



#### **OPERATIONS MANAGEMENT TEAM:**

A SCIENTIFIC APPROACH TO PRACTICAL SOLUTIONS





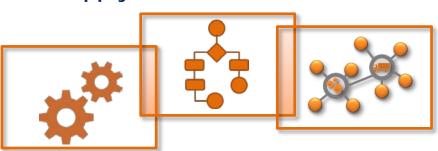
#### OPERATIONS MANAGEMENT TEAM



- OM Team is a spin-off of the Enterprise Engineering Department of "Tor Vergata" University of Rome, founded in 2010.
- It collects the wide expertise of the Operations Management research group, and inherits the experiences of collaboration with companies gained over the years.

## Consulting areas

- Production and Operations
- Business Processes
- Supply Chain



## Our profile



Lead companies to reach excellence through a continuous research for concrete and innovative solutions



Spread a scientific methodological approach to help companies achieving their goals

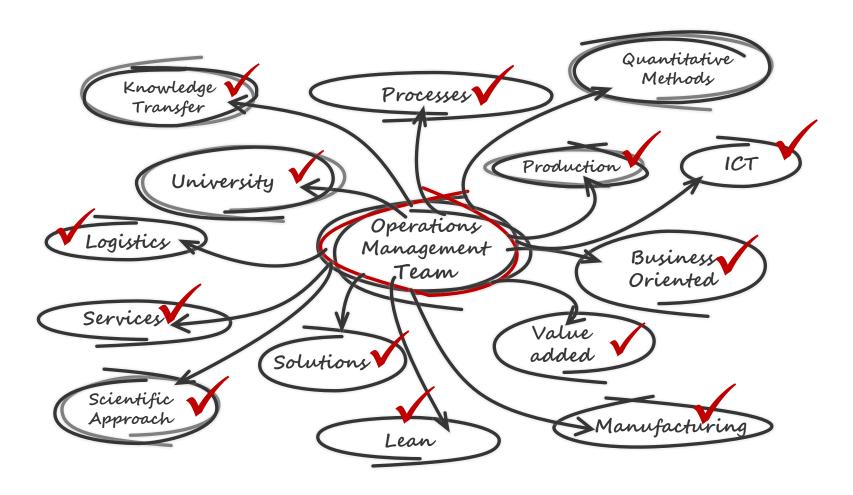


Create a network between companies and the academic world in order to exploit the synergies and develop innovative solutions



#### AN ORIGINAL APPROACH

The strength of our working methodology relies in the Team's specialist skills that concern the ability to apply methods, approaches and techniques from Operations Management to Industrial Engineering and Management.





#### **OPERATIONAL EXCELLENCE: APPLICATIONS**

## **Our Proposal**

- Operational Excellence is an approach that allows company to continuously improve, avoiding all non value added activities
- OM Team department of Operational Excellence uses a set of typical opeartions
  management methods and tools for continuous improvement of the performance of
  production processes, but also ensuring both the efficient use of resources and, on the
  other hand, the effectiveness of these processes.
- As approach aimed at achieving excellence in general, it potentially targets all efficiency losses, whether related to product quality problems or inefficient use of resources.

#### Areas



Production & Maintenance



Logistics & Supply Chain





### PRODUCTION & MAINTENANCE

## Improvement area

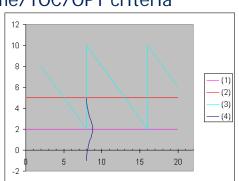


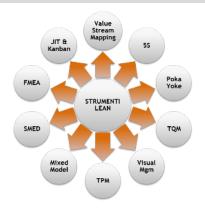
- Unavailability of the equipment due to long set-up and frequent failure
- High cost for maintenance
- High cost for waste
- Not optimized production plan
- Not optimized work place

## Potential actions

# Production planning optimization

Revision of demand planning criteria and Material Requirement Planning parameters.
Implementation of Just-In-Time/TOC/OPT criteria





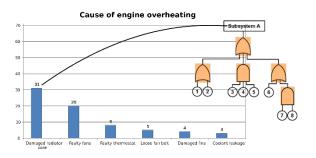
Optimization of production process, cells or lines, through kaizen approach, introduction of lean management approach

**Lean Manufacturing** 

# **Maintenance Optimization**

Review of maintenance policies, and spareparts management.

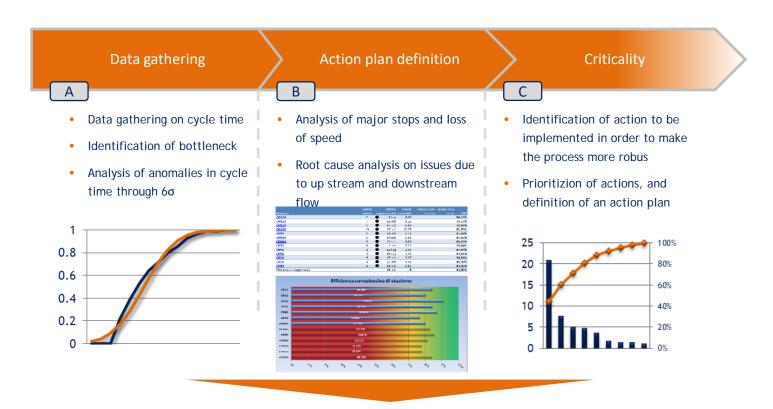
Definition of KPI scorecard for maintenance.





