



IMPLEMENTATION OF NOCA DELIVERY SYSTEM & JEEVES UNIVERSAL ERP

SMARTLOG Seminar

07.03 2012

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AGENDA

1. Who We Are

2. Background

3. Planning, Execution & Benefit Delivery

4. Lessons learned



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Noca provides Electronic Manufacturing Services to leading OEMs as well as high tech startups
Adding customer value in maritime, offshore, consumer and industrial segments
50 employees – strong focus on people empowerment
26 years of experience in contract manufacturing

New Product Introduction
Engineering

Manufacturing
Prototyping

Box Built
Service / Repair

Supply Chain Management
Logistics



ISO 9001:2008 Cert. ISO 14001 Compl. IPC Workmanship ATEX

Our Vision: **No. 1 sourcing partner in the Nordic region**

Our core values:

Reliable
Competent
Energetic



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1. Who We Are

2. Background

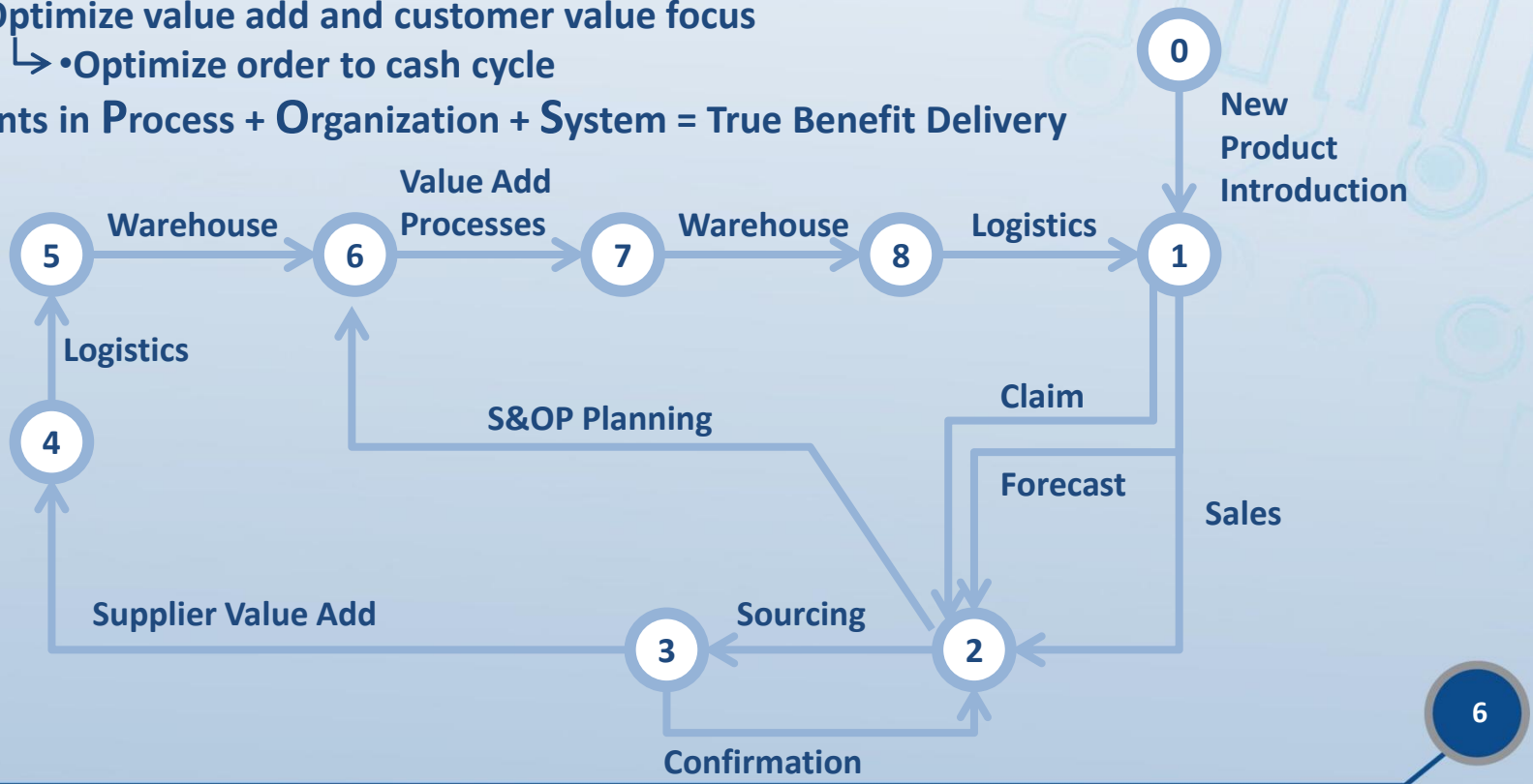
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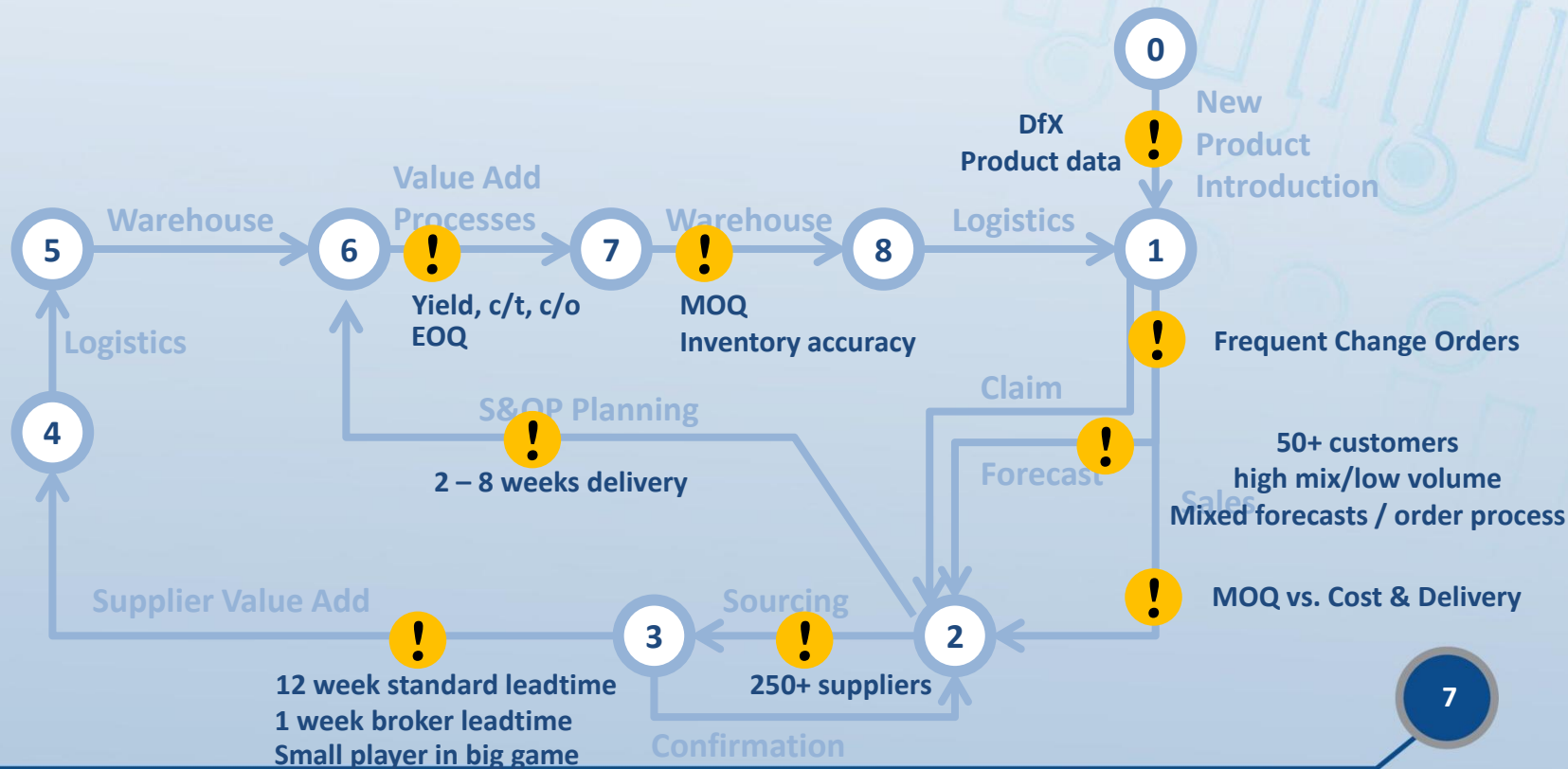
The business case for Noca Delivery System & ERP

- "Change is not necessary, survival is not mandatory"
- Waste produced by old system obvious to all – but equally important was avoiding new interface on existing problems, those hidden in processes / organization.
- Deploy production system for systemic work on desired quality, on-time delivery and cost levels
- Simplify business process transactions
 - ↳ • Optimize value add and customer value focus
 - ↳ • Optimize order to cash cycle

