

Our Approach to Kaizen

Lean@Tieto

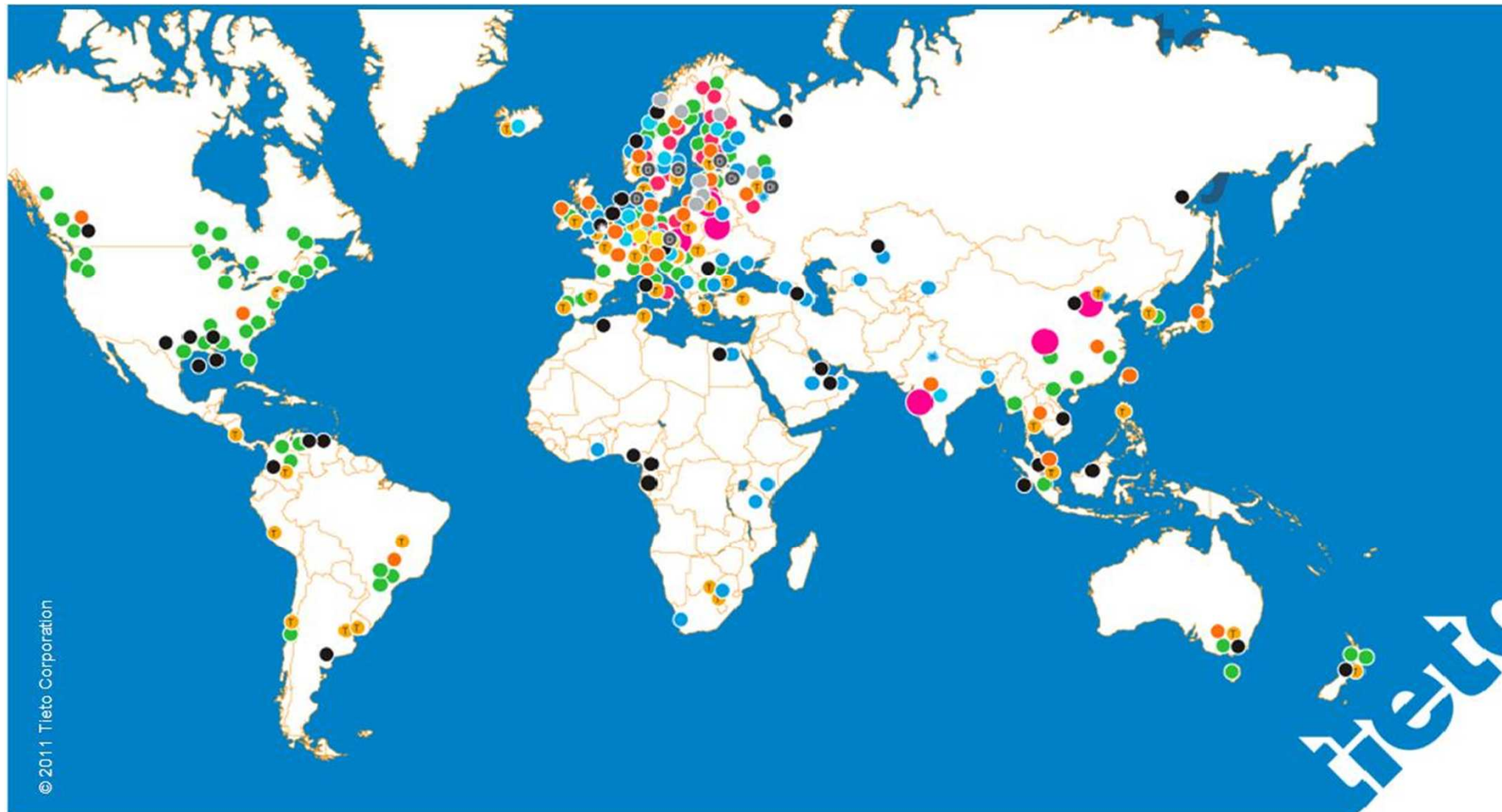
Jaroslav Prochazka

Martin Chmelar

Tieto

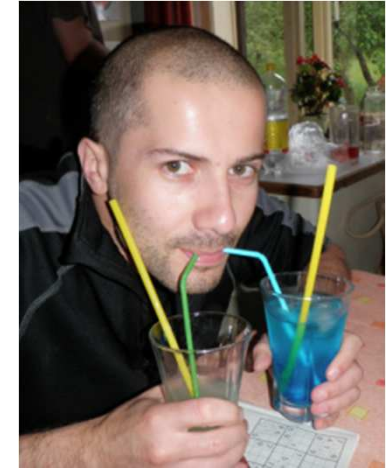
Tieto today

- 18 000 IT professionals in close to 30 countries
- Customers on all continents
- One of the leading IT service companies in Northern Europe and global leader in selected segments
- Net sales approximately EUR 1.8 billion
- Listed in NASDAQ OMX Helsinki and Stockholm
- Founded in 1968



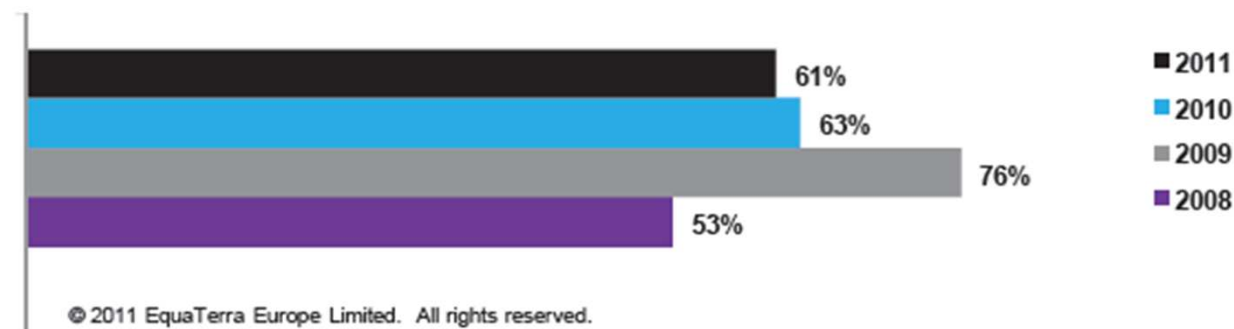
Who we are

- Delivery Mentor Network
 - Core of the network
 - 8 Agile and Lean coaches
- 11 years in IT (developers, architects, PMs)
- Have been supporting transformations in different industries in last 5 years in Tieto
- Representing Tieto at international IT conferences



Why Lean@Tieto?

- Customer satisfaction



- Financial results



	2010	2009
Net sales, EUR million	1 713.7	1 706.3
Operating profit (EBIT), EUR million	72.4	75.3
Profit after taxes, EUR million	49.5	55.1

© Tieto 2010 Annual Report

Customers demand more

We want to have
better visibility
of our orders

We expect you to help us
to run our business
(to have partnership)

We want you to
help us to solve
our challenges



Tieto employees want to contribute more...

I wanted to propose multiple improvements to our customer but I didn't know how ...

I want to work in such an environment where I feel my work brings value to the customer

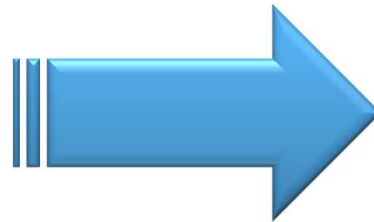


... but do not know how ...

Lean Transformation

Lean @ Tieto

- ☐ Short term thinking
- ☐ Solving symptoms
- ☐ Firefighting

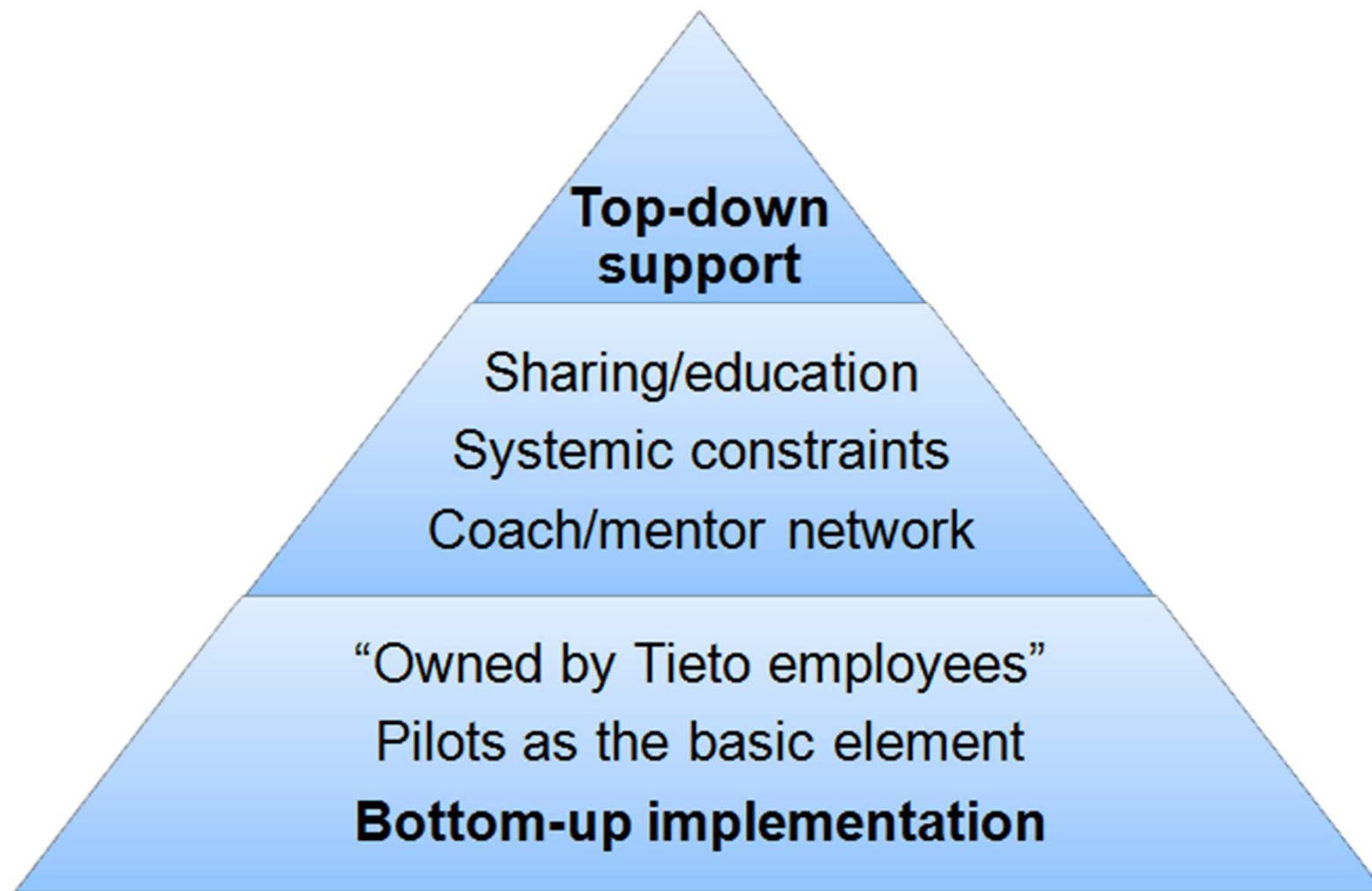


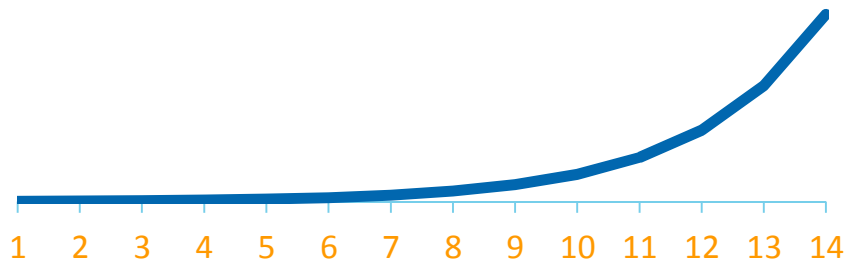
- ✓ Long term thinking
- ✓ Solving root causes
- ✓ Balanced workload

