

# EQUIPMENT FOR POTENTIALLY EXPLOSIVE ATMOSPHERES

## **ATEX Directive 2014/34/EU**



### **Manufacturers, Installers, Engineering companies, Designers, Integrators, Assemblers...**

- You need to know about mandatory requirements
- You need to assess your Ex product manufacturing processes
- You need to assess conformity of your electrical and non electrical products
- You need to have them certified
- You want to market them outside Europe

### **LCIE, European Notified Body for all the modules of the ATEX Directive**



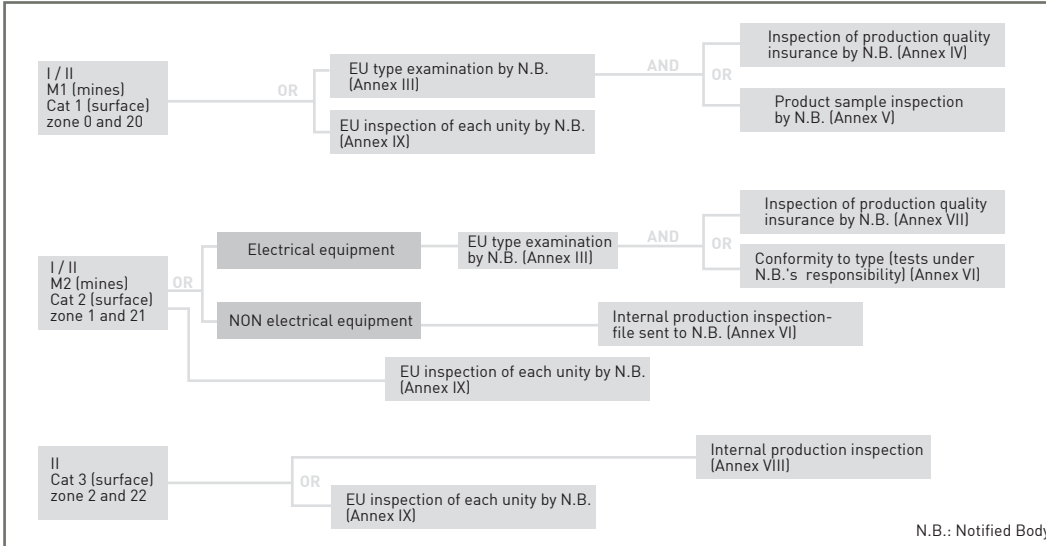
**L C I E**

Move forward with confidence.

# ATEX Directive 2014/34/EU

- Is a « new approach » directive
- Concerns **MINES** and **SURFACE** industries
- For gas and **dust** explosive atmospheres
- Defines the **essential Health and Safety requirements** applicable to products
- Concerns electrical and **non electrical** products
- Deals with **potentially inflammable substances**
- Introduces a new **marking**
- Requests checking of design and manufacturing
- Stresses manufacturer's responsibility

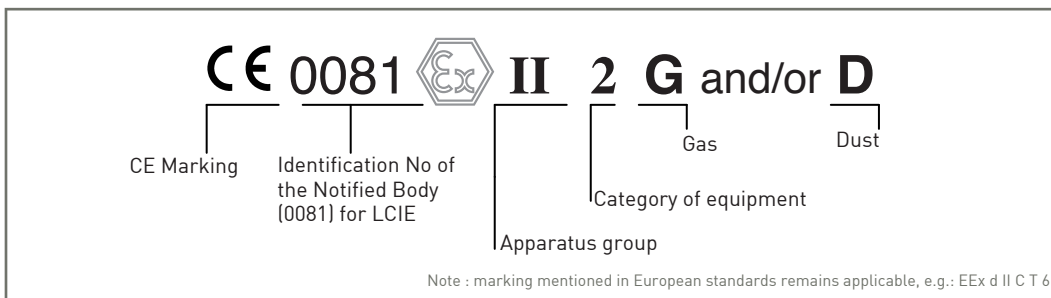
## Conformity assessment procedures (different possibilities according to volumes of production)



## Classification of equipment by type and category according to their intended use:

Apparatus group II	Category of equipment	Inflammable substances	Level of protection	Types of protection	Practical comparison	
					gas	dust
1	2	Gas, vapours, mist and dust	Very high level	- 2 independent types of protection - protection maintained after 2 consecutive independent faults	Zone 0	Zone 20
			High level	- 1 type of protection (frequent and usual malfunction) during normal functioning	Zone 1	Zone 21
			Normal	Level of protection required during normal functioning	Zone 2	Zone 22

## Example of marking:



## Services offered by Bureau Veritas and LCIE

- Testing according to applicable standards or requirements :** IEC, CENELEC, CSA, UL, FM, BS, MIL, etc.
- Technical assistance :** certification procedures, knowledge of standards,
- Audits, expert examination, studies, assessments :** quality insurance, standardization development, risk analysis, zoning, on site inspection, electrostatics, special explosion tests,
- Certification / EU type examination :** equipment, assemblies, systems, components,
- Voluntary certification :** IECEx,
- Multidirective services :** EMC, Machines, Low Voltage, Individual Protective Equipment, etc.
- Training :** general and customized to clients' needs

## International certification : access to national certifications for China, Korea, Brazil, Russia.



LCIE

LCIE has carried out several recognition agreements specific to potentially explosive atmospheres with the following foreign bodies:

- **China:** CQST, NEPSI-SIPAI, PCEC, CTEG
- **Korea:** KGS KTL
- **Russia:** NANIO-CCVE
- **India:** ERTL

### Other agreements:

- **BV Brazil, NCC (Brazil):** Recognition of tests and factory inspections for access to the Brazilian market (INMETRO) for low voltage electrical equipment and equipment intended for use in potentially explosive atmospheres.

### Other official recognition:

- **US Coast Guard (United States):** recognition of tests and certification.

### Accreditations:

- LCIE has been designated by the French Ministry in charge of Industry for certification of ATEX electrical equipment categories 1, 2 and 3.



- LCIE is accredited by COFRAC - test section n° 1-0311- for tests on equipment intended for use in potentially explosive atmospheres

LCIE is a founding and an active member of IECEx

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