

Controlling IT Projects Balancing Agility & Discipline

b-agile

CONTROLLING IT PROJECTS - Balancing Agility and Discipline

Summer
Conference
2005

APM
SPOL
PROJEKTMANAGEMENT

Peter Hruschka
Principal of the Atlantic Systems Guild
Aachen - London - New York
hruschka@b-agile.de
www.systemsguild.com
www.b-agile.de

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Goals for Project Managers

- Finish in Time?
- Finish in Budget?
- Complete required functionality?
- Constantly know where you are w.r.t. your plan?
- Stick to a defined process?



- Deliver customer satisfaction!
- End with a happy and healthy team!

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A new value system for (IT) system development

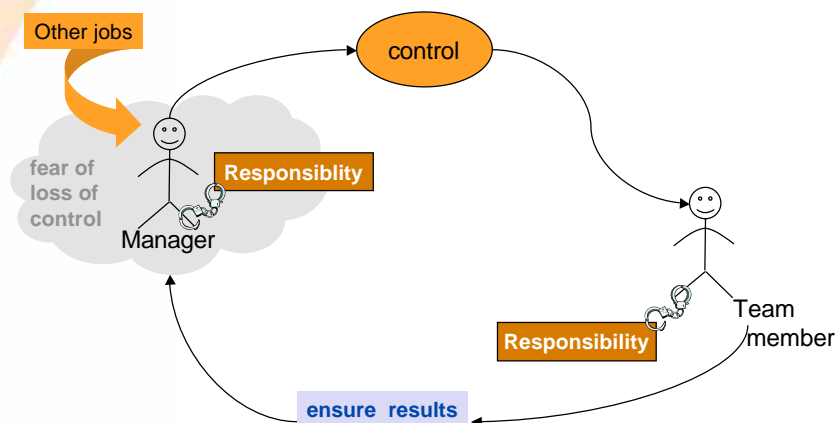
We are uncovering better ways of developing software by doing it and helping others to do it. Through this work we have come to value

Individuals and interaction 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.

www.agileAlliance.org

Convert control into trust and care



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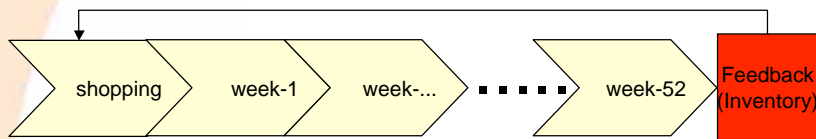
Manager's 8 tasks ... and variations in doing them

	extensive, formal, strict	informal, ad hoc
goal setting			
planning			
monitoring			
controlling			
organizing			
managing human resources			
deciding			
informing			

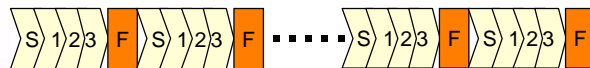
We will discuss three examples

Example 1: Planning

- For what period do you buy food ... *)
 - A year ahead?



... or for the upcoming week?



*) An idea from Dr. Gernot Starke

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From the waterfall

Analysis Design Implement. Test/Integr.

... to iterative development

Daily Build is for the Whimps

„Development, Integration and Test within a few hours - definitely shorter cycles than one day“

Kent Beck

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How long is one iteration?

person days

Iteration Length (person days)	Project Type
1000	International large projects
100	many fixed price contracts
10	quaterly releases
1	web sites, portals
0.1	daily releases

industry trend → 2 - 4 months

P. Hruschka
Iterationen: Von 3 Stunden bis 3 Jahre, Objektspektrum, Jan./Feb. 2003

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My Recommendation:

Whatever your current cycle length is:
seriously try to cut in half
or reduce it to one third!