“Give a man a fish;
you have fed him for today.
Teach a man to fish;
and you have fed him for a lifetime”

[Chinese proverb]

Lean@Tieto Strategy





14 weeks framework to make a change

LEAN@TIETO FRAMEWORK

Lean @Tieto Transformation Framework

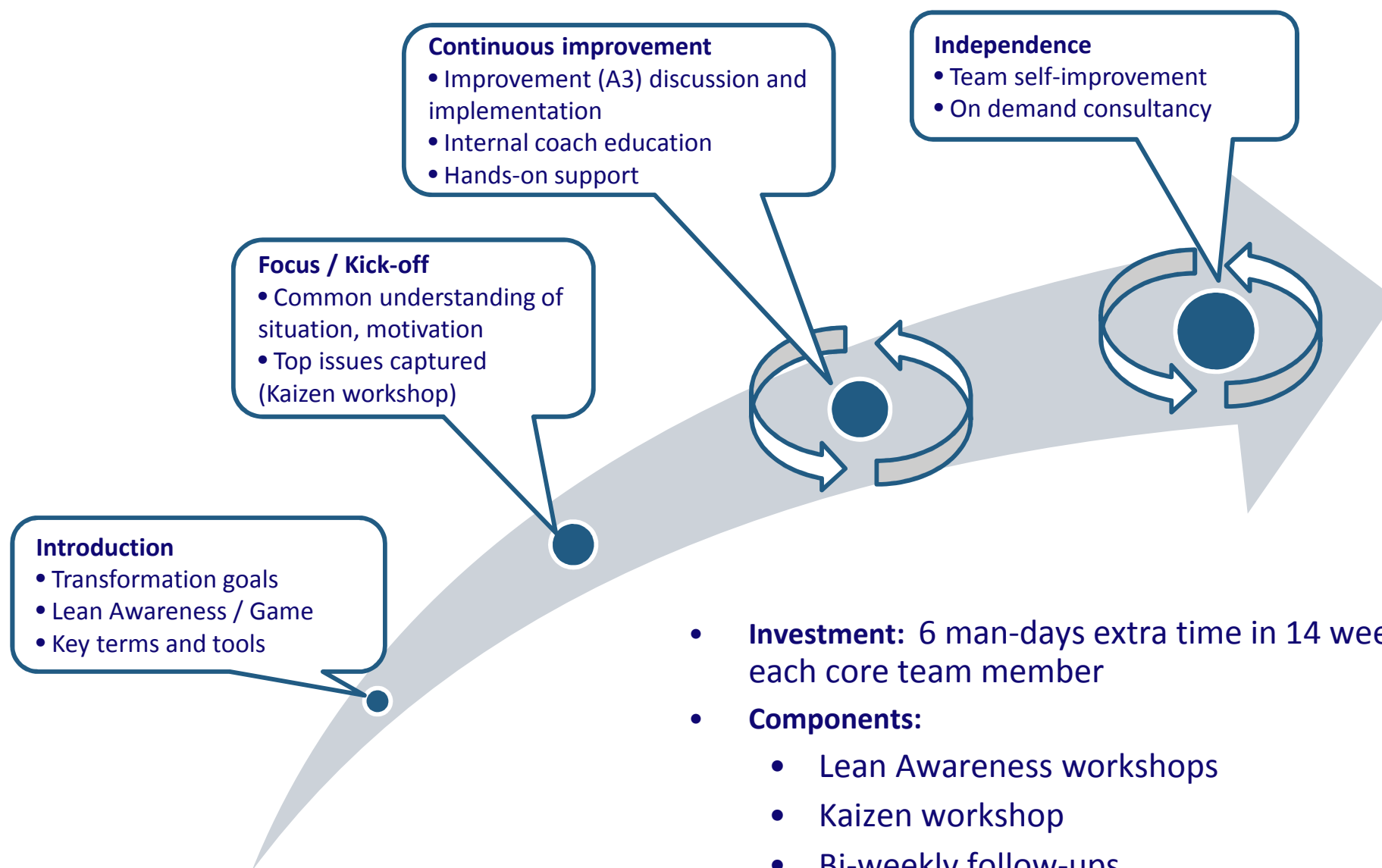
A proven approach where key persons optimize (and learn to optimize) end-to-end value chain to deliver better value to customer.



14 weeks
Lean Transformation
Framework

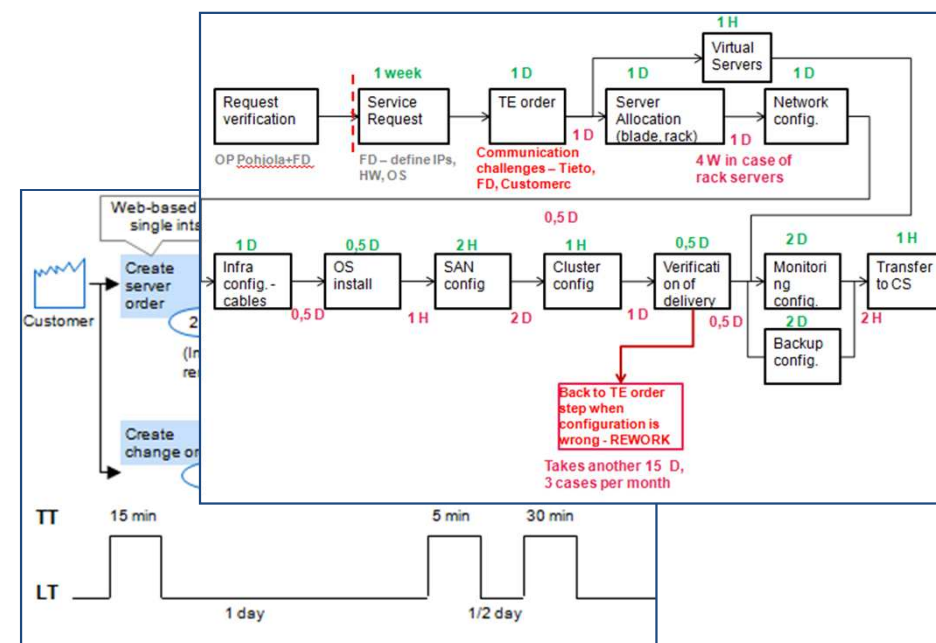
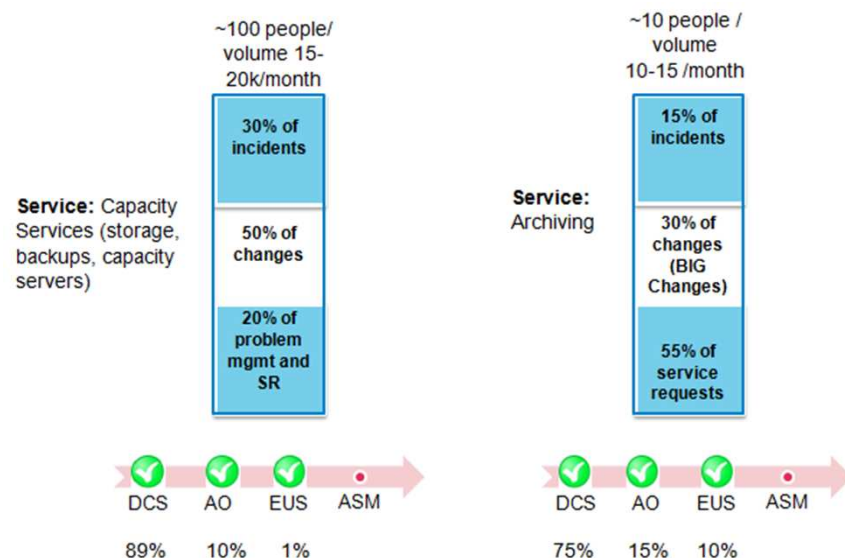
Typical long-term benefits:

- **Increased** customer and employee **satisfaction**
- **15-30% improvement of productivity**
- **15% EBIT increase**



- **Investment:** 6 man-days extra time in 14 weeks for each core team member
- **Components:**
 - Lean Awareness workshops
 - Kaizen workshop
 - Bi-weekly follow-ups
 - Additional tools and materials

Team gets ...



Mapped services

Value Stream Map
(documented end-to-end process)

A3/A5 concept

Background Plan Server implementation process is not very efficient. Current setup causes delays and rework in different teams. Also lack of proper (automated) tools causes human errors.	Name: Weak information sharing between shifts Owner: Jiri Malik Mentor: Jaroslav Prochazka, Jan Krehnak Date: 29.07.2011
Current Condition/Issues Plan Specialists work in 24/7 shifts, they should share information about done work on serv. implementation tickets between shifts. We are missing this process and support from them. It causes delays: <ul style="list-style-type: none"> Waiting with ticket processing up to 1 day [source: SI workshop, OV, 29.7.2011] Process efficiency: 6.5/11.5d = 56% 	Countermeasures (Experiments) Do Checklist in Worklog and sharing sessions: <ul style="list-style-type: none"> [Jiri Sosnovec] Sharing session about End-2-End SI process to NET people – end of Sept. [Michal Binczyk/Rafal] Visual End-to-End process part of teams' working environment/tool <ul style="list-style-type: none"> ✓ [Jarek Prochazka] Share visual process with Process owner [Michal Filip] Milestones checklist of task steps in WL - end of August <ul style="list-style-type: none"> ✓ Starting checklist by Michal Binczyk in September ✓ Updated checklist based on experience [Michal Filip] Bi-directional WIN and NET knowledge sharing ("What is our task about") <ul style="list-style-type: none"> ✓ [Michal Filip] Session recorded during Live Meeting to be accessible for other colleagues (FIN, newcomers) – pilot done until end of August, other sessions in 1st half of Sept ✓ [Martin Hlista] Check security if LM record can be stored and accessed. If not, ask for other feasible solutions – 5.8.2011
Goal / Target Condition Plan <ul style="list-style-type: none"> Shorten lead time of SI process by 1 day until end of 2011 <ul style="list-style-type: none"> Potential higher income: 90 tickets/10days lead time x (, EUR) = EUR/10 day = EUR/month New process efficiency 62% until the end of November 2011 (higher by 6%) 	Confirmation (Results) Check
Root Cause Analysis Plan 5 whys Delays in SI process <ul style="list-style-type: none"> Weak information sharing between shifts <ul style="list-style-type: none"> Insufficient information for task handover <ul style="list-style-type: none"> Work Log not filled <ul style="list-style-type: none"> Solution/next step is simple and clear for skilled specialist Too heavy load to fill Work Log <ul style="list-style-type: none"> Only a few people processing SI tickets – solved Improper tools (Excel) causing waiting and thus context switching → solves A3: IP Mgmt tool Not recognized impact of missing WL description (others cannot process it) <ul style="list-style-type: none"> Not seen/known big picture/whole process and value for the customer <ul style="list-style-type: none"> Missing end-to-end process description Assumptions (it's pretty clear, other skilled specialist will know how to continue) 	Follow-up (Actions) Act

