



Annual Users' Conference

**ADVANCING RADIATION SAFETY.
EMPOWERING PROGRESS.**

M Resort, Henderson, NV | June 15 – June 18 - 2026



MIRION
TECHNOLOGIES

*Advancing Radiation Safety.
Empowering Progress.*

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Mirion Introduction and Overview of RMS

Florian Bourdet
VP RMS

Mirion Connect | Annual Users' Conference 2026
Henderson, NV

Nuclear renaissance in the world - Panorama

Main New builds/projects · Gen-IV · SMRs · Fusion · Naval propulsion — 2026



AMERICAS

- 1 **USA— New build & SMR, Life extension, Restarts**
10*AP1000 program, TerraPower Natrium, X-energy Xe-100, GE-Hitachi BWRX-300....
- 2 **US — Pilot reactors (July 4)** DOE Reactor Pilot Program: Antares Mark-0, Oklo Aurora, Kairos Hermes, criticality push for 4 Jul 2026.
- 3 **US — Fusion** Commonwealth Fusion (SPARC/ARC), Helion, multi-\$B private capital.
- 4 **US — Fuel cycle** HALEU & TRISO push: TRISO-X (Oak Ridge), Centrus / General Matter enrichment; DOE fuel-line pilots.
- 5 **Canada — Darlington** GE-Hitachi BWRX-300 under construction (OPG); (+3 units).

EUROPE

- 6 **United Kingdom** 4 EPR (Hinkley Pt C + Sizewell C); Rolls-Royce SMR (Wylfa).
- 7 **France — New build & SMR** 6 EPR2 (+8); Nuward, Newcleo, Jimmy, Hexana....
- 8 **France — Fuel cycle** Orano: Georges Besse II expansion, La Hague2 /Melox MOX life extension, Triso...
- 9 **France — Naval propulsion** 4 SSBN SNLE 3G) + 1 nuclear carrier
- 10 **Czech Republic** 2 × AP1000 (Dukovany); RR SMR at Temelín.
- 11 **Poland — Choczewo** 3 × AP1000 (Westinghouse)
- 12 **Hungary — Paks II** 2 × VVER-1200 (Rosatom); first in the EU.
- 13 **Bulgaria — Kozloduy** 2 × AP1000 (Westinghouse)
- 14 **Turkey & Egypt** Akkuyu & El Dabaa: 4 × VVER-1200 each

ASIA-PACIFIC

- 15 **China** ~10 approvals/yr (4th yr), ~33 building; HTR-PM, Xiapu Na-FR 600 MW, ACP100, chloride MSR, fusion.
- 16 **South Korea** Shin Hanul 3&4 (APR1400); Kijiang, iSMR, SSN program + 2*APR1400 ...
- 17 **Japan** 15 reactors back in service; Kashiwazaki-Kariwa 6 restarted in 2026.
- 18 **Australia — AUKUS** 3 Virginia-class SSNs (option +2), then SSN-AUKUS class with UK/US.
- 19 **India** PFBR 500 MWe Na (criticality 2026) ; 10*700 MWe PHWR fleet mode.
- 20 **Pakistan & Bangladesh** Chashma C-5 Hualong One 1,200 MW; Rooppur 2×VVER-1200 (fuel load 2026).



MONDAY

June 15

RMS · NFMS · I&C

MIRION
Connect 26
AMERICAS
Annual Users' Conference

Mirion Connect 2026 · I&C Forum

7:30–9:00 AM

Registration & Breakfast

9:00–9:30 AM

Agenda Walkthrough & Round-Table Introductions

Florian Bourdet — Mirion

9:30–10:15 AM

Radiation Monitoring Systems & RAMSYS™ Product Line: Technology & Applications Overview

Florian Bourdet — Mirion

10:15–10:30 AM

Break

10:30–10:45 AM

RMS & RAMSYS™ Product Line — Overview (Part 2)

Florian Bourdet — Mirion

10:45–12:00 PM

Nuclear Safety I&C: HIPS, CoreVision & proTK™ for Neutron Instrumentation

Jörg von Loeben · Yvotte Brits — Mirion

12:00–1:00 PM

Lunch

1:00–1:45 PM

Environmental Qualification of Nuclear Instrumentation: Mirion & Paragon Testing Capabilities

Jürgen Hingerl — Mirion · John Portillo — Mirion

1:45–2:30 PM

EMC Troubleshooting in Nuclear Instrumentation Systems

Chad Kiger — AMS

2:30–2:45 PM

Break

2:45–3:45 PM

RMS Project: Deployment Insights & Lessons Learned

Daniel Darr — TerraPower

3:45–4:30 PM

Neutron Instrumentation System Implementation

Daniel Darr · Chris Nickel — TerraPower



TUESDAY

June 16

RMS SESSION



Annual Users' Conference

Mirion Connect 2026 · I&C Forum

7:30–9:00 AM

Registration & Breakfast

9:00–10:15 AM

Radiation Detectors for RMS: Selection Criteria & Application Considerations

Mehran Mohammadian — Mirion

10:15–10:30 AM

Break

10:30–11:15 AM

Advanced RMS Applications: Spectroscopy, MCNP Modeling & Mechanical Design

Mehran Mohammadian — Mirion

11:15–12:00 PM

RMS I&C Engineering: Integration & Design Practices

Jason Gasque — Enercon services

12:00–1:00 PM

Lunch

1:00–1:45 PM

Troubleshooting RMS: Methods & Best Practices

Mehran Mohammadian — Mirion

1:45–2:30 PM

Operating & Maintaining RMS: A User's Perspective

Gavin Mitchell — APS

2:30–2:45 PM

Break

2:45–3:15 PM

Vital® Supervision Systems: Monitoring & Safety Training

Steve Laskos — Mirion

3:15–4:00 PM

Optimizing RMS Design: Risk-Informed Approaches & 10CFR50.69

Mehran Mohammadian — Mirion

4:00–4:30 PM

Customer Perspectives, Open Discussion & RMS Track Wrap-Up

Silas Stark — Mirion



TUESDAY

June 16

NIS & I&C



Annual Users' Conference

Mirion Connect 2026 · I&C Forum

7:30–9:00 AM

Registration & Breakfast

9:00–10:15 AM

proTK Digital Neutron Instrumentation: Research Reactors, Advanced Nuclear & Retrofit

Jörg von Loeben — Mirion

10:15–10:30 AM

Break

10:30–11:15 AM

I&C & Neutron Instrumentation in Westinghouse Design Plants

Lou Gausa & Jay Rotondo — Westinghouse

11:15–12:00 PM

Analog Neutron Instrumentation Solutions with CoreVision System

Yvotte Brits · John Portillo — Paragon

12:00–1:00 PM

Lunch

1:00–2:00 PM

HIPS Safety I&C Platform: Architecture & Real-World Applications

Tighe Smith — Mirion

2:00–2:30 PM

Showcasing 10 CFR 50.59 Licensing Success: Duke Oconee (AFIS)

Tighe Smith — Mirion

2:30–2:45 PM

Break

2:45–3:30 PM

Antares — NMS & Reactor Trip System (4th of July Reactor)

Brad Rearden — Antares

3:30–4:00 PM

ARCADE – Risk Informed Design

Andrew Hahn — Sandia National Labs

4:30–5:00 PM

Reactor Simulation & Operator Training Solutions

Yvotte Brits — Paragon



Tuesday

June 16

Thursday

June 18



Annual Users' Conference

Mirion Connect 2026 · I&C Forum

TECHNOLOGY HUB

5:30–08:30 PM

Technology Hub Grand Opening – Welcome Reception

All

BREAKOUT SESSIONS

9:15–10:15 AM

MASS2 RMS Software: Hands-On Demo and Capability Showcase

Mehran Mohammadian — Mirion

10:30–11:30 AM

proTK Digital Neutron Instrumentation & Reactor Simulation: Demo & Hands-On

Tighe Smith & Jörg von Loeben — Mirion

*Advancing Radiation Safety.
Empowering Progress.*

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I&C Forum Participants

34 participants · 18 organizations

SN Southern Nuclear

Ben Burwinkel *I&C Tech*
Jonathan Cox *I&C Technician*
Abdul Wahab *I&C Engineer*
Mark Wallace *I&C Technician*

