

When agile is not enough

LESS 2010

Kati Vilkki
kati.vilkki@nsn.com

When agile is not enough

- What does lean thinking add to agile? Combining agile and lean
- Change in mind-set
- Management roles
- Leadership practices

Nokia Siemens Networks

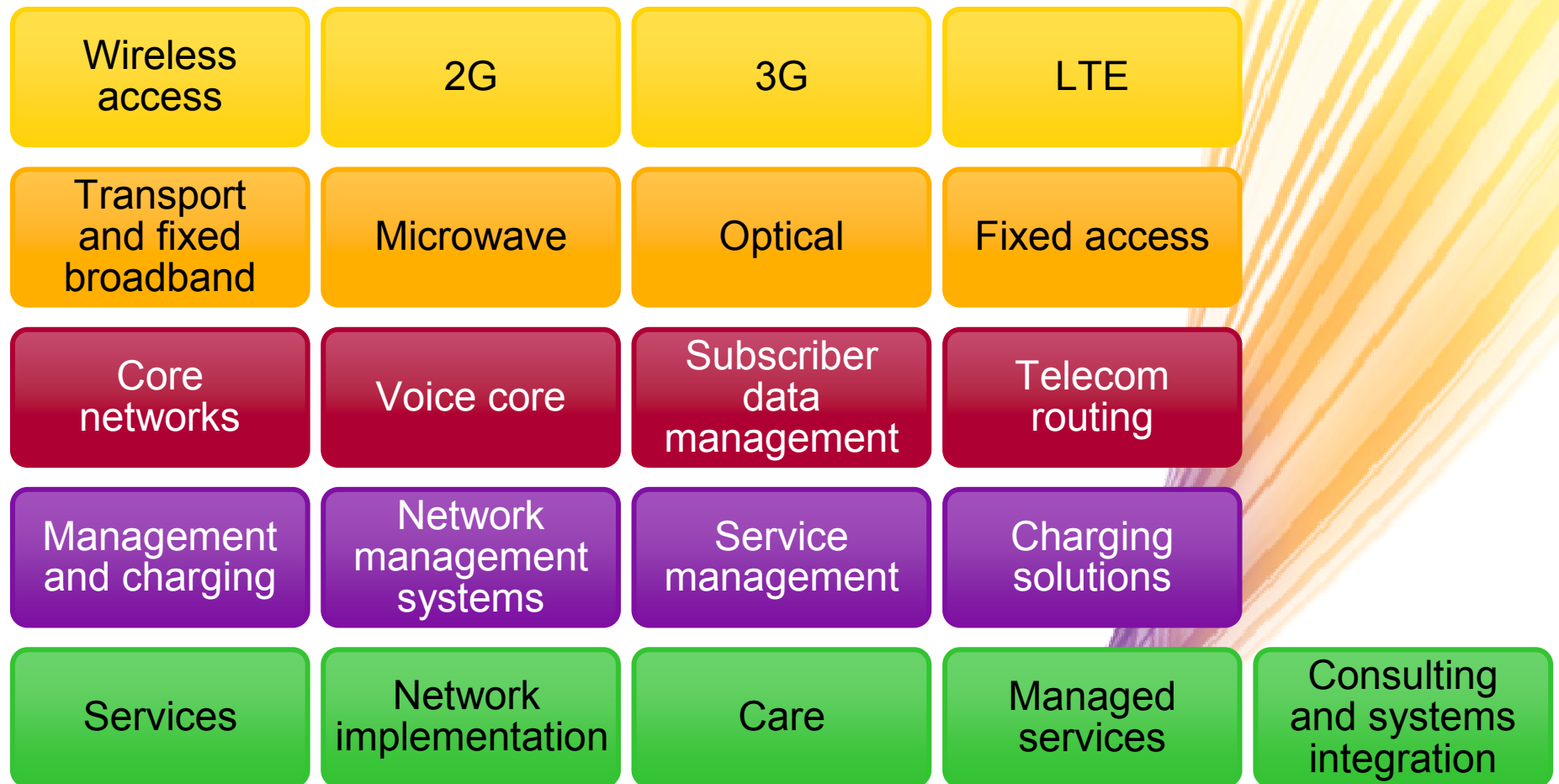
Over **60,000** people in more than **150** countries
More than **600** Communications Service
Provider customers

