

ESAPRO

REINFORCE:

NEW

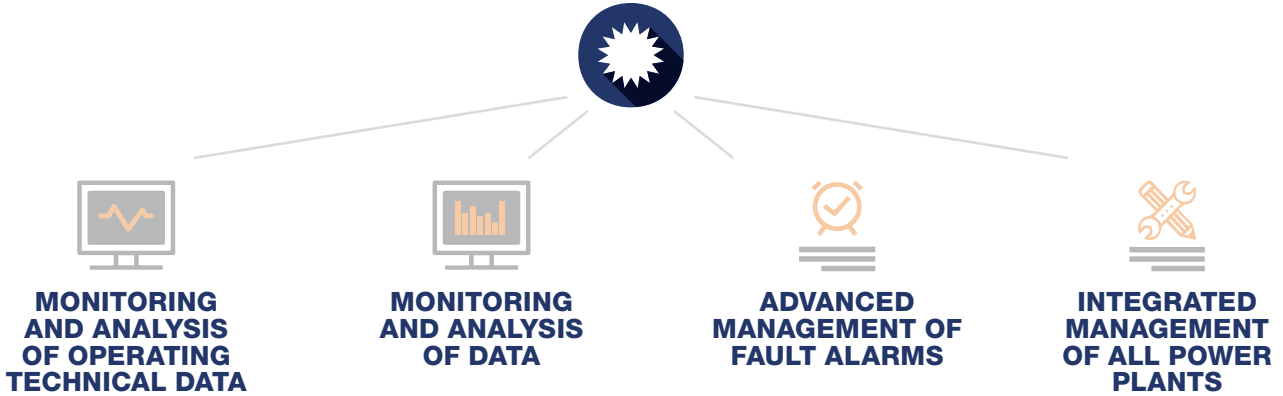
GENERATION

MONITORING

Renforce

New-generation monitoring

RENFORCE IS THE MONITORING PLATFORM BASED ON IOT (INTERNET OF THINGS) TECHNOLOGY FOR PLANT CONTROL AND PERFORMANCE ANALYSIS



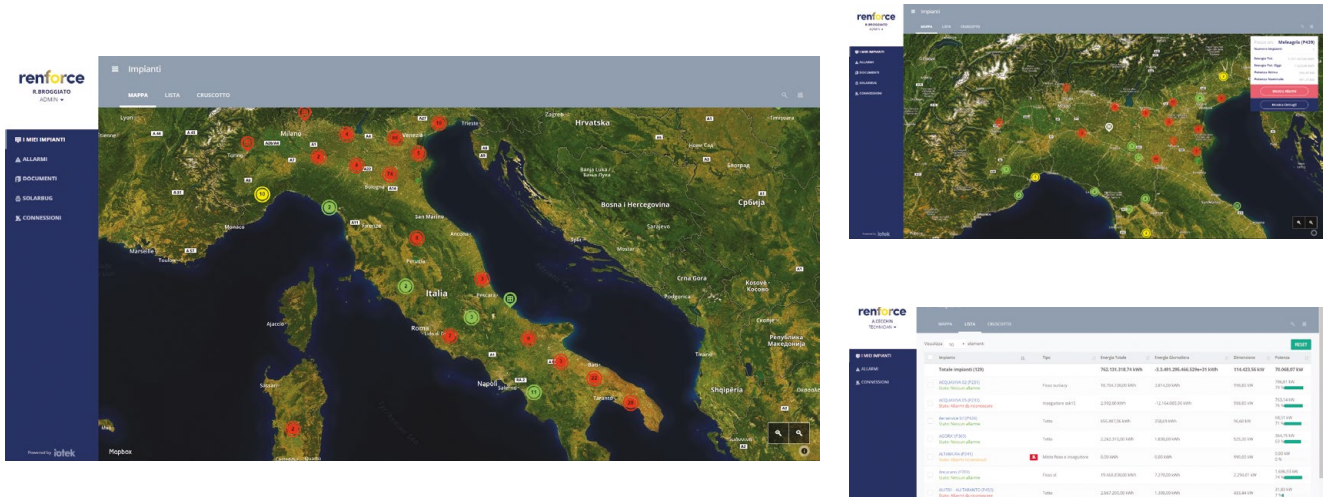
IoT Technology

Renforce uses IoT (Internet of Things) technology on the cloud to acquire, process and monitor large quantities of environmental, operating and production data quickly and continuously, allowing plant control and management activities to be performed via a remote connection.