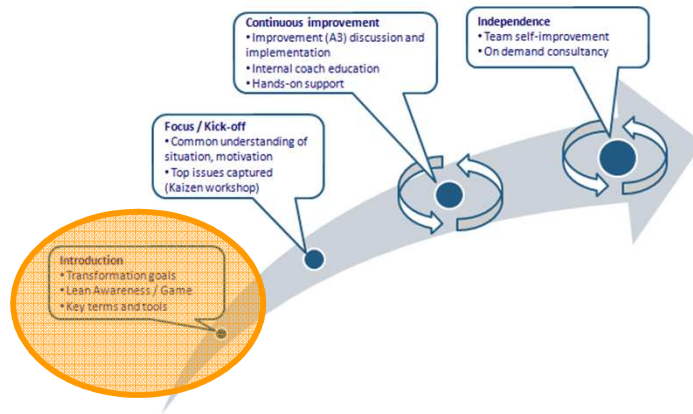
Intangible outcomes

- Common understanding of problems, root causes, solutions
- Clear focus along the whole value delivery chain
- “Sharpening of axe” built into daily way of working



13 & 14 october, 2011

Paris, France



Lean@Tieto Framework

INTRODUCTION

Introduction

- Multiple entry points
 - Teasers and teasing discussions
 - Agile training course
 - Lean awareness
 - Mentoring



- Goal
 - Make people interested
 - Make people care
 - Make people to pull for more



Lean Game/Awareness workshop

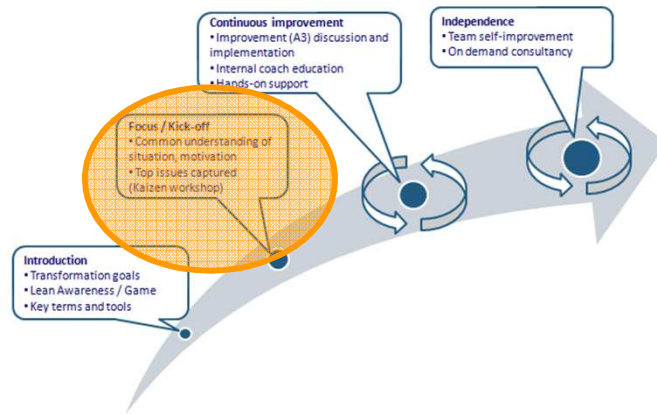
- Playing with Lego
- Key Lean principles in practice
- Drum-Buffer-Rope concept



- Key Lean principles
- Practical experience with Lean tools

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Lean@Tieto Framework

FOCUS / KICK-OFF

Kaizen workshop – Day 1

Intro

- Goal, Agenda, People, Expectations
- William Wallace speech

Value Stream Mapping

- Value Stream Mapping

Issues

- Issue identification and prioritization across the whole value chain

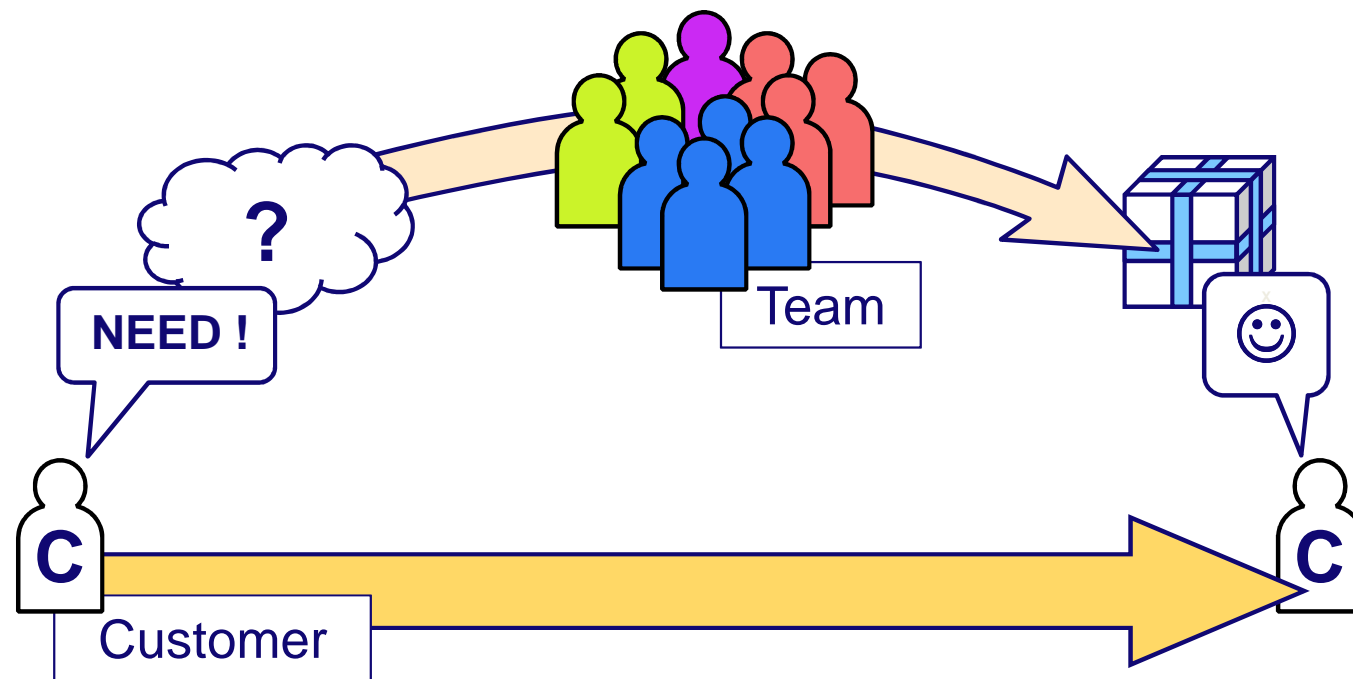
Root cause

- 5 why's or Current Reality Mapping (ToC CRT)

Sociali- zing

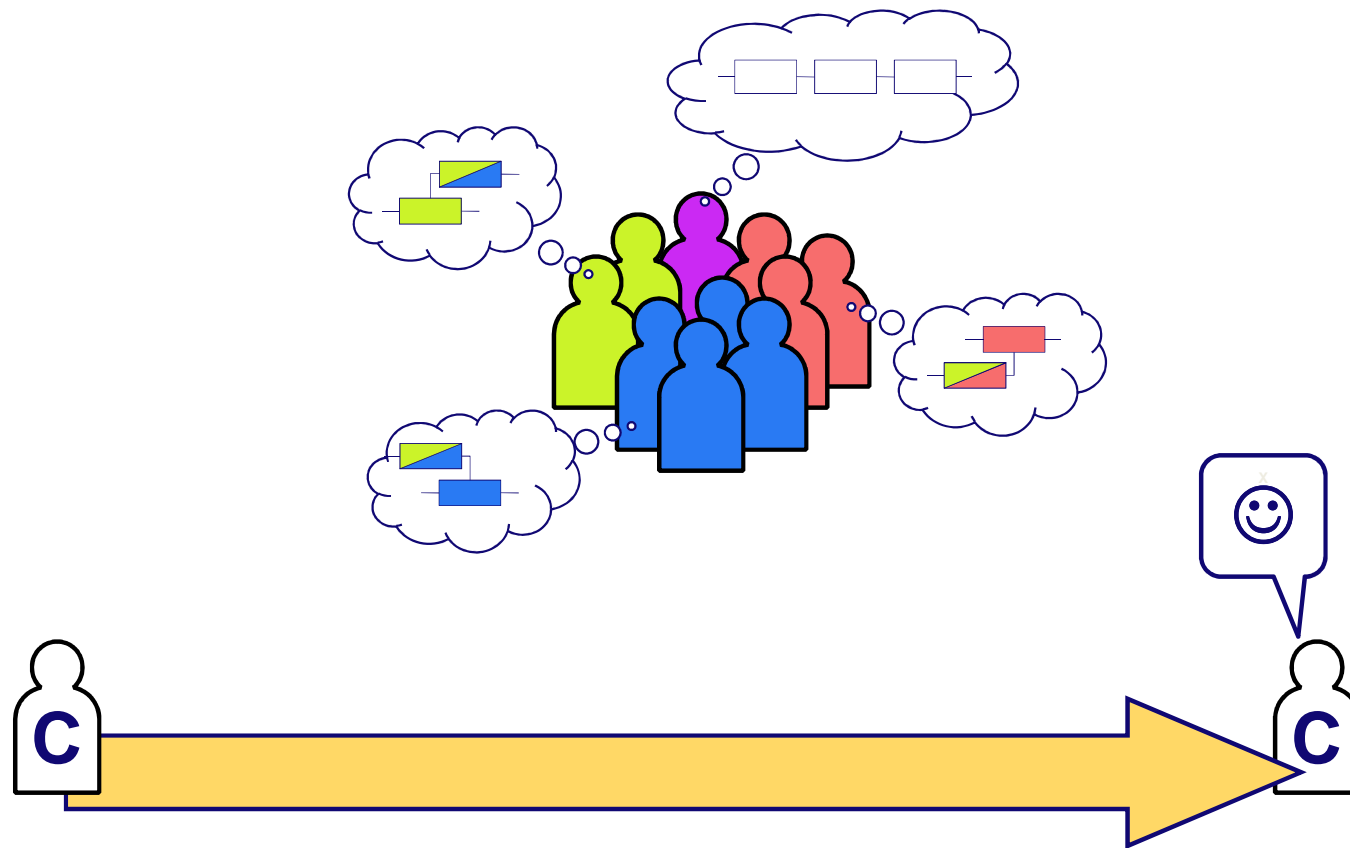
- Social event (usually dinner)

Common goal: Value for Customer



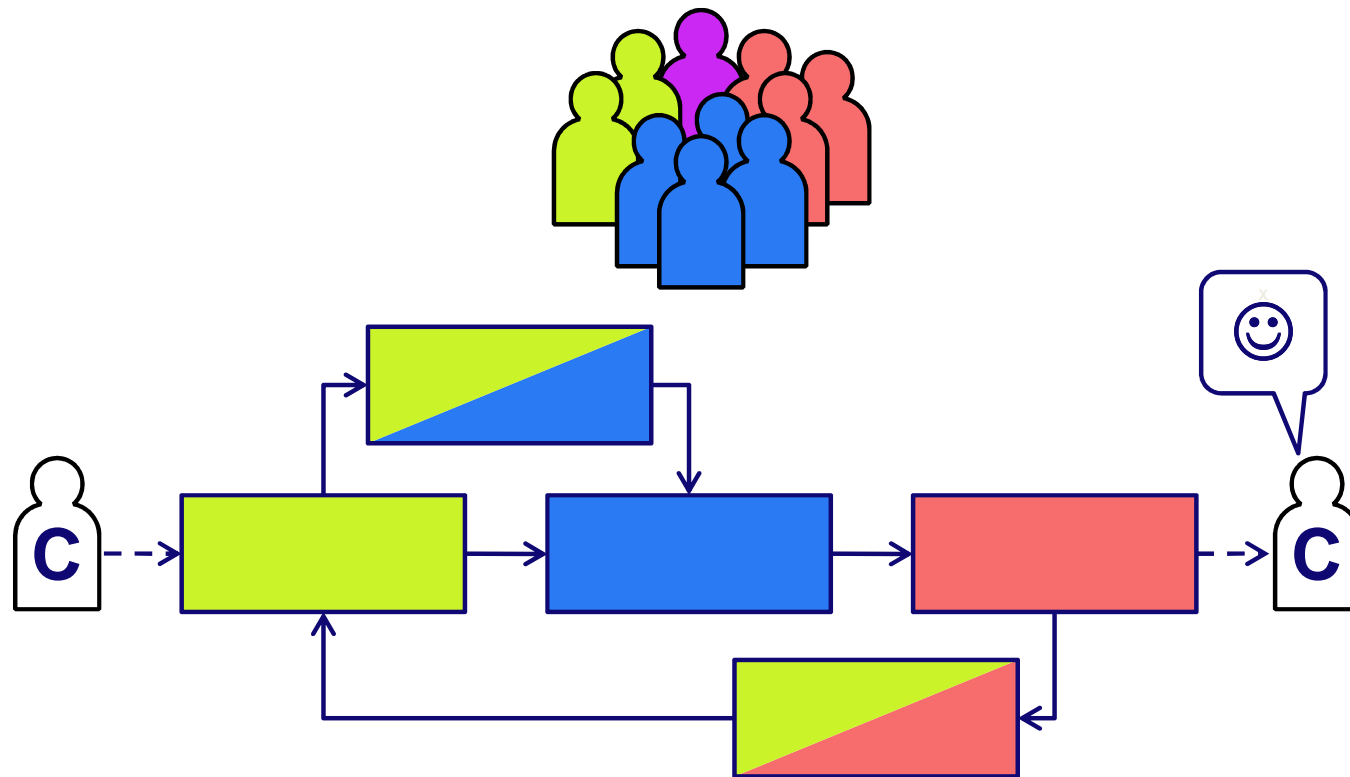
Do we all pull the same end of the same rope?

