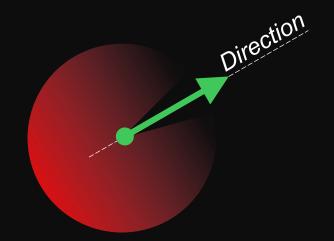


Lessons Learned From Leading Several Lean Transformations, Ranging From a Start-up to Large Multinational Corporations

Keep it Simple – No Premium for Complication











Purposes of Transformation



where come from Why?

- Customers dissatisfaction
- Constantly delayed
- Long Customer Lead Time
- "Reinvents the wheel"
- Disrupted (technology, SaaS, A.I. ...)
- Financial setbacks
- Unmotivated employees
- etc.

Vision!

on the way to

- Create superior customer value
- Build the right things (effectiveness)
- Reduced Time To Market
- Improve customer retention
- Create more innovations
- ROI increase
- Engaged and responsible employees
- etc.



Learnings from Multiple Transformations



Key Enabler	1 st	2 nd	3 rd	4 th
C-level sponsors	•	•	O / X	•
Teams (small, multi-talented)	•	X	_	•
Entrepreneurial Leadership	_	•	X	_
Rapid problem-solving	•	_	_	•
Make flow visible		X		•

Made a framework, broblems rapidly, ream Brow to solve failed to train new solve solve failed to train new sood start, but cleve clear direction, shall hade gabs visible and

Improvements for next transformation →



Learnings from Multiple Transformations



Key Enabler	1 st	2 nd	3 rd	4 th	Learnings to make use of
C-level sponsors	1	1		1	Sponsors providing long-term support crucial
Teams (small, multi-talented)	2	X	2	2	Leaders train small teams, expand stepwise
Entrepreneurial Leadership		2	X	3	Define 'Direction of Travel' (value-focus)
Rapid problem-solving	3	3	4	4	Ask to be sure – run many simple trials to error
Make flow visible	4	X	3	15	All sees portfolio, products & gaps



= Initial focus and training 1 = Transformation priorities/ order

More Do's and Don'ts (case by case) →



Do's and Don'ts



- Do yourself, what you wants others to do.
 Be the role model.
- Do act both as a leader and the trainer.
- Do organize in a network of small teams, learning about different customer value perceived by end users.
- Do gather customer feedback from joint testing, accept that it's a buyer's market you serve.
- Do on-the-job-training to the problems.

- Don't expect to successfully conduct a sustainable transformation without longterm commitment from C-level.
- Don't <u>ever</u> wait, to build even more complete **prototypes**. Feedback cycles become too slow, test results too complex, and unknown risks emerge too late.
- Don't let "perfect get in way of better." Rather a constant flow of many small victories.
- Don't lock yourself in a detailed plan, without buffer time to protect for variance.









Global Tier 1
10 000 employees
HQ in Scandinavia

My Role:
R&D Director +
Transformation Leader



Knowledge Based Development (Product Value Stream)

New Product Introduction

This Process fulfill the requirements of: TS 16949, ISO 9001

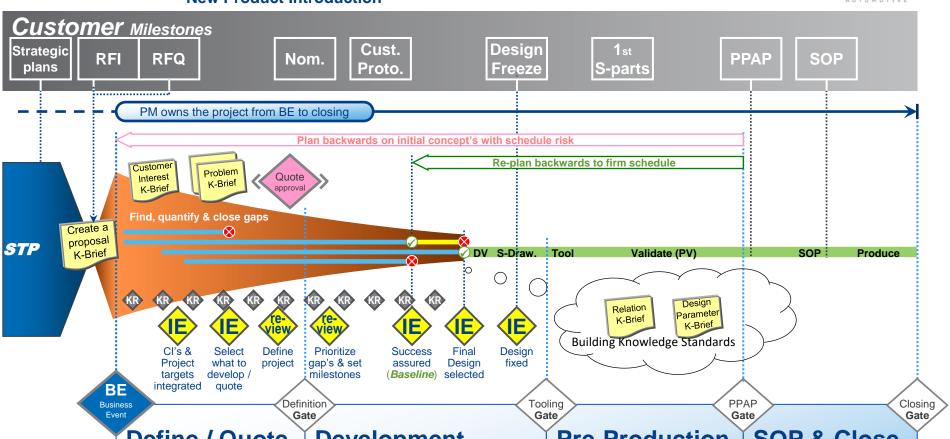






Redesigned the whole NPI process prior to learn through practice the new way of working.





