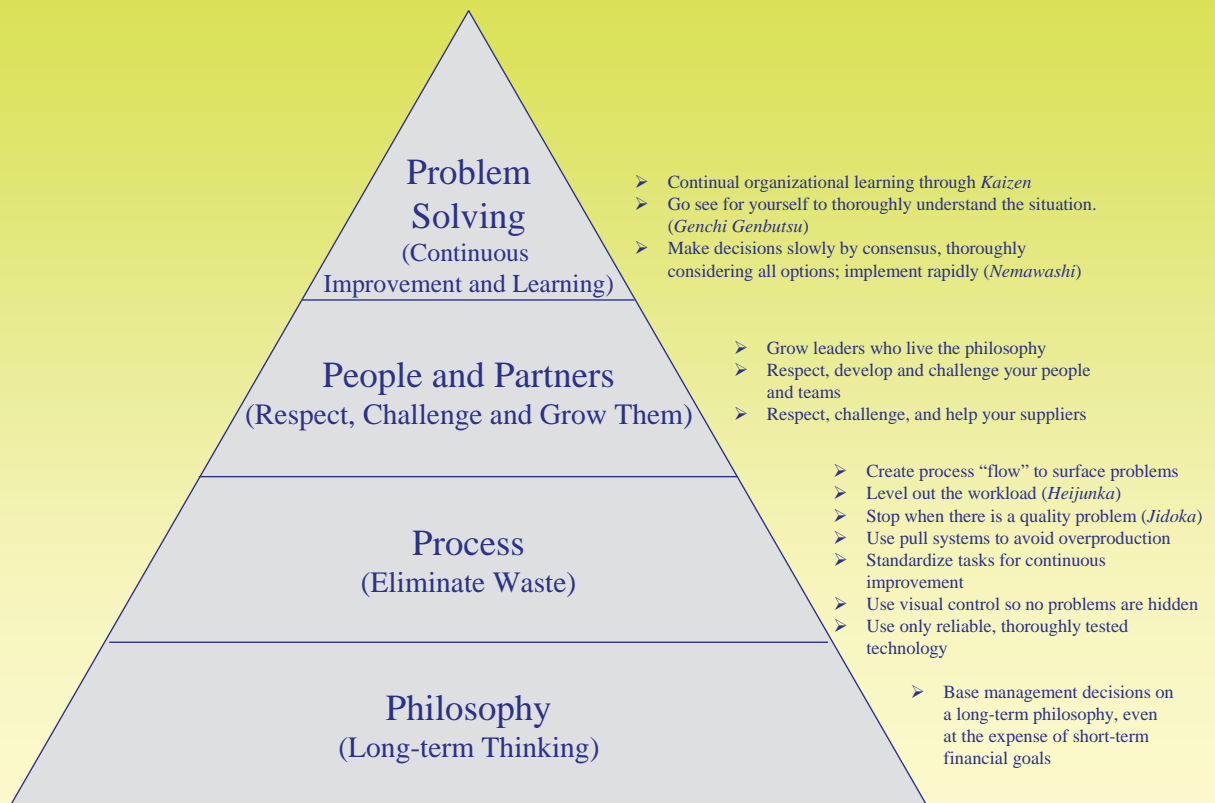


Lean Six Sigma in Fortum – Success stories and Lessons learned

*Jouni Keronen, Vice President,
Innovation development and partnering
Fortum Oyj*



“4 P” Model of the Toyota Way



Fortum's Mission

Mission

Fortum's purpose is to create energy that improves life for present and future generations. We provide sustainable solutions that fulfill the needs for low emissions, resource efficiency and energy supply security, and deliver excellent value to our shareholders.

