

Agile transformation is hard in large organizations

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Kati Vilkki

kati.vilkki@nsn.com

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Nokia Siemens Networks

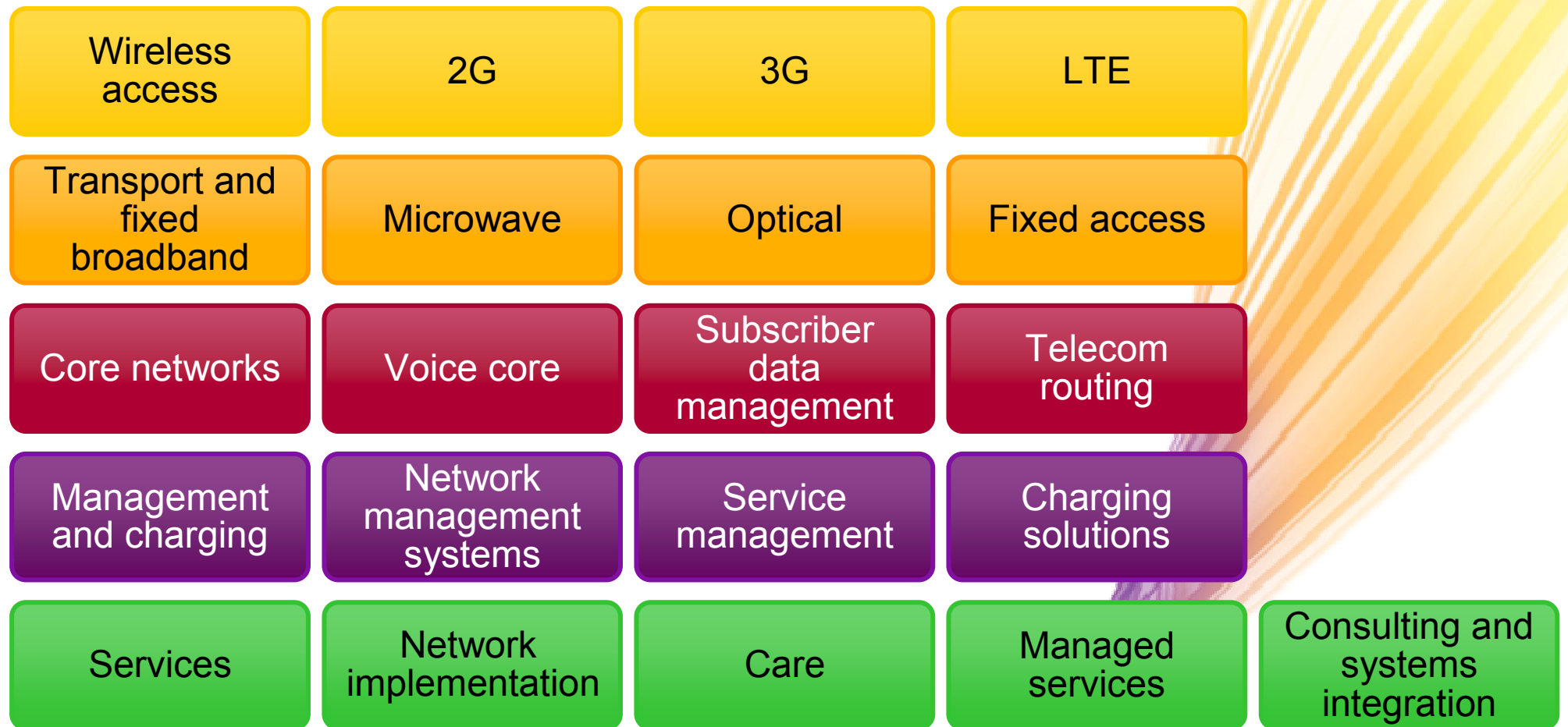
Over **60,000** people in more than **150** countries
More than **600** Communications Service Provider
customers