One of the **largest** Telecommunications
suppliers

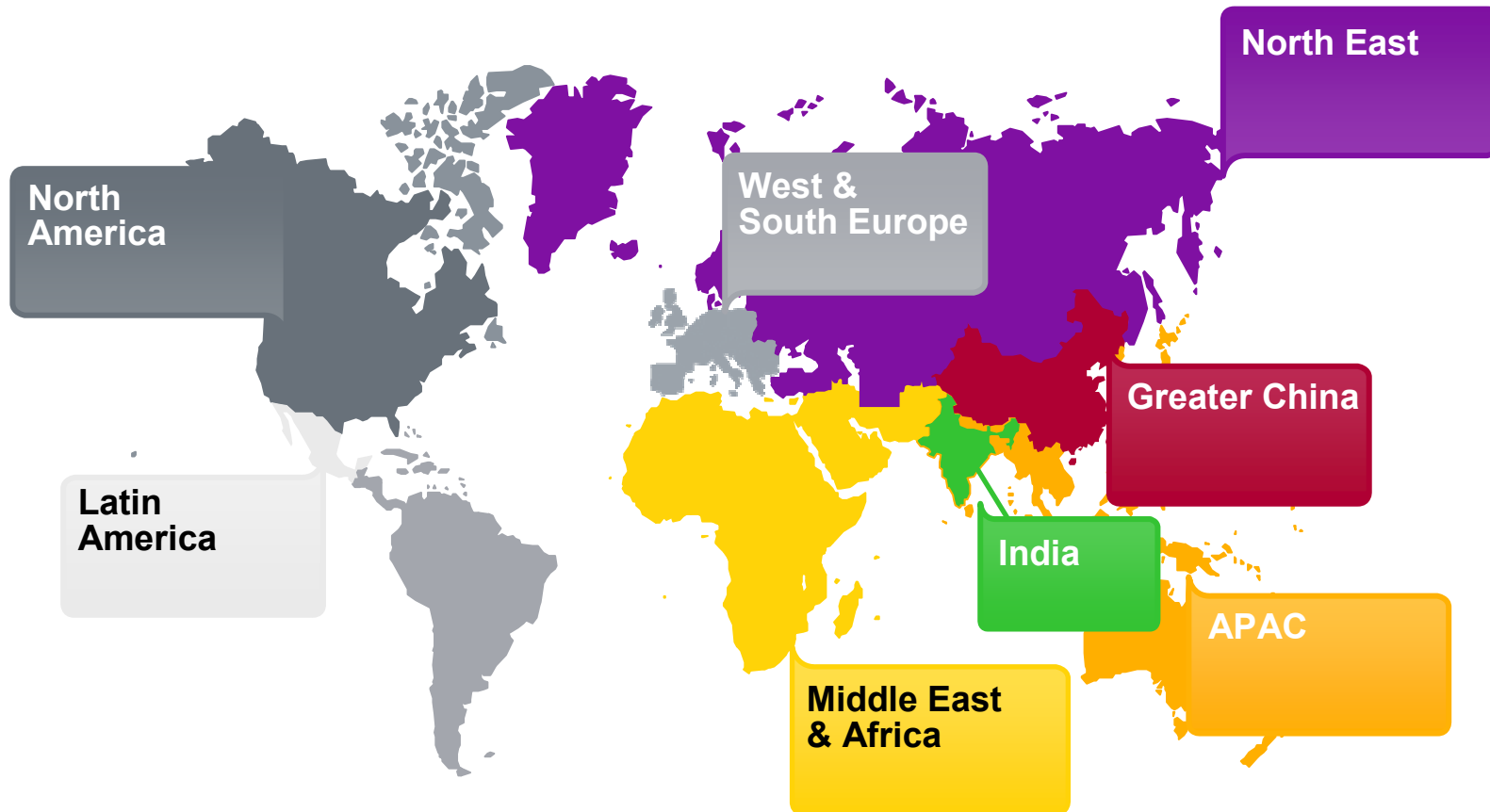
Every second we touch the lives of **millions** of
individuals



What we do



Global presence



R&D in all technology hotspots in the world. Major sites in Finland, Germany, China, India and US.

