

# About Innovation

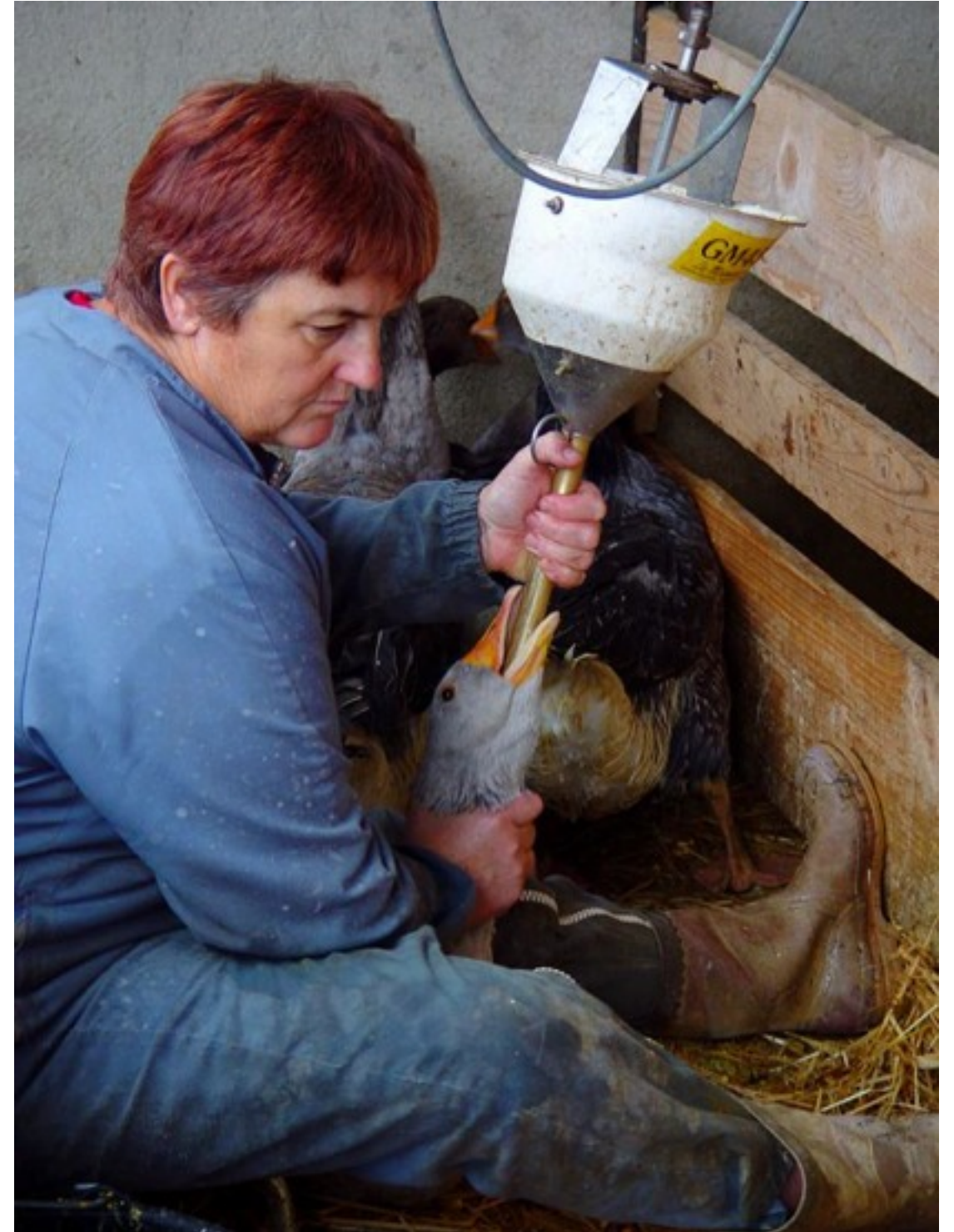
Olve Maudal, R&D, Cisco System Norway  
(TANDBERG is now part of Cisco)



a 50 minute presentation for Itera Consulting  
Vettnes, November 26, 2010



(68 slides in 50 minutes?)



## Outline for this presentation:

- Introduction
- Our innovation process
- Organization culture
- Principles of innovation
- Innovation activities
- Enemies of innovation
- Summary / QA

# Introduction





## About me

1992-1995 BEng, Software Engineering, UMIST, Manchester

1995-1996 MSc, Intelligent Robotics, Dept of Artificial Intelligence, Edinburgh

1996-1996 Postgrad, Data Mining and Knowledge Discovery, NTNU, Trondheim

1996-2000 Schlumberger, developing systems for finding oil

2000-2004 BBS, developing systems for electronically moving money

2004-2010 TANDBERG, developing systems for effective communication between people

2010-now Cisco, developing systems for effective communication between people

Active member of the vibrant geek community in Oslo. Eg, JavaPils, Smidig, JavaZone, XP Meetup, Cantara, Lean Meetup, and Oslo C++ Users Group, and a lot of other things. Also an active member of ACCU.

Blog: <http://olvemaudal.wordpress.com/>

Twitter: @olvemaudal



## About Cisco

Cisco Systems, Inc. is the worldwide leader in networking that transforms how people connect, communicate and collaborate. Our hardware, software, and service offerings are used to create solutions that allow individuals, companies, and countries to increase productivity, improve customer satisfaction and strengthen competitive advantage. Our vision is to change the way people work, live, play and learn.

Cisco was founded in 1984 by a group of computer scientists from Stanford University, one year after the invention of DNS, and one year before .com and .edu domains are assigned. Cisco has always been focused on providing solutions for internetworking and has grown together with the Internet surge.

Today Cisco are more than 70000 employees with an annual revenue of \$40 billion, which means that Cisco is among the largest global technology companies. Cisco has 20000+ engineers and invests ~13% of revenue on R&D annually.

The headquarter of Cisco is in San Jose, just south of San Francisco.

[www.cisco.com](http://www.cisco.com)



## History of TANDBERG

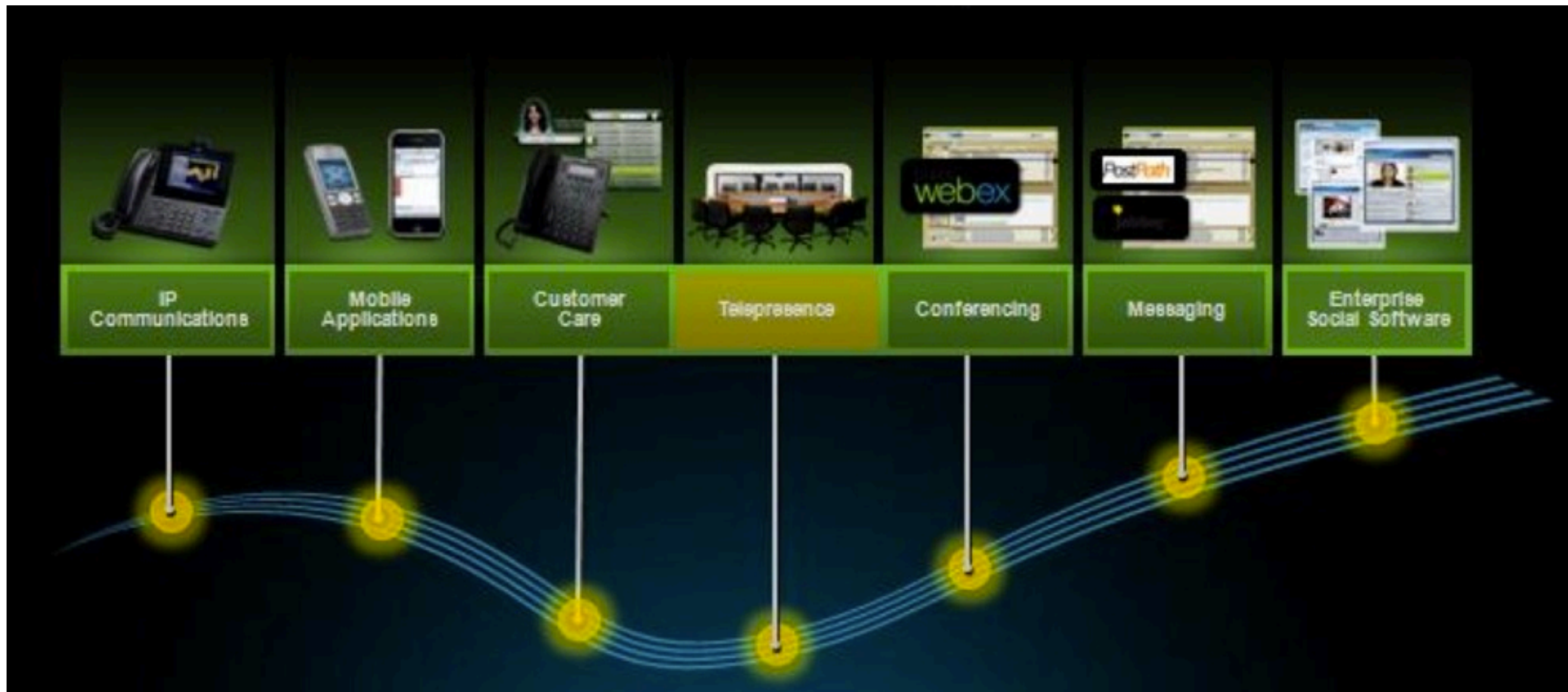
TANDBERG was the leading provider of telepresence, high-definition video conferencing and mobile video products and services. TANDBERG designed, developed and markets systems and software for video, voice and data. The company provided sales, support and value-added services in more than 90 countries worldwide.

