MEASURING RADIOACTIVITY TO PROTECT YOU

IRE Lab
Keeping radiation safe

Through its personalised guidance and recognised industrial experience, IRE Lab is your best choice for advice and tailor-made solutions for radioactivity analysis and monitoring.

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WHO ARE WE?

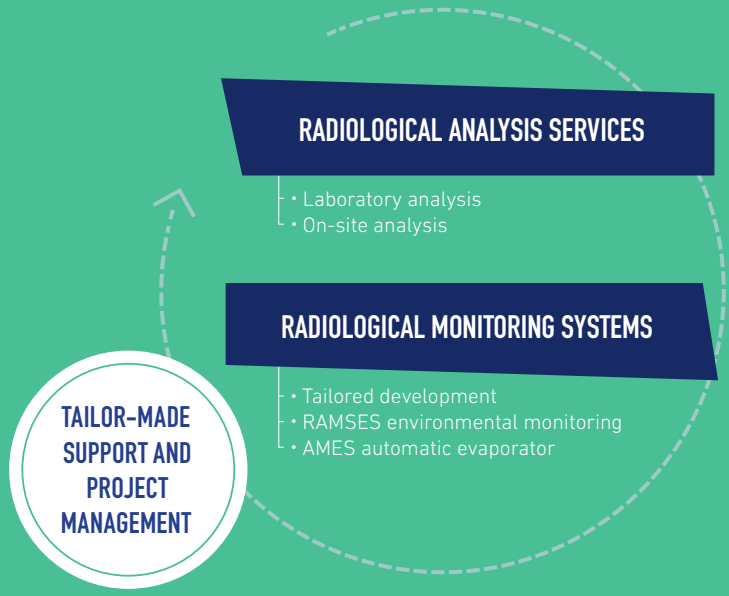
IRE Lab, the preventive branch of IRE, contributes to protecting the environment, workers and the population through its expertise in monitoring and measuring radioactivity.

IRE Lab conducts **analyses of radioactivity**, develops **radiological monitoring equipment** and provides **consultancy services** in this field. We are a flexible, dynamic and multidisciplinary organisation benefiting from a competent team and a wide range of modern equipment.

IRE Lab works out **solutions adapted** to your needs and guarantees high-quality services always focused on your satisfaction.

A MULTIDISCIPLINARY TEAM AT YOUR SERVICE

Radiation measured is radiation known, and known radiation can be dealt with appropriately.



OUR PERSONALISED GUIDANCE

IRE Lab offers a unique approach to measurement and monitoring of radioactivity focused on personalised customer guidance.

OUR PERSONALISED GUIDANCE IS BASED ON:

- **Our industrial experience** working for IRE, world leader in the production of medical radioisotopes and class I nuclear site. We are our own first customer and our solutions are tried and tested at our site every day.

- **Our recognised experience in project management**, at national and international level, for private companies, public authorities and organisations such as the European Commission and the International Atomic Energy Agency.

- **Our quality assurance** through **ISO 9001 certification of our project activities and ISO 17025 accreditation of our laboratories.** We are also striving to **reduce our environmental impact** by complying with the **ISO 14001** standard.

BELAC NR. 444-TEST

SYSTEM CERTIFICATION ISO 14001 SGS

SYSTEM CERTIFICATION ISO 9001 SGS

Thanks to our daily experience in radioactivity measurement and monitoring, we can also offer you **practical training in methods of radioactivity analysis, either in our laboratories or on your premises.**

UNIQUE PERSONALISED SUPPORT

- INDUSTRIAL EXPERIENCE
- QUALITY AND ENVIRONMENT MANAGEMENT SYSTEM
- INTERNATIONAL PROJECT MANAGEMENT
- PRACTICAL TRAINING

LABORATORY ANALYSIS

OUR KNOW-HOW

IRE Lab carries out radioactivity analysis on **a wide range of samples of different activity.**

We use high-performance equipment, state-of-the-art techniques and qualified personnel guaranteeing optimum service.

IRE Lab also applies **relevant references** for sample analysis in the framework of **remediation and decommissioning** projects.

