World Class Approach

FCA Italy - Training & Consulting is an organization of Professional Trainers fully dedicated to support Operations training initiatives at World Wide level.

Mission

Develop and Deliver World Class Training & Consulting

- Industry 4.0 Digitalization
- Accelerated expansion
- Support to plants in skills certification and standardization
- Systematic elimination of loss and waste
- From reactive to preventive and proactive
- Internal Trainers certification

Vision

Create a “world class” learning organization able to transfer World Class best practices and know-how and contemporarily develop people and continuous improvement culture.

People development and continuous improvement

- Problems opportunities
- Best practices study sessions
- Training in classroom solutions
- Training on the job solutions
- Improvement culture
TRAINING & CONSULTING METHODS

- SIMULATION
- WCM ACADEMY
- TRAIN THE TRAINER
- ASSESSMENT
- CLASSROOM
- KAIZEN EVENT
- COACHING
- MTS
- TECHNICAL TRAINING SOLUTIONS
T&C team has developed training and consulting solutions based on three different levels as displayed in the above pyramid.

Acknowledgement courses aim to create a World Class culture among the production plants. The catalogue covers all main chapters of World Class Methods & Tools with the goal to increase the knowledge and develop participants’ ability in identifying and reducing loss and waste.

Workshops to support Kaizen Projects aim to develop specific World Class methodologies and to support production plants in reducing losses in the selected areas: these workshops are designed with a 100% hands on approach in order to enable production units to achieve tangible results in the selected model area, in coherence with Company targets.

Coaching programs aim to support production plants World Class experts in leading specific initiatives and achieving specific targets, providing mentorship in a “problem driven” logic.
Starting from catalogue, it is possible to build customized support programs in relation to the specific World Class implementation needs.

Training & Consulting Methods

- WEBINAR
- WEB ACADEMY
- GAMIFICATION
- MOBILE TRAINING
- ASSESSMENT TOOLS
- TRAIN THE TRAINER PROGRAM
- ON THE JOB SUPPORT
- WORKSHOP ADVANCED KAIZEN
- WORKSHOP MAJOR KAIZEN
- KAIZEN WEEK
- WORLD CLASS PROGRAM & SUPPORT KICK-OFF
- LEARNING GAMES
- CLASSROOM WITH SIMULATIONS
- CLASSROOM
- CASE STUDIES
- TRAIN THE TRAINER PROGRAM

Catalogue

Customization

Specific

Light

Full
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- B-S-02-C Safety steps 1-3 pillar basics overview

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WCM approach basic

Course objectives
Upon course completion the learner will be able to:

- Understand logics and contents of WCM
- Have a global vision of WCM implementation and development process

Course timeline

1 day

Expected benefits

- Spreading of knowledge about WCM logics and working approach
- Providing Company key roles a clear vision of WCM technical pillars

Target audience

- Company management
- Department heads and manufacturing, quality, engineering, logistics, design and HR managers

Prerequisites

- No prerequisites required
WCM approach extended

Course objectives
Upon course completion the learner will be able to:

- Understand logics and contents of WCM
- Have a global vision of WCM implementation and development process
- Have a general knowledge of WCM technical pillars, with examples of floor implementation

Course timeline
2 days

Expected benefits
- Spreading of knowledge about WCM logics and working approach
- Providing Company key roles a clear vision of WCM technical pillars
- Effective involvement of people within WCM teams and floor activities

Target audience
- Company management
- Department heads and manufacturing, quality, engineering, logistics, design and HR managers

Prerequisites
- No prerequisites required
Managerial pillars overview

**Course objectives**
Upon course completion the learner will be able to:

- Have a global vision of WCM Management Criteria
- Understand relationship between technical and managerial pillars

**Course timeline**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Training</td>
<td>0.5 days</td>
</tr>
<tr>
<td>Role Playing</td>
<td>0.5 days</td>
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</table>

[40% hands-on]

**Expected benefits**

- Creation of awareness about the importance of managerial factors into WCM implementation

**Target audience**

- Plant management team
- WCM coordinator and pillar leaders

**Prerequisites**

- No prerequisites required
Safety steps 1-3 Kaizen Week basic

Course objectives
Upon course completion the learner will be able to:

- Apply Step1-3 activities in model area
- Analyze UA UC NM in model area
- Introduce new safety standards
- Introduce new improvement tools on safety activities

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
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</thead>
<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
<td>0.5 days</td>
</tr>
</tbody>
</table>

Expected benefits

- Safety model area set up
- Shared new safety approach with operators
- Introduced new safety visual standards (activity board, etc.)
- Reduction of accidents rate in model area

Target audience

- Safety managers
- Manufacturing shift leaders
- Line operators
- HR specialists
- Maintenance technicians

Prerequisites

- Safety matrix
- Model area identified
Safety steps 1-3 pillar basics overview

Course objectives
Upon course completion the learner will be able to:

- Understand Safety pillar principles
- Know the pillar activities related to the first three steps
- Share principles to identify safety model area

