RAND EUROPE

Process Evaluation for the National Space Innovation Programme

Interim report

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Summary

The UK Space Agency's **National Space Innovation Programme** (NSIP) provides co-funding to support the development of innovations with a high potential to catalyse investment into the UK space sector. This interim report presents findings from the **process evaluation of NSIP**, commissioned by the UK Space Agency and conducted by RAND Europe's Space Hub (RESH) team. The wider evaluation is led by **know.space**, covering impact and economic elements. This report provides insights into the programme's design and delivery, focusing on how these elements contribute to achieving expected outcomes. The report is based on document reviews, interviews with NSIP support staff and assessment panellists, and surveys of NSIP applicants and project leads.

Our headline finding is that NSIP is a well-run and continuously improving programme, viewed positively by those who have received support via its multiple funding mechanisms.

NSIP has expanded its scope and impact since its Pilot phase, supporting a diverse range of project themes and achieving a balanced distribution across National Space Strategy (NSS) technology topics. Recent calls have enhanced geographical and organisational diversity, with smaller and medium-sized organisations finding success. Previous evidence from the NSIP Call 1 survey suggests that applicants are generally happy with the application process and guidance available. Demand for the programme is healthy, with 500 submitted proposals resulting in 94 awards (18.8% success rate) across eight open calls, indicating a highly competitive programme compared to UK Research and Innovation (UKRI) success rates (~25%).

Feedback suggests a few key challenges in participating in NSIP such as the need for better application feedback, supporting applicants to develop more comprehensive business cases, clearer guidance on financial reporting, longer proposal development timelines and mitigation of delays in project progression. Despite these issues, most applicants express a willingness to reapply and feedback is largely positive, suggesting that these barriers have not significantly discouraged applicants or project leads.

These interim findings will be supplemented in a series of future reports, aided by further interviews with relevant programme teams. A final process report for NSIP Kick Starter will be provided in late 2025, followed by a final process report for NSIP Major Projects in early 2027. For these reports findings will be supplemented by perspectives from grant recipients following the conclusion of their grants. This will provide a more comprehensive analysis of the project life cycle and will inform future calls.

For more information on this study, contact the project lead, Billy Bryan (bbryan@randeurope.org).

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Abbreviations

AoO	Announcement of Opportunity
DSIT	Department for Science, Innovation and Technology
EDI	Equity, Diversity, and Inclusion
EOI	Expression of Interest
ESA	European Space Agency
ETP	Enabling Technologies Programme
FAQs	Frequently Asked Questions
GFA	Grant Funding Agreement
IP	Intellectual Property
IOSM	In-Orbit Servicing and Manufacturing
KS	Kick Starter
KPI	Key Performance Indicator
M&E	Monitoring and Evaluation
MP	Major Project
MRC	Medical Research Council
NASA	U.S. National Aeronautics and Space Administration
NERC	Natural Environment Research Council
NSIP	National Space Innovation Programme
NSS	National Space Strategy
NSTP	National Space Technology Programme
R&D	Research and Development
R&I	Research & Innovation
RTE	Real-Time Evaluation
TAC	The Aerospace Corporation
ToC	Theory of Change
TRL	Technology Readiness Level
UKRI	UK Research and Innovation

1. Introduction

This chapter provides a brief introduction to the National Space Innovation Programme (NSIP), the key objectives of this process evaluation and its methodological approach.

1.1. Purpose of this process evaluation

In 2020, the UK Space Agency piloted a new NSIP to fund high-value space technologies in the UK. More than 40 projects were awarded funding over the following two years, providing support to innovation and commercialisation in the sector through enhanced engagements between academia, industry and the government. Learnings from the pilot years contributed to the development and launch of the programme, with calls for funding applications in two streams – Kick Starter (KS) and Major Project (MP) – being announced in 2023.

The UK Space Agency has commissioned know.space and RAND Europe to undertake a multi-year evaluation of NSIP. The project's overarching goal is to deliver an impact, process and economic evaluation of NSIP. This interim report provides insights from the ongoing process evaluation.

The process evaluation, led by RAND Europe, aims to assess how NSIP's underlying programme design and delivery contributes to the realisation of expected outcomes and impact. In particular, the process evaluation will analyse the extent to which the programme's design and delivery supports the progression of innovation and incentivises further R&D activity in the space sector. It will also investigate NSIP's evolution, understanding whether the programme has incorporated learnings from previous funding rounds and the ways in which these can be adapted for future calls.

Data collection activities for this study include secondary document reviews, surveys, and interviews with stakeholders conducted in October and November 2024. The interview guides used for this evaluation can be found in Annex A. Further interviews and data collection activities will continue until 2027 in order to monitor the progression of funded projects and to evaluate future calls. **This report shares findings from all these avenues: surveys, and interviews with NSIP support staff, assessment panellists and NSIP grant recipients. Future reports will focus on specific calls, namely NSIP Kick Starter Call 1 and NSIP Major Projects Call 1.**

1.2. Report structure

Subsequent chapters of this report contextualise NSIP's policy background and leverage perspectives provided by NSIP management, application reviewers and applicants (successful, unsuccessful and prospective) to evaluate the effectiveness of NSIP's design and delivery:

- **Chapter 2** describes NSIP's history, development, programme structure and project portfolio. The discussion is supplemented by NSIP's evolution across funding calls and a description of the projects funded so far.
- **Chapter 3** covers the launch activities and application processes for NSIP and ETP (Enabling Technologies Programme) calls, including the structure of application procedures and feedback mechanisms.
- **Chapter 4** describes contract negotiations, payment schedules and project progression within NSIP calls, covering monitoring and evaluation practices and adaptations between calls to improve processes and address emerging challenges.
- **Chapter 5** summarises the key findings at this interim stage, offers recommendations for improvement and charts the next steps for the study.
- **Annex A** contains the interview guide used for the process evaluation.

1.3. Evaluation approach

This study's approach is designed so that the evaluation is undertaken alongside the ongoing delivery of NSIP, while enabling analyses of insights from past funding calls. The corresponding evaluation questions (EQs) are listed in Table 1. To meet these specific needs, a modified real-time evaluation (RTE) approach has been adopted to collect real-time process data on the performance of NSIP and rapidly feed recommendations for improvement back to the UK Space Agency programme managers. They, in turn, can then make improvements either as processes are running or in time for the next call.

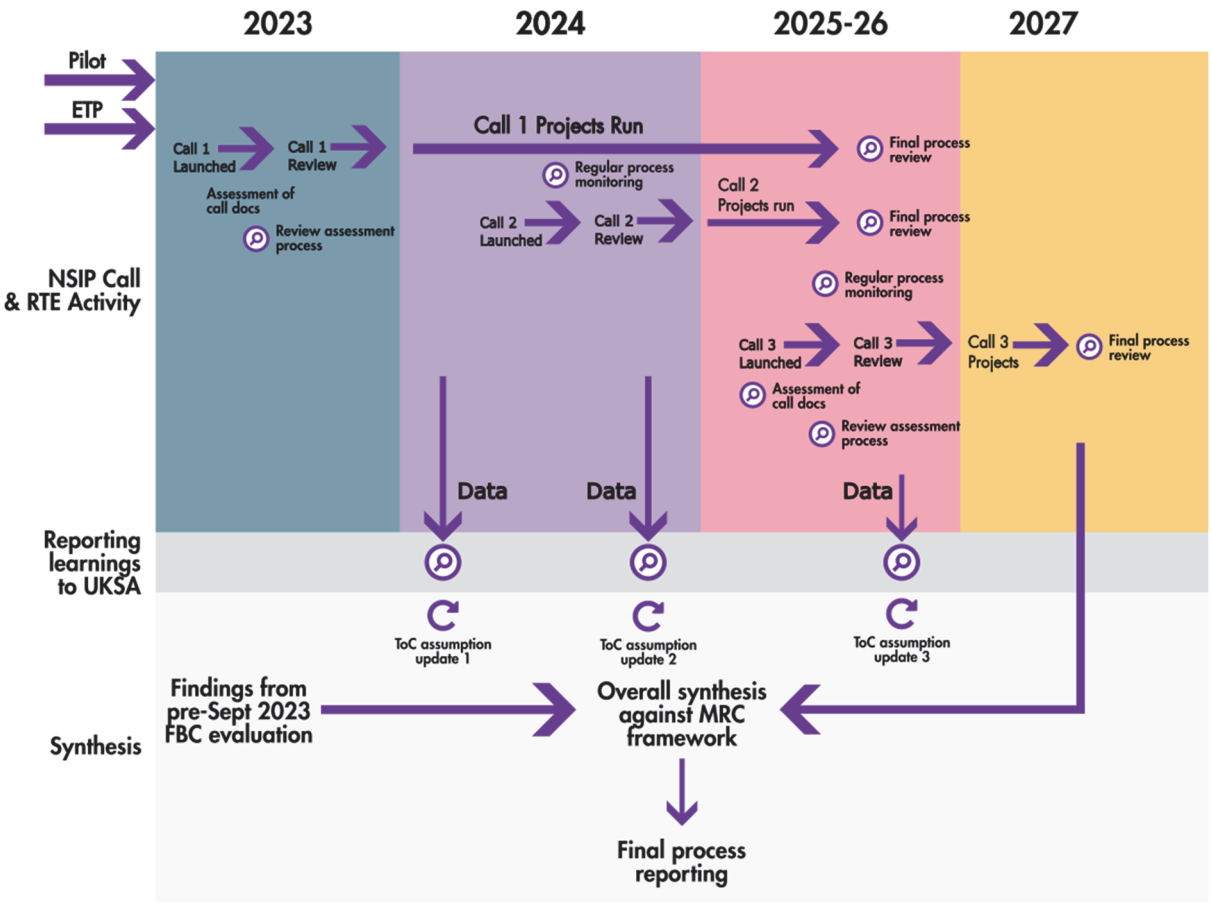
Table 1: Process evaluation questions

Process evaluation questions (EQs)
1. To what extent has the delivery of NSIP been effective?
2. Does the current NSIP represent the most effective approach to achieving the programme and wider NSS aims?
3. To what extent has NSIP portfolio design incentivised R&D activity?
4. What lessons can be learned from the scheme's design and implementation to support future policy design?
5. To what extent has the assessment and selection process been effective and efficient?
6. What activities were undertaken to increase engagement/advertisement?

With the help of RTE, this evaluation can generate three types of learning: single-loop (identifying discrepancies between planned delivery and reality); double-loop (revisiting assumptions underpinning NSIP activities); and triple-loop (reviewing how evidence is used by the UK Space Agency to support decision making in the moment). As a result, the evaluation will draw on monitoring data from previously funded calls as well as data collected in real time, a baseline plan for which was devised and is shown in Figure 1. Given the uncertainty caused by a change in government and a comprehensive spending review, some key alterations to this plan have been implemented by the UK Space Agency, as listed below the figure and noting that these new timings are subject to further change.

It is important to note that, as a byproduct of this approach, evaluation activities will be affected by changes to NSIP's timelines and the figure below serves as a framework rather than providing exact timelines.

Figure 1: Baseline call structure and process evaluation flow



Source: Baselining and Evaluation Framework Report.[1] Note: NSIP call timings now differ.

