



Technical University of Denmark, DTU
University of Tokyo, Japan



Strategic alliances and supplier associations in a Lean supply chain

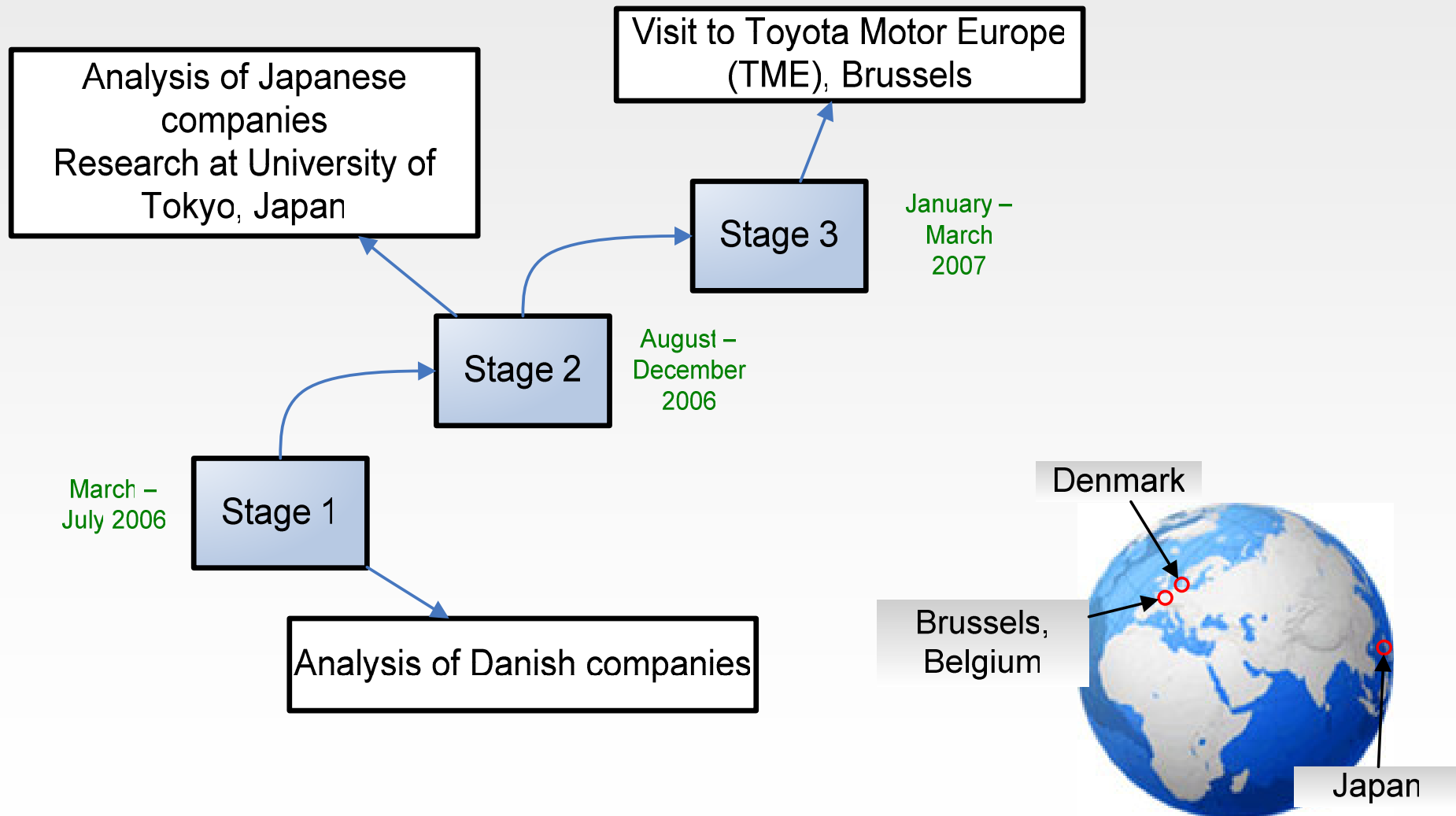
- Master Thesis

Nis Gjendal and Søren Stissing

Agenda

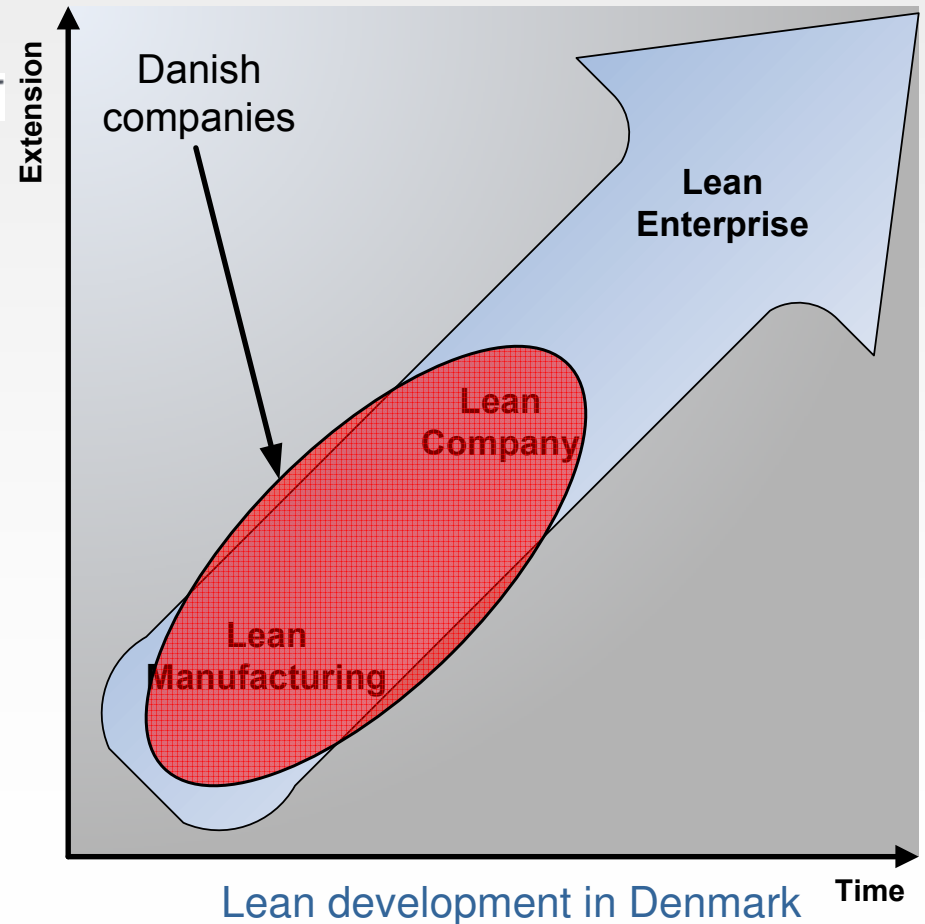
