

" How to achieve LEAN success with proper management "

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SINTEF Raufoss
manufacturing

In short SINTEF Raufoss Manufacturing

SRM is a national Competence center within material technology, manufacturing technology and Lean processes for industry and public sector.

Our tradition and largest customer segment is Norwegian manufacturing industry, but within Lean, innovation, quality and organisational development it is a growing market in public and privat service sector such as universities, hospitals, schools, municipalities, trading and energy companies.

Our ambition is to create sustainable and effective solutions that gives competitive advantages for both manufacturing- and service providing companies in Norway.



How to make Lean work in practice?



Management
and
infrastructure

Organisation/
Improvement groups

Visual management/
scoreboard

Coaching management
Gemba/Kata-walks

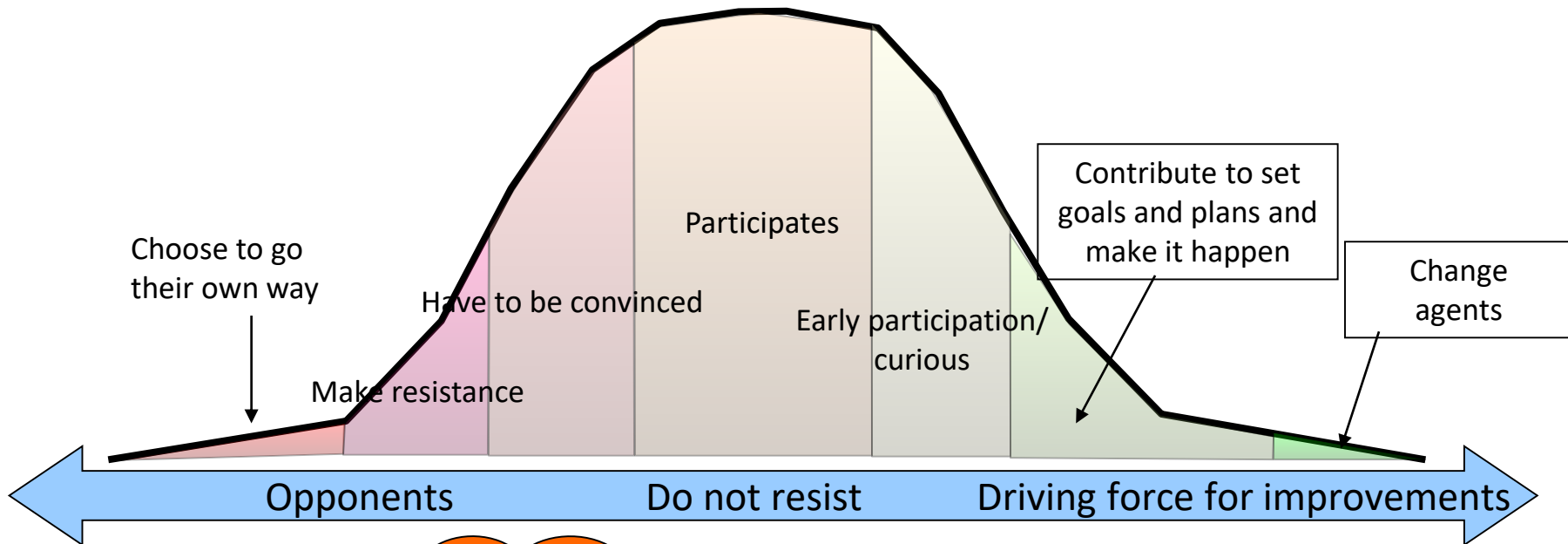
Follow up/revisions

Before you start up with Lean: A lot of information and discussions



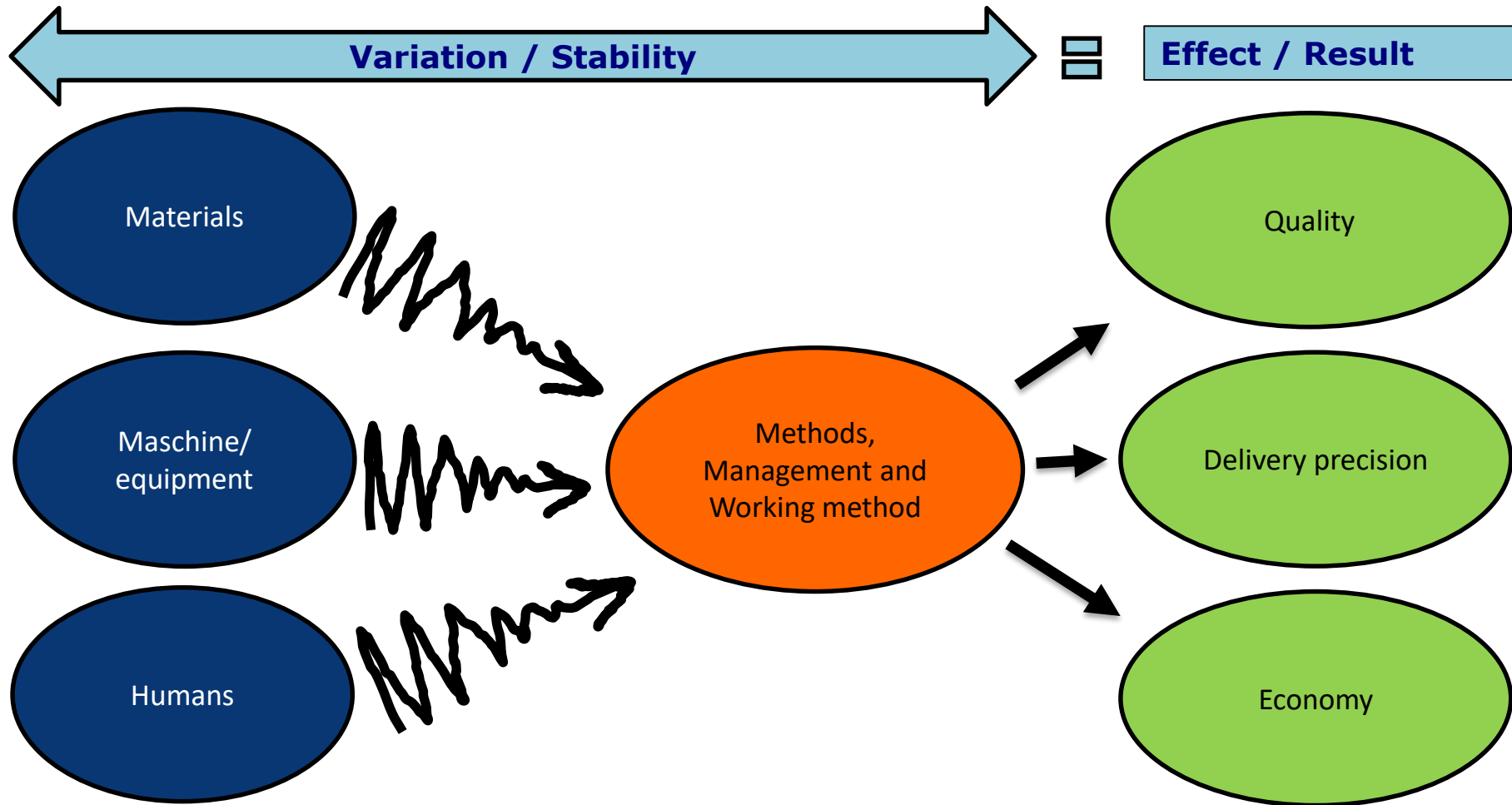
I have no time to loose.....have to work....

Commitment in the start up phase



Where are you?

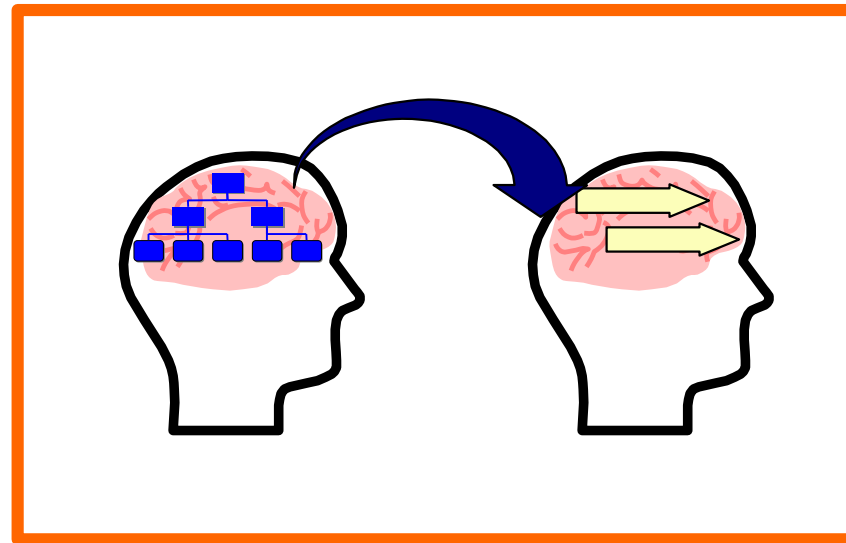
Factors that affect the results



Continuous and systematic involving improvement work to stabilize and improve input factors and processes.

Changing to Lean means changing the way of thinking

- It starts with the management!



How to make this work in practice?

Focusing on how people work, not only the results

*"You talk about setting numerical targets and using them to determine whether something is acceptable or unacceptable, but that's not really what management is all about. That's what you'd call 'monitoring.' **True management is about organizing things so that everyone works toward their targets.**"*