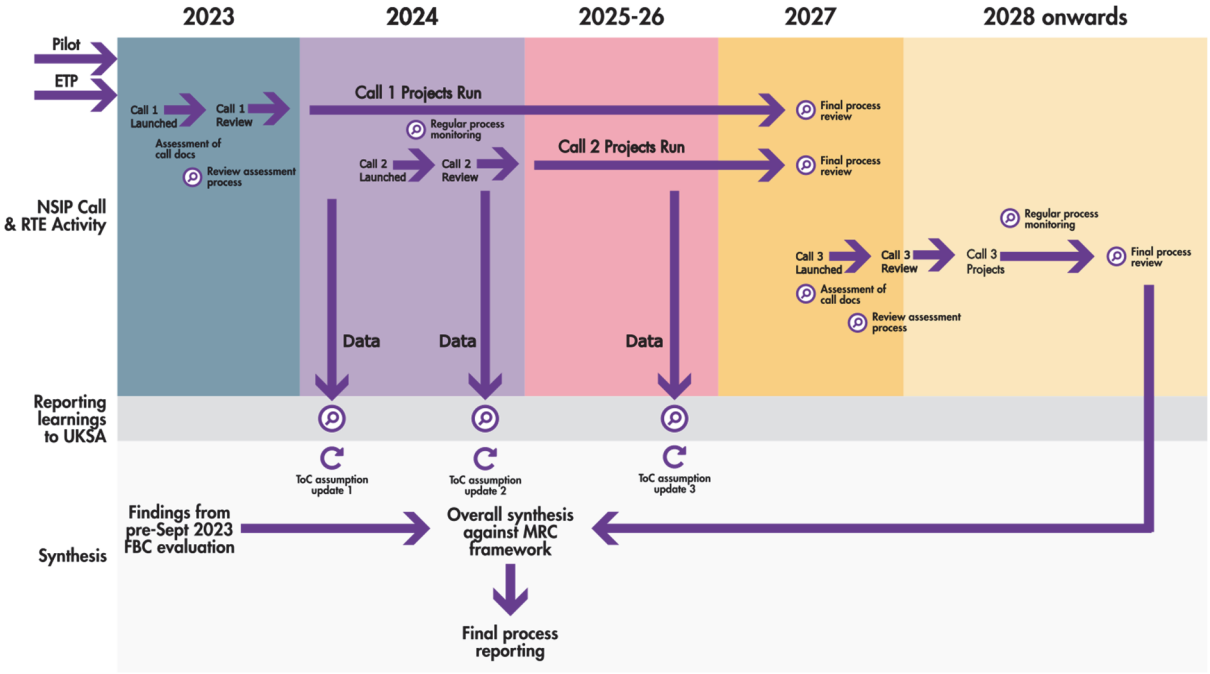
As noted above some changes to this plan have been made since baselining in response to uncertainty caused by the government spending review:

- Call 1 projects can now run until the end of the 2026/27 financial year
- Call 2 projects can now run until the end of the 2026/27 financial year
- Call 3 will now likely not occur until 2027 at the earliest and would be funded under a separate business case.

An updated version of this call structure and process evaluation flow is presented below in Figure 2.

[1] know.space and RAND Europe (2024).

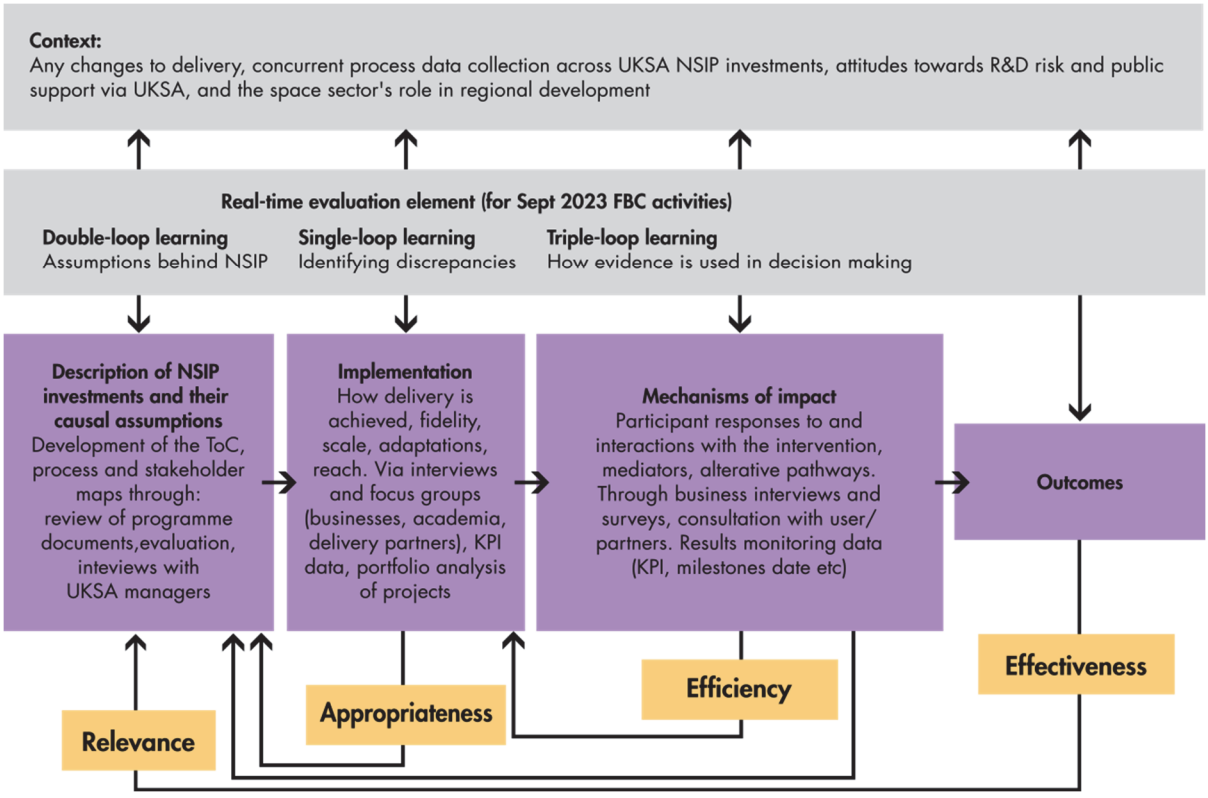
Figure 2: Updated call structure and process evaluation flow



Source: internal UK Space Agency discussions. Note: NSIP call timings are not final and are subject to further change.

The evaluation is grounded in an **overall process framework**. Designed following the Medical Research Council (MRC) guidance on process evaluations, the framework complements the RTE approach in investigating how strengths and weaknesses in design, implementation and contextual factors affect delivery. Figure 3 demonstrates the various considerations encompassing this framework.

Figure 3: Overall process framework



Source: Baselining and Evaluation Framework Report.[1]

The study's data-collection activities and evaluation methods are underpinned by the following methodological considerations:

- By focusing on internal processes, the study aims to identify any improvements to portfolio and project management and uncover ways of effectively realising benefits. Secondary document reviews, surveys and interviews with crucial stakeholders have been conducted to this end. Application forms, assessment scores, monitoring and evaluation (M&E) reports, milestone reports and other forms of project documentation have been used to gain understanding of NSIP's procedures. These have also helped identify commonly reported difficulties, and lessons and actions from past funding calls.
- Secondary information sources have been supplemented through initial discussions with the NSIP programme management team and semi-structured interviews with assessment-panel members, awardees and unsuccessful applicants across all calls. This report includes insights from interviews with assessment-panel members and chairs, while those generated through our discussions with successful and unsuccessful applicants will be analysed in the final report.

1.3.1. Caveats and limitations

The study, and this report in particular, are affected by some limitations due to timelines, reporting gaps and the stage of the evaluation.

- **Data availability:** programme and project documentation are a vital source of secondary evidence for this project. However, significant variations exist in data availability across calls in terms of

project reports, key performance indicators (KPI), feedback forms and M&E outputs. This is especially evident between NSIP and ETP calls, where the former funding calls had substantially fewer documents available.

- **Retrospective recall:** awardees, unsuccessful applicants and assessment panellists/chairs from early NSIP and ETP calls engaged with the programme several years ago. Hence, their views and experiences may be more difficult to recall accurately and thus to report with confidence.
- **Participation across calls:** in some instances, applicants as well as assessment panellists were involved in multiple NSIP funding calls and sometimes find it challenging to distinguish between calls, especially when it comes to macro-processes, which are often broadly similar. Where this is the case, it will be reported as such.
- **Participant population for surveys and interviews:** as part of this evaluation we conducted 63 interviews with applicants, both successful and unsuccessful, to all NSIP and ETP calls and conducted a survey which 27 applicants responded to.

Table 2: Breakdown of interviewees and survey respondents by call and success

Call name	Interviews		Survey respondents
	Successful	Unsuccessful	
ETP Call 1	6	3	-
ETP Call 2	14	4	-
ETP Call 3	6	5	-
ETP Call 4	7	5	-
ETP Total	33	17	16
NSIP Pilot National Call	6	0	-
NSIP Pilot International Call	2	1	-
NSIP MP Call 1	1	5	6
NSIP KS Call 1	8	17	5

Source: RAND Europe interview log and survey results. Note: totals may sum to more than the number of interviews (n=63) as some interviewees applied to more than one call or for more than one project.

This concludes the introductory chapter. The next chapter provides a short background to NSIP's history and details the different programme-management structures implemented within and across calls. This is followed by an initial analysis of NSIP's portfolio and its alignment with national strategies, policy priorities and R&D activities in the space sector.

2. Programme and Portfolio Overview

This chapter explores the development and structure of NSIP. Data extracted from programme documentation provides insights into the strategic objectives and organisational framework underpinning the programme. The chapter also examines the programme's structure and processes, detailing the assessment stage to highlight relevant barriers and enablers. Finally, the chapter offers a summary of the NSIP portfolio, mapping the diversity of applications and funded projects across various dimensions.

Box 1: Interim findings regarding programme and portfolio development

- **Broadened programme scope:** The NSIP has expanded from its pilot phase to encompass a diverse range of project themes in the KS and MP calls.
- **Distribution across NSS topics:** Funded projects in KS and MP calls are evenly distributed across various National Space Strategy (NSS) technology topics.
- **Geographical funding diversity:** Recent calls have funded projects across the UK, extending beyond the Southeast, despite geographical diversity not being a primary consideration.
- **Organisational diversity:** Smaller and medium-sized organisations had higher success rates in domestic calls, while large companies dominated international projects, although organisational diversity was not a focal point.
- **Technical quality and deficiencies:** Applications were generally of high technical quality but often lacked comprehensive business cases and risk registers.

2.1. Brief history of NSIP

In May 2020 the UK Space Agency put forward a business case to establish the NSIP Pilot (Pathfinder) programme, running until 2022. The UK Space Agency initially sought to invest up to £15m plus match funding from the sector to develop innovative projects 'that are at higher risk but have the potential for higher returns'. These objectives also aligned well to the economic growth targets subsequently set out in the 2021 NSS.

The core aims of NSIP were to:

- **Stimulate UK R&D activity** in space innovation across the space sector, particularly in light of the economic impact of Covid-19.

- **Accelerate the UK's development** of potentially ground-breaking and transformative new space-based products and services.
- **Encourage knowledge spill-over** between UK industry and academia (and vice versa) through collaborative projects.
- **Strengthen the space sector's contribution to UK science, security and trade** by agreeing and carrying out bilateral cooperative projects with international partners.
- **Support UK companies' ability to export products and services** and attract inward investment from international partners.
- **Establish and deepen strategic partnerships** with priority countries.
- **Provide further evidence of innovation and bilateral opportunities** ahead of Spending Review submissions for multi-year programme(s).[2]

Following this Pilot phase, a full 2023–2027 business case was assembled for NSIP, which was reviewed by the Department for Science, Innovation and Technology (DSIT) prior to launch. This new business case built on the pilot and implementation phases and established the core aims of NSIP as:

- **Catalyse investment** by securing contract revenue and capital into the UK space sector of five to eight times the value of NSIP investment by 2030.
- **Drive innovation** through improving the technology readiness levels (TRL) of funded projects by at least two stages.
- **Capture market share** by supporting the generation of new products and services.