Define / Quote

Main purpose is to understand the business case and prepare the project

- · Define & build team
- Understand customer needs & project targets
- Understand the physics needed to fulfill them
- Create the project / Quote
- (Negotiate & conclude)

Development

Define the product by closing knowledge gaps using set-based development

- Understand physics and work set-Based on system / component & process level
- Select final design based on complete understanding of customer Interests & requirements
- DV test (Design Validation)
- Fix design & release S documents

Pre-Production

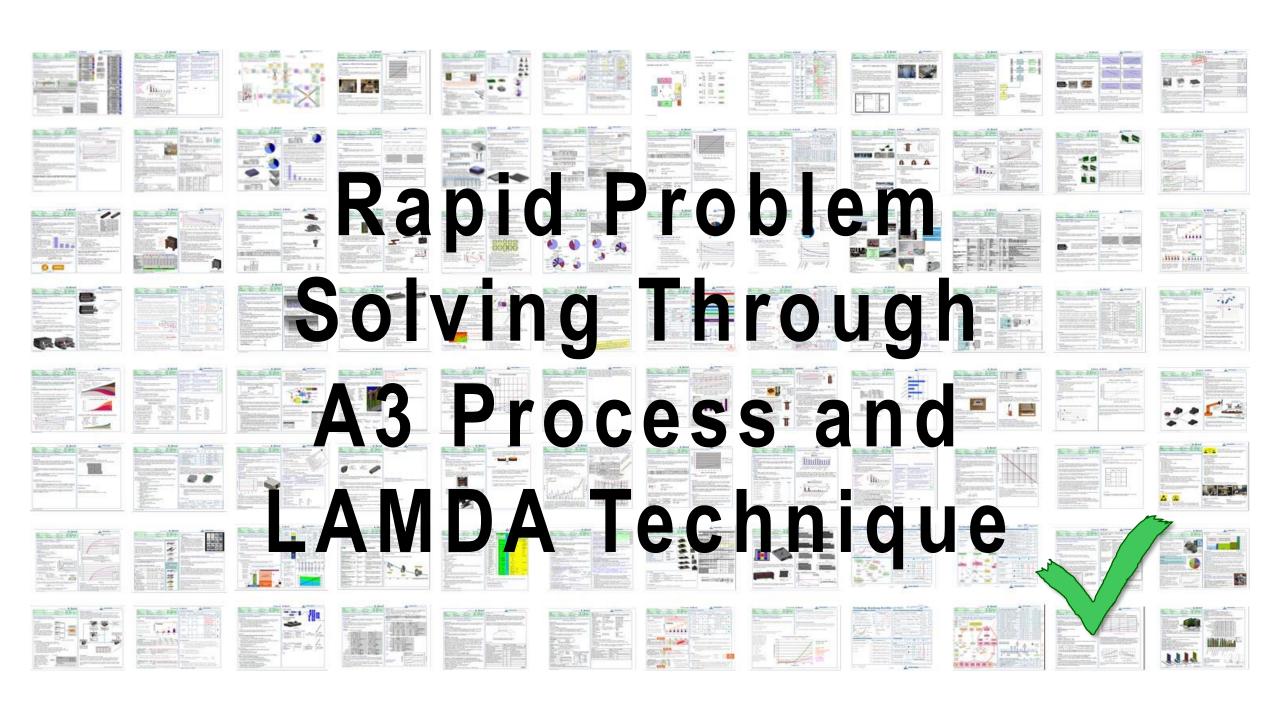
Implement & validate the production processes