How do we work nowadays?



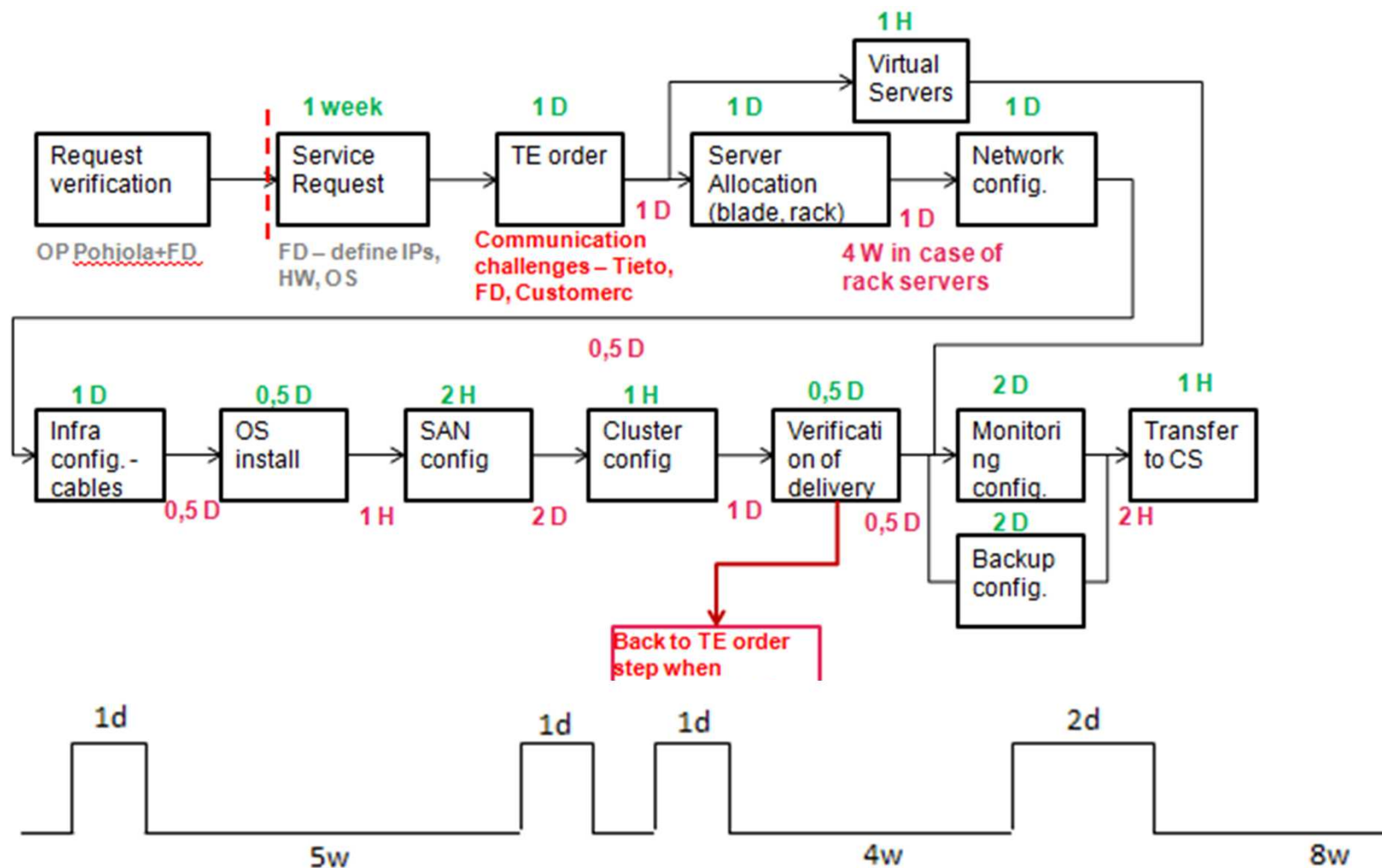
Do we all have the same map?

How do we really work nowadays?

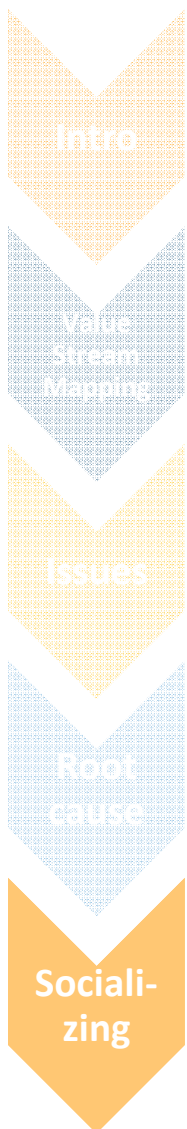


Team is better than one expert

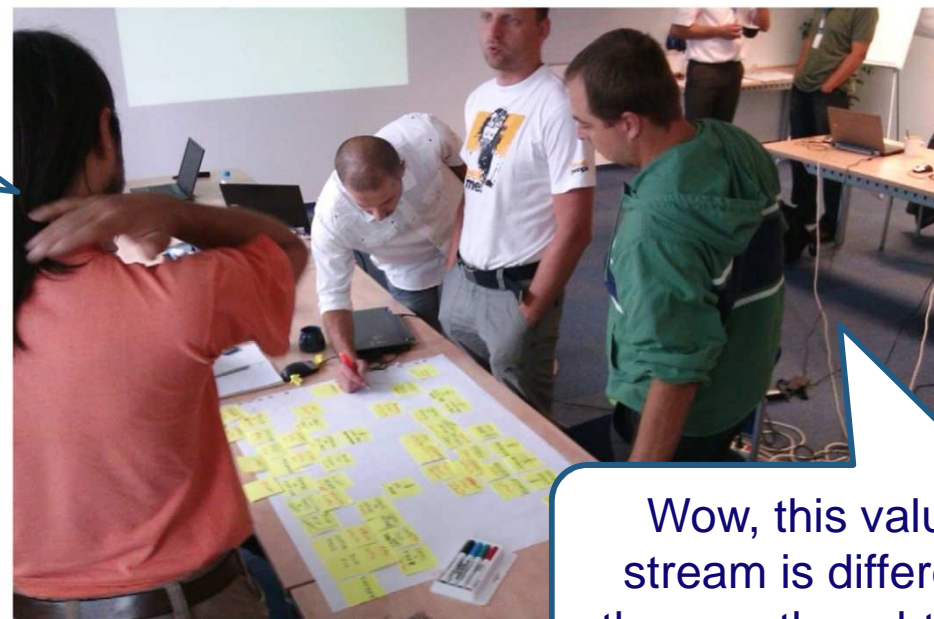
Value Stream Map



Sociali-
zing



I can't believe a single feature delivery takes so long...

