



- Fire Testing Fire & Explosion Safety Engineering Training
- Modelling Products & Services Certification Expertise
- Inspection Investigations Fire & Rescue





With offices located in France, The Netherlands, UK, Türkiye, Spain and Italy, Efectis is a global player in the Fire science and specialises in fire and explosion safety, including testing, modelling, certification, education and inspection, whatever the sector (Building, Nuclear, Energy, Residential, Industry, Infrastructure, Wildland fire...).

In May 2024 the Efectis Group successfully recapitalized in conjunction with CTICM and Fonds France Nucleaire assisted by Bpifrance, allowing the management team to progress it's business strategy and investment program.

Accordingly, I am please to inform you of the opening of a new Efectis laboratory in Wales by the end of 2024 to further address our demand in the UK market in addition to the laboratory in Northern Ireland. A new building dedicated to reaction to fire tests on the "Les Avenières" site in France has been erected and has been fully operational since July 2024.

The day-to-day activities of Efectis focus on the carbon footprint reduction of fires. This is wholly supported by the management team and reflected in the ESG policy.

### Daniel Joyeux President

Figures















### **OUR ACCREDITATIONS, CERTIFICATIONS**

- ISO/IEC 17025 Accreditation (TESTING)
- ISO/IEC 17020 Accreditation (INSPECTION)
- ISO/IEC 17065 Accreditation (CERTIFICATION of Products & Services)
- QUALIOPI Decree Certification (TRAINING)
- ISO 9001 Certification
- ISO 19443 Certification (NUCLEAR SAFETY)
- CEFRI-E Certification for radiation protection
- EDF-UTO Qualification
- I.M.O. Qualification
- Notified Body for CE-MARKING
- Approved Body for UKCA (UK Conformity Assessed)

### **OUR MAIN RECOGNITIONS, COLLABORATIONS**

- FM approval
- INTERTEK for American market
- LLOYD'S approval for jet fire testing
- DIBT for specific German application
- VKF for Swiss market
- BHRC (Building & Housing Research Centers) in Iran
- KFSD (Kuwait Fire Service Directorate)
- Civil Defence of United Arab Emirates
- Civil Defence of Qatar
- SASO (Saudi Standards, Metrology and Quality
   Organization) in Saudi Arabia
- SES Ukraine

Testing

# FIRE TESTING IN LABORATORIES

Efectis' extensive testing facilities allow us to carry out almost any type of fire test. These vary from standardised tests up to tailor made tests. Efectis does invest each year in new testing devices for enlarging its assessment services of all your products and systems.







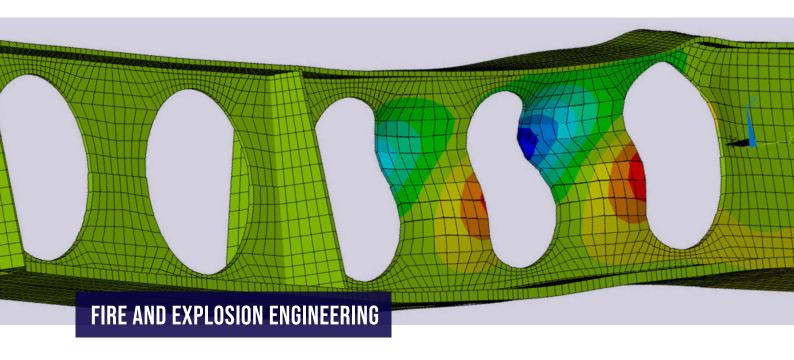












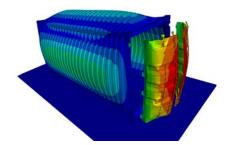


### FIRE RISK ASSESSMENT AND RISK ANALYSIS

- Buildings
- Nuclear power plants and power stations
- Industrial sites and onshore & offshore facilities
- Hydrogen production and distribution units

