

## Course description

# V119

## 4Q Basics (common version)

### Course goal

4Q is ABB's data driven problem solving process also called 4Q improvement methodology. 4Q stands for the 4 quadrants: measure, analyze, improve and sustain.

Participants learn the structure of the 4Q improvement methodology and are able to apply 4Q to improve processes by solving problems. It drives OPEX (Operational Excellence) by developing continual improvement competencies of people.

### Learning objectives

The course is an introduction to ABB's 4Q systematic problem solving methodology. The participants

- will learn to solve problems through root cause analysis rather than just seeing the symptoms and jump to conclusions.
- will be engaged as drivers for continual business improvement.
- learn the 4Q skills and knowledge as the common ABB language and approach to business improvement in ABB
- will be able to coach and instruct 4Q methods in his/her team

### Participant

Continuous improvement champions, managers of production, quality, office and service processes, supervisors, project managers and team leaders.

### Prerequisites

Participants are selected by his/ her manager to lead one or more continuous improvement teams. The manager has to select an important improvement issue for the participant to apply 4Q principles as part of the 4Q training. Each participant must have a subject for an improvement project ready when attending the training. The participants must be in a position enabling them leading teams and driving improvement projects in their own functional area.

### Topics

- Introduction  
*4Q overview and the Pre-4Q / voice of the customer*
- Q1\_Measurement module  
*What to measure / variation / data collection / control charts / process mapping (SIPOC, flowchart, process maturity)*
- Q2\_Root cause analysis module  
*Pareto analysis / fishbone diagram / tree diagram / 5 whys / scatter plot / lean & wastes*
- Q3\_Improve / Piloting actions module  
*Opportunity-brain-storming / SMART action list / 5s and safety*
- Q4\_Sustain module  
*Process re-engineering / standardization / visual management / poka yoke – mistake proofing*
- Learning reinforcement  
*Test / feedback*
- Project creation workshop  
*Project charter / SMT white sheet / kick of improvement project*
- *Coaching during execution of own improvement project*

### Methods

Lectures, discussions, demonstrations, case studies, group work and an instructor coached own improvement project to be executed after the training. Projects to be reported in the SMT cost saving tool. After successful completion of the own improvement project, participants become "4Q Basic" certified.

### Duration

2 days classroom training and 4 individual coaching sessions during the execution of the own improvement project.

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