Multi-plant display

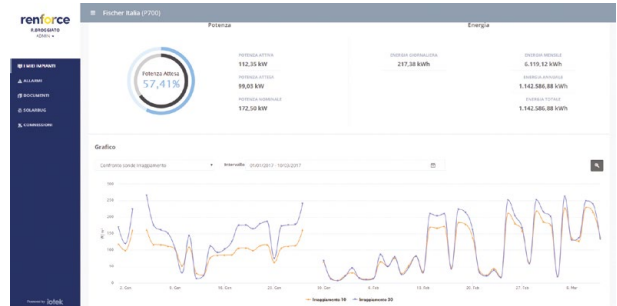
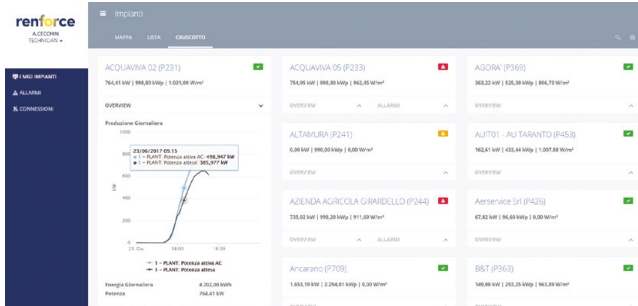
Renforce displays all the plants in the portfolio, immediately highlighting the most important parameters and indicators: irradiance, production, active alarms. The interactive map provides access to detailed charts for each plant, including all the selected performance indicators, as well as the alarm management module that highlights any faults and service activities, in progress and completed.



Monitoring

STANDARD AND CUSTOM PERFORMANCE INDICATORS

The Renforce dashboard allows access to all the power plants, with the possibility to quickly view the main indicators as an overview, or to analyse in detail the technical operating parameters and the performance levels for each individual plant. In addition to the standard performance indicators, the ECS (Easy Configuration System) can be used to define and implement custom indicators to meet specific requirements.

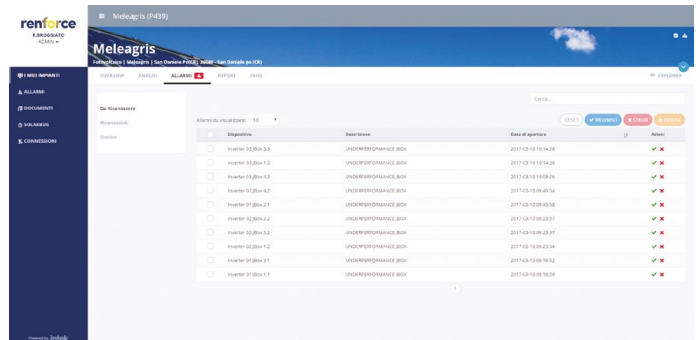


SAM, advanced selective alarm management

Selective Alarm Management

One of the most common issues involving traditional monitoring systems concerns the ability to discriminate between real and false alarms and identify the origin of the problem.

Renforce uses the SAM (Selective Alarm Management) system to allow users to check all of the plant's components and to analyse all incoming alarms, identifying those that indicate a real malfunction and its cause.



Management of uncertain alarms

Renforce allows users to manage alarms relating to situations of uncertainty, such as power plant under-performance, potentially due to multiple concurrent causes. This is possible thanks to the application of fuzzy logic, which supports engineers in troubleshooting and avoids long and expensive manual data analysis.

Designed to amaze



Intuitive graphic interface

Renforce is designed to offer extremely easy and pleasant use. The fully responsive platform can also be used by mobile devices; the console can be customised to allow users to change colours and logos.



Feedback in real time

Renforce can handle and process large amounts of incoming information and data, providing real-time responses and avoiding annoying delays in data display, even for the most complex situations.



No point of failure security

To ensure service continuity, Renforce saves the information to multiple data centres, with continuous backup. This way the information is always secure and available.



ECS - Easy Configuration Support

Thanks to the ECS "no-code" configuration system, Renforce can be customised to meet specific requirements with no need to resort to complex programming operations, meaning considerable time and cost savings for new configurations.



Operating flexibility

Renforce is an extremely flexible platform in terms of configuration and scalability: customers can monitor single plants or even large portfolios, without any additional costs.



Interoperability with third-party applications

Renforce can be integrated with third-party applications to enable customers to fully exploit the information provided by the platform and make it accessible to external systems and vice versa. The company's internal development team offers even the most demanding customers the possibility to create even tighter integration with systems developed by third-parties.

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