TANDBERG shipped its first product, a picture telephone for ISDN in 1993. Since then TANDBERG grew from a small startup based in Norway into a not-so-small international company with a 40% market share, ~1700 employees and a revenue of 900 MUSD in 2009.

Cisco acquired TANDBERG for 3.2 billion USD in April 2010.

# TANDBERG is now part of Cisco!

# Cisco collaboration - Video Throughout





at Lysaker we will continue to design and develop  
spectacular products....



Codecs



Meeting room systems





Immersive systems



Personal systems





PC based solutions





And a lot of other stuff





Video: The new way of working (2:00)

<http://www.tandberg.com/media/index.jsp?id=1373>

at Lysaker we are ~300 R&D engineers



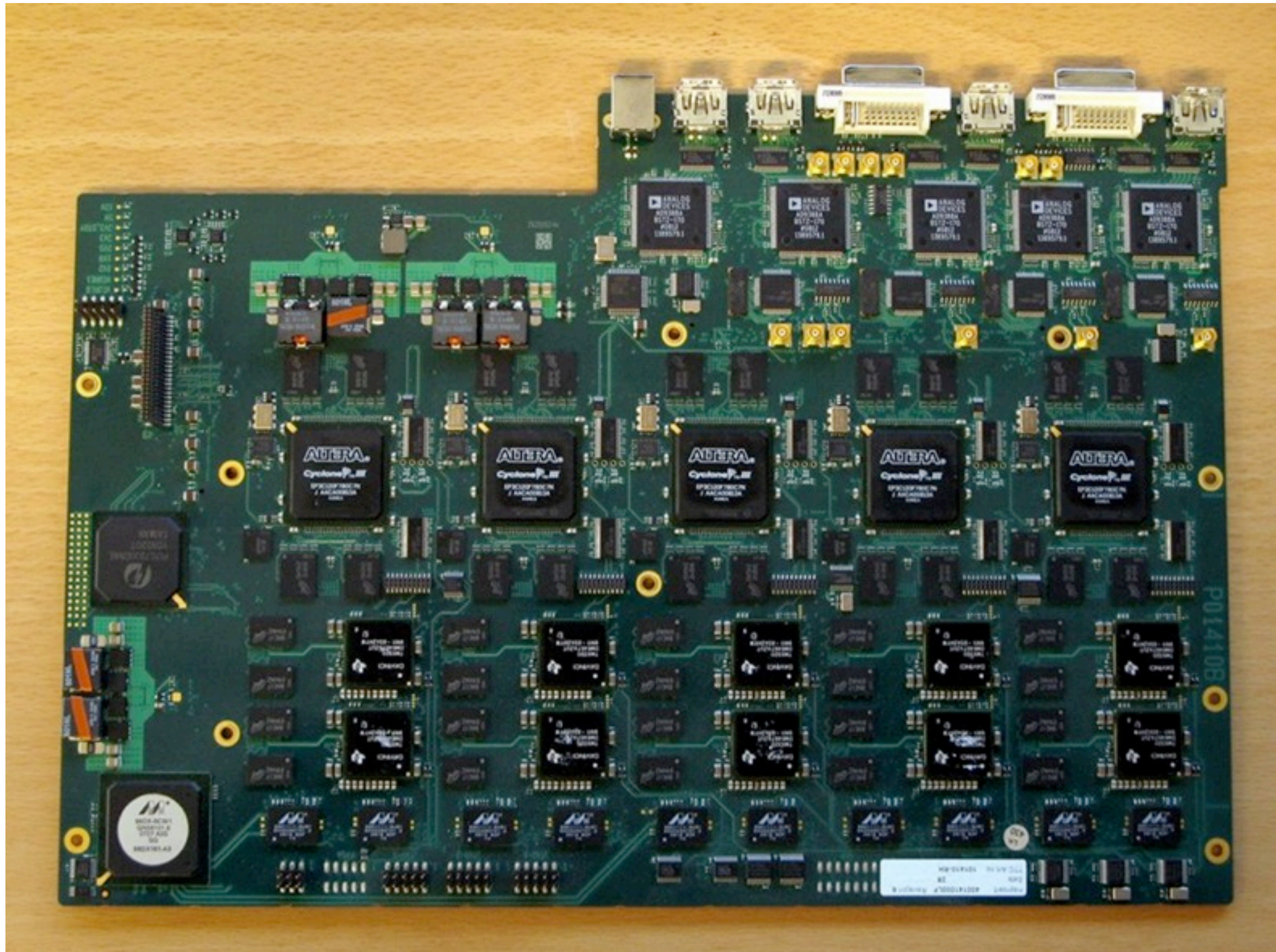
most of us work with software development



but we also do...