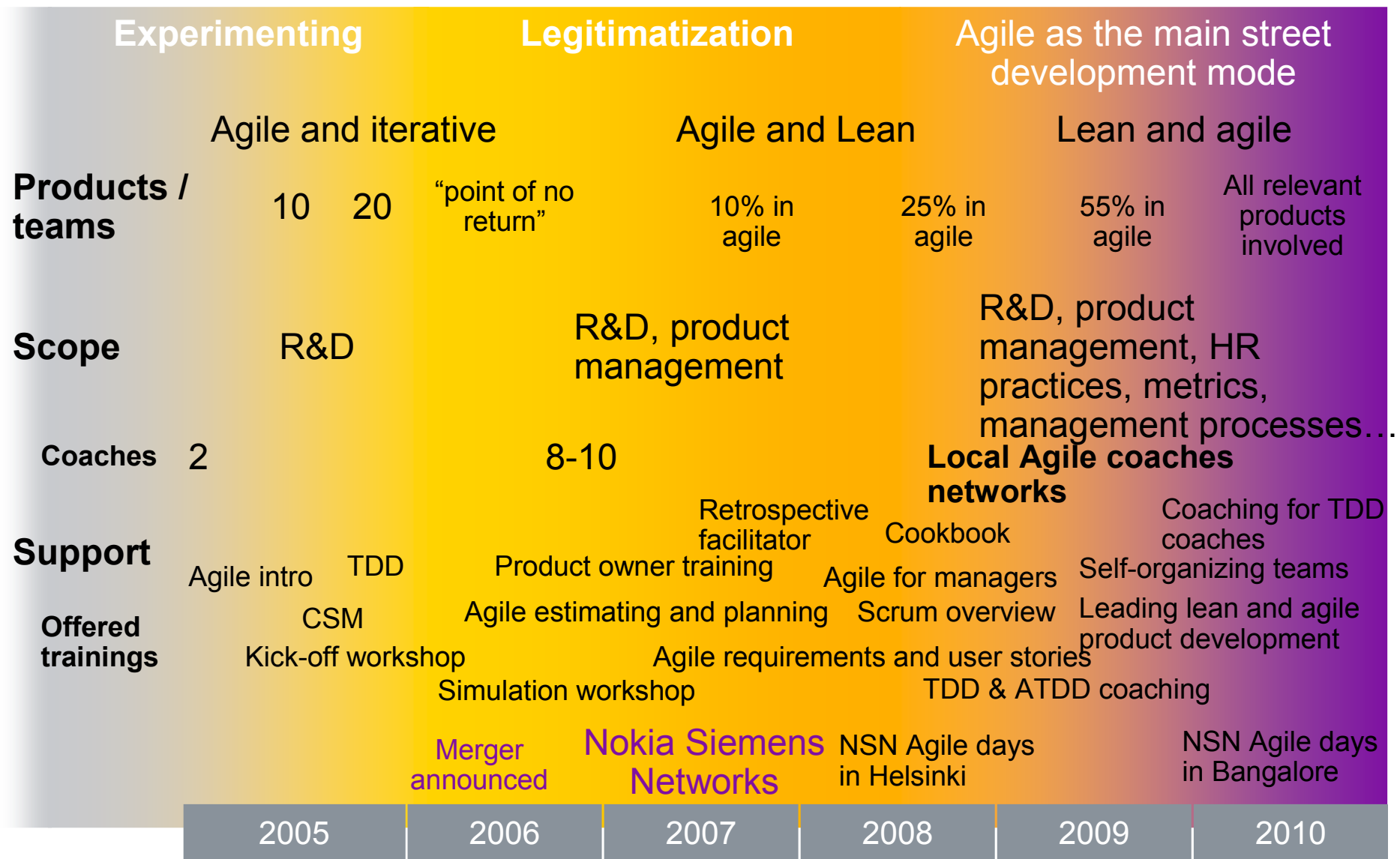
Our agile journey

NSN target

Increased flexibility and efficiency of product development through Agile development

- Increased flexibility and ability to implement changes
- Customer and value oriented development
- Improved visibility to actual status of development
- Higher engagement and better motivation through empowered teams
- Build quality in (continuous integration, test automation, test early, continuous attention to technical excellence)

Overview of our agile transformation



NSN Basic Agile practices

Time-boxed short iterations (< 4 weeks)

Prioritized product backlog

Continuous integration

Self-organized, cross-functional feature teams

Inspect and adapt in use

These practices set the organizational framework for agile development, but are not enough alone

Agile is **NOT**

- Short iterations where something gets “done” (maybe)
- List of features called the product back-log
- Daily reporting meetings (called daily Scrums)
- Scrum managers
- Builds that are red most of the time – or green builds that don't mean anything because of too few test cases
- No (A)-TDD, refactoring, pair-programming ...
- No time for learning
- Product management and development not talking to each other
- No customer feedback
- Technical debt accumulating constantly
- Commitment games

Doing agile
or
Being agile
??