TP TerraPower

Daniel Darr *Manager, Safety I&C*
Chris Nickel *Equipment Supply Mgr.*

AN Antares Nuclear

Brad Rearden *Head of Reactors*

UC User's CO

Lyou Seokjean *CEO*

APS APS Palo Verde

Gavin Mitchell *System Engineer*
Josh Pollock *Engineer*
Jennifer Tangert *Security Systems Eng.*
Adele Dehaybi *Section Leader*

INL INL

Bradley Bame *I&C Tech*
Devin Grady *I&C Tech*

AS Allseas

Jose Beirao *System Engineer*

DC DC Cook NPP

Marlin Weaver *RMS System Manager*

RG RG Health Physics

DJ LeClear *Health Physicist*

SNL Sandia National Labs

Ion Dawson *Manager*
Andrew Hahn *Cybersecurity R&D*
Michael Rowland *Technical Staff*

PGE Pacific Gas & Electric

Daniel Congdon *I&C Technician*
Kevin O'Neil *RMS System Engineer*

AMS AMS Corporation

Chad Kiger *EMC Eng. Manager*

ENR Enercon

Jason Gasque *Manager*

SG SimGenics

Francois Laubscher *CEO*

BU Belltech Utilities

Fred Martin *VP*
Jeannie Martin *President*

DE Doosan Enerbility

Choongil Kim *Director*
Bonsan Koo *Manager*

WEC Westinghouse Electric

Louis Gaussa *Director I&C*
Phil Lucas *RMS Lead*
Edward Loveday *I&C Engineer*
Jason Rotondo *Product Manager*

