

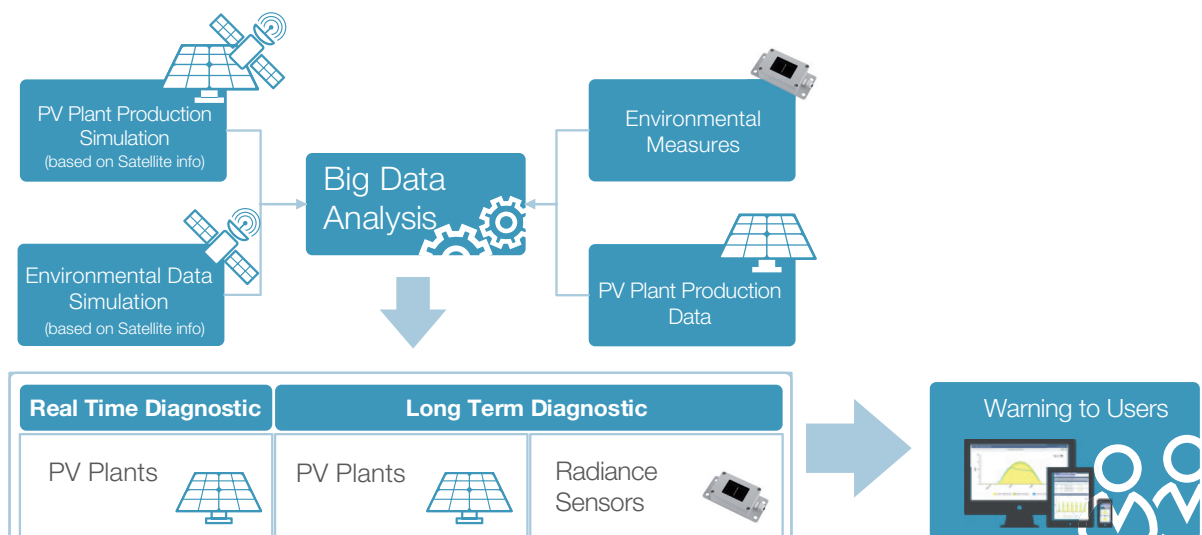
# Advanced Diagnostic

Diagnostic service for an advanced management of the malfunctions affecting a plant, a specific sub-field and sensors in-situ.

This service is based on artificial intelligence algorithms analyzing data from devices (sensors, inverters, energy meters) installed on the plant and from satellite-based observations.

Provided information:

- Kind of failure;
- Failure location on the plant;
- Failure description.






Benefits:

- › Automatic fault detection from remote
- › Maintenance time and cost reduction
- › Plant performance improvement

› Real time mode: sub-fields analysis with a time horizon of 2 hours.  
Detect covering, soiling, shadows, faulting MPPT on the plant.

› Long term mode: sub-fields analysis with a time horizon of 20 days.  
Detect covering, soiling, shadows, faulting MPPT on the plant, , thermal problem of the inverters and malfunctions of the irradiance sensors installed in-situ.

System Features		
Real Time Diagnostic	Long Term Diagnostic	
PV Plants 	PV Plants 	Radiance Sensors 
<p><b>Detectable Failures:</b></p> <ul style="list-style-type: none"> <li>• Soiling or shading</li> <li>• Cover</li> <li>• Faulty MPPT</li> <li>• Thermal Problem</li> </ul> <p><b>Timing:</b></p> <ul style="list-style-type: none"> <li>• 2 hours back performances analysis updated every 1 hour</li> </ul> <p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Malfunction</li> <li>• Lost Production</li> <li>• Alert to Users</li> </ul>	<p><b>Detectable Failures:</b></p> <ul style="list-style-type: none"> <li>• Shading</li> <li>• Cover</li> <li>• Thermal Problem</li> </ul> <p><b>Timing:</b></p> <ul style="list-style-type: none"> <li>• 20 back days performances analysis updated every day</li> </ul> <p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Malfunction</li> <li>• Lost Production</li> <li>• Alert to Users</li> </ul>	<p><b>Detectable Failures:</b></p> <ul style="list-style-type: none"> <li>• Shading</li> <li>• Cover</li> <li>• General Malfunction</li> </ul> <p><b>Timing:</b></p> <ul style="list-style-type: none"> <li>• 20 back days performances analysis updated every day</li> </ul> <p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Malfunction</li> <li>• Alert to Users</li> </ul>