### FIRE AND EXPLOSION MODELLING

- Fire and explosion modelling in open and confined environments
- Parametrical study of fire development
- Overpressure and thermal impacts including assessment of safety distances
- Fire and gas detection studies
- Interaction of blast waves with the built environment

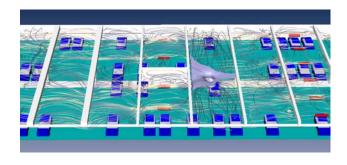


### **CODE CONSULTING**

- Fire and life safety code analysis
- Code compliance review
- Code evaluation and conflict resolution

### **ASSESSMENT OF ENVIRONMENTAL ISSUES**

- Atmospheric scattering simulation of pollutants and combustion products
- Evaluation of safety distance from toxic effects



### **SMOKE SPREAD STUDIES**

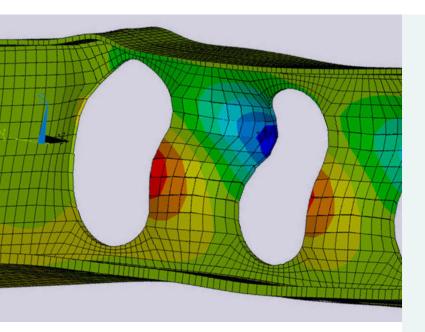
- Simulation of fire effluent spread
- Design and validation of mechanical smoke exhaust systems
- Toxicity and smoke opacity

# FIRE BEHAVIOUR OF PRODUCTS AND SYSTEMS BY MODELLING APPROACH

- Construction products: doors, partitions...
- Safety equipment: dampers, fans...
- Protection products: intumescent coatings, sprayed products, board...

### STRUCTURAL FIRE AND EXPLOSION ENGINEERING

- Modelling of structural fire and explosion behaviour (timber, steel, concrete, composite...) exposed to real or standard fire and explosion
- Failure mode of structure (progressive collapse)
- Verification of fire and blast walls integrity
- Validation of structural design

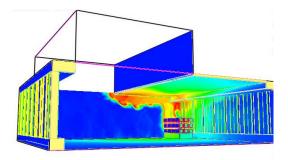


### FIRE SPREAD AND PROTECTION OF BUILDINGS

- Assessment of building performance from external effects: explosion, jet fires, pool fire, BLEVE, boil-over...
- Vulnerability of environment from fire and explosion impact
- Forest fires vulnerability at wildland-urban interface

### **EGRESS CONDITION MODELLING**

- Modelling evacuation conditions of public buildings, storage and industrial sites
- Fire detection, alarm and mass notification systems
- Assessment of egress management
- Egress conditions for disabled people
- Conditions of fire safety of operators remaining on site (control room, safe room...)



### FIRE EXTINGUISHING MODELLING (CFD)

- Fire extinguishing systems interaction
- Fire scenarios design including active systems
- Impact on structural assessment

# Operations

## **FIRE AND RESCUE**

Efectis operational approach for ensuring the infrastructures security and safety, the protection of civilian populations, interveners and goods.

- Risks analysis and operational responses
- Technical and technological supports
- Crisis management
- Tests for fire fighting
- Certification of extinguishing systems
- Training rescue workers (fire safety officers, firefighters...)
- Optimizing fire fighting (water needs)





# INTERNATIONAL FIRE AND EXPLOSION INVESTIGATIONS

- Quicker recover of exploitation after fire
- Determining the origin cause and development of a fire or explosion
- Analysis of the products/systems performance after fire
- Tests and numerical assistance to support the work of experts (fire and explosion behaviour and fire and explosion dynamics)





# ON SITE EXPERTISE, APPROVALS AND CERTIFICATION

Efectis offers solutions during construction and for the operation of buildings and installations either with official certification and approvals, or with on site assessments. After a fire, Efectis can assist you to recover business activities as soon as possible and to reduce financial losses.

