

BOLOGNA, NOVEMBRE 2017

ABB Dalmine (Italy)

From LEAN to SMART

Fabio Golinelli, Industrial Engineering & Supply Chain Manager

ABB: the pioneering technology leader

~\$34 bn revenue

~100 countries

~132,000 employees

The Energy Revolution



The Fourth Industrial Revolution



Utilities

Industry

Transport & Infrastructure

ABB Dalmine Plant



ABB Dalmine Lean Way

2008 Tour in Japan



ABB Dalmine Lean Way

Operative Model

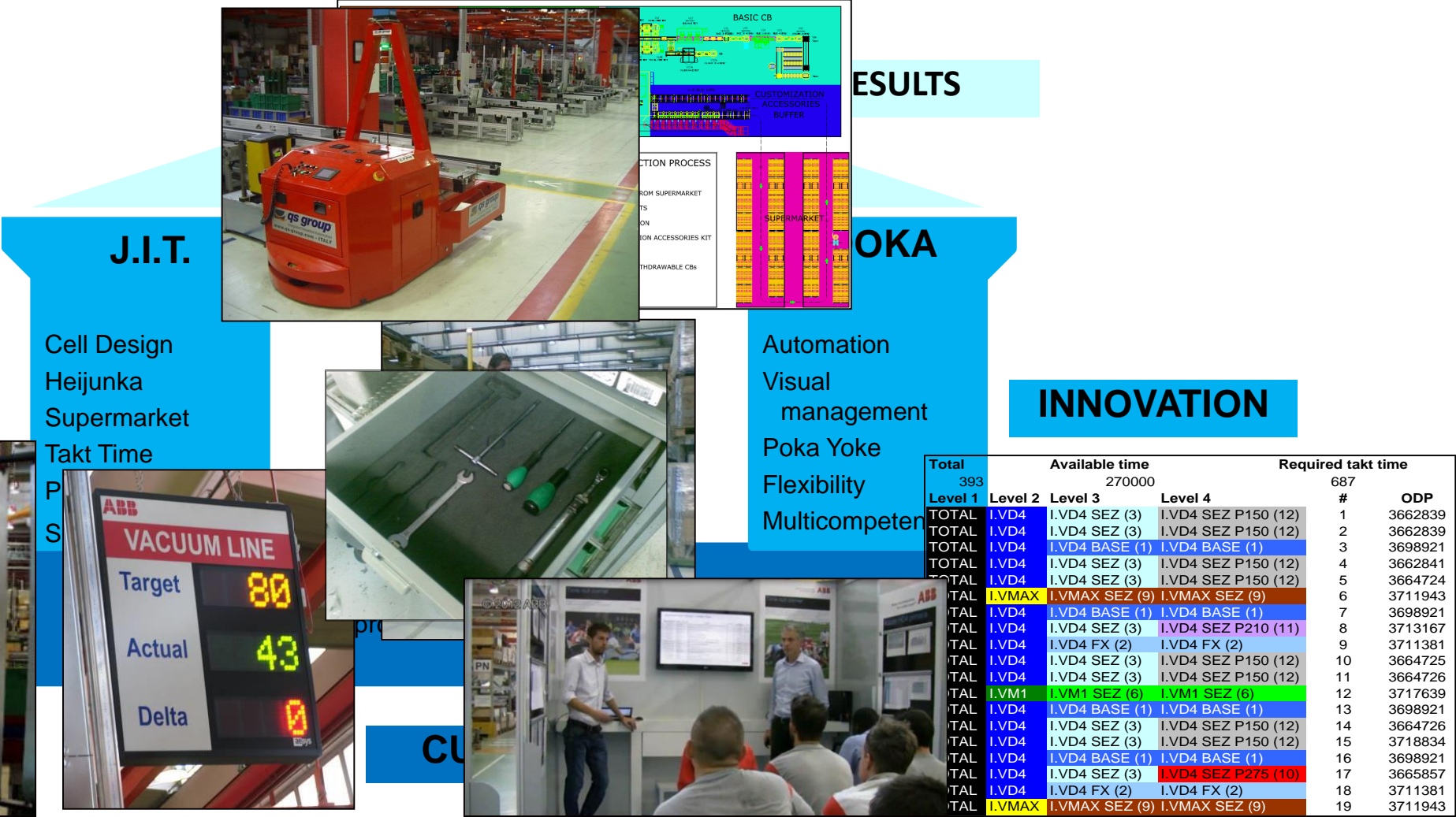


ABB Dalmine Lean Way

Lean Supply Chain



Before



After





ABB Dalmine Lean Way

Lean Office

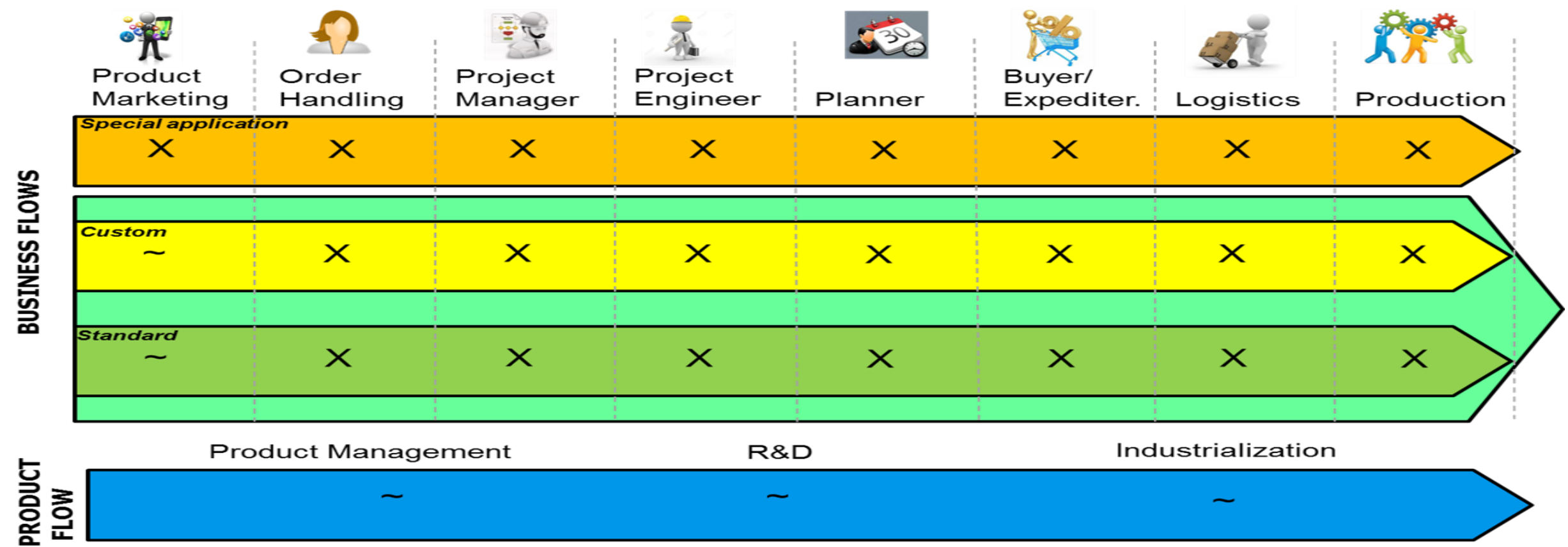


ABB Dalmine

Design for automation

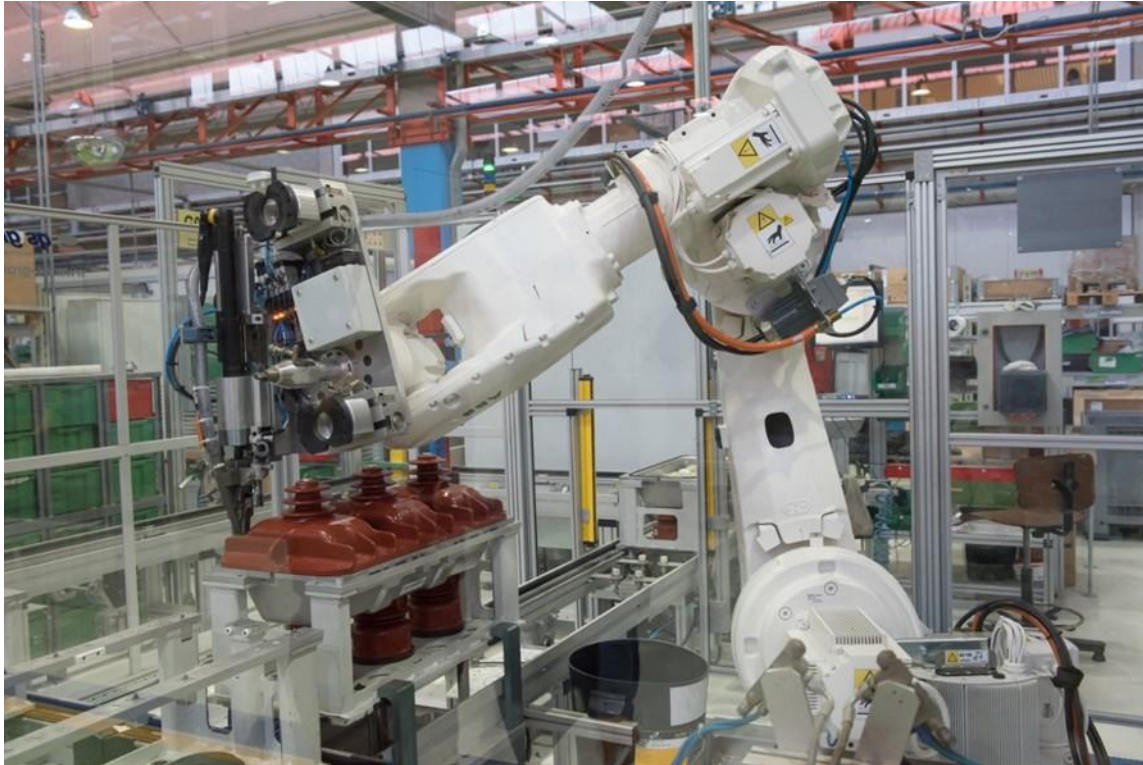


ABB Dalmine Smart Factory

