

# MES investment rationale

INDUSTRIAL IT TOOLS & SOLUTIONS

Prediktor 

# CONTENT

Is MES the right way to go towards Operational Excellence?

How to define success?

How can you argue on an MES investment?

An objective guideline for implementation!

The road to success!

How to fail...

# About Prediktor

- **Start-up** 1995
- **Offices** Norway  
France  
China
- **Employees** 52
- **Installations** 700 APIS-installations  
(40 MES-installations)
- **Competences** Industrial IT  
MES  
Automation & APC  
Process and Production  
Industrial communications



***Mission: We make optimal production possible!***

# What is MES?

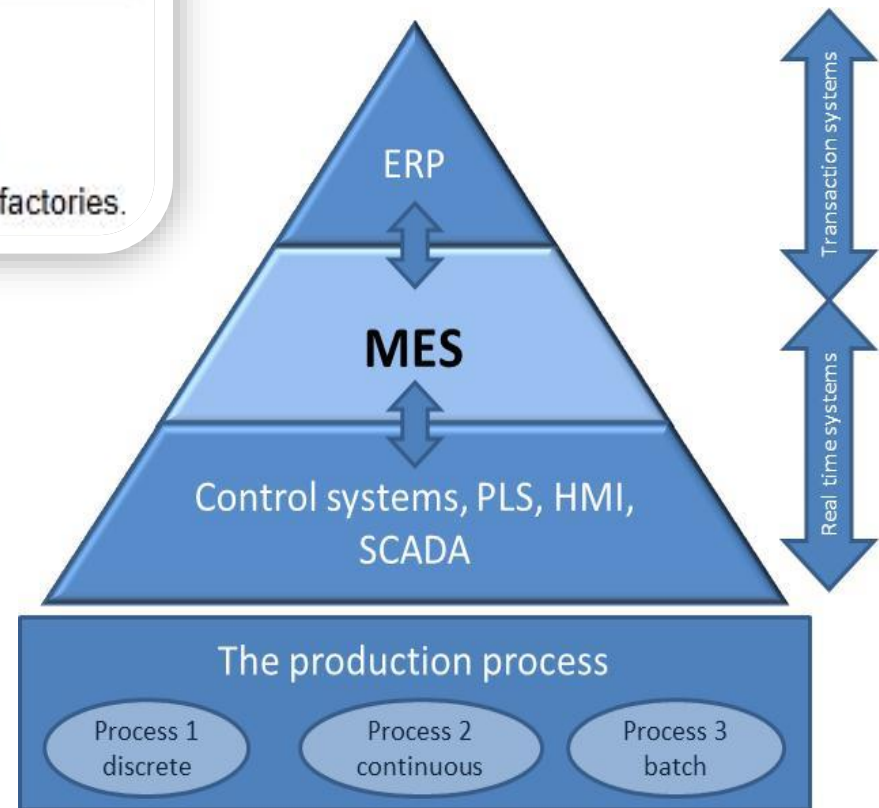
## Manufacturing execution system

From Wikipedia, the free encyclopedia

(Redirected from [Manufacturing Execution Systems](#))