In addition to the NSIP Pilot, the Enabling Technologies Programme (ETP) pilot, which supported innovative, low-TRL projects, was combined into the new programme structure for NSIP.[3]

2.2. Programme structure and process overview

2.2.1. Structure

As NSIP evolved beyond the NSIP Pilot and ETP, so did its programme and call structure. Business cases were presented for both the Pilot and NSIP, seeking approval from the DSIT Investment Committee for the next funding cycle. These business cases presented the reasoning behind the need for each programme, as well as strategic, economic, commercial, financial and management considerations, to support both the establishment of the Pilot (totalling £15m, of which £10m would be for national projects) and subsequently the main NSIP (a value of up to £65m for the full programme lifecycle). Below, we present a summary of

[2] UK Space Agency and Department of Science and Technology. 2020. 'Business Case for NSIP Pilot.' Internal document.

[3] UK Space Agency and Department of Science and Technology. 2023. 'Full Business Case for NSIP.' Internal document.

NSIP's development (visualised in Figure 4 at the end of this chapter). A full overview is detailed in the inception report.[1]

ETP (2022–2025)

The ETP programme was established as a successor to the National Space Technology Programme and aimed to fund low-TRL projects and support the development of cutting-edge technologies with grants of up to £250,000. ETP has funded 41 projects across four calls, starting in 2022 and continuing up to 2025. The themes of the calls (in order) were as follows: In-Orbit Servicing and Manufacturing (IOSM) and Optics, Technology for Space Science, Technology for Sustainability in Space, and Open Space Technology.

NSIP Pilot (2020–2022)

The NSIP Pilot programme was split into a discovery phase (July 2020 to March 2021) and an implementation phase (June 2021 to March 2022). Discovery phase projects were offered between £200,000 and £2m each in grant funding to develop innovative technologies, products or services focused on either 'Earth Observation to Fight Climate Change' or 'Ubiquitous Communications For Enterprise, Consumers And Government'. A total of 22 national projects and seven international projects were funded.[4]

National Call projects that had completed the discovery phase of the NSIP Pilot were then invited to apply for the implementation phase in 2021 in a closed mini-competition. The first call, Implementation Call 1, received 18 proposals from 22 eligible National Call projects. Successful applicants were granted between £250,000 and £1m and were required to include match funding. Following assessment, 12 projects were granted funding amounting to £6.97m. A second implementation phase, Implementation Call 2, was launched in 2022, providing a further funding boost to continue projects' activities from the first implementation phase.[5] Two projects were taken forward from nine proposals.

NSIP (2023–2027)

NSIP is divided into two streams which are run in parallel: Major Projects (MPs) and Kick Starter (KS). MPs are larger, 36-month projects aimed at any space-related technology, while KSs are shorter, 18-month projects design for low-TRL (1–4) early-stage research. In the first NSIP call – launched on 23 September 2023[6] – 30% of the call budget was reserved for projects focused either on in-orbit servicing, assembly or manufacturing capability, or in-orbit deployment of large structures. Submissions covered topics including

[4] International project aimed at supporting UK organisations collaborating with international organisations. The international programme objectives included increasing the UK's export potential, supporting UK–external collaborations and promoting knowledge exchange to develop innovative products. Although this led to positive developments in innovation, survey respondents suggested that funding for international partners should be provided to ensure 'meaningful participation'. Source: know.space and RAND Europe. 2024. Unpublished research. 'National Space Innovation Programme Monitoring and Evaluation: Baselining and Evaluation Framework Report.'

[5] UK Space Agency. 2021a. 'National Space Innovation Programme.' Gov.uk, 22 July. As of 31 July 2025: https://www.gov.uk/government/publications/national-space-innovation-programme-nsip

[6] The calls were published on 23 September 2023 and ran until 17 November 2023. Calls were announced through the gov.uk website and were advertised across innovation networks such as UKTIN. The UK Space Agency and NSIP ran an event on 17 October 2023 to brief bidders on objectives, timelines, pitfalls and a Q&A on both calls for MPs and KSs.

innovative technology proof of concept which could result in a significant technological step-change; new technology developments; establishing new academic/industrial research collaborations; and feasibility studies targeting emerging disruptive technologies. In the first call a total of eight MPs (each receiving between £1m and £5m) and 15 KS projects (each receiving between £150,000 and £1m) were funded from 34 and 134 submitted proposals respectively. Four calls were envisaged for the duration of the programme, with one delivered so far pending delays in future call delivery. The differences between these calls and streams are shown in Table 3, later in this chapter.

2.2.2. Applicant perspectives on the NSIP funding mechanism

Appropriateness of funding mechanism

When asked 'to what extent is the funding mechanism appropriate compared to alternatives?', interviewees **generally expressed positive views** about the various NSIP calls and the overall structure of the programme, with seven interviewees highlighting that the amount of funding was appropriate for the scope of NSIP and adequate for progressing their own projects.[7]

The various NSIP calls, according to the respondents, fill an important gap and niche in space technology development funding, sitting at the intersection of pure and applied research and development, with at least six interviewees identifying that NSIP fills a specific niche in the current UK R&D funding landscape.[8] Several said that NSIP funding calls **bridged the gap between pure and applied science through its focus on technology**. One interviewee specifically mentioned that their university was able to develop a new technology in-house through NSIP funding.[9]

Interviewees regard the UK Space Agency's **willingness to invest in lower-TRL and higher-risk projects** as an asset, stressing that this is a relatively rare feature in the funding landscape and emphasising the additional value NSIP provides to the space sector. Five interviewees said that NSIP funding was especially valuable because it targeted projects with lower TRLs than other available funding streams.[10] One interviewee stated that NSIP funding can help carry technologies through the 'valley of death' when they have progressed past early-stage development and require prototyping, testing and practical experimentation (i.e. into and through TRLs 4, 5 and 6).[11]

Applicants named the **European Space Agency (ESA) as a potential funding alternative**, but many expressed a preference for NSIP or UK Space Agency processes and management. Several interviewees said that they had considered ESA as a potential alternative source of funding but preferred NSIP funding due to the complexity of the governance and application processes associated with ESA funding.[12] Interviewees felt that NSIP processes worked more efficiently and that the UK Space Agency showed more ambition and willingness to invest in lower-TRL projects compared to ESA. This was underlined by several interviewees

[7] Int_14, Int_26, Int_38, Int_40, Int_53, Int_55, Int_70

[8] Int_11, Int_14, Int_19, Int_21, Int_27, Int_32

[9] Int_14

[10] Int_14, Int_30, Int_32, Int_34, Int_68

[11] Int_14

[12] Int_14, Int_21, Int_22, Int_40

stating that they found the administrative burden associated with applying for NSIP funding appropriate and worthwhile, although one interviewee from an SME thought that the administrative requirements of applying for NSIP funding were more difficult to adjust to for SMEs compared to larger companies.[13]

Some recipients hoped for **more flexibility in NSIP funding mechanisms and management**. For example, one interviewee said that difficulties around a projected underspend were harder for NSIP processes to handle than a projected overspend, highlighting the need for additional flexibility in the use of awarded funds.[14]

Overall, NSIP applicants and funding recipients responded positively to questions about the appropriateness of NSIP funding given the goals of the programme and the technologies the programme seeks to invest in and develop.

Cross-sector nature of funding

When asked if the 'cross-cutting funding approach' is 'more effective at delivering NSIP aims compared to other funding programmes', interviewees highlighted that collaboration and partnership development are encouraged during NSIP calls.

Applicants felt that the cross-sectoral funding approach may help to **bridge the gap between academic and industrial actors**, creating opportunities for new and deepened relationships between academia and industry. One interviewee specifically highlighted this as a strength of NSIP, showcasing how a university-led project had included significant industrial involvement in their consortium, reflecting the capacity of NSIP funding to encourage and facilitate new engagements.[15] Another interviewee highlighted that the focus on establishing academia–industry partnerships enables innovation and facilitates manufacturing and testing of developed technology in the UK.[16]

Conversely, some applicants felt that the **focus on commercialisation and the route to market meant that calls were geared too heavily towards industry**. One interviewee hoped for a balance in focus between technology development and commercialisation, as universities and research institutions offer skills and expertise beyond those required for commercialisation.[17] This interviewee hoped that increased recognition of this perspective would enable universities to submit more competitive applications to NSIP calls and would benefit the UK Space Agency's vision of NSIP as an early-level technology and expertise development programme.

Call frequency and notice period

When asked 'to what extent is the frequency of calls appropriate for the effective implementation of the programme', interviewees **expressed some concerns** with regards to the frequency of calls and the amount of notice given prior to call launch.

[13] Int_37

[14] Int_23

[15] Int_14

[16] Int_12

[17] Int_12

Several applicants felt that **NSIP funding calls could be organised more effectively**, with four interviewees reflecting that it would have been helpful for the UK Space Agency to formulate and release a clear roadmap of when future calls would be announced, as well as upcoming thematic focus areas.[18] Some interviewees said that greater visibility of future funding calls would enable better long-term planning, facilitating effective hiring and staffing and the establishment of consortia. One interviewee contrasted the UK Space Agency's approach to NSIP with ESA's funding timelines, stating that ESA's broader timelines provided a more efficient model.[19]

Some interviewees expressed the hope that **future NSIP calls could be coordinated more consistently, providing either internal consistence or alignment with potential external funding sources**. Four interviewees hoped that future calls would be more consistently spaced,[20] with two interviewees stating that the NSIP funding cycle seemed 'stop-start' in nature.[21] One interviewee specifically highlighted that the time between calls was inconsistent and hard to plan around, especially for unsuccessful applicants looking to re-apply.[22] Two interviewees suggested that future calls be coordinated in alignment with other funding opportunities, for example with ESA funding cycles, to encourage project progression and continuation of work after the completion of an NSIP project.[23]

Generally, both successful and unsuccessful applicants felt that the funding mechanism was appropriate for the stated goals of the programme and was sufficient in enabling success over the course of the funded projects, while also stressing that the inconsistent timing and lack of visibility of future calls represented an opportunity for the NSIP programme team to provide more support to prospective applicants.