Improvements in Process + Organization + System = True Benefit Delivery



Characteristics



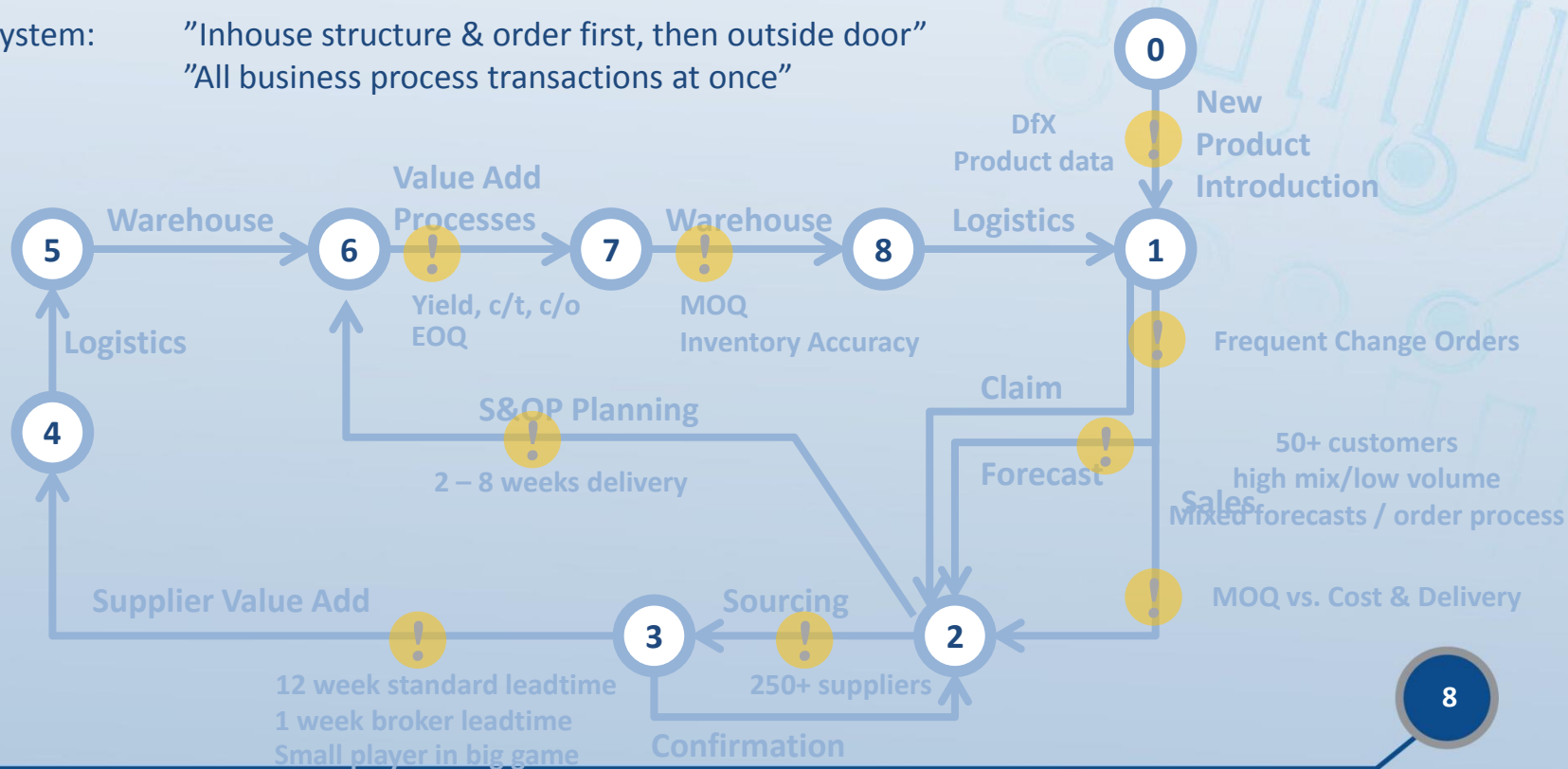
Characteristics

Is IT poison to a production system?