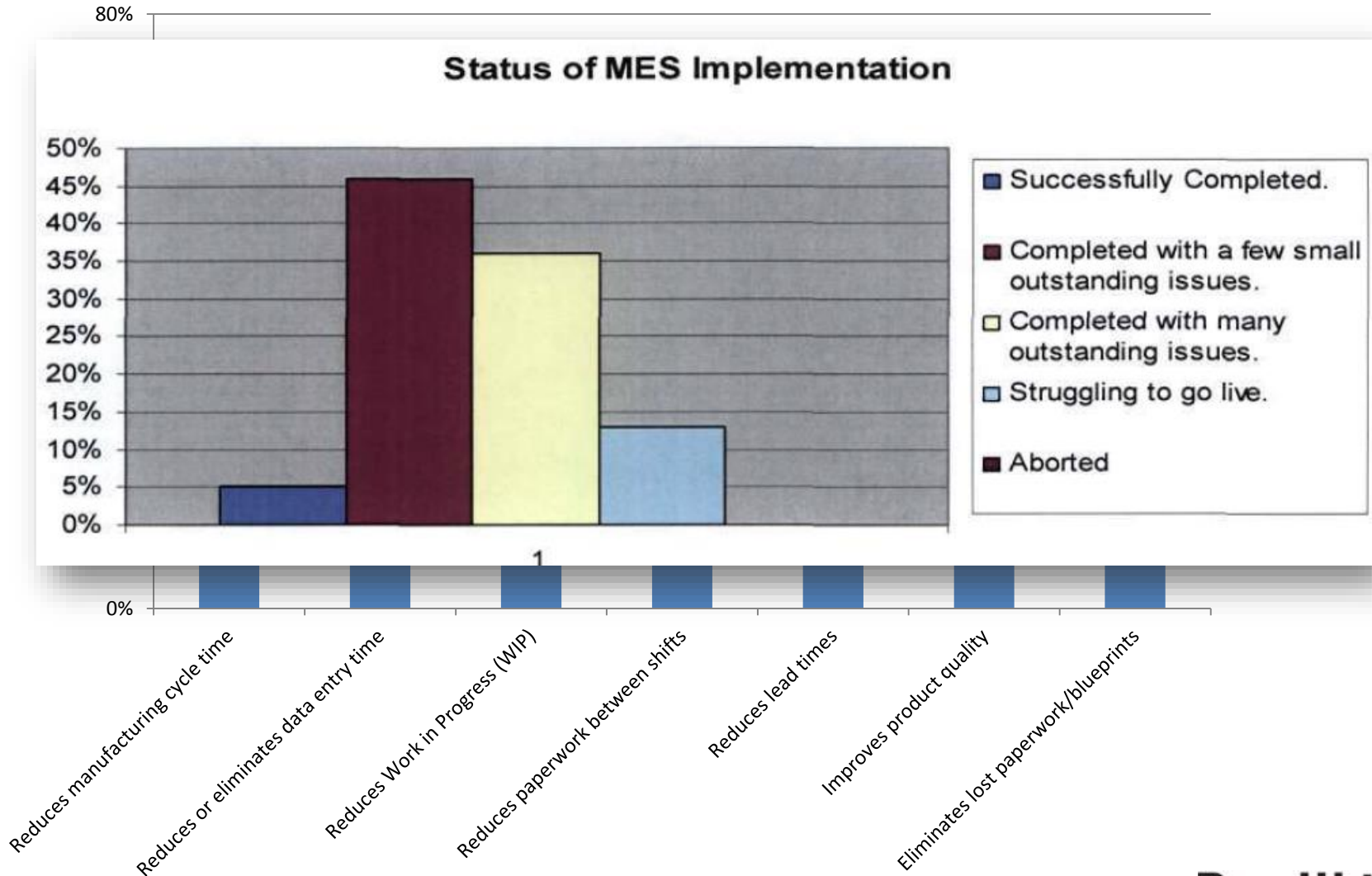
**Manufacturing Execution Systems (MES)**, are [information technology](#) systems that manage manufacturing operations in factories.

# ISA 95





# Is MES the right way to go towards Operational Excellence?



# How to define success?

- Improves business performance!  
... against well defined metrics?
- The system is in use!  
...by all stakeholders
- Matures over time  
... continuous improvements



# How to calculate RoI?

## Common argumentation:

*«OEE will increase machine availability by 10%»*

*«SPC will reduce product variations by 15%»*

*«Tracking and root-cause analysis will increase product quality by 20%»*

## Versus:

*«We estimate a potential profit of x% on increasing our machine availability»*

*We need to describe an optimization process for this*

*For this process, OEE should be considered as a tool»*

«Industrial IT system in itself  
will not create value, only costs»

...