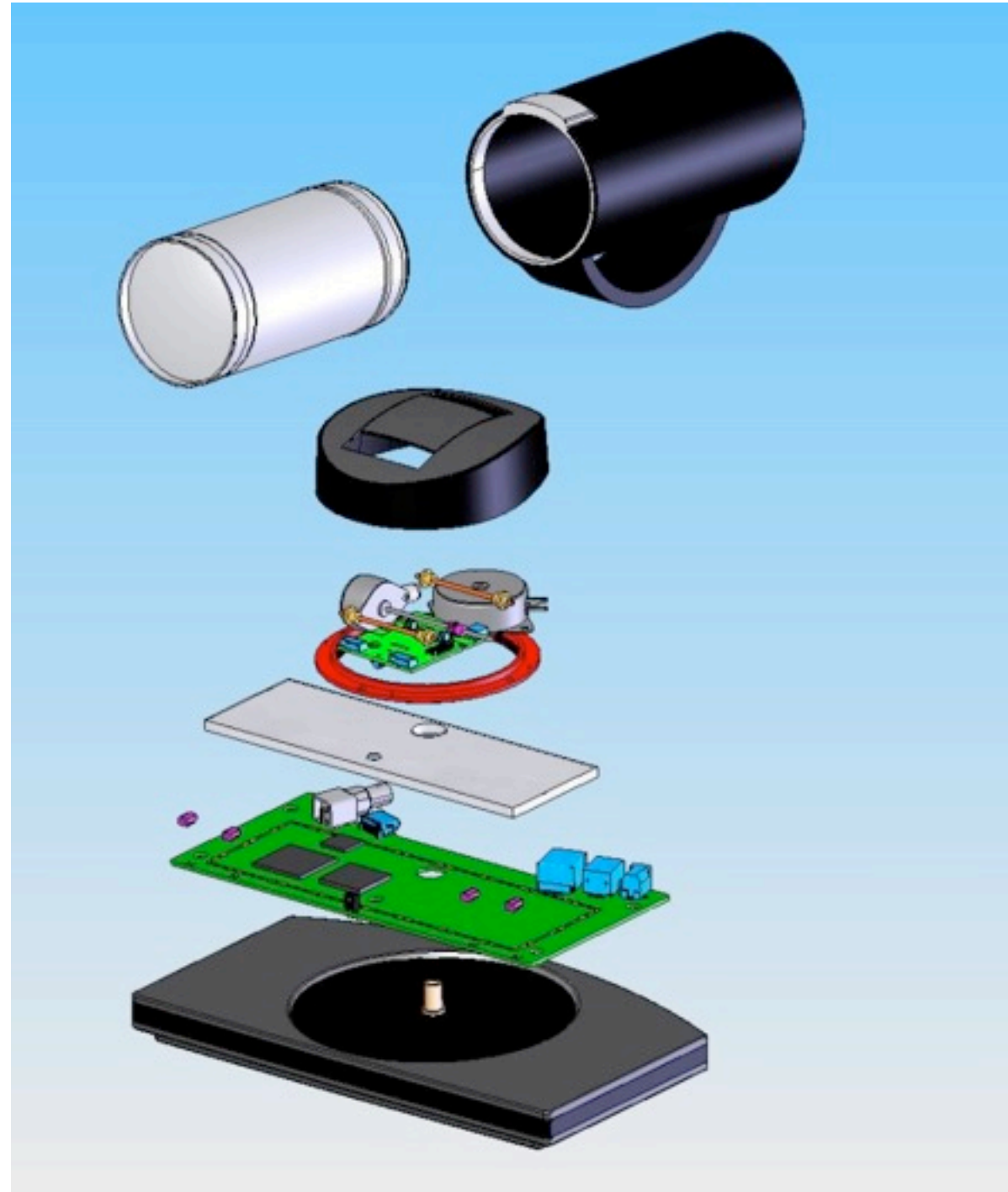


# Electronics / Hardware





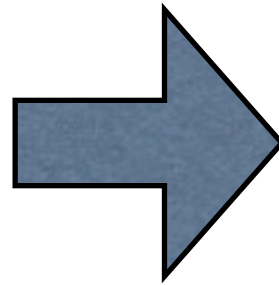
# Mechanics



# Industrial Design



1992



2010

Looking into



the future





March 2010

***“For most of my life I wanted a Porsche, now I think I want a Tandberg EX90 instead.” Wainhouse Research***

# Our Innovation Process

~~Innovation Process?~~

# Organization Culture



As a software engineer joining us at Lysaker...

at first you might get this impression...

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

## but then you start to notice...

- No documentation
- No routines
- Fooling around
- 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
- Fooling around
- Not following plans
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# Observations from TANDBERG

- People communicate
- Focus on important stuff
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# **Manifesto for Agile Software Development**

We are uncovering better ways of developing software by doing it and helping others do it.  
Through this work we have come to value:

**Individuals and interactions** over processes and tools  
**Working software** over comprehensive documentation  
**Customer collaboration** over contract negotiation  
**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck  
Mike Beedle  
Arie van Bennekum  
Alistair Cockburn  
Ward Cunningham  
Martin Fowler

James Grenning  
Jim Highsmith  
Andrew Hunt  
Ron Jeffries  
Jon Kern  
Brian Marick

Robert C. Martin  
Steve Mellor  
Ken Schwaber  
Jeff Sutherland  
Dave Thomas



# The 7 Lean Software Development Principles

- Eliminate Waste
- Create Knowledge
- Build Quality In
- Defer Commitment
- Deliver Fast
- Respect People
- Improve the System

(Poppendieck)

# Lean Software Development An Agile Toolkit

Now includes  
Eli Goldratt's  
Personal Story

Goldratt and Jeff Cox  
GOAL  
IMPROVEMENT

NEED TO KNOW ABOUT  
MANUFACTURING  
IN JOE'S GARAGE

NATIONAL BEST  
SELLER

"The best current book on the changes reshaping manufacturing is readable." —Business Week

# THE MAN THAT CHANGED THE WORLD

# Ta O

# THE TOYOTA WAY

"Toyota is as much a state of mind as it is a car company."  
—USA TODAY

THE  
COMPANY THAT  
INVENTED LEAN  
PRODUCTION



## 14 MANAGEMENT PRINCIPLES FROM THE WORLD'S GREATEST MANUFACTURER

JEFFREY K. LIKER

TOYOTA PRODUCTION SYSTEM  
Beyond Large-Scale

W. EDWARDS  
DEMING



# OF CRISIS

JAMES P. WOMACK, DANIEL T. JONES, AND DAVID  
MAGIDSON

THE

TANDBERG

WAY



# Principles of innovation

# Slack



# Alignment



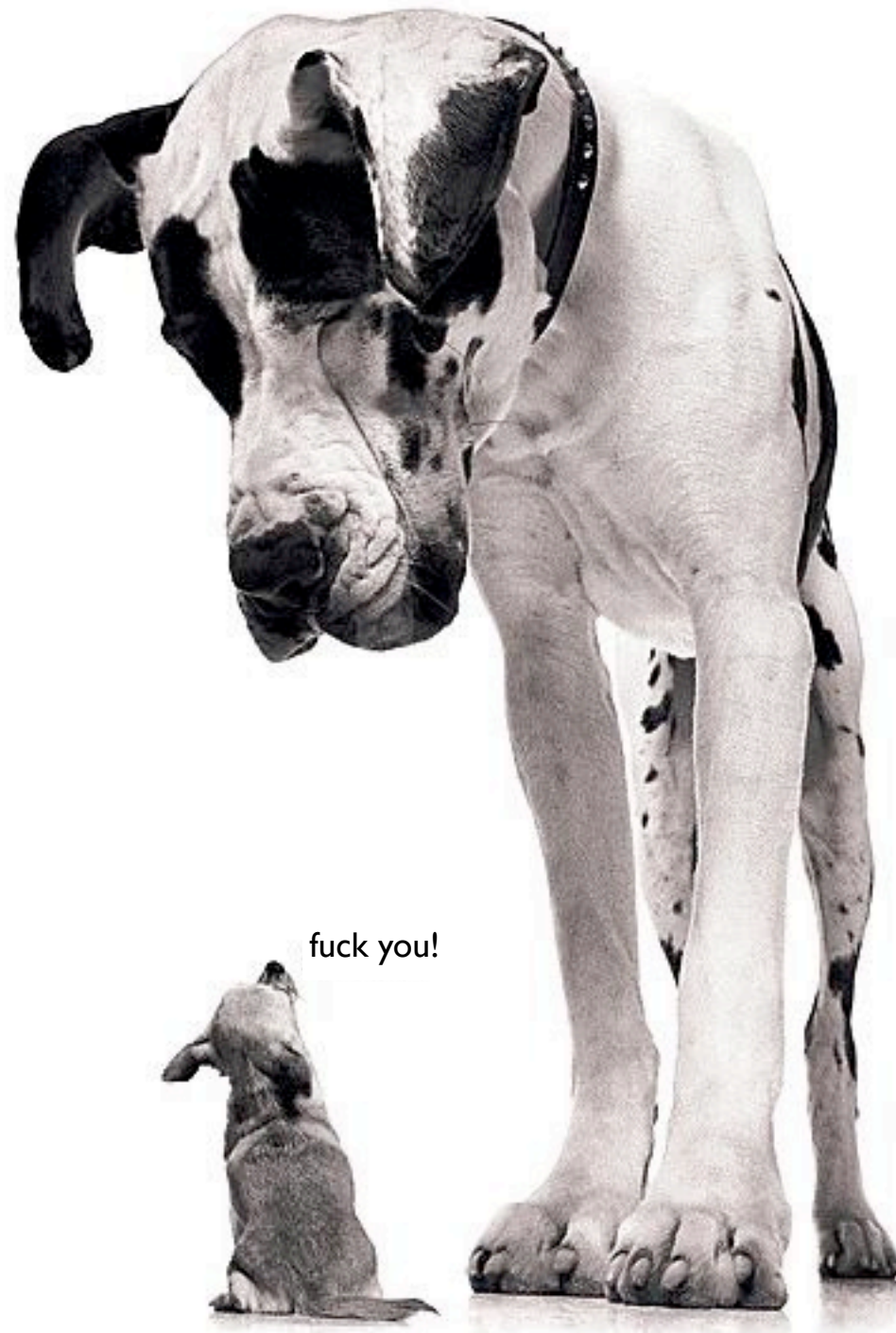
“Det kan du bare drite i”  
(no f&\*^\* way)



Per Haug Kogstad  
(arguably the most influential person and  
key driver behind TANDBERGs success.)



# Courage



fuck you!

“Man **skal** bryte regler!”  
(you should break rules!)