Be agile, don't do agile

- Lean and agile transformation is not “just a process change”, it changes some of the basic assumptions and thought patterns about product development
- It is about continuous improvement towards
 - Improved ability to create value for customer
 - Shorter cycles and faster response times
 - Empowered people and self-organized teams
 - Technical excellence and high quality
- Start now, take small steps – and be prepared to question all aspects of your work and organization

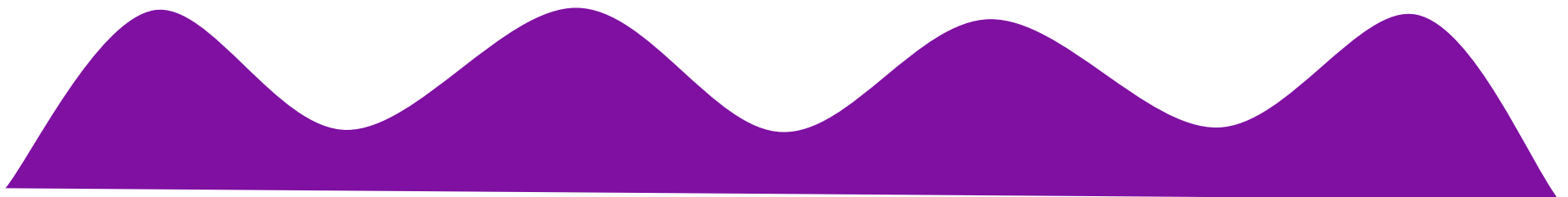
Agile company



Agile practices in every day SW development



Lean thinking in improving the whole value chain