- Order serial tools, equipment & parts
- Perform test run & prepare production
- Perform run@rate
- Perform Product Validation
- Prepare PPAP

SOP & Close

Perform a flawless production launch

- Send PPAP to customer
- Perform SOP
- Perform Containment
- Perform Product handling review
- Finalize lessons learned





Management

Tier 2
Start-up – New Venture
Business Development
HQ in Scandinavia

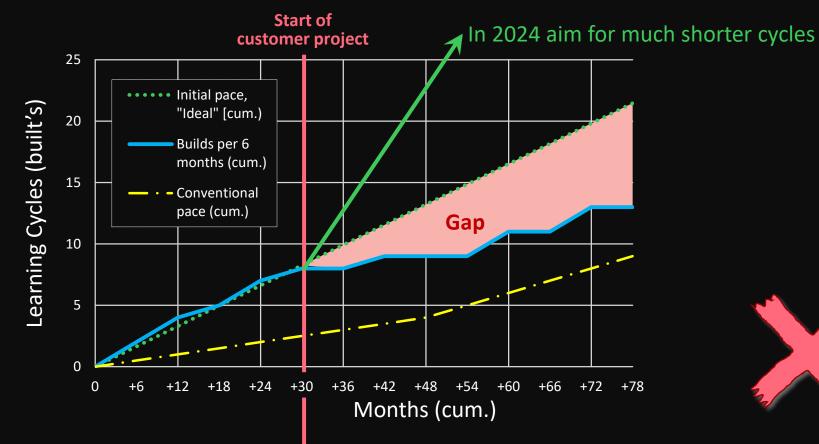
My Role:
CEO +
Entrepreneur





Lost Momentum, Flow and Small Teams







From Start. Small Teams made own plans and delivered outcomes in 4 months iterations:

8 feedback learning cycles in 30 months

Thereon. Project Managers "bought hours" and aligned built's to customers' 12 months iterations:

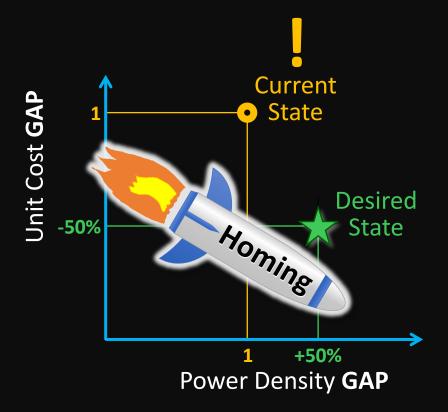
3 feedback learning cycles in 30 months



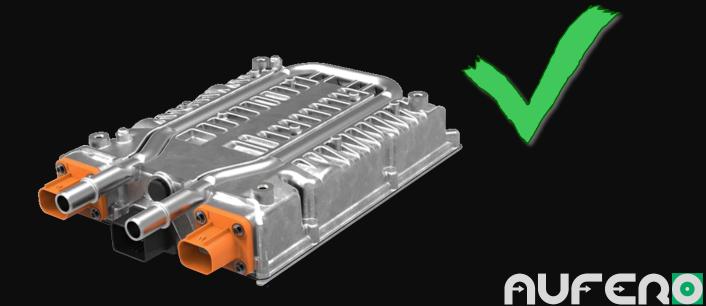


Entrepreneurial Leadership: Define the 'Direction of Travel' (vector)





- No one can determine an outcome in a complex situation, but you can measure the vector i.e.
- Are we going in the right DIRECTION at the right SPEED and with the right RESOURCES.







Global Tier 1
New Category Product
20 000 employees
HQ in U.S.

