

OVERVIEW

# Nuclear Energy

Eclipse Automation provides innovative automation solutions for advancing nuclear energy projects safely, efficiently, and with complete lifecycle support.

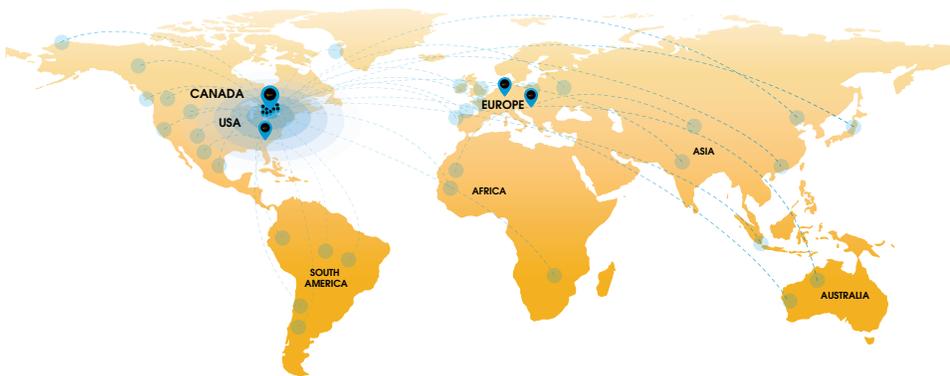


# Delivering precision and performance in nuclear automation

Eclipse Automation brings expertise across the full nuclear lifecycle including new builds, refurbishments, fuel management, decommissioning, volume reduction, and waste management. Our team applies best-in-class, state-of-the-art technology, and robust project management to solve even the most complex nuclear project challenges. We understand the unique challenges of nuclear operations and specialize in solutions that enhance efficiency, safety, and scalability.

With decades of experience delivering end-to-end solutions, we offer full vertical integration, managing the critical path of your project from start to finish. Our in-house capabilities allow us to carefully manage and oversee every stage of the project, from concept, design, and engineering to build, manufacturing, commissioning, and ongoing support.

We maintain highly trackable systems with the ability to trace any product back to its source. In the North American nuclear and energy generation industry, we have a solid reputation having worked on several iconic nuclear and energy projects, as well as smaller mandates.



**12+**

GLOBAL FACILITIES

**1M+**

SQ. FT. OF PRODUCTION CAPACITY

**2001**

YEAR FOUNDED

**25+**

YEARS OF EXPERTISE

**750+**

HIGHLY TRAINED EXPERTS

At Eclipse Automation, we apply local knowledge while leveraging our global expertise to solve any automation challenge.

## Automation capabilities for complex environments

Eclipse Automation's solutions are tailored to the needs of each project, giving our clients the level of efficiency, reliability, quality, and support needed to maximize the value of their long-term investment and business strategies.



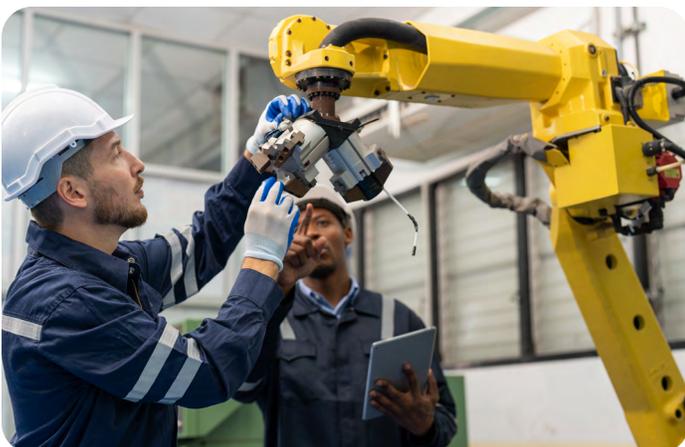
### Advanced Engineering Services

Eclipse Automation supports early-stage automation planning by assessing processes, validating concepts, and aligning teams around a clear path forward.



### Custom or build-to-print automation and tooling solutions

Providing custom built automation strengthens your design process with build-to-print manufacturing services, supported by expertise across the entire nuclear lifecycle. We address the unique challenges of nuclear operations with solutions that improve efficiency, safety, and scalability.