[18] Int_15, Int_25, Int_30, Int_40

[19] Int_24

[20] Int_17, Int_25, Int_30, Int_33

[21] Int_30, Int_33

[22] Int_17

[23] Int_24, Int_29

Table 3: Breakdown of ETP and NSIP stages

Stage	Phase	Description and focus	Total budget	Funding available (breakdown)	Number/type of projects funded
ETP (2022–2025)	ETP Call 1 ETP Call 2 ETP Call 3 ETP Call 4	Applications for low-TRL projects focusing on cutting-edge technology in the themes: In-Orbit Servicing and Manufacturing (IOSM) and Optics; Technology for Space Science; Technology for Sustainability in Space; Open Space Technology.	Not disclosed	Grants of up to £250k per project	42 projects across all four calls
NSIP Pilot (2020–2022)	Discovery Phase (22 July 2020 to 31 March 2021)	Applications for grant funding from organisations to develop innovative products, services or technologies in 'Earth Observation to Tackle Climate Change' or 'Ubiquitous Communications for Enterprise, Consumers and Government'.	Up to £10m	Between £200k and £2m per project	29 projects total (15 projects on 'Earth Observation to Tackle Climate Change') • National Projects: 22 projects (received £8.5m in total) • International projects: 7 projects (received £2.1m in total)
	Implementation Phase (18 June 2021 to 31 March 2022)	Applications open to organisations who led NSIP-National Discovery Phase projects to submit proposals for their projects' next phase.		Between £250k and £1m per project All projects must include match funding (£10m total available for national projects)	11 projects (received £6.9m in total) Two projects selected in a further down-select (received a further £10.6m)
NSIP (2023–2027)	MPs (36-month projects; TRL 5–9)	Call 1: Emphasis on Commercialisation and Catalysing investment.	The figures below represent the original expectation and may change: FY23/24: up to £5m FY24/25: up to £20m FY25/26: up to £25m FY26/27: up to £15m	£1–5m per project	Call 1: 8 projects (received £24m in total)
	KS Projects (18-month projects; TRL 1–4)	Call 1: Emphasis on Innovation and Disruptive Technologies.		£150k to £1m per project	Call 1: 15 projects (received £9m in total)

Source: Baselining and Evaluation Framework Report.[1]

2.2.3. Process overview

Although there are slight differences in the processes across calls, the NSIP process can broadly be split into three stages: the application stage (pre-award), award stage, and post-award stage. The key funding processes are outlined in Figure 5 and a summary is presented below – differences between the ETP, Pilot and main NSIP programmes are explored in section 4.5.4. Full details of the stages and processes can be found in the Inception Report.[1]

Application stage

Following the launch of previous calls, the UK Space Agency has encouraged applicants to submit an Expression of Interest (EOI) requiring them to detail the project title, give a short description (one paragraph) and provide a designated contact.[24] Calls were kept open for around two months. Applicants were required to submit completed templates of the application form, overheads, a financial sheet and grant applicant checklist, as well as expected investment and revenue-related outcomes for reporting on the UK Space Agency North Star Metric.[25] Under the North Star Metric reporting requirements, grant recipients are required to report on the total income of the organisation, total internal and private investments, and any additional funding sources that result from the grant. This information is collected on a quarterly basis until five years after project completion (occasionally longer for long-term impacts).

Award stage: assessment and selection

In a typical NSIP call, all submitted proposals pass through an initial sift based on the programme eligibility and scope, evaluated using the grant application checklists submitted by the applicants.

The remaining proposals are evaluated by reviewers using pre-defined assessment criteria and weightings that reflect NSIP's objectives and funding priorities, outlined below:

- For ETP Call 1, 2 and 3, three reviewers were appointed per project (with a fourth additional reviewer in case of a discrepancy), each scoring projects against five criteria: relevance; technological innovation; benefit; quality of proposal; collaboration. There were 13 total reviewers (based on assessment of reviewers' initials). Scores across the five criteria were aggregated into an overall score, averaged across reviewers, and projects were then ranked. Projects that received less than 65% of the maximum score before moderation were rejected.
- In the Pilot, applications were assessed based on the novelty and suitability of the innovation(s) proposed (35%), their relevance (25%), their potential outcomes and benefits to the UK (20%), and the capabilities of the proposed project team (20%). Each application was individually scored on these categories on a scale from zero to ten. These criteria and associated weightings remained consistent across calls within this phase.

[24] Note: this did not prevent other organisations from applying if they had not submitted an EOI.

[25] A quantitative metric which measures the level of revenue and investment in the UK Space Sector which can be attributed to UK Space Agency support.

- ETP Call 4 and NSIP MP and KS calls used the same criteria, albeit with different weightings to account for the distinct objectives of the calls. These calls used ten criteria weighted using different multipliers, outlined in Table 4. The ten criteria were: disruptive technology; technological innovation; application to space; competition and barriers; catalysing investment; business case and route to market; risk mitigation; quality of team and proposal; project management; and collaboration. Using these weighting multipliers, ETP Call 4 and KS awarded more importance to the potential disruptive outcomes of proposed projects, while MPs put more weight on applications' potential for commercialisation. These calls appointed three reviewers per project, with a fourth additional reviewer in case of discrepancy, as with ETP Calls 1 to 3.

Table 4: Weighting multipliers for ETP Call 4 and NSIP MP and KS

Call	Disruptive technology	Technological innovation	Application to space	Competition and barriers	Catalysing investment	Business case and route to market	Risk mitigation	Quality of team and proposal	Project management	Collaboration
ETP 4 / KS	4	3	3	2	2	2	1	1	1	1
MP	1	2	2	2	4	3	2	1	2	1

Source: reviewer score sheets.

Selection panels comprised UK Space Agency internal staff and independent reviewers from academia, industry, government, or research council review colleges. Proposals were scored using the associated programme's evaluation criteria in two stages. In the first stage applications were assigned to independent reviewers based on their expertise. Their scores were collated, after which proposals were discussed in a moderation session conducted over Microsoft Teams attended by a panel of reviewers and chaired by a UK Space Agency representative. The purpose of this stage was to provide a group setting for the discussion of proposals and ensure consistency in scoring. All moderated proposals were ranked by their scores before a final list was selected for funding. Applicants were then notified of the outcome.

Award stage: awarding processes

After notifications of outcomes were sent, successful applicants received additional information on the next steps. Awardees were asked to submit a completed grant application checklist for due diligence checks. These were supplemented by follow-up questionnaire responses from awardees.

On receiving notice of due diligence outcomes, awardees also received a draft grant funding agreement (GFA) alongside guidance simplifying terms of negotiation, templates for requesting changes and non-negotiable clauses. Awardees were also asked to confirm final milestone schedules for their projects. Once a consensus was reached on the terms of the agreement following any negotiations and modifications, awardees received a grant offer letter and the final GFA for signing.

Post-award stage: payment schedule, due diligence and contracts

Contract negotiations opened following the signing of the GFA. Post-award due diligence included the same criteria as previous checks (technical, financial, commercial, programmatic), although these were now considered in the context of project delivery. Feedback from the Pilot survey noted that timescales in the Pilot were too short to ensure grant condition compliance, leading to knock-on effects for the timescales of projects, such as limitations on hiring or purchasing parts or equipment. This will likely not be the case for the main NSIP, where projects will run for a minimum of 18 months.

Following grant signature, a flow-down agreement was reached between partners within 30 days to establish how project results and intellectual property (IP) would be exploited in future and to ensure monitoring processes proceeded as necessary.

For ongoing projects, national NSIP projects are funded through grants and are required to secure (external) match funding. Academic partners will be funded 80% of full economic costs. For industry partners the level of subsidy will depend on several factors including their size and the type of research they are conducting.[26] Payment of grants is typically through staged payments (paid in arrears), aligning with project milestones according to the payment plan. According to the call documentation, alternative payment plans would only be considered after discussion with the UK Space Agency.

Within six months of project start, the UK Space Agency required grant recipients to carry out a security risk assessment. This three-stage process comprised a questionnaire (on governance, security culture, security awareness, and cyber and physical security); measures to identify risks to security (deliverable within six weeks of project start); and measures to reduce and ensure preparedness for risks. Between January and February 2025 ongoing projects also underwent a spending analysis gateway review to assess their affordability.

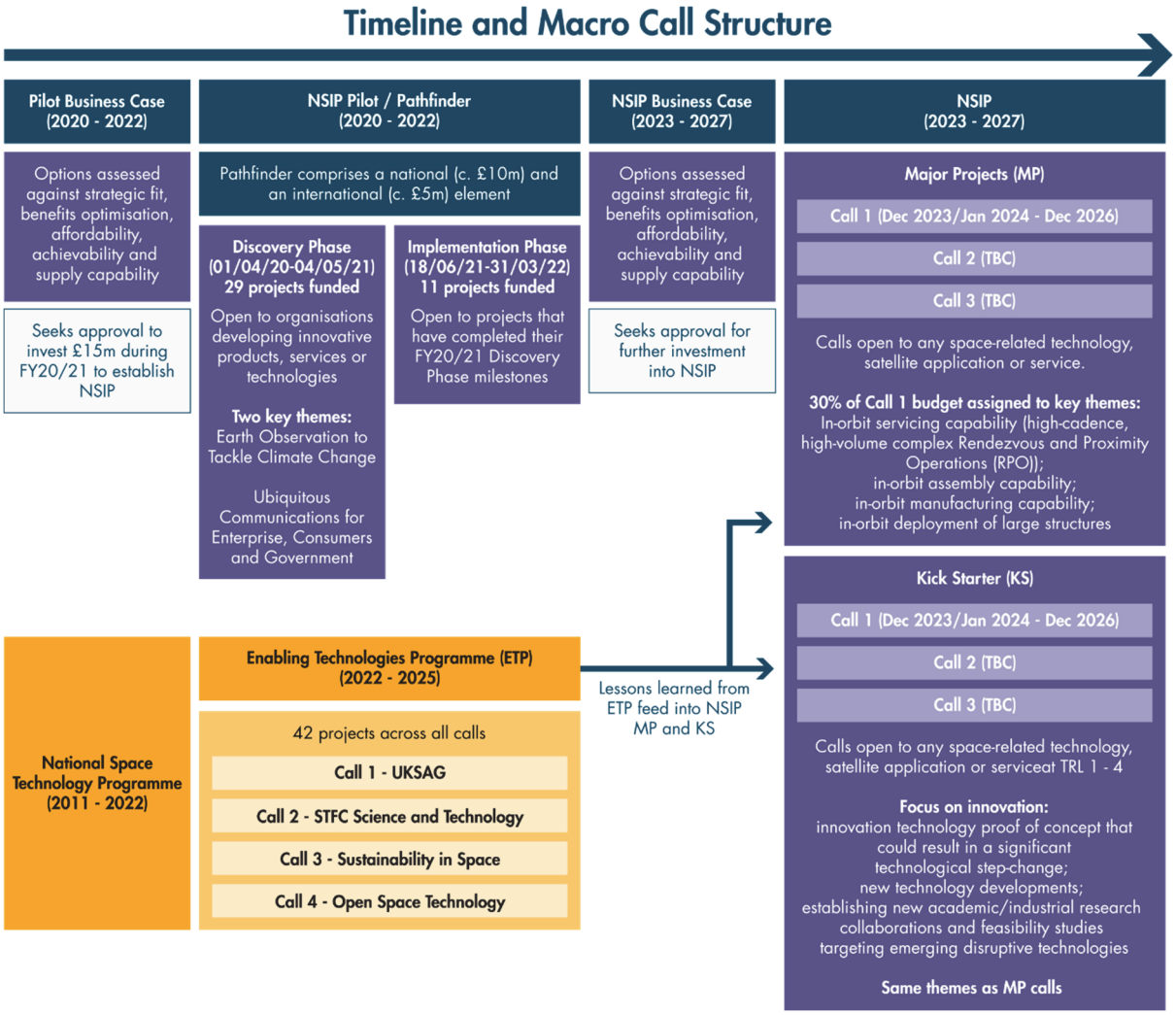
Post-award stage: monitoring and reporting

Projects in the main NSIP began with a virtual kick-off meeting with the NSIP team, summarising the project's objectives and tasks. The kick-off meeting was organised by the project coordinator (NSIP-side). Quarterly progress meetings and a mid-term progress meeting serve as touchpoints between the project coordinator and grant recipient during the project and will be supplemented by a final review meeting on conclusion of the project.