NE NEPCO

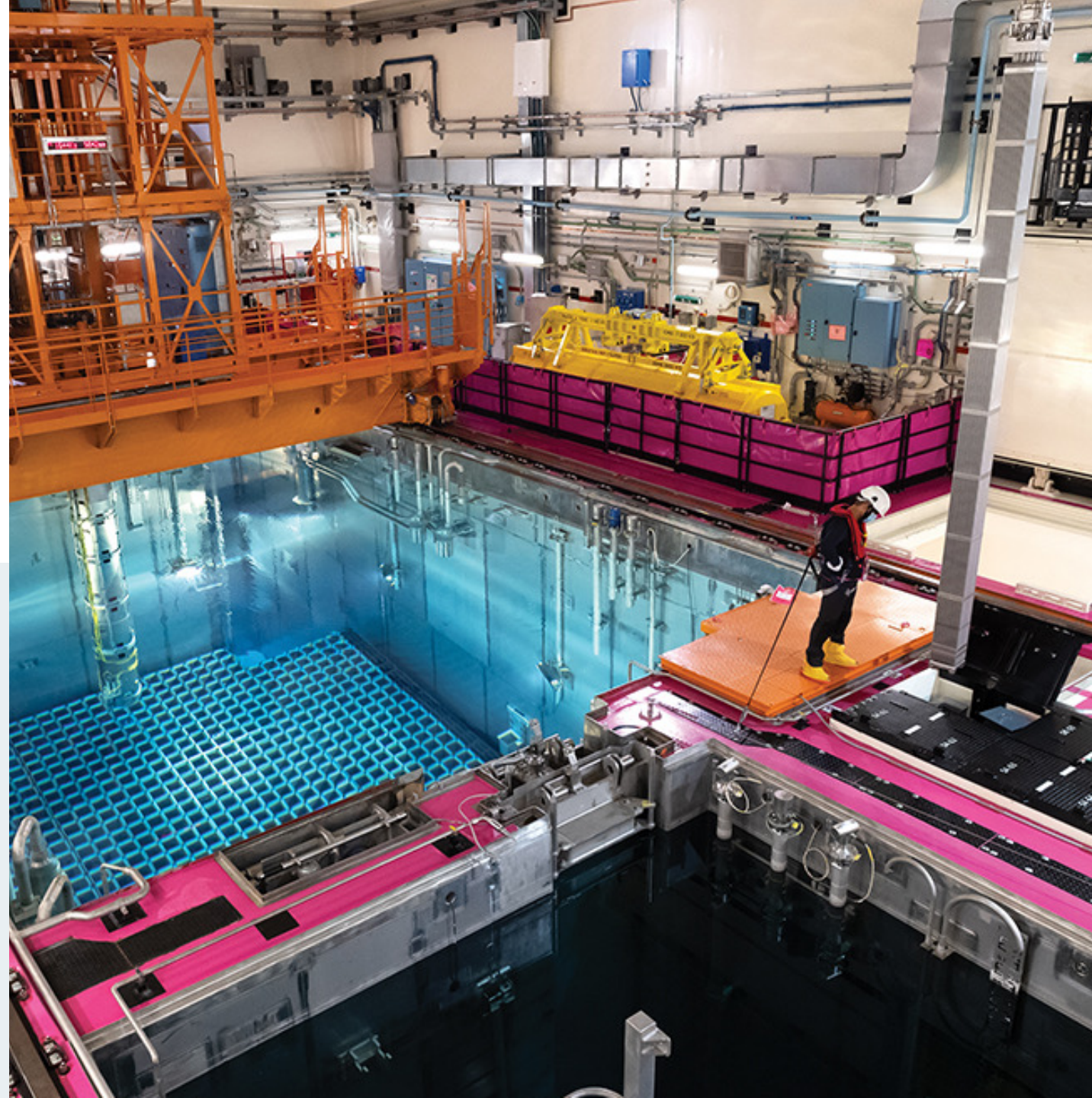
Chris Gilbert *President*

Mirion Introduction



OUR MISSION

*"TO HARNESS OUR
UNRIVALED KNOWLEDGE OF
IONIZING RADIATION FOR
THE GREATER GOOD OF
HUMANITY."*



Mirion Solutions

Applicable Across Wide Array of Verticals

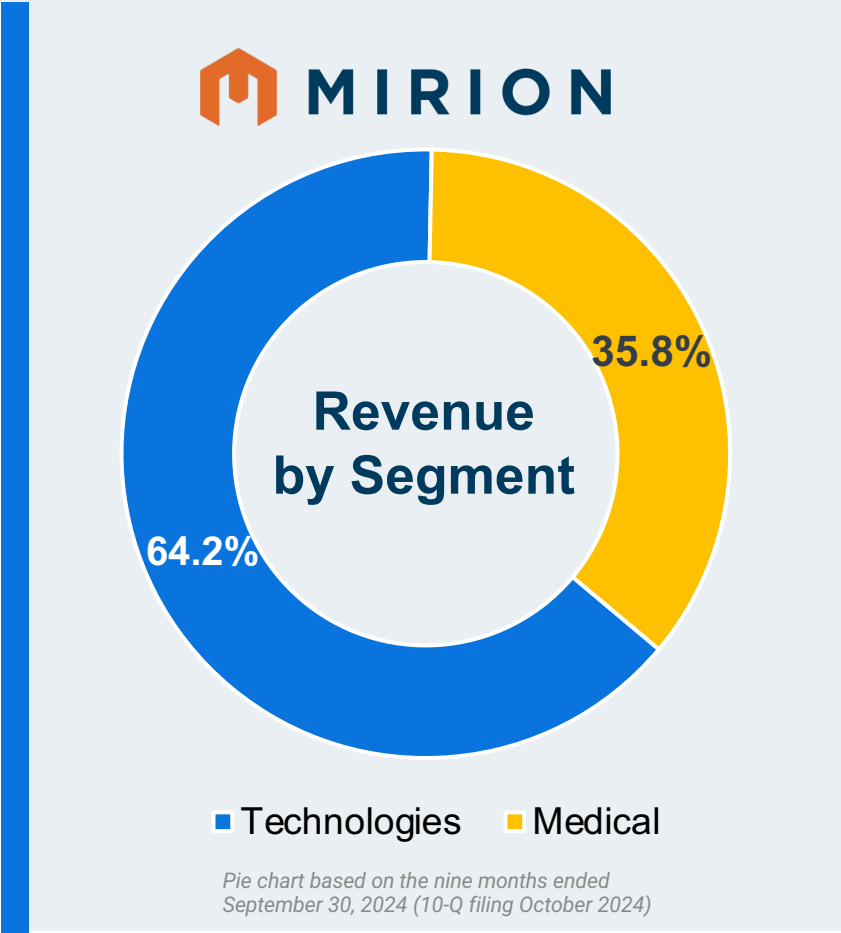
MIRION
TECHNOLOGIES

- Nuclear Power
- Defense & Diversified
- Labs & Research



MIRION
MEDICAL

- Radiation Therapy
- Nuclear Medicine
- Dosimetry Services



Mirion Technologies at a glance

130 Patents
700+ products

World leader since 70's

3000+ Employees

20+
Manufacturing sites globally
RMS and EPAs in France
NFMS in Germany and USA

>1.2 B revenue
Strong financial stability

Nuclear Power
(98 % of the reactors)

Defense

Research & Medical

KEY CATEGORIES

Instrumentation and control

- Radiation Monitoring Systems (70% of the world nuclear fleet)
- Neutron Flux Monitoring Systems (Analog and Digital)
- Safety related I&C platform (HIPS)
- Safety related electrical, mechanical and HVAC equipment
- Electrical Penetrations Assemblies (EPAs)
- Tritium monitoring solutions
- Radiation Tolerant Cameras
- Sensors
- Environmental qualifications

Spectroscopy & Scientific Analysis Systems

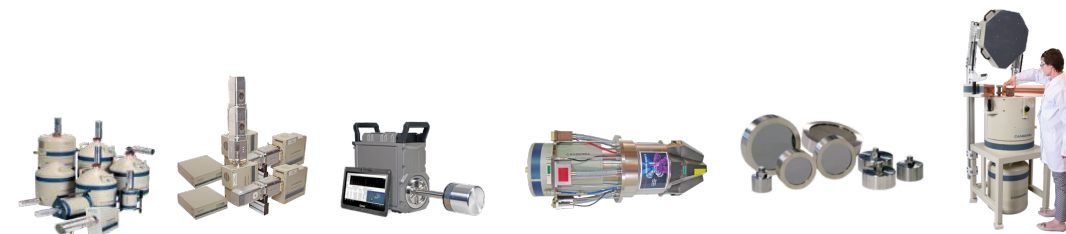
(Gamma, and Alpha spectroscopy, specialty detectors...)

Health Physics

(Contamination and clearance, active and passive Dosimetry, hand-held instruments, defense...)

Characterization

(Waste monitoring, Waste characterization, decommissioning solution...)



Summary of applications for reactors and RMS

Control and reactor protection

- HIPS safety related I&C platform
- Neutron monitoring solutions
- Safety related I&C equipment
- Steam generator leak rate monitors
- Accident monitoring (Gamma and Noble gases)
- Boron meters
- Electrical penetrations
- Radio chemistry, Offline and Online Gamma Spectroscopy of coolant and Gas
- Radiation tolerant cameras

Effluent release monitoring

- Alpha and Beta particles monitoring and sampling
- Iodine monitoring and sampling
- Noble Gas monitoring
- Liquid monitoring
- Online Tritium and Carbon14 monitoring and sampling

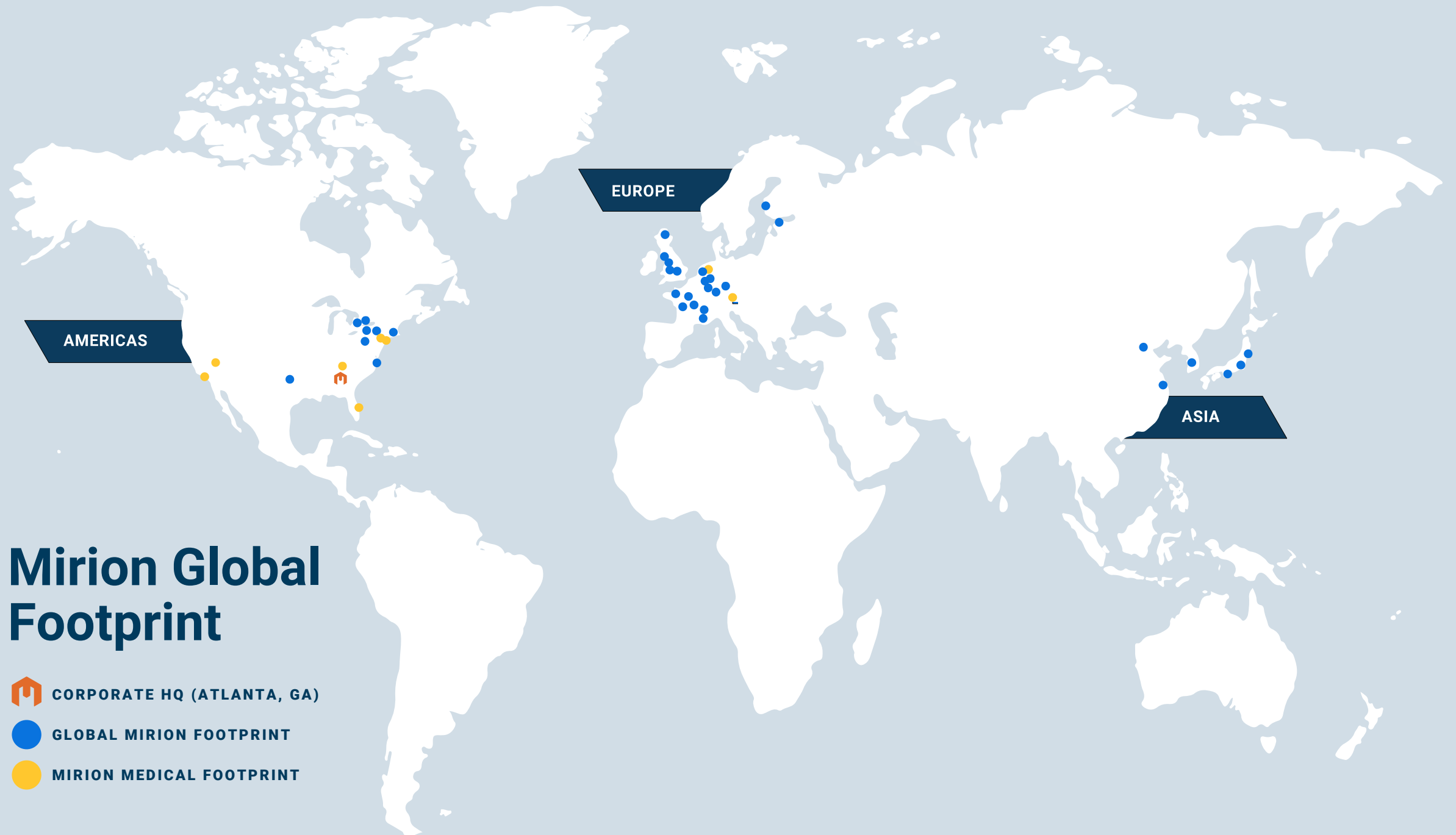
Area monitoring / Radioprotection

- Gamma and neutron dose rate measurement
- Contamination monitoring
- Dosimetry
- Hand-held survey meters