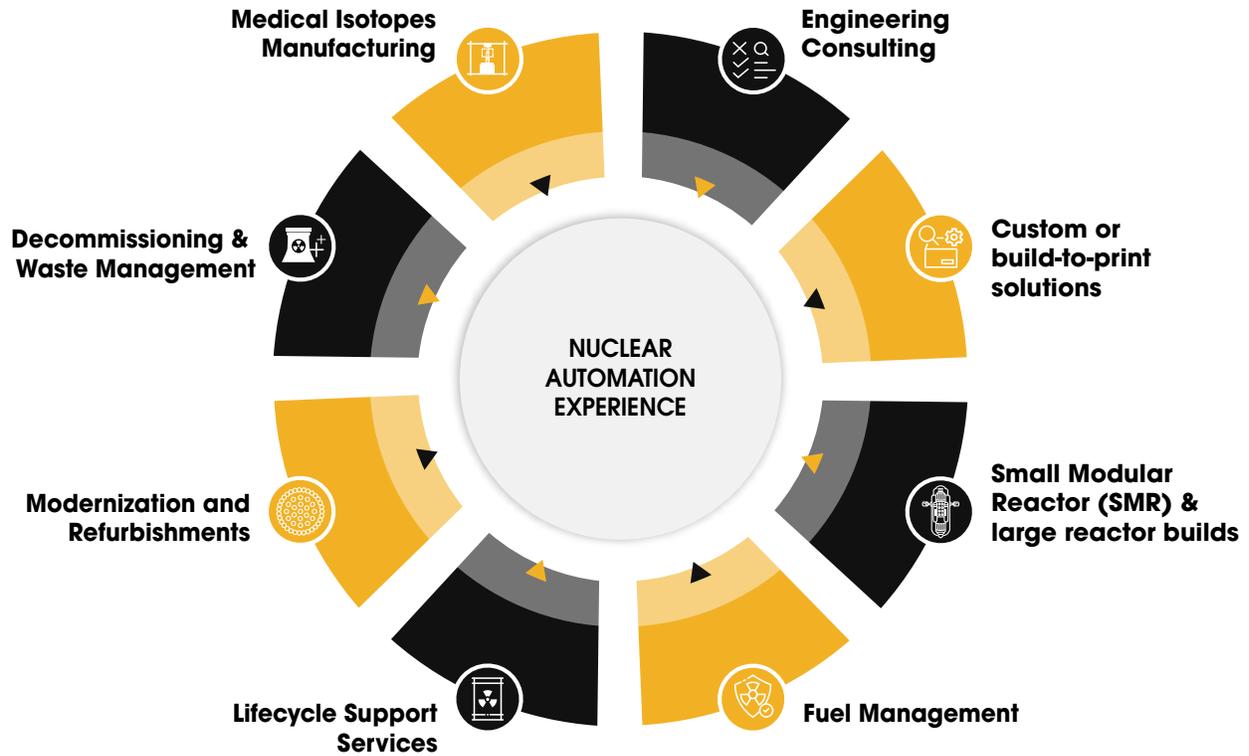


### Post-delivery services

Offering a full complement of end-to-end services including training, operational resource support, obsolescence and spare parts management, preventative maintenance.

## Supporting every stage of nuclear automation

Eclipse Automation has a talented nuclear team with experience in all facets of the industry to deliver successful mandates. Our expertise spans nine specialized streams that help clients design, build, and maintain safe, efficient, and sustainable nuclear operations.



### Engineering consulting

Eclipse provides advanced engineering services (AES) that support every stage of a nuclear project, from concept to commissioning. Our consulting team delivers feasibility studies, process simulations, design optimization, and proof-of-principle development.

### Custom or build-to-print solutions

Eclipse Automation delivers custom automation solutions or supports your design by providing comprehensive build-to-print and manufacturing value-added services, backed by expertise across the entire nuclear lifecycle. We understand the unique challenges of nuclear operations and excel at delivering solutions that improve efficiency, safety, and scalability.



### **Small Modular Reactor (SMR) & large reactor builds**

Expertise in automation solutions for both small modular reactors and large-scale new reactor builds, supporting the global shift toward clean energy. By creating virtual replicas, Eclipse enables teams to simulate performance, validate designs, and optimize workflows before deployment, reducing risk and accelerating adoption.

### **Fuel management**

Automation enhances safety, precision, and throughput in nuclear fuel production. Eclipse designed systems for pellet fabrication, fuel-rod assembly, inspection, and packaging to ensure consistent quality and full regulatory compliance throughout the fuel cycle.

### **Lifecycle support services**

Eclipse's Lifecycle Services deliver end-to-end support to keep nuclear operations running safely and efficiently. Our programs include predictive maintenance, virtual and in-class training, equipment performance optimization, and rapid parts replacement through a certified global network.