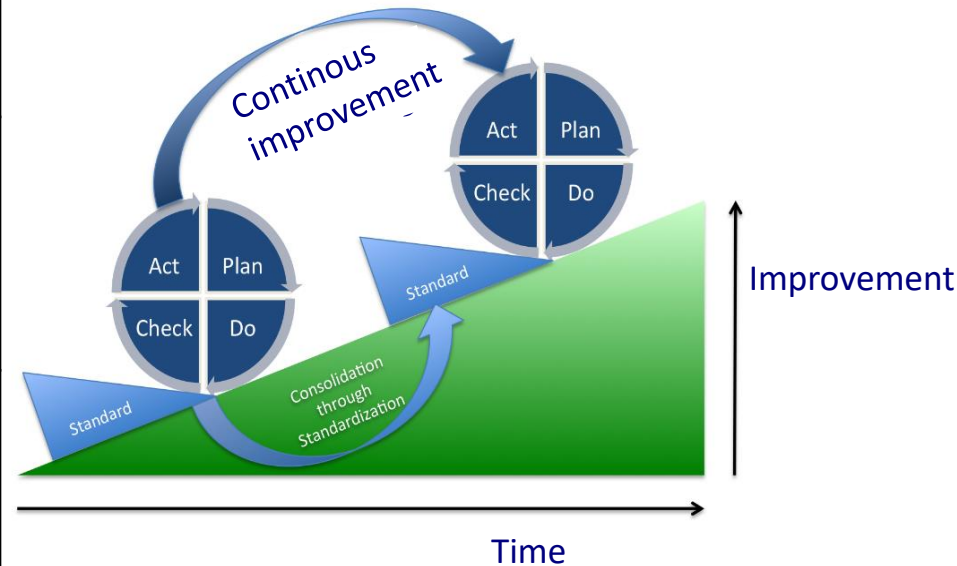
~ Taiichi Ohno



PDCA – the improvement wheel

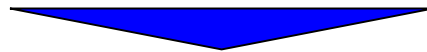
Important principle in the overall improvement work

P = Plan	Specify the problem and make a plan for the problem solving.
D = Do	Analyse the root causes. Choose the best solution and make an action plan. fram årsaker til problemet. Implement the solution
C = Check	Evaluate and check that the action solves the problem. Quantify what you achieved. If the solution did not work, the deviations have to be identified. If needed, return to Do.
A = Act (standardize and implement)	Make sure that the problem does not return. Standardize and implement!

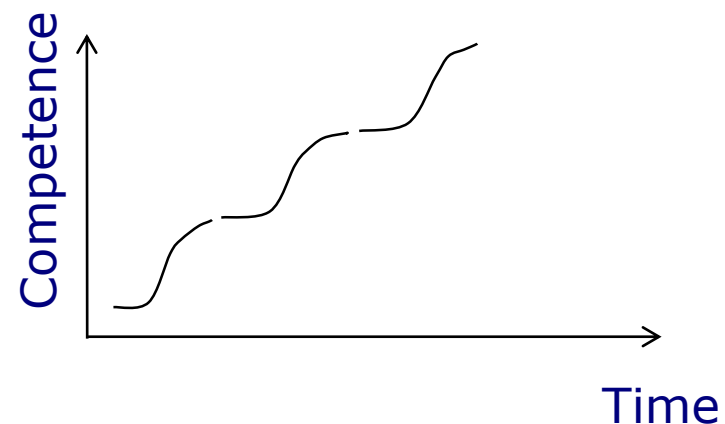
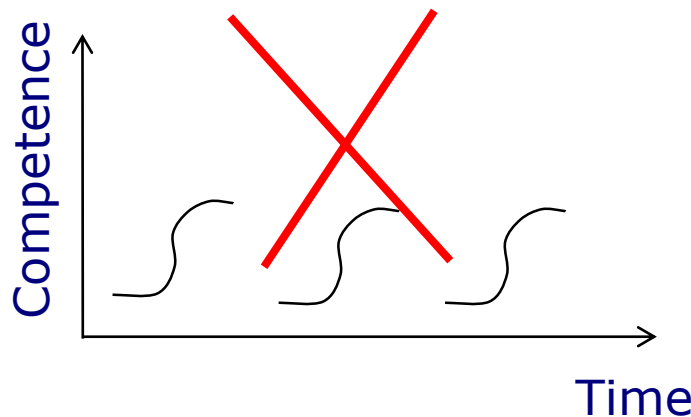


Lean tool, standardized work practice

- *You work different, which means that not everybody in all cases works according to "best practice".*
- *That means loss of effectiveness, quality and economy. A lot of the thinking is "personal" instead of learning from each other.*