Course timeline

Upon course completion the learner will be able to:

- Understand Safety pillar principles
- Know the pillar activities related to the first three steps
- Share principles to identify safety model area

Expected benefits

- Safety Matrix and Safety model area definition
- Safety pillar team definition
- Preliminary activities set up

Target audience

- Safety managers
- Manufacturing shift leaders
- HR specialists
- Maintenance technicians

Prerequisites

- Accident historical data
- Local laws and safety regulation knowledge
Loss & Waste concept

Course objectives
Upon course completion the learner will be able to:

• Understand loss and waste concept and its implications on WCM activities
• Develop a common language about loss and waste

Course timeline

Training
0.5 days

Examples & Exercises
0.5 days

Expected benefits

• Understanding the loss concept and the importance of reducing them to improve the economical result of the company
• Definition and classification of the various types of losses: plant, manpower, materials, energy and logistics
• Classification of losses into causal and resultant, in order to drive properly the improvement actions

Target audience
• All plant staff departments managers and specialists
• All manufacturing managers and supervisors
• Finance managers and specialists

Prerequisites
• No prerequisites required
CD pillar overview

Course objectives
Upon course completion the learner will be able to:

- Have an overview of the CD 7 steps and the related contents

Course timeline

1 day

Expected benefits

- Knowledge of the content of each step of the CD
- Understanding the meaning of CD Matrices and the way in which they are linked with the pillar steps

Target audience

- Finance managers and specialists
- All plant staff departments managers and specialists and/or WCM management team
- All manufacturing managers and supervisors

Prerequisites

- WCM overview
- Loss & Waste concept
CD Matrices calculation workshop

Course objectives
Upon course completion the learner will be able to:

- Build a complete picture of the CD pillar
- Use a common and shared language about CD
- Work in a simulated environment in order to practice the real application (Matrices)

Course timeline

1 day Classroom

- Training
- Examples & Exercises

Expected benefits

- Understanding which benefits may derive from the application of a structured CD
- Understanding the meaning of CD matrices and their application in a simulated environment
- Identification of activities to be done in order to activate a Cost Deployment

Target audience

- Finance managers and specialists
- All plant staff departments managers and specialists and/or WCM management team
- All manufacturing managers and supervisors

Prerequisites

- Loss & waste concept
- CD pillar overview
Cost Accounting extended

Course objectives
Upon course completion the learner will be able to:

- Understand cost accounting logics
- Have a general vision of basic techniques used to analyze costs and support decision making
- Know how budget works to plan and monitor cost control activities

Course timeline

Expected benefits

- Spreading of cost control mindset
- Capability to evaluate economic effects of technical decisions and to apply benefit-cost concept in kaizen projects
- Effective support to cost control activities on the floor

Target audience
- Cost accounting employees
- CD pillar members
- Manufacturing engineers and line supervisors

Prerequisites
- No prerequisites required
Cost Accounting basic

Course objectives
Upon course completion the learner will be able to:

- Understand cost accounting logics
- Have a general vision of basic techniques used to analyze costs and support decision making

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Examples &amp; Exercises</th>
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<td>0.5 days</td>
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</table>

50% hands-on Classroom

Expected benefits

- Spreading of cost control mindset
- Capability to evaluate economic effects of technical decisions and to apply benefit-cost concept in kaizen projects

Target audience

- Cost accounting employees
- CD pillar members
- Manufacturing engineers and line supervisors

Prerequisites

- No prerequisites required
Manufacturing CD workshop

Course objectives
Upon course completion the learner will be able to:

- Define a plant-wide Manufacturing CD, from matrix A to matrices E and F

Expected benefits
- Practical application of the theory about CD pillar implementation and the related matrices structure
- Completed CD development (from matrix A to F)

Course timeline

<table>
<thead>
<tr>
<th>Design</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td>1 day</td>
<td>11 days</td>
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</table>

Max timeframe 2 months

Target audience
- Finance managers and specialists
- WCM management team
- CD pillar specialists

Prerequisites
- Basic knowledge of Loss & Waste
- CD matrices structure
FI pillar overview

Course objectives
Upon course completion the learner will be able to:

• Understand the logic of each FI step and its relationship with other pillars
• Know the main tools for continuous improvement approach

Course timeline

1 day

Expected benefits

• Resources with ability to face problems with PDCA logic
• Resources with ability to recognize the complexity of problems and choose the correct methods and tools for troubleshooting

Target audience
• All pillar leaders and members
• Production leaders

Prerequisites
• WCM approach
Problem Solving basic tools

Course objectives
Upon course completion the learner will be able to:

- Know how FI pillar is linked to PDCA approach
- Apply Problem Solving tools in the development of a kaizen project

Course timeline

1 day

Expected benefits

- Availability of floor people able to develop PDCA projects using properly the kaizen basic tools

Target audience

- FI pillar team
- Floor people involved in kaizen activities

Prerequisites

- No prerequisites required
Kaizen basics for Team Leaders

Course objectives
Upon course completion the learner will be able to:

• Understand the principles of Loss and Waste Recovery and the meaning of restoring basic condition
• Recognize the main losses in an simulated assembly process
• Apply the logic of basic kaizen in a simulated assembly process

Course timeline

Training
Examples & Exercises
1 day 1 day

50% hands-on

Classroom

Expected benefits

• Resources with ability to recognize losses and wastes in the production environment
• Application of the concepts of recovery of basic conditions and workplace improvement
• Application of tools and basic kaizen logics

Target audience

• Production engineers
• Quality engineers
• FI and WO pillar leaders
• Production leaders

Prerequisites

• WCM approach
Problem Solving Major Kaizen workshop

Course objectives
Upon course completion the learner will be able to:

- Understand logics of setting and developing a Major Kaizen Project in order to attack specific losses
- Participate actively on the floor to the development of a selected project
- Apply correctly the specific tools for Problem Solving

Expected benefits

- Implementation of the PDCA logic in identified working areas
- Application of Problem Solving main tools in the working areas
- Labor cost reduction, improvement of quality indicators, increase of OEE based on the type of loss tackled

Target audience
- Pillar specialists relating to the loss of reference
- FI pillar leaders
- Production leaders

Prerequisites
- WCM approach
- FI pillar overview
AM pillar overview

Course objectives
Upon course completion the learner will be able to:

- Understand logics and principles of the AM pillar
- Understand the relationship between failure and lack of basic conditions of equipment
- Understand the model and the application principles of CILR (Cleaning Inspecting Lubricating Refastening)

Course timeline

1 day

Expected benefits

- Approach to a logic of maintaining machinery proper working conditions through inspection procedures
- Approach to the reduction of failures due to equipment lack of basic conditions, resulting in increased efficiency of machinery

Target audience
- Department and production managers
- Drivers and operators of production lines
- Maintenance managers and operators

Prerequisites
- No prerequisites required
AM steps 0-1 Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand the correlation between the activities of machinery cleaning and inspection in order to detect anomalies
- Apply onto the machinery the techniques of inspection and tagging of detected abnormalities

Course timeline

Training
0.5 days

Kaizen on Field
4 days

Follow-Up
0.5 days

Expected benefits

- Reduction of the machinery fault stoppages through the application of cleaning and inspection activities
- Removal of the machinery anomalies through the tagging process
- Reduction of the failures caused by the equipment lack of the basic conditions

Target audience
- PM pillar leaders and PM pillar members
- Managers, leaders and operators of production lines
- Electrical and mechanical maintenance technicians

Prerequisites
- AM pillar overview
AM steps 2-3 Kaizen Week

**Course objectives**

Upon course completion the learner will be able to:

- Identify and eliminate areas difficult to access and the sources of dirt into machinery through the application of quick kaizens
- Develop and implement on the machinery the CILR (Cleaning Inspecting Lubricating Refastening) standard procedures

**Course timeline**

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
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**Expected benefits**

- Elimination of failures caused by the equipment lack of basic conditions
- Reduction of the required time for CILR standard procedures

**Target audience**

- AM pillar leaders and AM pillar members
- Managers, leaders and operators of production lines
- Electrical and mechanical maintenance technicians

**Prerequisites**

- AM pillar overview
- AM steps 0 and 1 implemented in the model machine/equipment attacked
WO pillar overview

Course objectives
Upon course completion the learner will be able to:

- Focalize the WO pillar in the WCM contest
- Understand the principles of WO pillar
- Understand the opportunities achievable through the application WO 7 steps
- Know the tools to be applied to cover the early steps of WO pillar

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Classroom</th>
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Expected benefits

- Extended awareness in the company of WO pillar potentialities
- Basic knowledge in the company of WO tools
- Extended sensibility in recognizing model areas that need the WO pillar implementation as a strategic opportunity

Target audience
- WCM coordinator
- WO pillar managers
- Line and logistic operators
- Safety specialists
- Maintenance technicians

Prerequisites
- No prerequisites required
5S basics

Course objectives
Upon course completion the learner will be able to:

- Understand 5S logic as a tool for restoring basic conditions in the workplace and their sustaining in terms of order, organization and cleaning
- Appreciate potentialities of 5S tool through the analysis of real examples

Course timeline

Classroom

Training

0.5 days

Expected benefits

- Increased capability in the implementation of 5S tool in production areas
- Increased sensibility in the company in recognizing model areas that more need the implementation of 5S tool

Target audience
- Production engineers
- Logistic engineers
- Line leads and line operators
- Safety specialists
- Maintenance technicians

Prerequisites
- No prerequisites required
Muri, Mura, Muda & Yamazumi training event

Course objectives
Upon course completion the learner will be able to:

- Understand MURI, MURA, MUDA logic
- Understand Yamazumi method logic for the reduction of losses and the correct line balancing

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Examples &amp; Exercises</th>
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<tr>
<td>0.5 days</td>
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50% hands-on

