Nuclear Gateway Challenge
Turning industrial priorities into opportunities for external innovation
Participant Guidance

1. About the Nuclear Gateway Challenge programme

The Nuclear Gateway Challenge is an innovative programme designed to turn broad industrial and operational themes into opportunities for scalable solutions.

The programme is led by iSH and delivered with support from Sellafield Centre of Excellence. The programme provides external innovators with an opportunity to identify specific problems and opportunities within selected themes and to propose, develop and demonstrate solutions in response.

The Nuclear Gateway Challenge is intended to support innovative solutions that can create operational value for Sellafield while also having potential for wider commercial application. This may include solutions that can be used elsewhere across NDA estate, within the wider nuclear sector or in other industrial markets.

The programme follows a staged process where funding is released progressively as applicants develop stronger technical, commercial and delivery evidence.

2. Who can participate

The open call may be suitable for:

- small and medium-sized enterprises;
- micro-organisations and start-ups;
- universities and research organisations;
- individual innovators or prospective founders;
- collaborative teams or partnerships with the capability to develop the proposed solution.

Applicants do not need to present a fully developed or market-ready solution at the Expression of Interest stage. However, they must be able to explain the specific problem or opportunity they have identified within the selected theme, their proposed approach, and how it could be developed further.

Applications are particularly encouraged where the proposed solution could create wider economic value through scalable products or services, new business activity, employment, skills development or opportunities for the West Cumbrian supply chain.

3. The programme process

The Nuclear Gateway Challenge consists of following stages as outlined below.

Expression of Interest

Applicants are invited to submit an initial solution proposal in response to the published theme.

The Expression of Interest should provide information about:

- the specific problem, unmet need or opportunity identified within the theme;
- the proposed solution;
- how the solution addresses the identified problem or opportunity;
- the applicant's relevant experience;
- the current stage of development;
- the potential for the solution to be replicated or scaled;
- the proposed approach to further development; and
- any support, facilities or partnerships that may be required.

There is no funding available at this stage.

Selection Round One: Shortlist of Solutions

Eligible Expressions of Interest will be assessed through an evaluation process where the following will be considered:

- alignment with the published theme;
- the significance of the identified problem or opportunity;
- potential value for Sellafield and intended users;
- innovation and comparative advantage;
- initial technical feasibility;
- scalability and wider market potential; and
- the capability of the applicant or team.
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The most suitable solutions will be selected. The Nuclear Gateway Challenge team reserves the right to select no solutions where submissions do not meet the required standard.

There is no funding available at this stage.

Selection Round Two: Fund Concept Development

Shortlisted applicants will be invited to develop their initial proposal into a more detailed concept pack and initial business case. Each shortlisted solution is expected to receive up to £10,000 of concept-development funding.

The concept-development stage should address the following:

- the proposed technical approach;
- expected performance and benefits;
- relevant operational, environmental, safety and regulatory considerations;
- development activities and timescales;
- delivery partners, facilities and resources;
- principal assumptions and risks;
- estimated costs;
- commercial opportunity and route to market; and
- a proposed route towards proof of concept.

Applicants remain responsible for developing and submitting their own concept packs.

Selection Round Three: Proof of Concept

Developed concepts will be assessed to identify the solutions with the strongest technical and commercial potential.

Two best solutions will be selected, with each successful applicant receiving up to £30,000 of proof-of-concept funding.

Proof-of-concept activity may include technical development, prototyping, testing, validation, demonstration, user feedback or controlled trials. The exact activity will depend on the nature of the published theme, the specific problem or opportunity and the agreed proof-of-concept plan.

Applicants will be expected to provide evidence of progress against agreed technical, operational, commercial, cost and delivery measures.

Selection Round Four: Scale-Up Award

Following completion of the proof-of-concept stage, one solution is expected to be selected for a Scale-Up Award of up to £120,000 together with workspace at the Enterprise Campus to support further business development.

The Scale-Up Award is intended to help move the strongest solution towards market readiness, deployment readiness and wider commercialisation.

Activity may include:

- further technical refinement;
- manufacturing or supply-chain development;
- compliance and deployment planning;
- customer and market validation;
- development of the business model and financial case;
- preparation for investment;
- intellectual property and commercialisation planning; and
- development of the team and organisational capability required for growth.

The final decision will be based on the technical, commercial, operational and business evidence generated throughout the programme.

4. How applications will be assessed

Applications will be assessed against the published theme, the specific problem or opportunity identified by the applicant, and the criteria relevant to the applicable programme stage.

Assessors may include representatives from NDA Estate, iSH, the Nuclear Gateway Challenge team and relevant technical, commercial or innovation specialists. Assessment decisions will be based on the information provided by applicants and any permitted clarification, interview or presentation activity.

All applications are expected to:

- answer each question clearly;
- provide evidence where available;
- distinguish established facts from assumptions;
- explain any technical terminology;
- identify significant risks and dependencies.

The Nuclear Gateway Challenge may contact applicants where additional clarification is required.

All progression and funding decisions are subject to available budget and completion of the relevant participation agreements.

5. Funding and use of funds

Funding must be used only for activities agreed as part of the relevant concept-development, proof-of-concept or scale-up plan.

Applicants may be asked to provide:

- a breakdown of proposed expenditure;
- evidence that costs are reasonable and proportionate;
- financial and organisational information;
- milestone reports;
- invoices or evidence of expenditure; and
- evidence of the outputs achieved.

The final funding terms, payment profile and eligible expenditure will be confirmed in the relevant funding agreement.

Costs incurred before an agreement is in place may not be eligible for reimbursement.

The Nuclear Gateway Challenge reserves the right to reduce, withhold or recover funding where agreed conditions are not met, expenditure is not adequately evidenced, or the funded activities is not delivered as agreed.

6. Intellectual property, confidentiality and security

Applicants should identify any existing intellectual property that is relevant to their proposed solution and explain whether they own it or have the necessary rights to use it. Detailed intellectual property, confidentiality, data protection and commercial arrangements will be confirmed through the applicable programme and funding agreements.

Applicants must not include classified, security-sensitive, export-controlled or third-party confidential information in an application unless specifically instructed and an appropriate process has been agreed.

Information provided by Challenge Owners must be used only for the purposes of participating in the Nuclear Gateway Challenge and handled in accordance with any applicable confidentiality or security requirements.

7. How to apply

Applicants must complete and submit the Nuclear Gateway Challenge Expression of Interest form by the deadline stated in the published theme or open-call guidance.

The application must be submitted in the required format and through the stated submission route.

Applicants will be notified of the outcome following completion of the assessment and moderation process. Where appropriate, unsuccessful applicants may receive high-level feedback.

The Nuclear Gateway Challenge reserves the right to:

- request clarification;
- amend the timetable;
- withdraw or reissue a theme or open call;
- select fewer applicants than originally anticipated;
- not make an award where the required standard is not met; or
- stop progression where there is insufficient evidence or operational justification to continue.