Scrum in Practice

"Transforming the World of Work"

Intro to Agile and Scrum

ScrumAlliance
transforming the world of work

THREE TAKEAWAYS

- Changing mindset is hard.
- A Game with a purpose.
- A real TEAM.

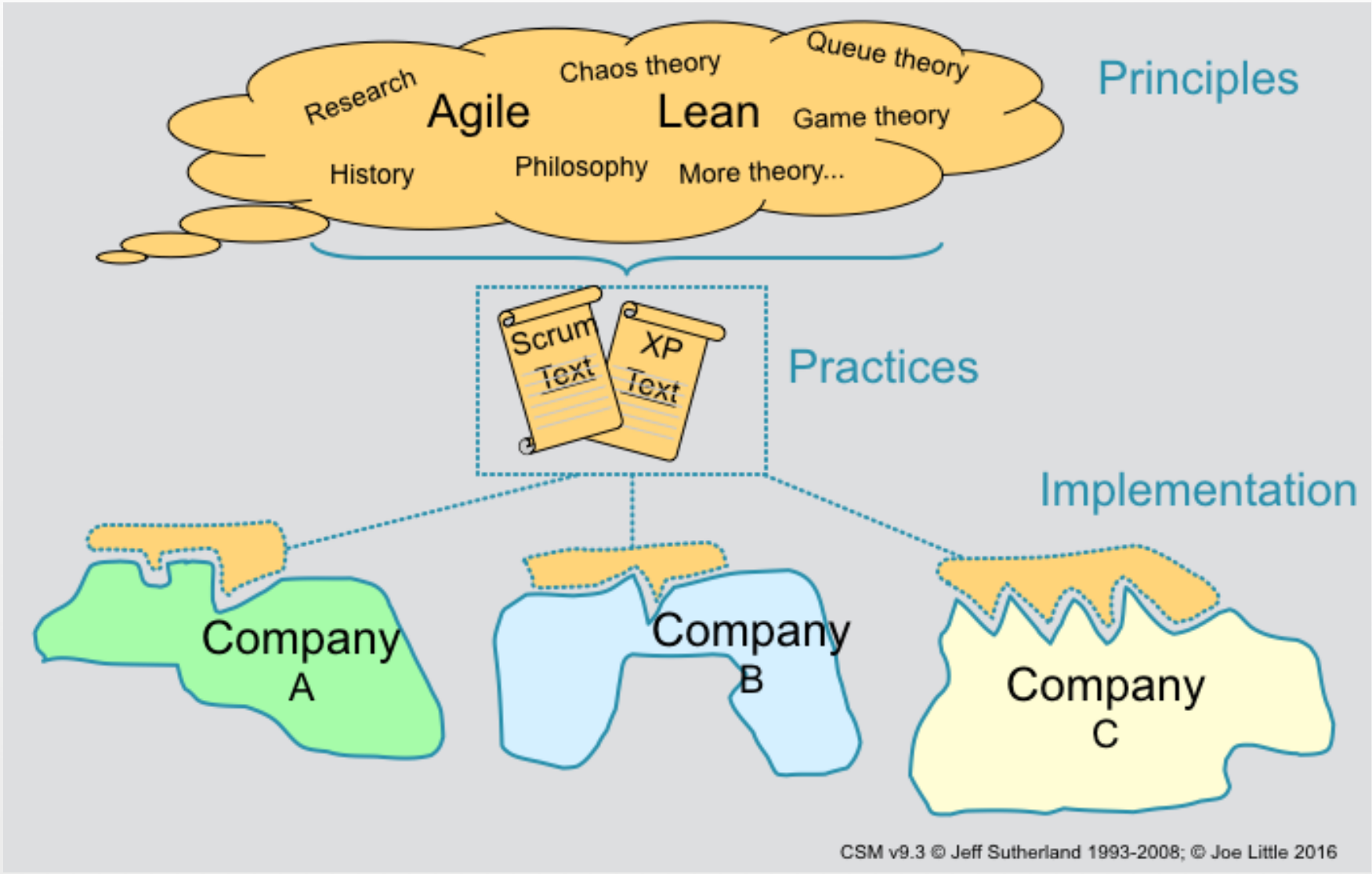
JEFF SUTHERLAND ON FUN

- “Fun is essential.”
- “If they’re not having more fun, they aren’t doing Scrum right.”

TO START

- We will try to cover all the slides… some will be done very quickly.
- AND…we want to address your questions also.
- So, do ask questions along the way.

TOPIC: WHAT IS AGILE?



Source: Henrik Kniberg

A METAPHOR

- Agile is the Umbrella
- Agile Methods are under the Umbrella.

[Apologies to Rihanna.]

HOW IS AGILE DEFINED?

- The Agile Manifesto
- “The Principles Behind the Agile Manifesto”
- Other ideas, values, principles, concepts

Agile Manifesto

www.agilemanifesto.org

We are uncovering better ways of developing software by doing it and helping others do it.

Feb 11-13, 2001

Snowbird ski resort, Utah

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

Agile Manifesto

www.agilemanifesto.org

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.

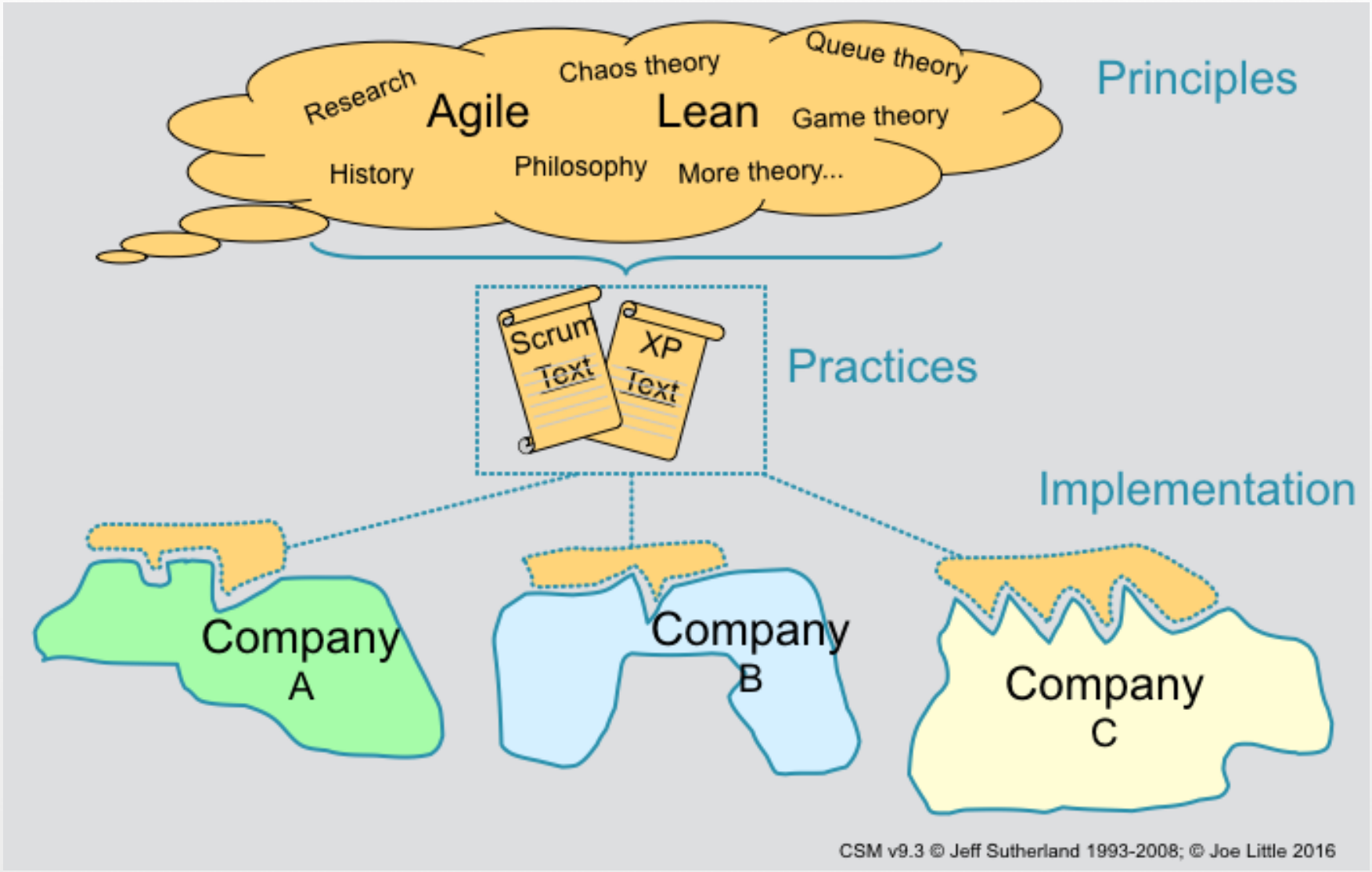
THE PRINCIPLES BEHIND THE AGILE MANIFESTO - 1

