



## Conformity assessment



L C I E

For the benefit of business and people



# You are looking for solutions that come up to your requirements

**In a fast-developing and highly competitive global marketplace...**

**... your objectives are:**

## **Importing and exporting**

To sell your products on markets around the world, they must comply with numerous different regulations. You need global solutions to obtain all the certification required to access to your target markets, whether they are national or international.

## **Comparing your products with competition**

To be more competitive and ensure best possible market positioning for your products, you need to assess their performance and compare them with those of your competitors.

## **Developing innovative products – fast**

Willing to place your products on the market as quickly as possible and position yourself among the leaders in your sector, you need assistance from a partner who can provide solutions at every level, from the design stage onwards.

## **Ensuring reliability throughout the supply chain**

You need to obtain the right products and the right information, in the right place and at the right time. Controlling the supply chain at every stage – from design to end user – is a crucial factor for you.

# High added value with LCIE

As a privileged partner in terms of conformity assessment in the process of bringing your products to the market and enhancing their value, LCIE will guide you from the early stage of development, to the placing of your products on the market.



## A one-stop partner

In cooperation with your teams, LCIE offers conformity assessment services covering a wide sphere of assistance: inspections, tests, audits, training, certification (CE marking / certification marks), etc. It takes all your needs into account and provides you with customized solutions.

## A recognized third-party body

- **LCIE is approved by French accreditation committee COFRAC** for numerous product testing and certification activities (full scope of accreditations provided on request or may be consulted on LCIE web site).
- **It is a notified body** for most European Directives.
- **It is recognized worldwide** as a signatory of mutual recognition agreements with other national certification bodies. Having assessed the conformity of your products, LCIE issues or obtains certificates that serve as "passports" to worldwide markets.
- **As a third-party body**, LCIE delivers wholly independent, meticulous and confidential services for conformity assessment.

## Multidisciplinary skills

To assess the conformity of your products, LCIE's experts, engineers and technicians offer their know-how and recognized experience in a wide range of fields, in particular:

Electrical safety	Consumer goods
Electromagnetic compatibility	Electronics and telecommunications
Environment	Aeronautics, Space, Defence
Eco-environment	Automobile industry
Explosive atmospheres	Electrical infrastructures
Industrial equipment	

**A privileged partner  
at your service**

**LCIE offers  
comprehensive  
assistance to help you  
meet your objectives  
more easily.**

# Conformity assessment

## Importing and exporting

### Access to the European market with CE marking



**CE marking** on a product indicates that it complies with essential safety requirements and can accordingly circulate **anywhere within the European Union.**

**LCIE will help you to verify whether your products comply with the European Directives on:**

- Low voltage
- Electromagnetic compatibility (EMC)
- Equipment for potentially explosive atmospheres (ATEX)
- Machinery
- Energy labelling
- Personal protective equipment (PPE)
- Radio and telecommunication terminal equipment (R&TTE)
- Lifts
- WEEE (Waste Electrical and Electronic Equipment)
- RoHS (Restriction of use of Hazardous Substances)

#### Proposed services

- Product certification: (Notified Body for the implementation of the mentioned Directives)
- identifying applicable regulations and standards
- providing assistance in preparing and validating technical files
- designing test programmes
- performing tests
- issuing documents which prove conformity
- Impact analysis for the certification of the declared modifications



### A passport for export with marks of conformity

**To meet the requirements of your target markets and gain access to national and international markets,** LCIE issues various national and European certificates and marks of conformity. They serve as a passport to a wide range of markets for your products.