One of the **largest** Telecommunications suppliers

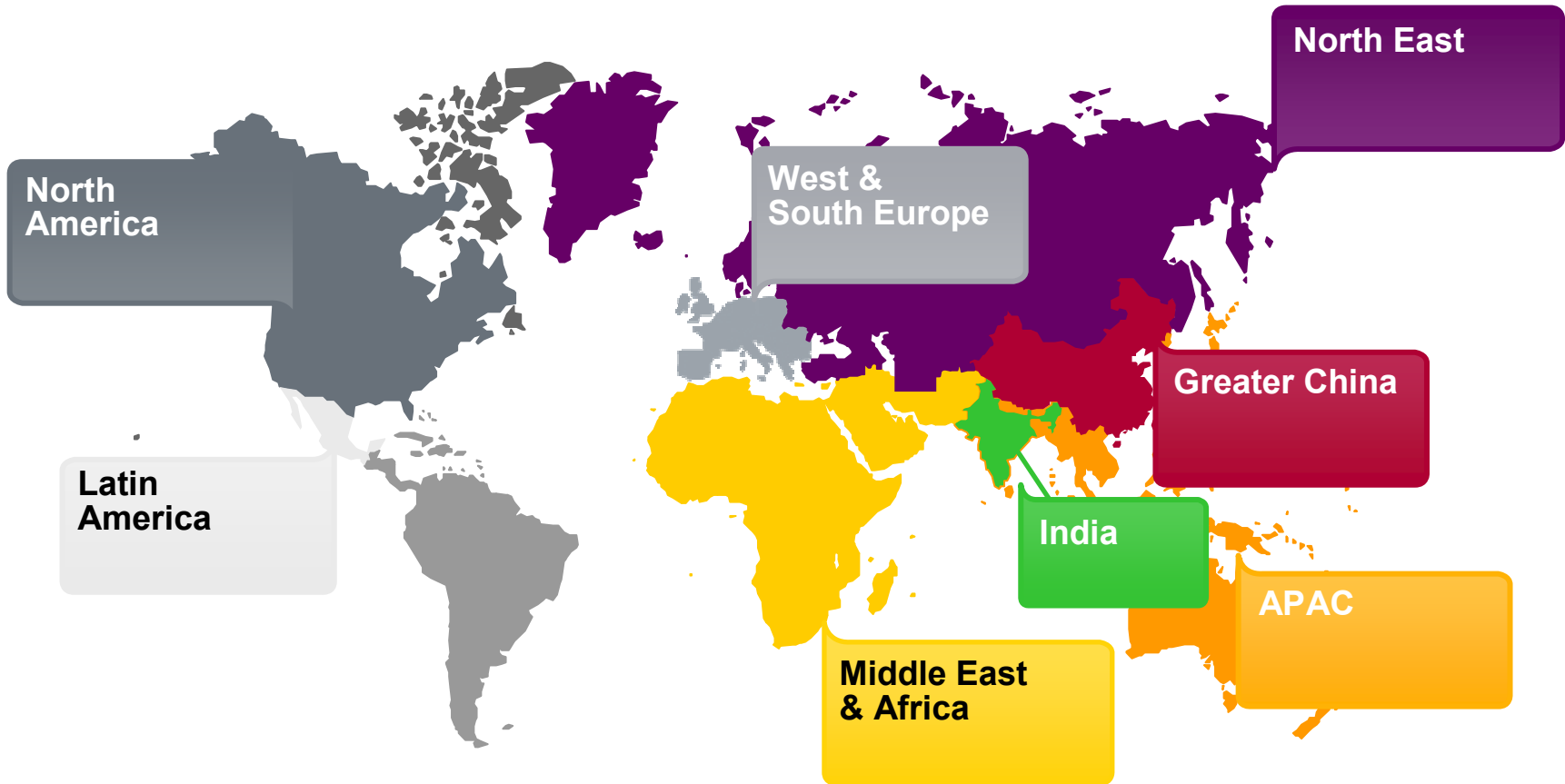
Every second we touch the lives of **millions** of
individuals