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software *frequently*, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

THE PRINCIPLES BEHIND THE AGILE MANIFESTO - 2

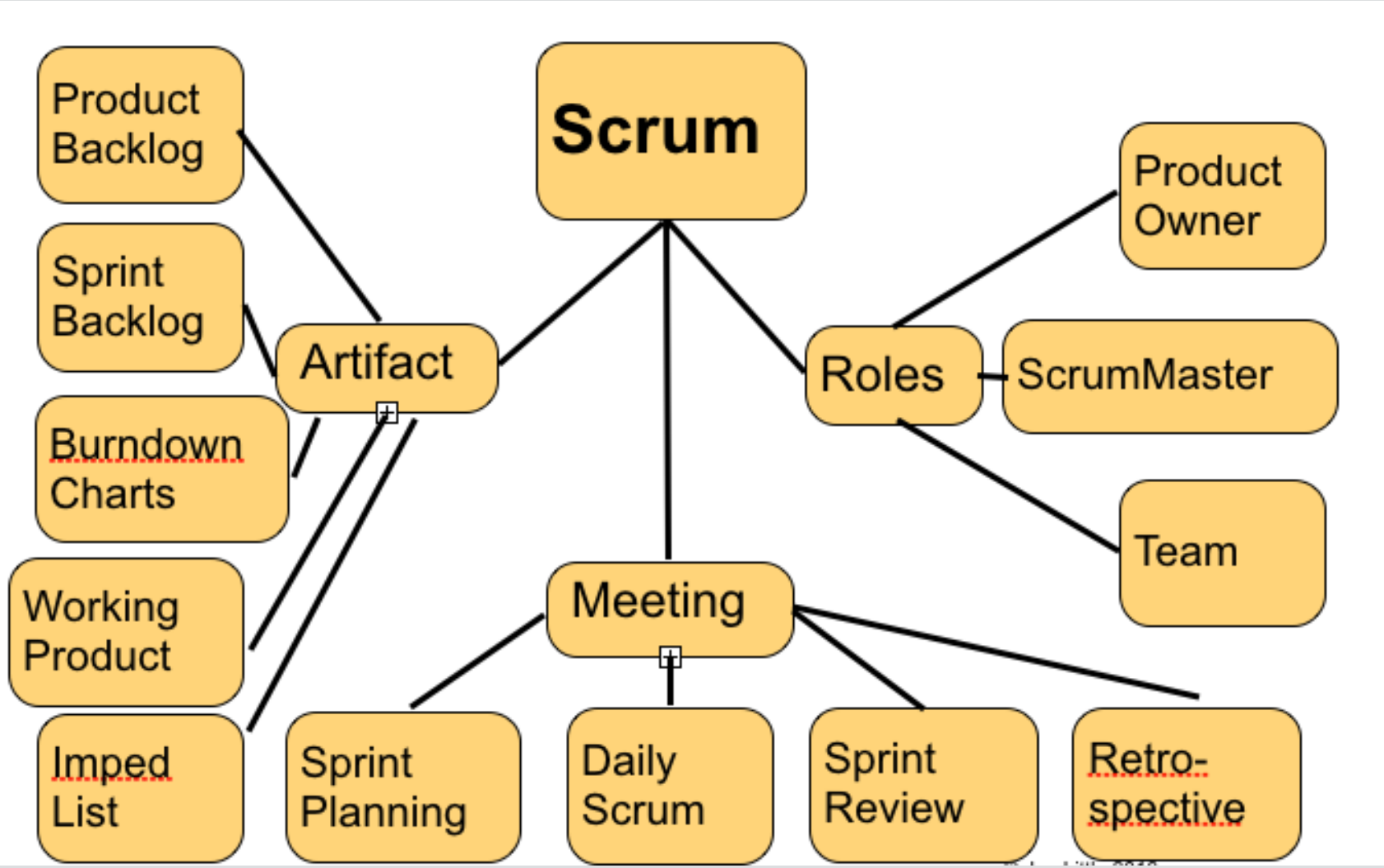
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done — is essential.
11. The best architectures, requirements and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

TOPIC: THE BASICS



Source: Henrik Kniberg

SCRUM IS A SIMPLE FRAMEWORK



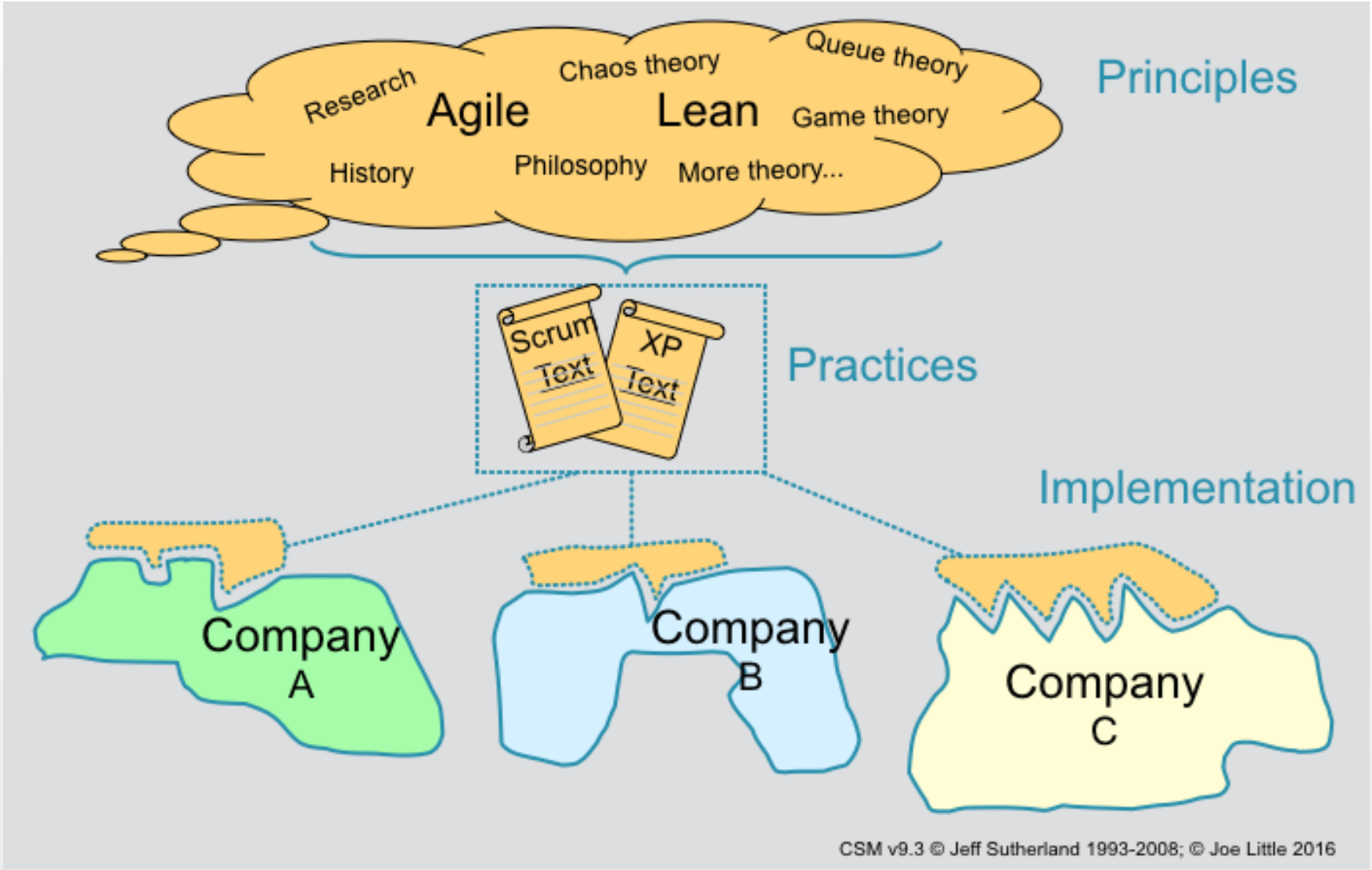
SOME KEY IDEAS

- Self-organization
- Time-boxes
- Test & demo
- Communication
- Collaboration
- Knowledge creation
- Motivation
- Each person is unique
- Everyone is involved
- Fun
- Sprint
- Fail Fast
- Don’t wait for perfection
- Learn by doing
- Learn faster than the competition
- Small wins
- Expect to pivot

WHAT'S IN IT FOR YOU?

