SunSniffer

Webinar – pv magazine

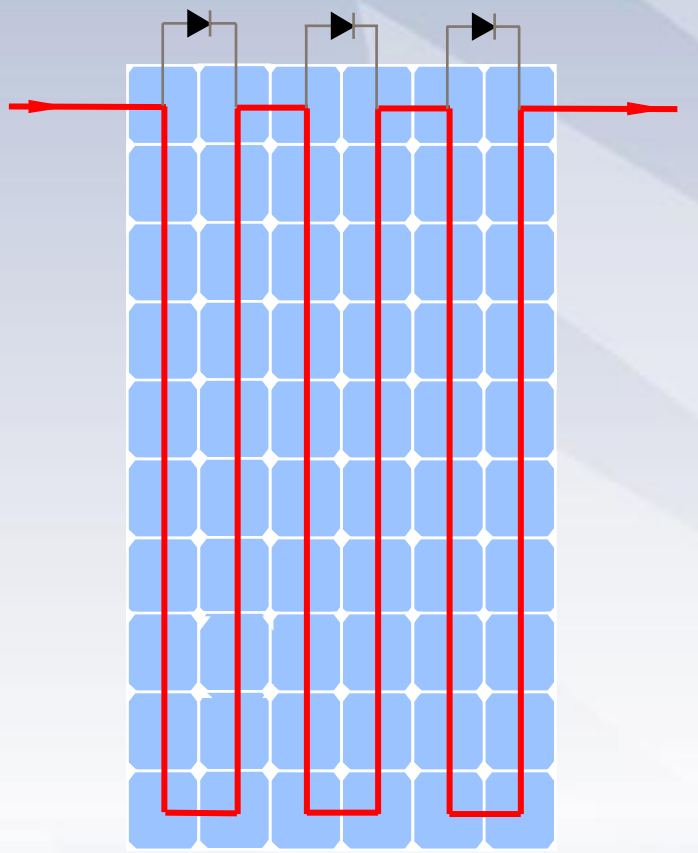
New monitoring options promise greater control at lower costs

Ingmar Kruse, CEO SunSniffer GmbH & Co. KG

PV physics…

Normal working module:

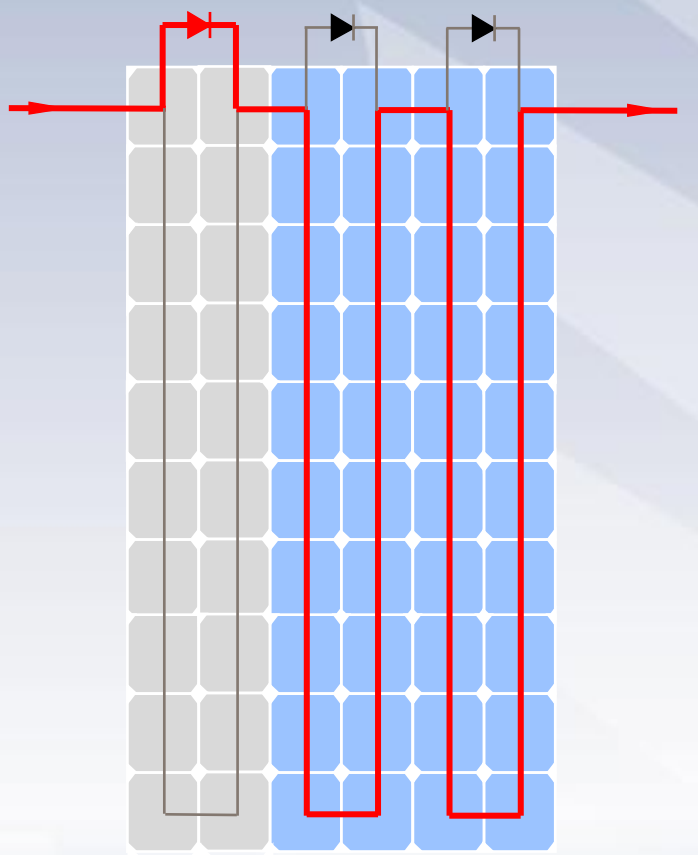
- Voltage: 36 V
- Current: 8 A



PV physics…

One diode is activ:

