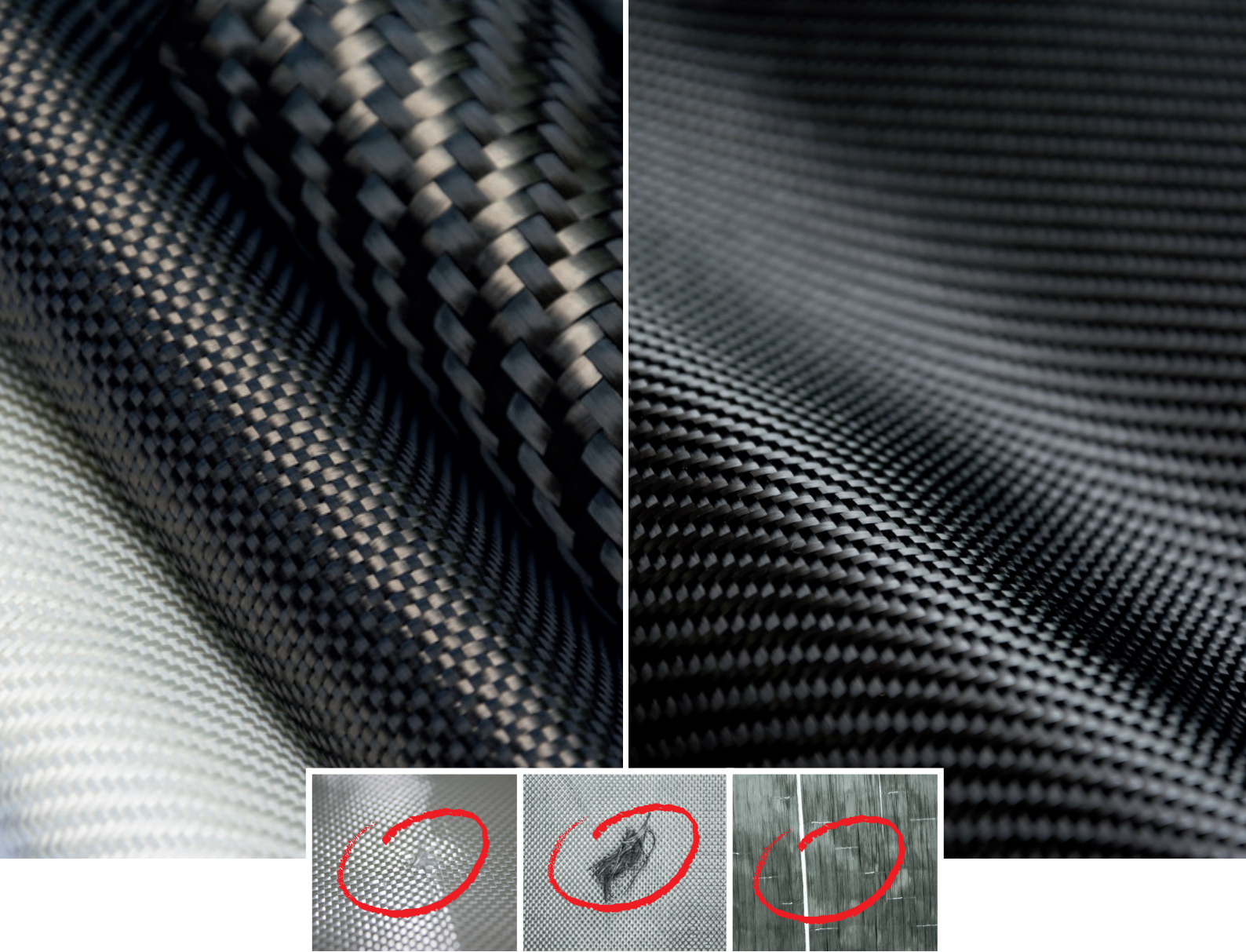




# Ultimate Inspection Solutions for all Composite Materials

Optimize Process – Maximize Yield

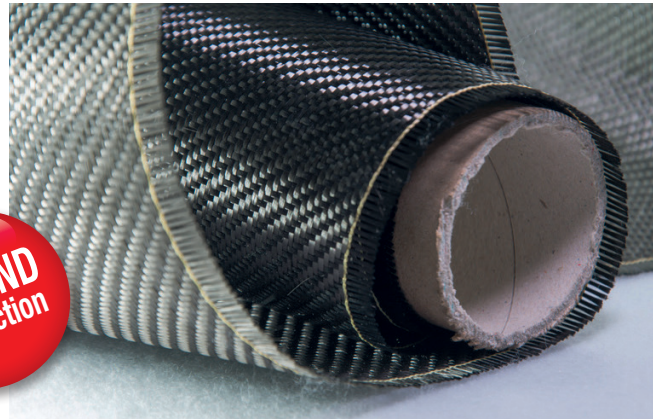
*Leader's Choice for  
Optical Inspection*

**ISRA**  
VISION

# The Key to Making the Right Decisions

## Achieve 100 % Saleable Production

- Accurate classification leads to accurate roll grading
- Precise root cause analysis results in high process reliability
- Integration with plant process data – benefit more from your data
- Increase throughput at the rewinder/slitter – increase the amount of quality rolls shipped to customer



## Beyond Inspection Tools

### Calibration & Validation

Pass all your future customer Audits!

### Excel Report Generator

Benefit from the most flexible and customizable reports and data processing

### Grading Tools

Only deliver product that meets customer specifications

### Offline Recipe Optimization

Work concurrently - no production downtime, more efficiency

### Quality Viewer

Final verification of quality before shipping – with just one mouse click

### RewindManager

Increase amount of quality rolls to be shipped

### Redundant Data Storage

Secure your know-how – secure your data

### ReViewer & RTViewer

Access and analyze your data – anytime and anywhere

## Production Analytics by <sup>E</sup>PROMI

### Your Key to Improve

### <sup>E</sup>PROMI Live Condition- and Health monitoring system

- System health data monitoring as an early-warning-system to minimize down times
- Quality data monitoring for faster reaction to arising quality issues
- Condition monitoring with live insights from real time data