Optimization activities using the right  
IIT-tools will create value



# A typical scenario

## Contract

- Consultant writes req. spec.
- Client issues RfQ
- Vendor responds with quotation
- Shortlisting, negotiations, contract

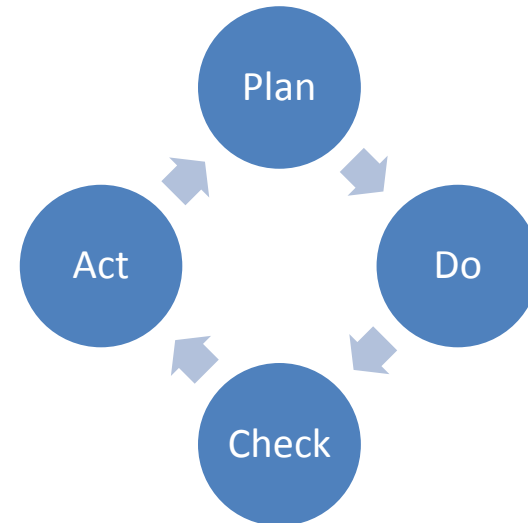
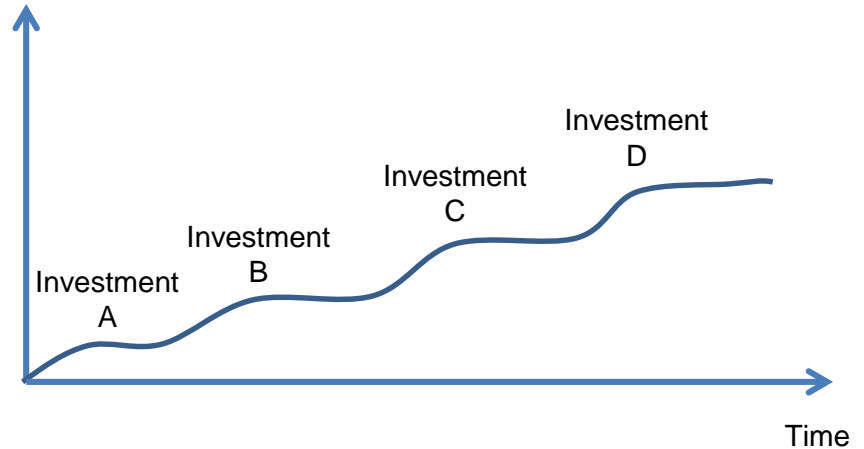
## Project

- Detailed specification, definition
- Build
- Installation, commissioning, validation
- (Users hired...)

## Operation

- SLA
- Modification
- Extension

Operations  
performance



# Our common challenge...

## (An objective status description)

- System scope is too broad
- Vendors are too technology focussed
  - Alarm bell 1: «With this function you can ...»
  - Alarm bell 2: «Our system can store 1.000.000 signals...»
- Too little time spent on understanding clients
- Project ownership is with IT-dept
- Project not anchored with all stakeholders
  - Management, Operations, Maintenance, IT, Economy...

# Communication...



How the customer explained it



How the Project Leader understood it



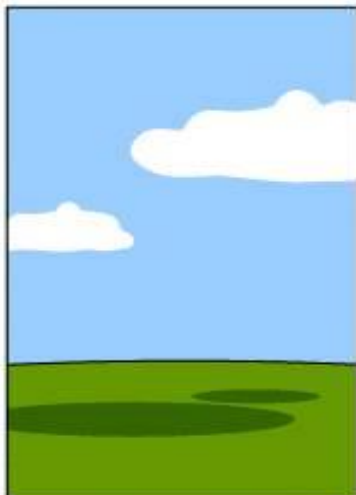
How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