Waste management

- Waste monitoring solutions





Focus on Radiation Monitoring Systems



Main Factories



ATLANTA, GA

- *RMS and NFMS in North America*
- *Mirion Headquarters*
- *~100 total employees*
- *Supplied ~50 % of the US NPP fleet with some quantity of RMS solutions*
- *NQA1/10CFR50*



LAMANON – FR

- *RMS, Dosimetry, Hand-Held, Defense*
- *In operation since 1953*
- *550 employees*
- *1500 RMS channels per year*
- *Leader in all categories*
- *NQA1/10CFR50*
- *ISO19443*



NORROY LE VENNEUR - FR

- *Tritium measurement*
- *20 employees*
- *World leader in Tritium Measurement*
- *Cofrac ISO17025 Tritium Lab*
- *Design, manufacturing & calibrating inhouse*

Main RMS customer interfacing team



Carl Prather
VP New Nuclear
Atlanta, GA, US



Florian Bourdet
VP Radiation Monitoring
Systems
Lamanon, FR



Silas Stark
VP Americas – Radiation
Monitoring Systems
Atlanta, GA, US



Jürgen Hingerl
Project and Bid Manager
Atlanta, GA, US



Mehran Mohammadian
RMS Application Engineer
North America
Atlanta, GA, US



Luca Dioni
RMS Product Line Manager
Lamanon FR



Loic Pierre
Tritium expert and Product
Line Manager
Norroy Le Veneur FR



Alison Baesa
Bid Manager
Europe and Asia
Lamanon FR



Colas Hasse
RMS Application Engineer
Europe and Asia
Lamanon FR

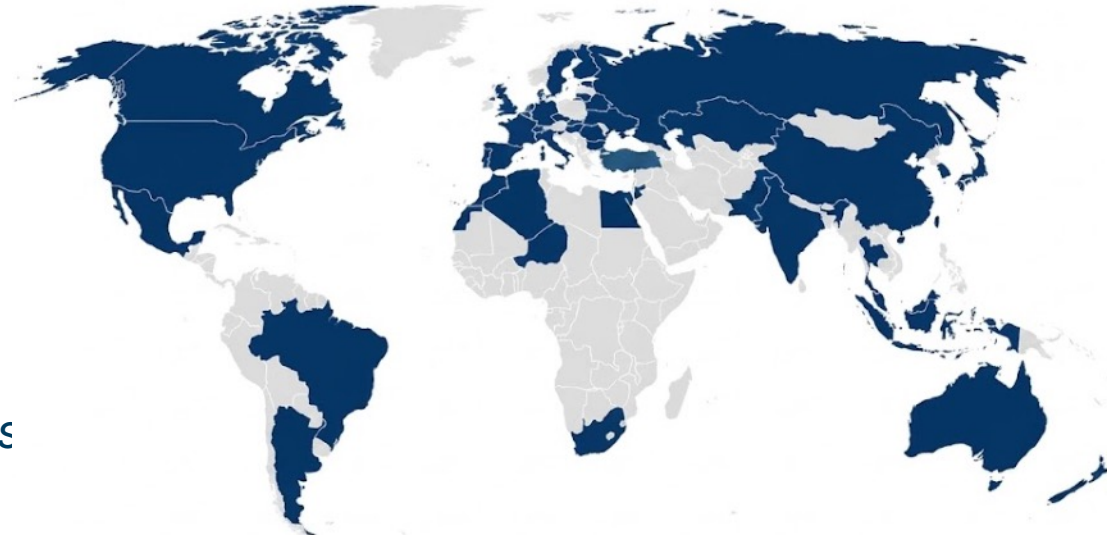
RMS track record



Mirion RMS Track Record

1. *Leader in the supply of radiation monitoring instruments, in the nuclear industry since 1953.*
2. *Compliance with IEC and IEEE standards for normal, harsh environments and accident conditions. IEC61226 Cat B*
3. *Mirion Technologies has deployed over 50,000 RMS monitors globally and 750 Neutron flux channels.*
4. *Worldwide presence with local service teams or partners.*
5. *Unique compliance with nuclear regulatory requirements across major nuclear markets including:*

- *United States*
- *Sweden*
- *United Kingdom*
- *South Korea*
- *Czech republic*
- *Hungary*
- *China*
- *Canada*
- *Russian Federation*
- *France*
- *Finland*
- *Etc...*



Mirion RMS Track Record

6. *Market penetration statistics demonstrate confidence of global nuclear industry into Mirion solutions.*

- **70% of worldwide reactors rely on Mirion's RMS systems**
- **98% of reactors worldwide incorporate Mirion safety solutions**

7. *RMS specific market presence by reactor type:*

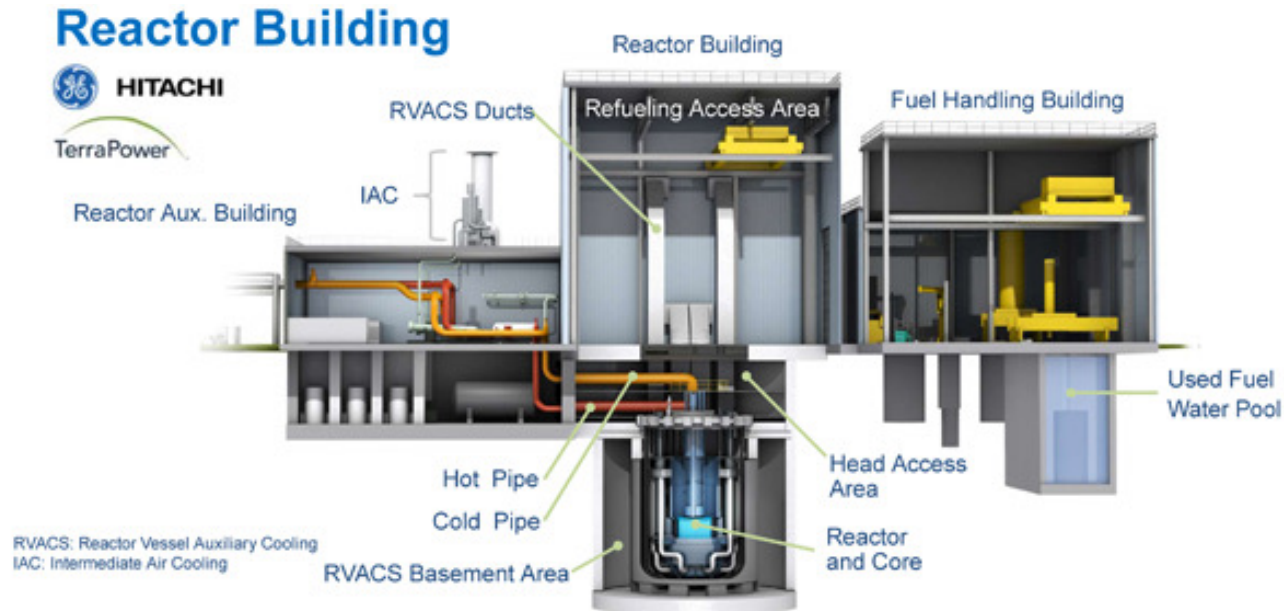
- *RMS channels installed in 50% of USA NPPs*
- *80 % of AP1000 designed Westinghouse reactors – 50 % of the WEC licensed fleet*
- *100 % of EDF reactors*
- *80 % of Chinese reactors*
- *70 % of KHNP reactors (South Korea)*
- *50 % of VVER 1200 export reactors*

8. *Experienced into SMR and GENIV reactors (in France, China and more recently in North America)*

Examples of Current Projects



Example: TerraPower Sodium



NRC public picture

345 megawatts (MWe) that can temporarily boost its power output to 500 MWe by using its integrated molten salt energy storage system to store energy when electricity demand is low.