12 month	->	4 - 6 month
6 month	->	2 - 3 month
3 month	->	4 - 6 weeks

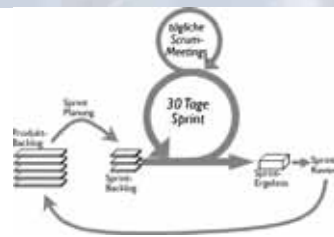
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Example 2: Controlling/Informing/Planning

Try SCRUM meetings:

- Important facts:
 - daily!!!
 - Max 15 minutes
 - standing
 - No problem solutions
- Three questions:
 - What did you do yesterday?
 - What will you be doing today?
 - What problems?



- Invite pigs and chicken
 - Only pigs talk
 - Chicken may listen, (to avoid additional meetings)



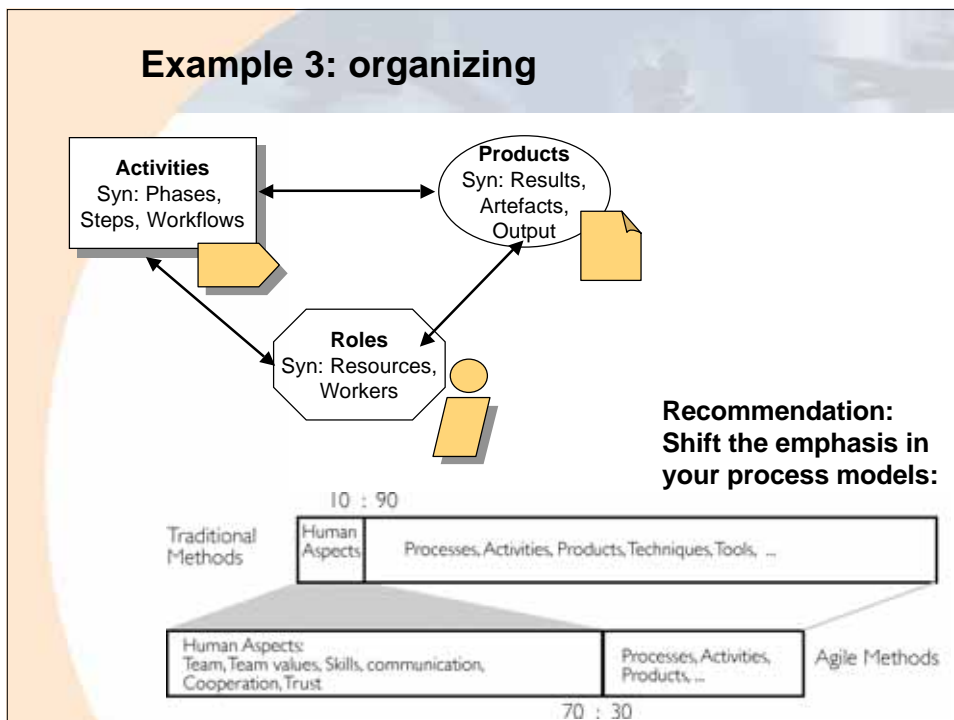
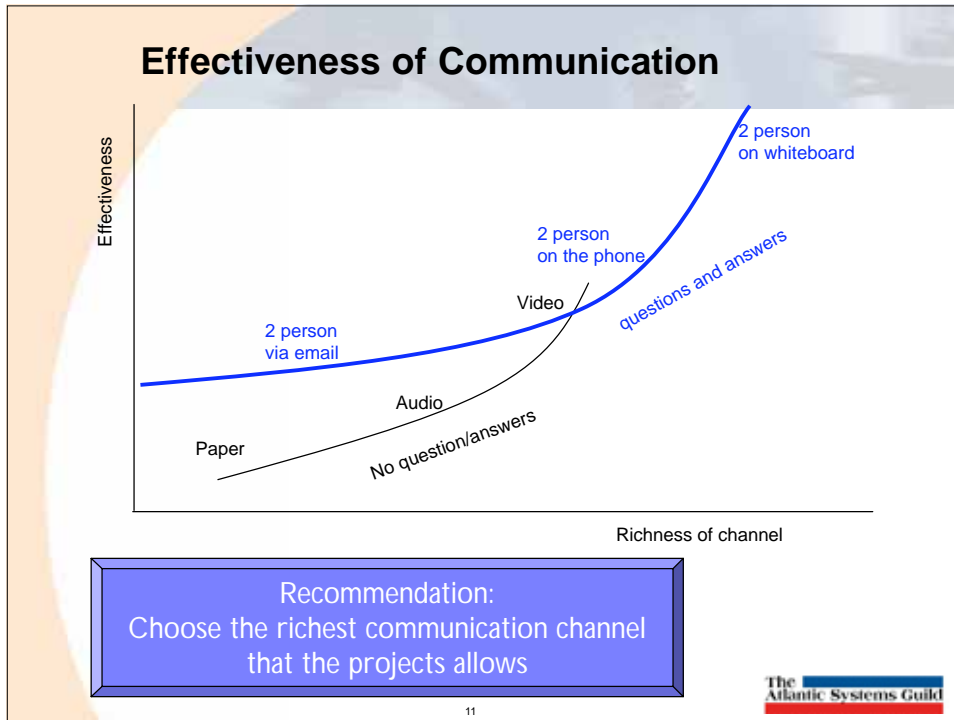
Agile Project Management with Scrum
Ken Schwaber,
Microsoft Press, 2004