What we do



Global presence



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

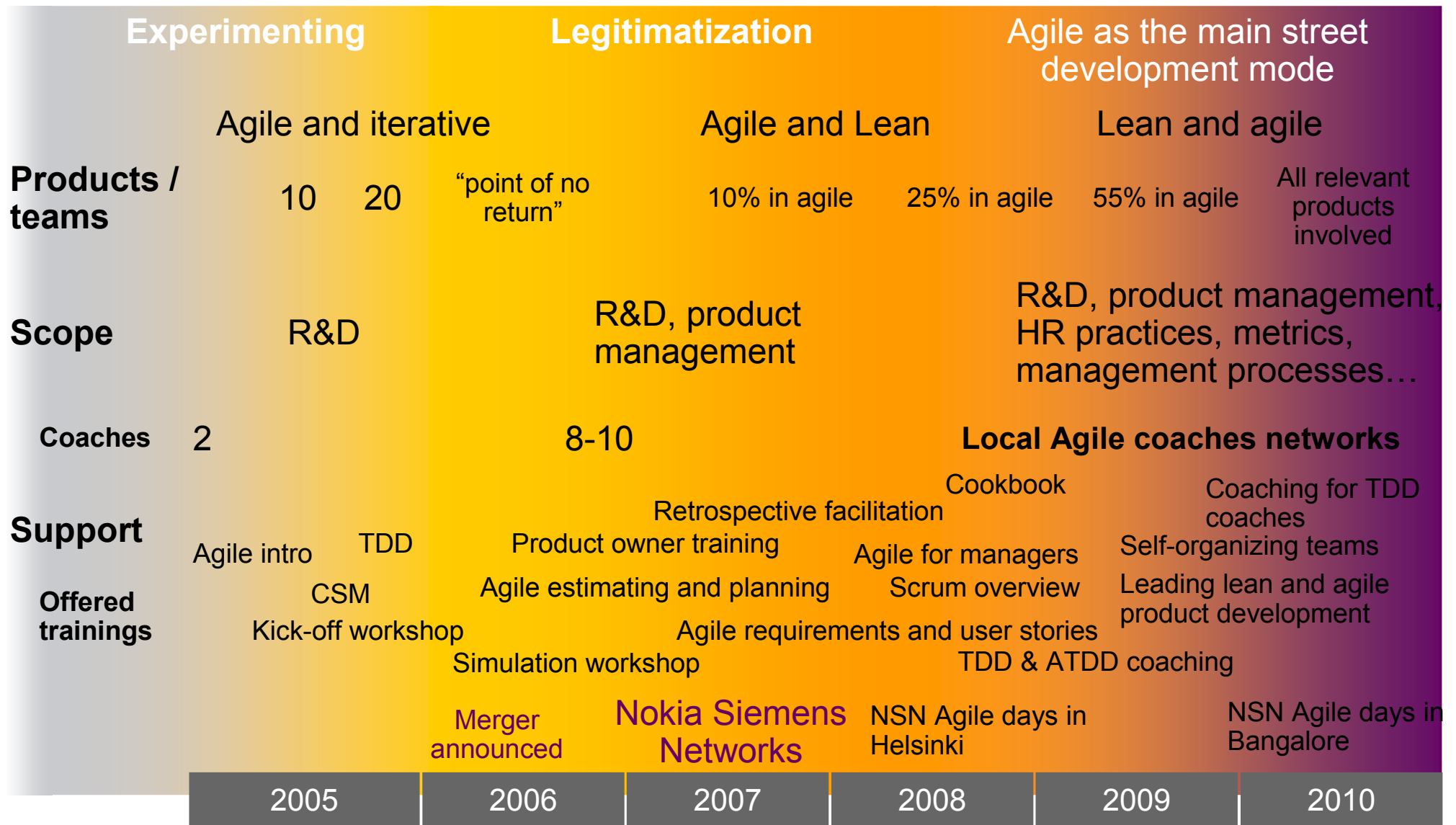
Our agile journey

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

Change process

Guiding principles

- Only give support, no organizational enforcement
- Focus on value and people creating it
- Evolving and engaging knowledge creation
- Build trust and communities

Flexible Company team

- Support the agile transformations in Business Lines by coaching and giving training
- Create and facilitate networks
- Offer selection of methods and ways of working for organizations to choose from (and to improve)
- Learn all the time more about lean and agile

Pattern in agile transformation

- The actual transformation process is different in all organizations, but some patterns have emerged in NSN

Awareness creation

Initial learning and understanding, some experimenting, planning the transformation

Putting the basic framework in place

Scrum process, back-logs, daily builds

Improving cooperation

Team set-up and organization, self-organization, improving retrospectives, workshops, Prod. Mgmt involved, improving CI and TA