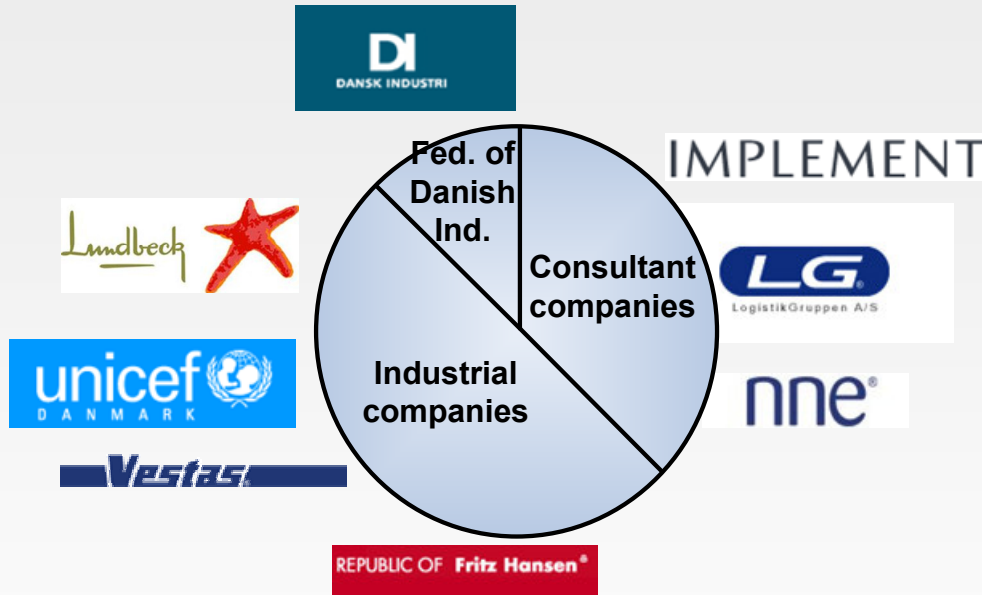
- Introduction
- Fieldwork
- The procedure
- Comparing Japan and Denmark
- Conclusions

Time frame



Present situation in Denmark

- Participating Danish companies:

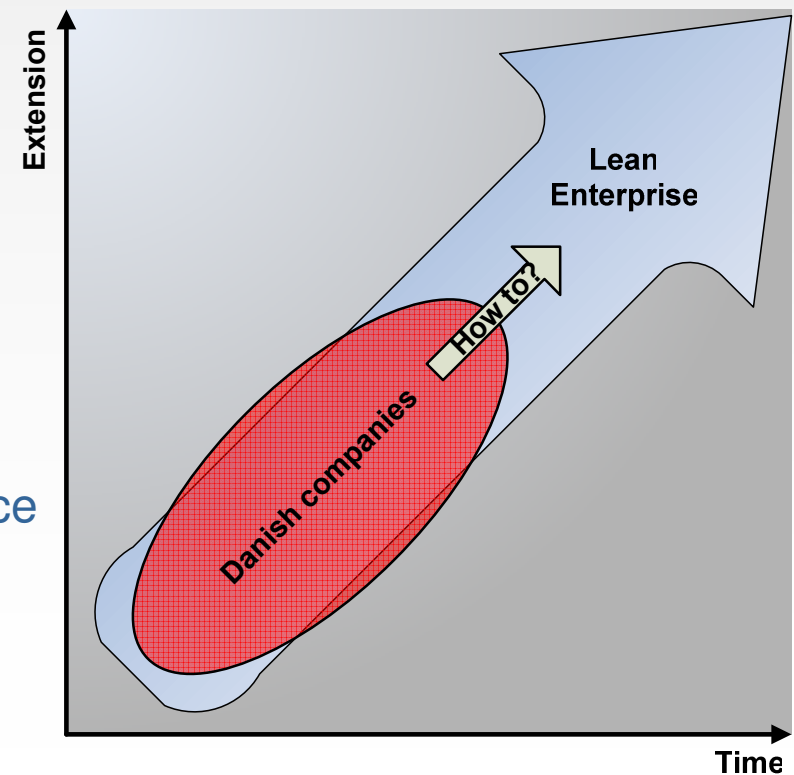


- Identified problems:

- Organizing
- Partnerships
- Strategic dilemmas
- Supply chain coordination

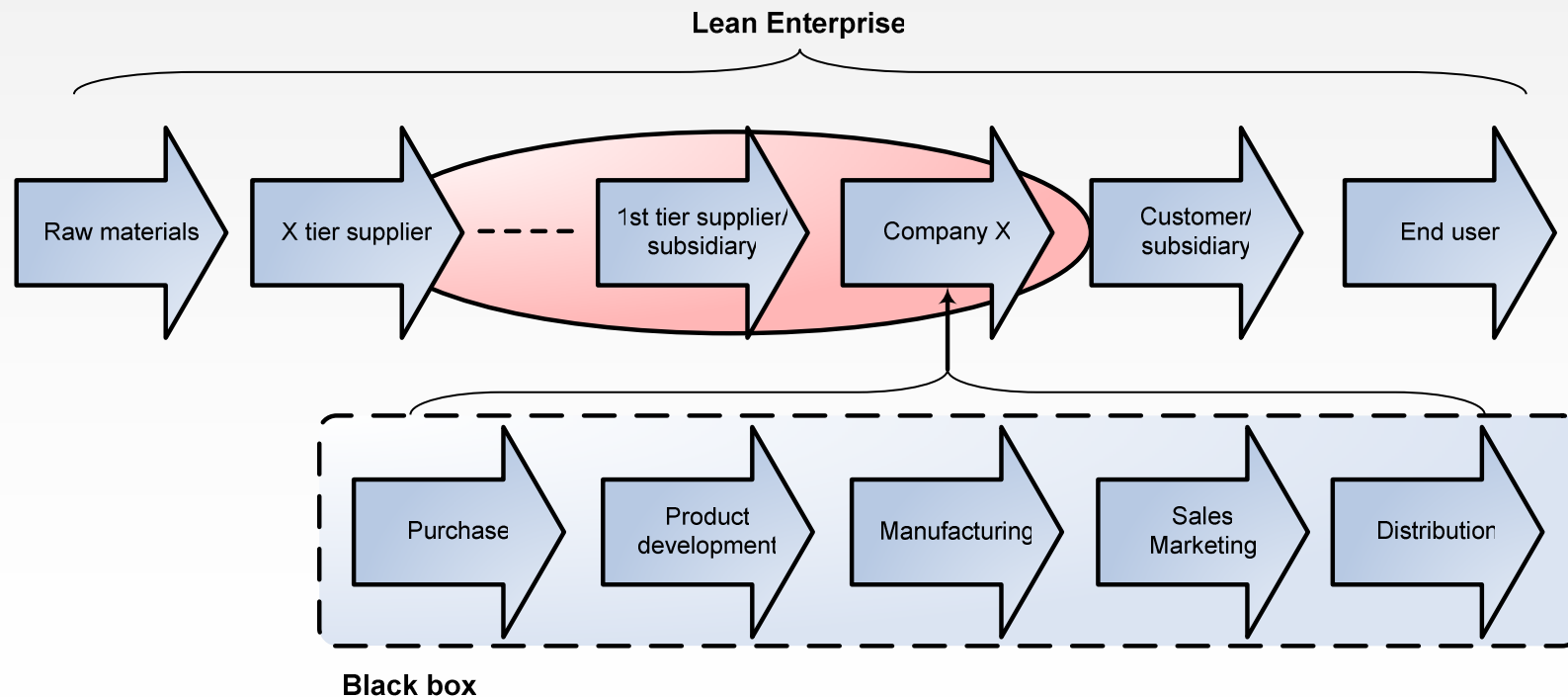
Problem objective

- Objective:
 - “With Japanese companies as a starting point – especially Toyota – an analysis will be conducted with the purpose to set up a procedure for Danish companies to follow when entering a strategic alliance / supplier association in a Lean supply chain”
- Reasons:
 - Not a question of what needs to be done, more how to do it?
 - Not much written about it
 - We believe that Danish companies will face this challenge in the years to come



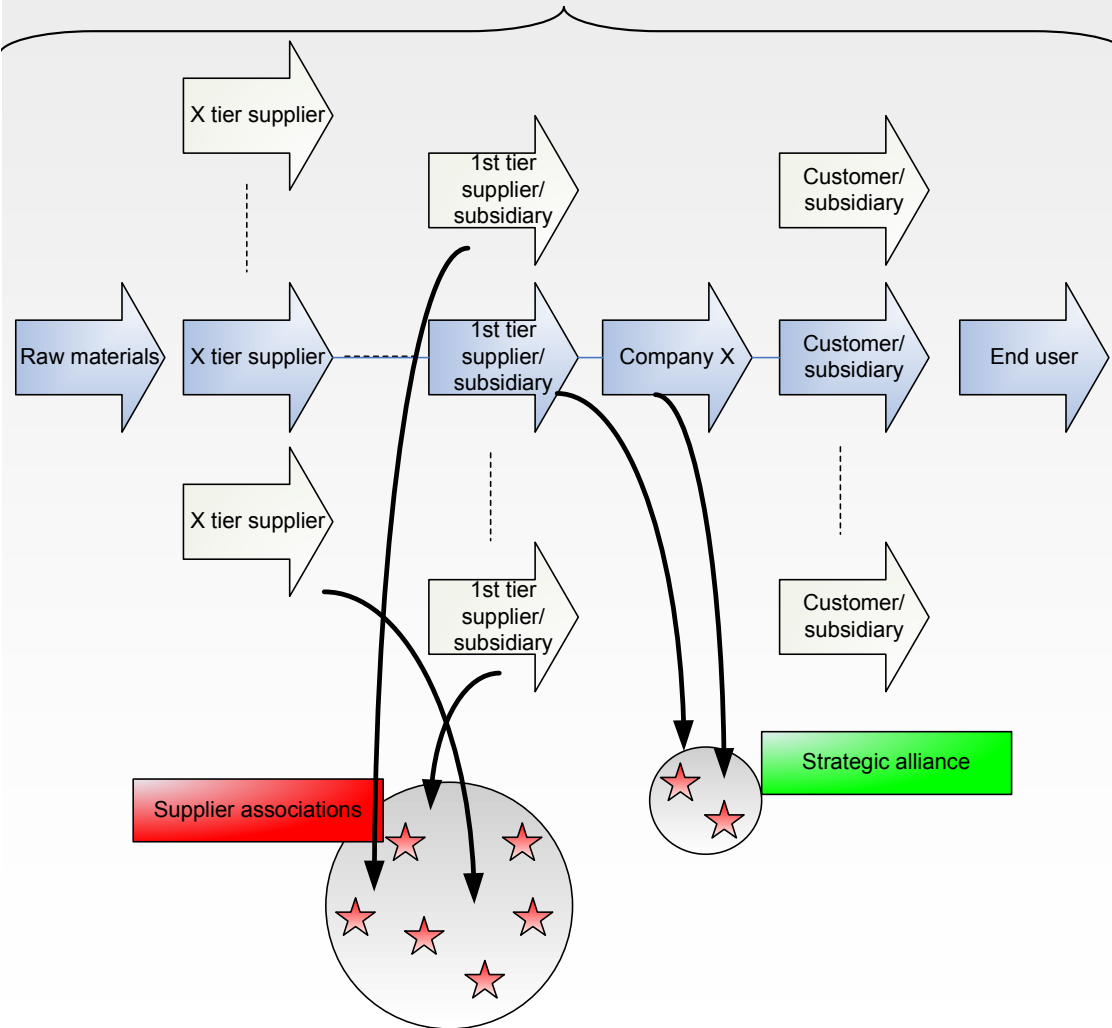
Focus

- Mainly up stream – focal company and the supplier
 - Internal supply chain seen as a "black box"



