

# Your partner in hyperspectral imaging



ENHANCE YOUR PERCEPTION

# SPECIM, Spectral Imaging Ltd.

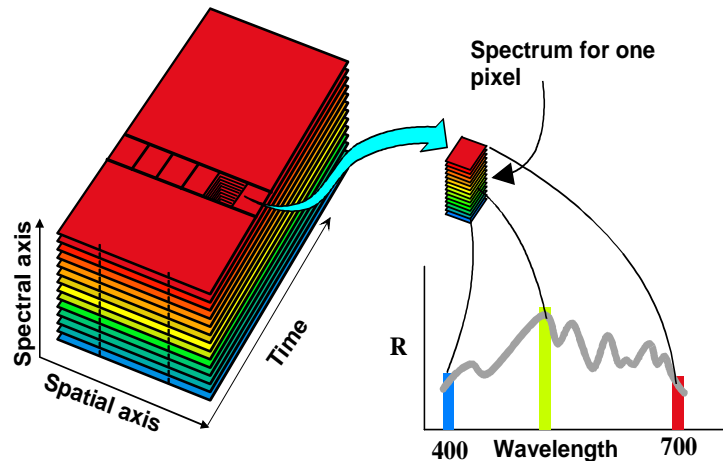
World leading manufacturer and supplier for  
hyperspectral imaging technology and solutions

Hundreds of customers worldwide.  
Distributor and integrator network covers more  
than 40 countries

**We make hyperspectral imaging possible**

# What is Hyperspectral Imaging?

Combines digital imaging with spectroscopy -  
Provides spectral information in each image pixel



- Each pixel is associated with the spectral signature of the target
- Spectral signature includes information about
  - precise color
  - chemical composition, and/or
  - temperature
- Hyperspectral imaging is used in new generation
  - machine vision solutions
  - life science imaging systems
  - QA and process control systems
  - airborne and security imagers

# Hyperspectral imaging accurately measures and sorts colors

**Do colors drift in a dyeing or high quality printing process?**

**Do flat panel displays meet the color standards?**

**Are ceramic floor tiles of same color from batch to another?**

**Map the spectral contents of an old work of art**



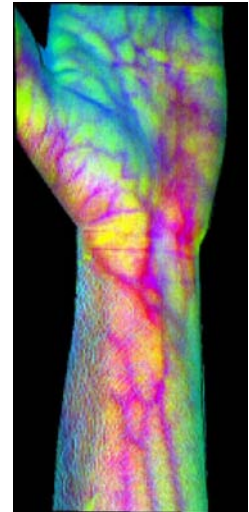
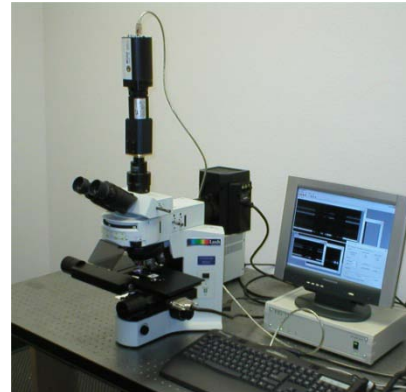
**Customer examples: Rohm, Canon, Seico, MsMacro Systems, Kawasaki, Topcon, Iris**

