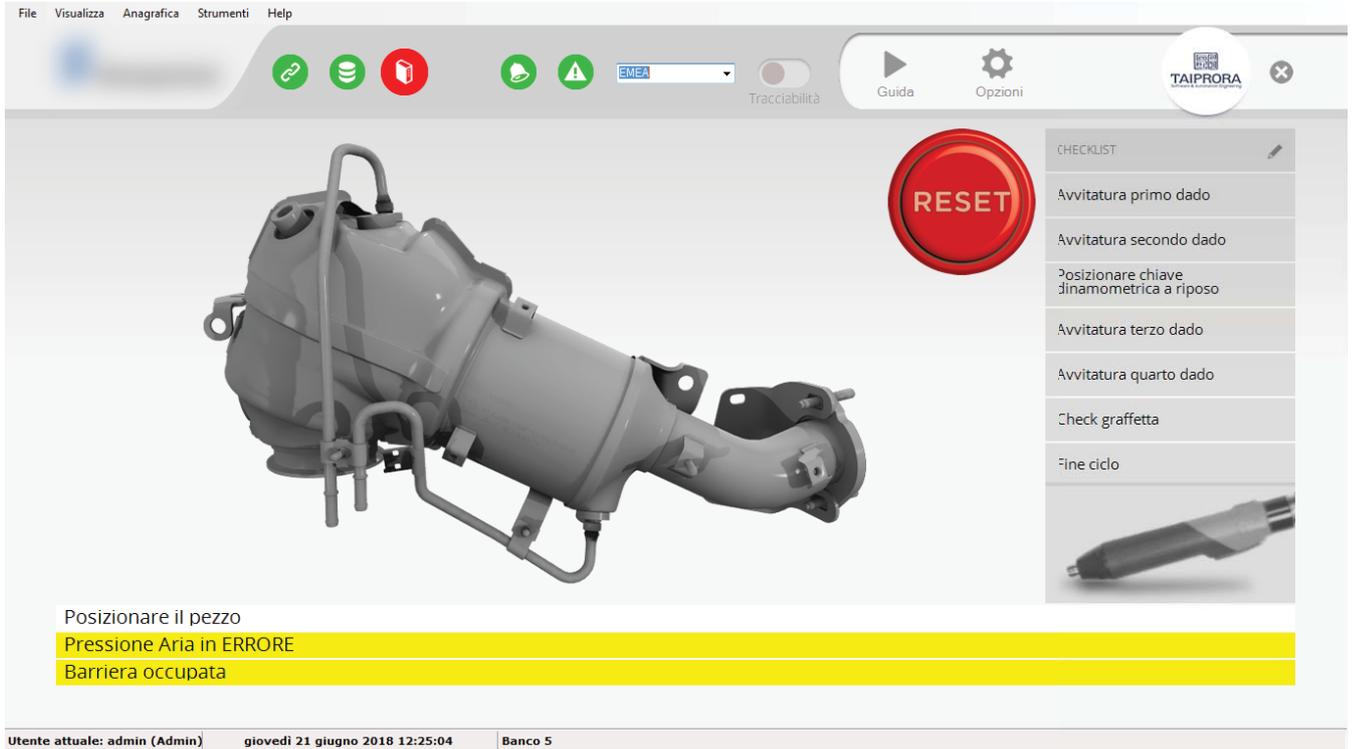


Traceability System

For a well-known multinational automotive company we have created a **Traceability System** for one production line that includes 9 processing stations (welding, tightness control, screwing, vision and *pick to light*).



The screenshot shows the software interface for the Traceability System. At the top, there is a menu bar with 'File', 'Visualizza', 'Anagrafica', 'Strumenti', and 'Help'. Below the menu, there are several icons for navigation and settings, including a 'Tracciabilità' toggle and a 'Guida' button. The main area displays a 3D model of a car part. To the right of the model is a large red 'RESET' button. Below the model, there are three status indicators: 'Posizionare il pezzo', 'Pressione Aria in ERRORE', and 'Barriera occupata'. On the right side, there is a 'CHECKLIST' section with a list of tasks: 'Avvitatura primo dado', 'Avvitatura secondo dado', 'Posizionare chiave dinamometrica a riposo', 'Avvitatura terzo dado', 'Avvitatura quarto dado', 'Check graffetta', and 'Fine ciclo'. At the bottom, there is a status bar showing 'Utente attuale: admin (Admin)', 'giovedì 21 giugno 2018 12:25:04', and 'Banco 5'.

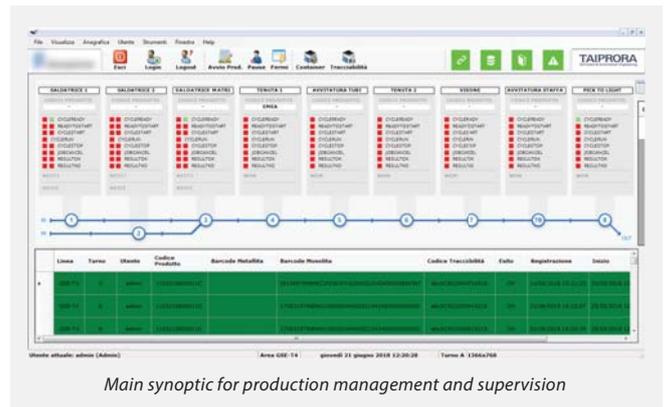
The Software available on the assembly desk guides the operator in all the work phases and through sensors checks the correctness of the operations performed

The traceability in this case is related to all the processing of the pieces that will form the finished product at the end of the line with relative machining status OK or NOT OK.

Furthermore, the flow of components within the line is in real time on the line SUPERVISOR, on all stations of reference and on the various mobile devices (smartphone, tablet, PC, etc...).

The System includes

- a server application that manages flows, acceptance or less than pieces, the start of production cycles and saving traceability data;
- 11 barcode scanners used by operators to identify the pieces in production. They are connected in ethernet with the application that receives information about the parts and uses them for the management of the line;
- a supervisor application that tracks in real time all activities in progress within the line, allows for view the reports on the productions made on the line and takes care of printing the traceability labels when the piece leaves the line, the label of the container one achieved a precise number of finished products and the OEE label containing the performance of the line in turn.



The screenshot shows the 'Main synoptic for production management and supervision' interface. It features a complex dashboard with multiple data tables and a central flow diagram. The tables display various production metrics and status indicators. The flow diagram shows the sequence of operations within the production line. At the bottom, there is a status bar showing 'Utente attuale: admin (Admin)', 'Area GSE T4', 'giovedì 21 giugno 2018 12:26:08', and 'Turno A: 1366x768'.

All communications between devices, PLCs of the banks, applications and scanners are carried out via a dedicated Ethernet network.

The peculiarity of the system lies in being able to put in communication all the communication stations between them through a server application that acts as a connector and logic controller of the flows within the line itself.