- Voltage: 24 V↓
- Current: **8 A→**



Module behavior…

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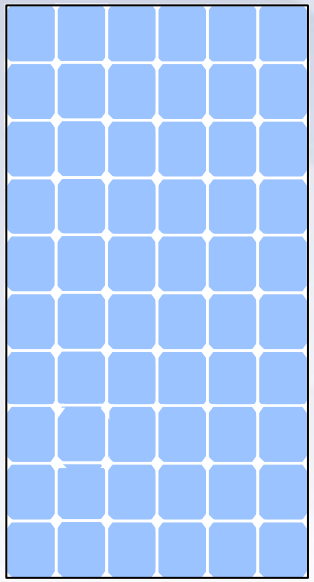
Example **soldering problem***

Stand-alone measurement:

- Voltage: 36 V
- Current: ↓3.7A



** http://www.sunsniffer.de/images/downloads/ZAE-Defect-Analysis-of-installed-PV-Modules_with-comment-v3.pdf*

Module behavior…

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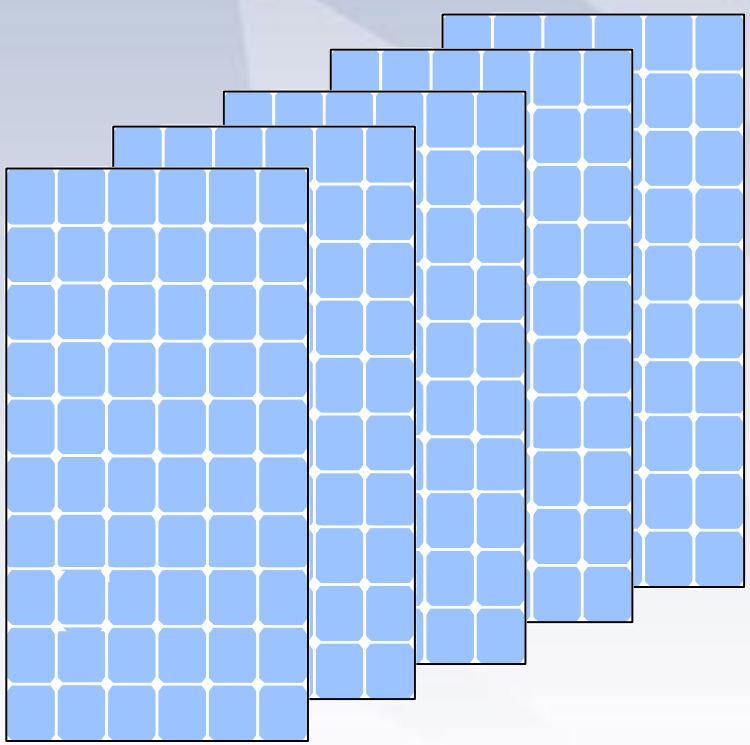
Example **soldering problem**

Measurement **in operation**:

- Voltage: ↓29 V
- Current: ↑4.6A



Module behavior…

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- String monitoring is limited due to ZAE finding
- **Only <u>module measurement</u> can detect individual defective modules!**

How can SunSniffer recognize errors?