# Communication





# Feedback





# Conflicts

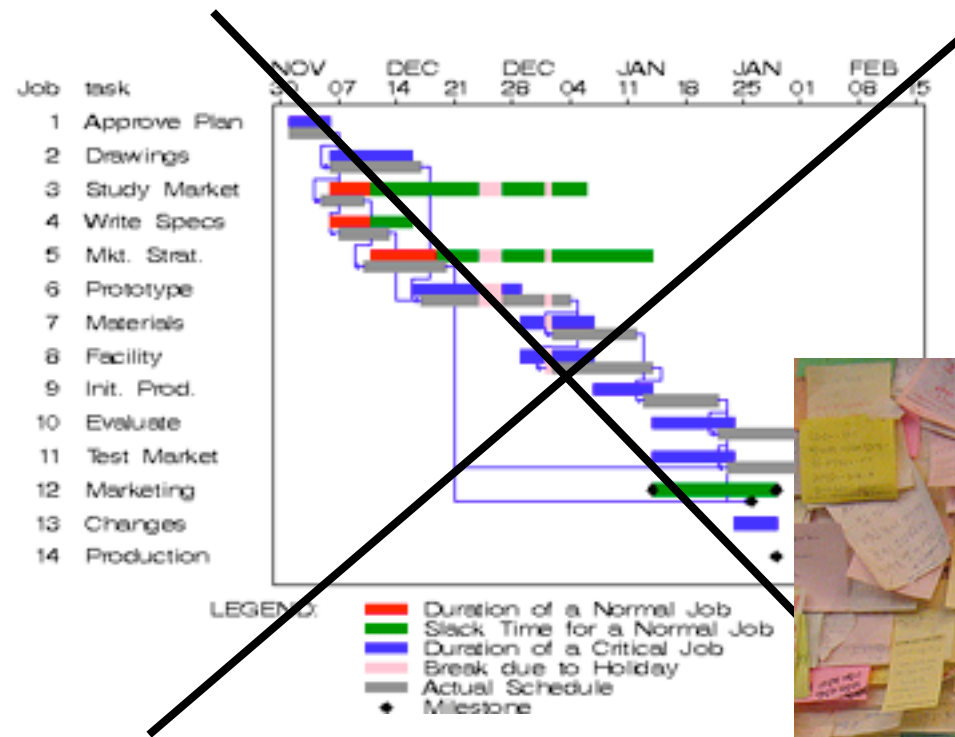


# Execution





# Continuous Planning





# Collective Ownership



# Embrace chaos





# Understand your market





# Pride & Excellence



# People & Attitude





# Trust





# Activities supporting innovation

# Hackers Corner





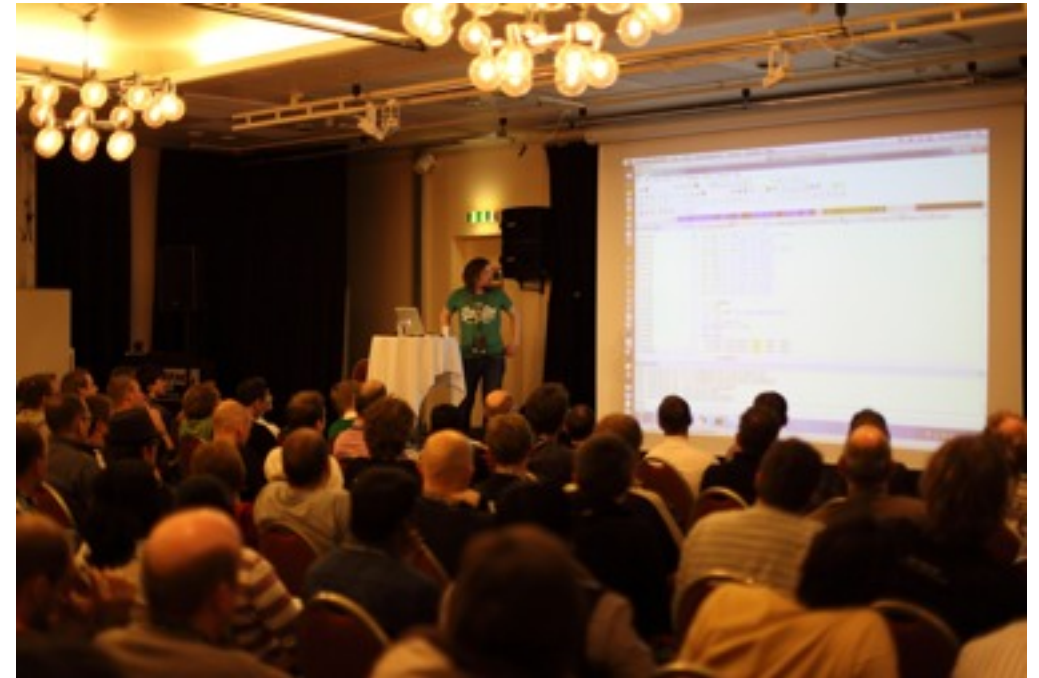
# TechZone (presentation, demo, SYTYCI,...)

**TechZone Lillehammer 2007 ~ 190 engineers, 32 talks, 4 tracks**

**TechZone Lysaker 2007 ~ 260 engineers, 40 talks, 5 tracks**


**TechZone Barcelona 2008 ~ 380 engineers, 43 talks, 5 tracks**

**TechZone Storefjell 2010 ~500 engineers, 45 talks, 5 tracks**





# Blog, Wiki, irc, mail, social media

**TANDBERG RDnews**  
*News for R&D, stuff that matters.*

olve.maudal

- My account
- Create content
- Administer

Search

Search this site:

Search

categories

- OJ's corner
- TechZone
- all
- announcements
- careers
- challenges
- innovation
- internal news
- miscellaneous
- new hires
- project info
- tech watch
- TAA in news

links

- Bugzilla
- GRWiki
- RD Internal (sharep)
- RD Search
- TechZone
- booking
- e-mail editor
- hour registration
- lab tools
- matchbox
- oneTANDBERG
- products
- rdwiki
- svn
- tcsrd

## 3D Video Capture with Kinect

Submitted by [terje.vernly](#) on Fri, 2010-11-19 15:12  
Tech Watch

This [video](#) shows how 3D depth info from Kinect can be used to re-create 3D objects in real. Pretty cool stuff!

» 1 comment | 1 new comment | 78 reads

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## jag trivs bäst i öppna landskap

Submitted by [martin.bugge](#) on Thu, 2010-11-11 07:04  
Miscellaneous

En fin sang men hva er realiteten ?

Åpent landskap har i løpet av det siste tiåret blitt den klart dominerende trenden innen kontororganisering.

Nå viser forskning at vi er mer produktive hvis vi får sitte på celler.

[www.aftenposten.no/jobb/artikkel3897973.ece](http://www.aftenposten.no/jobb/artikkel3897973.ece)

[lunchstriper.lunddesign.no/?p=359](http://lunchstriper.lunddesign.no/?p=359)

» Add new comment | 104 reads

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## FredagsCoolDemo - Nov 5

Submitted by [kjetil.rune.runde](#) on Mon, 2010-11-08 15:32  
Announcements

Agenda:

- Moulin organization (Sinnre)

```
14:10 <@tandbot> OK: snoozy-host-complete [main:r170534]
14:15 <@Lgb> r170498 fra i dag er BAD mhp. casper (audio only), siste jeg har testet så langt som er GOOD er r170436
14:16 <@Lgb> tester r170475 nå
14:18 <@tandbot> Broken: saturn-host-complete [main:r170536]
14:20 <@tandbot> Broken: gk-roots [os:r170537]
14:28 <@hei> Is there any way to get more info from a crash in matchbox?
14:28 <@hgb> Not really.
14:28 <@hgb> Unless it was an lvm crash.
14:28 <@hei> hgb: nope, r170536, seems to be unittests or something?
14:29 <@hgb> Hm.
14:29 <@hgb> They're probably lost.
14:30 <@hei> hgb: ok, I'll just revert while testing even more...
14:30 <@hgb> hei: You could always wait for one more run.
14:30 <@hgb> It might be a fluke.
14:31 <@hei> hgb: was considering...
14:31 <@hgb> The unit tests aren't rock solid, so there might be some strangeness...
14:32 <@hei> they completed just fine locally at least...
14:32 <@hei> building complete module tests as well now...
14:32 <@Lgb> r170475 was BAD
14:34 <@Lgb> fu: did you test r170475 on casper?
14:35 <@fu> Lgb: yes
14:35 <@Lgb> and you had video calls casper-->saturum working then? I have audio calls only
14:36 <@tandbot> OK: saturn-host-complete [main:r170536]
14:37 <@fu> I did not call casper-saturum, but I did call casper-map and it worked fine
14:38 <@Lgb> fu: seems r170475 is off the hook, I get same problem with r170461
14:41 <@Lgb> tester r170445 nå
14:44 <@Lgb> r170445 was GOOD
14:45 <@Lgb> tester r170446 nå
14:54 <@Lgb> r170446 was GOOD
14:54 <@Lgb> Hmm that mean r170461 is the likely culprit... retesting now
15:02 <@Lgb> and retesting passes... weird
15:26 <@tandbot> Broken: saturn-host-complete [main:r170553]
15:28 <@hgb> Something is officially iffy in the saturn unit tests.
15:54 <@tandbot> OK: saturn-host-complete [main:r170553]
15:55 <@Lgb> Ok... my most likely culprit for the audio only calls on casper is now r170463
16:18 <@tandbot> OK: gk-roots [os:r170537]
17:08 <@tandbot> Broken: saturn-host-complete [main:r170566]
17:18 <@tandbot> OK: saturn-host-complete [main:r170568]
18:56 <@rgu> saa: da er den klar
20:45 <@mkt> happy holidays, folks
```