OUR SERVICES

1. Analysis of requirements
2. Sampling, receipt and preparation of samples
3. Developing methods adapted to the customer's needs and radioactivity measurement
4. Data processing and interpretation
5. Dispatching results and providing advice

1. TYPES OF SAMPLES

1

Environmental monitoring

Groundwater, surface water, rain water, soil, sediment, dust, aerosol, flora and fauna

2

Monitoring of water for human consumption

Tap water, spring water, mineral water, drinks

3

Control of food chain

Foodstuffs, agricultural products, crops and livestock products

4

Monitoring of workers

In vitro (urine, faeces, nasal mucus) or in vivo (whole body, thyroid)

5

Support for industrial, nuclear and non-nuclear sectors

Dismantling of nuclear facilities, radioactive waste, NORM, industrial waste, waste water, construction material

6

Checks on goods for import and export and various consumer goods

LABORATORY ANALYSIS

2. TYPES OF METHODS

SAMPLING

Preparation & conditioning

GAMMA SPECTROMETRY	Co-60, Cs-137, Cs-134, I-131, fission products
LIQUID SCINTILLATION	C-14, H-3, Sr-90, Rn-222, DTM
MASS SPECTROMETRY	U, K-40, Ra-226, Tc-99
ALPHA SPECTROMETRY	U, Th, Pu, Po, Am, Cm
PROPORTIONAL COUNTING	Gross alpha/beta

OUR COMMITMENT

Best quality/price ratio

Reactivity, flexibility, availability

Tailor-made and state-of-the-art analytical techniques

ON-SITE ANALYSIS

OUR KNOW-HOW

Thanks to its qualified personnel and mobile equipment, IRE Lab can offer you **a wide range of services provided on your premises**, from sampling and comprehensive advice to implementation.

Whether for your routine, maintenance, remediation or dismantling operations, we provide support for characterisation of:

- Your radioactive waste and discharges;
- Your installations;
- Your workers' biological samples;
- Objects of any type.

OUR SERVICES

WE WILL COME TO YOU FOR:

SAMPLING

GAMMA SPECTROMETRY

- Modelling of various objects
- On-site measurement
- Gamma spectra analysis
- Use of different characterisation systems

GAMMA CAMERA

- Locating hot and contamination spots
- Identifying gamma contaminants
- Searching for radioactive sources
- Improving modelling for waste characterisation

RADIOCHEMICAL ANALYSIS

- Portable equipment
- Analysis of gross alpha/beta total, tritium, etc.
- Measurement on smears, urine, handkerchiefs, effluent, etc.

ON-SITE ANALYSIS

WE ALSO PROVIDE THE FOLLOWING SERVICES:

Sampling

On-site characterisation measurements

Training in gamma spectrometry and radiological characterisation in general

Interpretation of results

Modelling of various objects to be characterised

Support in drawing up technical specifications

Clearance measurements

Support in working out characterisation strategy

Preparing approval and qualification dossiers for characterisation techniques and measuring equipment

We also work out tailor-made solutions with ongoing guidance for your specific problems.

OUR COMMITMENT

Wide range of state-of-the-art equipment

Long industrial experience with IRE

Class I nuclear site
World leader in the production of radionuclides for nuclear medicine

Recognised expertise

by national authorities and international organisations

RADIOLOGICAL MONITORING SYSTEMS

OUR KNOW-HOW

IRE Lab has for many years been a major player in radiological monitoring of the environment and as such develops innovative automatic sampling and monitoring systems for radioactivity continuous monitoring:

- In the environment (air and water);
- In work areas and construction/demolition sites;
- In liquid and gaseous effluents of nuclear installations, NORM industry and hospitals.

OUR SERVICES

1. TAILOR-MADE DEVELOPMENT

Through our experience in designing and installing radiological monitoring systems at the IRE site, in Belgium and abroad and in obtaining formal recognition by the authorities, we have the know-how necessary for developing state-of-the-art solutions tailored to our clients' needs.

Our service includes

Initial design in accordance with your needs

Manufacturing

Installation and maintenance

Training of your personnel

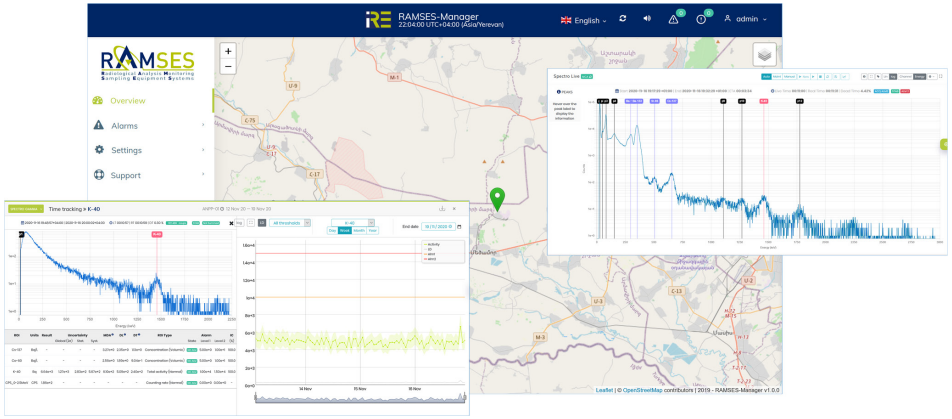
2. RAMSES

RAMSES (Radiological Analysis Monitoring Sampling Equipment Systems) is a new innovative and scalable platform for real-time radiological analysis that includes the following:

- Spectral acquisition and analysis for live monitoring;
- Automatic drift correction for more autonomy;
- Cumulative measures for better sensitivity;
- An integrated quality control module to ensure optimum reliability;
- An integrated watchdog for greater robustness and maximum availability;
- Multi-user connection for better connectivity:
- A multi-equipment system for greater flexibility.

Our “RAMSES Manager” supervisor enables centralising the data from various measurement stations that make up a remote monitoring network, thus visualising the radiological and technical status of the entire network in real time and in a single display.

The “RAMSES” platform is used in various automatic remote radioactivity monitoring networks in Belgium and abroad.

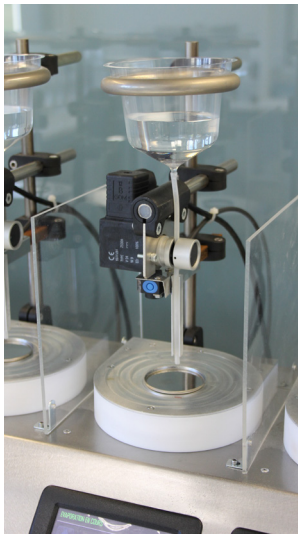


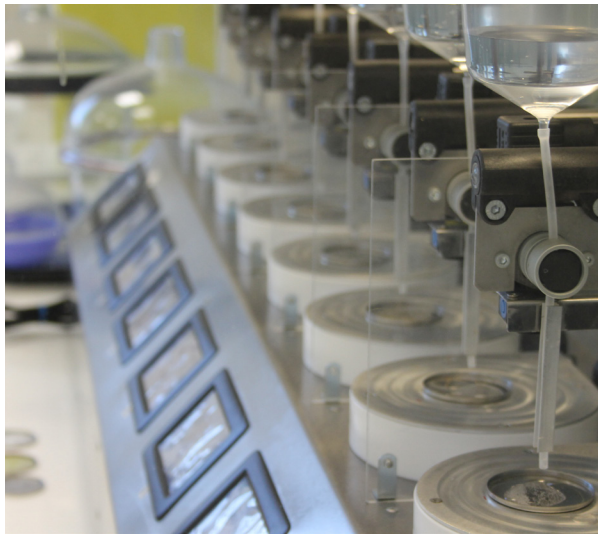
RADIOLOGICAL MONITORING SYSTEMS

3. AMES

AMES (Automatic Multi Evaporator System) is an automatic multichannel evaporator (from 2 to 8 channels, as required) dedicated to the efficient preparation of water samples for gross α/β analysis.

Its innovative design makes it possible to optimise work space, reduce consumables and ensure evaporation while guaranteeing uniform filling and a homogeneous dry deposit.





OUR COMMITMENT

If you encounter a specific problem linked with the radiological monitoring sector, please contact our team to jointly work out a solution tailored to your needs.

Tested and recognised solutions

State-of-the-art solutions

(technology, design, user-friendliness, etc.)

Highly flexible and adaptable

to meet your specific needs and requirements

Quick response by our after-sales department

Best quality/ price ratio

The National Institute for Radioelements (IRE) and its IRE ELiT subsidiary give priority to promoting the beneficial use of radioisotopes for medical applications while ensuring the absence of harmfulness. For IRE Lab, this priority translates into its provision of advice and personalised solutions in the radioactivity measurement and monitoring sector.

Thanks to its multidisciplinary team and its long experience working for IRE, world leader in the production of medical radioisotopes, IRE Lab offers a range of tailor-made, tried and tested solutions in the following fields:

- Analysis of radioactivity in various different samples
- Radiological characterisation of waste, effluent and contaminated objects
- Development of continuous radioactivity sampling and monitoring equipment
- Carrying out projects at national and international level in its areas of competence.

IRE Lab
Keeping radiation safe

GET IN TOUCH!

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