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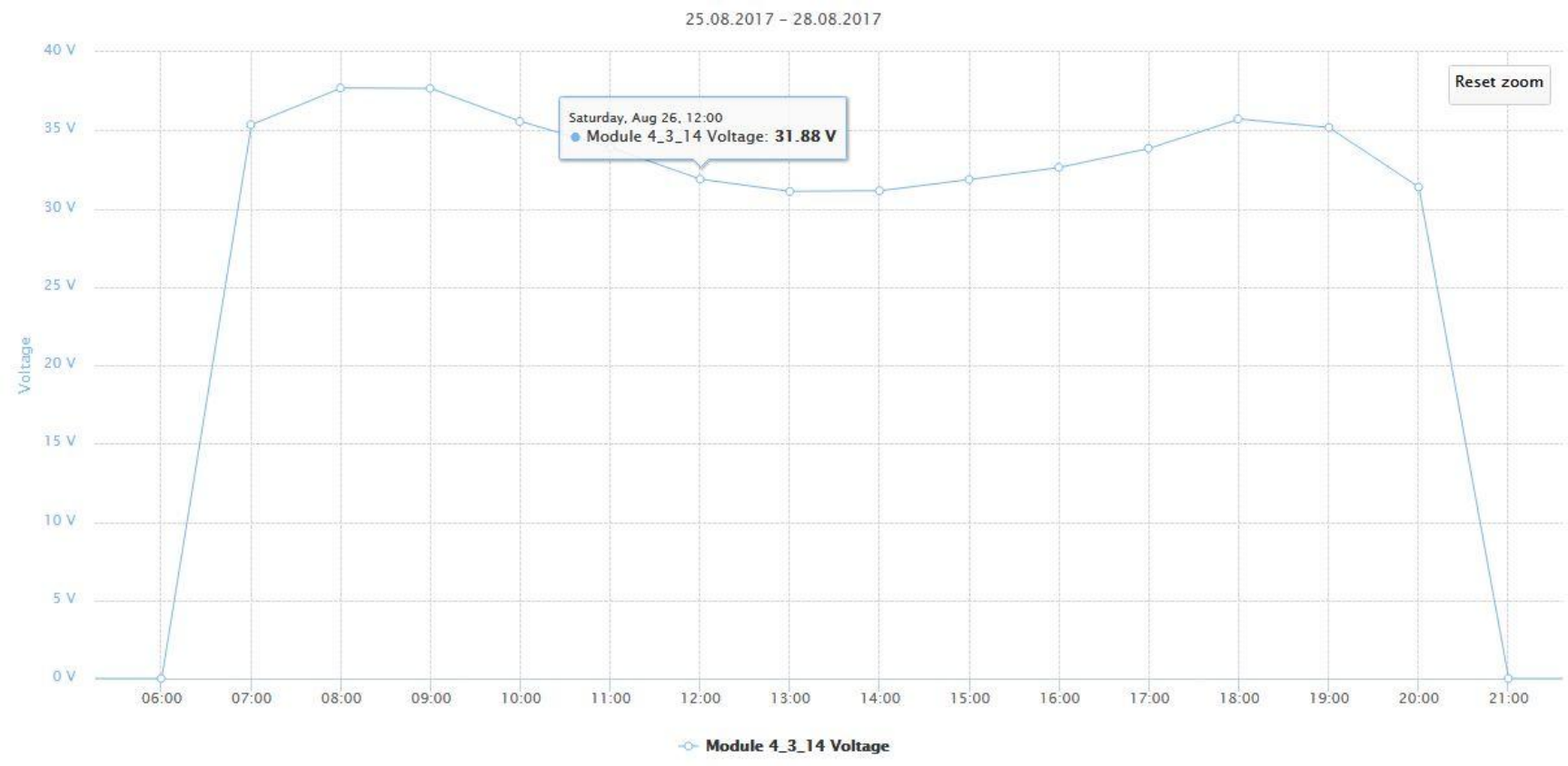
Each **module‘s voltage line**