5S

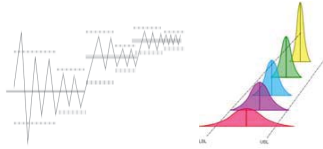


"The need for additional containers, in the distribution business, for storage of supplies was lost after the basic order and method work"

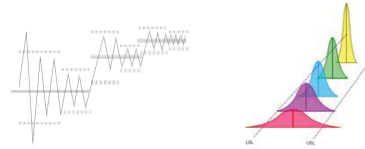
"2889 of 2991 failures and dirt sources found during the basic order and method phase have been corrected"



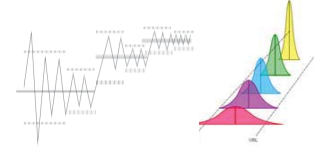
Process improvement logic, capability improvement and value creation



Measure -> eliminate variation -> improve service level



Measure -> eliminate variation -> improve service level



Measure -> eliminate variation -> improve service level

Value

- Finding supplier than can deliver biggest value
- Improving cost to quality ratio
- In suppliers side improved understanding what creates value for Fortum

Value

- Elimination of waste work -> cost savings
- New way of working -> cost savings
- Higher availability, less errors -> cost savings
- Focusing into most important work
- Enables to set "tougher" targets that forces to think new innovative ways of working
- Enables sustainable change

Value

- Higher quality - > higher price
- Higher quality -> more sales



Values & key behaviors

Co-create
Celebrate
Challenge
Coach



Fortum's Problem Solving A3 report (example)

Plant: Anoka	Department: Walmouth Manual 1 line	Date: 3.2.2010	Prepared by: Al Mott
1. Clarify Problem		4. Find Root Cause	
		<p>Comments</p> <p>Weldin operation over Takt time Line is imbalanced With current balance line should achieve higher output</p>	
2. Break Down Problem		5. Develop and Decide Actions 6. Conduct Actions	
<p>Method</p> <p>Poor product mix Not enough people Line imbalanced Low first pass yield Can't find material No sense of urgency</p> <p>Man</p> <p>Bathroom breaks Line short due to vacation Attitude Extended breaks</p>		<p>Machine</p> <p>Breakdown Yield Long setups</p> <p>Materials</p> <p>Materials not available Buffing every cover</p>	
3. Set Target		7. Verify Results	
<p>Comments</p> <p>The daily output of the line fluctuates greatly Output is not consistent The daily productivity goal is not being met There is no control of the process The process is not reliable</p>		<p>Comments</p> <p>Floor space reduction of 20 % Cycle time reduction of 75 % Productivity improvement 25 %</p> <p>Future activities</p> <p>Implementation of pul system for value stream Supermarket body blanks and end blanks Scheduling via signals from warehouse</p>	

Board teams - layout

Activity list

Challenge and desired state	Activity	Responsible	Start	Finish	Status
SV1	SSs	Kkllk	PS	41	
PIC 25	JJj	Zzzzc	TA	42	
SV1	LLl	EPL	KS	41	
SW	OOo	Lkajsd klkjdaa	TW	42	
MX213		Sa	RO	44	
GT 1	AAa	Wqw	HL	51	
GE-51-b	TTt	EPL	HW	42	

Input to board team

Improvement proposals

Purpose of board team

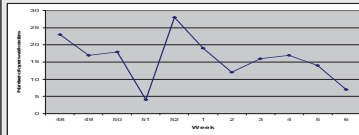
To work with continuous improvements

Related ongoing work

Project X, etc

KPIs

Relevant KPIs close to the group



Members of the group

Status of the members

	Vecka	29	30	31	01	02	03	04	05	06	07	08	09	10	11
Shift		3	6	7	5	4	2	6	7	1	5	4	3		
Hasse Larsson															
Roger Ostergren															
Thomas Westman															
Karl Saarela															
Dairi Saibi															
Hamid Kouchaky															
Coach Erik Dahlén															



Value creation

The value creation of the activities are measured in the future [Euro]