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Example 3: organizing

- Plan-Driven methods
 - Rational Unified Process
 - CMMI
 - German V-Model 97, XT
 - ...
- Plan-driven methods traditionally
 - Define heavyweight process guidelines
 - Advocate tailoring
 - Treat mass of processes as security blanket
- Agile methods
 - Crystal Clear/Orange
 - XP
 - SCRUM
 - Lean Development
 - ...
- Agilists traditionally
 - Begin with the minimum
 - Add as needed (and justified by cost-benefit)
 - Start small; extend only where necessary

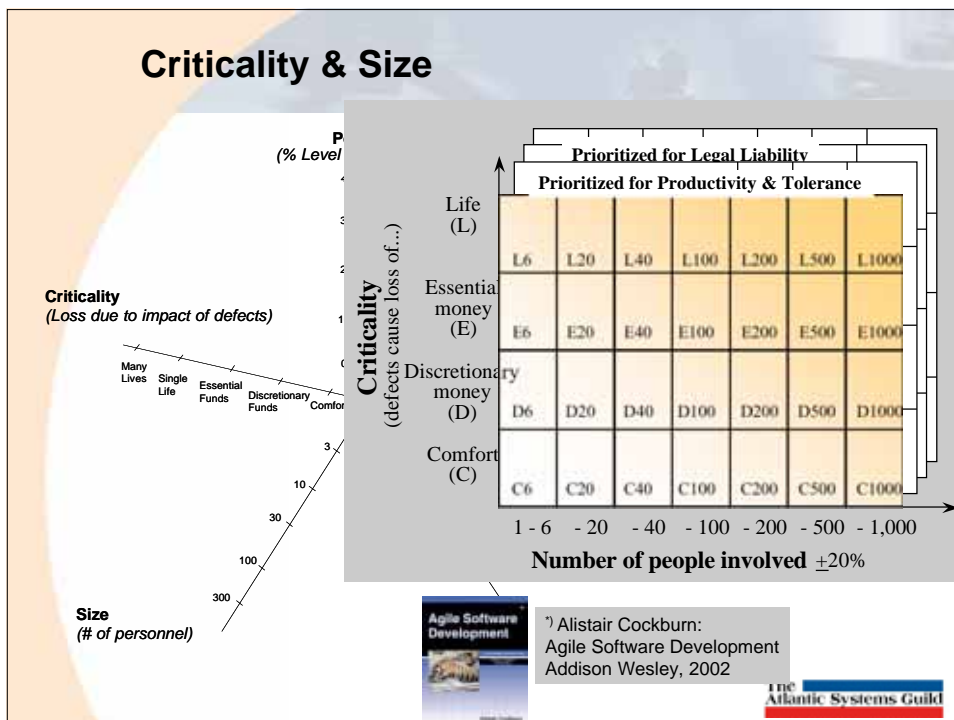
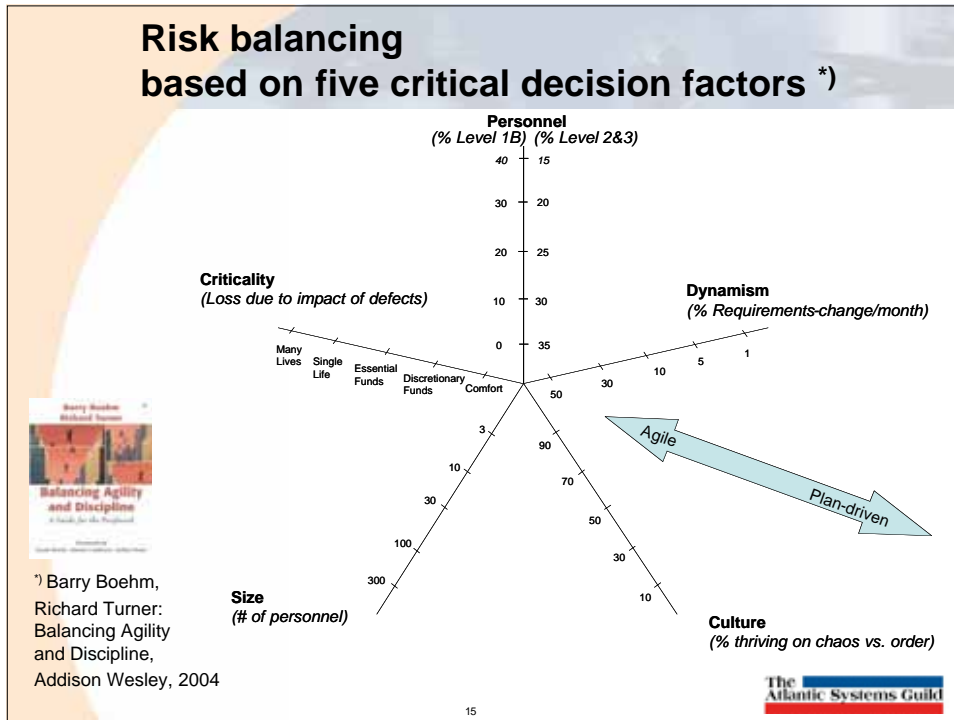
Recommendation: Build up - don't tailor down!