exposes

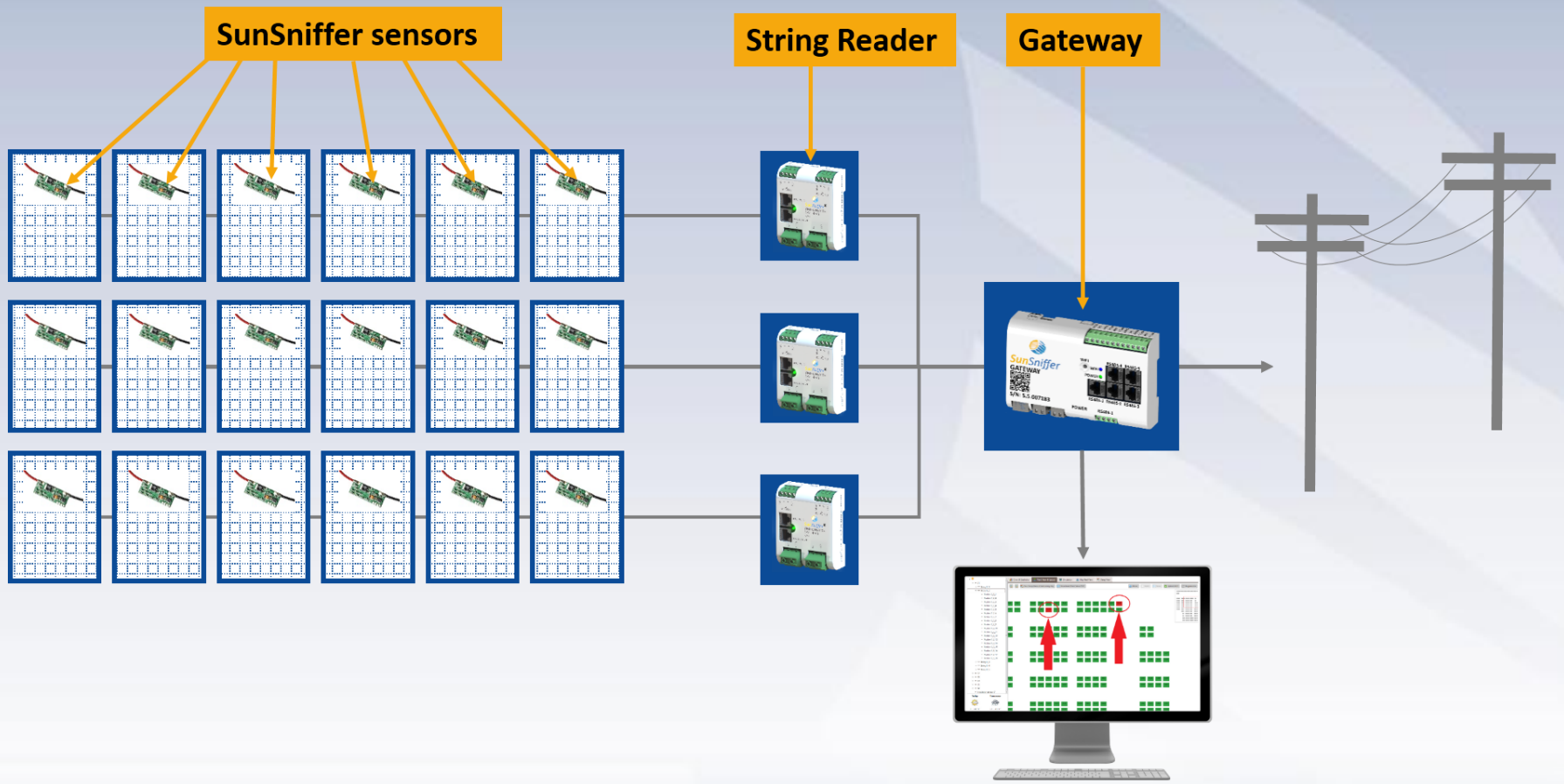
the **health status** of the module!

How does a “healthy“ voltage line looks?