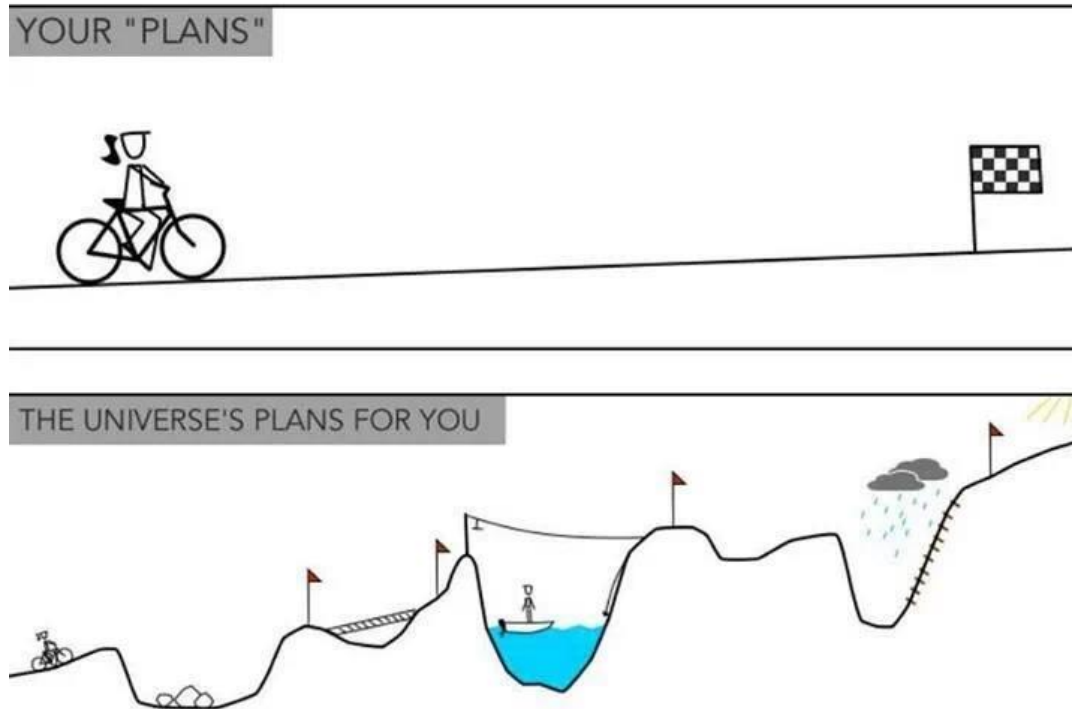
To develop a learning organisation



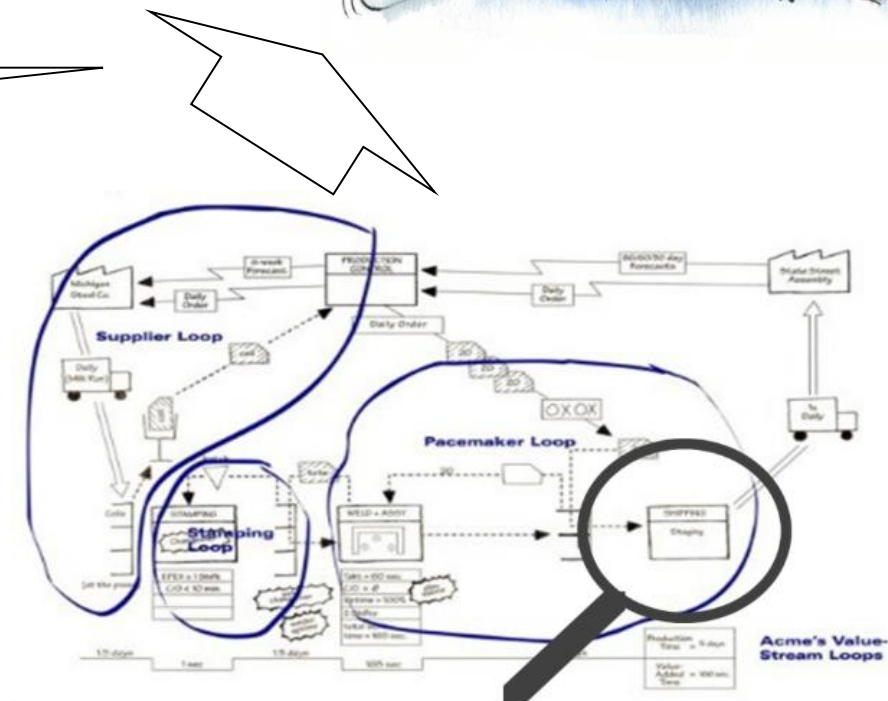
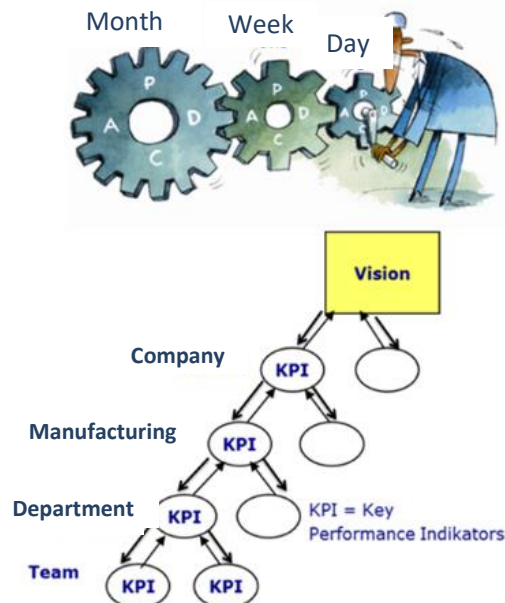
THERE IS ALWAYS A BETTER METHOD!

Understand goals and direction

YOUR PLANS vs. UNIVERSE'S PLANS

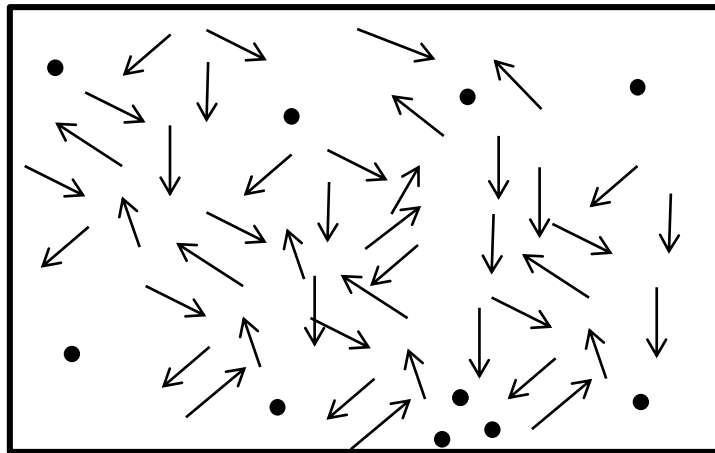


Understanding of goals and direction, Target breakdown and Value Stream Mapping contribute to this and secures common focus.



Establish a common concept/manufacturing system

- Make sure that the company has a common concept and comply to it.
- We can not act like a group of "single person companies".