## PRODUCTION AND MAINTENANCE: SUCCESS CASE

- Context: primary Italian player of home appliance industry
- Goal: Reduction of process variability and increase in OEE stability through Six Sigma approach



- Results
  - +20% production capability
  - 16% cycle time of some cells

+28% efficiency on bottleneck



## LOGISTICS AND SUPPLY CHAIN

## Improvement area



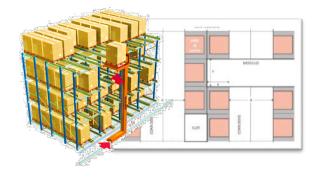
- High costs for product and material storage
- Low efficiency of material handling
- High level of working capital
- High obsolescence of stored materials
- High cost for distribution

#### Potential actions

# **Supply Chain Design & Management**

Definition of number, localization and capability of distribution centre. Evaluation of centralization of distribution centres



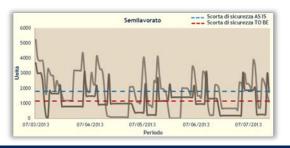


Definition of occupied areas, path for picking and stacking activities, means for material handling, analysis of the automation opportunity

**Warehouse Optimization** 

#### **Inventory Management**

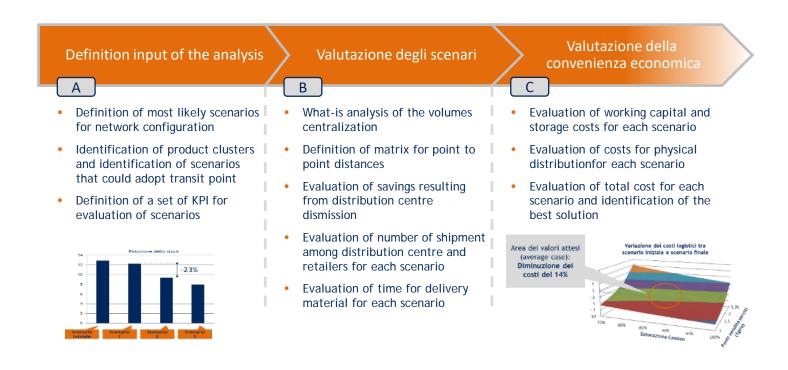
Reduction of working capital, increase of the service level through the definition of the right re-order level, safety stock, and distribution of stocks along the supply chain





#### LOGISTICS AND SUPPLY CHAIN: SUCCESS CASE

- Context: leading company in the large scale retail, with more than 400 retailers in Italy
- Goal: centralization of distribution centres in order and identification of temporary storage point to reduce distribution costs



- Results
  - 14% of distribution costs

- 23% inventory on hold



## QUALITY AND PROCESSES

## Improvement area



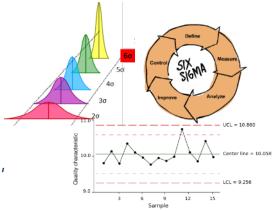
- High cost for process waste due to quality issues
- Unreliable process, high performance variability
- Lack of control on process performance
- Lack of control on supplier and incoming materials
- Inefficient document management system (long operating procedures, unreachable documents, etc.)

#### Potential actions

# Total Quality Management

Process redesign on the basis of value added, identification of Critical-to-Quality activities/characteristics and related impact on process/product, definition of continuous improvement system (KPI scorecard, benchmarking etc)





Evaluation of process resilience, process varuability reduction, avoidance of error causes

Six Sigma &
Statistical Process Control

## Quality Management System

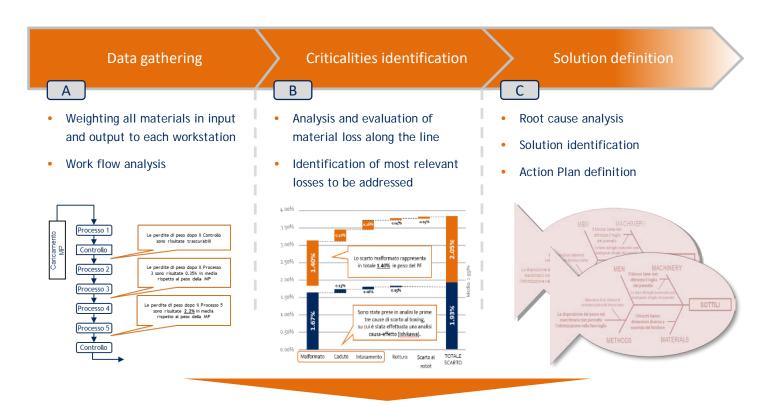
Definition of Quality Management System, compliant to ISO9000 standards: system for selection and qualification of suppliers, system for control and monitor process performance, document management system, etc.





### QUALITY AND PROCESS: SUCCESS CASE

- Context: international company, operating in the frozen food industry
- Goal: Improve efficiency of the finger food line, reducing process waste



- Results
  - 48% process waste along the production line
- +1.15% saving of starting material on finshed product

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OM Team provides services to several companies in different sectors:



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#### REFERENCES





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