### CE AND UKCA MARKING OF CONSTRUCTION PRODUCTS

Efectis is a Notified Body instead of CE marking (see Nando website Notified Bodies N° 1812, 1234, 2184) of construction products with fire characteristics.



Efectis is an Approved Body (N° 2822) for UKCA and UK(NI) Marking - see database from MHCLG (Ministry of Housing, Communities and Local Government). Our notification covers principally construction products with fire performance: smoke and heat exhaust systems, fire protective products, glass in building, thermal insulation, floorings, doors, cables, etc.

### OTHER CERTIFICATION

Efectis is recognised by many countries or private organisation for certifying the fire performance of products and systems, either based on EN standards or other international/national standards. In other countries, case by case recognition is adopted.

### **EXPERTISE**

The Expertise teams are involved in all types of construction projects, by assessing the compliance of construction products and their application with regard to the requirements of the various fire regulations.

### These studies justify fire resistance performances based on existing fire tests. They can be linked to:

- The degree of fire stability of the structures and their protection
- Fire resistance performance of doors, partitions, glazing, etc.
- Resistance to external fire of façades (façade assessment)
- Performances of smoke extraction systems
- Compliance with the requirements of the mechanism and automatism
- Verification of mounting conditions and performance of sandwich panels

### **VOLUNTARY MARKS**

Efectis Certified is the Voluntary Mark of Efectis. Efectis Certified objectives are to maintain a high fire safety level in buildings or infrastructures in covering product and installation fire safety certification in order to ensure the required fire safety.

### **Efectis Certified for products**

As the application of regulations and the fire resistance of construction elements are not always controlled, Efectis is able to check if the required fire safety level is reached.

### **Efectis Certified for installation**

Our Voluntary Certification, Efectis Certified assess the knowledge and the skills of the companies in charge of the installation of the fire products including inspection on construction sites. The fire safety level of building is strongly dependent on the quality of installation. Efectis can qualify the products in laboratories and certify the companies that will install them.

### **ENVIRONMENTAL SUSTAINABILITY**

The revision of the Construction Product Regulation will introduce a new requirement on Environmental Sustainability for CE marking. Accordingly, Efectis is setting up a new division to validate environmental declarations.

### Training



If you work in the building, nuclear or rescue field, we can help you to further develop your skills in fire safety.

Efectis is delighted to share our knowledge and experience through a series of training sessions for those involved in construction, rescue and nuclear safety (project owners, main contractors, subcontractors, fire trainers, technical officers.)

The sessions will cover all construction and building materials that have an obligation to ensure fire performance (fire resistance & reaction to fire) and buildings required by regulation to include fire safety requirements. These courses also touch on the firefighter education and training (theory and practice).

VIEW ALL OUR COURSES HERE: www.efectis-academy.com

# Fire and Explosion

### FIRE AND EXPLOSION SAFETY IN NUCLEAR PLANT



### FIRE AND EXPLOSION SAFETY SERVICES

**Development of technical specifications** 

- AFCEN
- CEN
- EDF
- ISO

### Qualification of product and system

- Fire testing
- Other testing
- Audits and inspection
- Modelling
- Certification



### **Engineering calculations**

- Risk
- Modelling
- Structural response
- Effluents propagation

### **Expertise**

- Aging
- Ad hoc evaluation
- On site evaluation
- Official assessment

### **Training**

- AFCEN
- Engineering
- Fire products
- Firefighting
- Regulation

# Fire and explosion resistance

Reaction to fire

**Fixed fire fighting** 

Firefighters equipments

Detection and Fire management Systems

**Batteries systems** 

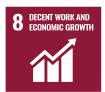
Hydrogen appliances

**Smoke and ventilation** 

**Atex** 

# Our social responsibility

### **ETHICS**









We are committed to being a loyal, respectful and responsible player in the market.