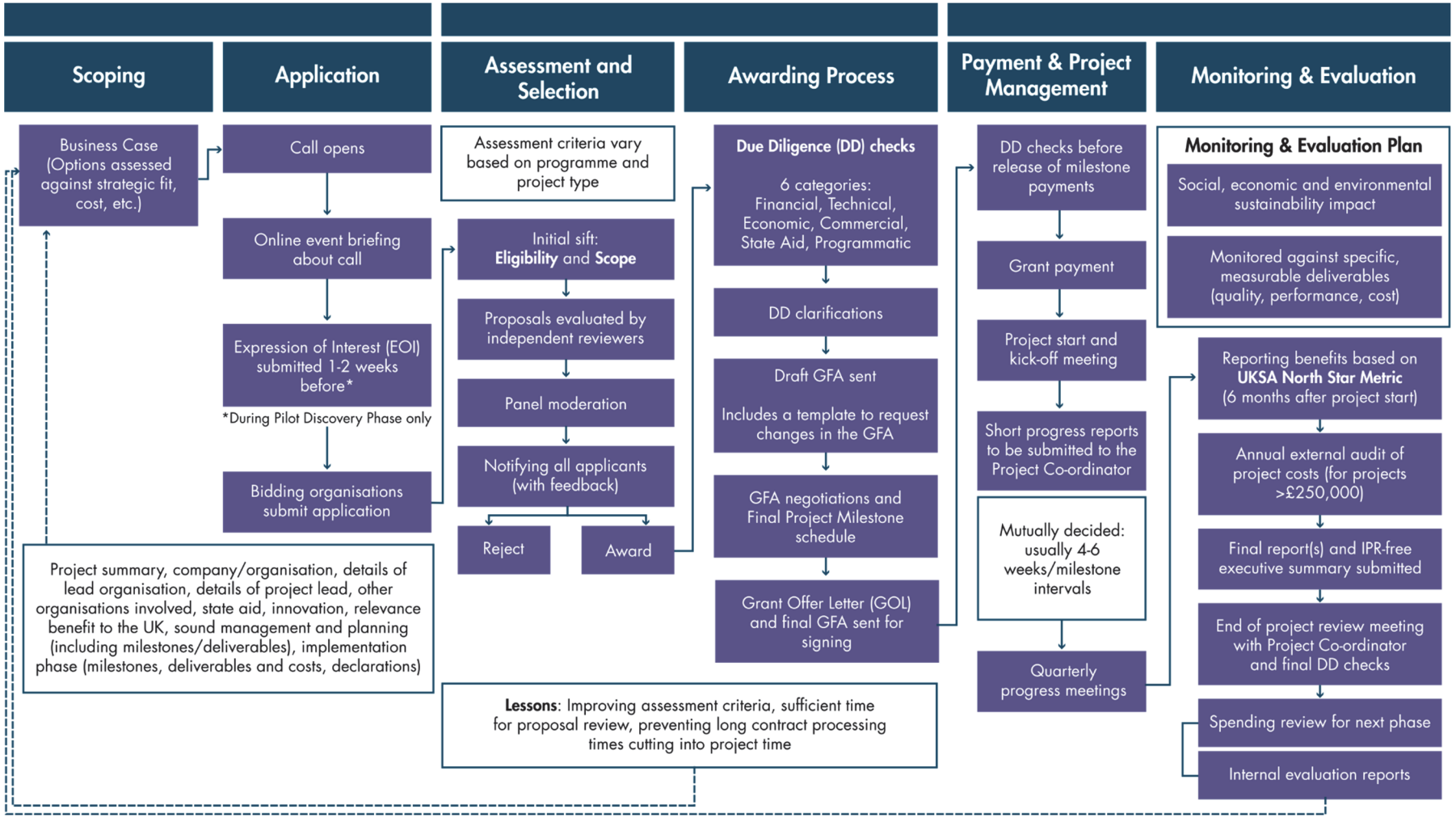
For ongoing projects, monitoring of project progress occurs through progress reports submitted every four to six weeks along with additional milestone reports, which will be submitted according to the agreed payment plan. Once approved, the grant recipient provides invoices. The project ends with a final report and executive summary (excluding confidential information). NSIP projects with funding over £250,000 are subject to annual audits by a UK Space Agency-appointed external auditor. Projects are required to provide timesheets, staff costs (including for contractors), receipts, invoices from partners/sub-contractors, a breakdown of overhead costs and capital usage.

[26] UK Space Agency. 2020c.

Figure 4: Macro-view of NSIP development and programme structure



Source: RAND Europe analysis of NSIP documentation. Figure 5: Outline of the NSIP funding process



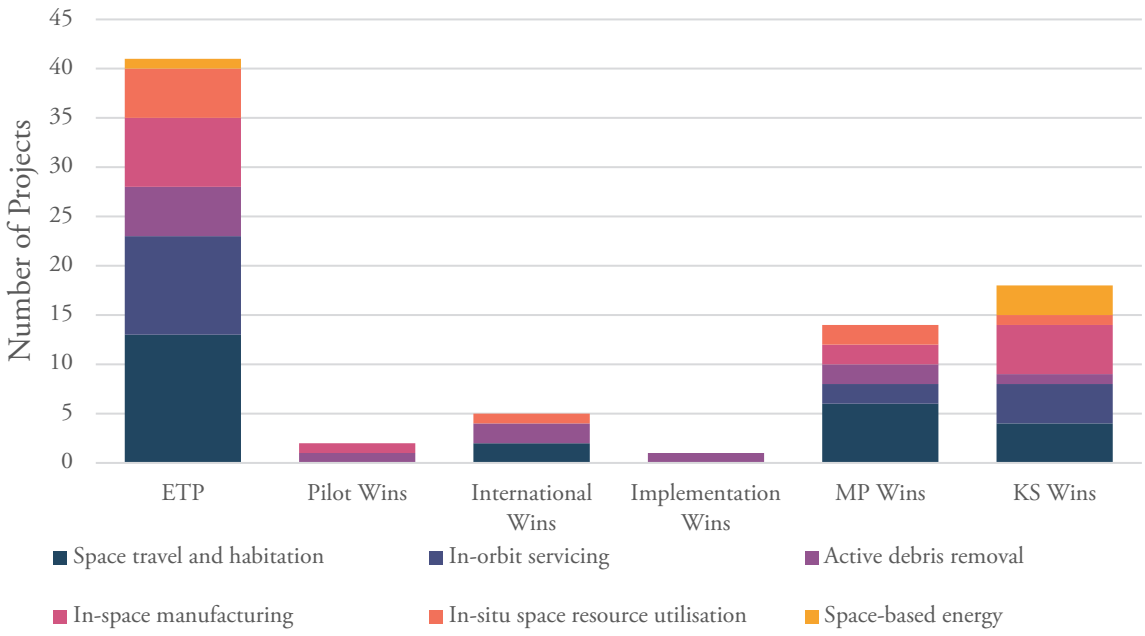
Source: RAND Europe analysis of NSIP documentation.

2.3. Portfolio summary

2.3.1. Technological diversity

Figure 6 highlights how projects mapped onto the emerging technologies outlined in the National Space Strategy (NSS). As the NSIP Pilot pre-dated the publication of the NSS in September 2021, there is minimal alignment between the technologies identified as areas of interest in the NSS and the technologies funded as part of the NSIP Pilot calls. The NSIP Pilot calls were themed around 'Earth Observation to Tackle Climate Change' and 'Ubiquitous Communications for Enterprise, Consumers and Government'. The ETP, MP and KS projects align much more closely to the emerging technologies outlined in the NSS, suggesting that call theming and strategic evaluation of the applications successfully aligned the technologies funded under those programmes to the technological development goals outlined in the NSS. In ETP, MP and KS, the funded projects were roughly evenly distributed between NSS technologies, with space travel and habitation being the most common in all three programmes.

Figure 6: Emerging technologies covered by each programme, as outlined in the NSS



Source: RAND Europe/know.space analysis of NSIP documentation, leveraging further analysis carried out after the impact evaluation. Note: some projects were applicable to more than one technology.

Table 5: Emerging technologies covered by each programme, as outlined in the NSS

Emerging technology	ETP	NSIP Pilot			NSIP	
		Nat.	Int.	Imp.	MP	KS
Space travel and habitation	13	0	2	0	6	4
In-orbit servicing	10	0	0	0	2	4
Active debris removal	5	1	2	1	2	1
In-space manufacturing	7	1	0	0	2	5
In-situ space resource utilisation	5	0	1	0	2	1
Space-based energy	1	0	0	0	0	3

2.3.2. Geographical distribution

Geographical region was not a formal criterion when curating the portfolio of projects, which is reflected in the mapping of successful projects' lead organisations as shown in Table 6. Nevertheless, more recent calls (KS and MP) successfully funded a spread of projects across the UK, not solely focused in the South East.

Table 6: Geographical spread of awarded projects[27]

Programme	Phase	Geographical spread
ETP	ETP Call 1	**60% of applications came from the South East, London and Scottish-based organisations**, each contributing 20%. The North East, Wales, West Midlands and Yorkshire and the Humber were under-represented, each making up 0–4% of the total applicants. Despite this, **22% of successful applicants' lead organisations were based in each of the South East, Scotland and Wales** (a higher success rate than London projects); no projects from the East Midlands, East of England, South West or West Midlands were funded.
	ETP Call 2	**Total and successful applicants were skewed towards the South East in this call**: 39% of Call 2 applications came from the South East, plus 15% from London. Scottish- and North East- based applicants came in joint third, each making up 10.3% of applications (an increase in applications from the North East compared to Call 1). The South West, Wales, West Midlands and Yorkshire and the Humber each continued to provide less than 2% of all applications. **Successful applicants mirrored this trend**: 43% were based in the South East, with London and Scotland following with 14% each. The East of England and West Midlands increased their share of successful projects. Wales had no awards.
	ETP Call 3	**Large discrepancy between funded regions**. Although all regions bar Wales submitted at least one proposal, the final successful project list did not include

[27] Further analysis on geographical distribution can be found in the 'Annual Monitoring Report' and 'Interim Impact and Economic Evaluation of NSIP Pilot & ETP', looking at both project leads and their partner organisations. Internal UK Space Agency research.

Programme	Phase	Geographical spread
		applications from the East of England, North East, North West, London, or Yorkshire and the Humber.
	ETP Call 4	**Successful projects were much more evenly distributed around the regions**, with each region having between 10% and 20% of successful applications. The only exception was Yorkshire and the Humber (three proposals, no awards).
NSIP Pilot	National Call	41% of all awarded projects were from the South East, followed by 18% from London. **Funded projects included all regions apart from Yorkshire.**
	International Call[28]	**60% of the projects funded were from the South East**. One project was led by a London-based organisation while one was based in Vienna, Austria (20% each). No projects were selected from other regions of the UK. Compared to the Discovery phase, South East representation increased marginally by 0.76%. The proportion of London-based proposals decreased by 1.51% while Scottish-based proposals increased by 3%.
	Implementation Call 1	**41% of the projects were led by organisations based in the South East**, followed jointly by London and Scotland (16.7%). None of the projects funded (based on 1 proposal received) were from the North East.
	Implementation Call 2	**Awarded projects were split equally between London and the North East**. This was in comparison to the proposals: East of England (11% of all proposals), London (22%), North East (11%), Scotland (33%), South East (11%), West Midlands (11%).
NSIP	KS Call 1	**26.7% of projects were led by the South West**, followed by the South East (20%), East Midlands (13.3%), East of England (13.3%), London (13.3%), North West (6.7%) and West Midlands (6.7%). There are no projects listed for the North East or Yorkshire and the Humber.
	MPs Call 1	**Successful proposals were split roughly equally** between Scotland (16.7%), East Midlands (16.7%), East of England (16.7%), London (16.7%), South East (16.7%), West Midlands (8.3%), Yorkshire and the Humber (8.3%). There were no successful proposals from Wales, the South West, North East or North West.

Source: RAND Europe analysis of NSIP documentation. Analysis based on the headquarters of the lead organisation.