Mirion supplies Neutron Flux Monitoring Systems and Radiation Monitoring Systems.

Example: Duane Arnold Energy Center – ERMS Upgrade



Duane Arnold Energy Center | Palo, IA
1,912 MWt BWR | NextEra Energy

Shut down in 2020, Duane Arnold is undergoing NRC review for restart. NextEra and Google signed a 25-year power purchase agreement in 2025, targeting early 2029 restart.

ANS Website: <https://www.ans.org/file/23816/duane-arnold-sunset-building.jpg>

Mirion will supply Wide Range Noble Gas and Low Range Noble Gas Monitors, Vital Supervision Server with Annunciator Interface, and Simulator Equipment for ERMS Replacement

Example: Sequoyah Nuclear Plant – Ongoing RMS Upgrades



Sequoyah Nuclear Plant | Soddy-Daisy, TN 2 × Westinghouse PWR | TVA

TVA's Sequoyah plant has operated since the early 1980s and is one of the Tennessee Valley's most powerful clean energy facilities at ~3,455 MWt each. Ongoing reliability programs drive systematic monitoring upgrades.

Mirion will supply Containment Building Upper Compartment Air Monitors, Auxiliary Building Vent Monitor, Control Room Remote Display & Control Units, and Plant Computer / Control Room Annunciator Interfaces.

Example: Monticello Nuclear Generating Plant – HRRM Upgrades



Monticello Nuclear Generating Plant Monticello, MN | 2004 MWt BWR | Xcel Energy

The NRC approved a 20-year license extension for Monticello in December 2024, authorizing operations through 2050. Xcel Energy continues systematic equipment upgrades to support long-term reliable, carbon-free generation.

Mirion is supplying High Range Radiation Monitors (HRRMs) to replace existing Drywell containment monitors, LOCA-qualified, including in-drywell cabling, and Remote Display and Control Units.

Example: EPRs reactors 10*1650 Mwe (6*France, 4*United Kingdom)



Design, Manufacturing and services for:

- Radiation Monitoring Systems (**150 channels per reactor**)
- Boron meters
- Neutron Flux Monitoring Detectors
- Electrical Penetrations assemblies
- Spectroscopy systems
- Active Dosimetry
- Hand-Held instrumentation
- Contamination and Clearance

Example: Kijang Research Reactor (South Korea)



**Mirion is supplying the full
Radiation Monitoring Systems
as well and Neutron Flux
Monitoring Systems**

*KJRR, 15 MWt open-tank-in-pool type
reactor to produce molybdenum-99,
iodine-131, iodine-125 and iridium-192*

Example: AP1000 reactors designs



2*AP1000 Sanmen 1&2 (Finished)



2*AP1000 Haiyang Units 1&2 (Finished)



2*CAP1000 Xudabao Units 1 & 2



2*CAP1400 Shidaowan Units 1 & 2

RMS *Scope of supply*

AP1000:
Sanmen Units 1 & 2 and
Haiyang Units 1 & 2
(90 monitors)

CAP1000:
Xudapu Units 1 & 2
(12 monitors, 100% of the
Safety Related scope)

CAP1400:
Shidaowan Units 1 & 2
(30 monitors)

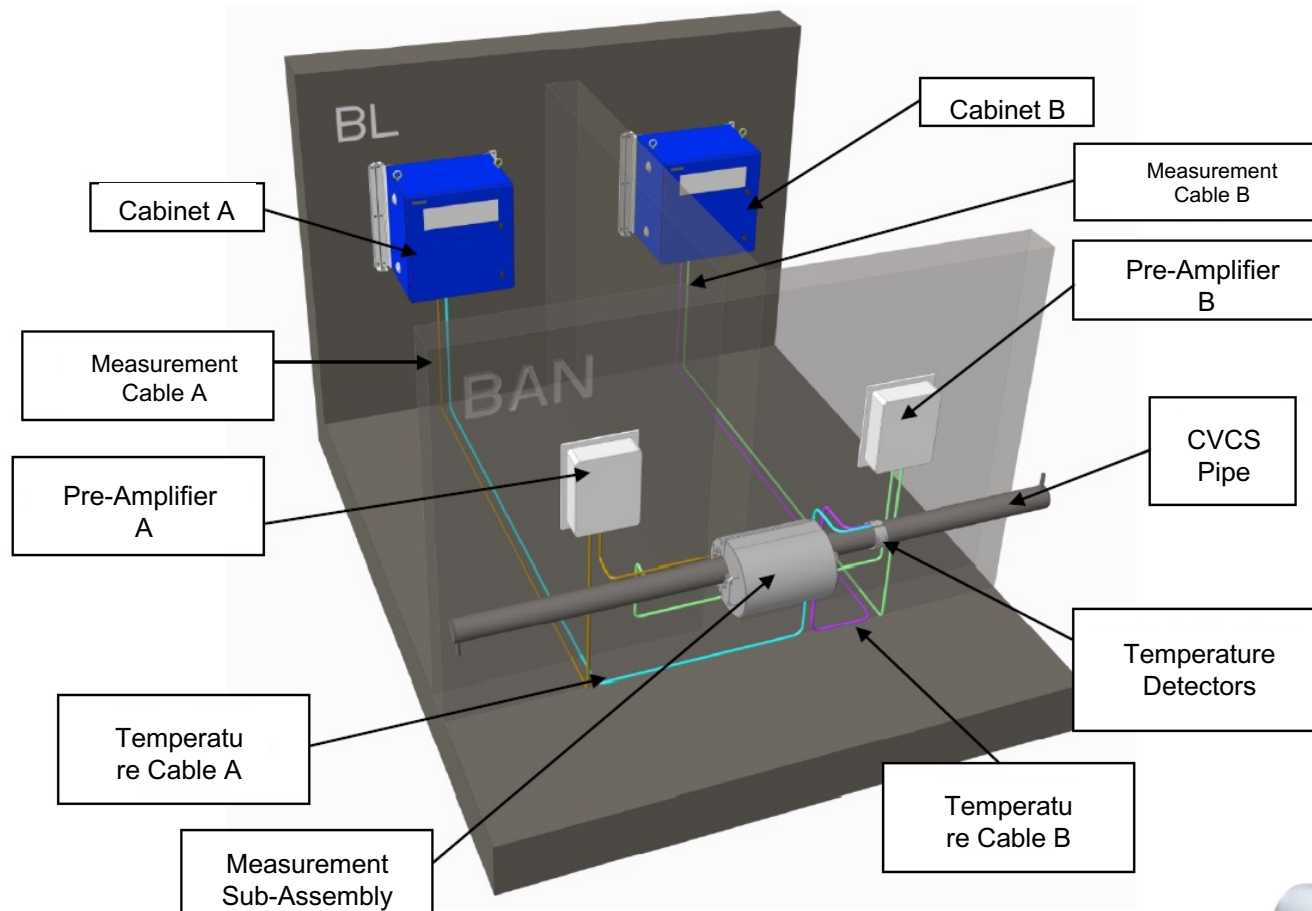
Example: Tianwan 7-8 and Xudapu 3-4 – China (4*1200Mw PWR)



Pictures of the Mirion Lamanon factory (south of France) – High range, wide range noble gases monitors and iodine monitors getting ready for customer factory acceptance test. Tianwan 7-8 and Xudapu 3-4 projects; VVER 1200 MW.

