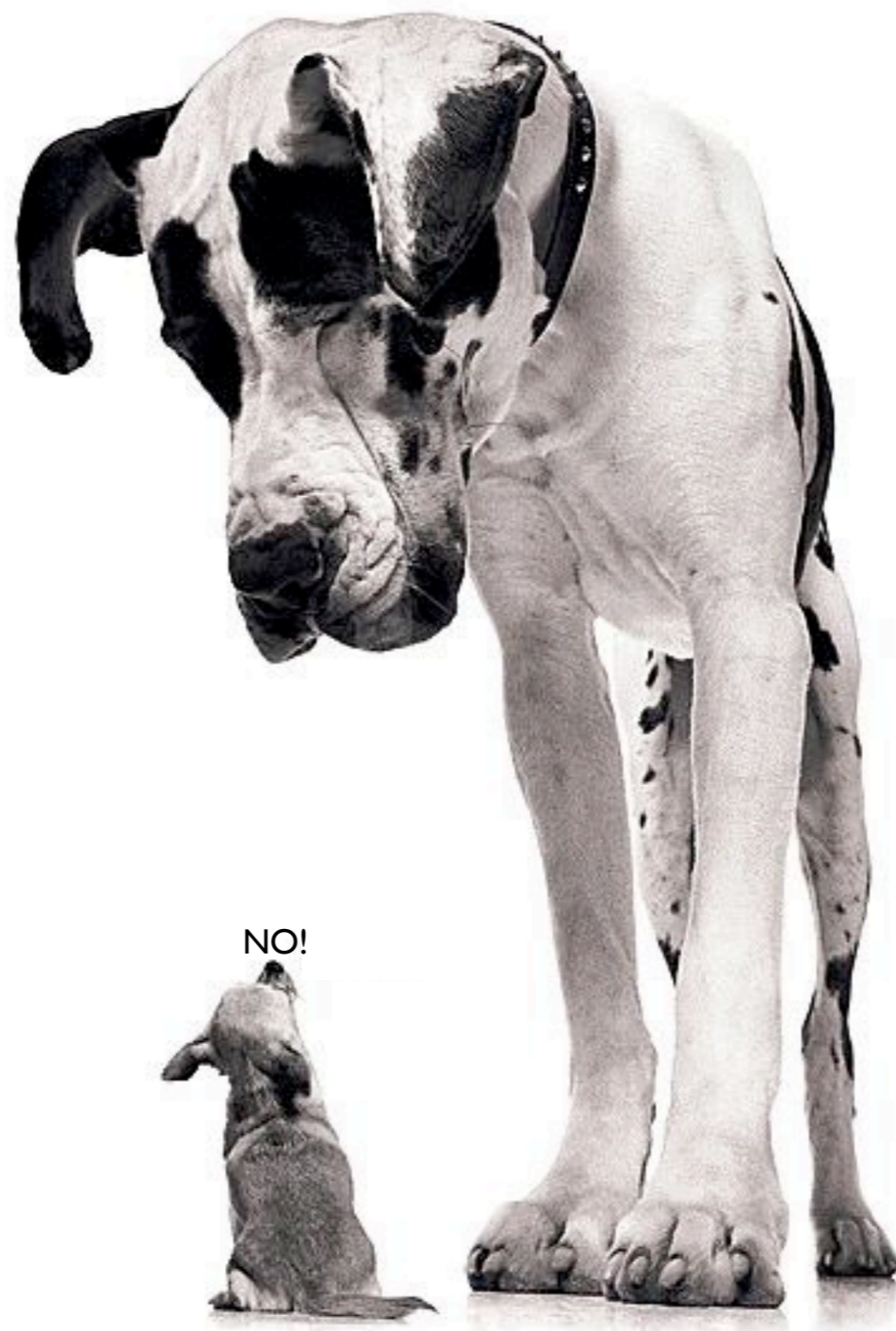


Principles for effective product development

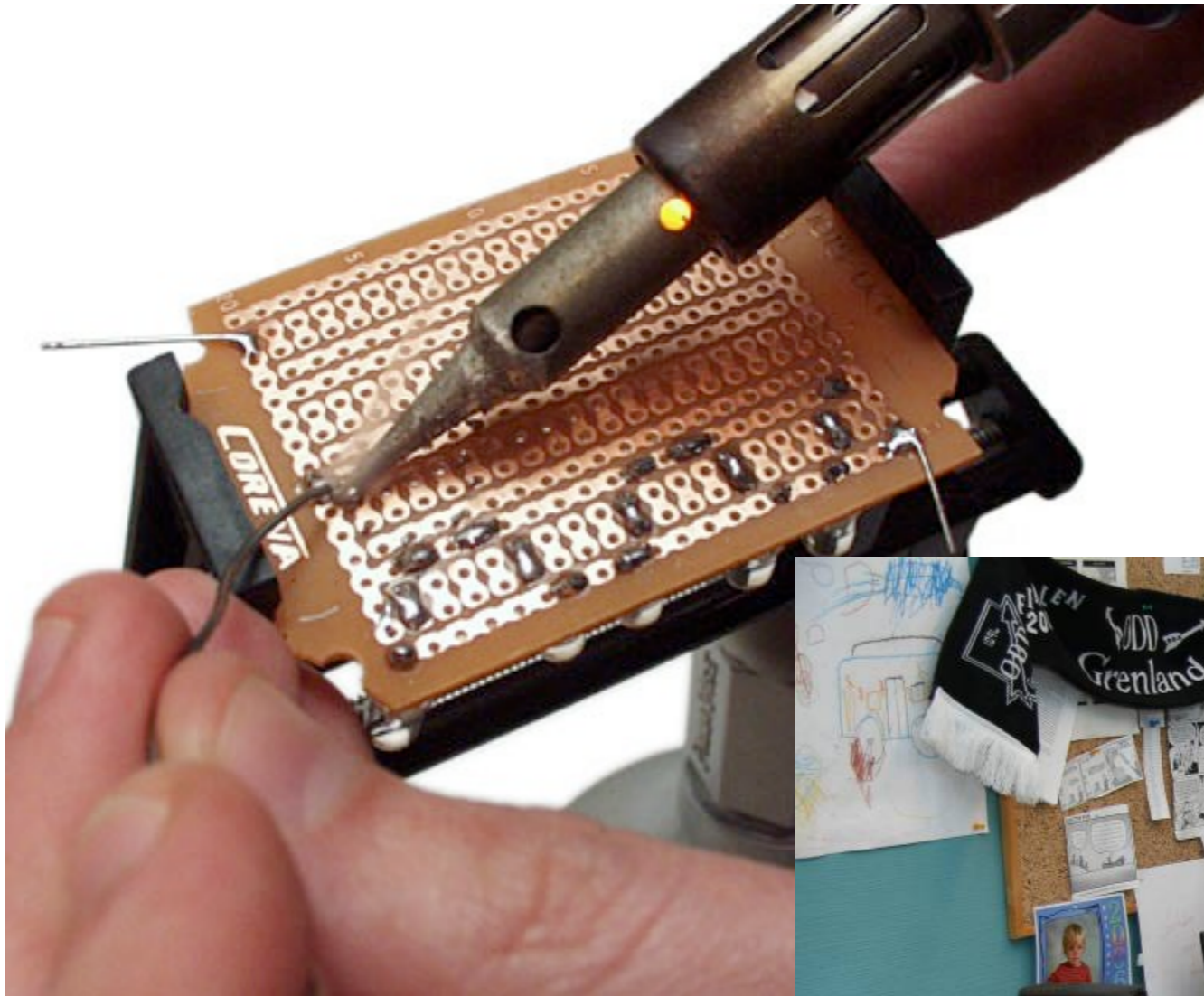
Embrace chaos



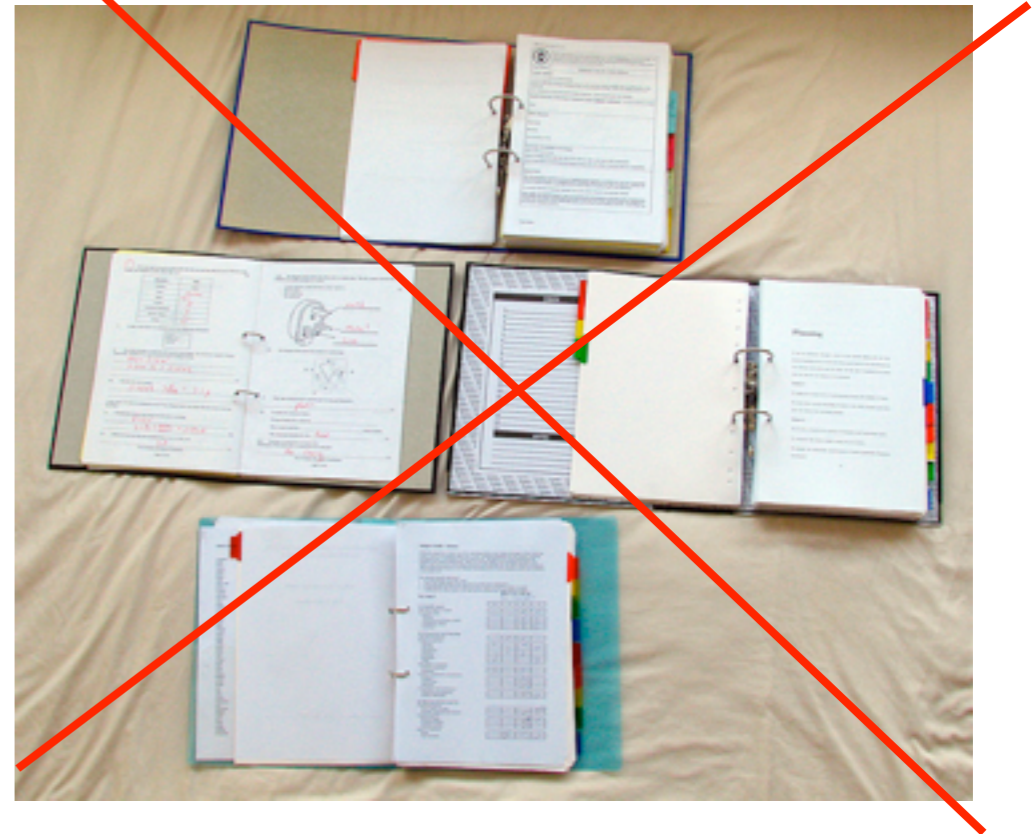
Break the rules



Respect doers (and create an autonomous organization)



Focus on communication



Introduce slack



*If your company's goal is to become fast, responsive, and agile, more efficiency is not the answer—you need more **slack**. (Tom DeMarco)*



Beware the observer effect



Constrain your innovation



Reward courage (and failures)



Focus on the whole product



system thinking vs reductionism

Delay decisions (but do continuous planning)