- More fun / happiness
- More business value for the firm
- More for the customers
  - More, cheaper, faster, better
- Faster delivery (TTM)
- Higher quality
- More innovation
- More adaptability
- More transparency
- Better way to work (for the workers)
- It just makes sense

TOPIC: KEY IDEAS



Source: Henrik Kniberg

WHAT ARE THE BOUNDARIES?

- Unknown
- Originally, mainly for Software Development (a big domain)
- Used for all kinds of [knowledge] work
- How much innovation is involved? A wide range; maybe some “not” and some “very”

WHAT ARE THE BOUNDARIES? - 2

- Key (I think): We are adapting to (a lot of) change. And the work requires smart people.

NEW PRODUCT DEVELOPMENT

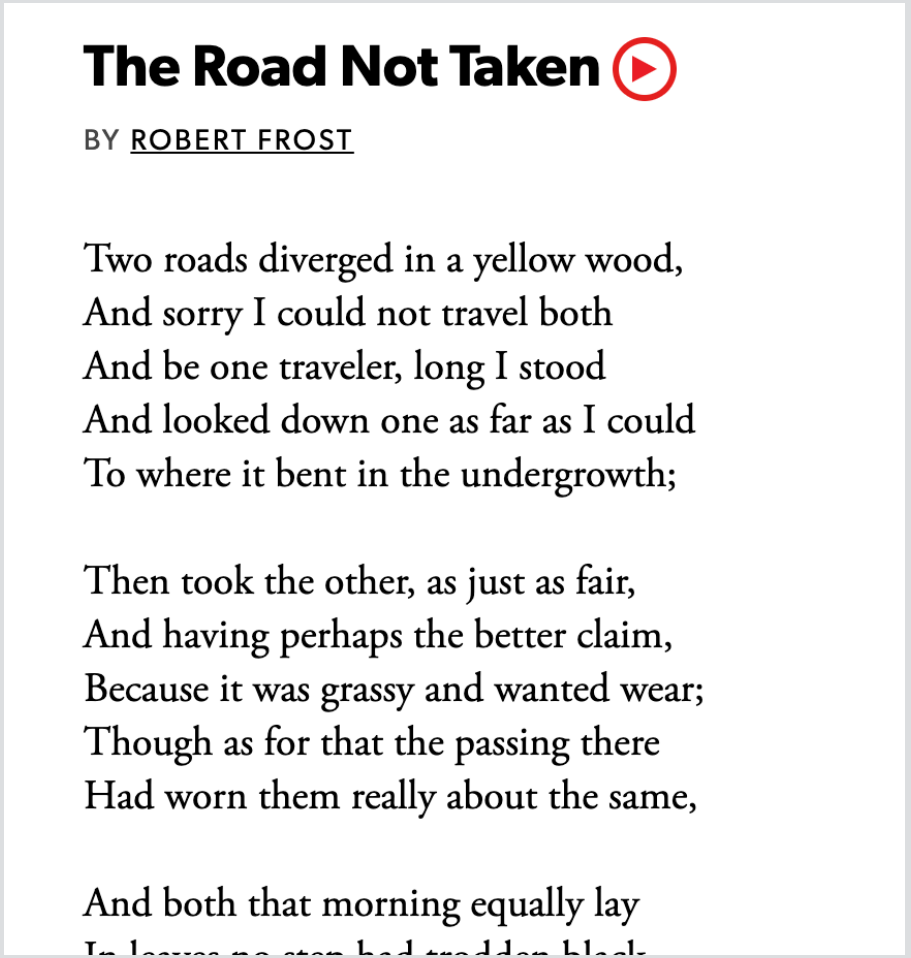
- We are convinced that these same basic principles apply to all kinds of **new product development.**
- How many situations? We do not know.
- Outside new product development? Yes, at least some…