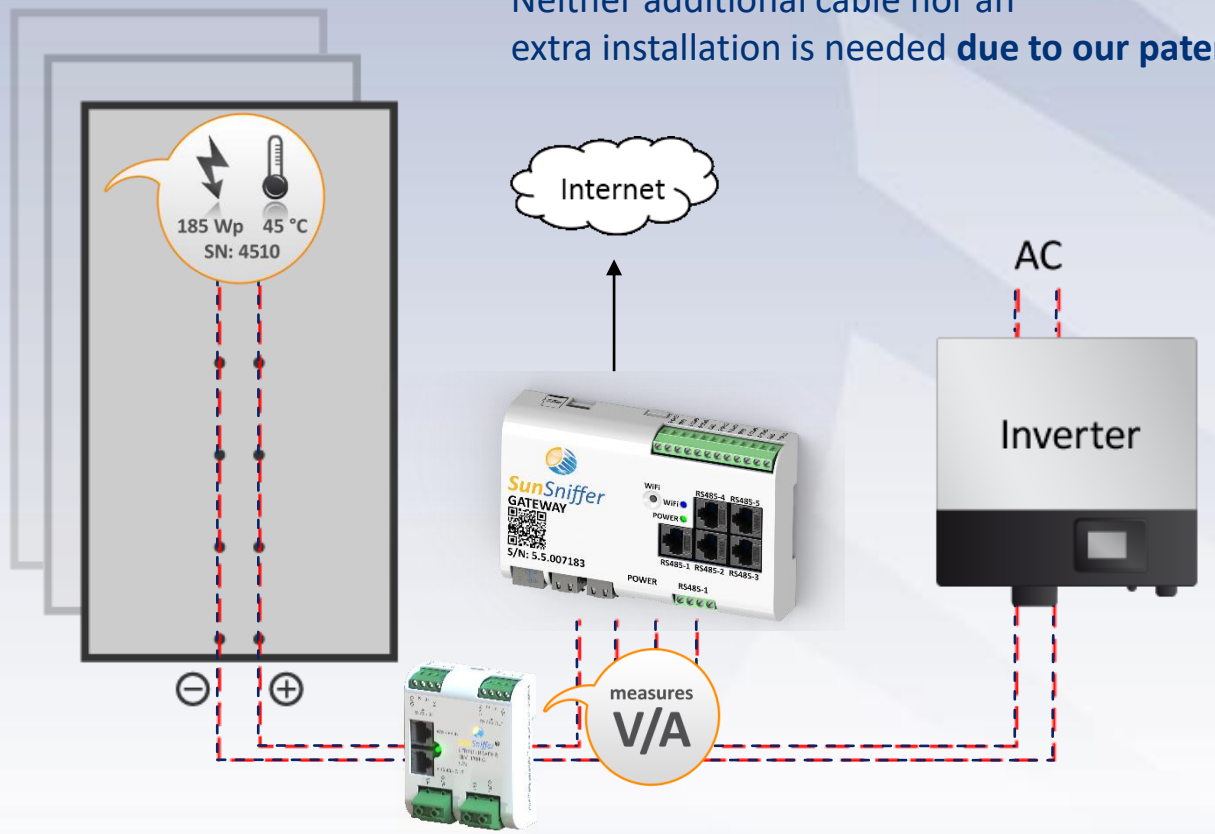
The **SunSniffer®** system

How does the SunSniffer system works?