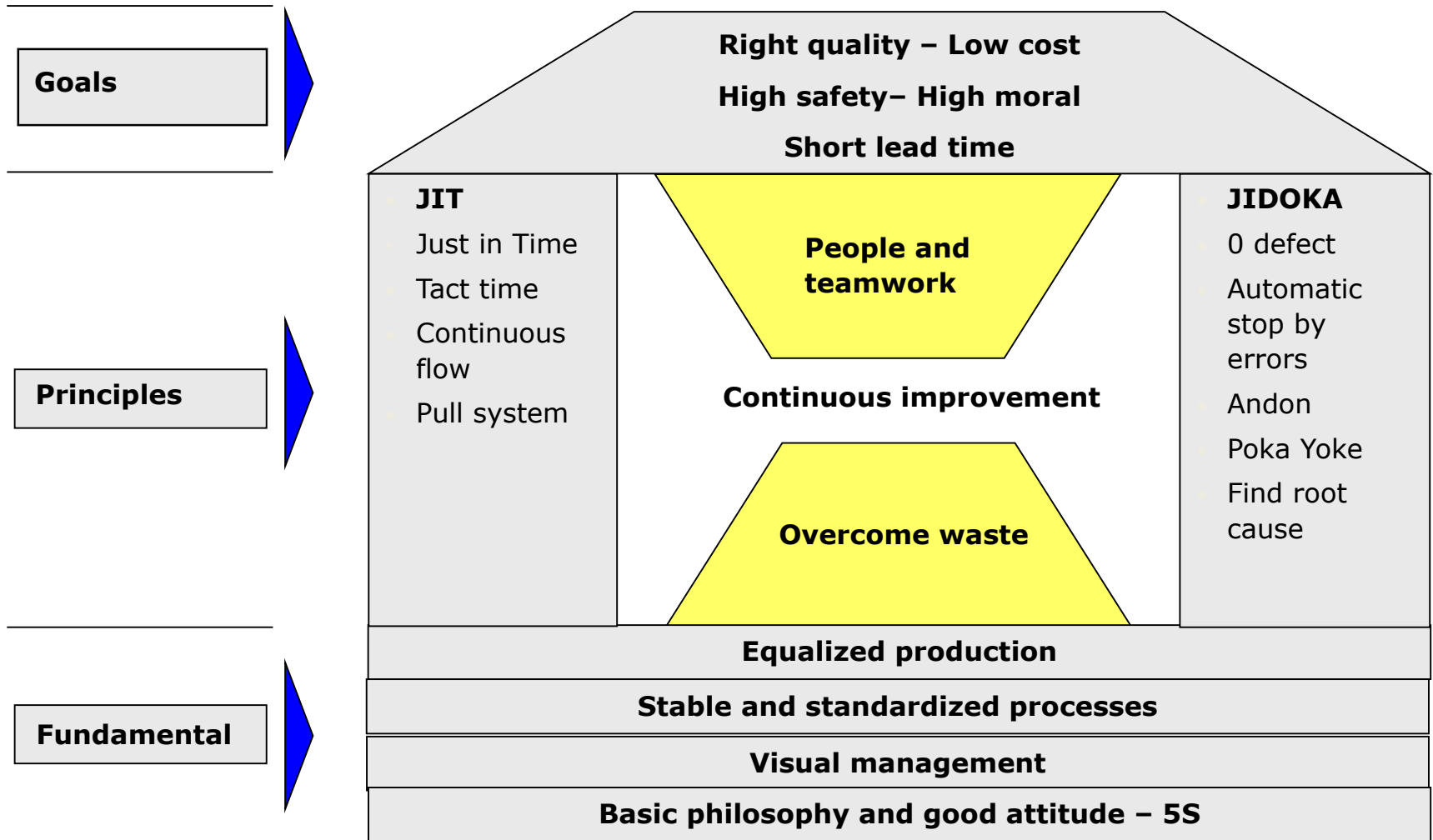
Common situation



Desirable situation

A system that secure a holistic culture

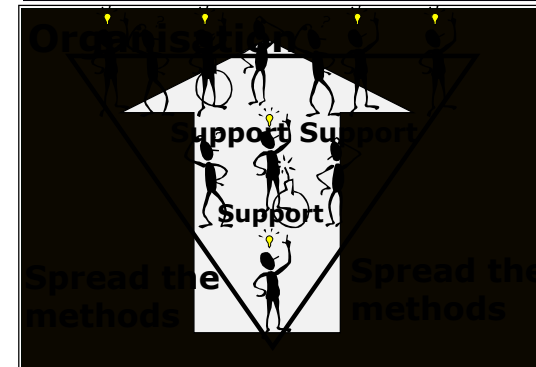
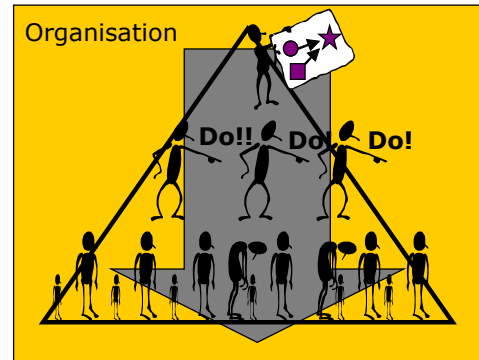
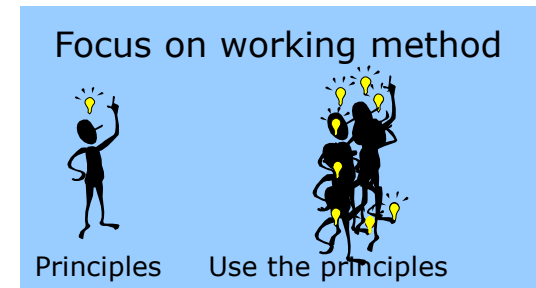
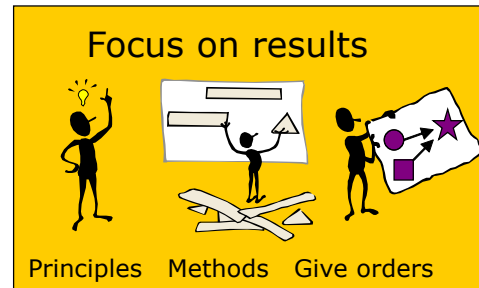
An Example of such concept