Management philosophy and organizational practices

Understand the thinking behind

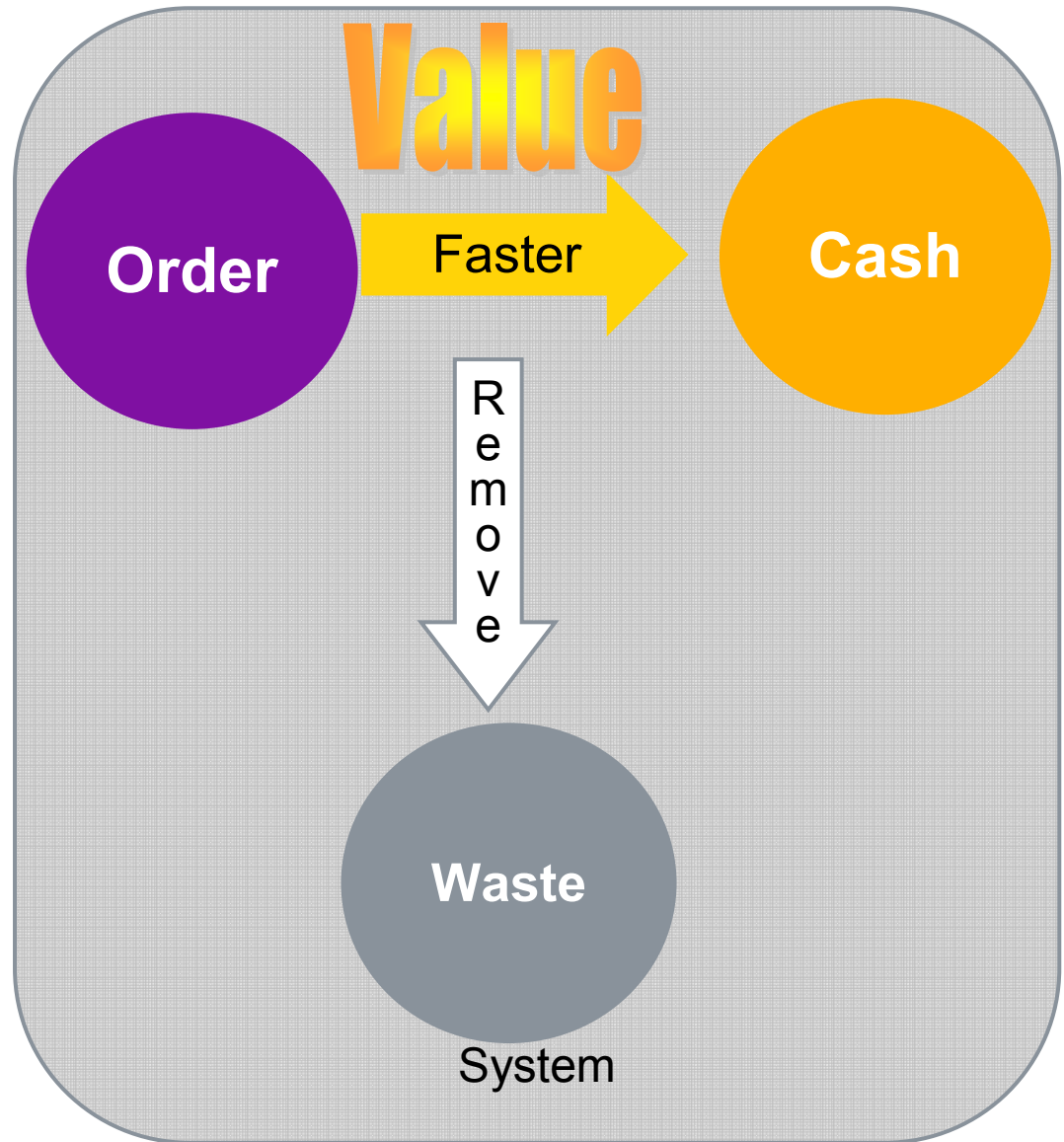
Lean practices are context dependant

- Lean manufacturing
 - Repetitive tasks
 - Low variability
 - Homogenous flows
- Lean product development
 - Non-repetitive tasks
 - High variability
 - Non-homogenous flows
- So what is lean?

Donald G. Reinertsen

Lean ideas

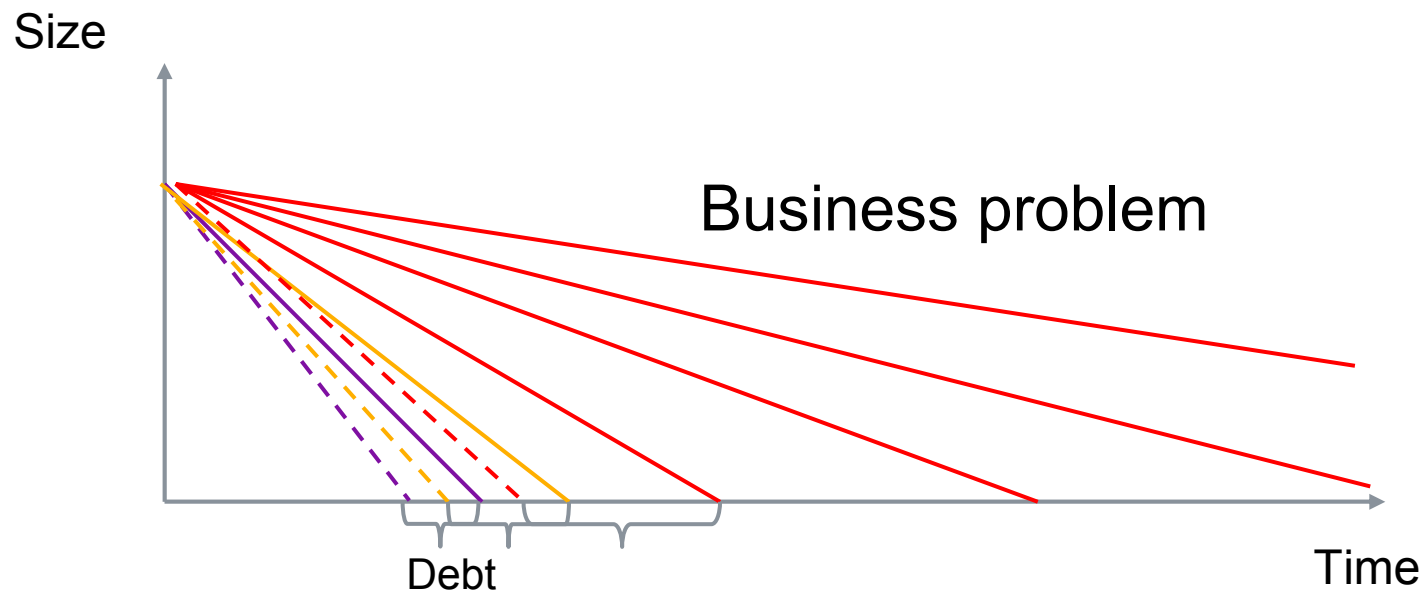
- Focus on creating value for customer
- Respect the people
- Reduce the cycle-time to improve flow and surface (and remove) waste
- Stop and fix – build quality in
- Continuous improvement culture