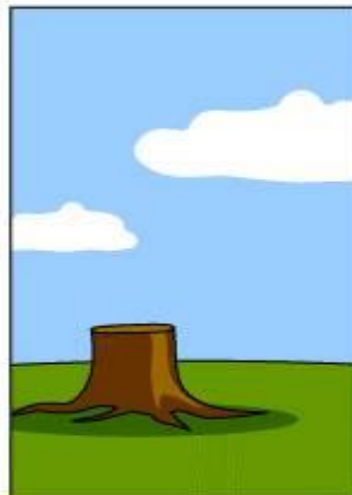
How the project was documented



What operations installed



How the customer was billed

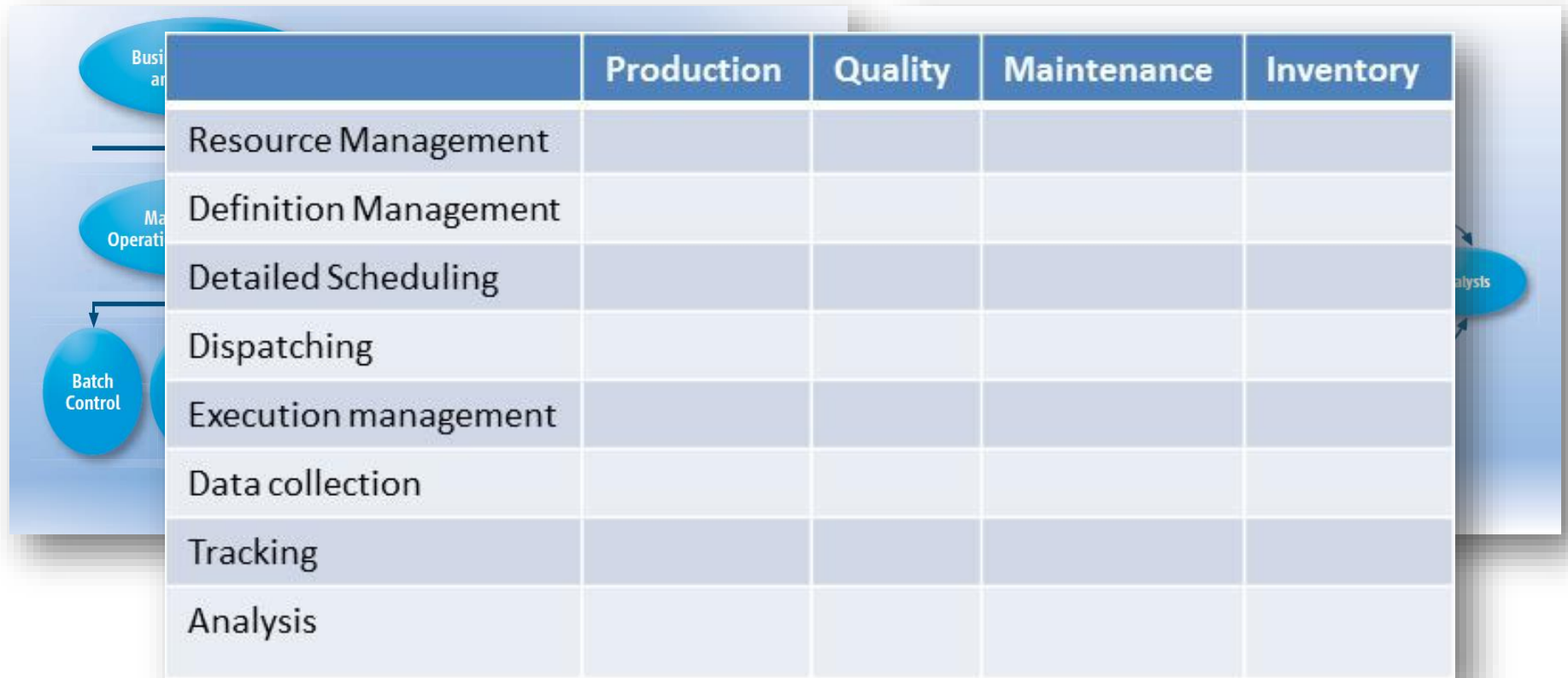


How it was supported

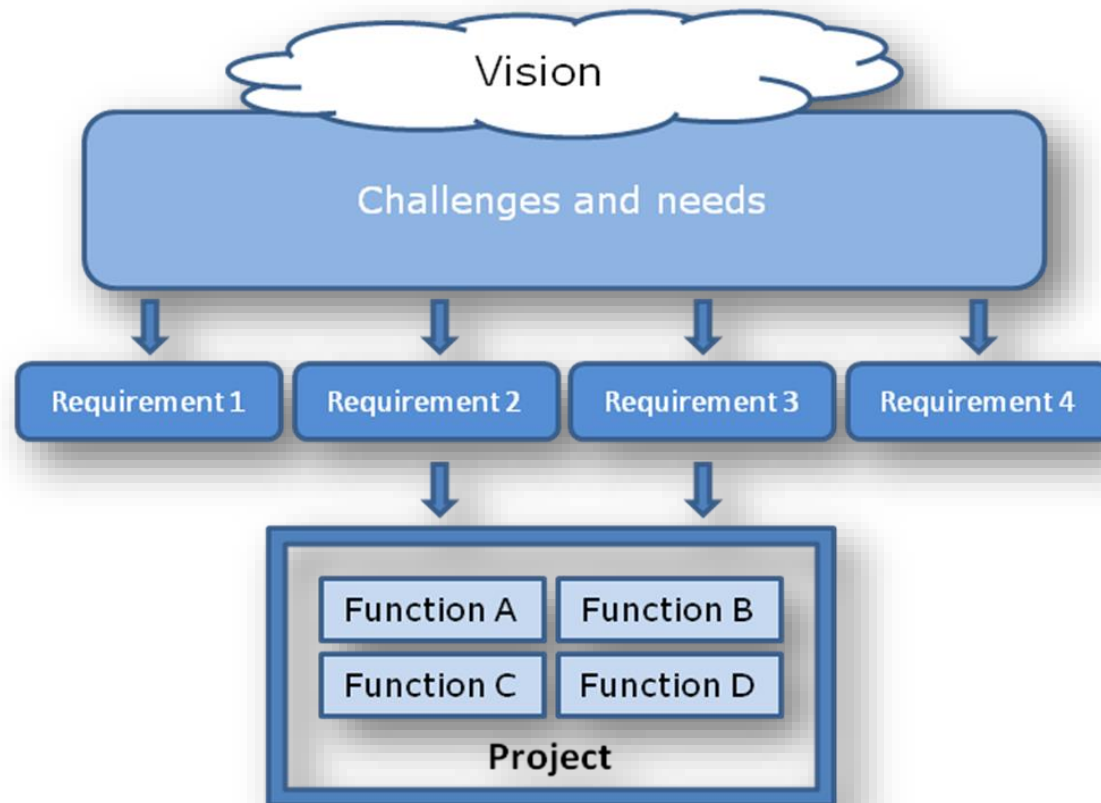


What the customer really needed

# How to structure: S95



# What do I want, how do I prioritize?

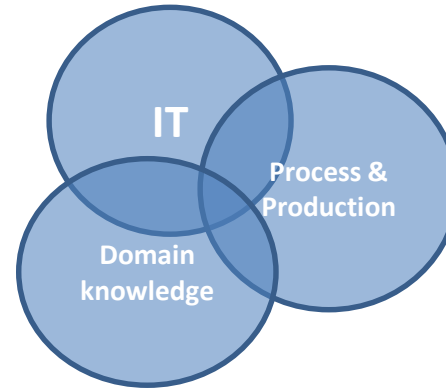




# Success factors

MES is a **means** towards Production Excellence, not the objective

Combined competences



Long term client-vendor partnerships

Business and organization focus

Stepwise implementation

# Conclusions...

MES is the right way to go towards Operational excellence

- Needs to be the **right solution**
- Needs to be in line with the production **organization**
- Needs to be rolled out **sequentially**
- Needs to be run as a **strategic tool**, rather than just another IT-system

# Some literature references...

- *Metrics that Matter: Uncovering KPIs that justify operational improvements*, MESA International, 2006
- *MESA Metrics that Matter Guidebook & Framework*, MESA International, 2006
- *Manufacturing Execution Systems – Industry Specific Requirements and Solutions*, ZVEI Automation, 2011
- *MES Guide for Executives*, Bianca Scholten, 2009