LCIE will complete the entire certification process for each mark. Its one-stop service covers:

- identifying applicable standards, reference systems and regulations
- compliance to local regulations
- examining products (preliminary diagnosis of a sample or prototype)
- completing administrative procedures with foreign certification bodies
- testing products according to standards covering target markets
- performing factory inspections and audits to monitor conformity (eg. assessment of capacity to manufacture compliant shelf products, regular production plant inspections, control tests)
- testing products from the market
- issuing CB test reports and certificates of conformity to IEC standards, etc.
- delivering access to many other marks through the CB certificates and our bilateral agreements (GOST-R, CCC,...)
- LCIE is a member of ASEFA for type certification of low and high voltage industrial electrical equipment
- Impact analysis of declared evolutions, for the continuation of the certification of the products



## Comparing your products with competition

### Comparative analysis

#### Proposed solutions:

##### ■ Definition of scope

- Determination of characteristics for each product: identification, general and specific characteristics
- Definition of comparison and weighting criteria

##### ■ Development of test protocols

- Efficiency of the most important function
- Performance
- Safety
- Autonomy in use
- Noise
- Ergonomics
- Interoperability, etc.

##### ■ Compilation of results in various forms

LCIE can compile the results of all the comparative tests performed on an anonymous basis for your internal use.



## Developing innovative products – fast

### Optimize your development costs and time to market

#### Assistance in the development of specifications for your product conformity

- Assistance in identifying and choosing potential suppliers
- Assistance in determining the technical specifications of products
- Applicable standards and regulations taken into account
- Preparation, analysis or comparison of technical specifications...

### Adapting products to the market

#### Assistance in making fine adjustments

- Validation of the choice of materials, components, products, etc.
- Assistance in ensuring electromagnetic compatibility and electrical safety
- Parametric studies
- Numerical simulation (mechanics, heat transfer, fluid dynamics)
- Performance of accelerated life and aggravated stress tests (HALT/HASS tests)
- Completion of specific test programmes.

### Guaranteeing safety for users

**Risk prevention:** detecting risks of non-conformity from the development or prototype phase

- Documentary research
- Assessment of product dependability (reliability, maintainability, availability, safety)
- Assessment of product functional safety (IEC 61508, IEC 62061, etc.).





## Ensuring reliability throughout the supply chain

**Making full use of the Bureau Veritas network, LCIE helps you to control and improve your performance at each stage in the added-value chain.**

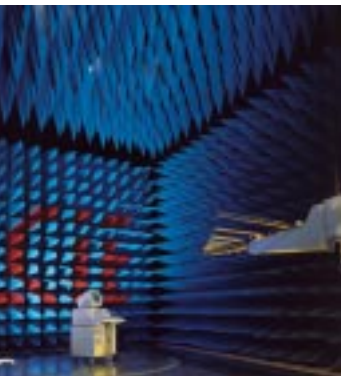
- **Implementation of a supply chain strategy** with information to the network of partners
- **Assessment of partners and products**
  - Preselection of products from samples
  - On-site audits of suppliers
  - Assessment of manufacturer competencies, reliability and control systems
  - Compliance with mandatory requirements, standards and specifications
- **Inspection of inputs, production and shipments** Traceability, documentation, packaging
  - Expert analysis of products (partial tests, construction analysis)
  - Pre-shipment inspections
  - On-site production inspections
- **Rating, benchmarking and tracking**
  - Setting up and monitoring of key indicators
- **Automated web-based reporting (BV Net)**
  - Transparent tracking and results