Build quality in

Impact of technical debt



- Technical debt slows development down
 - More and more difficult to make changes
 - High maintenance load
 - Low morale

Reducing / avoiding technical debt

- Make technical debt visible
- Make impact of technical debt visible
- Branch as late as possible, merge as early as possible
- Continuous integration
- Build architecture which supports adding new features at any time
- Use good engineering practices
- Code includes automated tests
- Reserve time for learning
- Sustainable pace



Limit work to capacity

How to be efficient?

- 100% resource utilization ??
- OR
- Limit work to capacity (queuing theory)
- Limit the amount of work-in-progress (WIP)
- Focus on flow and cadence



BUT ...

- “We have committed ...”
- “We have to deliver ...”
- “It is not realistic ...”

Replace

- Wishful thinking
- Belief in magic

With

- Transparency
- Accepting realities
- Continuous improvement

Your system output is what your system is currently capable of.

Increasing system capability requires continuous effort and systematic improvement.

Waste

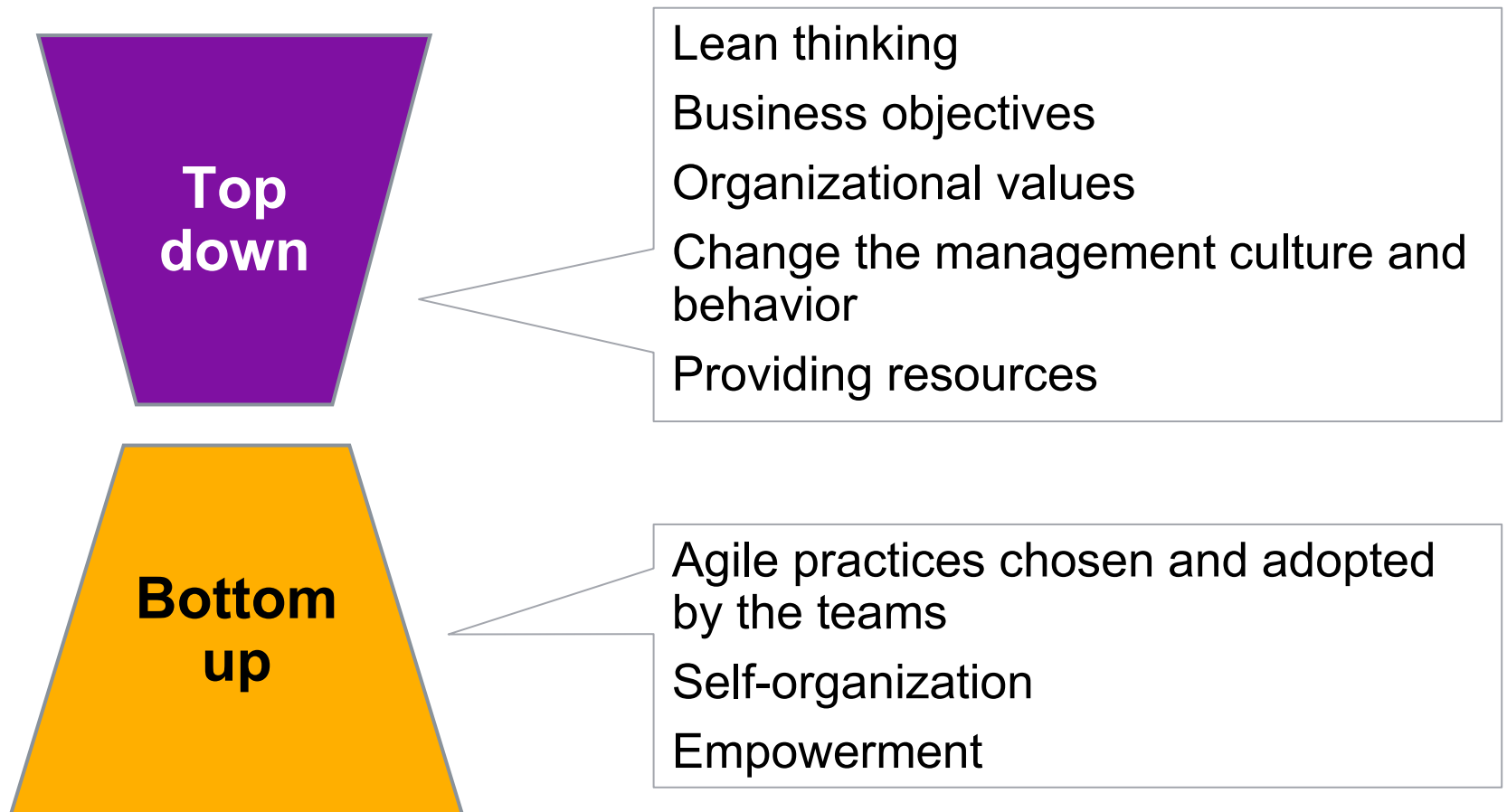
Value and waste from customer point of view