Plans are of little importance, but planning is essential – Winston Churchill

Plans are nothing; planning is everything. – Dwight D. Eisenhower

No battle plan survives contact with the enemy. – Helmuth von Moltke the Elder



Everyone has a plan 'till they get punched in the mouth. – Mike Tyson

Aim for approximately right rather than accurately wrong

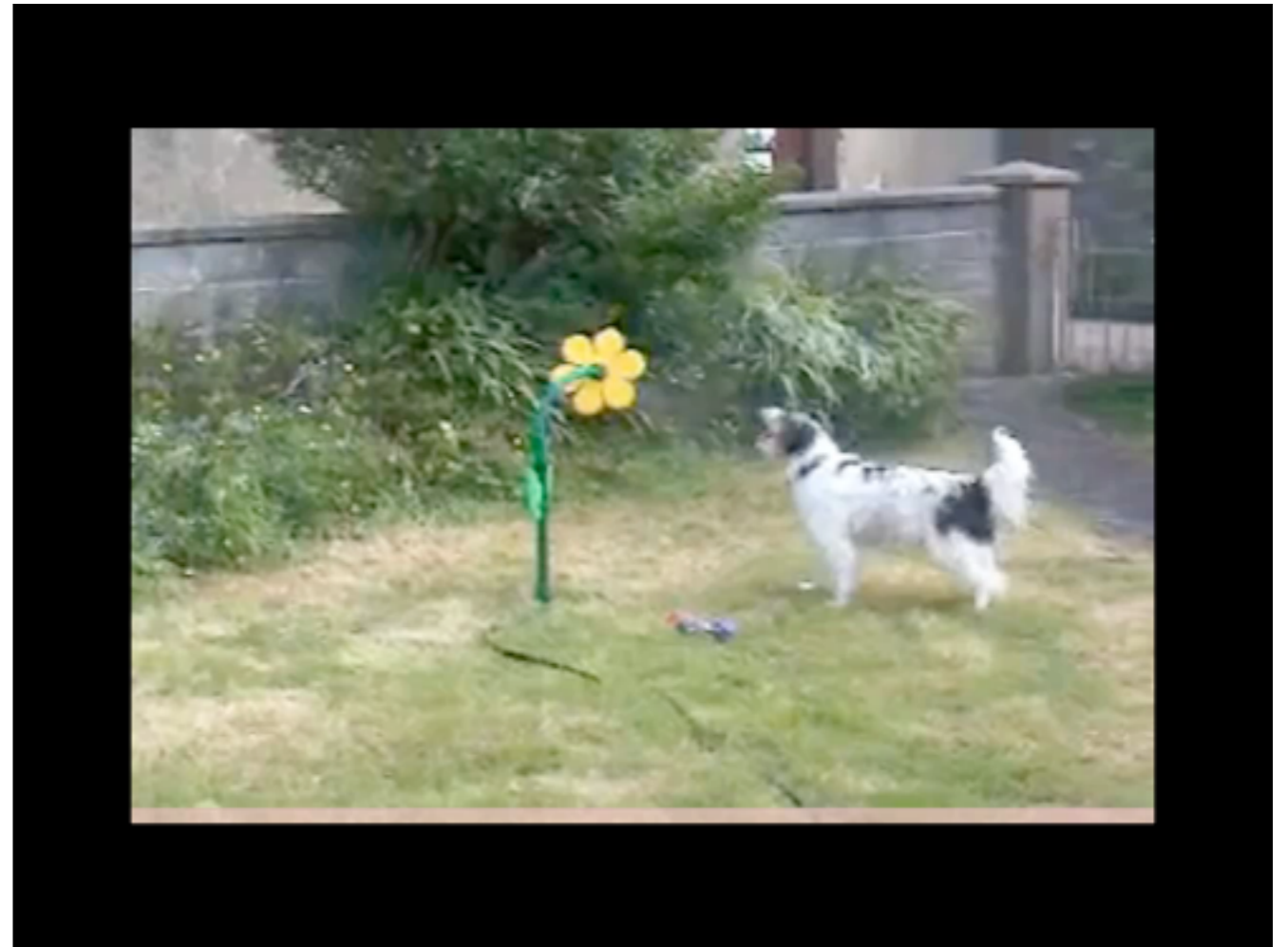
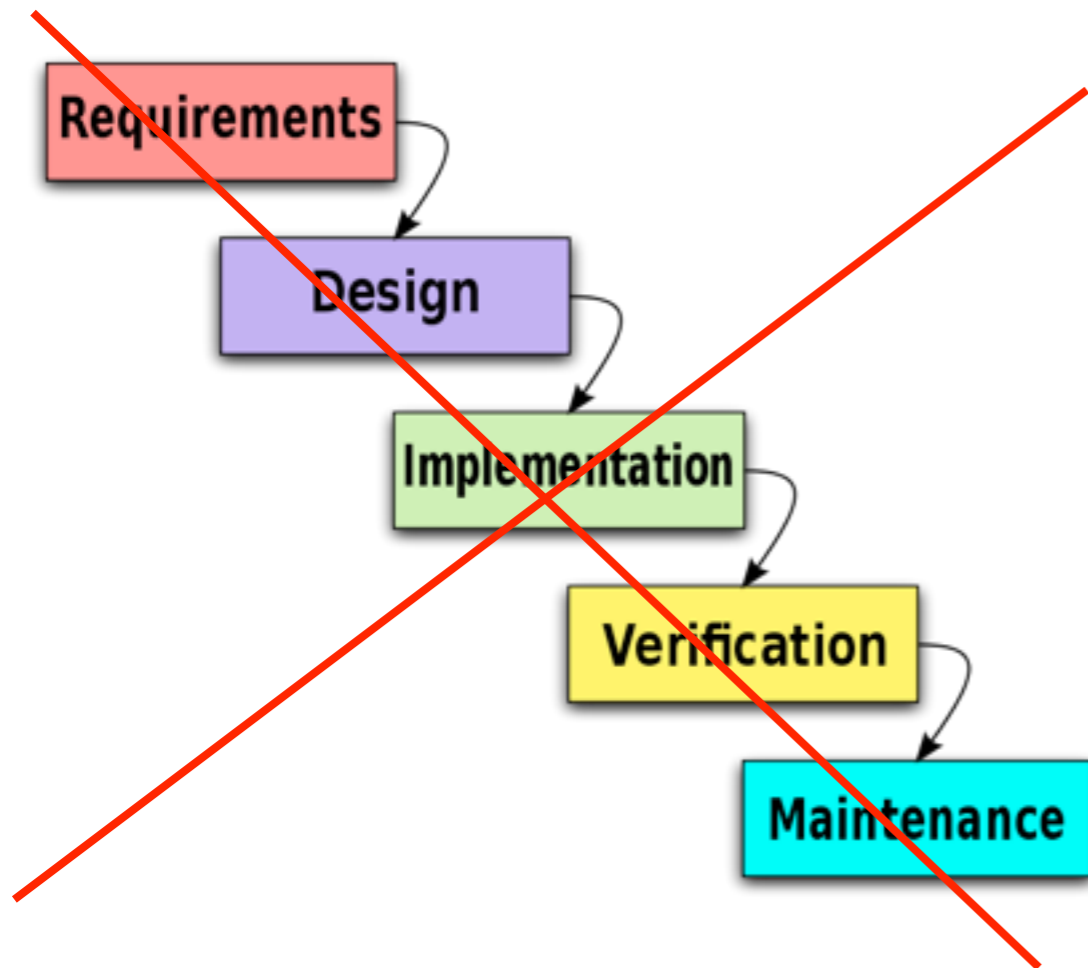