2.3.3. Organisational diversity[29]

As with geographical diversity, organisational diversity was not a focal point of the requirements during the assessment. A summary of the organisational diversity across programmes is provided below and in Figure 7 and Table 7. From this data it is evident that large companies were geared towards the international projects, while the remaining calls had a larger proportion of successful applicants from smaller and medium-sized organisations.

- **ETP Calls 1–4.** For Calls 1, 3 and 4, successful applicants were split evenly between companies and universities. Call 2 deviated from this trend, with successful applications comprising companies (14%), research institutions (22%) and universities (64%).
- **NSIP Pilot National Call.** The highest proportion of awarded projects was led by micro-sized companies (27.3%), followed by universities (22.7%), and small and medium-sized companies

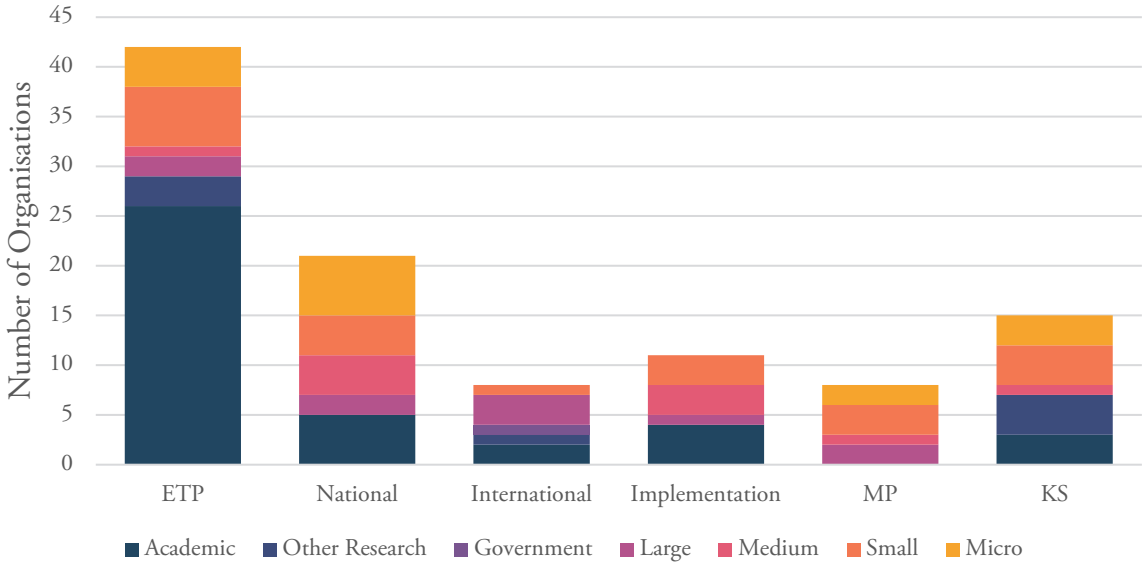
[28] The call had 8 themes. Australia: Earth observation; Japan: Satellite applications; Canada: Robotics, Global Space safety and sustainability, Global Space science; France: Earth observation and climate; India: Earth observation and climate and/or sustainable development; and the UAE: Disaster relief.

[29] Further analysis on organisational diversity can be found in the 'Annual Monitoring Report' and 'Interim Impact and Economic Evaluation of NSIP Pilot & ETP', looking at both project leads and their partner organisations. Internal UK Space Agency research.

(18% each).[30] At least one funded project was contributed to by universities and multiple companies of different sizes.

- **NSIP Pilot International Call.** One successful project (20%) was led by an academic organisation while two (40%) were led by large and small-sized companies respectively. No projects were selected from medium or micro-sized companies.
- **NSIP Pilot Implementation Call 1.** Of the successful projects, 41% were led by small organisations and 33% by academic institutions. None of the funded projects were led by micro-organisations.
- **NSIP KS Call 1.** Successful applications came from eight companies of various sizes (four small, three micro, and one medium), four research organisations (all large), and three universities.
- **NSIP MP Call 1.** All successful proposals (n=8) were from companies, of which 75.5% were micro- and small-sized.

Figure 7: Types of lead organisations funded under each programme



Source: RAND Europe analysis of NSIP documentation.

[30] Company sizes are defined by number of employees as follows: micro = <10, small = 10-49, medium = 50-250, large = >250

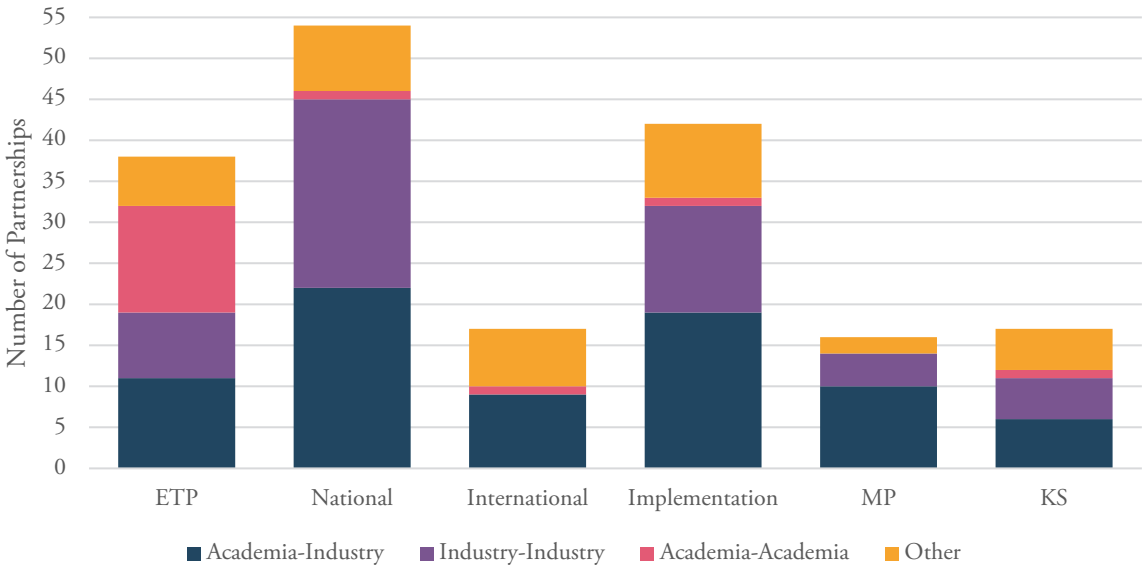
Table 7: Types of lead organisations funded under each programme

Organisation type		ETP	NSIP Pilot			NSIP	
			Nat.	Int.	Imp.	MP	KS
Academia		26	5	2	4	0	3
Other research		3	0	1	0	0	4
Government		0	0	1	0	0	0
Company	Large	2	2	3	1	2	0
	Medium	1	4	0	3	1	1
	Small	6	4	1	3	3	4
	Micro	4	6	0	0	2	3

Source: RAND Europe/know.space analysis of application documents.

Across all programmes, academia-industry partnerships were the most prevalent, followed by industry-industry partnerships, as shown in Figure 8 and Table 8. As with the types of organisations funded (see above), the ETP seemed to be geared to supporting academia, with a greater proportion of academia-academia partnerships. We did not find evidence in the call documentation or interviews for the reasoning behind these trends, as calls did not require or encourage particular types of partnerships. This will be explored further in the next deliverable.

Figure 8: Types of partnerships established under each programme, including lead organisations and other organisations



Source: RAND Europe analysis of NSIP documentation.

Table 8: Types of partnerships established under each programme

Partnership type	ETP	NSIP Pilot			NSIP	
		Nat.	Int.	Imp.	MP	KS
Academia-industry	11	22	9	19	10	6
Industry-industry	8	23	0	13	4	5
Academia-academia	13	1	1	1	0	1
Other	6	8	7	9	2	5

Source: RAND Europe analysis of application documents.

2.3.4. Consideration of EDI

Equality, diversity and inclusion (EDI) and diversification criteria were not directly applied, but assessment still resulted in a diverse portfolio. The original NSIP Pilot did not include EDI requirements and EDI was not mentioned in the call documents or application form. As such, none of the proposals included a section on EDI considerations. The application form also did not specifically require responses on EDI. In contrast, the highest-scoring proposal in the KS mentioned EDI in its documentation as part of the North Star Metric, although again this was not part of the call requirements.

In addition, five out of six reviewers and chairs said that they prioritised the best applications rather than focusing on specific funding goals for technology areas, geographical locations or EDI. Even so, this approach led to a diverse portfolio and the achievement of UK Space Agency goals regarding areas of investment, thresholds for launch systems, Earth observations, etc. Most reviewers said that they found this manner of assessment to be logical and efficient, with one stating that 'it can be quite challenging to make sure you're getting a balance of excellence versus diversity', but that diversity arose 'organically' through the strength of applications and the range of experience present on project teams.[31] One reviewer felt that specific targets for awarding, such as a set number of universities, SMEs and large primes, could result in an 'unfair advantage'.[32]

2.3.5. Age and gender characteristics

NSIP project teams tend to be relatively young. According to survey respondents who provided information on the makeup of their teams (n=23, response rate 85.19%), the average team-member age was 36.39. The largest proportion of team members was said to be between the ages of 25 and 35.

Teams feature a large majority of male members. According to respondents who provided information on their team makeup, 82.46% of reported team members were male.

[31] Int_06

[32] Int_03

2.3.6. Final observations on scoring

The assessment score data from NSIP KS Call 1 and NSIP MP Call 1 reveal some patterns in proposal scoring. For NSIP KS Call 1 the overall average score was 61.4%, with successful proposals averaging 81.6%. The highest-scoring criteria were disruptive technology, technological innovation, and application to space, while the lowest were collaboration, project management, quality of team and proposal, and risk mitigation. In contrast, NSIP MP Call 1 showed an overall average score of 64.9%, with successful proposals averaging 76.9%. Here the top criteria were catalysing investment, business case and route to market, and application to space, with the lowest being disruptive technology and collaboration. **Both calls highlight collaboration and quality of team and proposal as lower scoring criteria**, an area for improvement across proposals.

One reviewer pointed out the high quality of applications, observing that NSIP received a low level of AI-generated applications or those crafted by professional bid-writers compared to other funding calls. As one respondent said: 'I think it's a positive point because you have a more genuine approach of the applicant and a better value of what they're actually going to deliver.'[33]

Assessors felt that the submitted proposals were deficient in their business case and risk register. Most reviewers said that they found applications to be on a high technical level. However, four out of the six professors/panel chairs interviewed stated that applicants' risk registers were insufficient and offered only a partial review of all possible risks. This concern was voiced by reviewers across calls, including ETP, KS and MPs. Assessors suggested that clearer guidance on criteria for the risk register and business cases in terms of demands and expected level of detail would be helpful, particularly in clearly defining what should be included in each section and reducing repetition, with one reviewer stating that applicants had '300 words to explain the route to market and then another section [where] you get 400 words to do very similar things.'[34] The perceived lack of detail in proposals' business plans, delivery schedules and roads to market contrasted with the generally high level of quality in technical aspects.

The ETP and NSIP portfolio has grown significantly over the years with regard to geographical spread, institutional diversity, areas of expertise and volume of applicants. As the portfolio has expanded, the assessment criteria and processes have evolved to ensure a consistent standard when assessing applications, with the portfolio of funded projects evolving in tandem. Continued focus should be applied to future call assessment processes to ensure continued diversity of applicants and successful projects.