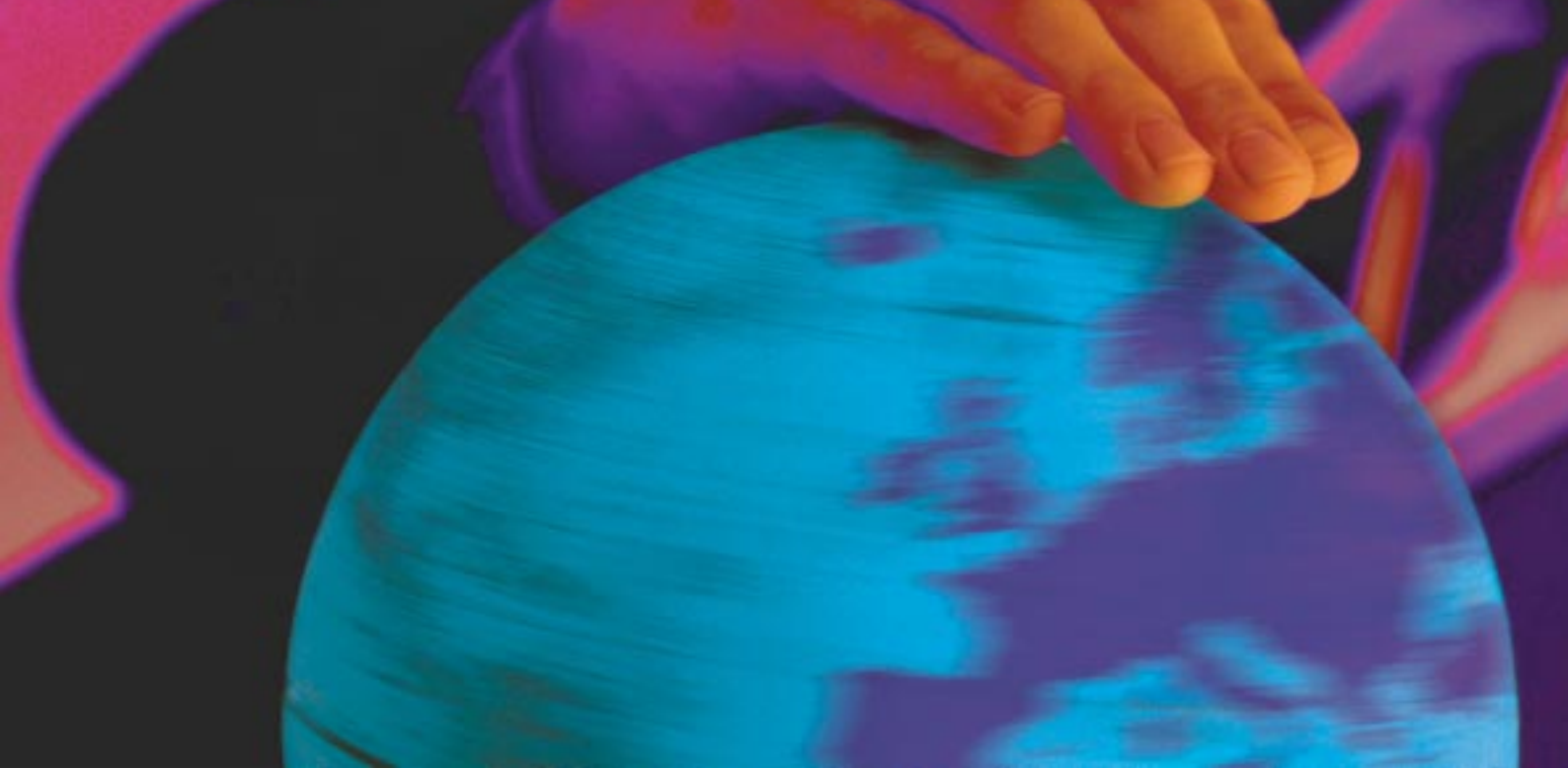
## Tests offered by LCIE

**LCIE will assess your products to ensure they comply with:**

- French, European or international standards and regulations
- other reference systems or specifications.

- **Electrical safety:** Tests are performed to assess risks of fire, electrocution or electric shock, examine fault conditions and analyse construction.
- **Behaviour in environments:** Products are subjected to mechanical and/or climatic stresses (vibration, impact, extreme temperatures, corrosion, permeability, etc.) to assess correct operation and dependability.
- **Electromagnetic compatibility:** Electrical and electronic products generate and are subject to electromagnetic interference. Tests are performed to evaluate they provide high performance or presenting no risks to users.
- **ATEX equipment:** Tests are performed on equipment intended for use in potentially explosive atmospheres (gas, vapour, fog, air-dust mixtures) to assess its conformity and qualify it for Ex and CE marking.
- **Performance and endurance tests, energy consumption, etc.**





