

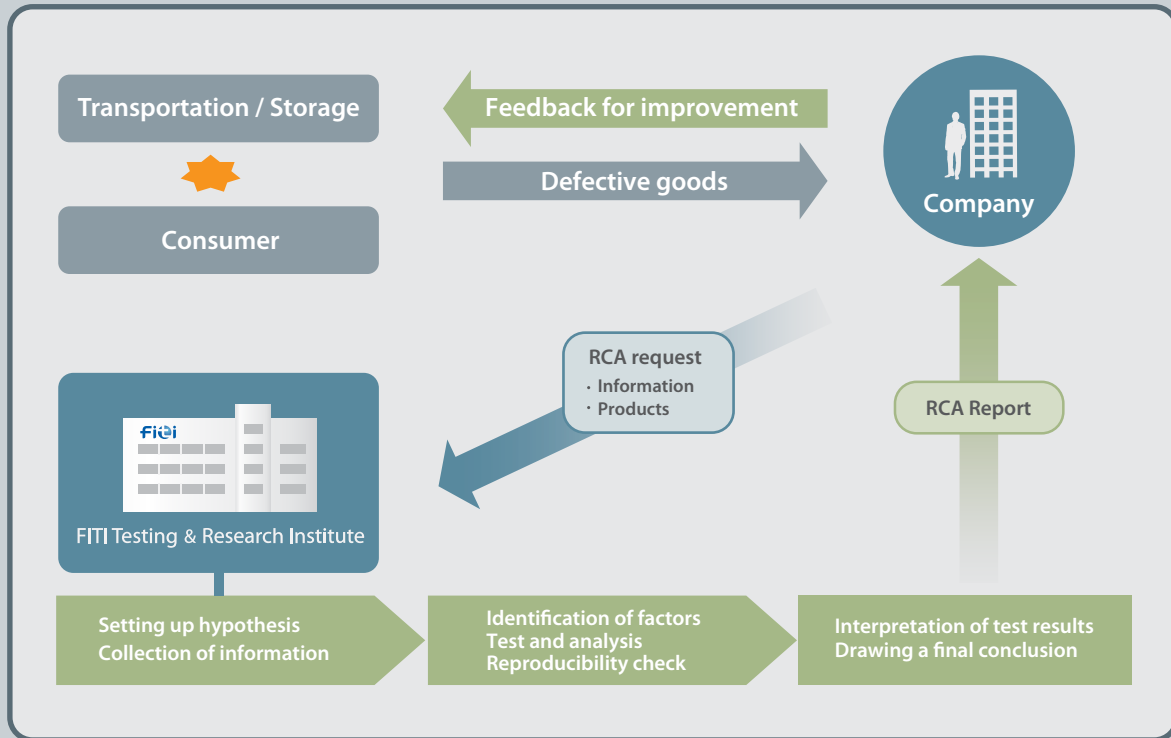
ROOT CAUSE ANALYSIS LABORATORY



"Committed To Quality"

fi2i FITI Testing &
Research Institute

The Best Root Cause Analysis Laboratory in Textile Industry



What is Encouraging a Quick Fix?

Most retailers and brands implement a product integrity system to prevent low-quality products from entering the market. It is an essential tool in ensuring the satisfaction of customers and protecting the reputation of retailers and brands alike.

When vendors receive purchase orders, they are required to go through quality verification processes based on the buyer's quality manual, which also incorporates regulatory requirements. In the instance of failed results during this process, they often opt for a quick fix rather than a fundamental improvement of quality, which could lead to a high possibility of repeated occurrences in the future. This preference for an easy solution can be attributed to two facts: fast fashion trends do not leave much room in the period of delivery and major commercial lab's business model.

A major commercial lab's testing service is directed mainly to testing a certain number of test parameters and rating them by a buyer's protocols. Even though this is sufficient for testing bulk orders, it is inadequate in helping manufacturers improve quality. To accomplish this, labs need to designate a sector to acquire research and operate for the core purpose of quality improvement as a whole.



Our Solution

The Root Cause Analysis (RCA) team at FITI has accumulated research for half a century with the mission to help textile businesses improve the quality of their products. Committed to this mission, we have highly talented staff, advanced technologies, and a full range of state-of-the-art analysis equipment such as the Scanning Electron Microscope (SEM) and the Time of Flight-Secondary Ion Mass Spectrometry (ToF-SIMS) machine. Our researchers have decades of experience in this field as well as advanced degrees in textile and chemical technologies. To find the root cause, they are using the following methodology:

- Setting up hypothesis
- Listing all possible factors contributing to that hypothesis
- Identification of any interaction among factors
- Testing with a single factor and/or a combination of factors
- Interpretation of test results
- Drawing a final conclusion

Advanced Analysis Equipment to Make The Best RCA Possible

ToF-SIMS (Time of Flight-Secondary Ion Mass Spectrometre)

To identify and quantify the traces of organic or inorganic components on the surface of materials such as polymer, metal, semiconductor, solar battery, ceramic, catalyst, and textile.