### **Modernization and refurbishments**

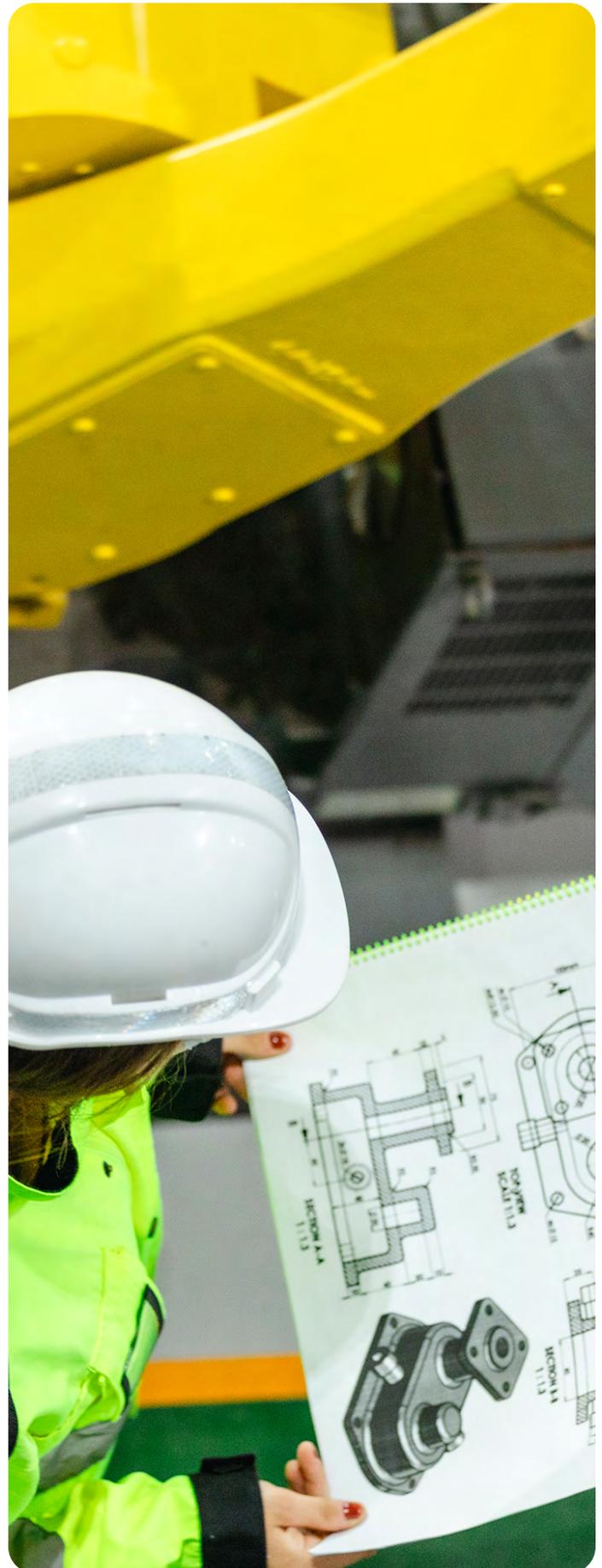
Extending the life of existing nuclear infrastructure requires precision and planning. Eclipse develops and delivers advanced tooling, inspection, and maintenance systems that meet strict safety standards to help operators modernize facilities and maintain reliable performance.

### **Decommissioning & waste management**

Eclipse designs and builds specialized waste-handling systems that enable remote extraction, sorting, and packaging of low, intermediate, and high-level radioactive materials. Our experience in robotic handling and containment ensures accuracy, traceability, and operator safety.

### **Medical isotopes manufacturing**

Eclipse integrates robotics, AI-driven quality control, and smart material handling to manage radioactive processes with accuracy and compliance. From automated dispensing and packaging to remote handling, we help innovators protect workers and accelerate access to life-saving isotopes.



## Built on safety, quality, and compliance

We are committed to quality, and maintaining consistency is paramount. We design our solutions with quality and compliance in mind, meeting all safety, quality assurance, and industry compliance standards, including those listed below.

### Canadian nuclear standards:

- CSA N299.1-4
- CSA N286.7

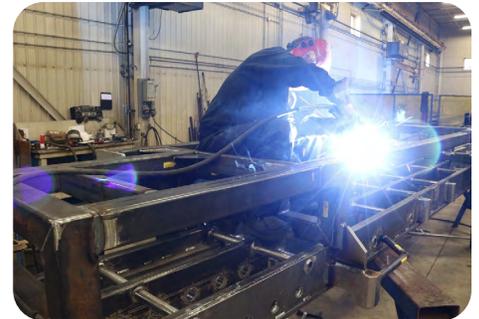
### General standards and QA:

- ASME NQA-1
- CSA B51 Certificate of Authorization (TSSA)
- ASME B31.1 – Power Piping
- ASME B31.3 – Process Piping
- ISO 9001:2015 (SGS)



## Committed to your long-term success

Whether it's 24/7 support, ongoing maintenance and servicing, or additional training, Eclipse Automation helps your business and projects achieve the outcomes you desire according to your schedule and budget.



# The Eclipse Advantage

Founded in Cambridge in 2001, Eclipse Automation delivers manufacturing automation solutions for clients across the nuclear energy, life sciences, transportation, consumer, industrial, food & beverage, semiconductors, and aerospace & defense sectors.

Our cross-industry experience allows us to adapt proven technologies and best practices from one sector to another, enhancing precision, performance, and reliability for every customer.

With operations across Canada, the U.S., and Europe, we continue to grow our reach and capabilities to meet the evolving needs of the global energy sector.

## Ready to get started?

Contact us today to see what's possible:  
[contact@eclipseautomation.com](mailto:contact@eclipseautomation.com)

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