Smart Workplaces



ABB Dalmine Smart Factory

Smart Testing



ABB Dalmine Smart Factory

Smart Handling



ABB Dalmine Smart Factory

Smart Picking



ABB Dalmine Smart Factory

Smart Training

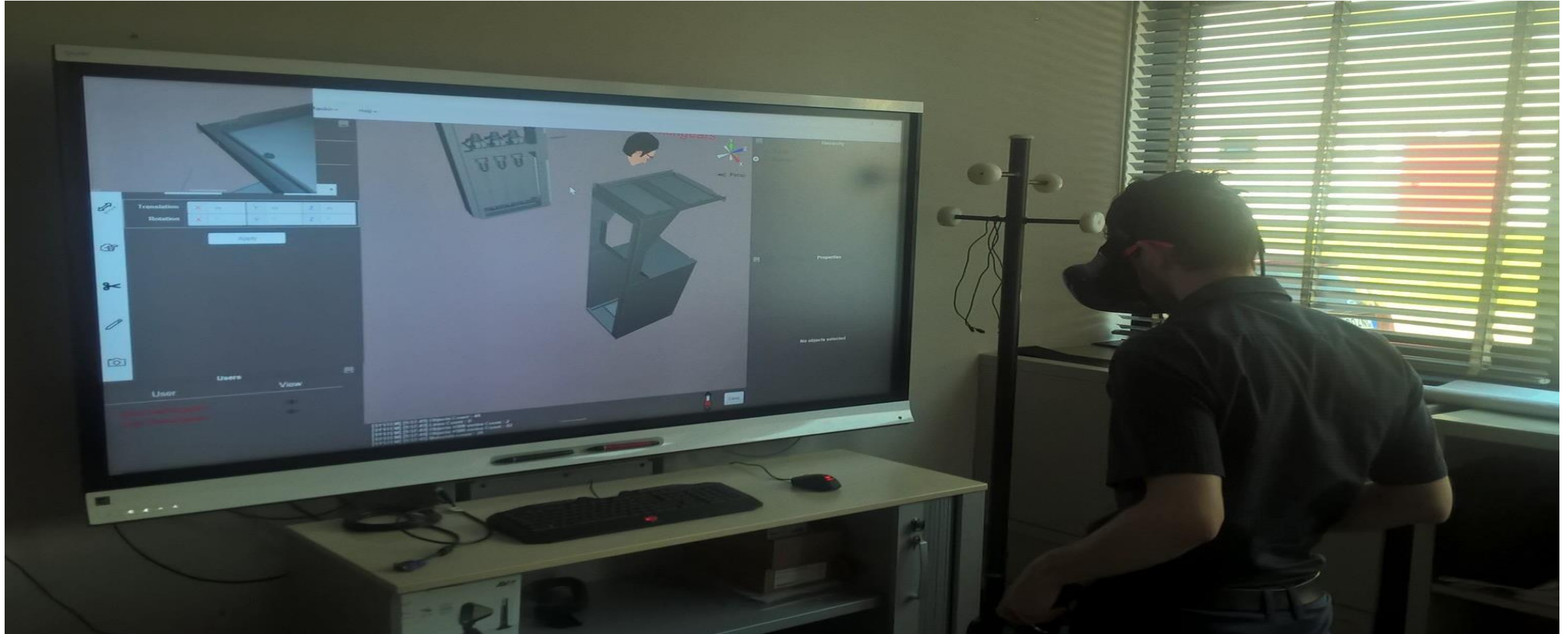


ABB Dalmine Smart Factory

Smart Ergonomics

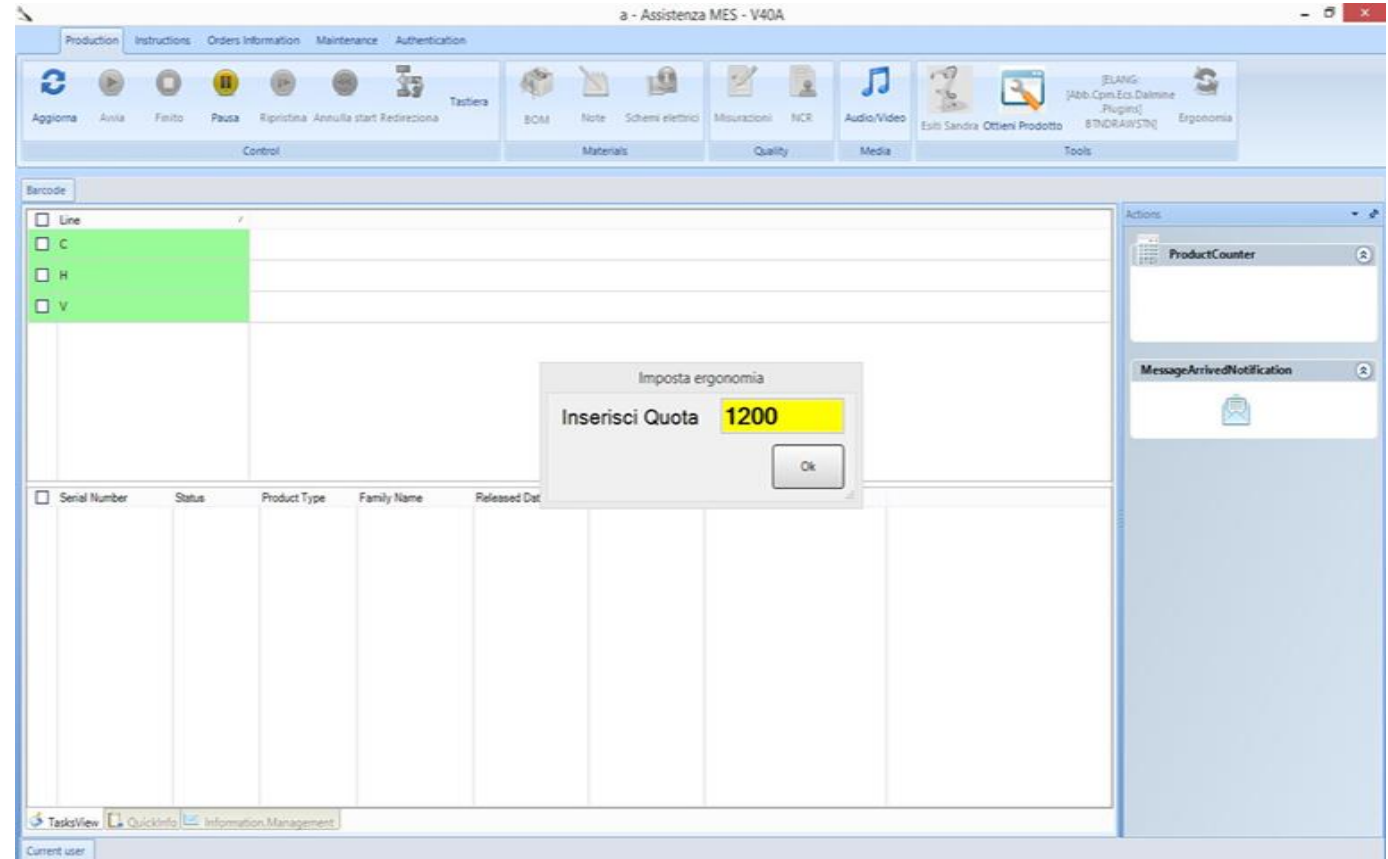


ABB Dalmine Smart Factory