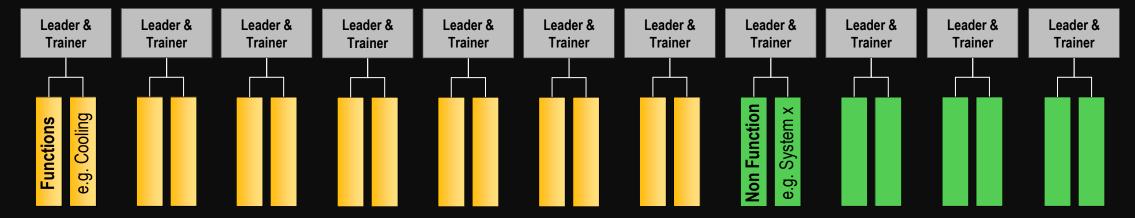
My Role:
R&D Director +
Transformation Leader



Flat Organization – Network of Small Module Teams



Leaders and Trainers



- FUNCTION is basis to define CUSTOMER VALUE
- "Verbs" not "Nouns" (to Cool not the Cooler)



- Small Module Teams run full feedback cycles i.e. connect front and back ends
- Own its Flow and Knowledge







Global Tier 1-3

New Category Product (+Pandemic)

1 500 employees

HQ in Scandinavia

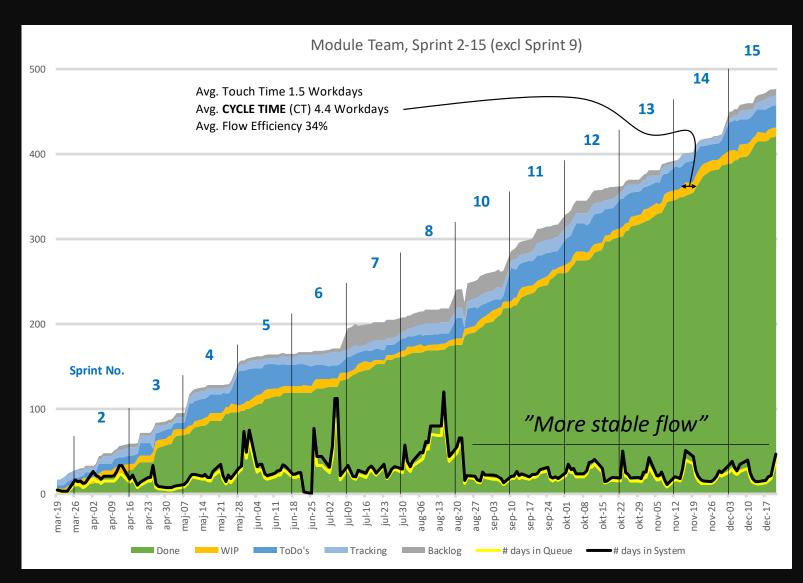
My Role:

R&D Director + Transformation Leader



Module Teams Cumulative Flow Diagram





Specific Module Team:

- 13 Sprints
- Avg. flow efficiency 34% "Touch / Elapse"
- WIP Constraints is KEY