Leadership



or put in another way



Lean leadership

Engage and
motivate the
employees

Respect for people

Process oriented

Support and recognition

**Manage by being a role
model**

"Walk the talk"

"Live as you learn"

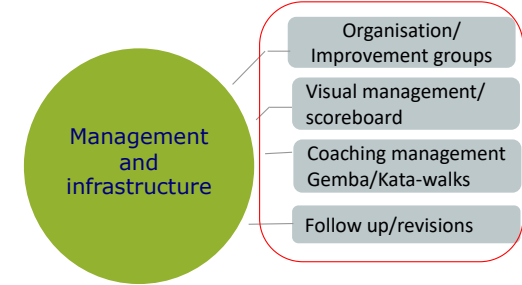
Break down
the goals
and make
plans

Commitment to
standards

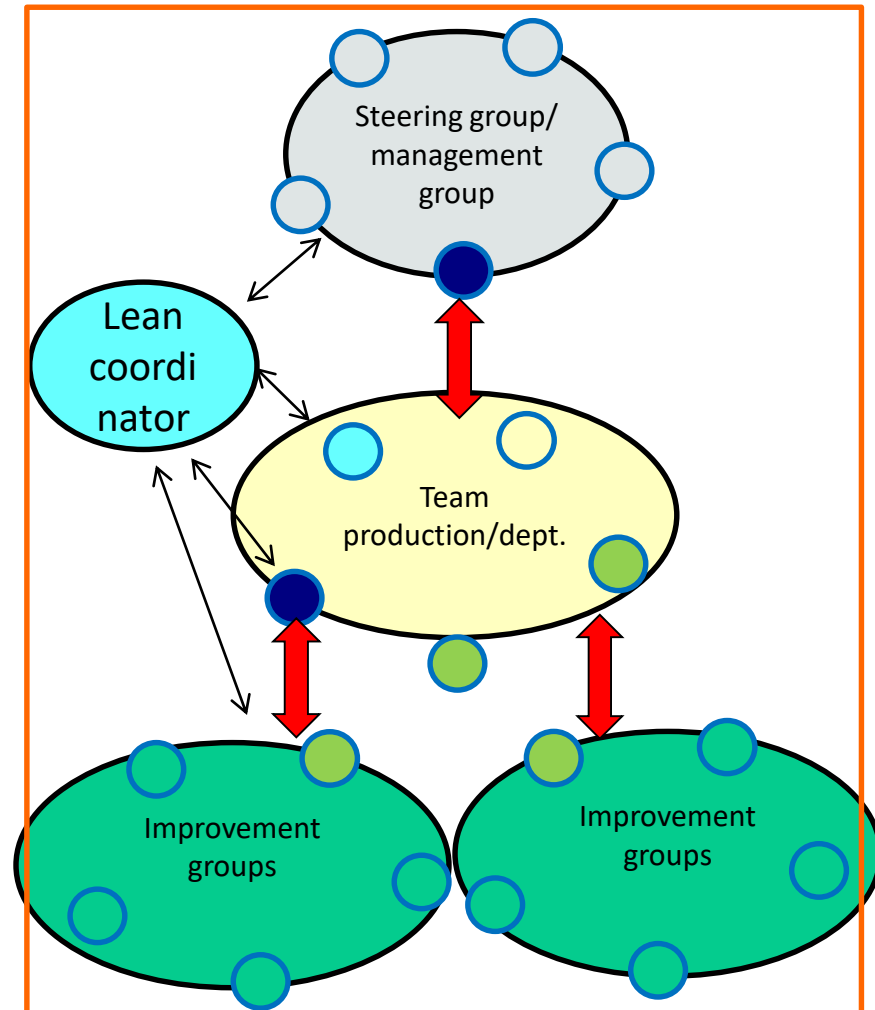
Understand long term
goals, visions and
principles