600 RMS channels for the whole project (150 per reactor)

Example: Boron-meters on French and UK fleet



4*1300 MWe Units @ Cattenom (Finished)

French Fleet:
Over 50 CVCS Boron-meters
(half already installed and calibrated)

UK EPRs:
HPC: NSS Boron-meters, including a
classified (cat. A) solution
SZC: in-progress



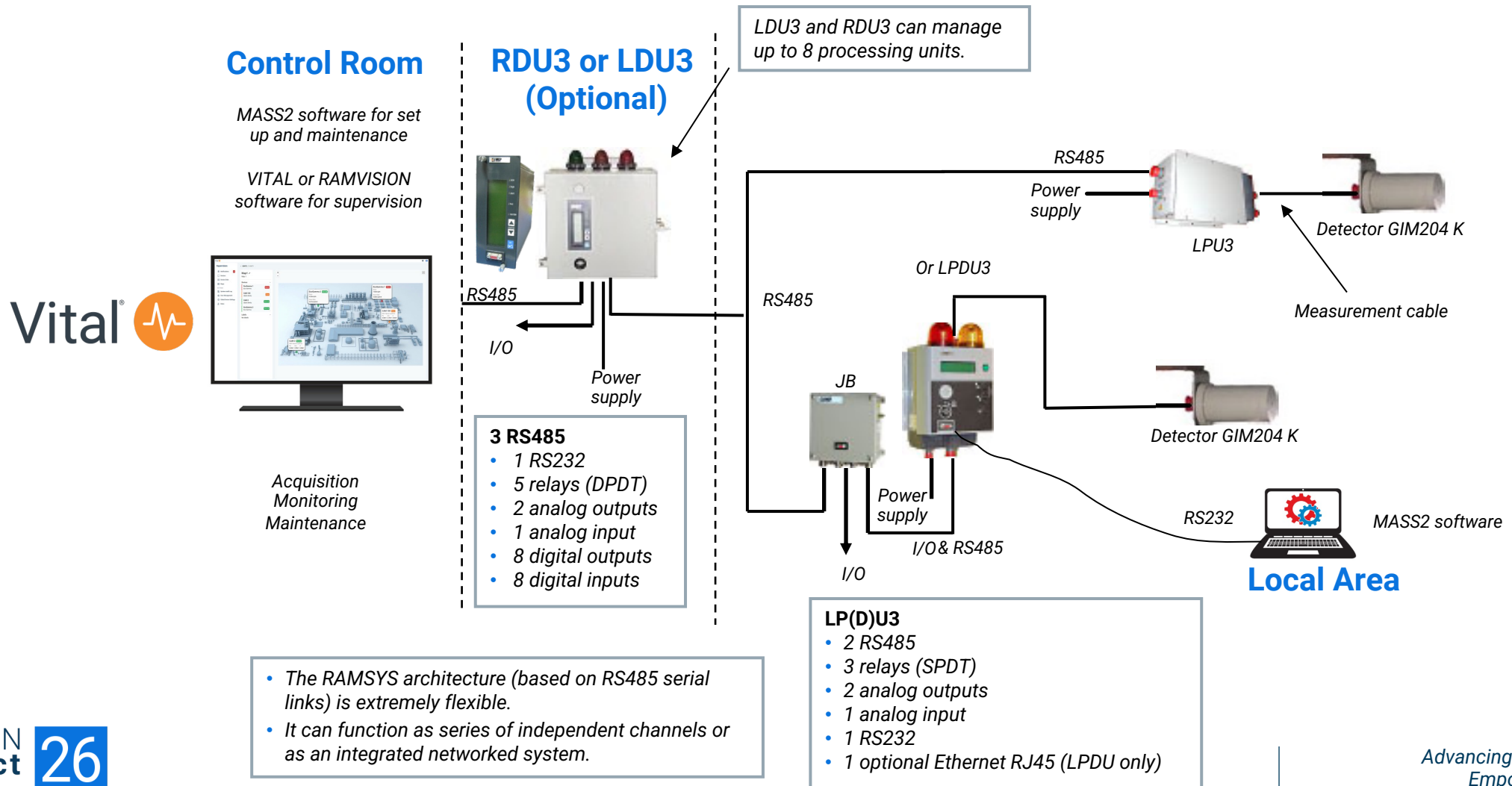
Overview of RMS products categories and applications