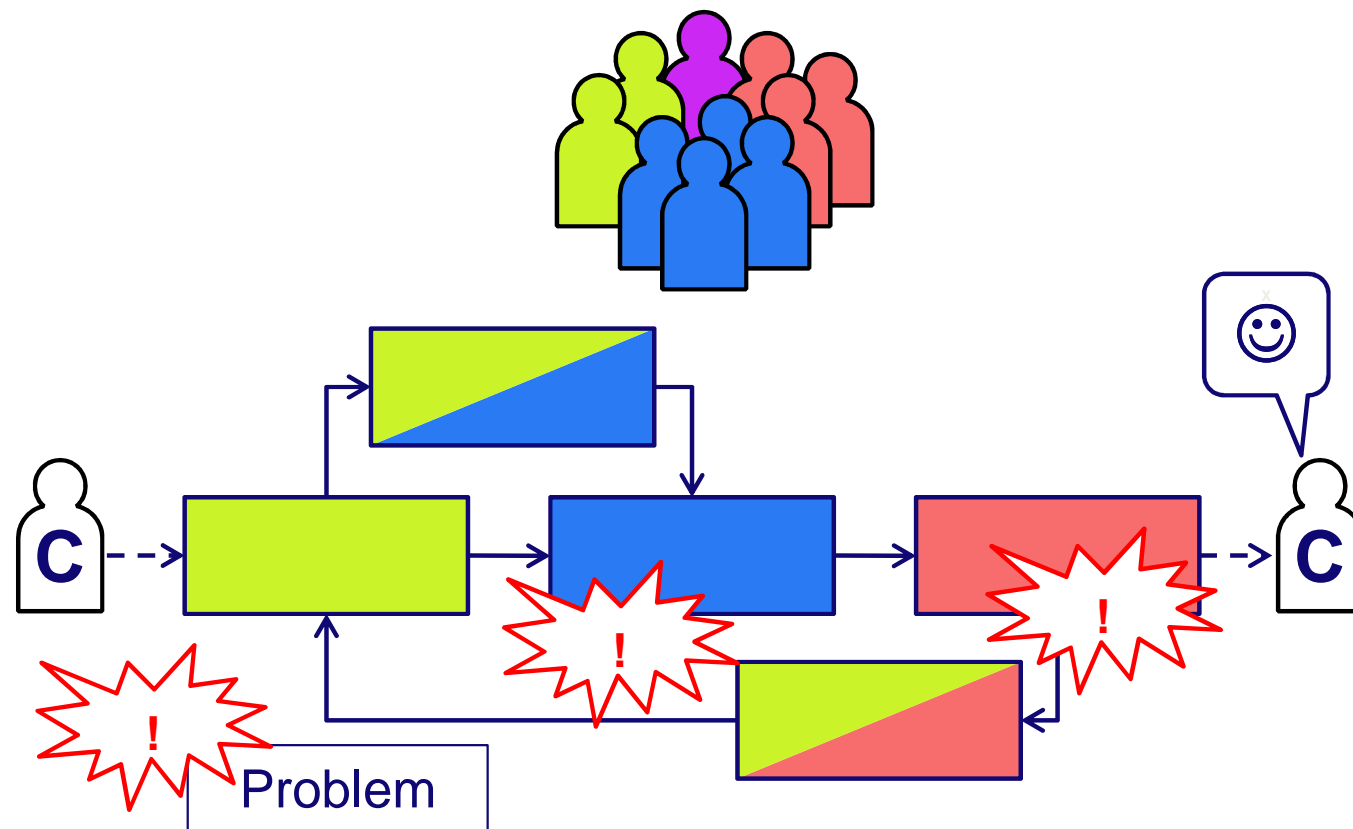


Wow, this value stream is different than we thought it is



These group works are great. I do not feel sleepy and I am much more involved

Problems & obstacles



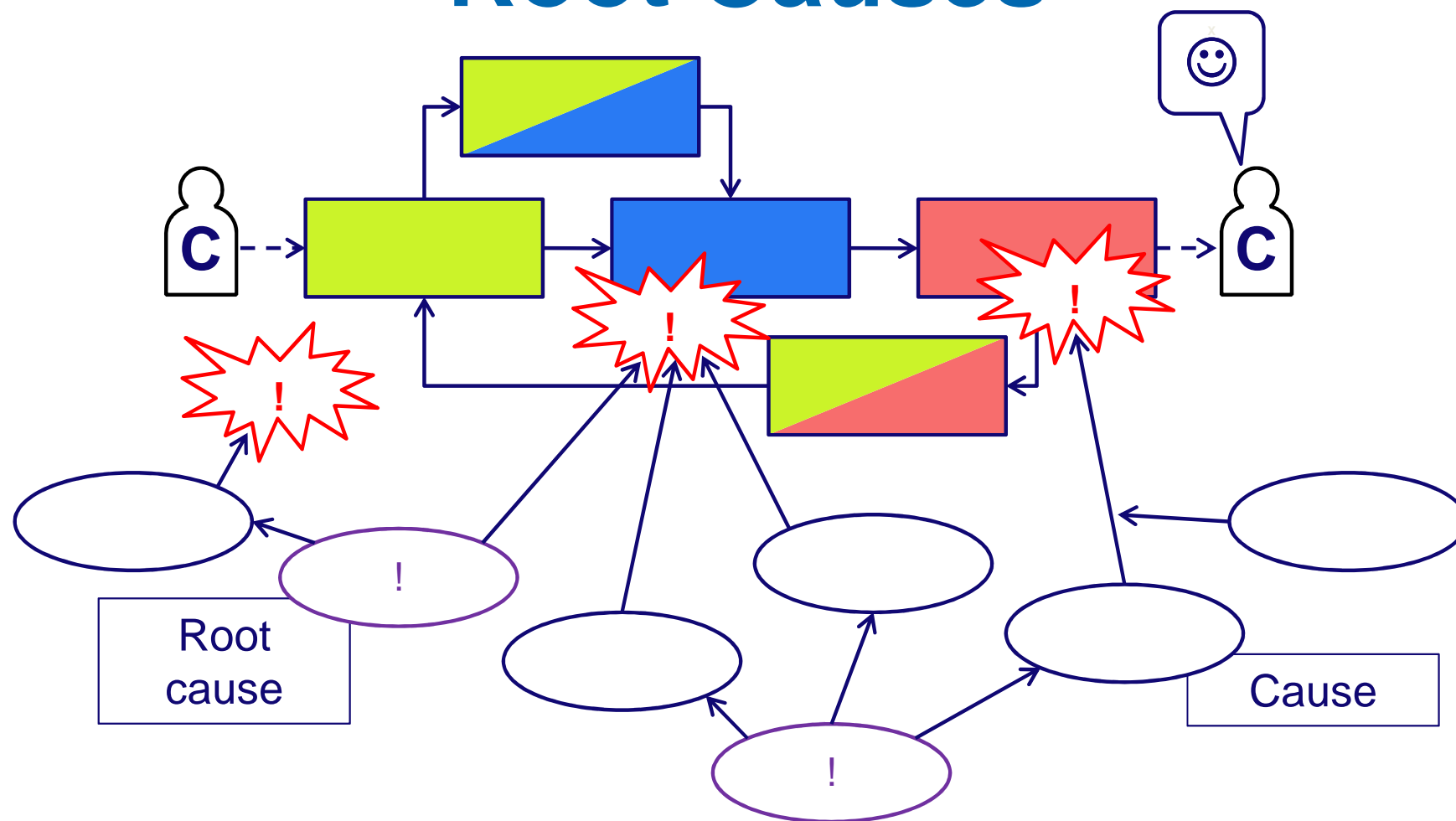
Different people see different problems.
But what is the real bottleneck?

Recurring issues

- Stress, firefighting
- Unsatisfied customers
- Red numbers
- Rework
- Everything takes too long

Usually symptoms of few root causes

Root Causes



Do not fight with symptoms only!

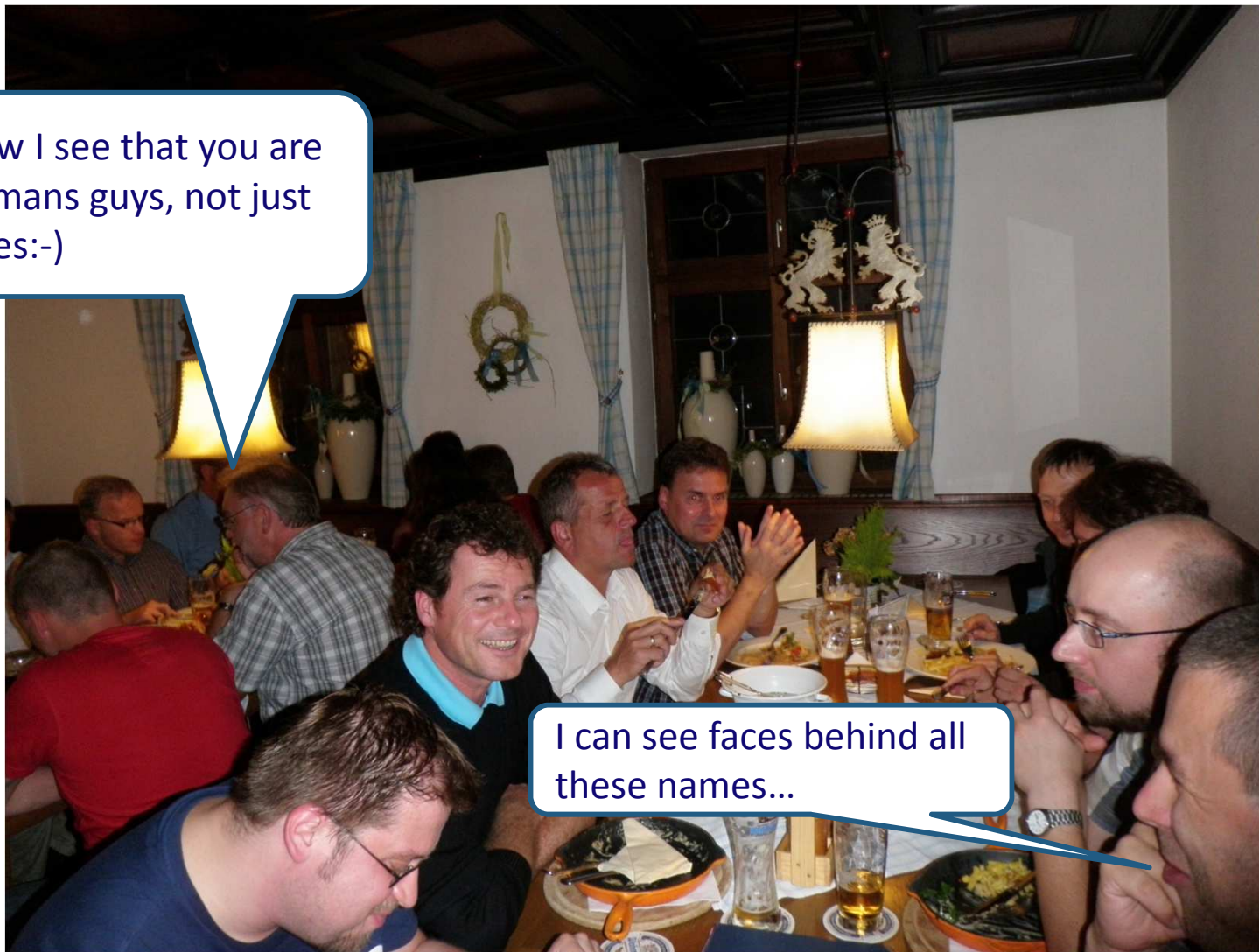
5 WHYS

- Delays in server implementation process
 - Weak information sharing between shifts
 - Insufficient information for task handover
 - 🕒 Work Log (WL) not filled
 - ➔ Not recognized impact of missing WL description (others cannot process it)
 - Not seen big picture and value for the customer
 - ***Missing end-to-end process description***
 - ***Assumptions (“it’s obvious”)***

Evening dinner

Now I see that you are humans guys, not just roles:-)

I can see faces behind all these names...



Sociali-
zing

Kaizen workshop – Day 2

Day 1 recap.

- Day 1 recapitulation

Problem solving

- Solution brainstorming

Plan

- Kaizen steps → A3s

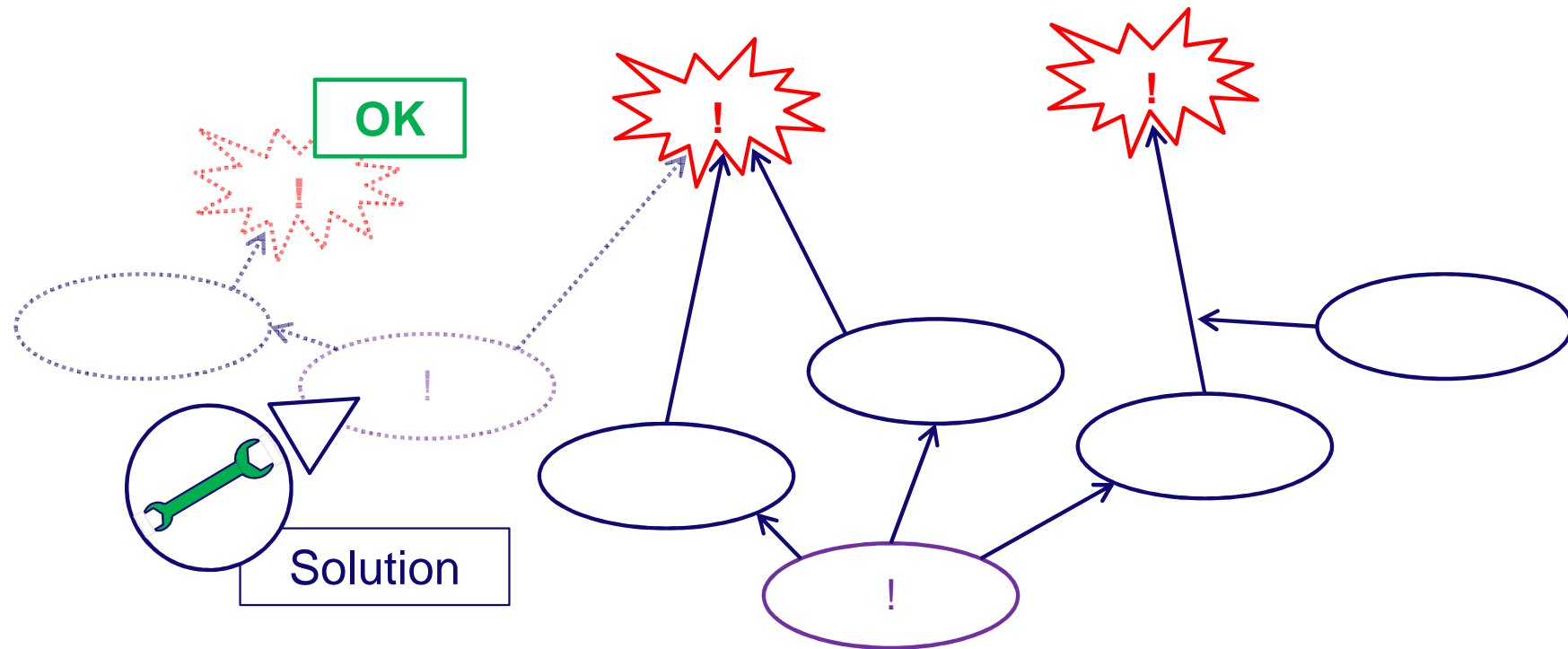
Groups

- Heroes group (including internal coaches)
- 14 weeks framework sessions planned