# Advanced In-Line Inspection Technology

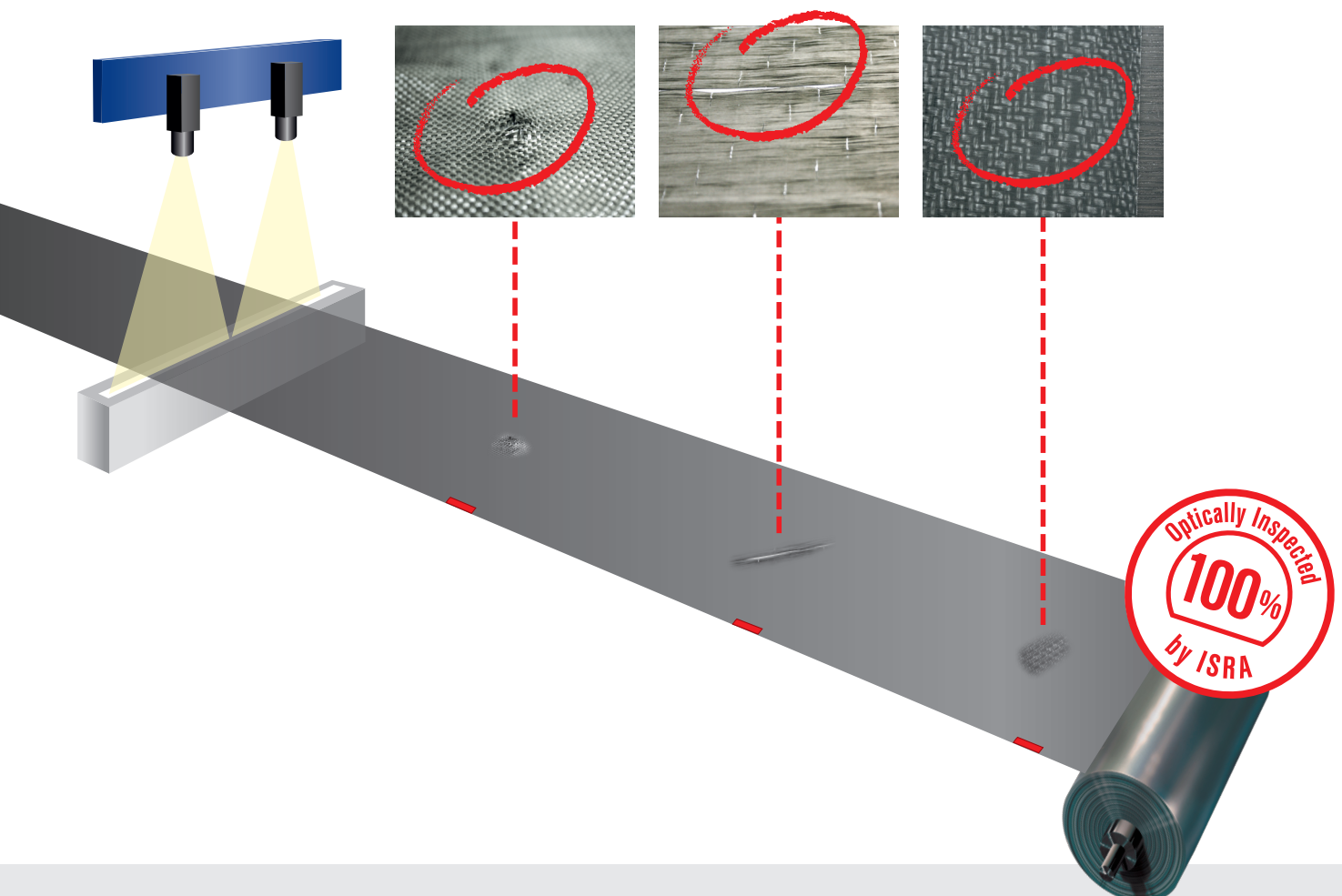
## Based on Over 30 Years of Experience

The optical inspection designed for all Composite Web and Sheet Material provide the highest inspection reliability and process control for the complete production chain. Enjoy the confidence of complete 100 % inspection for all of your products. Profit from high-end technology components like high-speed, high-resolution cameras,

ultra-bright LED illumination modules and real-time processing, that deliver precise and reliable inspection results at any stage within the production process. Be able to make the most accurate decisions, based on complete inspection data – the fast way to increase profitability and customer satisfaction.

### Achieve superior quality and improve process efficiency based on the highest inspection standards!

- Superior defect detection and classification – to maximize global production volume
- Reduced costs through early identification of even the smallest deviations, before they go on to the next processing stages
- Reduce total cost of ownership – get results immediately
- Optimize production process with intelligent data management and cut costs permanently
- Short return-on-investment with quick, user-friendly setup to maximize yield
- Significant reduction of customer claims - No more defects or defective rolls shipped to customer
- Use validation concept to ensure customer relationship
- Modular product design



+ + + + + Proven by more than 100 Installations in the Composite Industry Worldwide + + + + +