Progress of board team

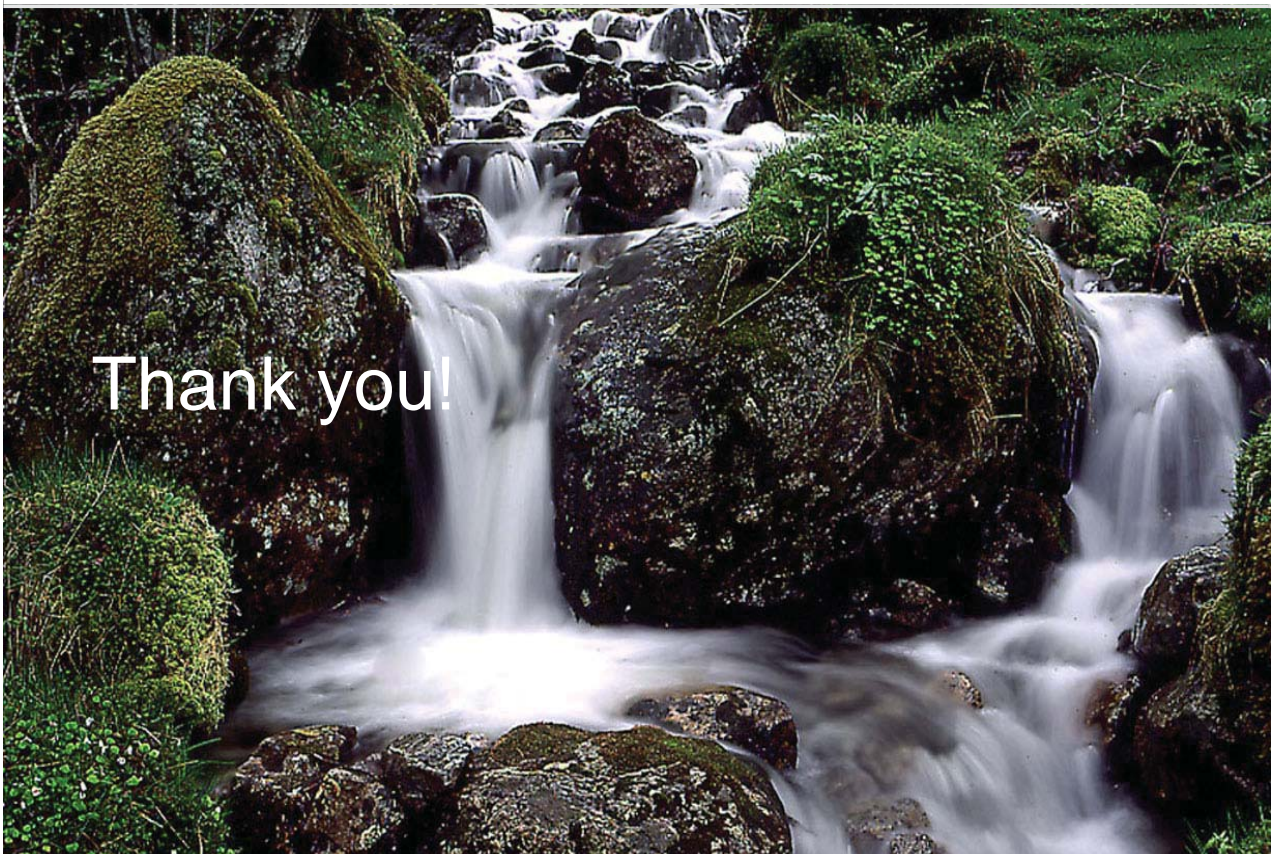
-Activities completed,

Activity	Aspikts fakt	2010													
		Jan	Feb	Mar	Apr	May	Jun	Juli	Aug	Sep	Okt	Nov	Dec		
Relevant activities completion time	85%		100%	100%											
Delivery reliability	0	10													
Absences	85%		85%	85%											

Agenda

- Attendance
- Follow up activities
- Input
 - KPIs
 - Deviations
 - Improvements
 - Order & method
- Add new activities

Board teams in Heat Scandinavia



Thank you!