Literature studies

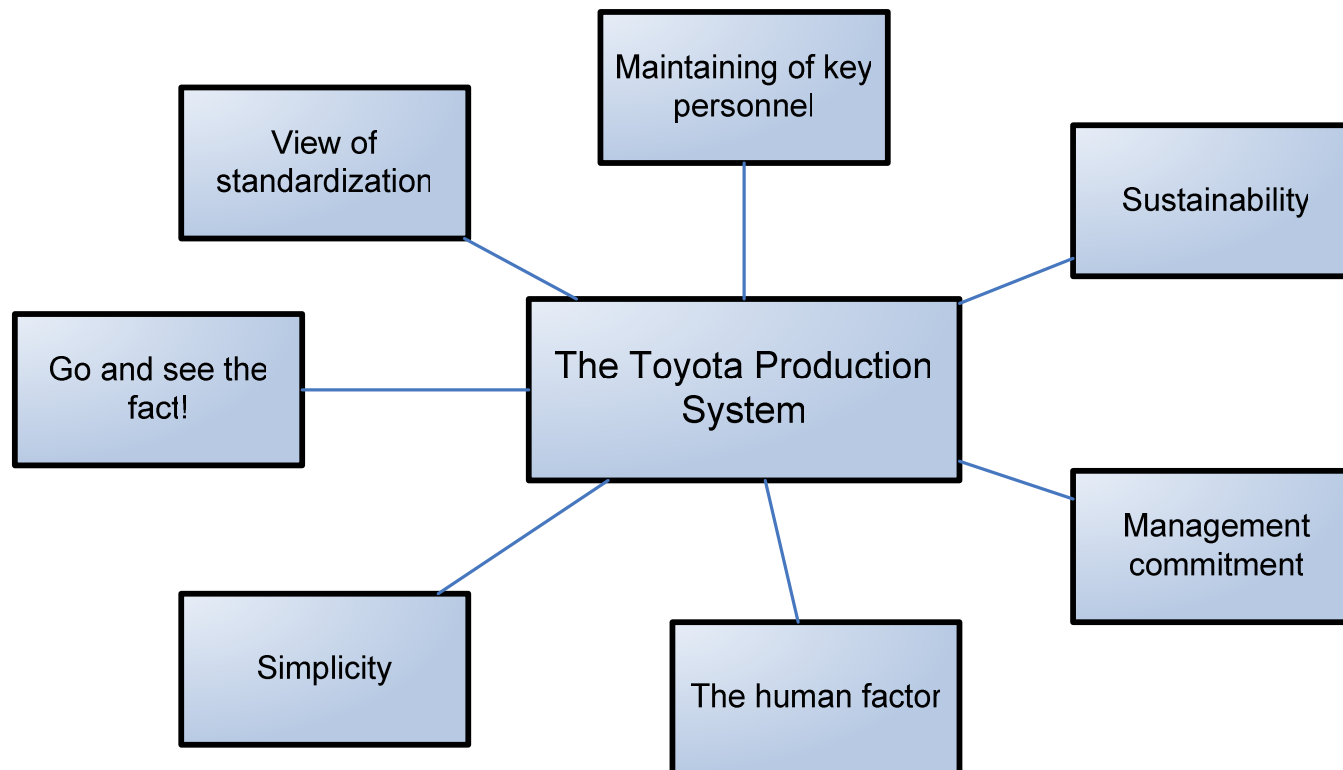
A Lean supply chain



Areas dealt with

- A Lean supply chain
- Supplier association
- Strategic alliances
- Lean

TPS elements





Simplicity!



“If you have a problem, go and see it. If you do not have problems it is simply because they are hidden!” – Mr. Ballard (TME)



”We make a budget each year for the travel expenses. We know it is going to be exceeded but we do not care – go-see-the-fact takes what it takes” – Mr. Shah (TME)



“TPS is said to work against human nature and therefore passionate people are required. It is important to maintain key personnel” – Mr. Miura (TMC)

TPS elements – Standardisation

- The basis for improving
- Important element in the problem solving method

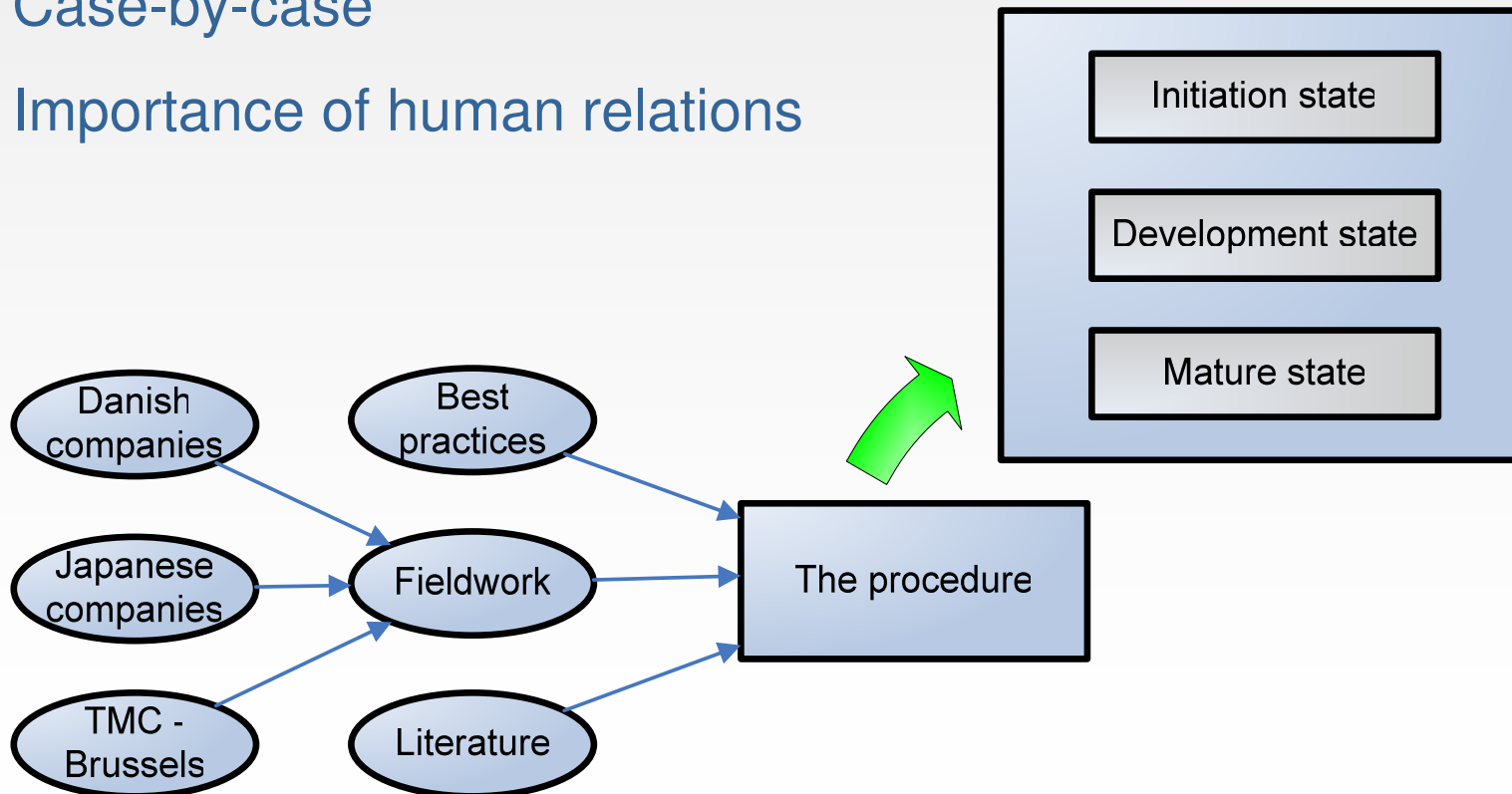
”One cannot increase quality without standardizing – it is the fundamental idea of kaizen, a necessity to become better” – Mr. Miura (TMC)