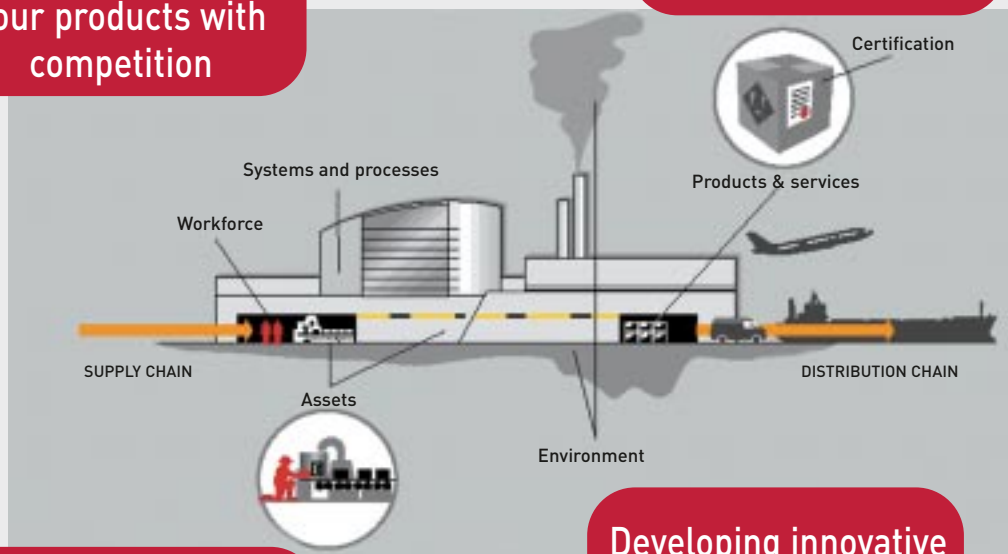
### Conformity assessment

LCIE offers a global approach with different levels of assistance to help you meet your objectives more easily.

# Levels of assistance Conformity assessment by LCIE

Comparing  
your products with  
competition

Importing  
and exporting



Ensuring reliability  
throughout  
the supply chain

Developing innovative  
products – fast

# LCIE: your partner in the world of electricity and electronics...

LCIE offers an extensive range of technical services and solutions for all players working with electrical and electronic products: manufacturers, integrators, importers, exporters, distributors and end users.



Consumer products



Industrial equipment



Energy



Railways

## ...with numerous fields of expertise

- Conformity assessment
- Certification
- Assistance and expert analysis
- Training

in all applications of electricity and electronics

## ...within an international group

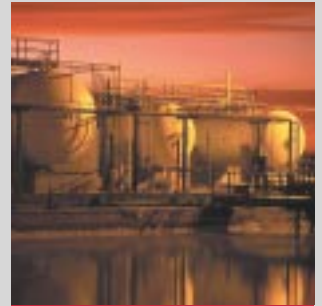
LCIE is a subsidiary of Bureau Veritas, an international group whose mission is to help its customers manage their assets, products, services, systems and employees whilst creating added economic value through risk management and performance optimization.

Bureau Veritas is a service company specializing in QHSE management (quality, health, safety and environment) and social accountability, with a network that covers 140 countries and includes 600 offices and laboratories. It offers an extensive range of technical services and solutions in the fields of certification, conformity assessment and consulting.

Boasting 20,500 employees, Bureau Veritas serves more than 280,000 customers from numerous different industries across the world, from small local companies to major multinational corporations.



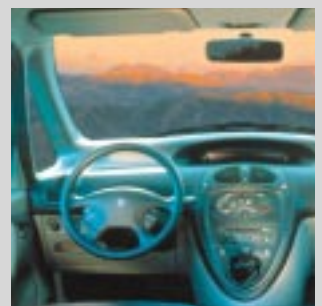
Aeronaautics - Space - Defence



Chemical and Oil industries



Medical Devices



Automobile industry



Information and communication technologies



LCIE

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