# Maximize Process Production Performance v Get Immediate Results

## Advanced technology for reliable results

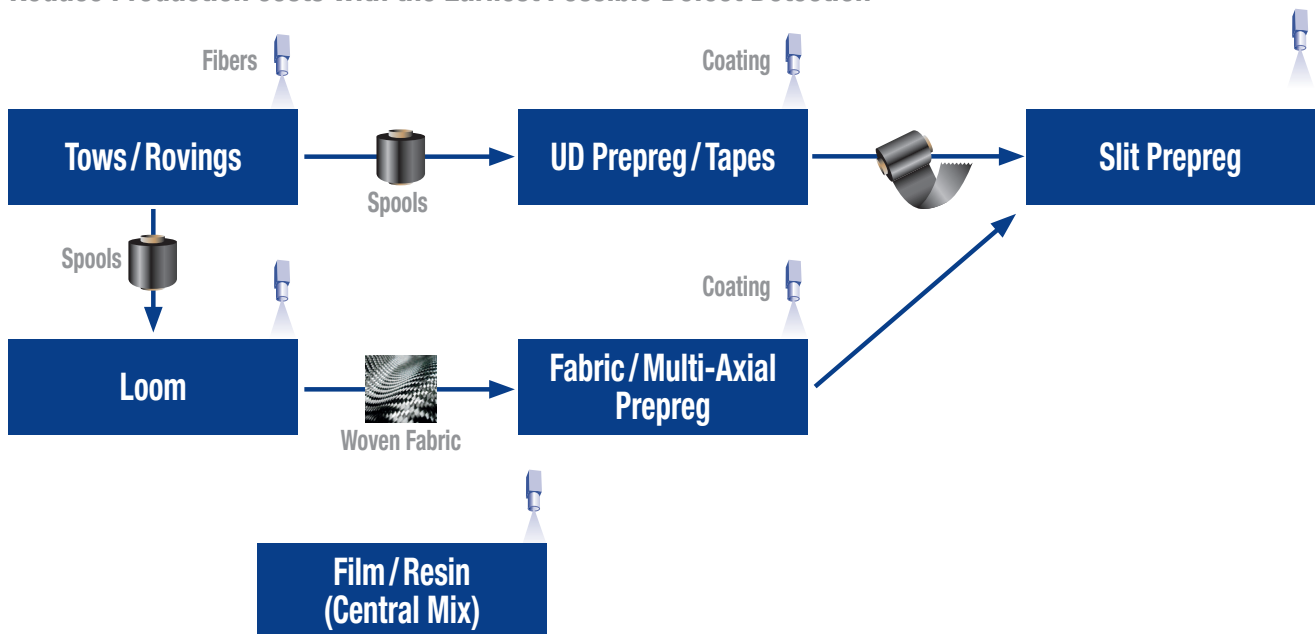
We successfully meet the challenges of all Composite Web and Sheet Material: Our fully automated optical in-line inspection systems can be adapted to every type of surface and application, it fits on any production line using standard components of the highest reliability.

## Applications

- Glass fiber and carbon fiber mats
- Glass/carbon uni- and multidirectional weaves
- Glass fiber and carbon fiber textiles
- Prepregs

## Maximize overall Production Performance in Consecutive Processes

Reduce Production costs with the Earliest Possible Defect Detection



## Inspection in Loom / Coating Line

- Quality control of raw materials as well as prepreg materials
- No further processing of defective material
- Direct process control – short reaction time – waste reduction

## Converting inspection

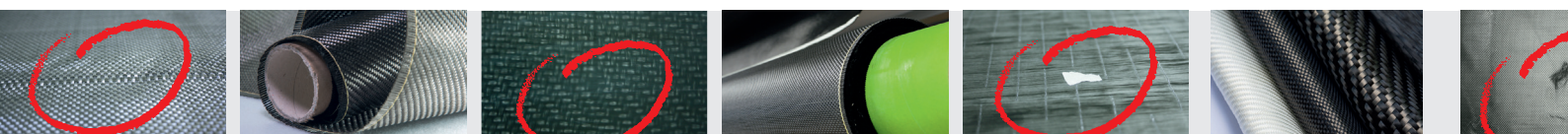
- Safety for each stage of the entire value creation process
- Process optimization
- Documentation of each process step

## Rewinder, Slitter, Cutter

- Maximize the saleable amount of material
- Intelligent slit optimization – increased sales volume
- Grading: Assured quality for customer satisfaction

## Documentation, Reporting, Validation

- Intelligent analyses create more efficiency in production, sales and strategy
- Validation ensures customer confidence
- Documentation guarantees reliable and correct decisions



# with the Most Complete Product Portfolio and Maximize Yield

## Proven high-end inspection systems

Our proactive in-line quality control offers sustainable improvements, documented quality with exact marking of defects reduced rejection rates, minimized downtime and optimized maintenance. The customized Auditability and Validation Tools help to create customer loyalty by passing every audit with dedicated reports and documents.