A Danish comment

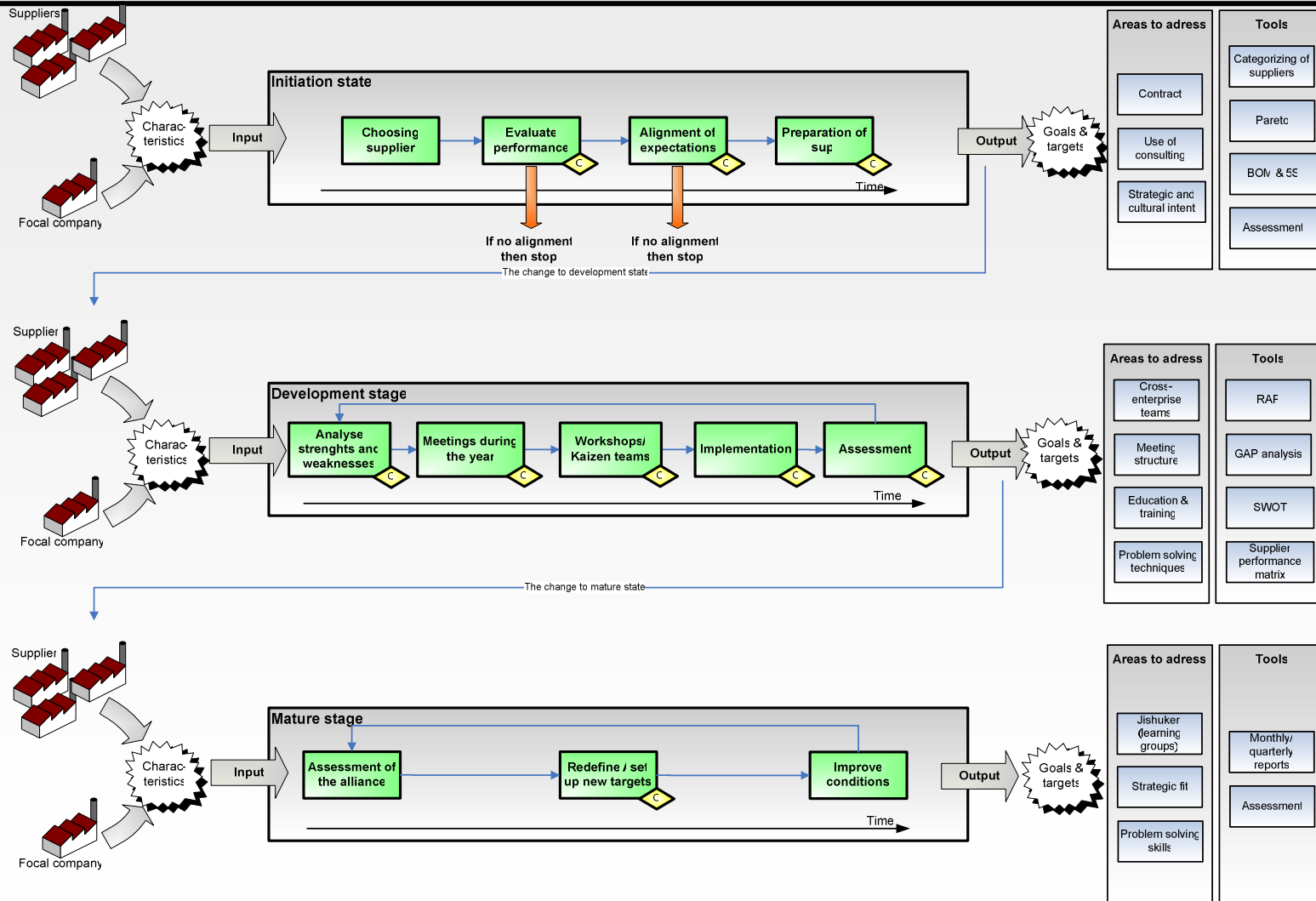
”Standardization is in conflict with the fact that employees are given the power to work independently in teams” – Participating Danish company

Further conclusions from fieldwork

- Combining fieldwork, literature studies and best practices
- Case-by-case
- Importance of human relations