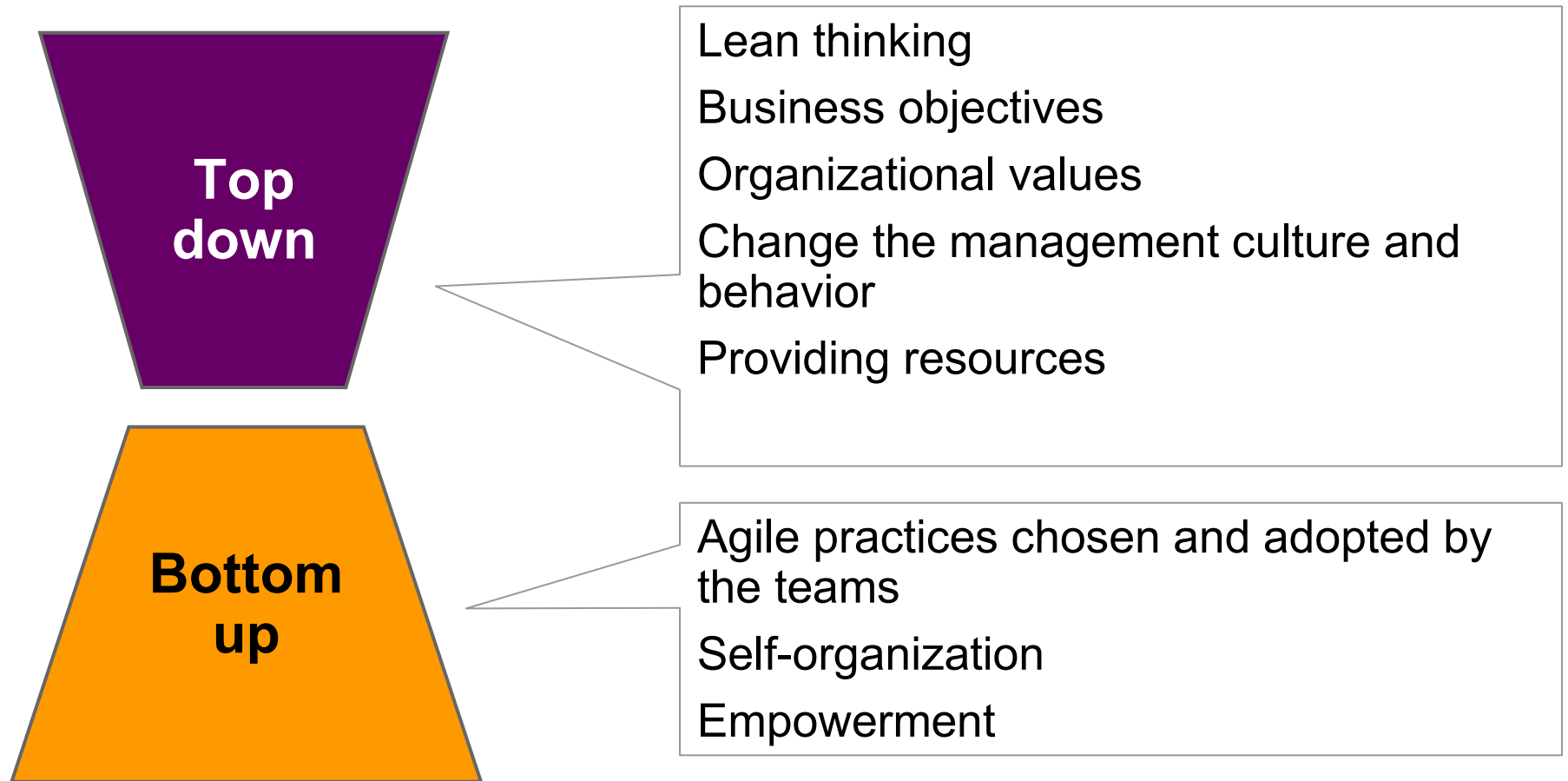
Agile engineering and management practices in use

Sustainable pace understood, velocity used as basis for planning, re-factoring, (A)TDD, CI, pair-working etc in full use. Metrics and target setting agile.