Build up - don't tailor down!

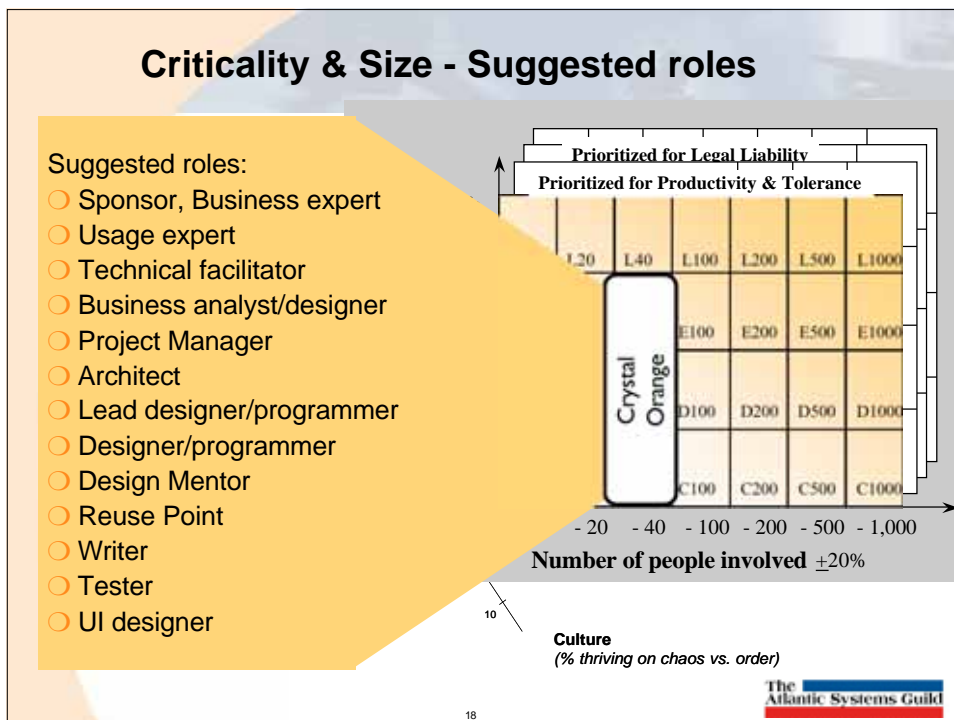
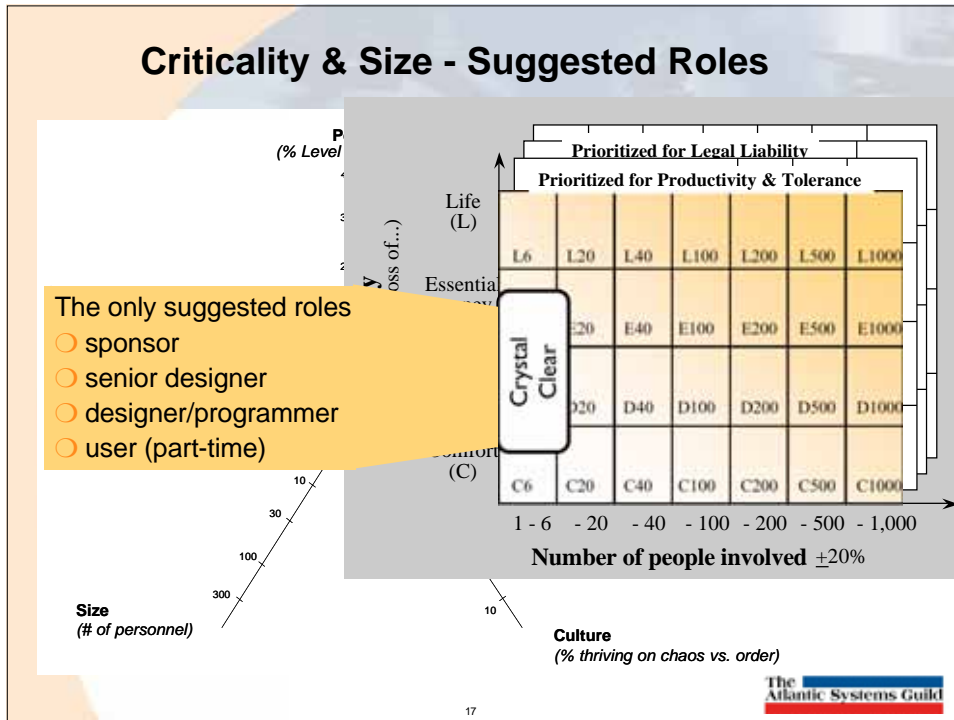


Goal: "A barely sufficient process"