Wrap-up

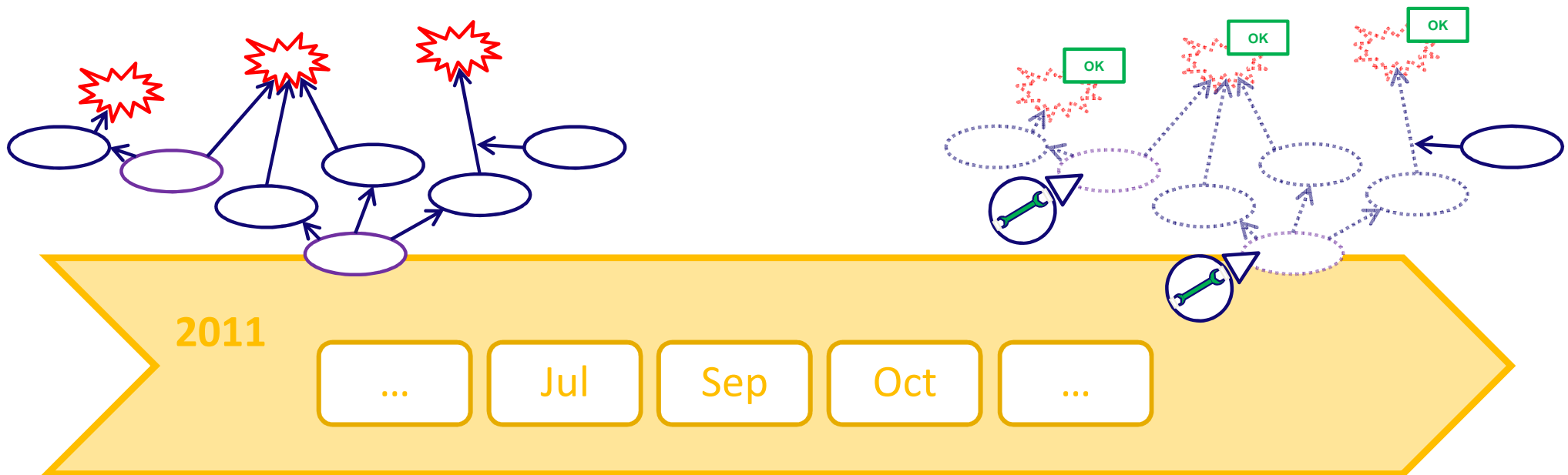
- Wrap-up & feedback

Solution



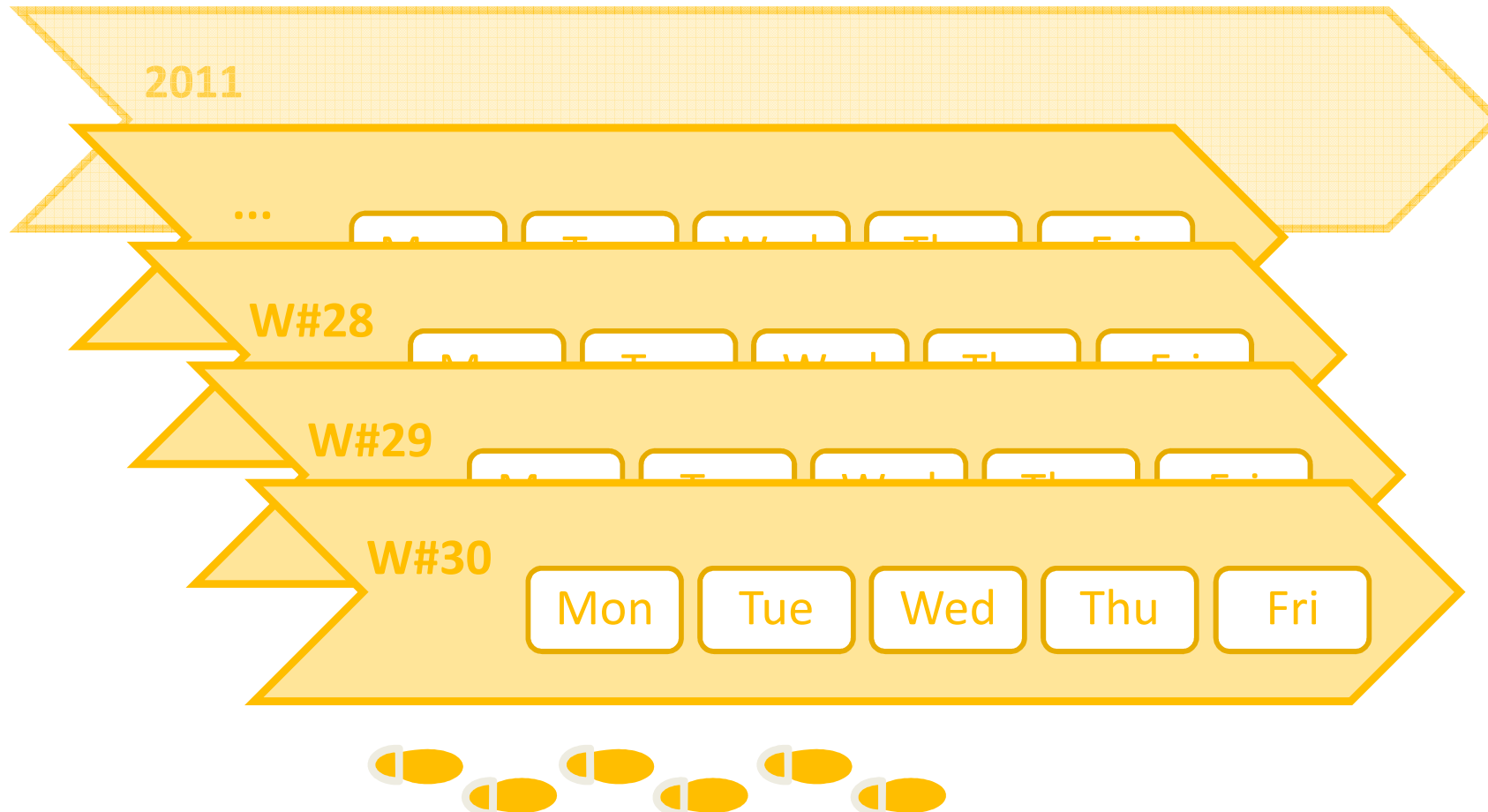
Remove root causes once and forever

Long Term Solution



Solutions “invented here” & solving “my problems”

Short term next (Kaizen) steps



Do not just plan, act now!

Improvement formalization



- A5
 - Issue description
- A3
 - Plan-Do-Check-Act cycle driven solution

Kaizen Workshop outcomes: context & focus

- Visual value stream map 

- Sustainable solutions & next steps

Problem	Root cause	Solution	Next step	Responsible	Deadline

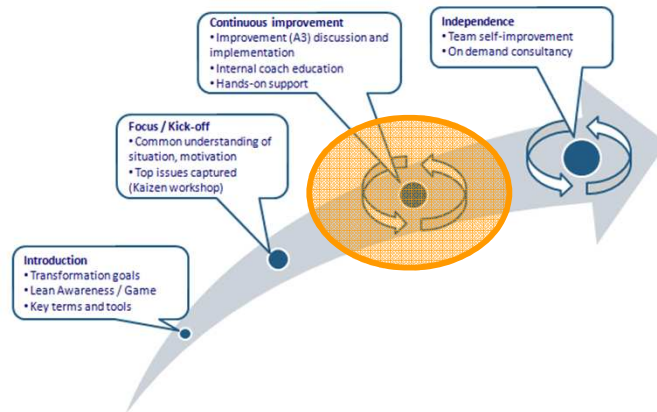
- Synchronized people over the whole value chain
 - Everyone knows how we work together
- People are motivated and committed to changes
 - Because they know how it solves their problems
 - And they invented the solution themselves

Tangible

Intangible but important!

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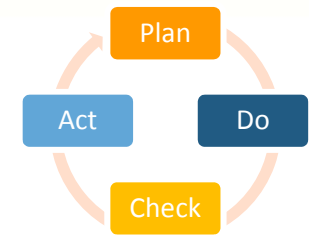
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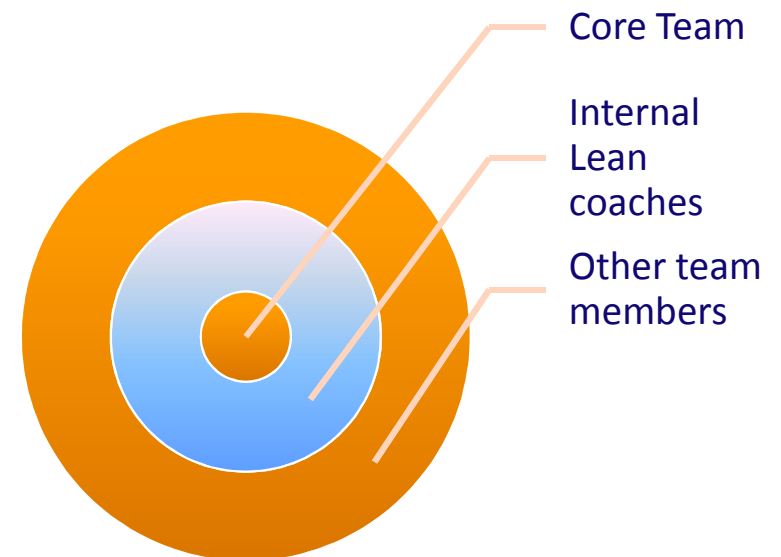
Lean@Tieto Framework

CONTINUOUS IMPROVEMENT

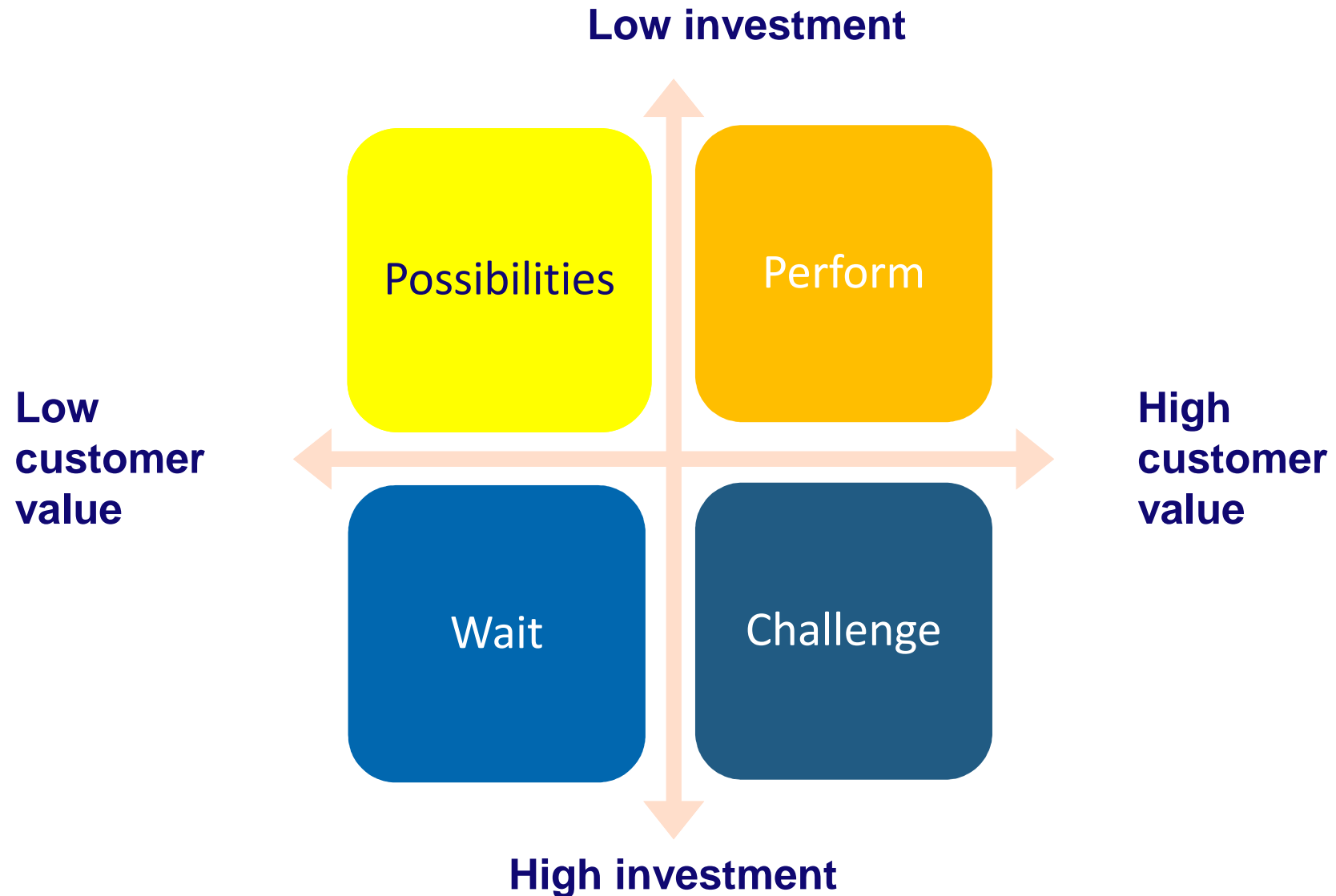
Implementation



- Everyone can create a new A5/A3
- Implementation driven by A3s' owners
- Regular follow-up and prioritization of A5s/A3s by Core Team
 - Weekly or bi-weekly
- Alignment of actions ensured by Core Team