SCRUM VALUES

- COMMITMENT
- FOCUS
- OPENNESS
- RESPECT
- COURAGE

SCRUM IS…

- A way…



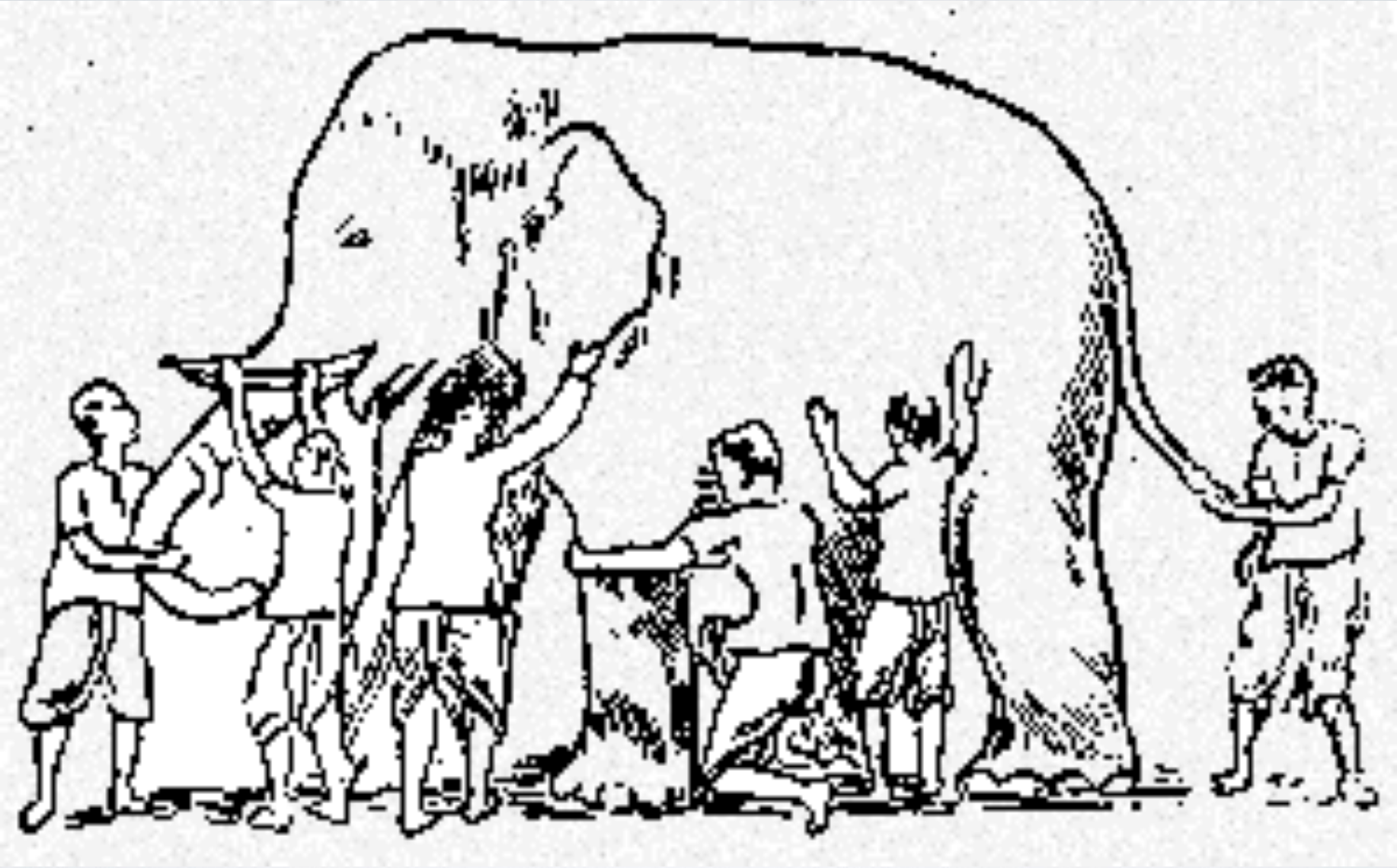
The Road Not Taken

BY ROBERT FROST

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay

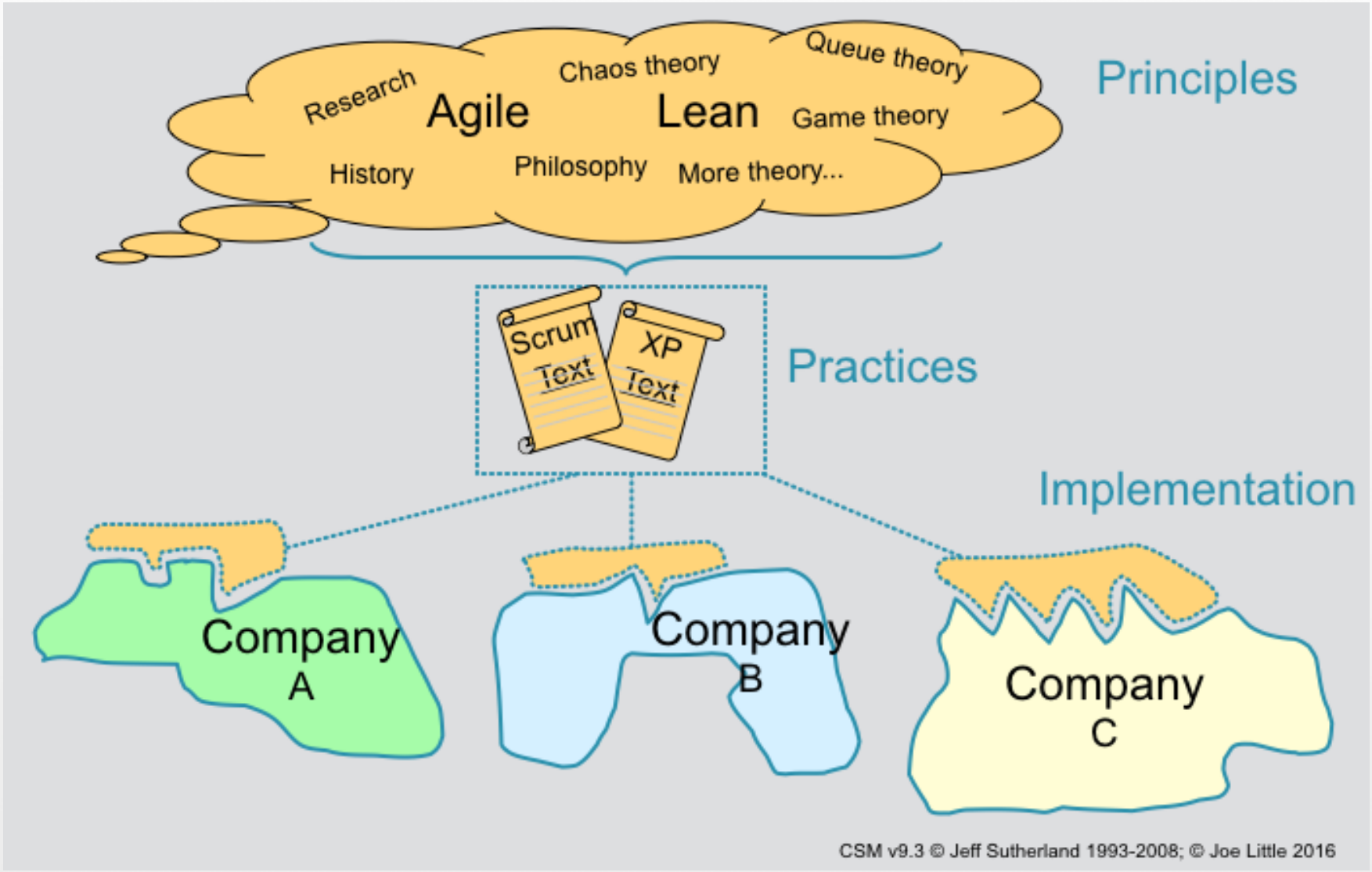


6 BLIND MEN AND AN ELEPHANT

SOME DOMAINS TO CONSIDER

- Product Backlog
- Roadmap
- Requirements
- User Stories
- Customers
- Business stakeholders
- Competition
- The Problem / root cause
- The (best) Solution
- Technology
- Team itself
- Timeline
- Key impediments
- What is success
- Our velocity
- MVP/MMFS
- Global econ environment
- Better feedback