RAMSYS architecture



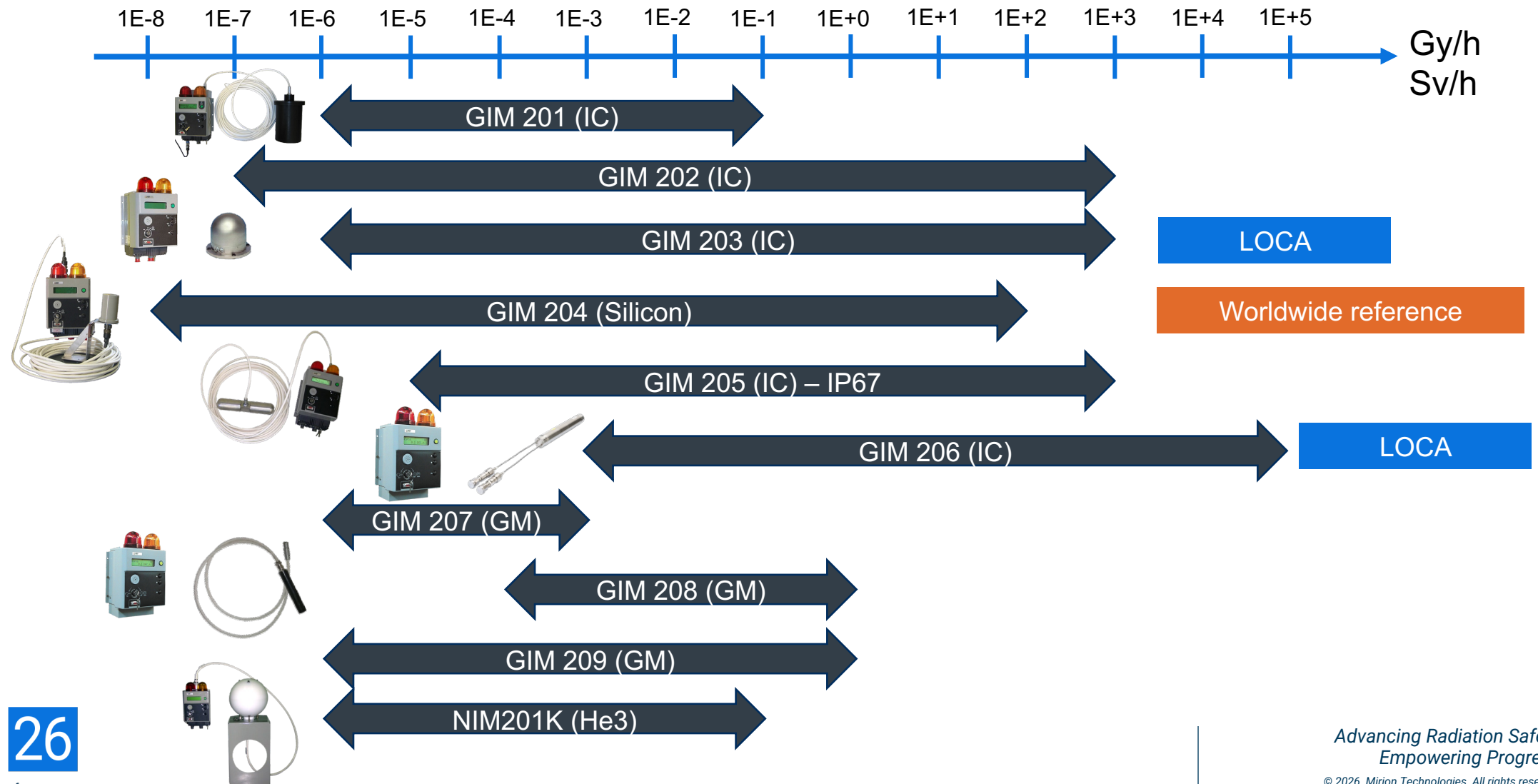
General Architecture



Area Monitoring



Gamma and Neutron irradiation monitors



Effluents Monitoring



Alpha and Beta Particles Monitoring

Mobiles

PIPS detectors



ABPM 203M



ABPM 205M

Light

PIPS detectors



ABPM 205L

Installed

Seismic

PIPS detectors



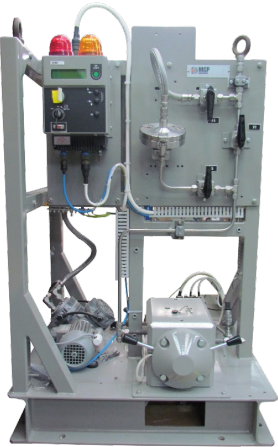
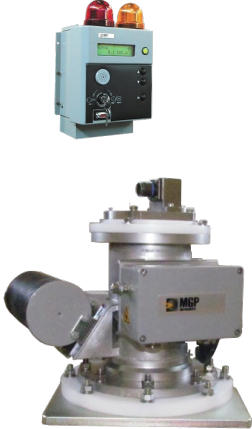
ABPM 201S

Plastic Scintillator



PM 205S

Noble Gases Monitoring

Mobile	Installed				
	Light	Seismic			
	PIPS	Ion Chambers	PIPS	Ion Chamber	Plastic Scintillators
					
NGM 209M	NGM 202L	NGM 204S	NGM 203S	NGM 216S	In duct (In line) BIM 201K
Wide range	Low range	Wide range	High range Accident conditions	Low range	

Iodine monitoring

Mobiles

Compact

$4\pi / 2\text{ cm}$



IM 203M

Regular

$4\pi / 5\text{ cm}$



IM 201M

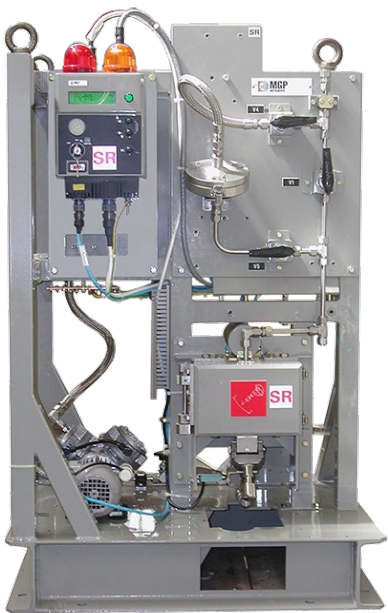
Installed

Light



IM 201L

Seismic



IM 201S

Stack Monitoring (examples)

Particles, Iodine and Nobles Gases Completely configurable

*Plastic Scintillators for
Particles and Noble Gases*

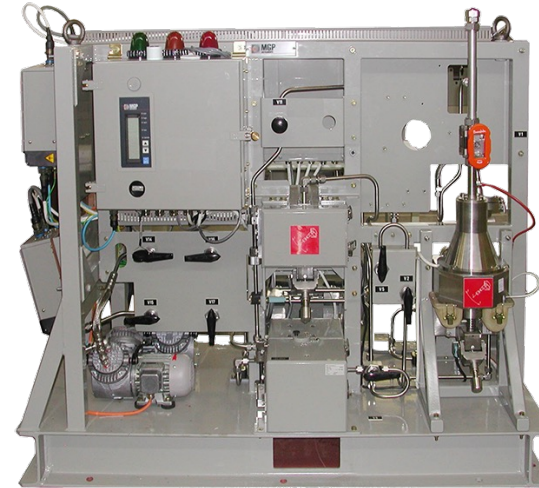


PINGM 207S



*HTionix 22
Tritium and Carbon
14 sampler option*

*PIPS detectors for Particles
and Noble Gases*



PING206S

Liquids or Gases (Gamma Monitoring)

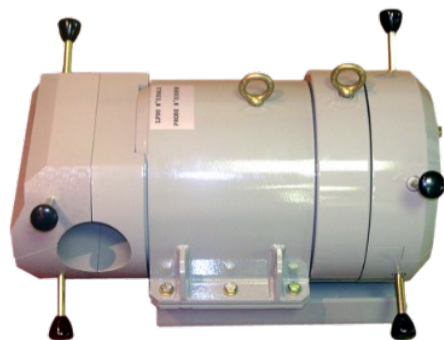
Off Line



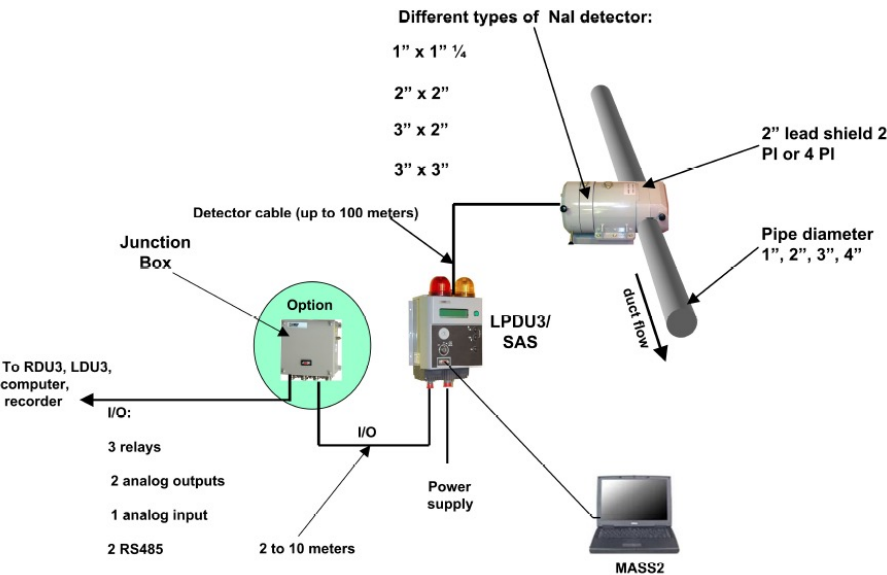
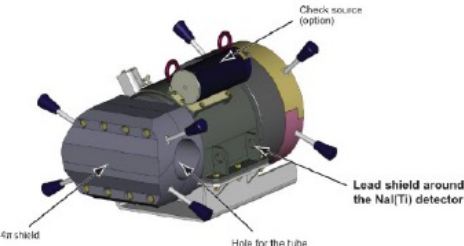
LM 211S and LM 212S