Efectis implements and guarantees:

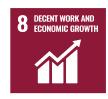
- Business Integrity: Adherence to standards of transparency, integrity and anti-corruption practices
- Data protection: Confidentiality in the processing of all stakeholders' data

### **SOCIAL & SECURITY**











We are committed promoting the development, well-being and safety of our employees.

Efectis fosters and ensures:

- Employee Well-being: Employee benefits, respect for work-life balance, and flexibility at work, including remote working options
- Workplace Safety: Implementation of measures to ensure the safety of our employees and the promotion of a safety culture

## **ENVIRONMENT**











We are committed to fighting climate change and respecting the environment.

Efectis focuses on:

- Reducing Carbon Footprint: Improving energy efficiency and decarbonising business travel
- Sustainable Innovation: Efectis positions itself as a key player through its R&I and expertise service

Efectis works on:

- \*ADEME-supported projects on the massification of wood and bio-sourced materials in the construction sector
- Reuse of materials through the "Reuse Booster"

\*ADEME : French Agency for Ecological Transition

For more information, you can find our full ESG policy documents at Efectis.com, under the "About" section. Or scan the gr-code.



# Your project

# **OUR MARKETS**



















### **EFECTIS HEADQUARTERS**

Espace Technologique Route de l'Orme des Merisiers 91190 Saint-Aubin, France Tel.: +33 1 60 13 83 81

### **EFECTIS FRANCE**

france@efectis.com

### Laboratory

Voie Romaine 57280 Maizières-lès-Metz - France Tel. +33 3 87 51 11 11

#### Laboratory

ZI Les Nappes 149, route du Marc 38630 Les Avenières Veyrins-Thuellin France

Tel. +33 4 37 06 38 11

# Laboratory – Full-scale tests and Training

Aérodrome de Saint-Yan 71600 Saint-Yan - France Tel. +33 7 87 96 76 76

### **Engineering and Certification**

Espace Technologique Route de l'Orme des Merisiers 91190 Saint-Aubin - France Tel. +33 1 60 13 83 82

### **EFECTIS IBERICA**

spain@efectis.com

### **Engineering and Expertise**

C/ Méndez Álvaro, 20 28045 Madrid - Spain Tel. +34 (0) 6 716 711 67

### **EFECTIS NEDERLAND**

nederland@efectis.com

### Laboratory

Brandpuntlaan Zuid 16 2665 NZ Bleiswijk - The Netherlands Tel. +31 88 3473 723

### **Engineering and Expertise**

Wilgenbos 14-20 3311 JX Dordrecht - The Netherlands Tel. +31 88 3473 723

### **EFECTIS ERA AVRASYA**

turkiye@efectis.com

# Laboratory, Engineering and Certification

Dilovası Organize Sanayi Bölgesi 5. Kısım Fırat Cad. No:18 41455 Dilovası / Kocaeli -Türkiye Tel. +90 262 658 16 62

### **EFECTIS ITALIA**

italy@efectis.com

### Certification

Ufficio Cadorago Casella Postale 11 22071 Cadorago (Co) I - Italy Tel. +39 351 617 51 62

### **EFECTIS UK/IRELAND**

uk@efectis.com

### Laboratory

Jordanstown Campus FireSERT Building Block 27, Shore Road Newtownabbey BT 37 0QB United Kingdom Tel. +44 289 036 87 66

#### Laboratory

Kilroot Business Park Larne Road, Carrickfergus BT38 7PR United Kingdom Tel. +44 289 036 87 66

### **Engineering and Certification**

307 Euston Road London NW1 3AD - United Kingdom Tel. +44 203 973 01 81

#### Laboratory

Innovation Centre
Wentloog Corporate Park
Cardiff CF3 2ER - United Kingdom
Tel. +44 289 592 82 05



## **EFECTIS ALL OVER THE WORLD**

Efectis has 22 offices and laboratories around the world recognised in 35 countries. The staff is highly qualified speaking various languages (English, French, Dutch, Turkish, Spanish, German, Italian, Arabic, Chinese, Farsi...).

