



Reduced operational costs,  
minimized rework rate



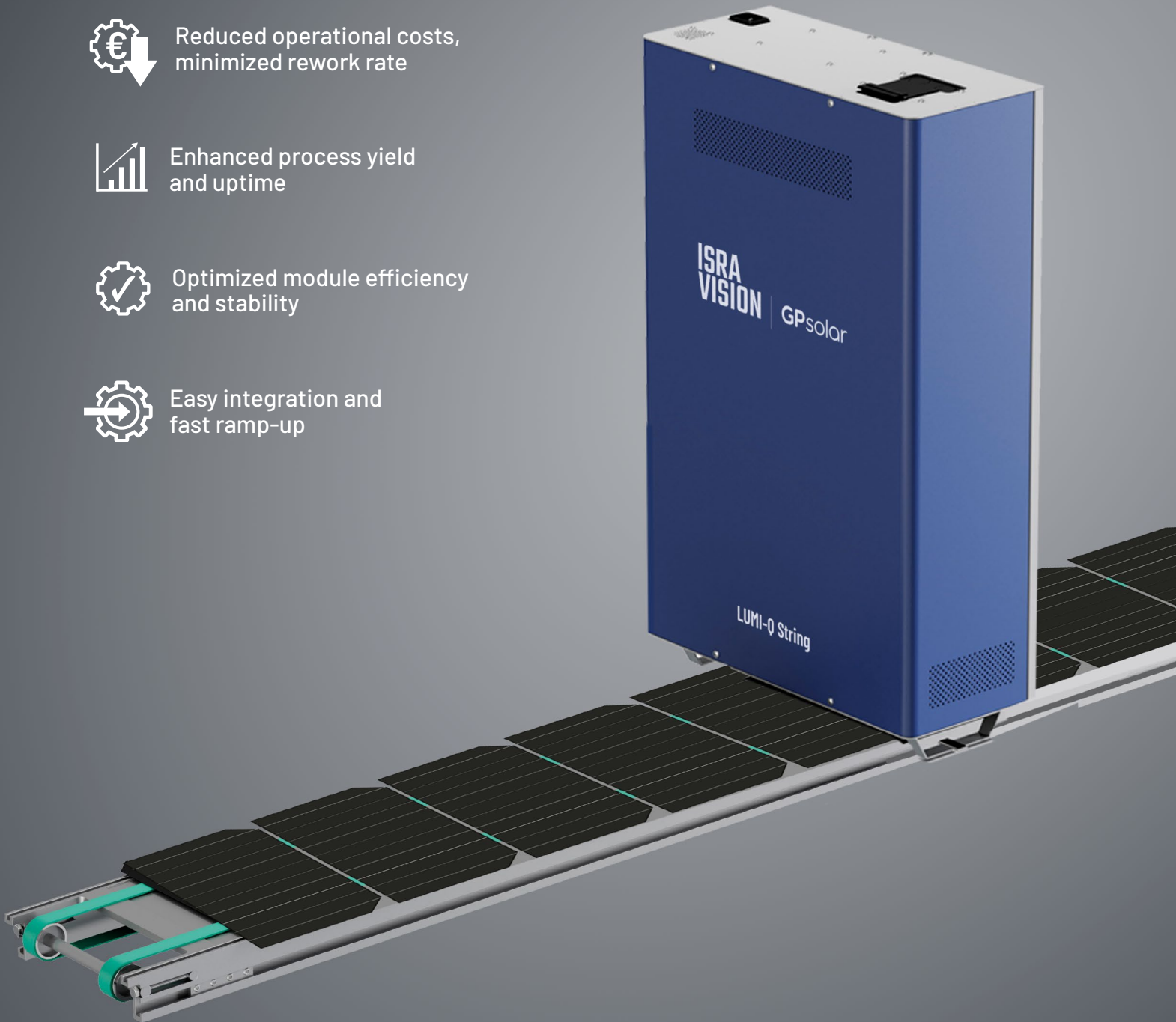
Enhanced process yield  
and uptime



Optimized module efficiency  
and stability



Easy integration and  
fast ramp-up



## LUMI-Q String

String inspection and monitoring  
with photoluminescence



**ISRA  
VISION**  
Part of Atlas Copco Group

## ABOUT LUMI-Q STRING

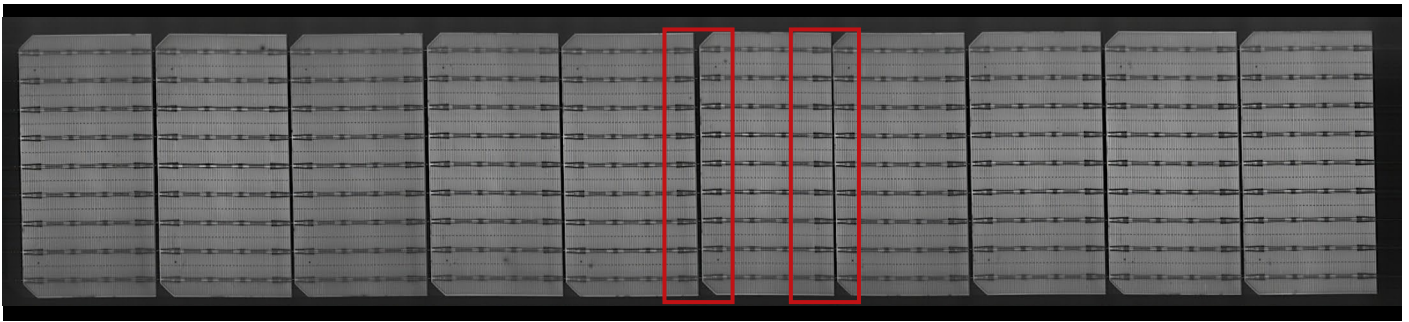
LUMI-Q String is an inspection system capable of detecting both electrical/material and geometric defects on solar strings. Using a laser-free and contactless method, it guarantees comprehensive defect identification and classification, even for the most complex cell structures with the smallest finger and busbar widths.