Classroom

Expected benefits

- Increased capability in analyzing production areas by means of 3M logic
- Increased capability in analyzing production areas through Yamazumi logic
- Increased sensibility in the company in recognizing waste and loss in the working areas

Target audience

- Production engineers
- Logistic engineers
- Line leads and line operators
- Safety specialists
- Maintenance technicians

Prerequisites

- No prerequisites required
Karugamo: building carts and flow racks guidelines

Course objectives
Upon course completion the learner will be able to:

- Apply the Karugamo methodology by simulating an environment where handling areas will be designed
- Be aware of the concept of consolidated process to reach a systematic and complete identification of potential improvements
- Recognize and attack labor losses

Course timeline

Training
1 day

Expected benefits

- Increased knowledge in flow racks designing logics
- Application of the methodology and related tools in designing new solutions to manage handling areas

Target audience
- WO pillar team
- LOG pillar team
- FI pillar team

Prerequisites
- Model area definition
- Basic knowledge of WO and LOG pillar
Work Analysis

Course objectives
Upon course completion the learner will be able to:

- Understand the methodology to determine the working time by using the chronometric method or TMC (Time Method Control) method
- Learn how to classify the use of direct labor in the company and the management of relative indicators: performance/efficiency, direct labor requirements
- Reach the knowledge of basic concepts to set up an assembly line and relative work load
- Own the basic knowledge to set up production rate and relative machine load

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Examples &amp; Exercises</th>
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<tr>
<td>3 days</td>
<td>2 days</td>
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40% hands-on

Expected benefits

- Increased capability in the use of methodologies for the Work Analysis
- Increased sensibility in the company in recognizing labor loss route causes
- Increased capability in setting-up an assembly line with the proper work / machine load

Target audience
- WO pillar leaders
- Planners
- Work analysts
- Production controllers

Prerequisites
- No prerequisites required
Ergonomics principles and metrics

Course objectives
Upon course completion the learner will be able to:

- Own the basic knowledge on ergonomics, its evaluation and NIOSH & OCRA criteria
- Own the knowledge of ERGO-UAS technique to plan the direct labor by measuring and controlling the work load and the relative standard operation time

Course timeline

Training
3 days

Examples & Exercises
2 days

Expected Benefits

- Increased capability in the company in the implementation of ERGO-UAS methodology in accordance with ergonomics criteria
- Increased sensibility in the company in designing a workplace in accordance to ergonomics and safety aspects

Target audience

- WO pillar leaders
- SAF pillar leaders
- Planners
- Work analysts
- Production controllers

Prerequisites

- No prerequisites required
WO steps 0-1 5S Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand 5S logic as a tool for restoring basic conditions in the workplace and their sustaining in terms of order, organization and cleaning
- Test the application of the first 3S (sort, set in order, shine)
- Set the initial standard for maintaining (standardize and sustain)
- Implement steps 0-1 of WO in the model area

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
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90% on the job

Expected benefits

- Implementation of 5S tool and WO tags in the production areas
- Tangible savings due to reduction of waste and loss generated by lack of basic conditions in the workplace
- Application of logics for maintaining basic conditions and improving safety in the working environment

Target audience
- WO and LOG pillar team
- Manufacturing and logistic engineers
- Team leaders and team members
- Safety specialists
- Maintenance technicians

Prerequisites

- WCM approach and WO pillar overview
- Model area definition
WO steps 2-3 Muri, Mura, Muda

Kaizen Week

**Course objectives**
Upon course completion the learner will be able to:

- Understand MURI, MURA, MUDA logic
- Understand the logic of main tools
- Apply the tool for the NVAA reduction
- Implement steps 2-3 in the pilot area

**Course timeline**

- **Training**: 0.5 days
- **Kaizen on Field**: 4 days
- **Follow-Up**: 0.5 days

- 90% on the job

**Expected benefits**

- Implementation of MURI, MURA, MUDA logics in production areas
- Achievement of savings due to the reduction of labor loss in the working area

**Target audience**

- WO and LOG pillar team
- Manufacturing and logistic engineers
- Line leads and line operators
- Safety specialists
- Maintenance technicians

**Prerequisites**

- WCM approach and WO pillar overview
- Model area definition and 5S implementation
PM pillar overview

Course objectives
Upon course completion the learner will be able to:

• Fully understand logics and principles of the PM pillar
• Understand the application logics of the typologies of maintenance
• Understand the model and the application of the principles of machine structure deployment, the components classification and the implementation of SMP (Standard Maintenance Procedures)

Course timeline

Expected benefits

• Apply a logic of maintaining machinery proper working conditions through inspection procedures
• Reduction of failures due to lack of maintenance, resulting in increased efficiency of machinery

Target audience

• Maintenance managers
• Electrical maintenance technicians
• Mechanical maintenance technicians

Prerequisites

• No prerequisites required
PM step 0 - 5S Spare parts Warehouse Kaizen Week

Course objectives
Upon course completion the learner will be able to:

• Understand the logic of the management of spare parts, as a tool for inventory reorganization
• Test the application of the warehouse reorganization

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
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</table>

90% on the job

Expected benefits

• Reduction of the time for searching spare parts, with positive effects on the MTTR (Mean Time To Repair)
• Generate savings due to reduction of waste and loss generated by lack of basic conditions

Target audience
• Maintenance managers
• Maintenance technicians
• Spare parts warehouse managers
• Process and machinery technologists

Prerequisites
• No prerequisites required
PM step 0 - 5S Spare parts Warehouse training event

**Course objectives**
Upon course completion the learner will be able to:

- Understand the logic of the management of spare parts, as a tool for inventory reorganization
- Appreciate the organization of the spare parts warehouse as determining support for the execution of maintenance work

**Course timeline**

Training

Classroom

0.5 days

**Expected benefits**

- Capability to organize a spare parts warehouse

**Target audience**

- Maintenance managers
- Maintenance technicians
- Spare parts warehouse managers
- Process and machinery technologists

**Prerequisites**

- No prerequisites required
PM step 0 5S - Maintenance Box
Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand 5S logic as a tool for restoring basic conditions in the Maintenance Box and their sustaining in terms of order, cleaning and safety
- Test the application of the first 3S (sort, set in order, shine)
- Set the initial standard for maintaining (standardize and sustain)

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
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<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
<td>0.5 days</td>
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</tbody>
</table>

Expected benefits

- Reduction of maintenance cost
- Generation of savings due to reduction of waste and loss generated by lack of basic conditions

Target audience

- Maintenance managers
- Maintenance technicians

Prerequisites

- No prerequisites required
PM step 0 - 5S Maintenance Box training event

Course objectives
Upon course completion the learner will be able to:

- Understand 5S logic as a tool for restoring basic conditions in the Maintenance Box and their sustaining in terms of order, cleaning and safety
- Appreciate the potential of 5S tool through the analysis of real examples

Course timeline

0.5 days

Expected benefits

- Capability of implementing 5S in Maintenance Box

Target audience

- Maintenance managers
- Maintenance technicians

Prerequisites

- No prerequisites required
PM step 1 Kaizen Week

Course objectives
Upon course completion the learner will be able to:

• Understand the causes of the premature components deterioration
• Implement a performance monitoring system on the machinery
• Develop onto the machinery the techniques of problem solving and failure analysis

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
<td>0.5 days</td>
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</tbody>
</table>

90% on the job

Expected benefits

• Reduction of stoppages caused by premature individual components deterioration
• Reduction of failures caused by the lack of maintenance, resulting in increased efficiency of machinery

Target audience

• PM pillar leaders and PM pillar members
• Managers, leaders and operators of production lines
• Electrical and mechanical maintenance technicians

Prerequisites

• No prerequisites required
PM steps 2-3 Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Redefine the periodical maintenance (TBM: Time Based Maintenance)
- Prepare the standard procedures of periodical maintenance (SMP: Standard Maintenance Procedure)
- Identify the suitable corrective action to problems

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
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<tbody>
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</table>

Expected benefits

- Elimination of failures and consequent increasing of the overall plant efficiency
- Improvement of preventive maintenance management (labor and materials) as a result of the correct application of TBM (Time Based Maintenance)

Target audience
- PM pillar leaders and PM pillar members
- Managers, leaders and operators of production lines
- Electrical and mechanical maintenance technicians

Prerequisites
- PM step 1 achieved in the attacked machine/equipment

TARGET_10000820230327247411
QC pillar overview

Course objectives
Upon course completion the learner will be able to:

• Understand QC pillar working logics
• Understand the 7 QC pillar steps to attack quality problems produced by 4M (Machine, Method, Man, Material)

Course timeline

Training
0.5 days

Classroom
50% on the job

Case Studies
0.5 days

Expected benefits

• Launching of QC pillar activities
• Creation of propaedeutic knowledge, useful to study, understand and implement pillar tools

Target audience

• Quality managers
• Quality engineers / specialists
• Manufacturing managers
• Line supervisors
• QC pillar team members

Prerequisites

• No prerequisites required
Reactive QA Matrix mini Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand reactive QA matrix logics and working principles
- Develop QA matrix to prioritize quality issues and apply to them 4M analysis

Course timeline

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>1 day</td>
</tr>
<tr>
<td>Kaizen on Field</td>
<td>1.5 days</td>
</tr>
<tr>
<td>Follow-Up</td>
<td>0.5 days</td>
</tr>
</tbody>
</table>

Expected benefits

- QA matrix design according to current Company Quality System
- Definition of principles to analyze and prioritize quality issues
- Setting up actions to attack defects and measure their effectiveness

Target audience
- Quality managers
- Quality engineers / specialists
- Manufacturing managers
- QC pillar team members

Prerequisites
- Knowledge of working principles of QC pillar
Quality Maintenance basic Kaizen Week

Course objectives
Upon course completion the learner will be able to:

• Understand logics to develop a project to attack quality issues produced by machine
• Understand Quality Maintenance approach and its tools (X-matrix, QM-matrix, 5 questions for zero defects, …)
• Manage a QC Quality Maintenance project using with rigor methods and tools

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
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</thead>
<tbody>
<tr>
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<td>4 days</td>
<td>0,5 days</td>
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</tbody>
</table>

80% on the job

Expected benefits

• Availability of people able to select and manage Quality Maintenance projects
• Reduction of quality losses produced by machines and tooling

Target audience

• Quality managers
• Quality engineers / specialists
• Line supervisors / leads
• QC pillar team members
• Maintenance leads / technicians

Prerequisites

• Knowledge of working principles of QC pillar
• Basic knowledge of AM-PM
8 stages for incoming materials
Kaizen Week

Course Objectives
Upon course completion the learner will be able to:

• Understand the WCM approach to attack quality problems due to materials non conformity
• Know “8 stages” tool to classify critical materials and suppliers and manage materials quality control flow
• Apply the tool in the floor

Course Timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
<th>Follow-Up</th>
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</thead>
<tbody>
<tr>
<td>0.5 days</td>
<td>4 days</td>
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</table>

Expected Benefits

• Availability of resources able to apply the principle of incoming materials quality control
• Reduction of quality losses produced by materials

Target Audience

• Quality engineers / specialists
• Line supervisors
• QC pillar team

Prerequisites

• Knowledge on FI basic tools and QC pillar
Quality issues (Method) Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand logics to analyze quality issues related to assembly, caused mainly by Method factors
- Understand and apply how to check Method effectiveness and correctness
- Develop proper methods and procedures

Course timeline

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td>Training</td>
<td>0.5 days</td>
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<tr>
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<td>3.5 days</td>
</tr>
<tr>
<td>Follow-Up</td>
<td>1 day</td>
</tr>
</tbody>
</table>

90% on the job

Expected benefits

- Availability of people able to analyze QC Method issues
- Solution of QC problems due to Method weakness

Target audience
- Quality managers
- Quality engineers / specialists
- Line supervisors / leads
- QC pillar team members
- Work analysts

Prerequisites
- Knowledge of working principles of QC pillar
- Basic knowledge of QC-SK logic
SPC and Measurement System Analysis

Course Objectives
Upon course completion the learner will be able to:

- Understand the concept of “Process Capability” and its indicators (Cp, Cpk)
- Run capability studies
- Understand the importance of Measurement System robustness to assure reliability of capability studies in supporting decision making
- Run Gage R&R studies (by variables and attributes)

Course Timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Examples &amp; Exercises</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 days</td>
<td>1.5 days</td>
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</table>

Expected Benefits

- Availability of resources with knowledge on process capability assessment
- Availability of resources able to support quality projects with strong knowledge of process control methods

Target Audience
- Quality engineers / specialists
- Line supervisors
- QC pillar team

Prerequisites
- Basic statistics knowledge
QC tools for Human Error overview

Course Objectives
Upon course completion the learner will be able to:

- Understand approach, aims and working principles of QC step 4 and its tools (TWTTP - HERCA, Quality Gate, Quality Network)
- Know how to apply tools in the floor

Course Timeline

Training
0.5 days

Examples & Exercises
0.5 days

50% hands-on Classroom

Expected Benefits

- Availability of resources with knowledge on tools to attack human errors
- Availability of resources able to use the tools in the floor

Target Audience

- Quality engineers / specialists
- Line supervisors
- QC pillar team

Prerequisites

- Knowledge on FI basic tools and QC pillar
Logistics pillar overview

Course objectives
Upon course completion the learner will be able to:

- Understand Logistics pillar principles
- Know activities for the first three steps of Logistics pillar
- Understand links between Logistics and WO pillars
- Define pillar KPI’S and KAI’s
- Know criteria to select pillar model area

Course timeline
1 day

Expected benefits
- Identification of links with WO pillar
- Identification of priorities to develop Logistics pillar
- Definition of pillar team
- Set up of pillar preliminary activities

Target audience
- Logistic pillar team
- Manufacturing managers
- WCM coordinators

Prerequisites
- No prerequisites required
Logistic system approach and Just In Time training

Course objectives
Upon course completion the learner will be able to:

- Understand logics and working principles of Logistic System
- Understand, by using simulation sessions, how the four logistic principles work (One Piece Flow, Takt Time, Pull and Zero Errors)

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Simulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>2 days</td>
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</tbody>
</table>

Expected benefits

- Spreading of knowledge of JIT principles
- Availability of resources able to work within teams developing projects about logistic flow improvement

Target audience

- Logistics managers
- LOG-WO pillar teams
- Logistics operators
- Line supervisors / leads

Prerequisites

- Logistics pillar overview
- Materials classification
3S and 5T in logistic areas Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand the use of 3S and 5T methodologies in the logistic areas
- Reorganize the logistic process by using WCM methods