2.3.7. Strategic position of NSIP within the UK funding landscape

NSIP funding provides an attractive funding opportunity on a national level. Several respondents mentioned that they felt positive about NSIP, which enabled them to develop and advance their projects on a national level.[35] One respondent said that they felt that international funding, as an alternative to

[33] Int_01

[34] Int_03

[35] Int_14, Int_29

NSIP, would have meant investing a comparatively large amount of time and effort, especially for international collaborations.[36]

NSIP demonstrates the focus of the UK's ambitions in space. One respondent felt that NSIP funding clearly demonstrates the UK's willingness to invest in space.[37] Another offered some doubts about NSIP policy alignments, saying that they feared NSIP could eventually benefit foreign companies, which might then compete with UK companies in sectors where the UK is already active.[38] They also mentioned NASA's policy, whereby companies are required to be at least 51% US-owned in order to receive funding, as a possible example of best practice.

This concludes the chapter summarising how NSIP works and its portfolio. We now move on to a discussion on applicants' experiences of engaging with NSIP's application, review and award processes.

[36] Int_26

[37] Int_28

[38] Int_29

3. Applicant Experience

This chapter explores the applicant experience within NSIP and the ETP, focusing on the journey from call launch to feedback and project support. Data extracted from programme documentation provide insights into launch activities, highlighting the processes and resources made available to applicants such as FAQs and guidance materials. The chapter also summarises the importance of detailed and personalised feedback to enhance future applications. Finally, the chapter assesses the support provided to projects while they are active.

Box 2: Interim findings regarding applicant experience

- **Applicants are positive about NSIP:** Evidence from NSIP MP and KS Call 1 indicates that most applicants were satisfied with their experience of applying, particularly with the scope of projects called for.
- **Not enough time to prepare applications:** The six-week turnaround time for applications was deemed insufficient by some applicants, with some rushing to pull bids together in time. However, the UK Space Agency's efforts to raise awareness of the calls was reviewed positively.
- **Issues in financial requirements and bureaucracy:** Applicants expressed some dissatisfaction with financial reporting requirements, with some finding Annex 5 confusing. Applicants called for more flexibility in financial planning. Additionally, the North Star Metric materials were sometimes seen as time-consuming and unclear, particularly for academic submissions.
- **Assessment process challenges:** Small and new companies struggled to meet application demands, both in terms of quality and formal requirements. The definition of 'novel and disruptive research' needs clearer distinction in the assessment criteria, and the inclusion of 'Catalysing Investment' in the NSIP Implementation Call 2 down-select led to concerns about funding fairness. Application assessors struggled to get through the amount of information in each application, making thorough evaluation challenging within the timeframe.
- **Continued interest and future evaluations:** Despite some challenges in the application processes, most NSIP Call 1 survey respondents were willing to apply for future NSIP funding, indicating these issues were not significant barriers.

3.1. Call launch activities and engagement

3.1.1. Engagement and awareness

Personal networks, social media, mailing lists and university research impact teams all played a central role in promoting NSIP. When asked how they had heard of NSIP funding, four applicant interviewees said they had heard of NSIP through their own personal networks.[39] Three further interviewees said that they had learned about NSIP through checking online databases and social media sites, such as LinkedIn.[40] Four other interviewees had heard about NSIP from their university research impact teams.[41] Two others were directly contacted by the UK Space Agency about NSIP and asked about their interest in submitting.[42]

A minority felt unsure whether they would have heard about NSIP if it were not for government listings or mailing lists and felt that visibility could be improved. One interviewee who had heard of NSIP through a mailing list said that they felt unsure whether they would have heard of NSIP otherwise.[43] Another interviewee believed that calls ought to be better advertised beyond the UK space sector.[44] Another interviewee shared this view, saying that they had not heard of the call aside from government listing sites before the final decision was announced.[45] One interviewee said that they felt the UK Space Agency could play a stronger role in improving external engagement via a range of routes and platforms.[46]

Survey results in Figure 9 align with the interview findings, with most respondents (73%) believing that advertising the programme led to increased awareness to a moderate to large extent. Only nine out of 52 respondents thought this was the case to some extent, while five respondents did not know. These findings indicate that the UK Space Agency is promoting NSIP well in general, but that there may be pockets of potential applicants to be reached with increased promotional efforts.

[39] Int_14, Int_19, Int_20, Int_23

[40] Int_11, Int_36, Int_24

[41] Int_26, Int_31, Int_38, Int_32

[42] Int_8, Int_23

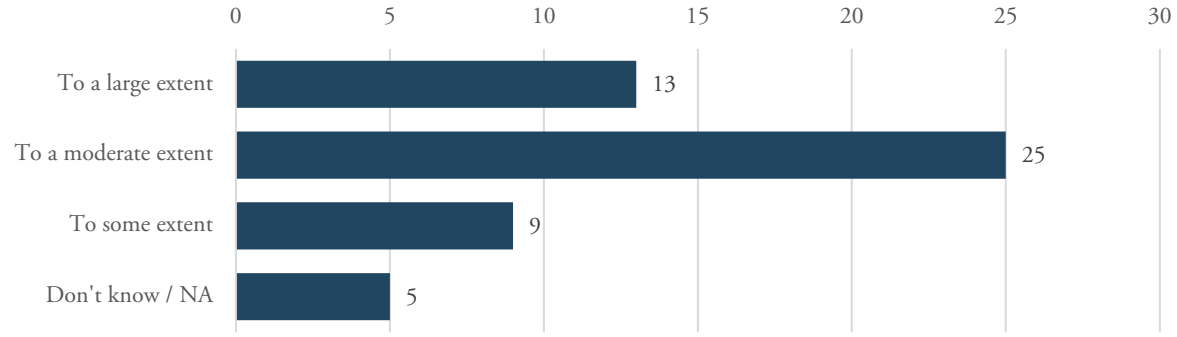
[43] Int_19

[44] Int_18

[45] Int_70

[46] Int_43

Figure 9: Effectiveness of NSIP at raising awareness of available funding opportunities



Source: RAND Europe analysis of survey results conducted in Q4 2024.

3.1.2. Launch activities

The ETP was launched as a successor to the National Space Technology Programme (NSTP) in 2020, with four calls launched in subsequent years: Call 1 (September 2022), Call 2 (October 2022), Call 3 (April 2023) and Call 4 (August 2023). Call 1 was open for eight weeks, while Calls 2, 3 and 4 were open for six weeks each. All four calls had broadly similar launch and advertisement processes, with documentation and application templates published online alongside advice and guidance. FAQs were used to address potential questions that applicants may have had. NSIP teams managing ETP Calls 1 and 2 provided answers to 15 FAQs across five broad topics: proposal submission and eligibility (3), funding and financial requirements (3), collaboration and partnerships (3), project and cost details (4), and evaluation and success metrics (2).[47] ETP Calls 3 and 4 added one additional FAQ relating to funding and financial costs, specifically addressing rules of subsidy control.[48]

None of the ETP calls had a live component such as a webinar or launch event, although prospective applicants were able to send further enquiries not answered by the FAQs to a publicised email address.

The first **NSIP Pilot calls** were launched towards the end of July 2020, with submissions due six weeks later in early September. Two calls were launched concurrently: a National, and an International aspect. For both calls, and similar to the ETP launch, documentation and application templates were published online alongside advice and guidance. FAQs were again used, with initial FAQ lists provided. Applicants to the National aspect had the opportunity to put questions to the delivery team until mid-August; answers to these questions were then collated and published in an updated list of FAQs. The National Call[49] published answers to 55 questions, 54 of which covered the same broad range of topics found in the ETP calls: proposal submission and eligibility (14), funding and financial requirements (19), collaboration and partnerships (4), project and cost details (16), and evaluation and success metrics (2). The International Call provided answers to 25 FAQs, 24 of which could be categorised under the previously established topics: proposal submission and eligibility (7), funding and financial requirements (8), collaboration and

[47] UK Space Agency 2022a, UK Space Agency 2022b.

[48] UK Space Agency 2023a, UK Space Agency 2023b.

[49] UK Space Agency 2020a.

partnerships (1), project and cost details (5), and evaluation and success metrics (3).[50] The remaining question, 'What does TRL stand for?', can be categorised under a new topic, TRLs and call scope, bringing the overall number of categories to six.

The **NSIP Implementation Phase** was launched in June 2021 to provide further funding to successful missions funded under the NSIP Pilot National Call. This call was open for just under six weeks and was broadly the same as the National Call, albeit not widely publicised. This call was also accompanied by FAQs, with five of the previously established topics addressed: proposal submission and eligibility (5), funding and financial requirements (8), collaboration and partnerships (5), project and cost details (16), and evaluation and success metrics (2).

Following the ETP calls and NSIP Pilot, the programme was reconfigured into two concurrent streams: **MPs, for larger, higher-TRL projects; and KS, for smaller, lower-TRL projects**. KS Call 1 and MP Call 1 were launched consecutively at the end of September 2023, with submissions due by mid-November 2023. The two calls were broadly similar and had nearly identical launch and advertisement processes, bar slight differences in scope, funding and theme. As with the four ETP calls, documentation and application templates were published online, with submissions requested via email.

To provide opportunities for questions and pre-application engagement with the UK Space Agency, a Bidders' Briefing was hosted on 17 October 2024 to provide information about both the MP and KS calls. Topics covered included the objectives of the NSIP programme, the history of the preceding programmes (NSTP, ETP, NSIP Pilot), the structure of the current calls, advice for applicants, a Q&A, and contact details to which applicants could send further questions or requests for more information. The Bidders' Briefing was held in response to sector feedback and a survey conducted to assess the experiences of applicants and non-applicants to NSIP Pilot calls.[51]

Results from the Q&A session in the Bidders' Briefing were rolled into a previously published list of FAQs, which addressed similar questions to the FAQs published as part of the ETP calls.[52] The initial FAQs consisted of 19 questions, 16 of which had been previously included in the ETP FAQs, and three of which were new. The three questions each addressed one of the previously described topics: proposal submission and eligibility, collaboration and partnerships, and evaluation and success metrics. The FAQs were subsequently amended to answer an additional 66 questions across six broad topics: proposal submission and eligibility (28), funding and financial requirements (13), collaboration and partnerships (6), project and cost details (10), evaluation and success metrics (3), and TRLs and call scope (6).

In summary, the ETP and NSIP Pilot featured multiple calls with **consistent launch activities** including online publication of documentation and FAQs. The ETP calls did not include live events, but applicants could send additional enquiries via email. The NSIP Pilot and subsequent phases also used FAQs extensively, with opportunities for applicants to pose questions.

[50] UK Space Agency 2020b.

[51] Space Growth Partnership 2021; UK Space Agency 2021b. 'Monitoring and Evaluation Report: National Space Innovation Programme – Pilot Year 20/21.' Internal document.

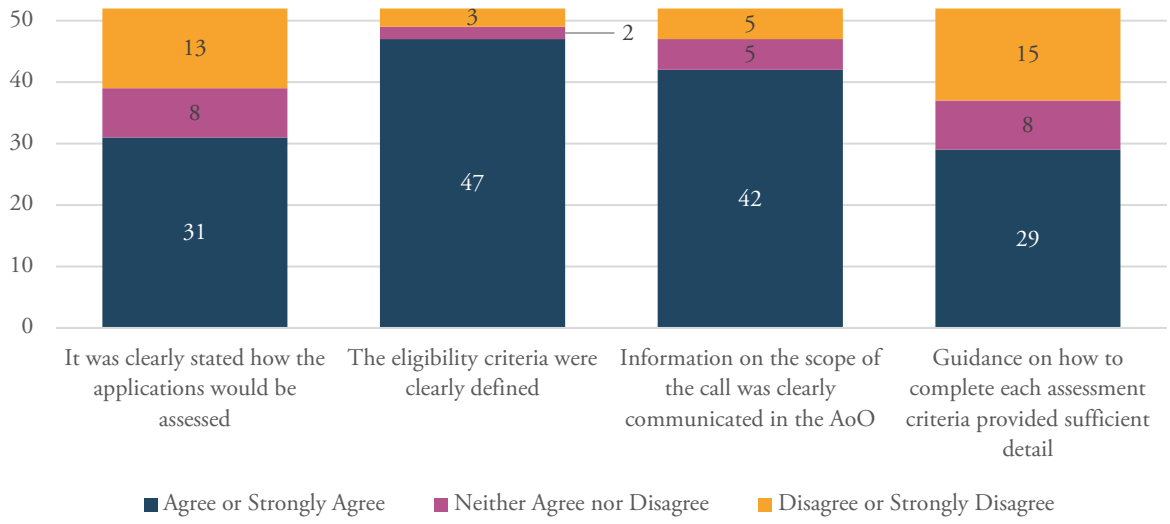
[52] UK Space Agency 2023c.