TOPIC: THE BIG PICTURE



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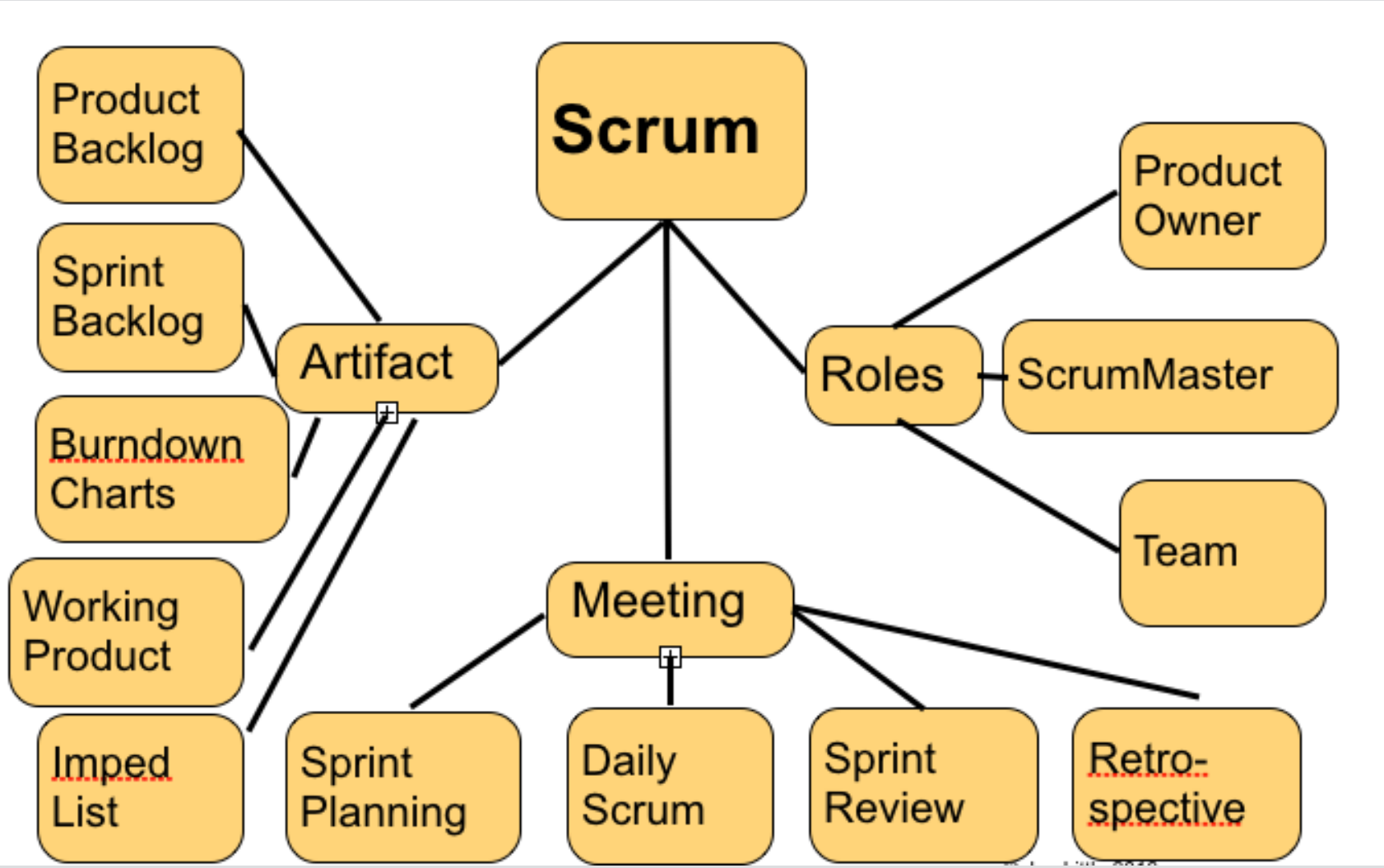
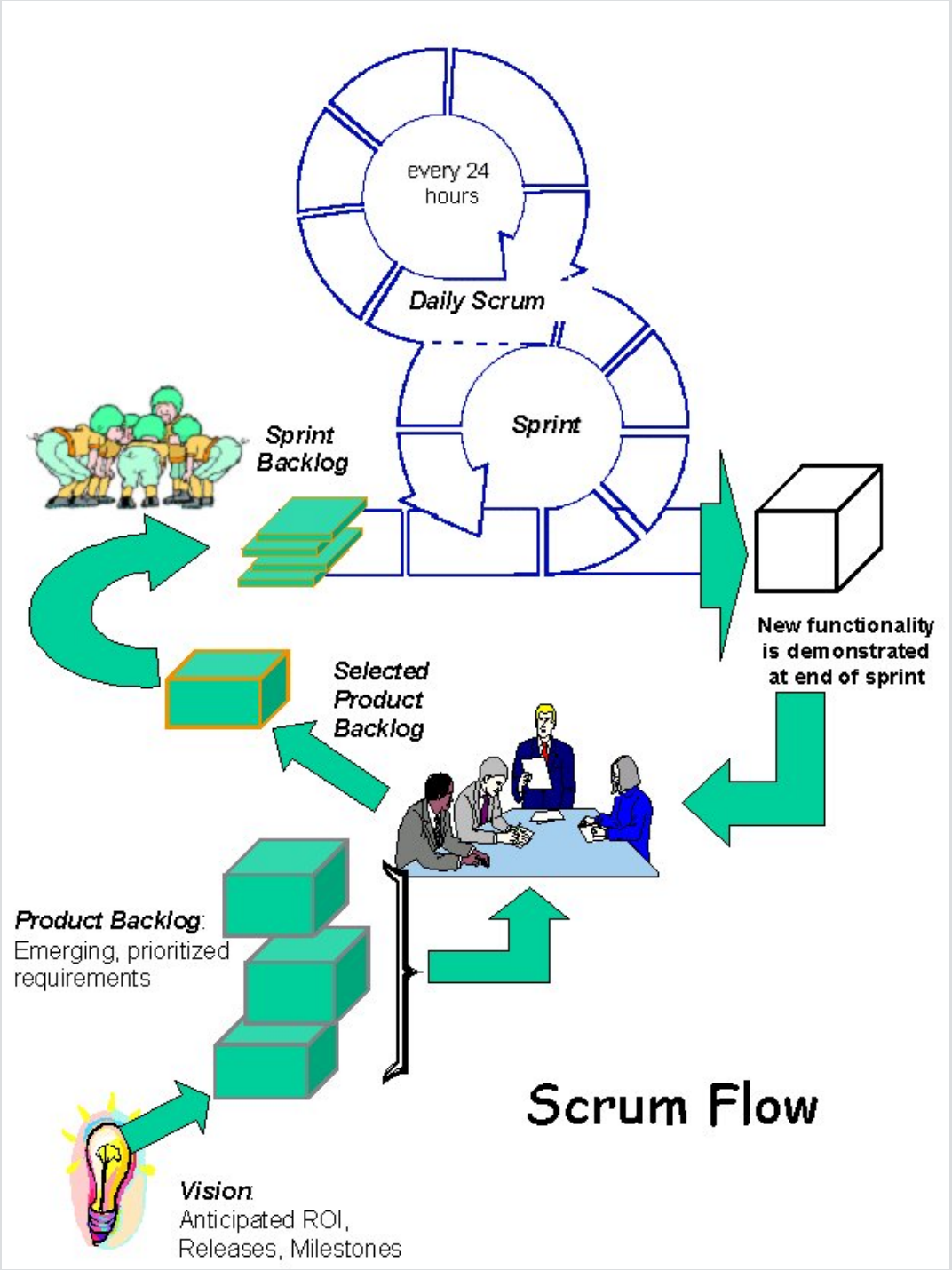
SCRUM IS A SIMPLE FRAMEWORK



THREE BEST PRACTICES

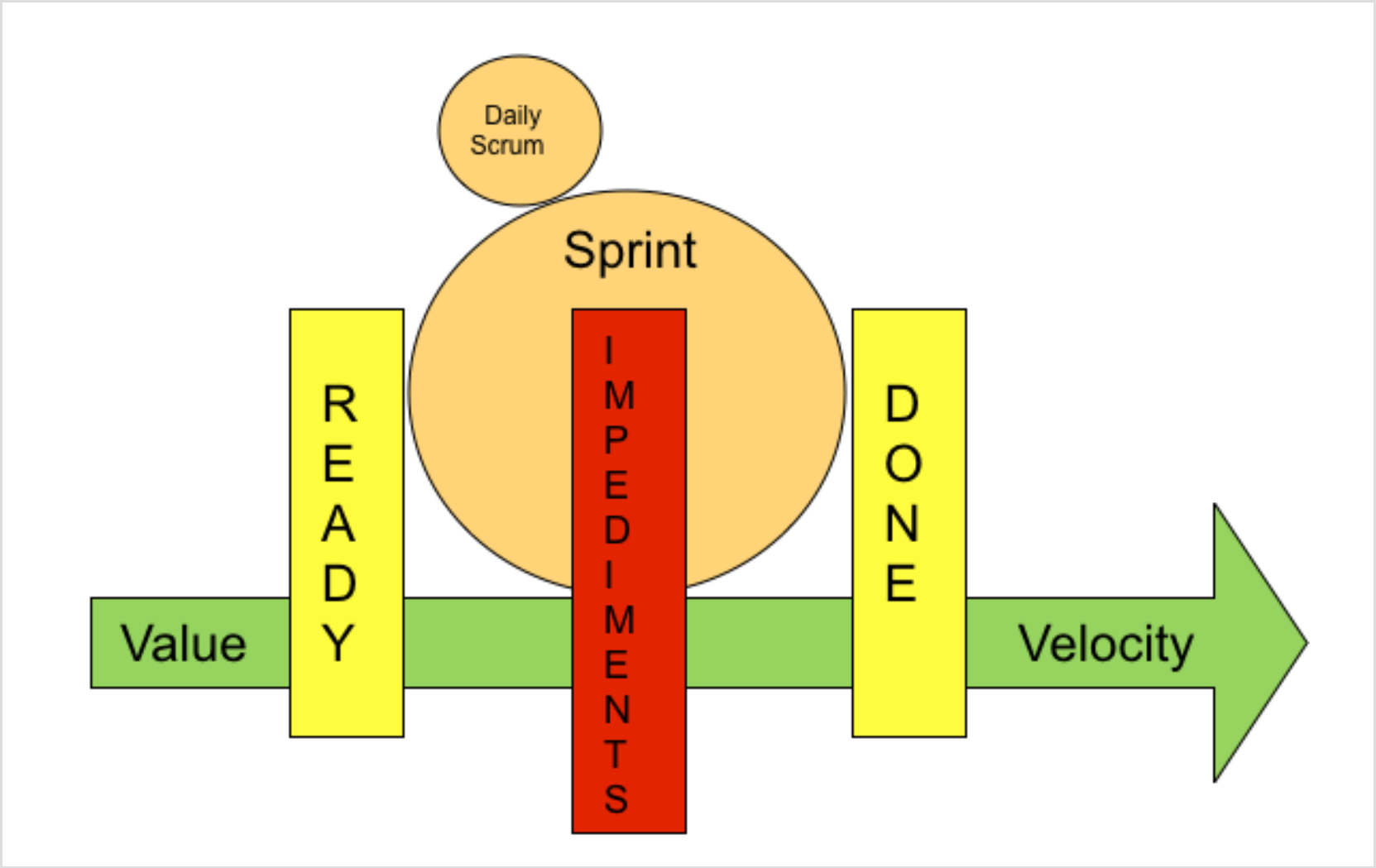
- **User Stories**
  - A “type of user” needs a “feature” to get “some business value” plus acceptance criteria, notes and some conversations.
    - **Story point** - a number that indicates the relative size of a user story compared to a small reference story
    - **Velocity** - number of Story Points that a Scrum team completes at the end of a Sprint
- **Planning Poker** - used to estimate user stories
- **Scrum Board** - information radiator displaying many Scrum artifacts (Sprint Backlog, Burndown chart, etc.)