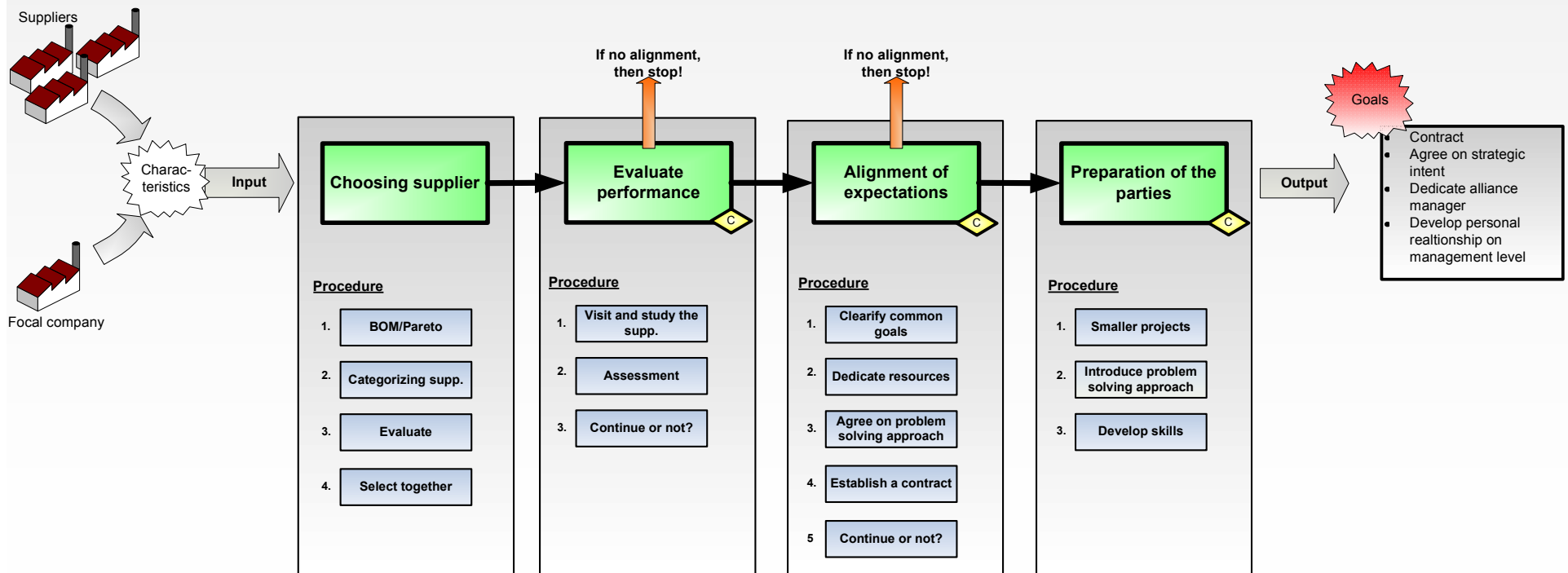


The procedure



The procedure (2)

- A dynamic process
 - Structured approach – kept on a operational level

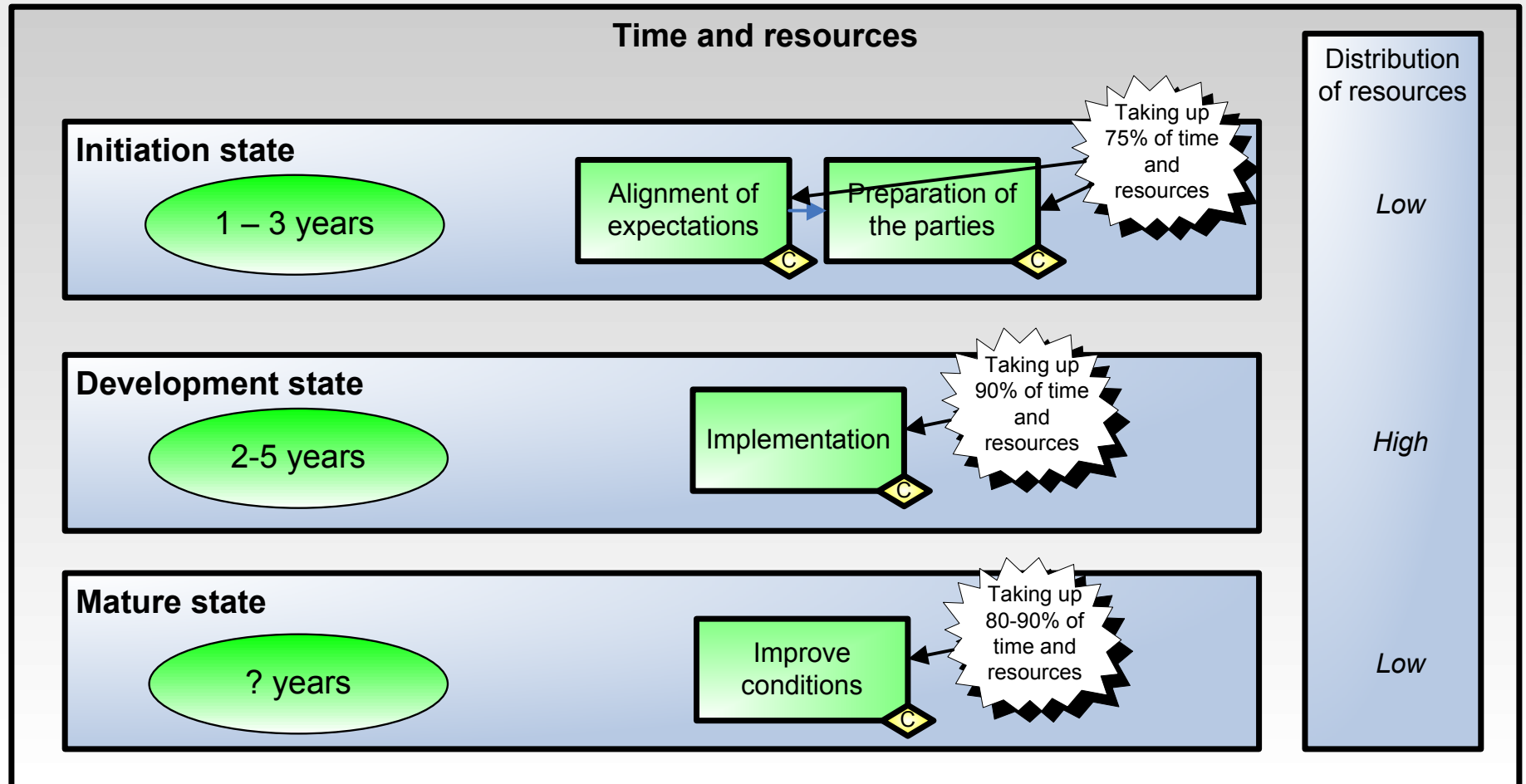


Critical areas

- Draw attention to critical areas and tools and their development over time

	Initiation state	Development state	Mature state
Strategic fit	High	High	High
Contract	High	Medium	Low
Cross-enterprise teams	Low	High	Medium
Problem solving techniques	Low	High	High
Education & training	Low	High	Medium
Sharing of knowledge	Low	High	High
Sharing of success	Low	High	High
Consulting	Medium	High	Low

Resources & time



Comparing Japan and Denmark

Myths and perceptions

- 1. Too big difference in culture**
- 2. The Japanese employees work as machines, harder and longer and do not mind standards.**

Opinion: It will not work in Denmark!