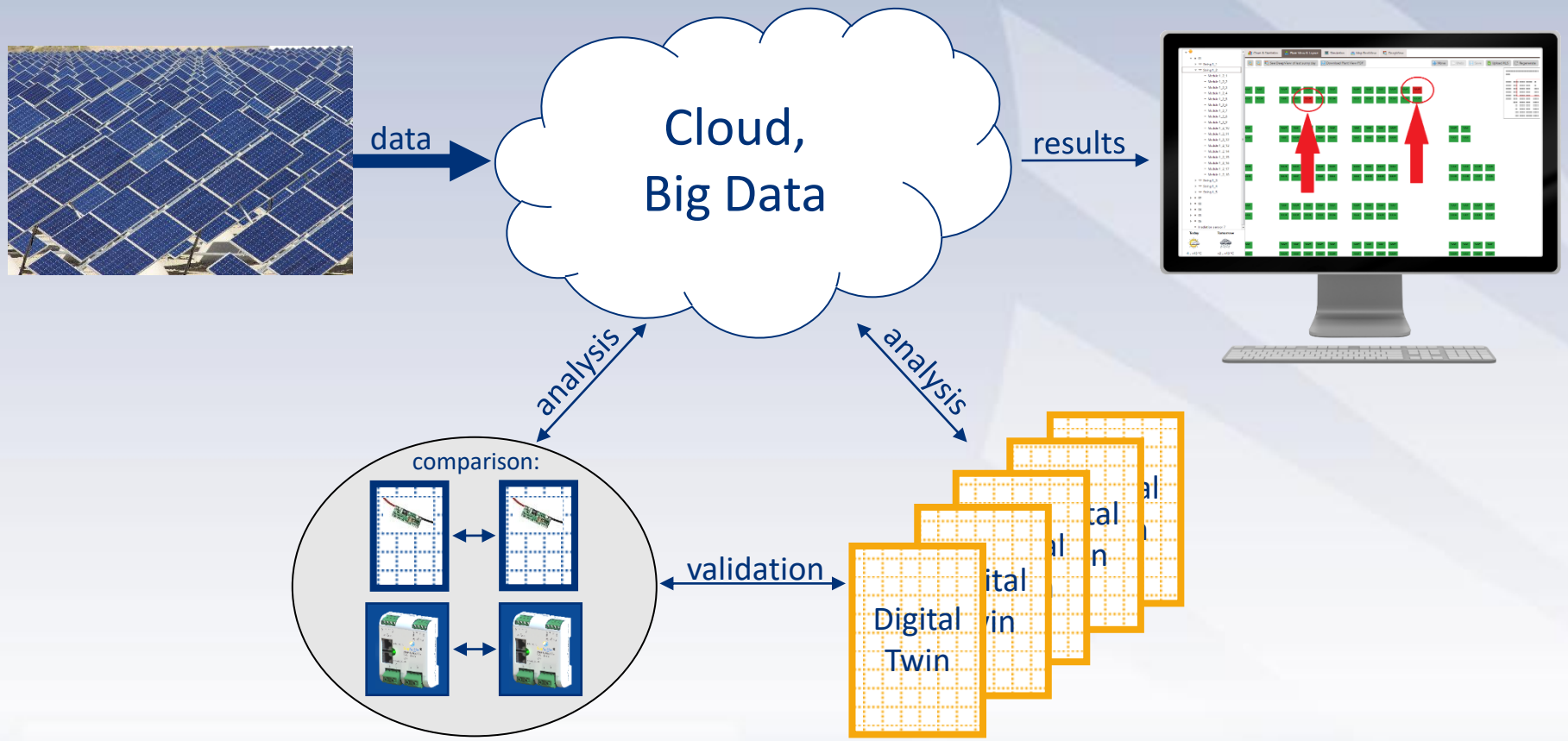


The SunSniffer technology

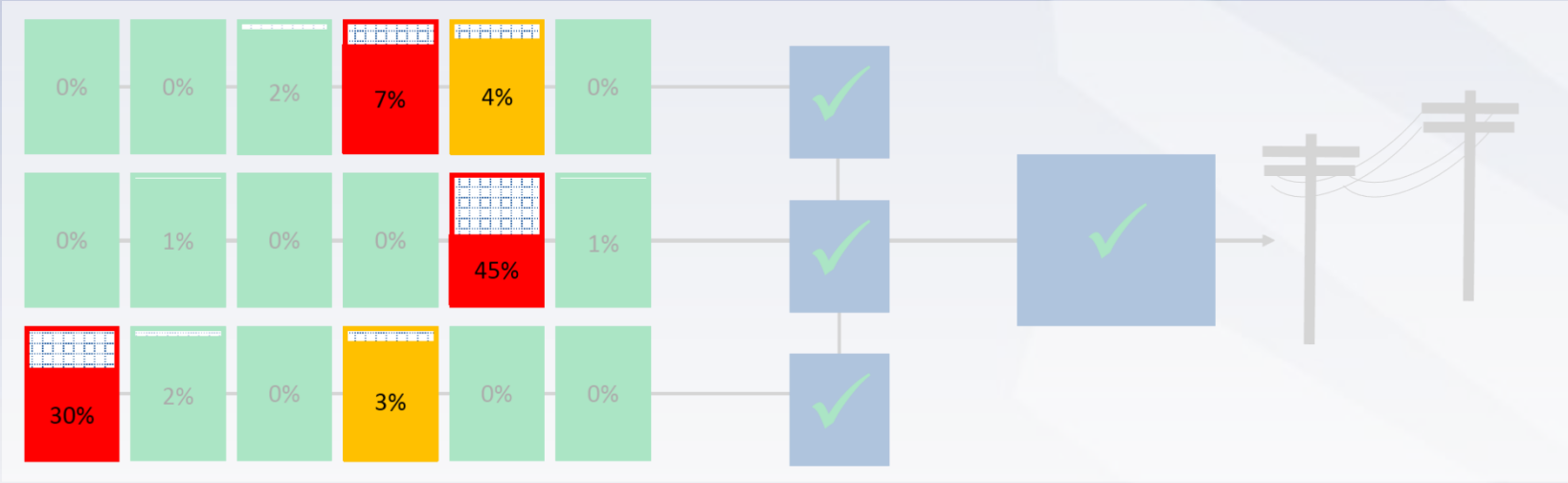
Neither additional cable nor an
extra installation is needed **due to our patented PLC.**