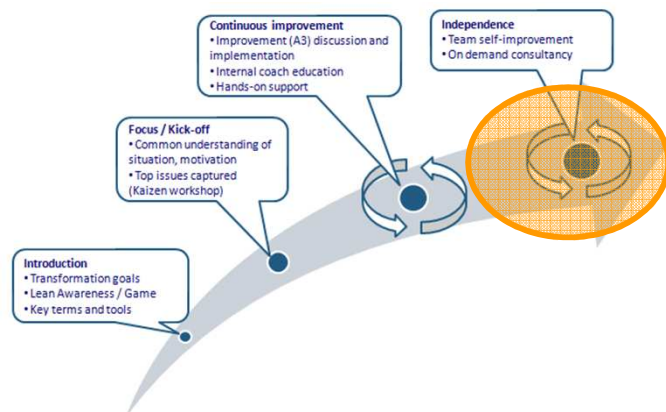


Prioritization



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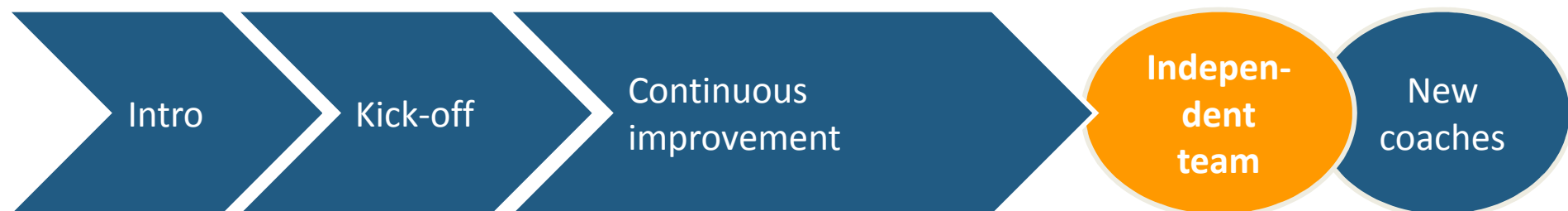


Lean@Tieto Framework

INDEPENDENCE

Independence

- Continuous improvement in place
 - Built into daily way of working
- Internal Lean coaches keep the continuity and teach others



Lean@Tieto in practice: Server implementation process

A STORY

Server implementation team

- Process efficiency: 56%
- Mean Lead time: 12 days
- Big variance in special orders

We would like to improve the situation with delays and rework in Networking teams as well as problematic handovers between shifts

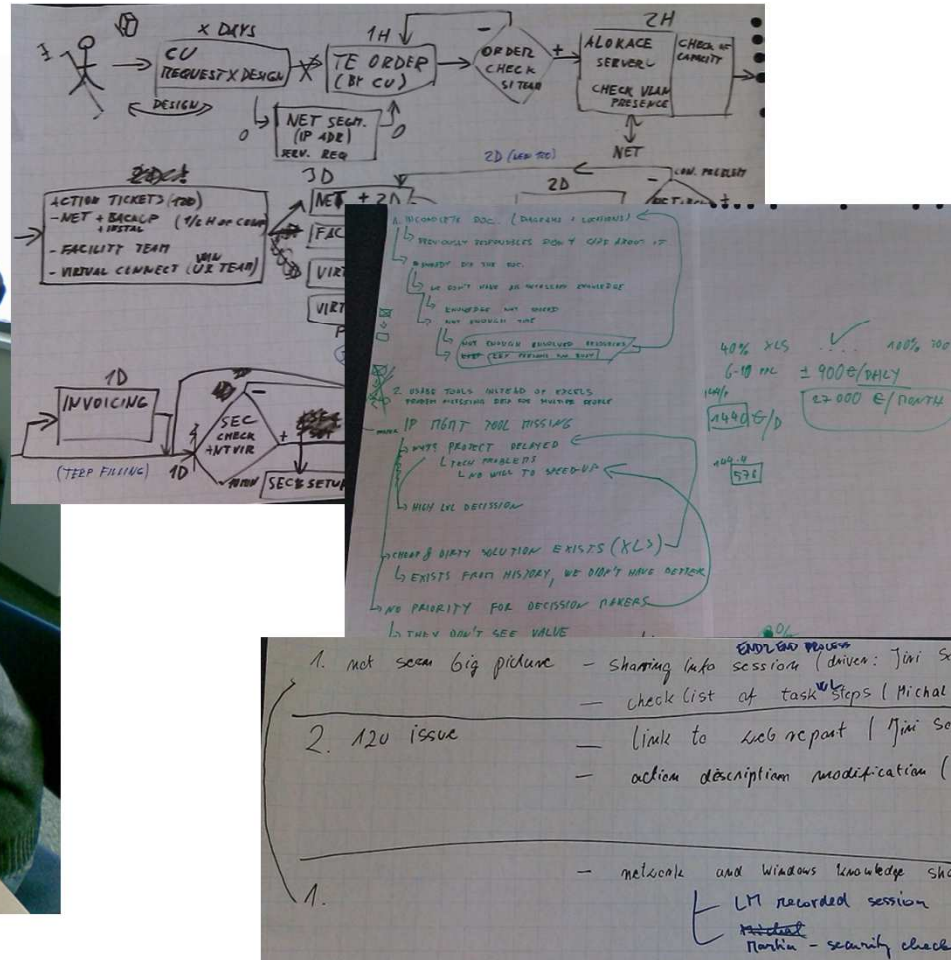
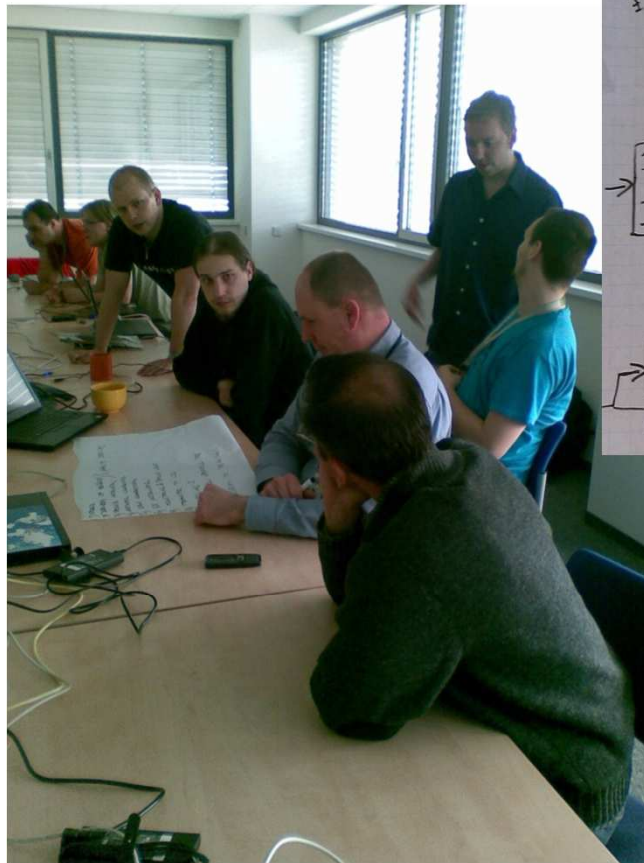


Come on, it is not so long time to deliver server

But for sure, there is a room for improvement, so let's start!



So we started with Lean ...



... and identified issues (A5)

FILENAME: Information sharing between specialists in serv....

1. THE PROBLEM

Specialists work in 24*7 shifts, they should share information about done work on serv. implementation tickets between shifts. We are missing this process and support for them.





2. THE SOLUTION / FIRST SUGGESTION

Create checklist with steps a paste it automatically to the "Description" field of the ticket. Specialists will put simple/complex (on demand) notes about these steps to WL. Anybody who will overtake their tickets will have information about done work.

Root causes and solutions (A3)

Background	Plan
Server implementation process is not very efficient. Current setup causes delays and rework in different teams. Also lack of proper (automated) tools causes human errors.	
Current Condition/Issues	Plan
Specialists work in 24/7 shifts, they should share information about done work on serv. implementation tickets between shifts. We are missing this process and support from them. It causes delays: <ul style="list-style-type: none"> Waiting with ticket processing up to 1 day [source: SI workshop, OV, 29.7.2011] Process efficiency: $6.5/11.5d = 56\%$ 	
Goal / Target Condition	Plan
<ul style="list-style-type: none"> Shorten lead time of SI process by 1 day until end of 2011 <ul style="list-style-type: none"> Potential higher income: $90 \text{ tickets}/10 \text{ days lead time} \times (\text{EUR}) = \text{EUR}$ $\text{EUR}/10 \text{ day} = \text{EUR/month}$ New process efficiency 62% until the end of November 2011 (higher by 6%) 	
Root Cause Analysis	Plan
5 whys Delays in SI process <ul style="list-style-type: none"> Weak information sharing between shifts <ul style="list-style-type: none"> Insufficient information for task handover <ul style="list-style-type: none"> Work Log not filled <ul style="list-style-type: none"> Solution/next step is simple and clear for skilled specialist Too heavy load to fill Work Log <ul style="list-style-type: none"> Only a few people processing SI tickets – <i>solved</i> Improper tools (Excel) causing waiting and thus context switching → <i>solves A3: IP Mgmt tool</i> Not recognized impact of missing WL description (others cannot process it) <ul style="list-style-type: none"> Not seen/known big picture/whole process and value for the customer <ul style="list-style-type: none"> <i>Missing end-to-end process description</i> <i>Assumptions (it's pretty clear, other skilled specialist will know how to continue)</i> 	
Name:	Weak information sharing between shifts
Owner:	Jiri Malik
Mentor:	Jaroslav Prochazka, Jan Krehnak
Date:	29.07.2011
Countermeasures (Experiments)	Do
Checklist in Worklog and sharing sessions: <ul style="list-style-type: none"> [Jiri Sosnovec] Sharing session about End-2-End SI process to NET people – <i>end of Sept.</i> [Michal Binczyk/Rafal] Visual End-to-End process part of teams' working environment/tool <ul style="list-style-type: none"> ✓ [Jarek Prochazka] Share visual process with Process owner [Michal Filip] Milestones checklist of task steps in WL - <i>end of August</i> <ul style="list-style-type: none"> ✓ Starting checklist by Michal Binczyk in September ✓ Updated checklist based on experience [Michal Filip] Bi-directional WIN and NET knowledge sharing ("What is our task about") <ul style="list-style-type: none"> ✓ [Michal Filip] Session recorded during Live Meeting to be accessible for other colleagues (FIN, newcomers) – <i>pilot done until end of August, other sessions in 1st half of Sept</i> ✓ [Martin Hlista] Check security if LM record can be stored and accessed. If not, ask for other feasible solutions – <i>5.8.2011</i> 	
Confirmation (Results)	Check
Measured results after actions are performed	
Follow-up (Actions)	Act
Any additional actions to be performed	

Improvements implemented

Type	Name	Improvement Area	Group	Content Type	Modified
[-] Group : Networking team (7)					
	1 AC type 120 abuse (NET) A3	Way of working	Networking team	A3	8/4/2011 2:46 PM
	1 Weak information sharing between shifts A3	Cooperation with other teams	Networking team	A3	8/4/2011 2:46 PM
	Incomplete documentation	Way of working	Networking team	A3	8/12/2011 2:03 PM
	Proper IP management tool is missing	Equipment and material	Networking team	A3	8/5/2011 9:50 AM

- Implementation period: 7 weeks

Achievements

- In 7 weeks team:
 - Improved process efficiency by 12%
 - Shortened Lead time by 20%
 - Financial impact **67000 EUR/monthly**



Let's continue with other areas as well. I like this approach!