Support the
change process

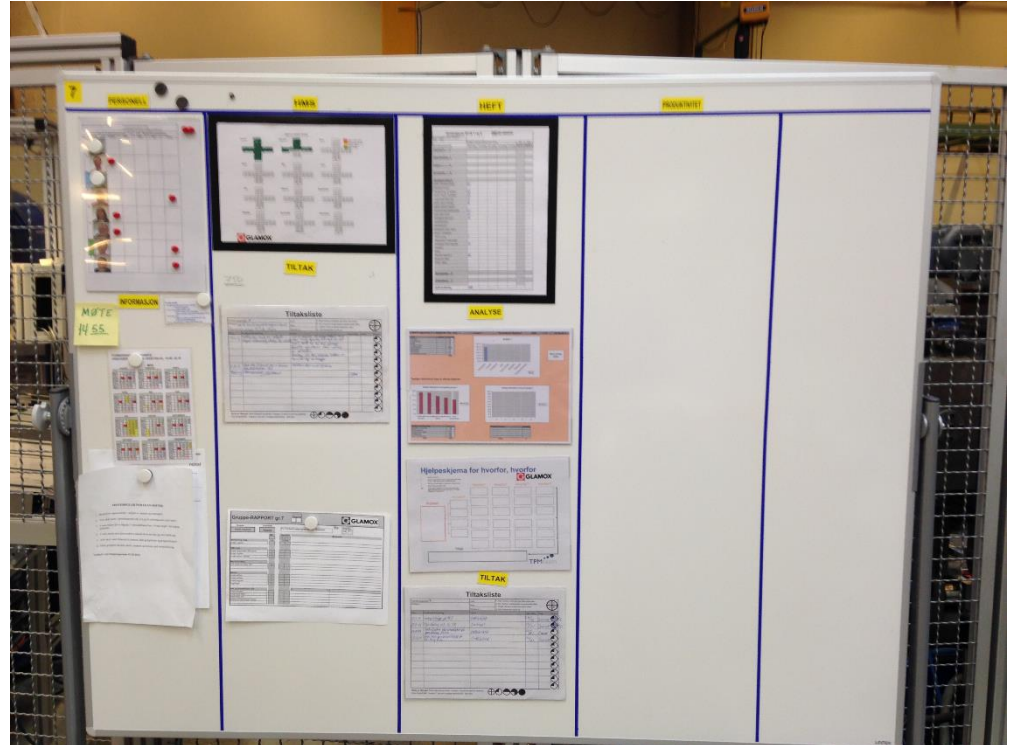
Example: Rough sketch of an improvement organisation



- **Steering group / Management group**
 - Management / union representatives
 - Commit the plan + follow up progress 1 time per month
 - Follow up KPI's each month
- **Team production / department**
 - Team leader
 - Group leaders / group members?
 - Support functions like logistics, purchase, maintenance, QA etc.
 - Goals / KPI (inclusive progress in improvement work)
 - 24 h meetings (last 24h / next 24h + last week)
- **Improvement groups**
 - Group leaders
 - Group members
 - Responsibility for 5S, standardized work, +++
 - Improvement group meetings inclusive action plans



Each group have score board meeting every day



10 minutes with focus on HES, man power, machines and equipment, shortcomings, delays and disturbances.

Simple rules and agenda for the score board meeting

Rules

- ☐ The meeting last for 10 minutes
- ☐ The meeting starts and end at agreed time
- ☐ Everybody should be present on time
- ☐ Meetings are held standing
- ☐ No phones in the meeting
- ☐ No questions or proposals are stupid

Agenda

- ☐ Input from the management
- ☐ Status/dialog about goals and results
- ☐ Action plans
- ☐ Status ongoing activities
- ☐ Comments/complaints from stakeholders
- ☐ Initiate or start up new improvement proposals
- ☐ Input to the management

Score board structure (put in context)



Group boards



Factory board

Go and observe

- Go and observe the reality (Gemba)
- Always ask "why"
- Always be a good role model
- Be respectful
- Coach in a view of continuous improvements



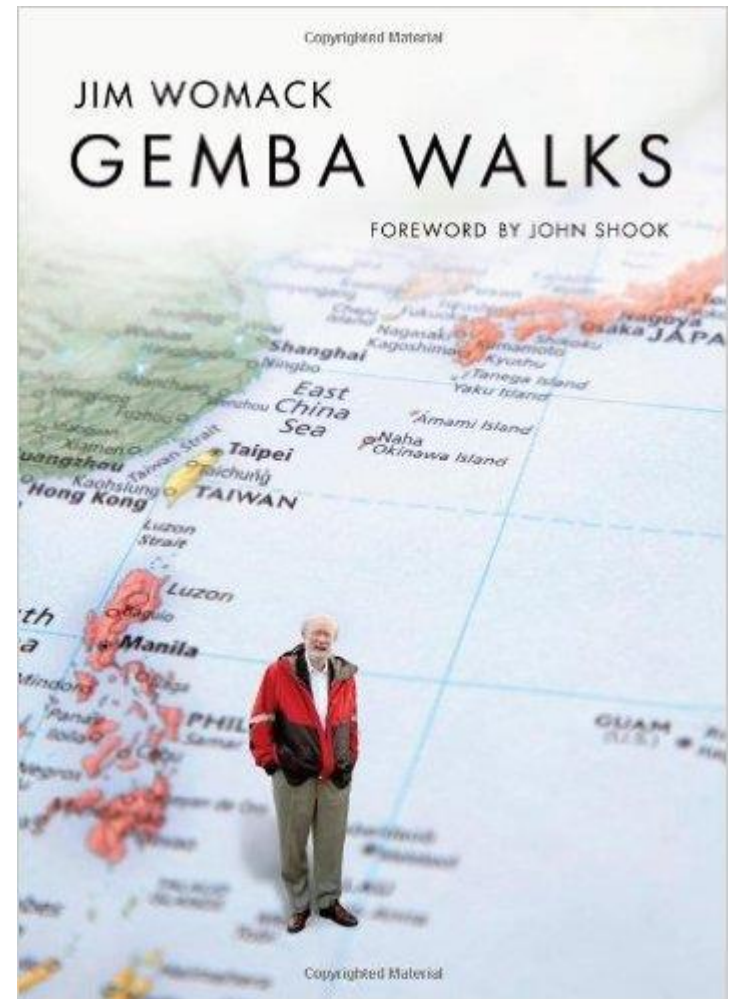
President Obama in a Gemba walk

Management is to motivate your employees each day, coach them, manage them, develop them and create enthusiasm to reach the agreed goals – create "Engagement, Responsibility and Consciousness"