page discussion edit history move unwatch

Oma my talk my preferences my watchlist my contributions log out

## Main Page

Welcome to the TANDBERG R&D wiki

This wiki should be a place for tips & tricks, useful links and a collection of useful information that we all can benefit from. More formal project documentation should be put in Sharepoint.

Contents [hide]

- Subpages - Important!
- Langley IT integration
- Introductions / Resources
- Howtos
- Status
- Tips & Tricks
- Communities, Special Interest Groups and Knowledge Management Activities
- Teams
- Projects
- Active spikes and mini-projects
- Events
- Adding or editing content in this wiki

Subpages - Important! [edit]

Not all pages in wiki should be top index. Make sure you create subpages when you add links to your top index site. Link to "members" on a team page:

== Team ==

\* [[/members|Our team members]]

Pages should also be assigned to a category. See discussion page for rationale and information.

List of categories

## Langley IT integration [edit]

Below you'll find a few links to resources in the Langley network. Currently they should work from the R&D offices in Oslo and Reading.

navigation

- Main Page
- Team Page
- Current events
- Recent changes
- Random page
- Help

useful links

- OneTandberg
- OneTandberg RD Internal
- UK RD's wiki
- Codian Wiki
- Corporate Website
- Matchbox
- Bugzilla bug tracking system
- NA Forum

search

Go Search

# Creative hotspots





Skunk works





# Playtime



# Workshops



# Creative Lunch

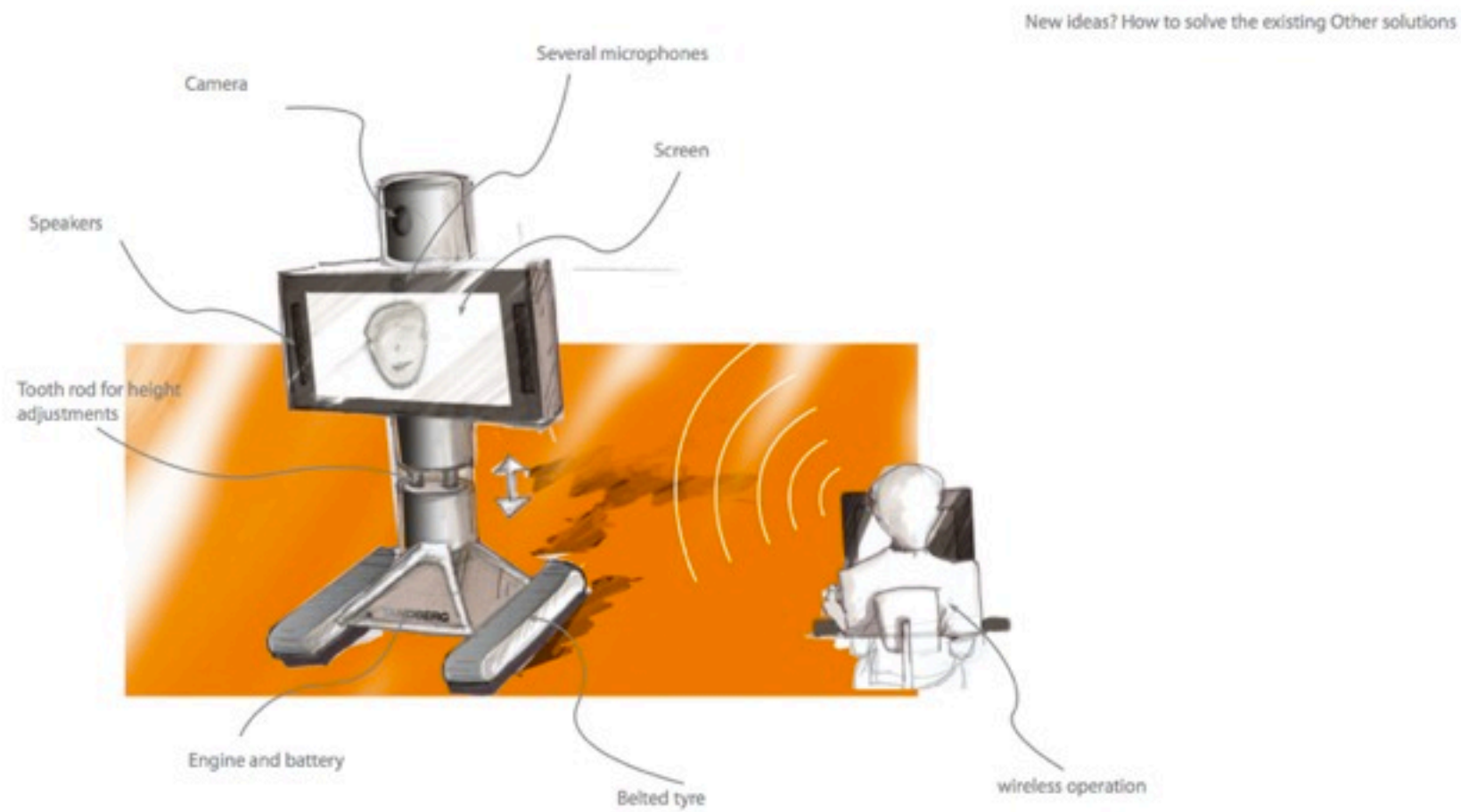




# Mutable Posters

TANDBERG . 2020

## Video conference robot



# Demo days



# Enemies of innovation



- Do **not** set up a Suggestion Box
- Do not financially reward innovation
- Do not innovate without alignment
- Do not implement “innovation processes”
- Do not categorize and structure ideas
- Avoid innovation without being able to execute
- Do not allow bad ideas to grow (but don’t kill them either)
- Do not insist on following plans
- Do not monitor and evaluate innovation
- Do not establish innovation committees and councils
- Do not allow separate innovation teams or departments

#### Enemies of innovation:

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#### Observations from TANDBERG:

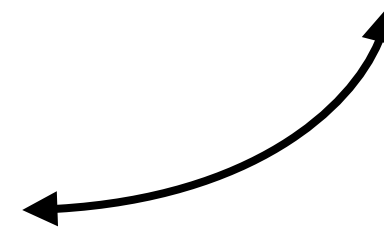
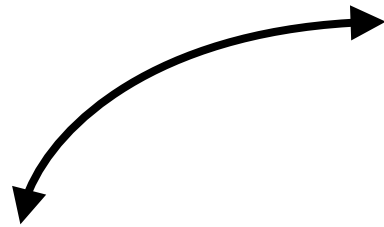
- People communicate
- Focus on important stuff
- Embedded slack
- Continuous planning
- Effective decisions
- Autonomous organisation
- Respect for the doers
- No integration period
- Spectacular products
- Fast deliveries
- Sustainable pace

#### Activities supporting innovation:

- TechZone
- Hackers Corner
- Blog, Wiki, irc, mail, social media
- Creative hotspots
- Skunk works
- Playtime
- Workshops
- Creative Lunch
- Mutable Posters
- SYTYCI
- Demo days

#### Principles of innovation:

- Slack
- Alignment
- Courage
- Communication
- Feedback
- Conflicts
- Execution
- Continuous Planning
- Collective Ownership
- People and Attitude
- Pride & Excellence
- Embrace chaos
- Understand your market
- Trust



“**Aldri** hør på kundene, de vet ikke hva **vi** bør lage”

(never listen to the customers, they do not know what **we** should develop)



Per Haug Kogstad

(arguably the most influential person and key driver behind TANDBERG's success.)