1. What did you do yesterday?
2. What will you do today?
3. What got in your way?

Source: Ken Schwaber

SCRUM DYNAMIC MODEL



Source: Jeff Sutherland

12 months experience

12 months experience

Advanced Certified ScrumMaster (A-CSM) Learning Areas

- Agile and Lean Values, Principles, and Worldview
- Basic Facilitation
- Coaching Fundamentals
- Self-Organization, Team Dynamics, Definition of Done, and Empirical Process Control
- Coaching the Product Owner
- Removing Impediments, Scaling, and Organizational Change
- Servant Leadership

Certified Scrum Professional ScrumMaster (CSP-SM) Learning Areas

- Lean Thinking
- Advanced Facilitation
- Team Dynamics and Effectiveness, Conflict Resolution, Starting New Agile Teams, Software Craftsmanship, and Coaching the Development Team
- Coaching the Product Owner
- Organizational Development

12 months experience

12 months experience

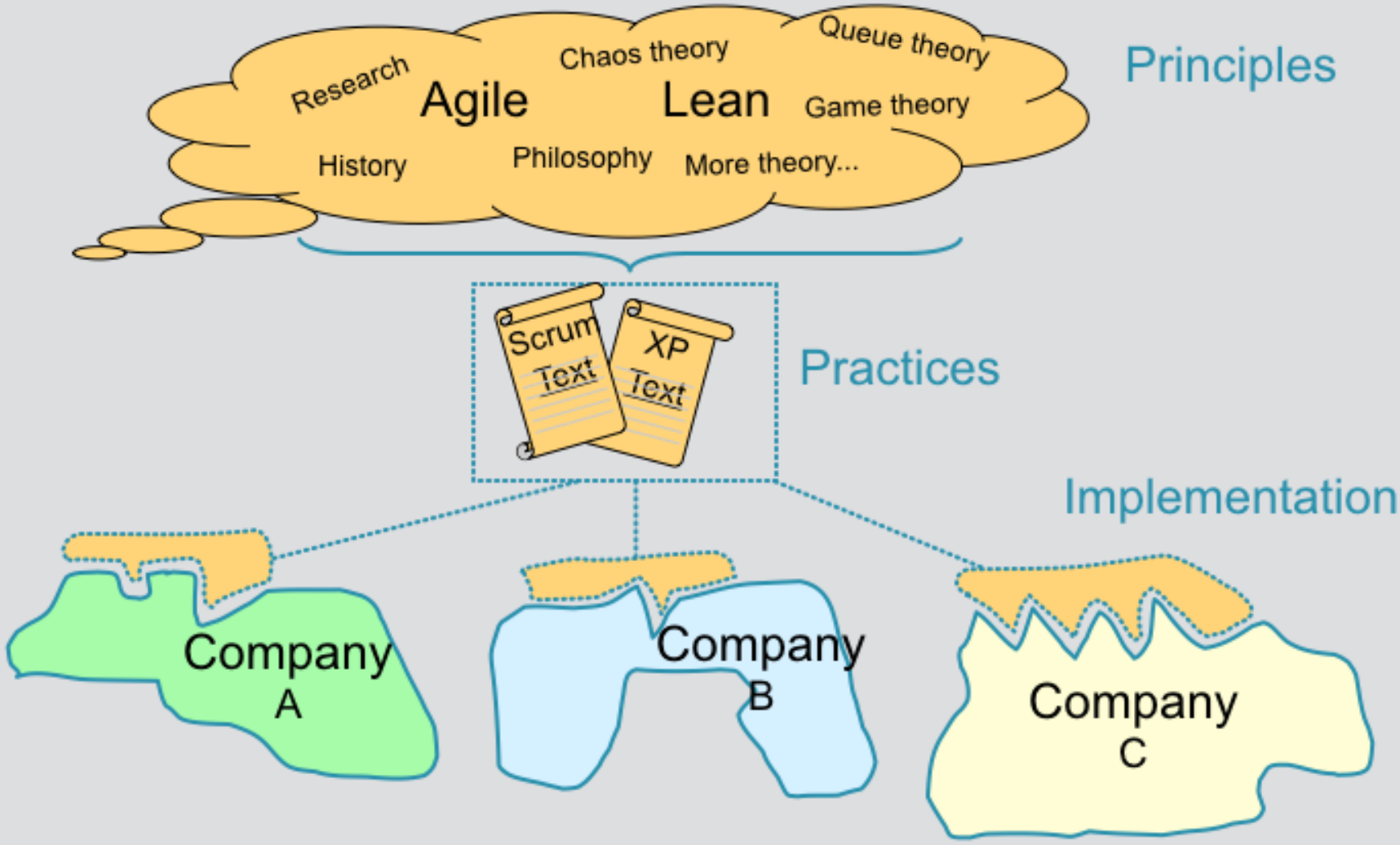
Advanced Certified Scrum Product Owner (A-CSPO) Learning Areas

- Stakeholder Discussion Facilitation, Starting New Agile Teams, Managing Stakeholders, Facilitate Roadmapping, and Product Discovery
- Value of Engineering Practices and Technical Debt
- Advanced Product Backlog Item Formulation and Product Backlog Management
- Product Management
- Storytelling
- Scaling Scrum
- Lean Organizations (optional)

Certified Scrum Professional Product Owner (CSP-PO) Learning Areas

- Advanced Stakeholder Discussion
- Economics of Product Development Collaboration Frameworks
- Facilitate Product Backlog Ordering and Roadmapping at Scale
- Product Launch
- Customer Development
- Entrepreneurship in an Agile Context
- Advanced Product Discovery

TOPIC: SCRUM HISTORY



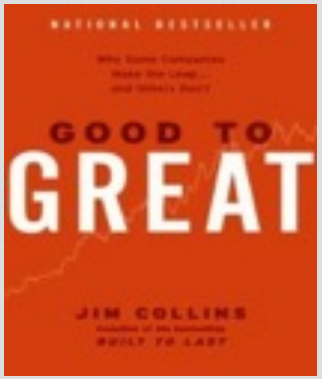
CSM v9.3 © Jeff Sutherland 1993-2008; © Joe Little 2016