XPS (X-ray Photoelectron Spectroscope)

To analyze components either on or at a certain depth down below the surface of materials.

SPM (Scanning Probe Microscope)

3D analysis and mapping at the nanoscale for surface-components can be available, so the shape and structure of contaminants can be identified.

EDS (Energy Dispersive X-ray Spectroscope)

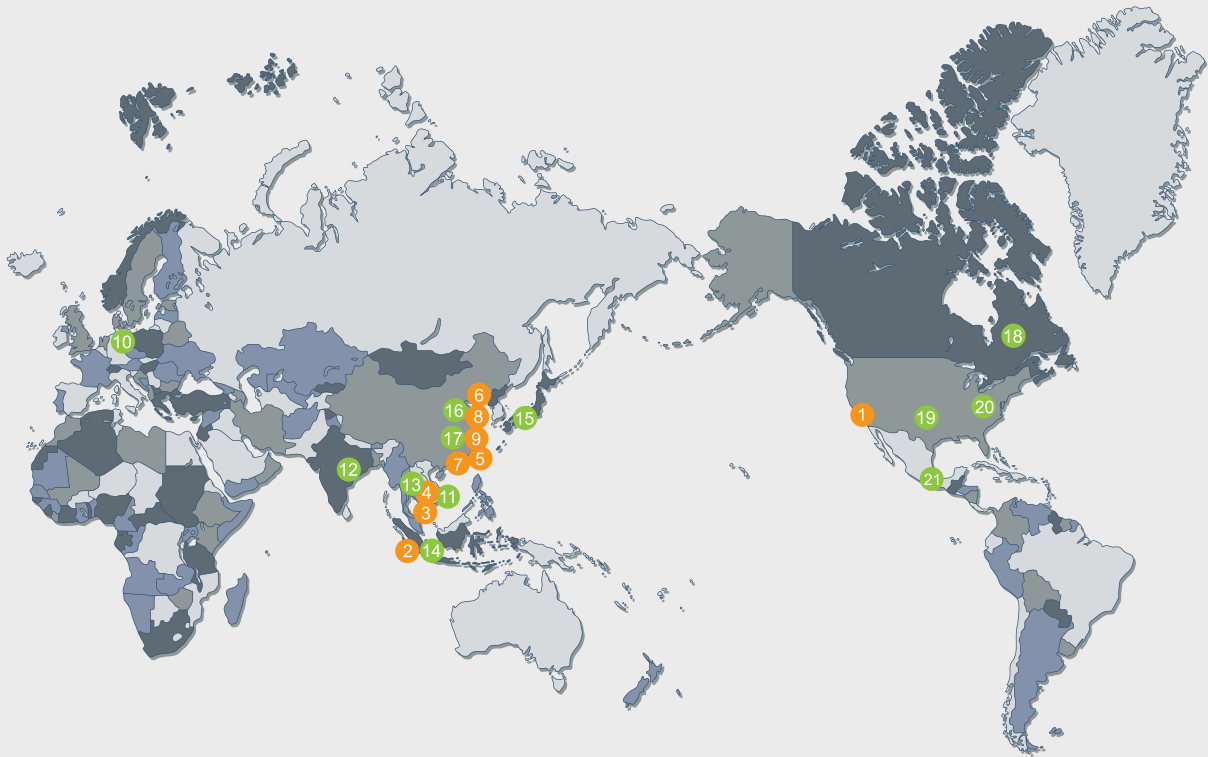
To identify and quantify the traces of components on the surface of materials such as polymer, metal, semiconductor, solar battery, ceramic, catalyst, and textile.

SEM (Scanning Electron Microscope)

To observe at the nanoscale the shape and structure, and measure the thickness of cross-section of a material.



FITI GLOBAL NETWORK



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|---------------------------------|-----------------------------|-----------------|
| ① FITI U.S.A. LA Center | ⑧ FITI China Yantai Branch | ⑮ Japan BOKEN |
| ② FITI Indonesia Jakarta Branch | ⑨ FITI China Qingdao Center | ⑯ China CTA |
| ③ FITI Vietnam Hochiminh Branch | ⑩ Germany SKZ | ⑰ China CIQ |
| ④ FITI Vietnam Hanoi Center | ⑪ Vietnam TRI | ⑱ Canada CTT |
| ⑤ FITI China Shanghai Branch | ⑫ India BTRA | ⑲ U.S.A. TRI |
| ⑥ FITI China Dalian Center | ⑬ Thailand THTI | ⑳ U.S.A. GSI |
| ⑦ FITI China Guangzhou Center | ⑭ Indonesia SUCOFINDO | ㉑ Mexico INNTEX |

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