The industry

- Similar structure in the industry – many SMEs
- High level of technology in both countries
- High employee productivity in both countries

<i>Dimension</i>	<i>Japan</i>	<i>Denmark</i>
Economical		
• Service	69%	75%
• Industry	24%	20%
• Agriculture	7%	5%
• GDP (per inhabitant)	US\$ 28.000	US\$ 29.000
Employment by size of manufacturing enterprises (number of employees)		
• Less than 10	50,9%	71,4%
• 10-19	22,7%	11,7%
• 20-49	16,5%	9,4%
• 50-249	8,5%	6,0%
• 249+	1,4%	1,5%

The service industry





国内旅行 空券

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Korea
Guam
Hawaii

02





- Thinking improvements is not natural!

National culture

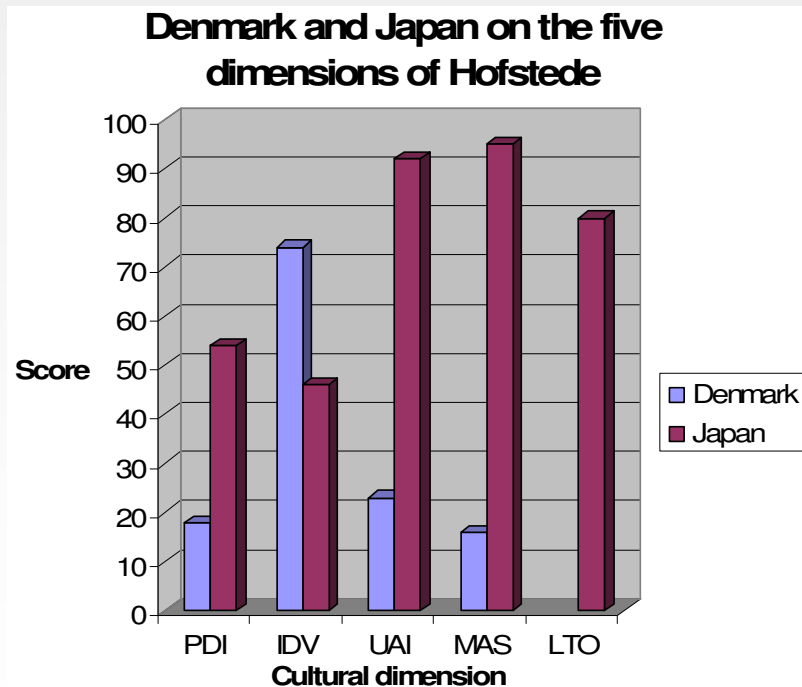
Differences do exist

Japanese advantages

- Working with standards is natural – but difficult to work outside them
- Low degree of job-shopping – high job security
- Importance of human relations in a group
- Long term view

Danish advantages

- Independent, innovative and self thinking people
- Dialogue and agreements in the workplace



Culture - conclusions

- What matters is the framework set up by the business – not the culture!
- The working day at Toyota is like the Danish: 8 hrs and max. 45 min of overtime
- Continuous improvements is not rooted in the Japanese culture. They have just been good at adopting it from the US
- But it is also important to take differences into account

Danish characteristics to overcome

- **Based on short term focus**
- **Afraid of being dependent and exposed as a supplier**
- **Less use of facts**
- **Difficulties with maintaining key personnel - a lot of job shopping**
- **Mostly focusing on price in purchasing**



When there is a need – there is a way



Toyota Motor Europe - Brussels

- TME
 - Struggling with the same characteristics
 - Job shopping, short term view,
 - Unique possibility to verify the results
 - Conclusion
 - TME accepts this - it is about minimizing the problem
 - Danish companies should do the same
 - Important message
 - Be aware of what you are up against!

Overcomming the Danish characteristics

- Education
- "Free" consultancy
- Negotiate contract on a yearly basis to begin with
- The focal company should be the good example – information sharing and present problems from their point of view
- Use key *teams* instead of key *individuals*
- Training in going-and-seeing-the-fact
- Create valuable jobs – new challenges will arise with strategic alliances

Recommendations

- Demanding process
 - Realize what it takes! (Pitfall nr. 1)
 - Management commitment
 - Investment of time and resources
 - “Go see the facts”
 - Change attitude - build decisions on facts instead of suppositions

“Normally in Europe, the top management does not like too see the production. They like to see the computer – Mr. Miura (TMC)”