E-2-e Agile

Increased agility in customer interface and deliveries.

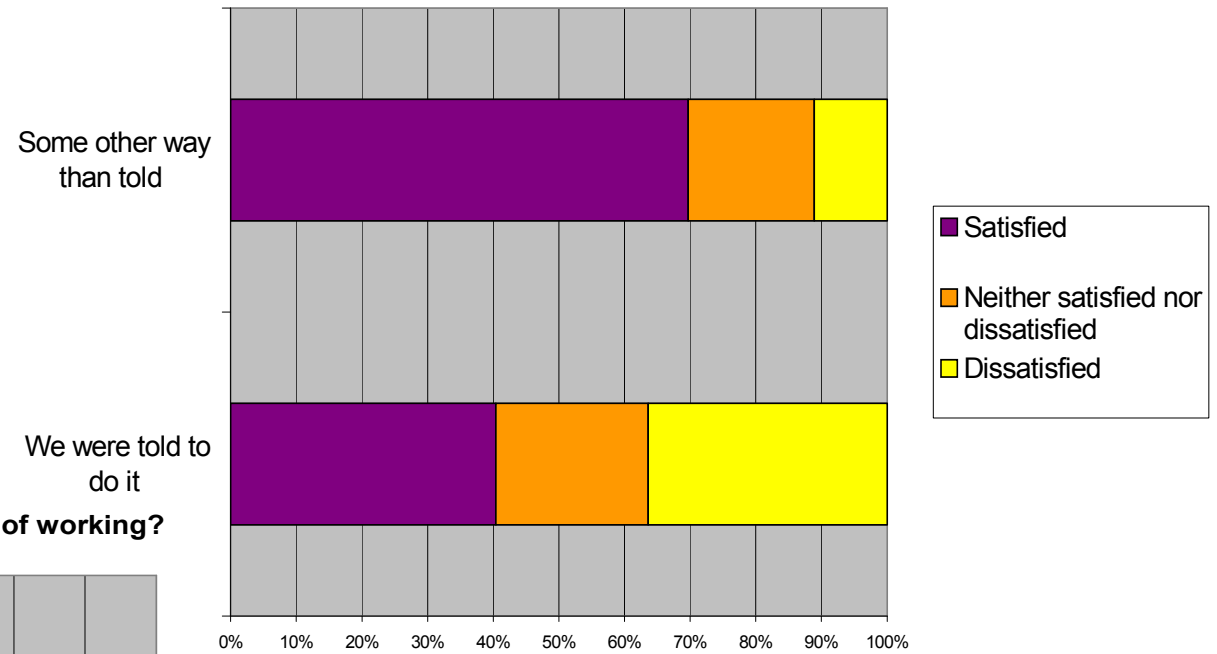
Combining bottom-up and top-down



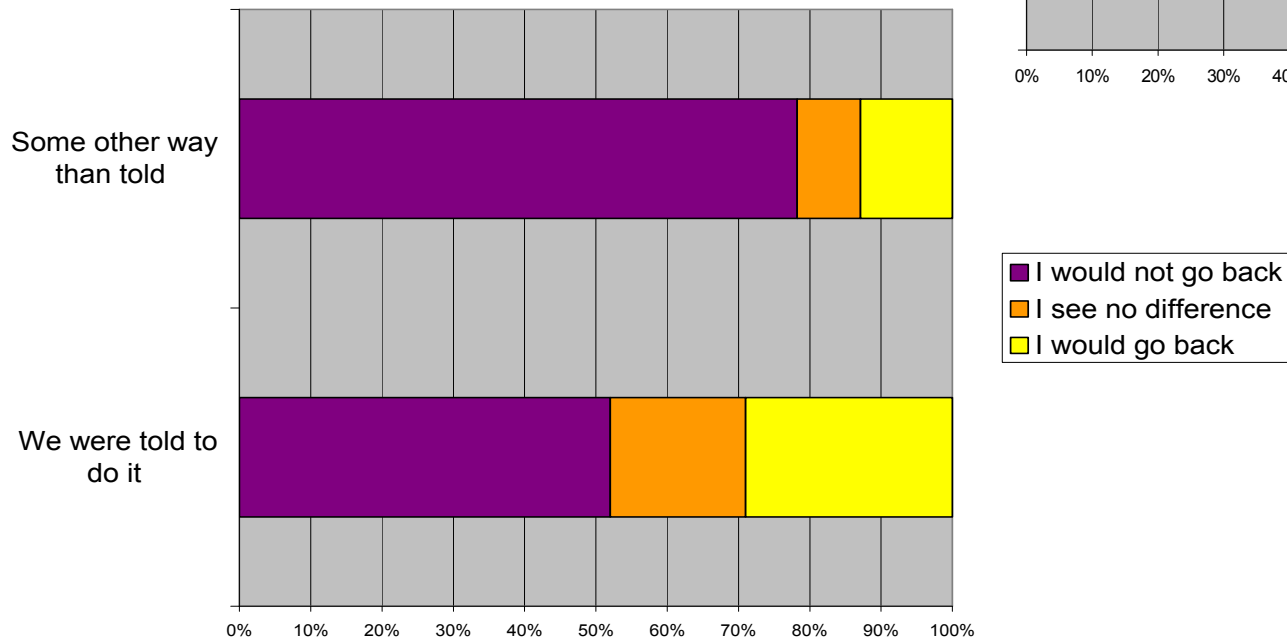
- It's a big challenge for management to support the change sufficiently and not to over-drive it.