Seek early feedback

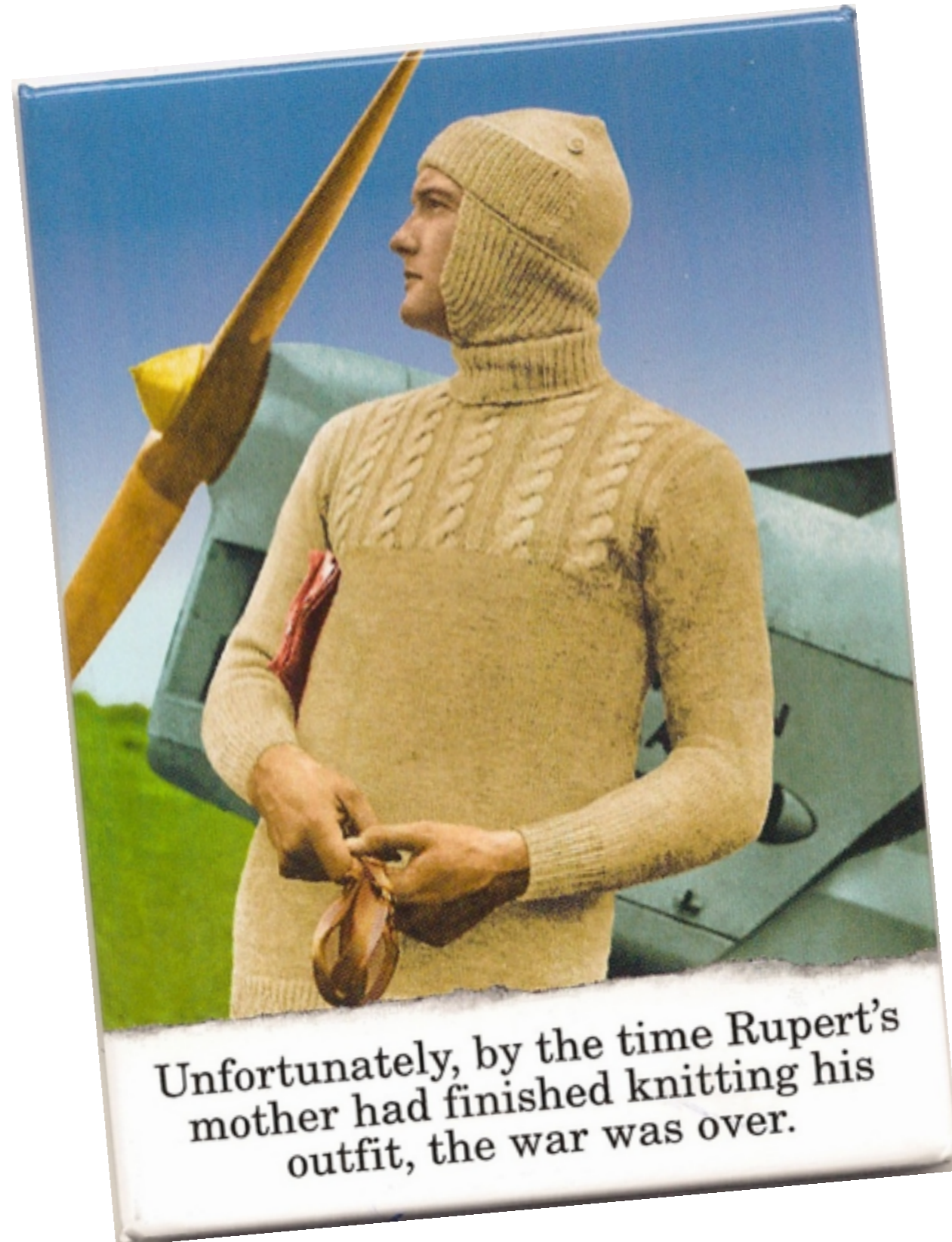


Amazing fact: In 2007, a well known fruit company, released a smartphone without MMS, without "copy and paste"-functionality, and with no support for installing external applications

Follow principles, not processes



Timing is everything



Unfortunately, by the time Rupert's mother had finished knitting his outfit, the war was over.

The Lysaker Way

- Embrace chaos
- Break the rules
- Respect doers
- Focus on communication
- Introduce slack
- Beware the observer effect
- Constrain innovation
- Reward courage
- Focus on the whole product
- Delay decisions
- Aim for approximately right
- Seek early feedback
- Follow principles, not processes
- Timing is everything



As a consultant and coach, have worked in-depth in many product groups over the decades. From my first visit to Tandberg Oslo (later Cisco Oslo) in 2009 I knew that this was one of the top-five best organizations that I have had the honor to see over 35 years. (Craig Larman, author of Scaling Lean & Agile Development)

We have been working with the Cisco group in Oslo for many years. This organization has been exemplary in their approach to the development of software-intensive products - we have learned from them even as they have learned from us. They really understand the lean principles, and how to apply them to software and software-intensive products. (Mary and Tom Poppendieck, authors of Lean Software Development)