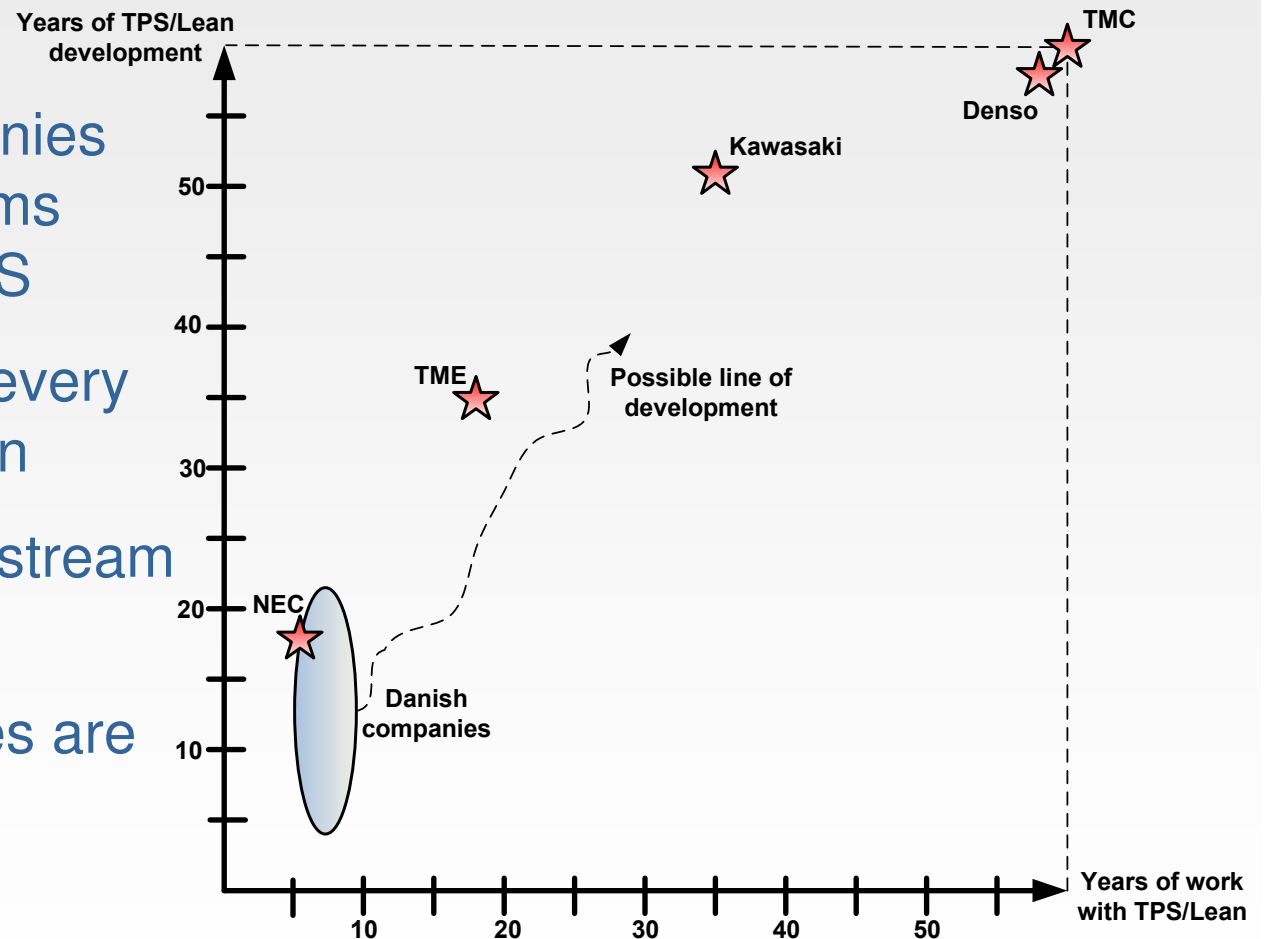
Recommendations (2)

- Organizational changes
 - New role in the purchase department
 - Choosing suppliers and work with them
 - Assessment - performance and soft values
 - Long term view
 - Establish internal consultant function
 - Credible and skilled people
 - Must have power to execute changes
 - Educate and support

“I cannot justify my pay check on a daily basis, but in the long run our department shows the necessarily results” – Mr. Ballard (TME)

How is Denmark doing?

- Japanese companies also have problems implementing TPS
- TPS not used in every company in Japan
- TPS diminishes upstream even at Toyota
- Danish companies are doing a good job



Criticism

- Work done on an overall level
- There are other ways than Lean
- The procedure has not been tested
- Implementation issues not dealt with
- Differences in organizational behaviour not dealt with

Conclusions

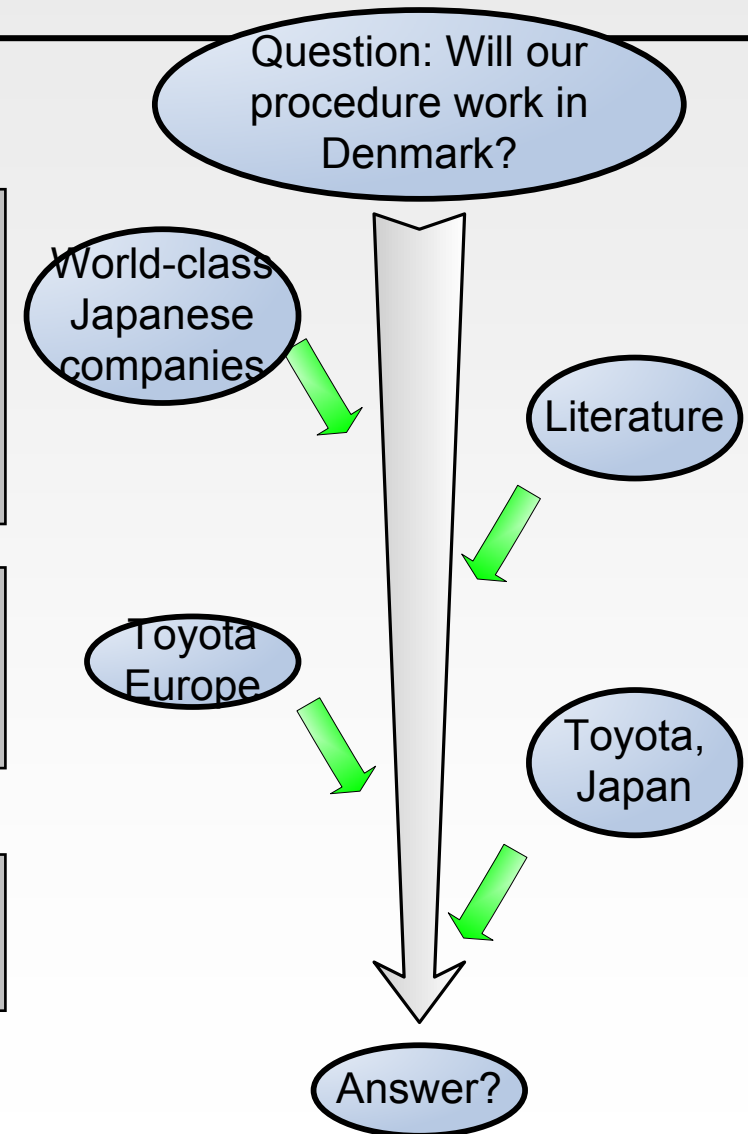
“Success does not necessarily mean TPS. Other methods can of course be applied, and the decision is for the individual company to make”

“We do not know if TPS is the best solution – but it makes sense and history proves its value”

– Mr. Adams (TME)

“It is about realizing the reality and then adopting an appropriate method. what should also be realized is that it takes time to make people understand what it is all about” – Professor Kimura

“There is nothing to prevent close relationships with suppliers – it is a matter of creating the necessary focus” – Participating Danish company



Q & A