Course timeline
Training
0.5 days

Kaizen on Field
2 days

Expected benefits

- Creation of knowledge on 3S and 5T application logics in logistic areas
- Reorganization of logistic areas to guarantee effective implementation of logistic flows

Target audience
- LOG managers
- LOG-WO pillar teams
- Logistics operators
- Line supervisors / leads

Prerequisites
- Logistic pillar overview
ABC classification & materials management

Course objectives
Upon course completion the learner will be able to:

• Understand logics of materials classification
• Share examples of floor application
• Understand main feeding systems
  • Two Bin system  • Kitting
  • Kanban  • JIT JIS

Course timeline

Training

1 day

Expected benefits

• Implementation of an example of materials classification
• Sharing more suitable feeding systems
• Implementation of feeding systems hypotesis

Target audience
• LOG pillar team
• Production team
• WO pillar team
• WCM coordinator

Prerequisites

• Understanding of WO steps 1-3
Material classification and material feeding setting Kaizen Week

**Course objectives**
Upon course completion the learner will be able to:

- Understand material classification principles
- Apply material classification to a model process
- Share examples of different material feeding solutions
  - Two Bin system
  - Kanban
  - Kitting
  - JIT JIS

**Course timeline**

<table>
<thead>
<tr>
<th>Training</th>
<th>Kaizen on Field</th>
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<tr>
<td>0.5 days</td>
<td>2 days</td>
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</table>

80% on the job

**Expected benefits**

- Material Classification implemented
- Different feeding solutions identified
- WIP and NVAA reduction on the line side

**Target audience**

- Logistics pillar team
- Production team
- WCM coordinators

**Prerequisites**

- WO step 3 already implemented in model areas
Mizusumashi training event

Course objectives
Upon course completion the learner will be able to:

- Understand working logics of a synchronized logistic process (kitting and sequencing)
- Understand how to implement the most suitable logistic process according to materials classification and workplace organization

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
<th>Examples</th>
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<tbody>
<tr>
<td>0.5 days</td>
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</table>

Expected benefits

- Spreading of knowledge of basic principles to implement Mizusumashi approach
- Availability of resources able to participate to Mizusumashi projects

Target audience

- Logistics managers
- LOG-WO pillar teams
- Logistics operators
- Line supervisors / leads

Prerequisites

- Logistics pillar overview
- WO pillar overview
- Materials classification
Value Stream Map training event

Course objectives
Upon course completion the learner will be able to:

• Understand metrics to measure flow value
• Know logics to draw logistic flows
• Study examples of VSM (Value Stream Map)

Course timeline

Expected benefits

• Implementation of VSM concept to support logistic process improvement
• Use of standard logics in flow analysis and design
• Deeper knowledge of process lead time

Target audience
• LOG pillar team
• Production team
• WO pillar team
• WCM coordinators

Prerequisites
• No prerequisites required
Milk Run and Pull tools Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand Milk Run and Pull system concepts
- Apply Milk Run and Pull system in a part of the logistic process
- Share practical examples

Course timeline

<table>
<thead>
<tr>
<th>Training</th>
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<tbody>
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</table>

Expected benefits

- Milk Run implementation in model areas
- Pull and sequenced material flow implementation in model areas
- Logistics and Production able to handle NVAA reduction

Target audience

- LOG pillar team
- Production team
- WCM coordinators

Prerequisites

- WO step 3 already implemented in model areas
- Material classification
Mizusumashi Kaizen Week
(kitting and sequencing area)

Course objectives
Upon course completion the learner will be able to:

- Understand logic of a sequenced flow (kitting and material sequence)
- Apply sequenced material feeding to a model process to improve the level of service to production lines and reduce handling costs

Course timeline

<table>
<thead>
<tr>
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<tr>
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</table>

Expected benefits

- Mizusumashi feeding logic applied in model process
- Applied kitting and sequencing principles in the model area
- Logistics and Production handling NVAA reduction

Target audience

- Logistics managers
- LOG and WO pillar members
- Logistics specialists
- Production leaders

Prerequisites

- Mizusumashi training event
Value Stream Map Kaizen Week

**Course objectives**
Upon course completion the learner will be able to:

- Understand basic concepts of value of production flow
- Share Value Stream Map (VSM) standard symbols
- Identify a model process or product to map
- Design model process Current State
- Apply Value Stream Map as improvement tool

**Course timeline**

- **Training**: 0.5 days
- **Kaizen on Field**: 4 days
- **Follow-Up**: 0.5 days

**Expected benefits**

- Utilization of VSM standard symbols
- Model process identified
- Current state map of a model process or product
- Hypothesis of Future state map

**Target audience**

- LOG pillar team
- Production team
- WCM coordinators

**Prerequisites**

- No prerequisites required
PD pillar overview and approach

Course objectives
Upon course completion the learner will be able to:

- Understand logics and principles of the PD pillar
- Recognize and understand the logics of the main instruments for skills development
- Understand the MTS (Manufacturing Training System) model and the application principles for the identification of the intervention priorities related to lack of knowledge