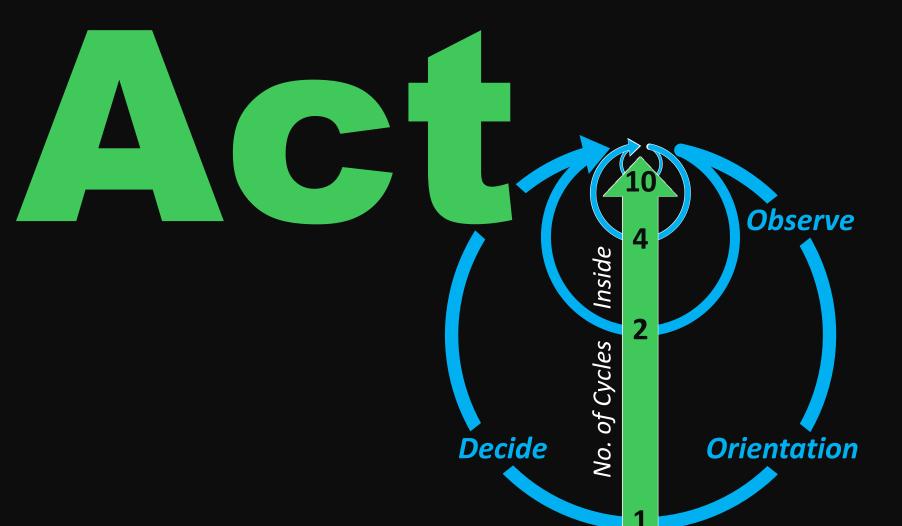


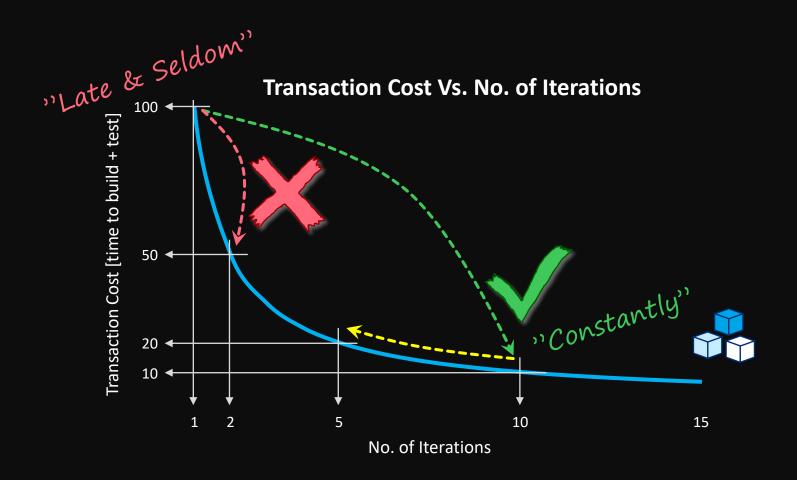


Image. John Boyd's OODA-loop, as example of efficient feedback loop.



Transaction Cost Drives Total Cost





Don't try to half (1/2) the feedback cycle time.

Do challenge your teams, targeting feedback cycle time of 1/10. Run multiply iterations not to miss out.

Initially feedback-cycle-time overruns will happen. 2x overrun is anyway 5x faster, as long as the team learns. Teams train and improve.

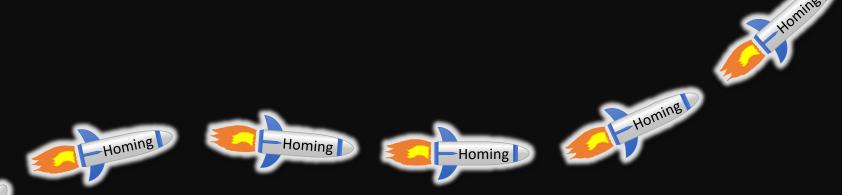
"10x No. of iterations → Learning 10x faster → Improving 10x faster"

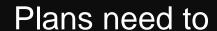


- 1. Define direction of travel (vector).
- 2. Teams to quantify, break down and close gaps through testing.
- 3. Make the flow and state-of-occupancy of gaps visible.



Homing





1) Stay flexible with frequent ways out,

and counterintuitive

2) Be very short term, in order to properly capture the long term.

Nassim Taleb, Antifragile



Three Fundamentals







– Customer's job-to-be-done

– "Commander's" INTENT (Direction)





2. RAPID PROBLEM SOLVING — Standard Work Using Targeting-Tests-Technique

Intuitive Skills & Direction

- Gap (Targeting)
- Homing through small trials Set-based (Tests)



3. Visible CONTINUOUS FLOW

- The teams' tactics for missions
- Constrain the teams' WIP

Facilitate & Trust









Funder & Owner of AUFERO AB

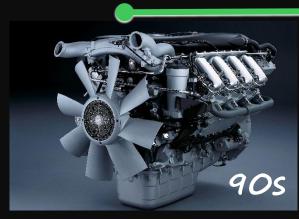
Senior leader consultant.

Led large business transformations, and product, process and team development for more than 25 years.

Led a Lean start-up from start to its growth take-off.

Works embedded, provides transformational and servant leadership to business executives and teams.

Lean and Agile Development



Internal Combustion Engines



Gear shifters



Power Electronics



Electric Motors



IoT Sensor