Smart Productivity Monitoring

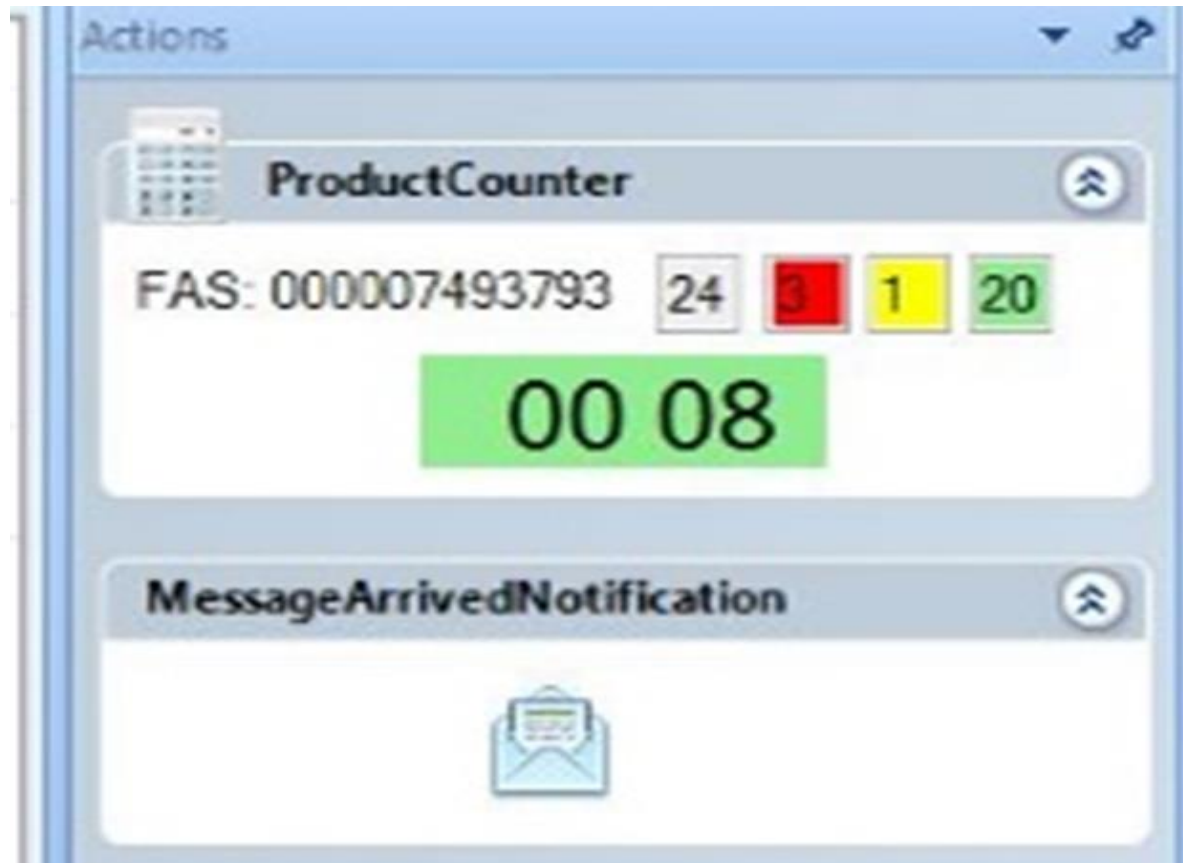


ABB Dalmine Smart Factory

Smart Workers



ABB Italy Lighthouse Plant Project

1 of the first 4 candidates to become Lighthouse Plant



DALMINE

EPMV



FROSINONE

EPPC



SANTA PALOMBA

EPBP



Objectives

- to be a real demo of the Digital and Smart Manufacturing solutions
- to be a leader and a benchmark within the Italian Industry
- To be a leader and a benchmark within ABB Group

2017 – 2020 Roadmap on 7 Digital Waves

VIRTUAL FACTORY



**AUTOMATIC AND
AUTONOMOUS FLOWS**



COLLABORATIVE ROBOTS



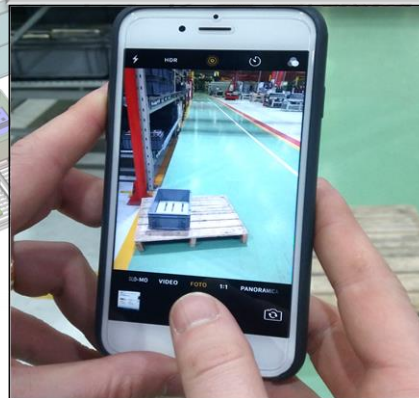
PREDICTIVE MAINTENANCE



DIGITAL SUPPLY CHAIN



SMART HSE



QUALITY «ZERO DEFECTS»





ABB