12

Source: Henrik Kniberg

SELF-ORGANIZATION: COMPLEX ADAPTIVE SYSTEMS

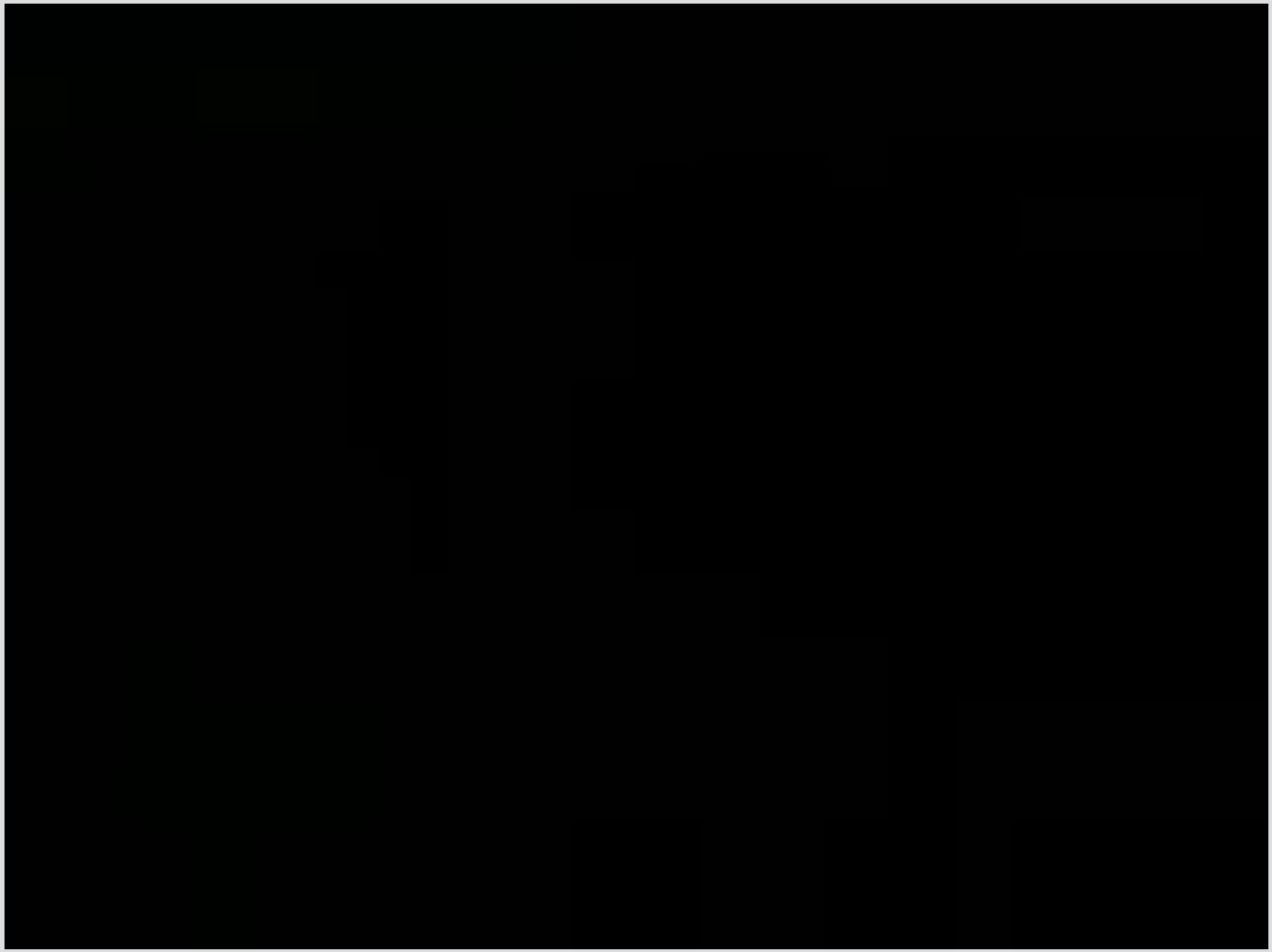
- **Self organization**
  - Central planning will destroy it
- **No single point of control**
  - Command and control will crush it
- **Interdisciplinary 'parts' (people)**
  - Isolated activities and lack of transparency will cripple it
- **Emergent behavior**
  - Failure to remove impediments will ensure emergence of mediocrity
- **Outcomes emerge in context**
  - Empirical process requires inspect and adapt
- **Team performance is far greater than sum of individuals**



OUT OF THE BOX

- Scrum looked at projects that were off the chart
  - IBM surgical team
  - Takeuchi and Nonaka HBR article
  - Borland Quattro Pro project
- **"Scrum: A Pattern Language for Hyperproductive Software Development"**
  - By M. Beedle, M. Devos, Y. Sharon, K. Schwaber, and J. Sutherland. In Pattern Languages of Program Design. vol. 4, N. Harrison, Ed. Boston: Addison-Wesley, 1999, pp. 637-651.

GOOD SCRUM



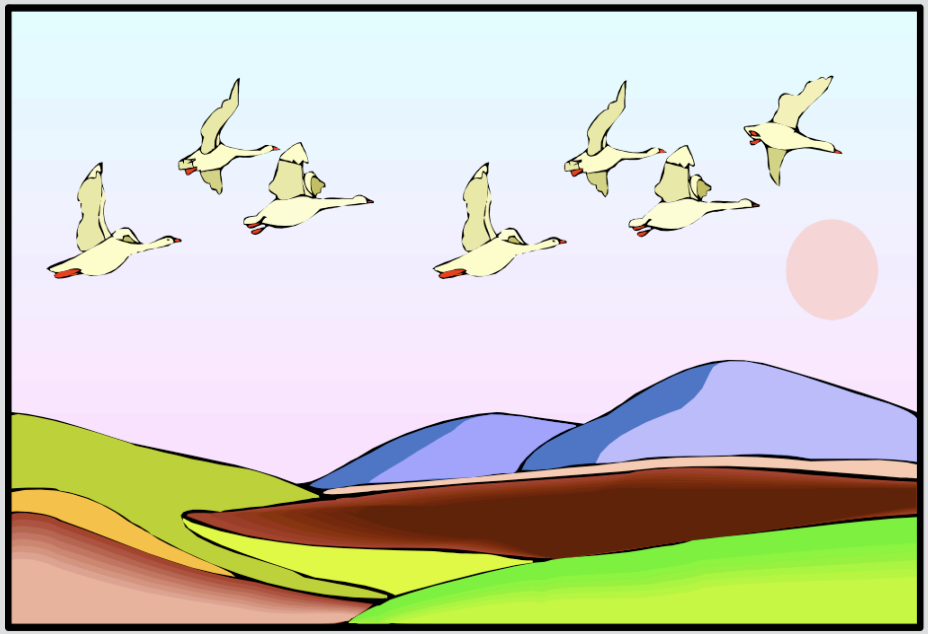
All Blacks Video

KEN SCHWABER ON PROCESS CONTROL

- I wanted to understand the reasons why my customers' methodologies didn't work for my company.
- DuPont experts, led by Babatunde "Tunde" Ogunnaike, are the most highly respected theorists in industrial process control.
- They were amazed and appalled that systems development was trying to do its work using a completely inappropriate process control model.
- They said systems development had so much complexity and unpredictability that it had to be managed by a process control model they referred to as "empirical."

"It is typical to adopt the defined (theoretical) modeling approach when the underlying mechanisms by which a process operates are reasonably well understood. When the process is too complicated for the defined approach, the empirical approach is the appropriate choice."

Process Dynamics, Modeling, and Control, Ogunnaike and Ray, Oxford University Press, 1992

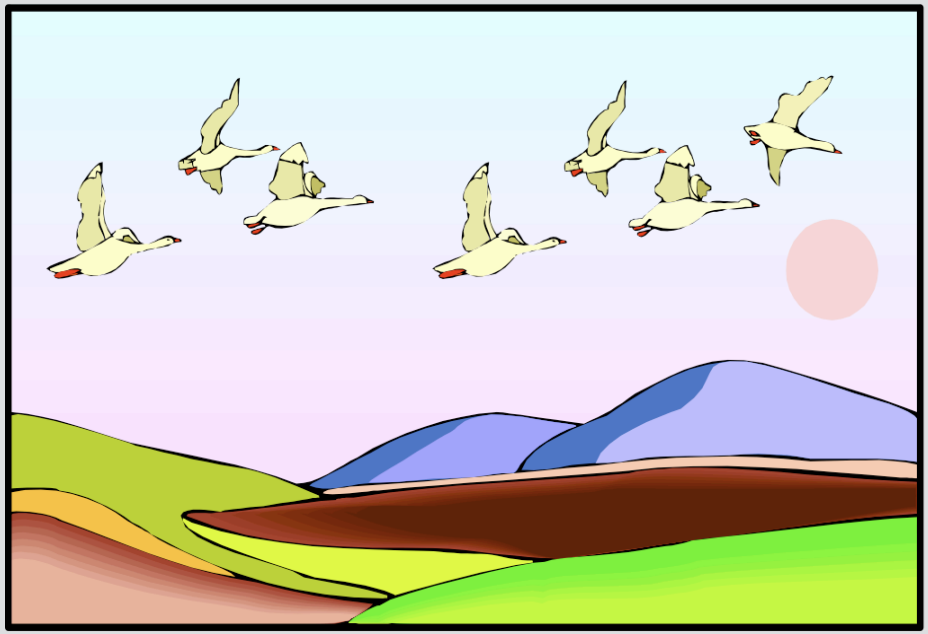


Key Ideas

Defined Process (waterfall) - does not work well with [complex, learning] situations (eg, where people are key inputs).

Empirical Process (agile) - works better in those situations.