“Told” vs. others

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



Would you go back to the old way of working?



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

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

Why is becoming agile so difficult?

It is difficult to be agile, much easier just to 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
- It requires changes in all parts of the organization from individual developer to management culture and practices

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 automated 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

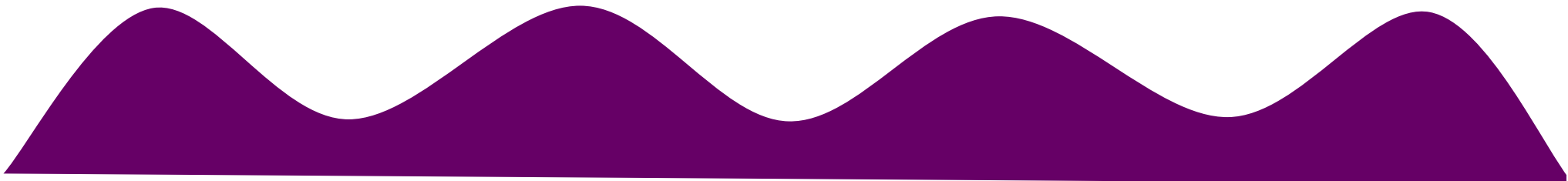
Agile company



Agile practices in every day SW development



Lean thinking in improving the whole value chain



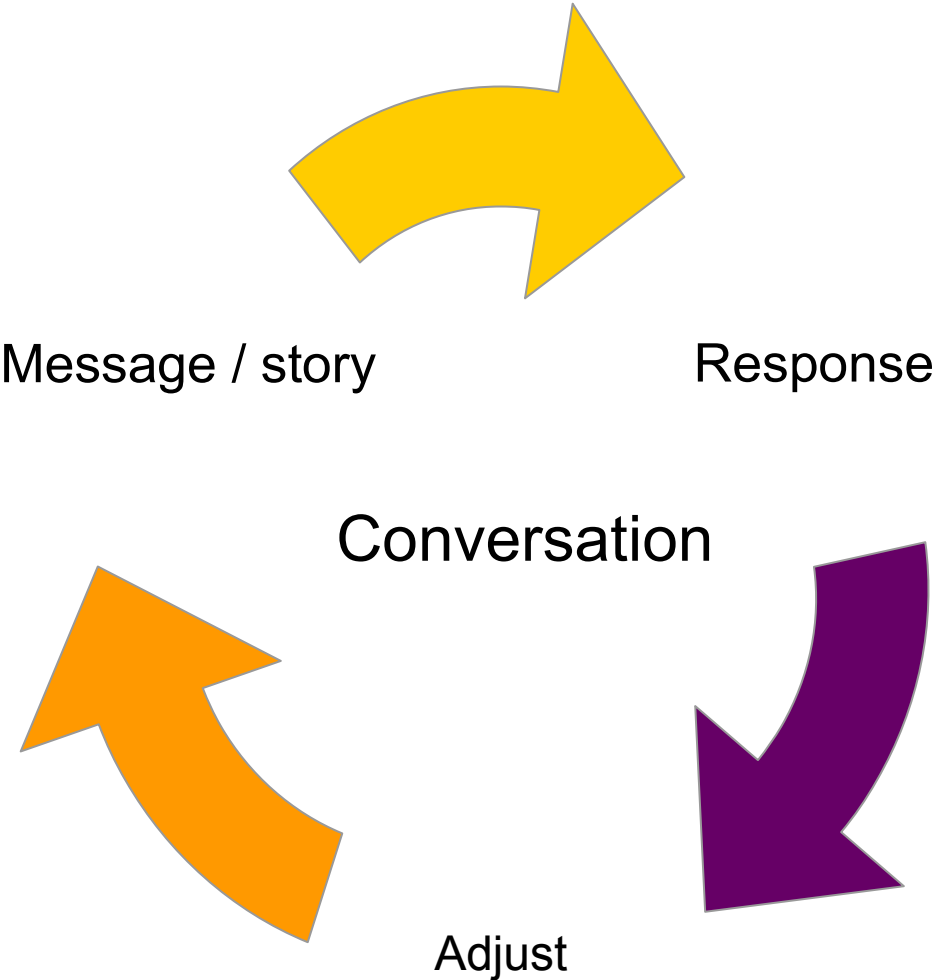
Organizational culture and management philosophy