- Value stream mapping
- Identify waste

Overproduction of features or of elements
Waiting, delay
Handoff, conveyance
Extra processing, relearning
Partially done work, WIP
Task switching, motion between tasks, interrupt-driven multitasking
Defects, testing and correcting
Underutilizing people's capability (only doing their job)
Knowledge and information scatter or loss
Wishful thinking

Changing leadership culture – servant leadership

Combining bottom-up and top-down

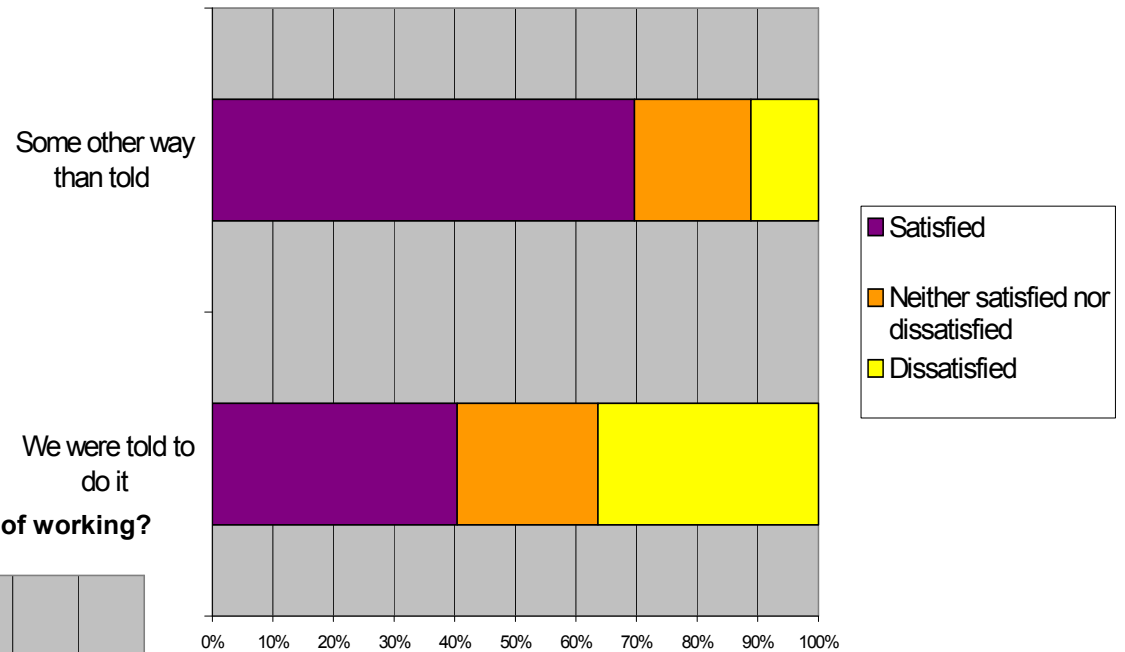


- It's a big challenge for management to support the change sufficiently and not to over-drive it.