SunSniffer's artificial intelligence



The result: complete transparency:



Cost calculation in the Webportal

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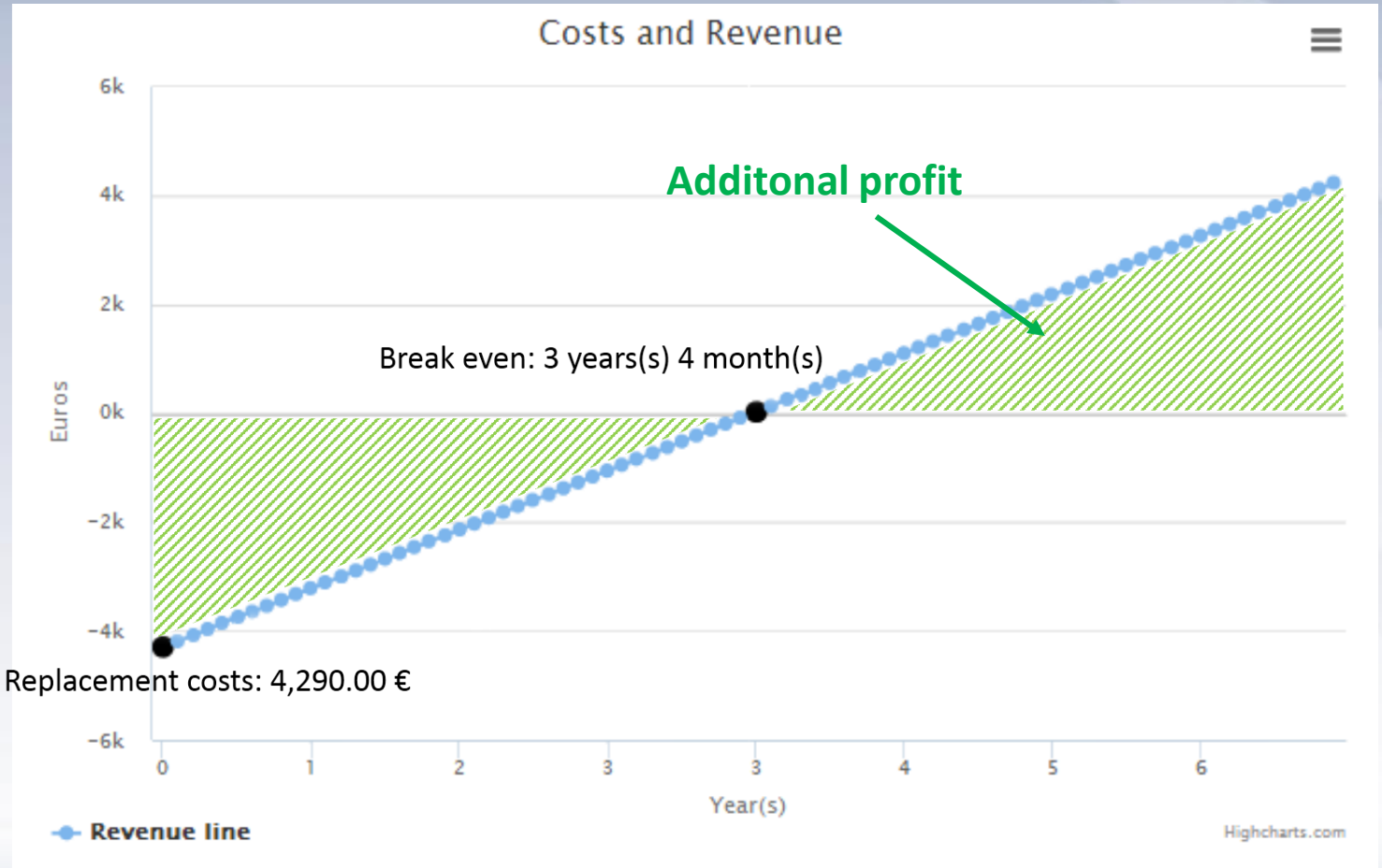
Loss and Cost Calculation