Course timeline

Training

Classroom

1 day

Expected benefits

- Orientation toward training logics able to reduce waste and losses
- Preparation to the definition of competencies of key roles and gap analysis related to expected levels

Target audience

- HR managers
- Department and production managers
- HR specialists
- PD, QC pillar members

Prerequisites

- No prerequisites required
PD pillar launch workshop

Course objectives
Upon course completion the learner will be able to:

- Understand logics and principles of PD pillar
- Understand initial priorities for skills development (step 1-2)
- Define PD teams and PD pillar action plan to support WCM implementation

Course timeline

Expected benefits

- Definition of plant roles and competencies, critical to implement WCM (WCM organization structure design)
- Definition of WCM competencies related to Management to implement the program
- Definition of teams and critical competencies useful to launch WCM pillar activities into model areas

Target audience
- HR managers
- Company managers
- WCM coordinator

Prerequisites
- Understanding of plant main losses (C matrix of CD)
Skill Gap Analysis Kaizen Week

Course objectives
Upon course completion the learner will be able to:

- Understand the overall process of logical skills assessment
- Know the key factors (in preventive and reactive logic) in order to define the training needs
- Know how to apply, depending on their role, mapping and initial assessment of the employees skills

Course timeline

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Expected benefits

- Implementation of priority roles mapping on the shop floor
- Implementation of solutions to manage workers versatility
- Implementation of solutions for the technical skills of maintenance roles
- Skill gap analysis to define plans and actions to achieve the expected levels

Target audience

- HR managers
- Department and production managers
- HR specialists
- PD, QC pillar members

Prerequisites

- PD pillar overview and approach
Human Error Kaizen Week

Course objectives
Upon course completion the learner will be able to:

• Learn about the main factors of loss in order to define the training needs in reactive logic
• Manage the analysis of human errors in a structured way to get to the root cause (HERCA)
• Define and apply appropriate countermeasures related to the causes of human error

Course timeline

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</table>

Expected benefits

• Application of loss analysis due to human error
• Application of kaizen tools in order to reduce loss due to human error
• Definition / implementation of countermeasures to attack human error

Target audience

• HR managers
• Department and production managers
• HR specialists
• PD, QC, WO pillar members

Prerequisites

• PD pillar overview and approach
Environment pillar overview and approach

Course Objectives
Upon course completion the learner will be able to:

- Understand environment pillar priority
- Identify criteria to select improvement activities
- Identify steps activities
- Define an action plan to start up pillar activities

Course Timeline

1 day

Expected Benefits

- Pillar action plan
- Pillar team definition
- Setting of preliminary activities

Target Audience
- Environment managers
- Safety managers
- Maintenance managers
- WCM coordinators

Prerequisites
- No prerequisites required
Environment workshop

Course Objectives
Upon course completion the learner will be able to:

- Link environment past improvement activities to pillar steps
- Introduce new standard to improve environmental behavior
- Link pillar activities to ISO14001
- Introduce new tools for the management of environmental improvement activities

Course Timeline

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</table>

90% on the job

Expected Benefits

- Pillar priority activities definition
- Environmental improvement activities link
- Use of new visual environmental standards
- Identifying gaps in pillars and any activities related to environmental certification

Target Audience

- Environment managers
- Safety managers
- Maintenance managers
- WCM coordinators

Prerequisites

- No prerequisites required
<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1 Integrated Team</td>
<td></td>
</tr>
<tr>
<td>4 Operating regions</td>
<td>22 Countries of Delivery</td>
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<td>138 Sites Operated</td>
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<td>98 Customers</td>
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<tr>
<td>236 Kaizen Event</td>
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<tr>
<td>1,260 Classroom days</td>
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<tr>
<td>3,440 Coaching days</td>
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</table>
CONTACTS

FCA Italy - Training & Consulting

Registered Office:
FCA Italy S.p.A.
Corso Agnelli 200
10135 Turin - Italy

Operating Office:
Training & Consulting
Corso Settembrini 53 – Gate 16
10135 Turin - Italy

Secretary Office: +39.011.0047591
e-mail: wcmtraining&consulting@fcagroup.com
web site: www.wcm.fcagroup.com

For more information please contact:

Massone Luciano
EMEA Region - Head of World Class Manufacturing & Projects V.P.
luciano.massone@fcagroup.com

Gobetto Marco
T&C Manager
mobile +39.335.1248697
marco.gobetto@fcagroup.com

De Blasi Paolo
T&C Methods & Tools Coordinator
mobile +39.335.6329194
paolo.deblasi@fcagroup.com

Castellano Roberto
T&C Know-How Mgmt & Academies Support
mobile +39.335.7375027
roberto.castellano@fcagroup.com

Carra Maurizio
T&C External Market Support
mobile +39.335.7375026
maurizio.carra@fcagroup.com

Rabino Edoardo
T&C Motion Study & Ergonomics and Universities relationships
mobile +39.335.7433304
edoardo.rabino@fcagroup.com
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