!

Some random quotes

"What we don't do is treat our employees like they're all, you know, criminals,"

(Jenn Mann, SAS Institute)



"Controlling an organization by monitoring costs is like driving a car looking out the rear window."

(John Seddon)

Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

(General George Patton Jr)

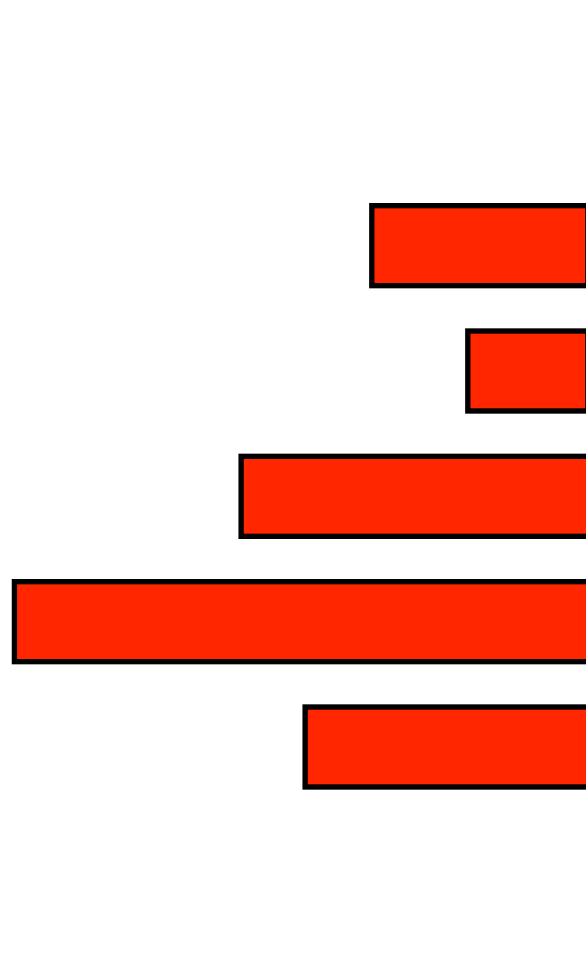
Those who built the good-to-great companies made as much use of "stop doing" lists as "to do" lists. They displayed a remarkable discipline to unplug all sorts of extraneous junk. (Collins, 2001)



Discipline by itself will not produce great results. We find plenty of organizations in history that had tremendous discipline and that marched right into disaster, with precision and in nicely formed lines. (Collins, 2001)

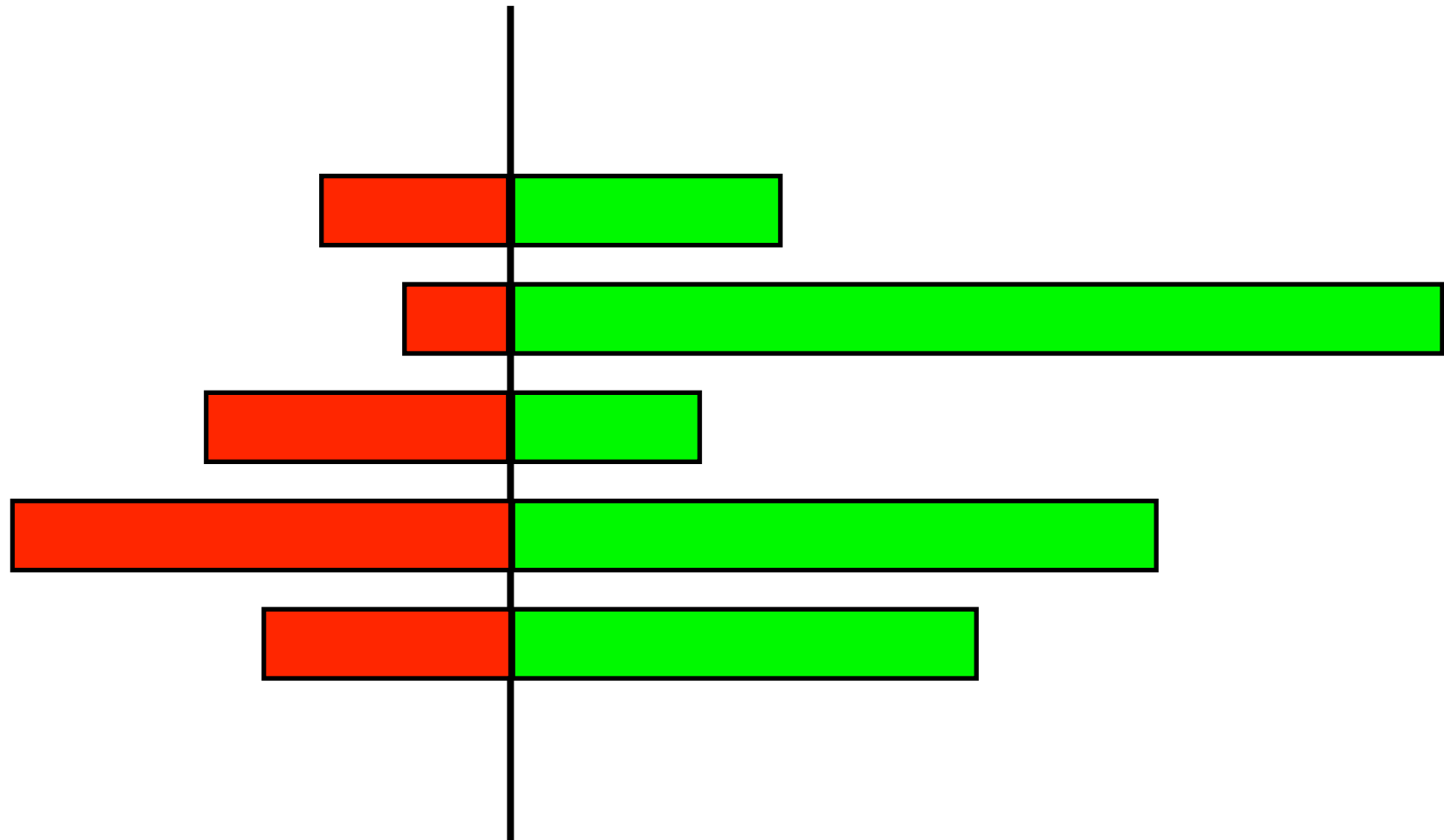
**Some thoughts about negative and positive components**

everything has a negative component ...