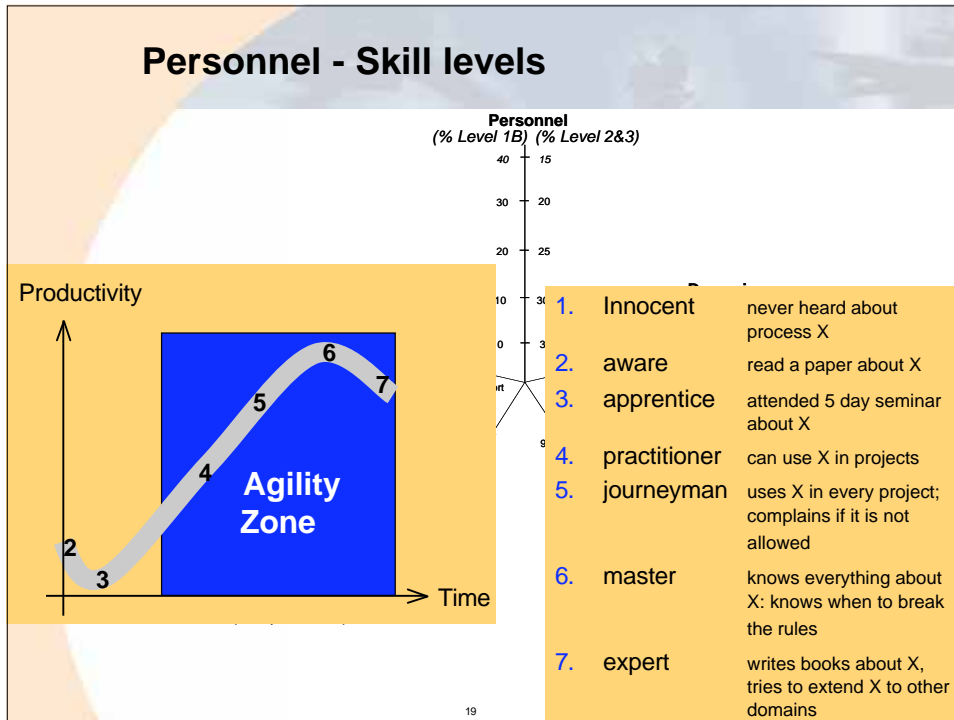
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Home Grounds of more agile and more plan driven approaches

Characteristics	Agile	Plan-driven
Primary Goals	Rapid value; responding to change	Predictability, stability, high assurance
Size	Smaller teams and projects	Larger teams and projects
Environment	Turbulent; high change; project-focused	Stable; low-change; project/organization focused
Management		
Customer Relations	Dedicated on-site customers, where feasible; focused on prioritized increments	As-needed customer interactions; focused on contract provisions; increasingly evolutionary
Planning/Control	Internalized plans; qualitative control	Documented plans, quantitative control
Communications	Tacit interpersonal knowledge	Explicit documented knowledge
Technical		
Requirements	Prioritized informal stories and test cases; undergoing unforeseeable change	Formalized project, capability, interface, quality, foreseeable evolution requirements
Development	Simple design; short increments; refactoring assumed inexpensive	Architect for parallel development; longer increments; refactoring assumed expensive
Test	Executable test cases define requirements	Documented test plans and procedures
Personnel		
Customers	Dedicated, collocated CRACK* performers	CRACK* performers, not always collocated
Developers	At least 30% full-time Cockburn level 2 and 3 experts; no Level 1B or -1 personnel**	50% Cockburn Level 3s early; 10% throughout; 30% Level 1B's workable; no Level -1s**
Culture	Comfort and empowerment via many degrees of freedom (thriving on chaos)	Comfort and empowerment via framework of policies and procedures (thriving on order)

* Collaborative, Representative, Authorized, Committed, Knowledgeable
** These numbers will particularly vary with the complexity of the application

[Boehm, Turner]

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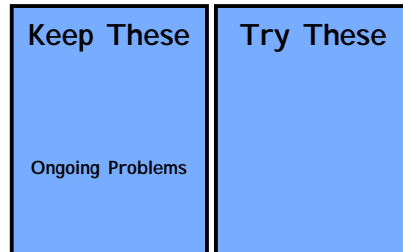
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One final suggestion: Institutionalize a feedback process

Post-iteration reflection workshops:

- Hang a flipchart:
(Don't create an area for "Don't like these!")
- Spend 30 minutes filling in the chart
- HANG THE CHART IN A PUBLIC, VISIBLE FREQUENTLY SEEN PLACE !!!!!
- Make sure you actually try some of the "Try These" ideas !
- Repeat after each iteration



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Summary

- Many projects are
 - "over-controlled"
 - "over-administrated", but
 - "under-managed"
- If you want to make your (management) process more effective you sometimes have to remove steps instead of always adding steps
- Move to "best practices" instead of a defined process
 - Build up (risk driven), not tailor down
 - Review them often
 - Dare to change them, if they do not work
- Process improvement is best achieved by trained, motivated and empowered people

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