Respect for individual / Kamishibai / Kanban / Genchi Gembutsu

Balancing right first time ambition with a demanding ERP project

Production system: "Inhouse structure & order first, then outside door"
ERP: "All business process transactions at once"



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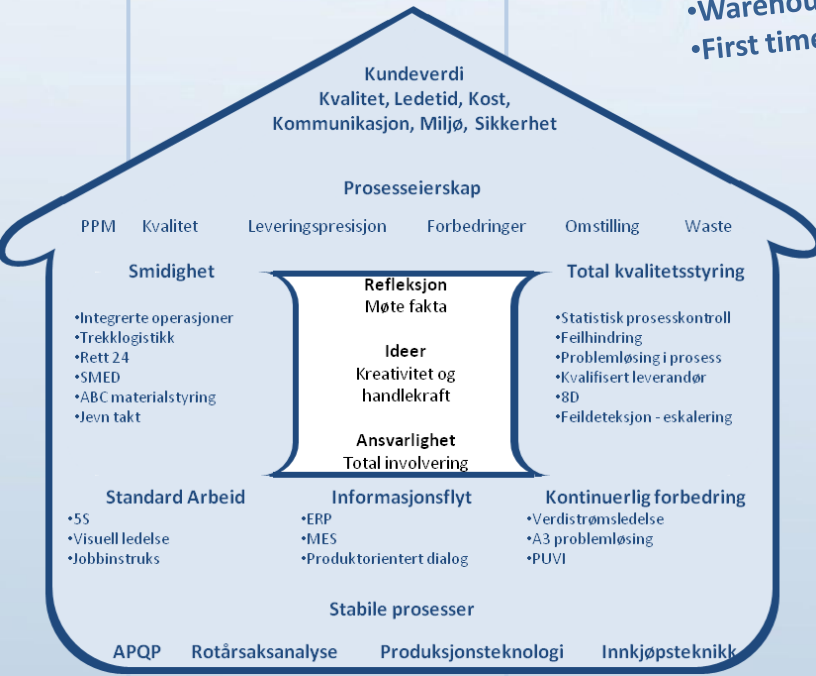
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- Noca Standard
- Standard Work
- BOM exchange format customer/supplier
- New KPIs automated in ERP
- Waste / Cycle time
- Change Over
- Visualization - hour by hour flow control
- Warehouse accuracy – integration ERP & assembly line
- First time right & SPC requires additional software + integr.



Joint project with ERP vendor
Phase I: Go Live,
Phase II: Improvements
Phase III: Benefit / Growth

Pre project
ERP

ERP Impl.

Continuous
Improvement

Benefit

Noca Delivery
System
conceptualization

Change management
Vision & Values
Identity
Mindset

Advanced Product Quality Planning
Heijunka / POLKA(??)
Supply Chain

Noca Delivery System
realization

Stabile information flow
Stabile process flow

Overall
Benefit
Delivery

ERP quotation &
selection

Preparatory lean activities

1. Value Stream
Basic 5S
8:45

2. Closed loop quality
Root cause analysis
SMED

2009

2010

2011

2012

2013

10



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Lessons learned

- 1 The importance of reflection and Genchi Gembutsu applies to information flow as well as process flow. Don't let the system do the critical thinking!!

True benefit of ERP comes when knowledge of IT system mechanisms is established, so we don't follow blindly MRP/capacity outputs, but turn around the system selecting how data should be keyed in to improve automatically generated KPIs, rather than trying to understand ERP and shopfloor same time.

- 2 Never enough time spent on Muri and Mura. Before, during or after an ERP implementation, no matter what stage you are in, improvements benefit the enterprise, but IT resources must be aligned with process resources.

*Kaizen should never be put at rest but you have a problem implementing improvements if business transactional documentation does not exist.
IT is a tool as any other tool – a wrench or laser cutter. You need to keep "man, material, method, machine" available for all types of systems to do constant kaizen. The tool will serve you well if you use them well.*

- 3 Avoid giving the shopfloor ownership to IT consultants! Kaizen important for IT project as any other process introduction

*ERP systems are on the verge of getting lean.. but still far from 'perfection' or Jidoka
Should be modular and without a 'mastodont structural core'
People themselves should build the processes without ending up overpaying IT support*

- 4 For a small organization and shopfloor, ERP itself can be enough for 'seeing the whole', but managers must expose abuse/misuse of ERP as any other waste to avoid people doing their individual parts, in aggregate blind to the system working as whole

*Control plan for ERP process as well as production process.
Warehouse coworker now doing internal accounting
Director joined desk at purchase department for a while*

- 5 ERP have to be combined with a (soon to come?) affordable MES to accomplish Noca Delivery System

ERP support 'customer value', supply chain, visualization and KPI, but realtime scheduling and Cpk requires MES

Facing the paradox of a small organization trying to implement lean constructions fitted for large JIT organizations

Thank You!

Journey Scrapbook

Before:



After:



Before:



After:



ERP War Room



Training & supervising



Night before Go-live(!)



Processes finally on screen!