Words: Complicated, complex, evolving, not-well-understood, learning, innovating, changing, etc. In any combination of relevant domains. Consider: controlchaos.com



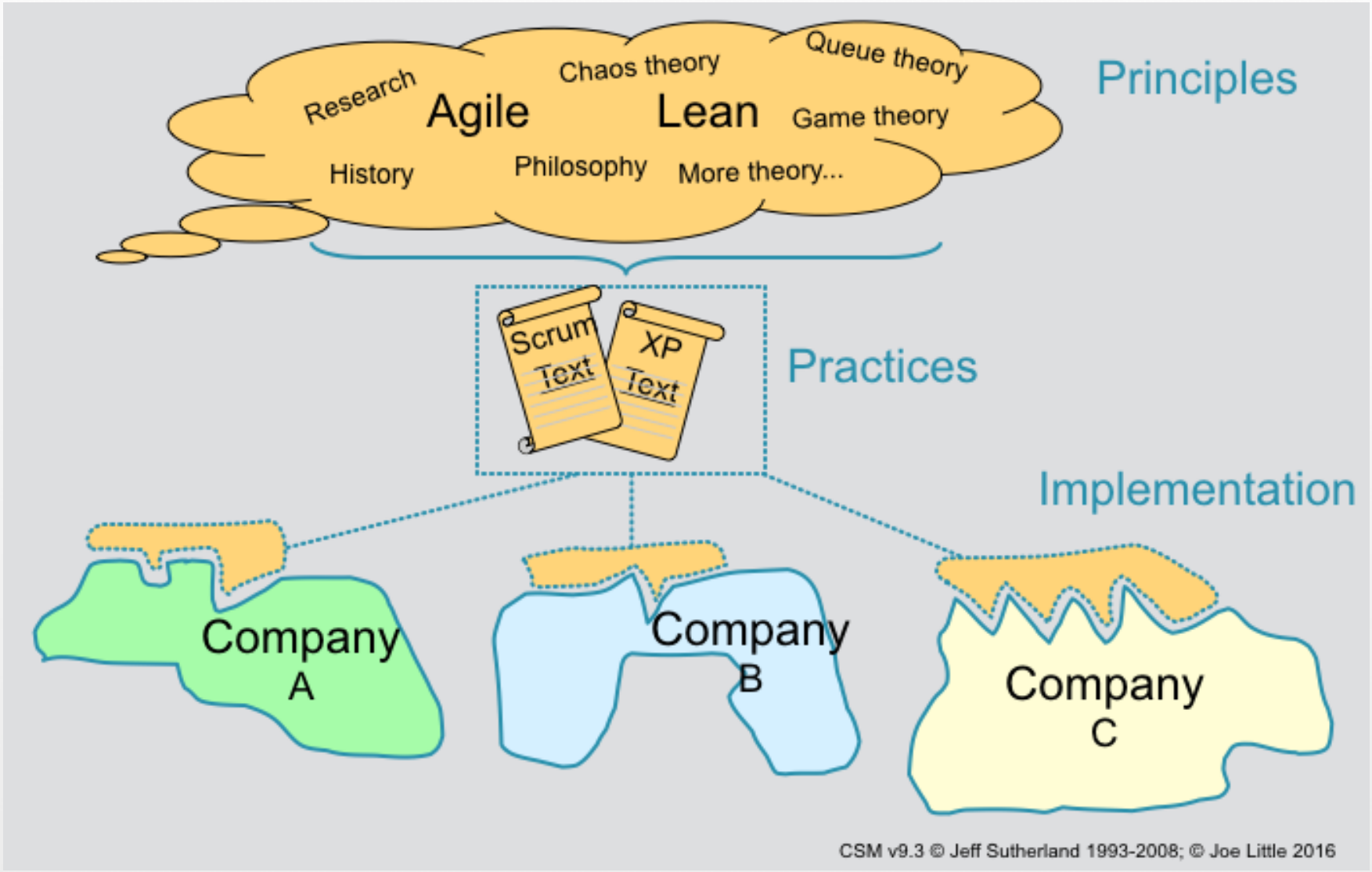
3 PILLARS OF EMPIRICAL PROCESS

- TRANSPARENCY
- INSPECT
- ADAPT

LEAN THINKING

- “Scrum is a simple implementation of Lean for new product development”
- Just-in-time
- Toyota Production System
- Toyota Way
- Lean
- Many ideas…

TOPIC: AGILE RELEASE PLANNING



Source: Henrik Kniberg

AGILE RELEASE PLANNING

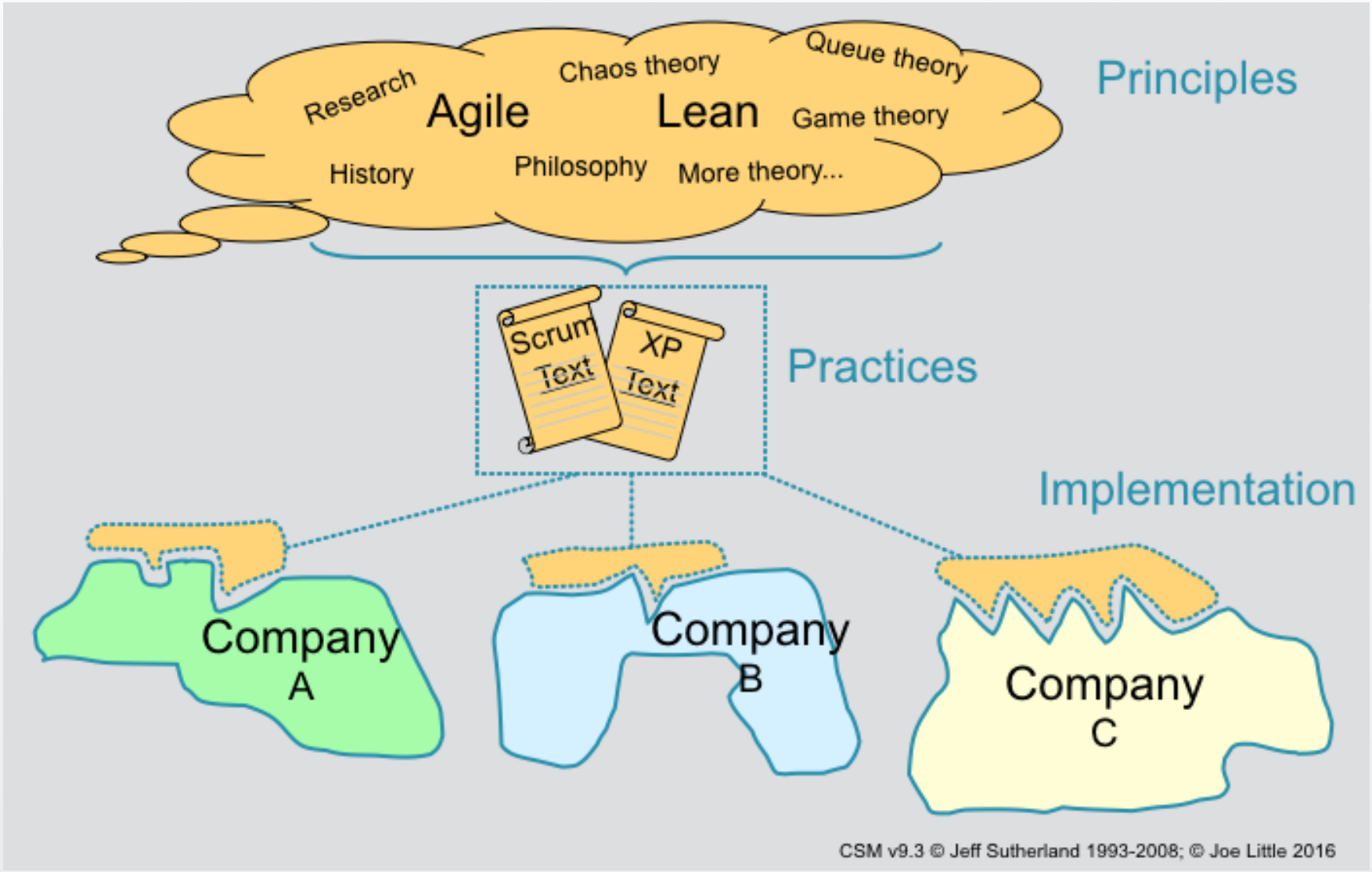
With a whole team + BSHs (plus others?):

- Discuss **Vision**
- Story Workshop (develop PB)
- **Priority Poker**
- **Planning Poker**
  - Now we can do cost-benefit thinking
- Discuss **risks**, **dependencies**, **other**
- *THEN:* Order the work
- Then figure out release(s)

RELEASE PLAN REFACTORING

- aka PB Grooming and PB Refinement
- We will draw these key concepts
- The Red Zone

TOPIC: HUMAN VALUES



Source: Henrik Kniberg

HUMAN VALUES: THE FIVE DYSFUNCTIONS OF A TEAM

Patrick Lencioni

SCRUM IS…

- A way to build a great team…
  - To deliver a wonderful product to customers you love.
- Scrum is… (you must fill in the blank)

QUESTIONS?

- Which are your questions now about Agile or Scrum?

Please contact me here:

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