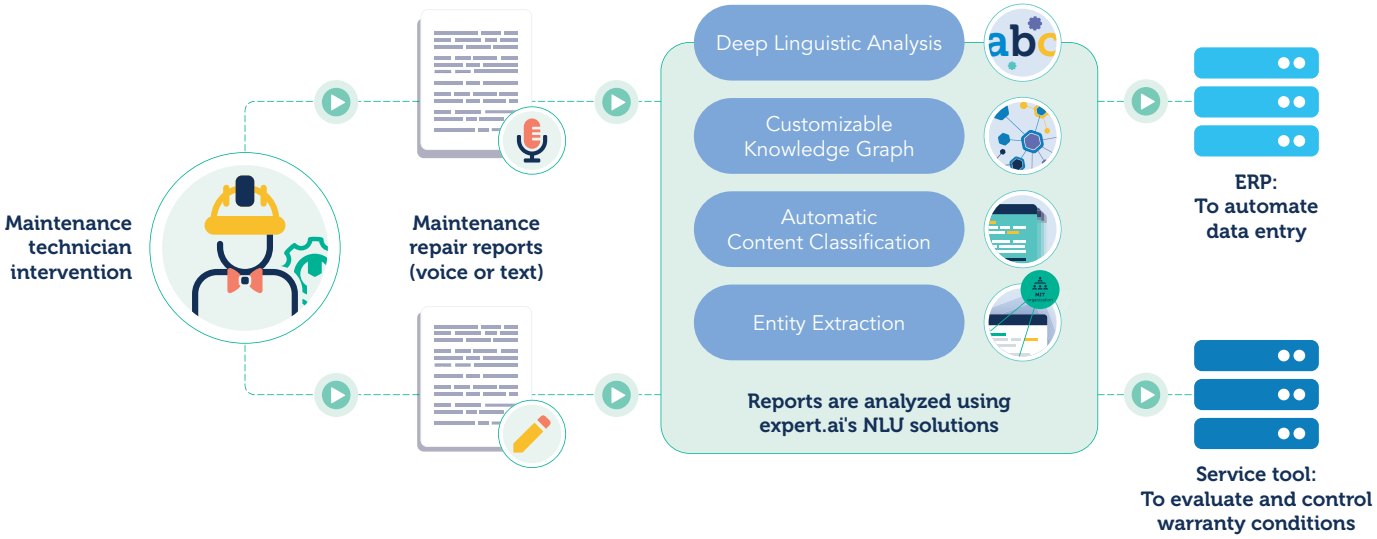
Improve maintenance activities through the analysis of repair reports

Process large amounts of information and technical documents on repairs, malfunctions and maintenance operations to support field experts and technical support teams to quickly identify problems and solutions.



To ensure optimal performance of machinery, systems and components while reducing the time and cost of service interventions, manufacturers, Telcos, Utilities, etc. are looking to use internal knowledge sources to drive efficient maintenance responses. However, one of the main challenges is that this data is siloed in operating and maintenance manuals, technical files, instruction documents, service tickets, operator reports, etc.

Each time a maintenace task needs to be performed, the maintenance staff creates a document or "task report" with an analysis of the problem and the solution applied. These documents contain descriptive texts with invaluable information. However, because it is unstructured, this information is often unseen and unusable. Companies have large archives of maintenance reports that contain a variety of data on failures, stoppages, breakdowns and spare parts instructions that would help technical teams make repairs faster.

Artificial intelligence to support maintenance

Applying expert.ai's artificial intelligence with natural language understanding, with its ability to collect, categorize and provide access to huge amounts of unstructured data, is a tremendous opportunity for companies to streamline and improve large-scale maintenance processes.

Expert.ai makes it possible for companies to:

- link data in different documents and make them easily accessible during search
- perform real-time searches across millions of technical documents and maintenance reports
- quickly locate in-depth information and the cause-and-effect nexus of a malfunction or the most frequent maintenance and restoration interventions
- effectively manage products and facilities using knowledge accumulated from previous maintenance interventions.

Why choose expert.ai

Expert.ai's artificial intelligence leverages a hybrid approach, based on a unique combination of machine learning and language understanding, to enhance any process or application that requires the ability to analyze any type of text, classify documents and extract useful data.

Technical features

Expert.ai's solutions enable improved maintenance management through a number of unique features:

- **Knowledge Graph:** expert.ai's customizable knowledge graph provides the broad representation of knowledge and details specific to a company or system that enables computers to understand and analyze of all types of text;
- **Semantic and natural language search:** users can leverage search, including natural language based queries, to retrieve technical information, feedback and instructions by exploiting semantic relationships between concepts, which goes beyond classic keyword search;
- **Maintenance classification and repair extraction details:** to identify the maintenance topic, the type of problem and criticality, the plant or components involved, past remedial interventions, etc.;
- **Support for predictive analysis:** the ability to identify frequent problems and critical issues through in-depth data analysis (combined with data from sensors and mathematical models) so that the appropriate maintenance interventions can be implemented and predicted.

Key Benefits

With our artificial intelligence solutions, companies engaged in maintenance activities gain significant benefits in terms of:

- Improved corporate knowledge sharing
- More effective technical support
- Quick and timely search
- Reduced operating time and costs
- Optimization of production processes
- Increased satisfaction for maintenance staff that require assistance