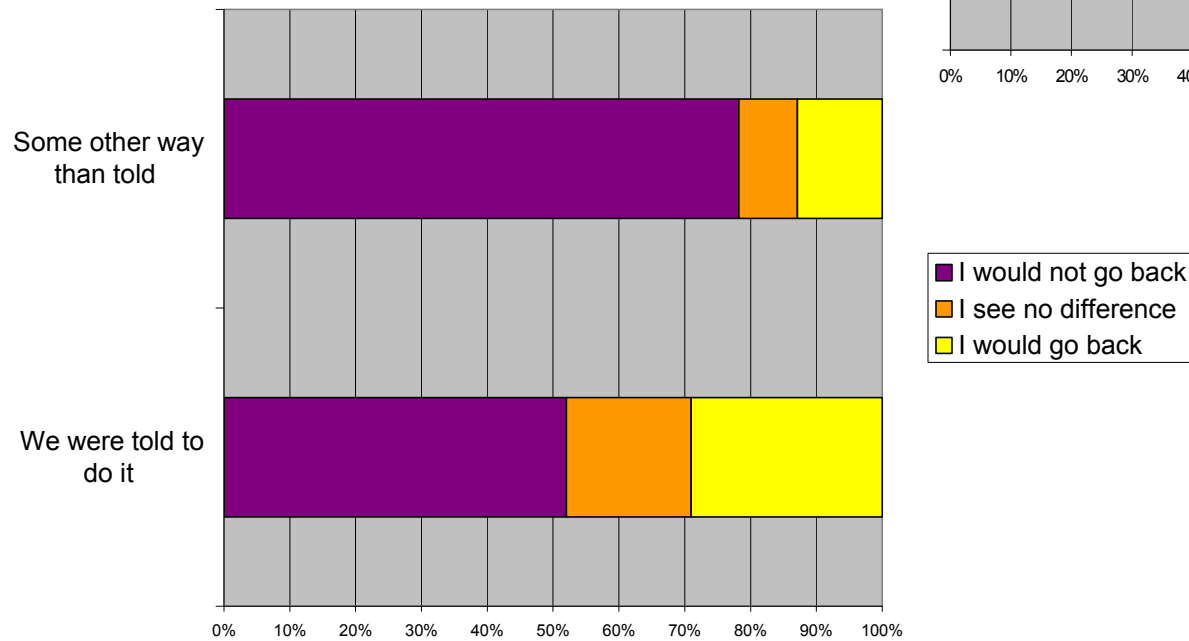
“Told” vs. others

- Dialogue
- Engage
- Invite

How satisfied are you with the impact of agile development within your own work?



Would you go back to the old way of working?



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Failure patterns

- Management by incentives
 - Usage of agile practices, velocity, improvement in velocity, green builds
...
- Pushing agile
- “It’s an R&D thing”, “you change”
- No/little investment in learning and coaching
- Leadership team does not have the time or interest to lead the change
- Start by defining the “agile process”

Success patterns

- Agile champion(s) from the organization
- Setting boundaries, letting teams choose
- Leadership team and managers showing example
- Agile transformation team working closely with the leadership team
 - And/or leadership team investing a lot of time
- Systematically involving every one – inviting people to join
- Agile approach to agile transformation



It is all about people

Respect for the people

- Customers
 - Do not trouble your customer
 - Serve and delight your customer
- Own people
 - Craftsmanship
 - Systematically develop good people – then build products
 - No wasteful work
 - Teams and individuals evolve their own practices and improvements
- Develop teams
- Collaborators
 - Build partners with stable relationships

Modified from Lean Primer by Craig Larman and Bas Vodde



Management roles

Are managers needed?

- Creating an engaging vision of the product – reason to be passionate about what we do
- Mentoring and coaching – helping people become good in what they do
- Creating the environment for people to succeed in
- Leading the culture

Organizational practices

Organizational practices

- Target setting and incentives
 - No individual incentives
 - Measure up
- Performance evaluations
 - Feedback is needed
- Financial planning and tracking
- Career paths



Finally ...

Fundamental agile and lean ideas

- Continuous attention to technical excellence
 - Build quality in
- Respect for the people
 - Systematically build good people and give them the environment to get things done
- Business people and development working together daily
- Customer focus
 - Understand what your customer needs and values
 - Work with the customer
- Continuous improvement culture

Individual choices matter

- As a developer
 - Am I committed to continuously improve our working practices?
 - Am I doing deliberate practice to become a true master?
 - Am I challenging my managers to support me in creating value for the customer?
 - Am I systematically refusing to sacrifice quality and my professional pride?
- As a manager
 - Am I creating optimal conditions for my team to succeed in creating value for the customer?
 - Am I continuously challenging and changing dysfunctional organizational practices?
 - Am I coaching my people to grow to their full potential?
 - Am I relentlessly removing waste?



Thank you!