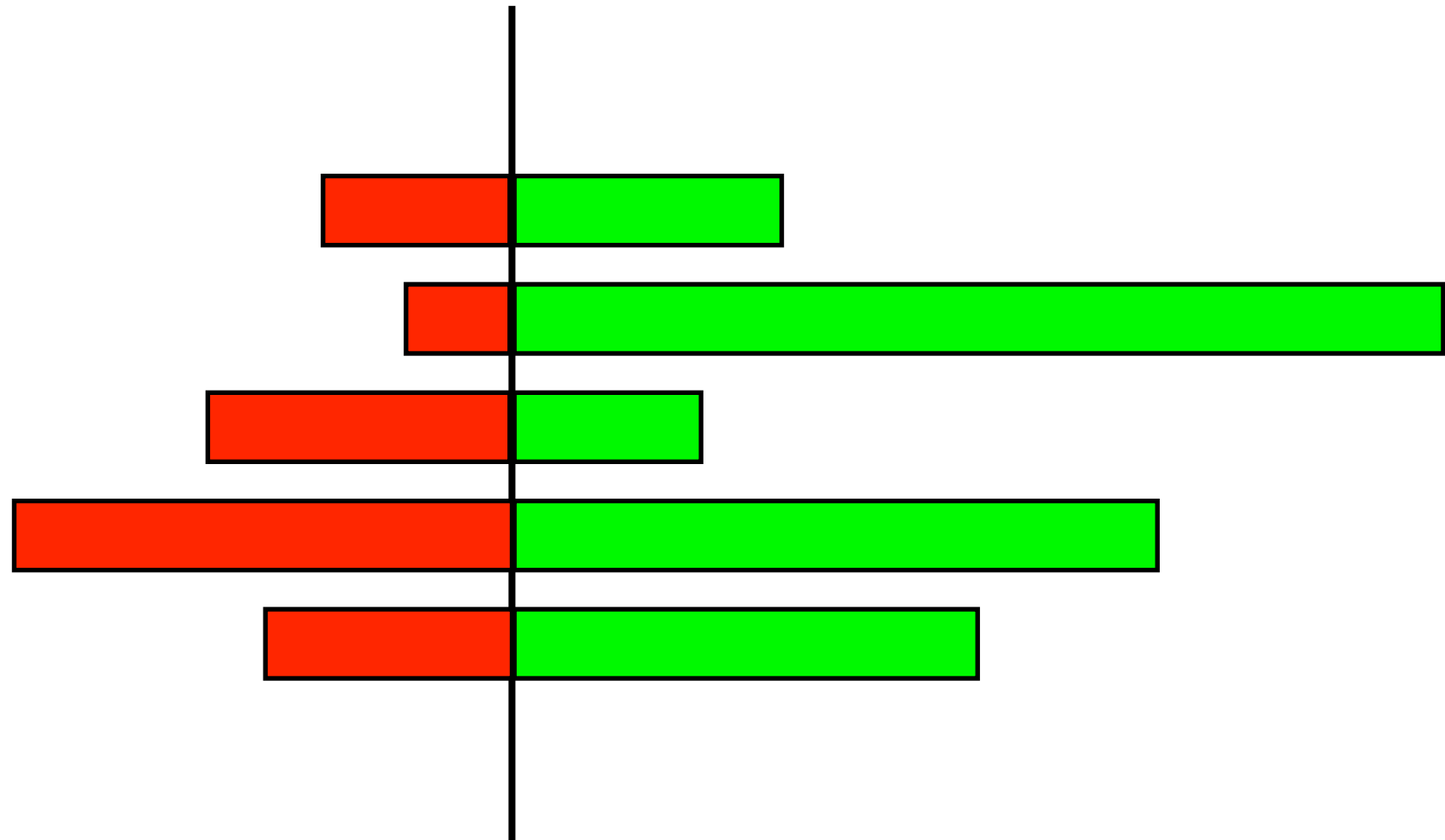




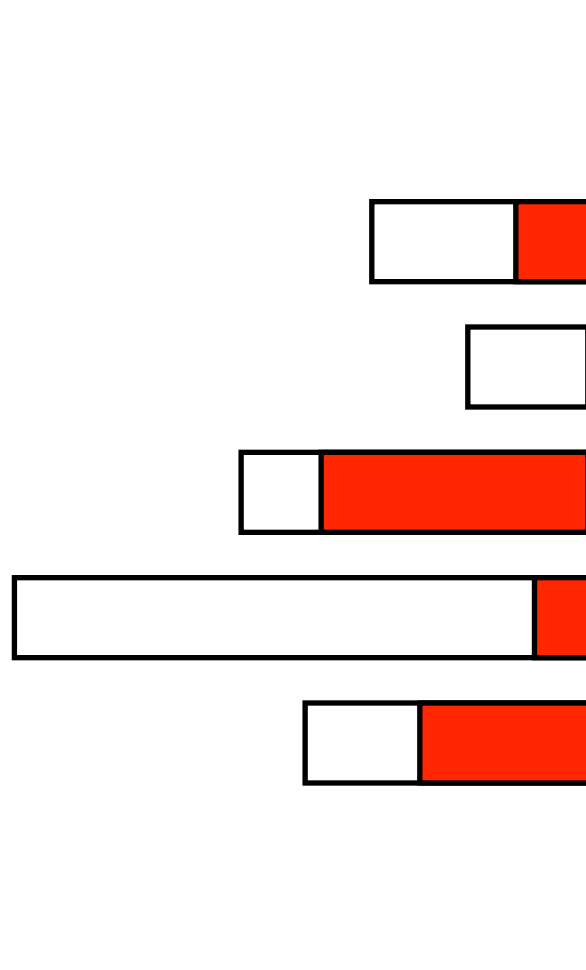
... as well as a positive component



so if you want to improve something...

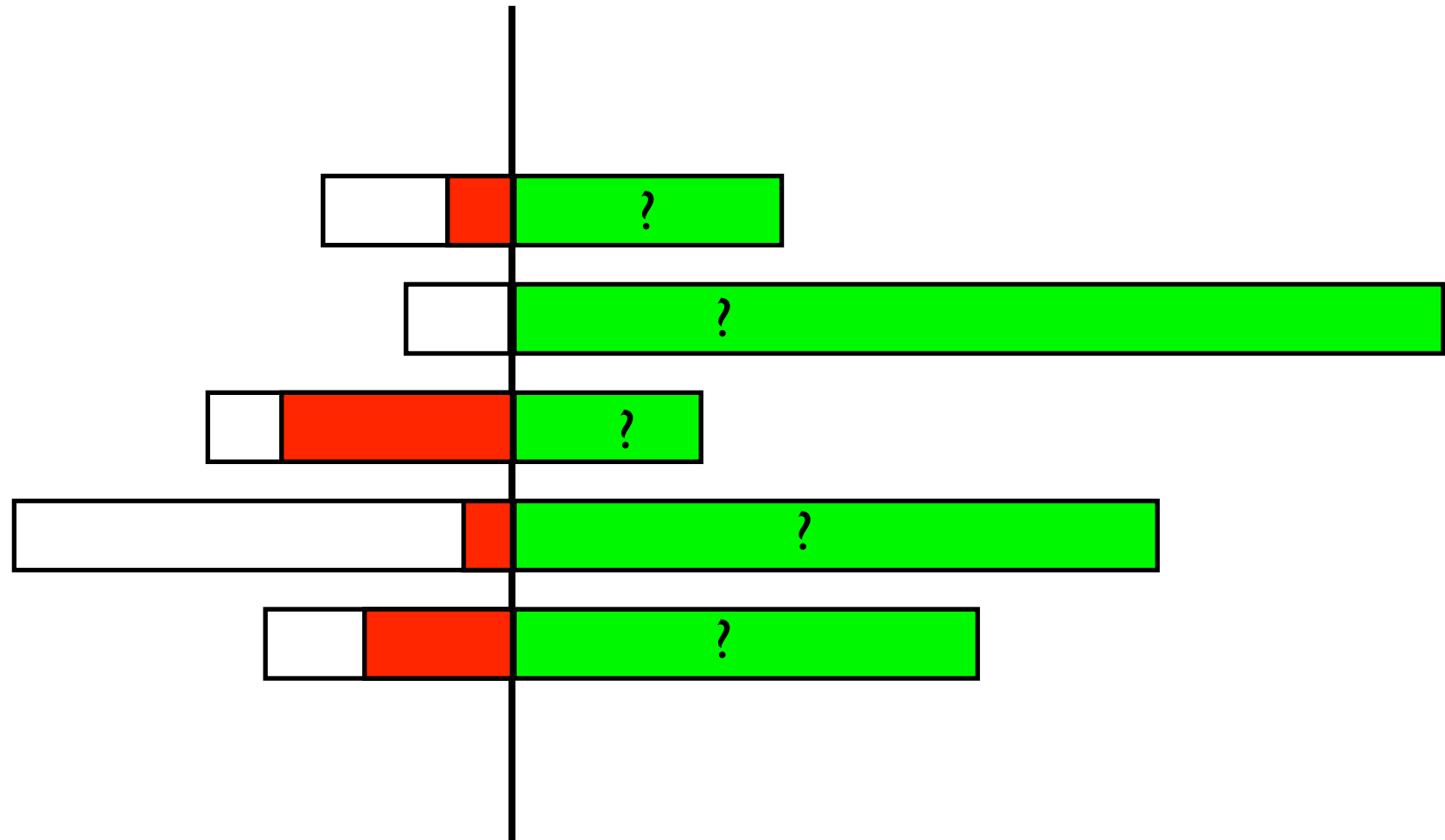


... do **not** just try to fix the negative stuff ...