Performance loss	**4,6%**
Feed-in Tariff	0,223 €
Expected losses in the next year	24.374,00 €
Expected losses in the next 20 years	**487.478,00 €**
Repair/Replacement costs	29.774,00 €
Return of investment (after)	**13,33 month(s)**

Module name	Fault	Power loss
Module 5_1_15	Voltage loss	27%
Module 4_5_9	Voltage loss	20%
Module 5_2_9	Voltage loss	18%

Cost calculation in the Webportal



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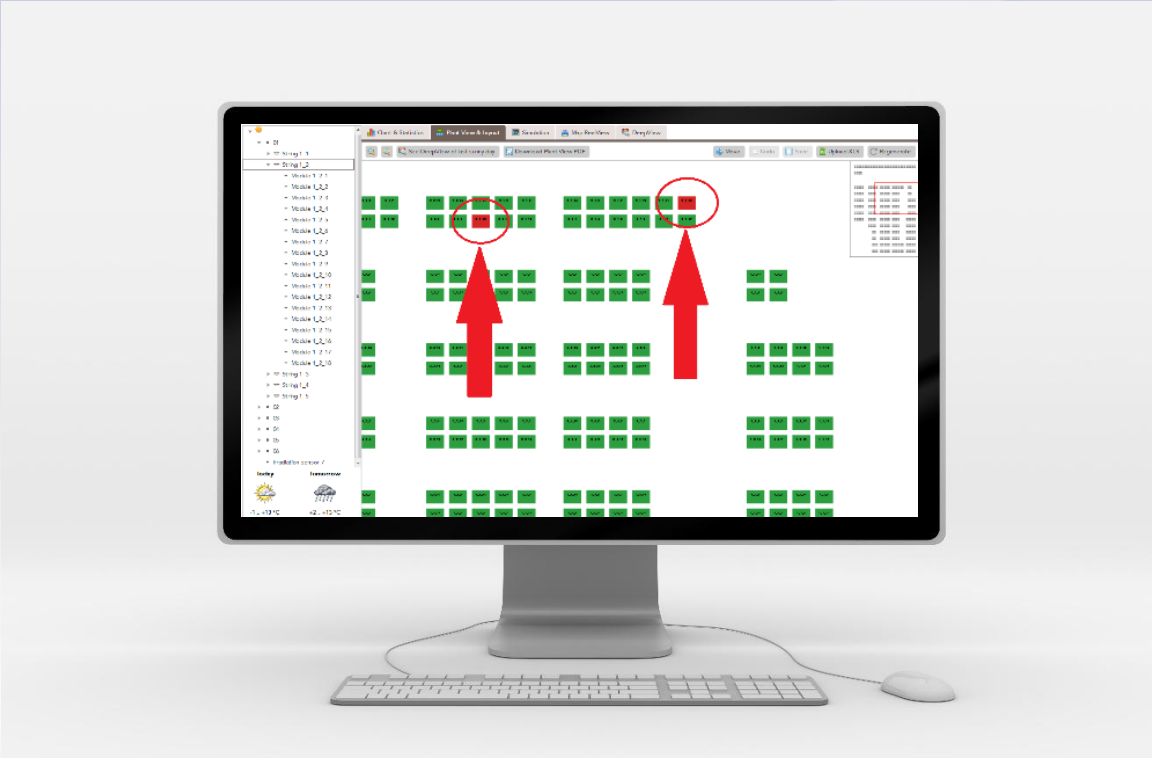
Autonomous [Plant] Driving



Thank you very much for your attention!

For questions or more information please contact:
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