Changing the organizational culture

Similar enough, different enough

- Organizational culture needs to change in any big transformation and it also has a huge impact on how to drive changes.
- The key messages of the change and the way of delivering them have to be different enough and similar enough to the existing culture.
 - If the message is too distant from the current reality, people will perceive it as unrealistic and do not trust the change.
 - On the other hand, there has to be real change and the message has to reflect that.
- **DYNAMIC BALANCE!**

Change process is about creating interaction

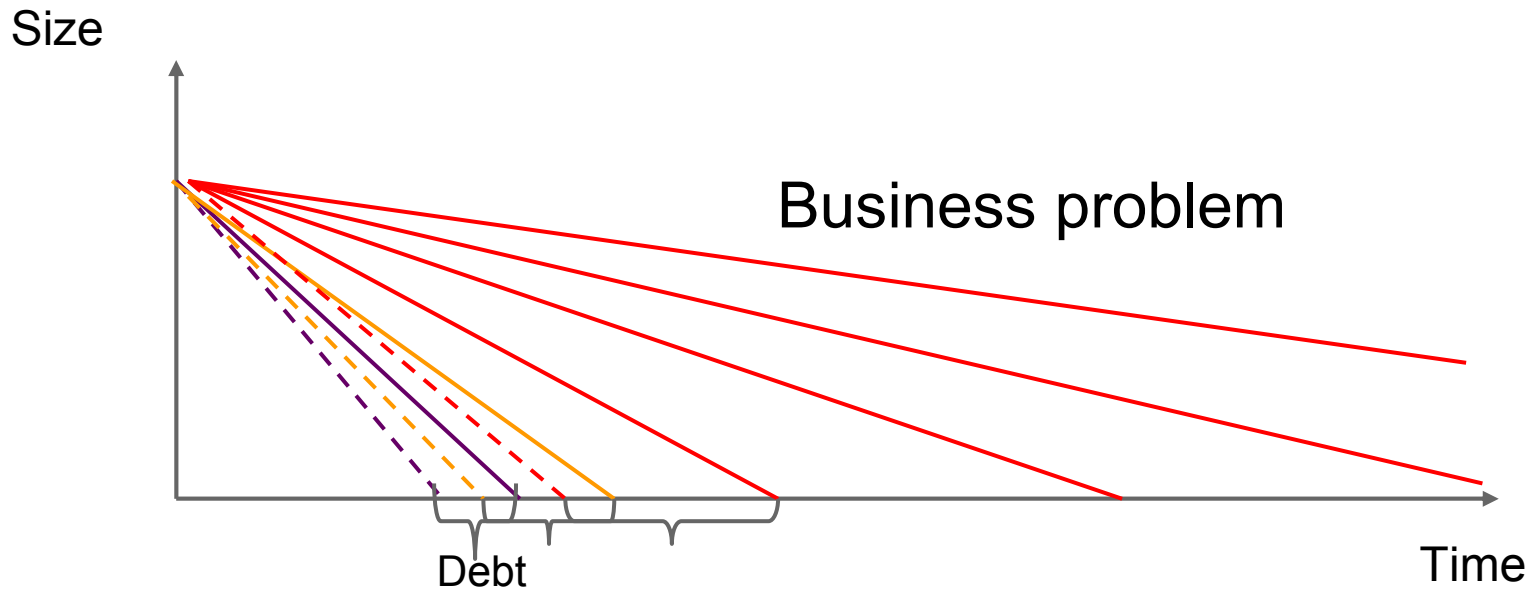


What do people listen for

- Is this person credible?
- Is this thing relevant to me?
- Is this person on my side?
- Is this thing doable?

Technical debt

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





It is all about people

All business is people business