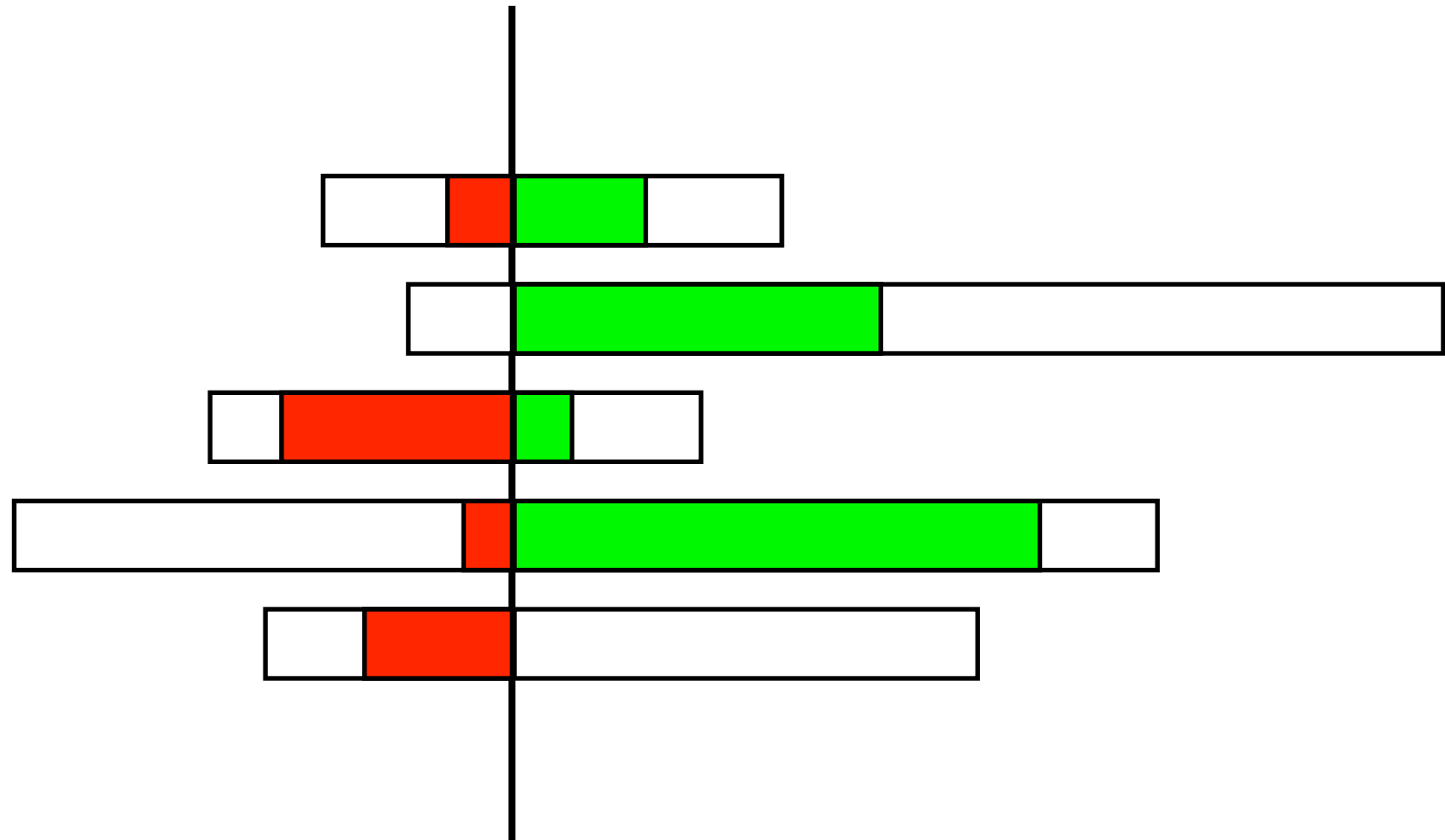


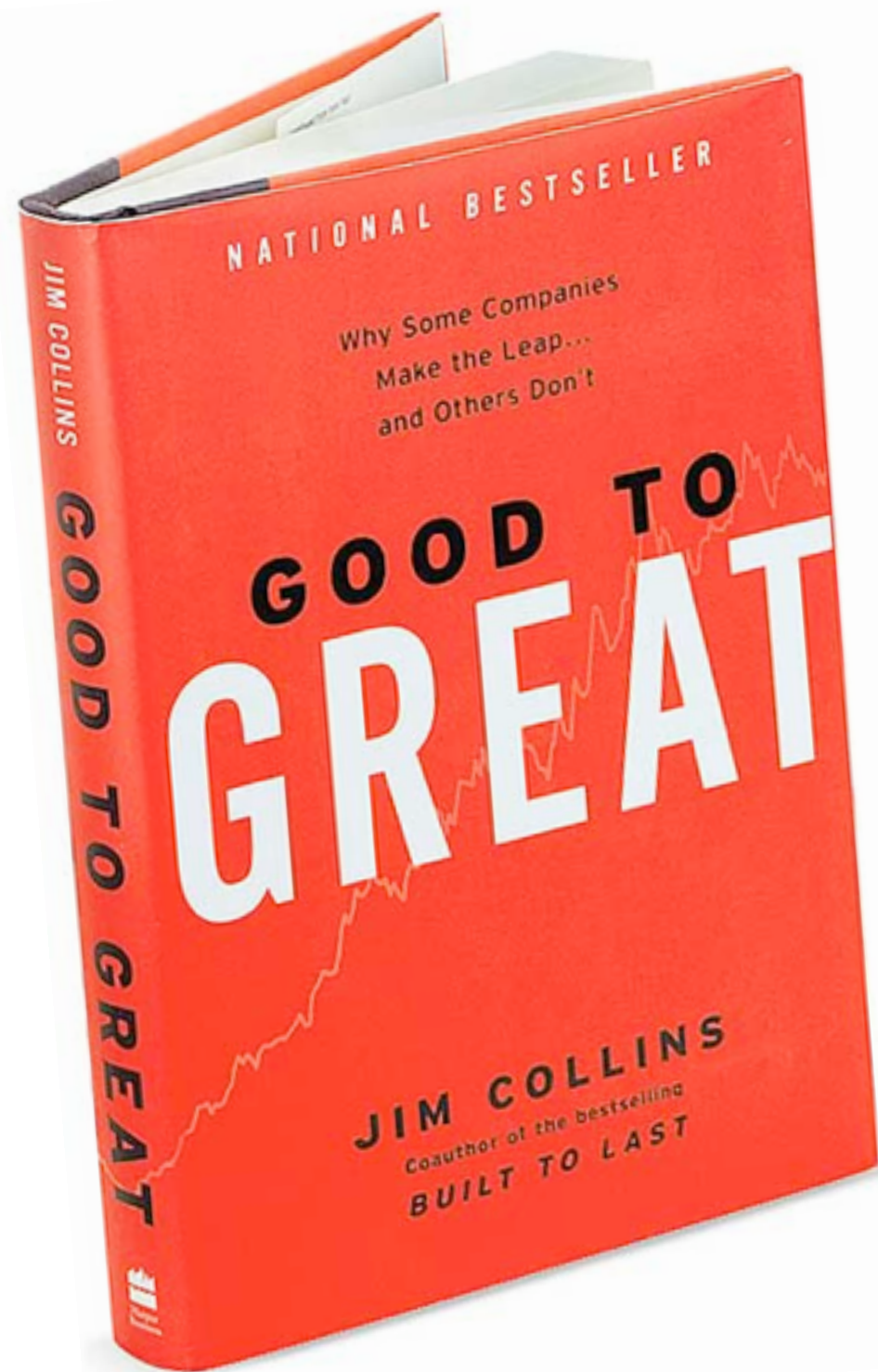


... without also understanding how it will affect the positive component



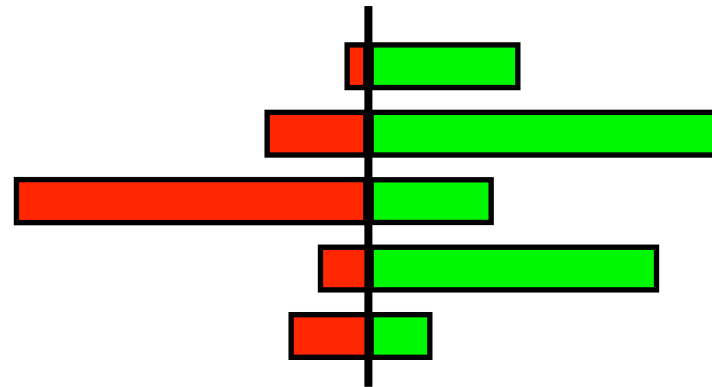
because you might end up by reducing the positive component by even more





Managing your problems can only make you good, whereas building your opportunities is the only way to become great. (Collins, 2001)

we do not want to end up like this...



here is the profile of a GREAT team...