GEMBA Walks

- "The life of lean is experiments. In short, lean is not a religion but a daily practice of conducting experiments and accumulating knowledge."

James P. Womack



Gemba walks need a standard

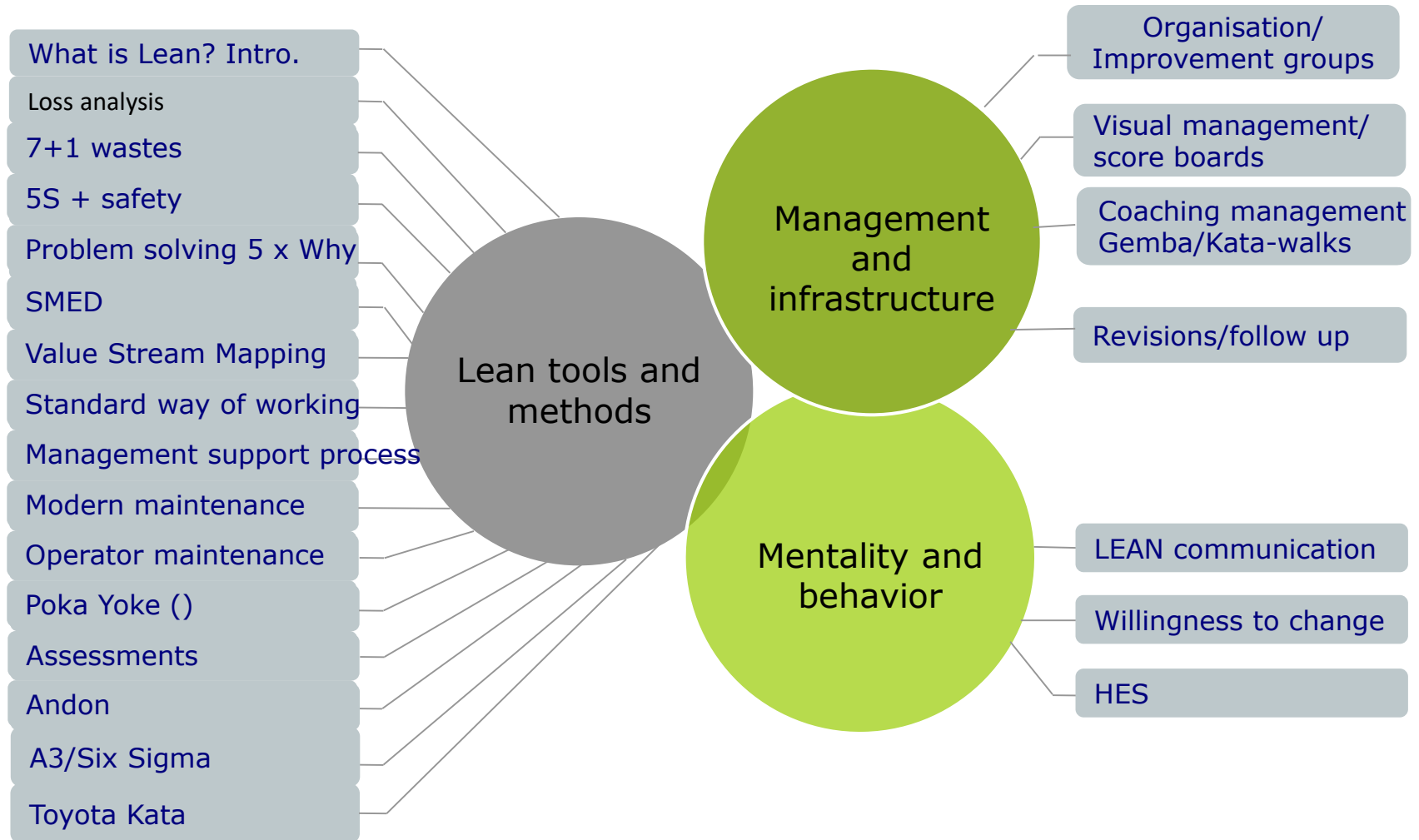
Gemba (where customer value is created)

- ➔ Management make GEMBA walks controlled and documented.
- ➔ This means:
 - ➔ Certain times (check lists to be signed afterwards)
 - ➔ Check list for questiones
 - ➔ Follow up decisions that are taken
 - ➔ Revision of Safety, 5S, TPM, Qualiti etc.
 - ➔ Update of action lists
- ➔ A standard work practice for GEMBA (Could be a one-point lesson)



Board for Gemba walks

Summary: LEAN is based on 3 basic areas to achieve success



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**Thank you
very much!**