LUMI-Q String integrates seamlessly into the stringer outlet without requiring additional space, making it retrofittable. With its fast measurement speed and robust data management capabilities, LUMI-Q String improves module manufacturing and ensures unparalleled module quality and efficiency.

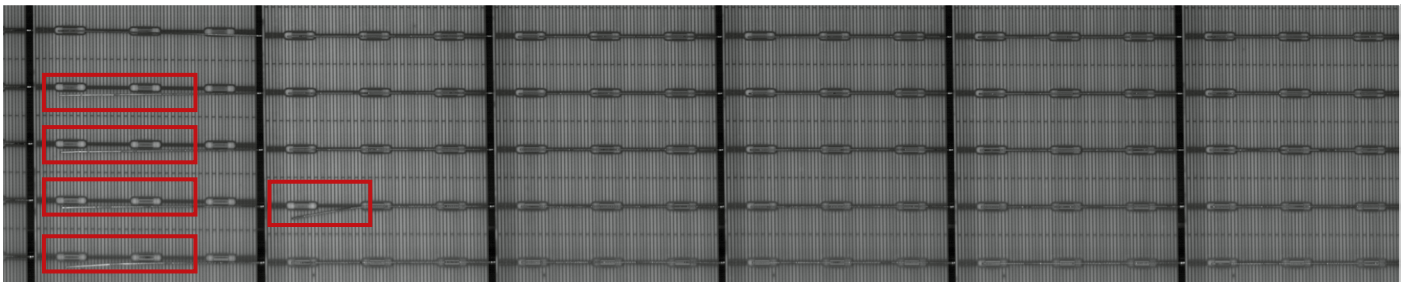
## KEY FEATURES

- Detection of all relevant defects directly in stringer
- Fast measurement speed:  
≥ 800 mm/s @ 3k  
≥ 1200 mm/s @ 1k
- Laser-free for reduced safety requirements
- Seamless integration without additional footprint
- **Optional:** Fast data management with central recipe management and comprehensive data reporting