Wow, we are great team ;)



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RESULTS

Long-term results

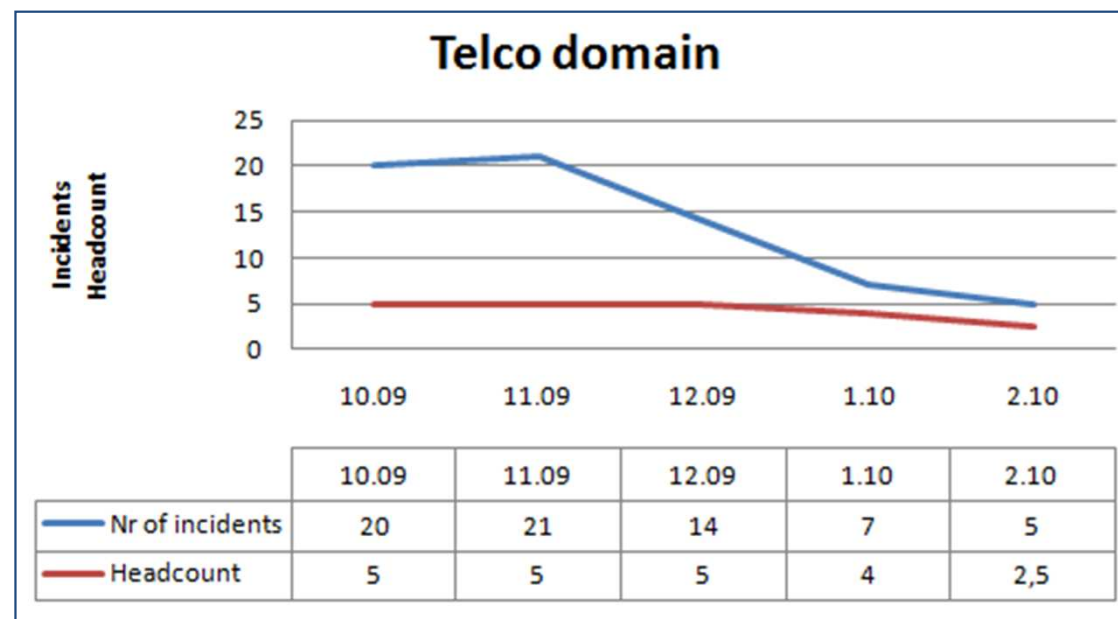
- Service in telco sector:
 - 70% incident decrease in 5 month
- Another service in telco sector:
 - 2M SEK new business: proposed improvements
- Product development in energy sector:
 - 20% EBIT improvement in one year
- Conversion in banking and insurance sector:
 - Shortened lead time by 60% in 4 month

Service level results

Type	Name	Improvement Area	Group	Content Type	Status	Modified	Modified By	Lead time shorten	EBIT + (monthly)
Group : Networking team (7)									
	1 AC type 120 abuse (NET) A3	Way of working	Networking team	A3	A3 under construction	8/4/2011 2:46 PM	Malik Jiri	6 %	24,300.00 €
	1 Weak information sharing between shifts A3	Cooperation with other teams	Networking team	A3	A3 under construction	8/4/2011 2:46 PM	Malik Jiri	0 %	24,300.00 €
	Incomplete documentation	Way of working	Networking team	A3	A3 under construction	8/12/2011 2:03 PM	Prochazka Jaroslav	0 %	2,700.00 €
	Proper IP management tool is missing	Equipment and material	Networking team	A3	A3 under construction	8/5/2011 9:50 AM	Krchnak Jan	6 %	15,500.00 €
Group : () (5)									
	1 Delays and inefficient handovers in existing services (slow change management) A3	Cooperation with other teams	()	A3	Ongoing	8/4/2011 2:16 PM	Prochazka Jaroslav	5 %	15,000.00 €

A3s with its impact

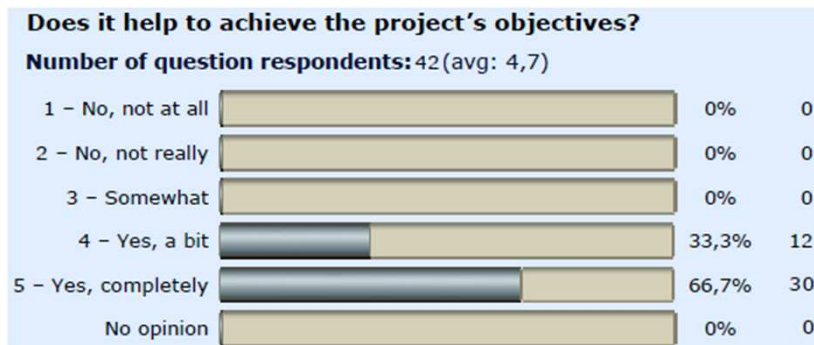
Service level results



- 70% incident decrease in 5 months
- Changed nature of incidents

How do people see it?

- Lean Awareness workshops
 - 21 sessions conducted in 2011 (avg. rating: **4.36/5**)
- Kaizen workshops
 - 20 sessions conducted in 2010/11 (avg. rating: **4.2/5**)



Jarmo (Project owner): *“Very useful workshop. Good method! I was originally a little bit skeptic about using 2 days of our heavily burdened professionals time to this. Now I am convinced that it was worth while! The meaning is to find productivity and quality increasing actions through finding bottlenecks, their root causes, making priorities and agreeing on actions.”*

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CHALLENGES

Typical challenges: corporate level

- Disconnected (and/or sub-optimized) goals
- People protecting their comfort zone (natural human behavior)
 - “They have to start first...”
 - “Someone else’s problem”

Typical challenges: service/project level

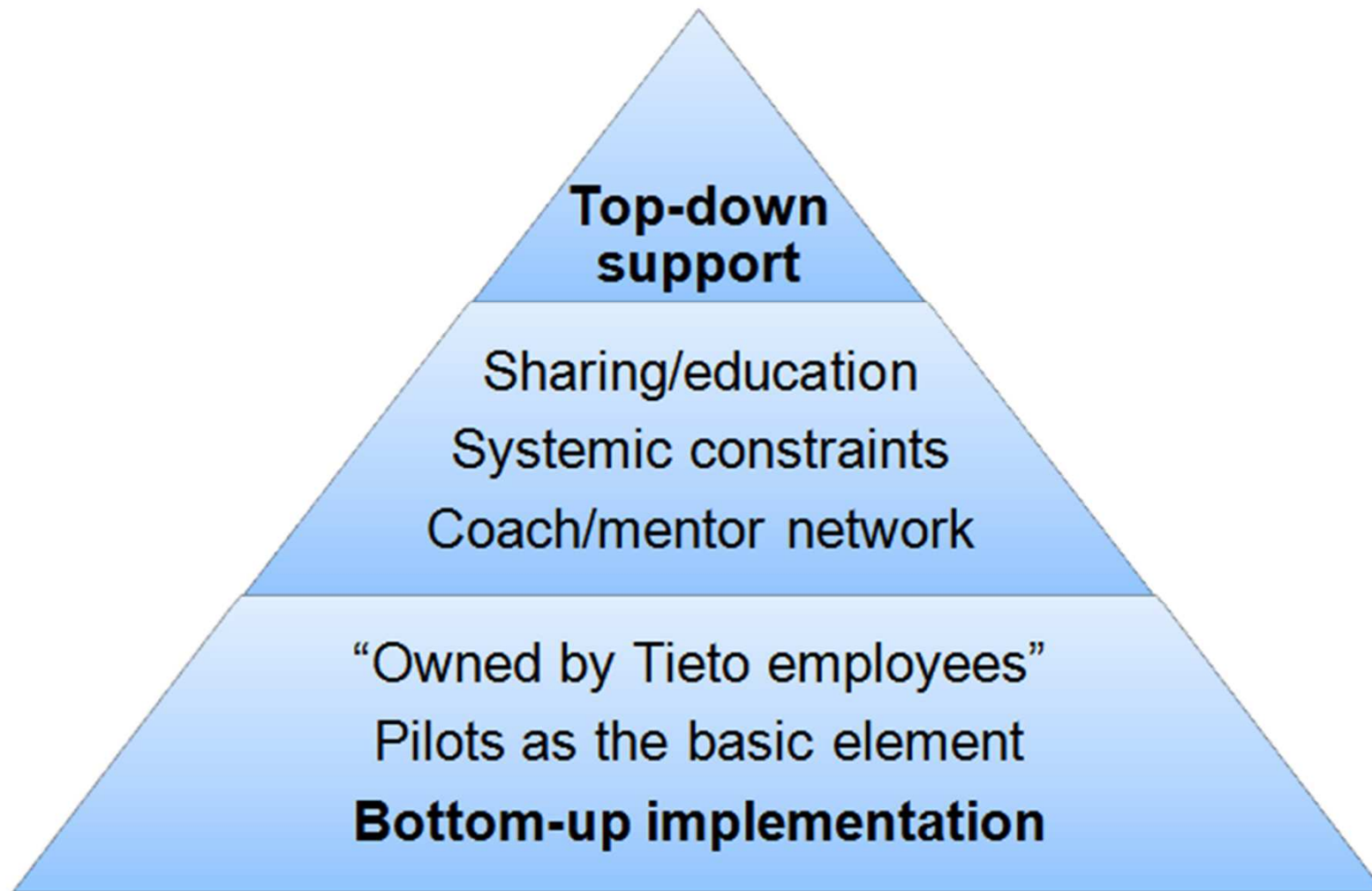
- Lacking leadership/ownership
 - Even more visible in distributed environment
- No time to improve
 - “No time to sharpen the axe, we have to cut the trees...”



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CRITICAL SUCCESS FACTORS

Lean@Tieto Strategy



Bottom-up approach...

- Team ownership
 - Delivery teams own the change (drivers)
- On-job learning
 - Plan-Do-Check-Act life cycle in practice

...with top-down support...

- Executive management as role models
 - Managers are the first to adopt Lean thinking
 - Direct involvement in Lean activities
- Prioritization of Lean@Tieto as a long term investment
 - Slow down to speed up
- Focus on long-term results (prevent firefighting)
- Solving systemic constraints (e.g. goal setting)

...with coaching as the glue

- Lean coaches as role models (navigators)
- Internal coaches
 - Local support of teams (especially in distributed environment)
- Delivery Mentor Network
 - For organizational learning (ripple effect)

Selling the initiative

- Packaged solution/service
 - How many people, costs, time period, frequency of sessions
- Printed takeaway marketing and selling material
- Success stories to create pull
 - Videos

Thank you!

QUESTIONS?