# Hyperspectral imaging sees much more than the human eye

**Is a change in human skin hiding  
an early phase melanoma?**

**What is the origin of a forensic  
sample?**

**Are there defects in fruit that get  
them spoiled too early?**



**Customer examples: EuroElektro, Themis Vision, NASA, FBI, Italian and Japanese police, AMC, Universities**

# Hyperspectral imaging maps chemical composition

**Is moisture content even across the paper web?**

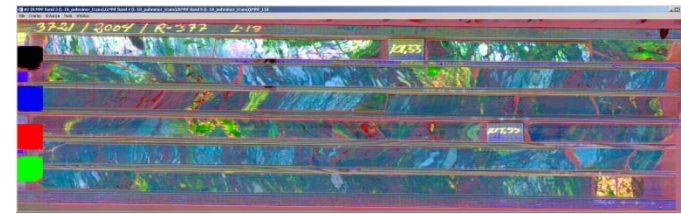
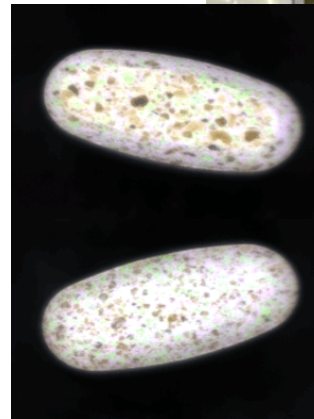
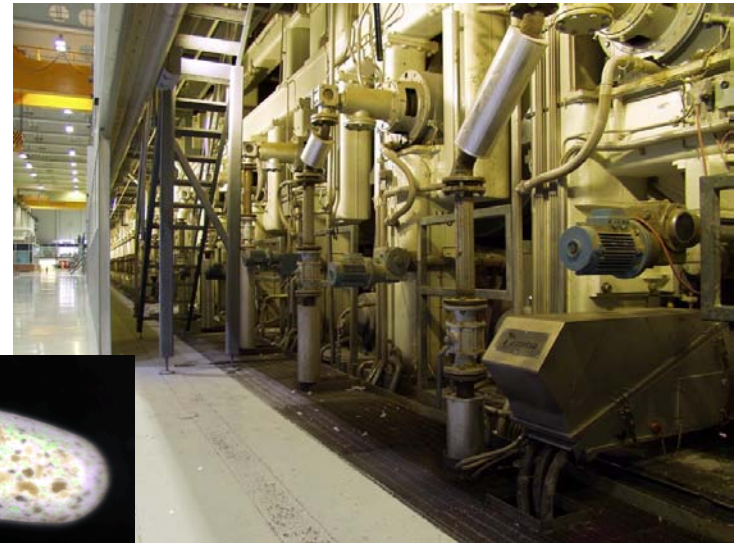
**Are pharmaceutical pills homogenous in their chemical structure?**

**Distinguish and sort plastics in a recycling process**

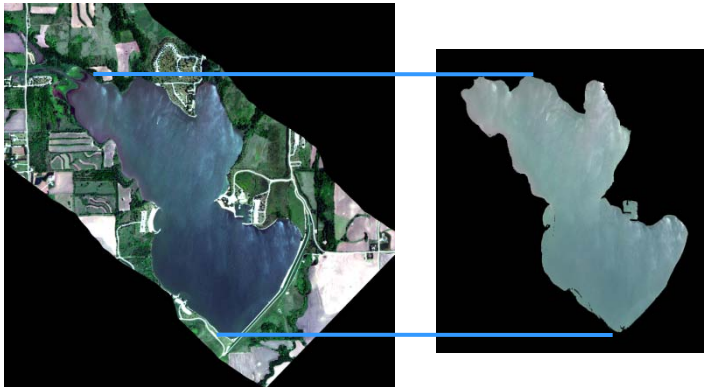
**Map mineralogy in drill cores**

**Monitor uniformity in thin film photovoltaics**

**Customer examples: Metso, Binder, Monsanto, Kawasaki, USDA, Sandia Nat. Lab., Anglo American**



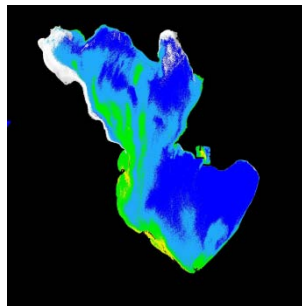
# Airborne hyperspectral imaging detects and classifies targets



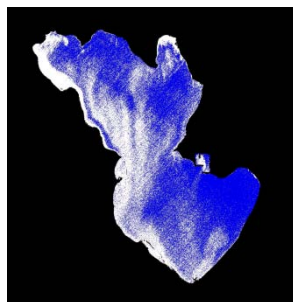
Which farm field areas need fertilizers pesticides ?

How is oil spill clean-up progressing?

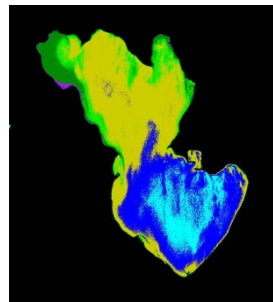
Is a region hiding drug plantations?



Chlorophyll-a map



Phycocyanin map



Total solids content

Are there camouflaged military targets, and are they operative?

Customers: Astrium, Spectir, Pasco, USDA, Ministry of Defence in Japan, Singapore, Israel and India

## Products and customers

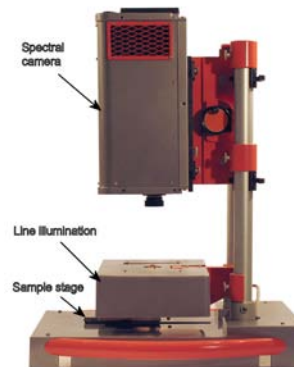
### Hyperspectral Cores

ImSpector imaging spectrographs  
Spectral Cameras



Instrument manufacturers  
System integrators  
Science customers

### SISU Chemical Imaging Workstations



Pharma and agri-food  
industries  
Mining industry  
Forensics labs

### AISA Airborne Hyperspectral Systems



Science organisations  
Remote sensing service  
providers  
Security and defense org.

## Distribution network