- Respect for the people
- Servant leadership
- Craftsmanship

How to become more efficient?

How to improve efficiency?

- 100% resource utilization ??
- OR
- Limit work to capacity (queuing theory)
- Limit the amount of work-in-progress (WIP)
- 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.

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



Is it worth it?

Increased visibility

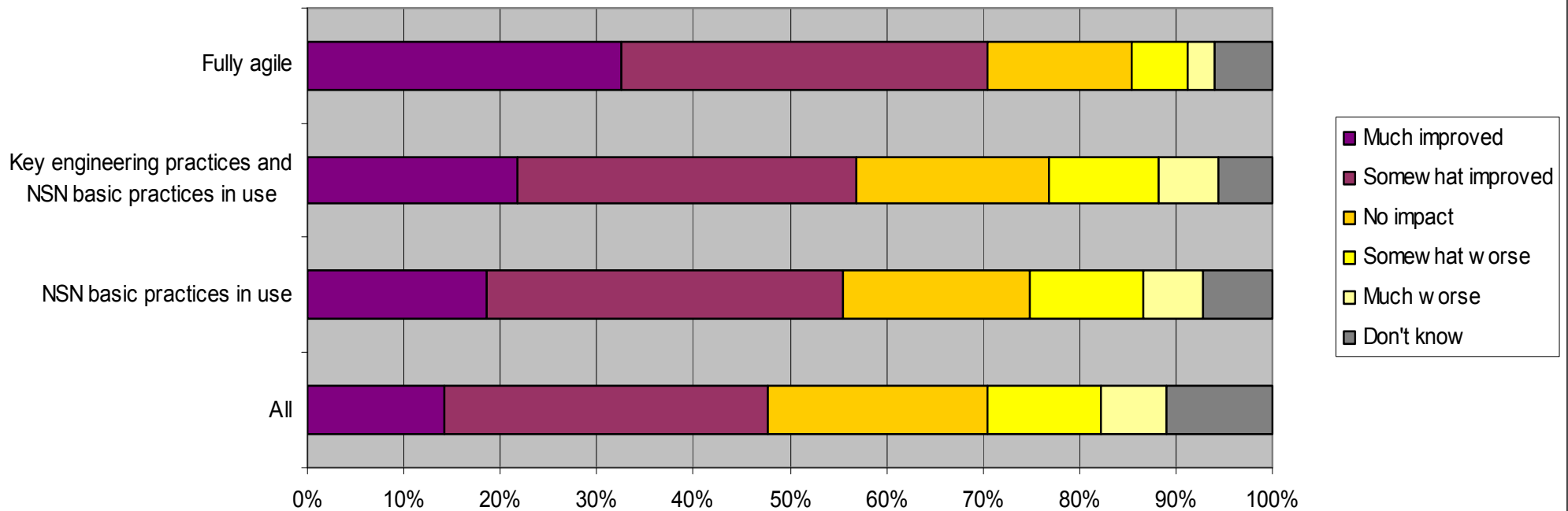
“Agile development will not solve any of your problems – it will just make them so painfully visible that ignoring them is harder”

Ken Schwaber

- Reacting to problems requires skills, determination and empowerment

Impacts of agile transformation

In your experience, what are the impacts of agile development compared to traditional development





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 and feedback
- 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!