On Line

Available for various pipe sizes



SAM 201K and SAM 202K



Barriers and process Monitoring



Barriers and Process Monitoring

Steam Generator Leak Rate Monitoring

Nai Scintillator with Am241 stabilization source



SGLM 201K/202K

Boron Meters

B10-Lined proportional Counter



BM 501

Samplers

Particles and Iodine samplers Samplers

Tritium and Carbon 14

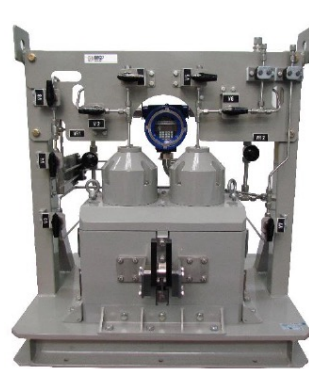
Normal operation

Accident Conditions

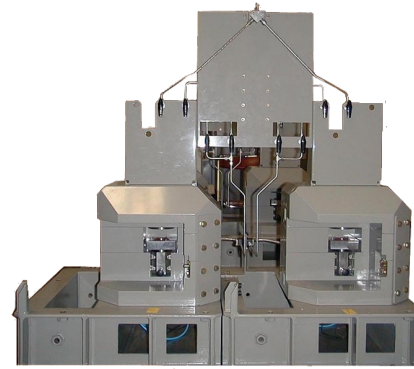


PIS 204L

PIS 205L



PIS 208S



PIS 203S



HT ionix

Tritium Monitoring



Tritium Product line (Effluent Monitoring, process, radioprotection)

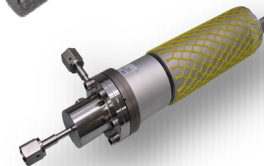
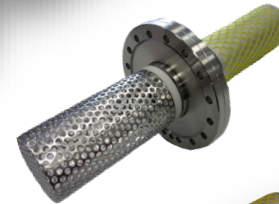
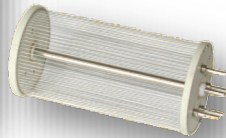
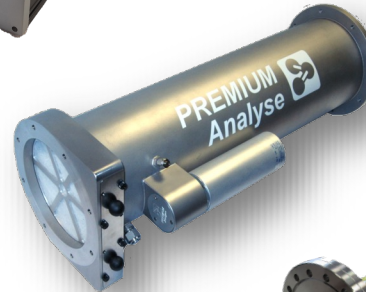
Mobiles



Portables



Installed systems



Environnemental & Custom



Samplers



Ionization chambers

What's new ?

New RMS trends



New Solutions – Driven by Market Demands and Interest



BM501, 502, 503

Continuous Online boron concentration measurement.
Versus chemical analysis



NGM ID

Continuous Online noble gas identification and quantification of release.
Versus sampling and gamma spectroscopy analysis.



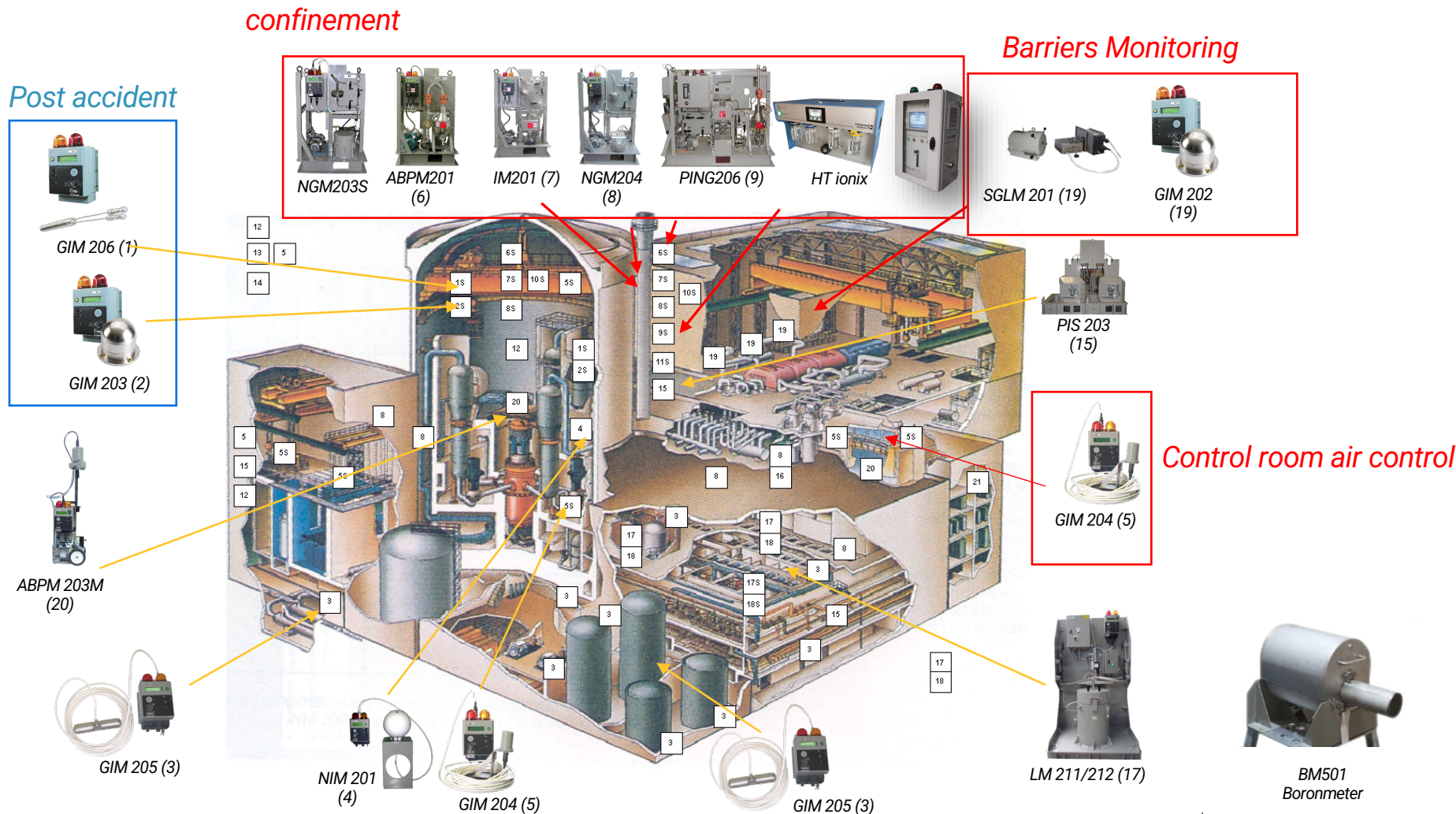
Cionix HTO

Continuous online Tritium Oxide measurement with dynamic compensation of fission product noble gases and gamma background.
Versus sampling and Liquid scintillation.

Example for PWR



Mirion RMS In PWRs

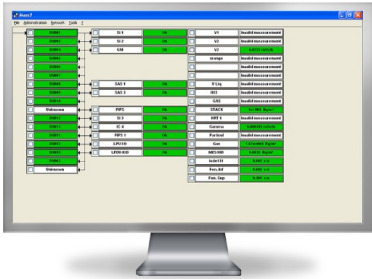


Software solutions



Softwares

MASS2



SET UP and Maintenance

Maintenance and set-up software, including the SAMS spectrum acquisition and manipulation software and RMSCalib application

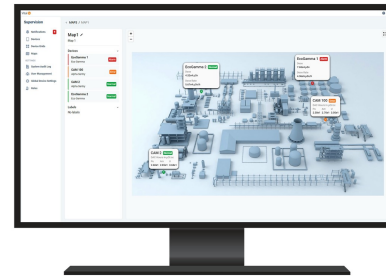
RAMVISION



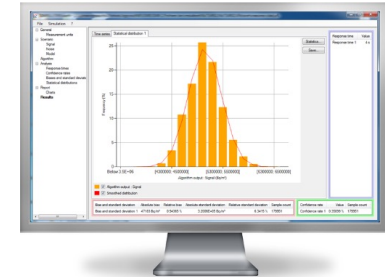
Supervision

- RAMSYS- and all Mirion instruments data acquisition system
- SCADA supervision software

Vital®



SIMS2



Digital Twin / Simulation

- Simulation software

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2026 Customer Satisfaction Survey



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Appendixes



THANKS



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TECHNOLOGIES