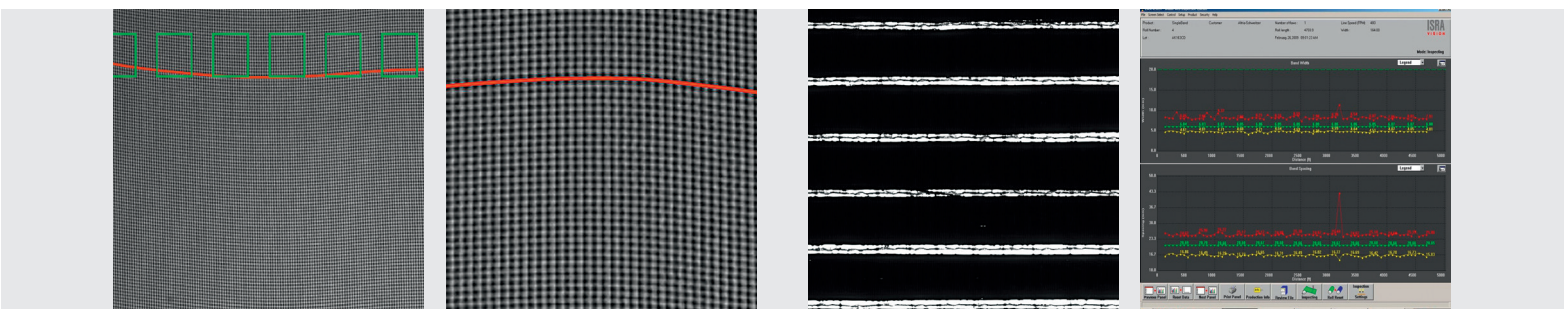
## General features

- 100 % in-line inspection
- Classification, visualization, storage
- Standard/ISO documentation
- Statistics
- Recorded results
- Process-optimized integration of inspection tools
  - in every processing stage of production
  - at the coater
  - in the slitler
- For all materials, manufacturing methods and web widths, inspection of:
  - Fibers
  - Woven materials (single and multi-layer)
  - Coatings such as for prepreg

However, we go further: We combine leading technologies to enable worldwide strategic production management. Our enterprise data mining (EPROMI) is the solution to collect, store, analyze and correlate your product quality and production data – even on a global scale.

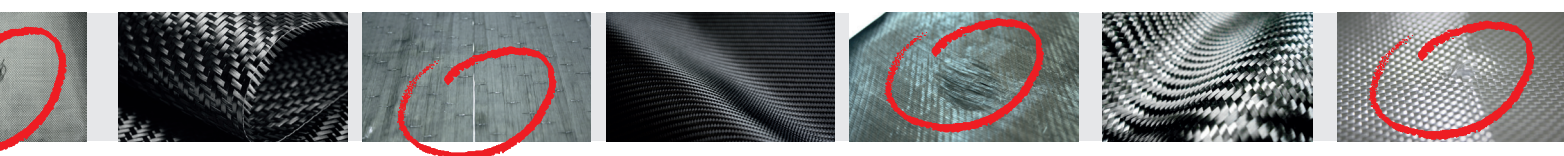
## Inspection features

- Contaminations
- Weaving defects
- Distortions
- Coating defects
- Fuzz balls, loose fibers, gaps
- Resin globs and voids
- 3D height measurement of topological defects
- Inspecting important material attributes:
  - Width
  - Distortion... and more



Detecting distortions

In-line width measurement on prepreg materials



# Innovations in Automated Optical Inspection for all Advanced Materials

**We are the innovators in optical inspection.  
Best practice. Best system. Best service.**

For over three decades, ISRA VISION has become a leading manufacturer of highly accurate automated optical quality inspection systems.

More than 10,000 successful applications reference our sustainable experience in the field of machine vision products – and our ability to innovate.

Today our products are operating worldwide in such industries as glass, plastics, foils, print and automation. It is our goal to set system standards for total process control in these industries.

Customers choose ISRA for the ability to develop products consistently to their requirements. More than 900 employees at 25 locations worldwide are working to contribute to your success.

**Your global partner for surface inspection.**

We offer our experience and a highly qualified team of experts to design and implement solutions for advanced applications.

We assure that our mission continues beyond our shipping dock. Just challenge our Customer Support and Service Center (CSSC).

We guarantee excellence to our customers – from consulting to service, from tailored solutions to worldwide support. We can make your business more competitive.

**Challenge Us.  
Inspect to Control – with ISRA VISION**



Optimize your ROI with the technology leader **ISRA**

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