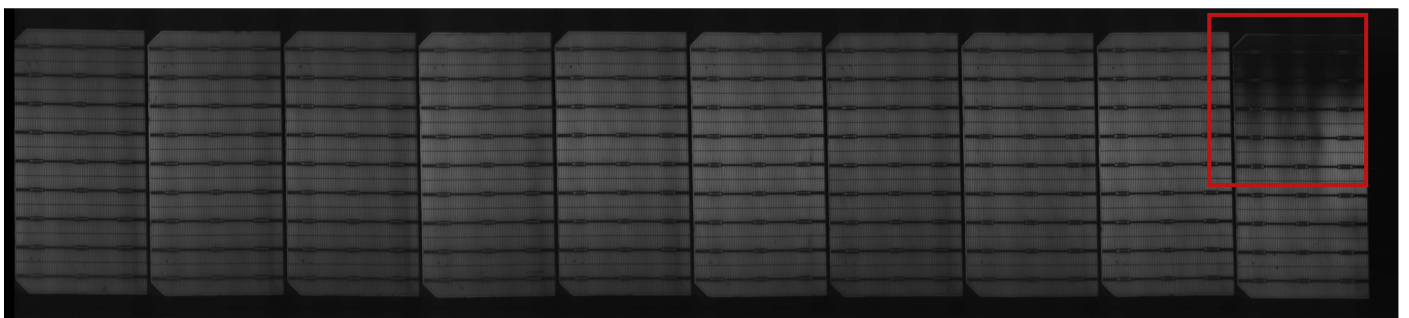
## TYPICAL DEFECTS



Cell alignment

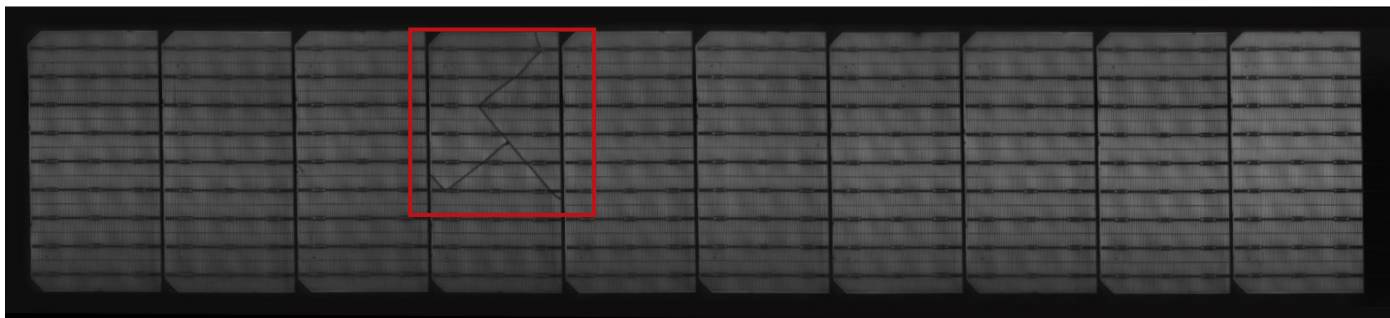


Ribbon failures

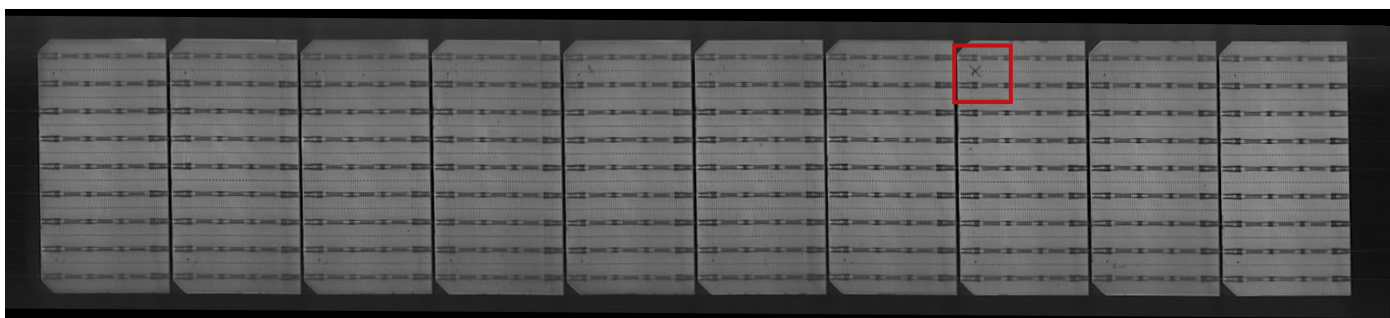


Short circuited cell

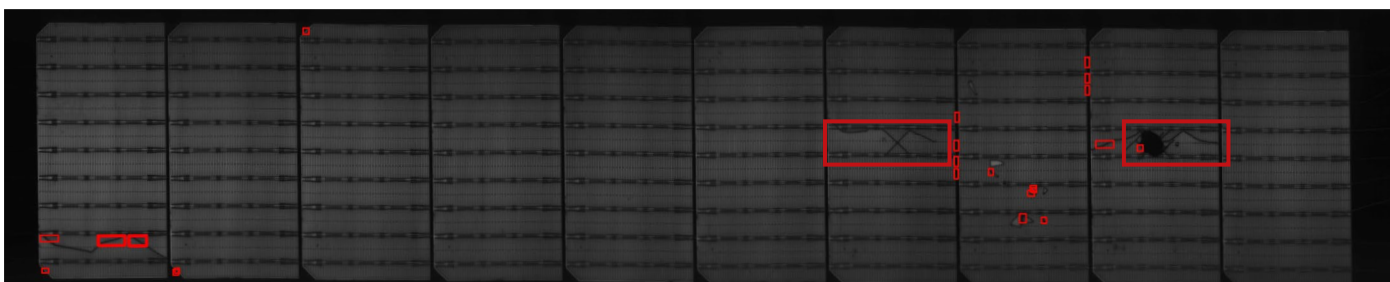
## TYPICAL DEFECTS



Crack



Micro-crack



Cracks and broken pieces