Following feedback, a Bidders' Briefing was introduced for the MPs and KS streams to enhance pre-application engagement and help deal with initial queries. This included a Q&A session, with results integrated into expanded FAQs. Following NSIP Call 1, a survey was sent out to applicants to assess their experiences and reflections on the application process, the results of which are displayed in.

Figure 10, including the Announcement of Opportunity (AoO) for each call and pre-application guidance.[53]

The feedback was largely positive. Out of 52 responses, 81% either strongly agreed or agreed that the 'scope of the call and how to apply was clearly communicated in the AoO', while 90% either agreed or strongly agreed that the 'eligibility criteria were clearly defined'. Despite minimal disagreement on those first two points, responses to the point that it was 'clearly stated how the applications would be assessed' and that 'guidance on how to complete each assessment criteria provided sufficient detail' was more polarised. 60% either agreed or strongly agreed that that it was 'clearly stated how the applications would be assessed', while 25% either disagreed or strongly disagreed, suggesting that additional guidance could have been provided, either through launch materials or the Bidders' Briefing, to help inform applicants about the assessment process.

Figure 10: NSIP Call 1 survey responses



Source: NSIP Call 1 Survey Results, 2024.

Overall, 55% of respondents agreed or strongly agreed that 'guidance on how to complete each assessment criteria provided sufficient detail', with 28.8% disagreeing or strongly disagreeing, suggesting that pre-application activities and materials could provide more rigorous guidance on the application process. Inferences about these factors can also be made from the number of applications received and the number and quality of projects funded, as well as the quantitative results gleaned from the NSIP Call 1 applicant survey.

[53] UK Space Agency. 'NSIP Call 1 Applicant Survey.' Internal document.

3.2. Application and assessment processes

The application process has remained relatively consistent across all calls, with application materials being published online alongside the AoO and various annexes and guidance documents.

Across all calls, applications have been submitted via a dedicated email for either the ETP or NSIP programmes directly to the UK Space Agency programme management team. With the exception of ETP Call 1, which was open for eight weeks, all ETP and NSIP calls gave prospective applicants six weeks to construct and submit a proposal. This six-week window includes opportunities for prospective applicants to submit questions and engage with the UK Space Agency prior to submission, with published FAQs often supplementing direct communications as outlined in the previous section. Only two calls, NSIP MP Call 1 and NSIP KS Call 1, offered a live Q&A session, responding to previous feedback and lessons learned to iterate and improve the application process.

All calls required applicants to complete two elements: completion of an application form plus the input of required financial information into a spreadsheet template. A minority of calls provided the option to submit an expression of interest (EOI), with an EOI required for the Pilot National Call and requested for the NSIP MP and KS calls. Several calls requested additional information, such as a grant applicant checklist, further information about overheads (where applicable), and details aiming to assess a project's applicability to the North Star Metric. Table 9 summarises the documents requested in each call, where 'Y' denotes a required document, 'O' denotes an optional document and 'A' denotes a document required 'if applicable'.

Table 9: Summary of required documents for funding applications

Programme	Call	EOI	Application form	Finance spreadsheet	Grant application checklist	North Star Metric	Overheads
ETP	1		Y	Y	Y		A
	2		Y	Y	Y	Y	A
	3		Y	Y	Y	Y	A
	4		Y	Y	Y	Y	A
NSIP Pilot	National	Y	Y	Y			
	International		Y	Y			
	Implementation Call 1 (2021)		Y	Y	Y		
	Implementation Call 2 (2022)		Y	Y	Y		
NSIP	MPs	O	Y	Y	Y	Y	A
	KS	O	Y	Y	Y	Y	A

Source: RAND Europe analysis of NSIP documentation.

The calls consistently received a healthy number of applications and resulted in relatively consistent success rates. Table 10 shows the number of submissions (and EOIs, where applicable) received and the number of successful submissions per call. When considering totals and success rates, the two implementation calls were not included, as these were down-selected from previously successful Pilot National proposals in closed calls. As such, across all open calls, the **total success rate was 18.8%**, with **94 successful projects** out of **500 submitted proposals**.

The UK Space Agency has not published application success rates across all its programmes. However, for comparison, the success rates were higher for applications to Innovate UK (25%) and NERC (30%) in 2022–2023, with the overall UK rate at around 25%.[54] This indicates that applications for funding to NSIP are highly competitive compared to comparable programmes.

Table 10: Summary of interest and success rate per funding call

Call	EOIs received	Submissions received	Awards made	Success rate
ETP Call 1	N/A	59	9	15.3%
ETP Call 2	N/A	38	14	36.8%
ETP Call 3	N/A	58	9	15.5%
ETP Call 4	N/A	77	10	12.9%
NSIP Pilot National Call	67	61	22	36.1%
NSIP Pilot International Call	N/A	39	7	17.9%
NSIP Pilot Implementation Call 1 (2021)	*N/A*	*18*	*11*	*61.1%*
NSIP Pilot Implementation Call 2 (2022)	*N/A*	*9*	*2*	*22.2%*
NSIP MP Call 1	47	34	8	23.5%
NSIP KS Call 1	95	134	15	11.4%
Totals	**209**	**500***	**94***	**18.8%***

Source: RAND Europe analysis of NSIP documentation; *excluding the two implementation calls.

3.2.1. Applicant perspectives on enablers and challenges in the application process

NSIP has, across multiple calls, demonstrated an ability to attract high-quality, thematically relevant proposals from across industry. NSIP MP and KS applicants surveyed found the application process to be generally straightforward, with 42 of 52 respondents stating that they would apply for funding again through future NSIP calls, suggesting that the application process is largely appropriate for the programme.

[54] UKRI 2024. For R&I grants (excluding fellowships). Excluding Research England as an outlier (92%).

Despite the general success of the NSIP application process, interviews with applicants identified several potential barriers faced during the application process. A summary of these barriers is included in Table 11, followed by some illustrative bullet points.

Table 11: Potential barriers in the application process, as identified by interviewees

Potential barrier	Mentions (total)	Mentions (negative)	% of total
Amount of work administrative burden	43	15	35%
Application timelines	26	19	73%
Application contents	19	5	26%
Financial documentation	16	16	100%
Pre-application engagement with the UK Space Agency provision of feedback	14	7	50%
Length of the funding cycle	8	8	100%
Requirements of North Star Metric materials	7	7	100%
The commercial focus of the call and application materials	6	6	100%
The published assessment criteria	4	2	50%

Source: NSIP applicant interviews.

Potential barriers have been identified for various calls, with specific references provided where applicable. As noted in Section 1.3, interviewees (applicants and members and chairs of the assessment panels) occasionally struggled to recall and differentiate details between distinct NSIP calls. Consequently, unless otherwise specified, some of the findings presented below have been derived from multiple calls.

- **The administrative burden, or the amount of work required to complete and submit an application, was largely seen as appropriate by interviewees**. Of interviewees who mentioned the administrative burden, 65% (28 of 43) viewed the process positively and did not consider it an entry barrier, describing the process as 'straightforward', 'familiar' or 'smooth'.
- **Applicants considered the six-week application period 'tight', especially given the application requirements**. Applicants felt that the tight turnaround of six weeks was a hinderance given the requirements of consortium building and the inflexible formatting and content requirements.
- **Most applicants who mentioned the core application contents (i.e. required information beyond financial requirements and North Star Metrics) did so in a positive manner (n=14)**. Requirements were considered 'clear and straightforward',[55] while some interviewees mentioned that the requirements and level of detail seemed especially clear compared to ESA applications.[56]

[55] Int_46

[56] Int_40, Int_42

- **Regarding negative impressions relating to the financial requirements, there was a significant focus on the financial spreadsheet**. Nine interviewees[57] mentioned challenges with the financial spreadsheet, with one stating that they found the budget spreadsheet 'very challenging'[58] and 'hard to address'.[59] One aspect of concern was that the provided application materials were pre-formatted and did not allow for adjustment or certain types of editing (e.g. adjusting the template, copy pasting) by applicants. One UK Space Agency team member from the NSIP Pilot suggested that the biggest room for improvement lay in introducing more flexibility for grant receivers in terms of financial planning.
- **Applicants' perceptions of pre-application support and feedback were split. Out of 14 interviewees who mentioned this aspect of the process, seven reported positive experiences[60] and seven reported negative experiences.[61]** One interviewee reported that they found a briefing call by the UK Space Agency 'superfluous', as it was high level and did not provide many details.[62] However, another interviewee reported that they found a town hall meeting with the UK Space Agency 'very helpful'.[63]
- **Some applicants felt that the commercial focus of the calls made applications hard for projects at lower TRLs and from the academic sector**. One interviewee found the application 'a bit of a shock' for someone coming from academia.[64] Another interviewee mentioned that the application was particularly hard for academics without the support of the business-development teams which commercial applicants might have access to.[65]
- **The North Star Metric[66] materials were seen by some applicants as 'time consuming', 'extremely uncertain' and 'unclear', with the pre-award provision of this data seen to encourage 'optimism bias'.** Some respondents were confused by the level of detail required, as the North Star Metric answers were not assessed with the submission, and the Metric was seen as particularly complicated for academic applicants, who may have less experience making predictions about route to market and market share, particularly for technologies with a very low TRL. Participants noted that organisations will exaggerate figures due to uncertainty about selection, resulting in inflated and unreliable data.[67] In addition, the North Star Metric's focus on job creation is perceived as

[57] Int_14, Int_25, Int_29, Int_30, Int_33, Int_34, Int_35, Int_64, Int_72

[58] Int_14

[59] Int_34

[60] Int_9, Int_13, Int_25, Int_27, Int_48, Int_56, Int_61

[61] Int_12, Int_35, Int_36, Int_39, Int_45, Int_55, Int_66

[62] Int_35

[63] Int_27

[64] Int_10

[65] Int_20

[66] The North Star Metric is a quantitative measure of the revenue and investment in the UK space sector directly linked to UK Space Agency support. These data are collected from grant and contract recipients as a condition of receiving UK Space Agency funding.

[67] Int_30

unfair to academic institutions, which do not function like commercial enterprises. Instead, interviewees suggested that the UK Space Agency assess universities' impact through measures such as graduate employability and knowledge transfer.[68]

- **Some applicants felt that weightings of assessment criteria should be balanced, applied consistently and clearly outlined at the outset of the call.** Overall, 12 respondents said that they felt positive about the assessment criteria and felt that they provided a good level of clarity and guidance for applicants.[69] One interviewee said they found the criteria to be very suitable and clear.[70] However, one successful applicant said that they only learned in the verbal feedback that there was a focus from reviewers on strong business cases, which had not been evident to them from the funding call.[71] One applicant highlighted that the weightings of the assessment criteria were not clear to applicants in advance of submission and that the feedback provided after assessment of applications stressed the relative importance of certain criteria despite little indication of that weighting to applicants beforehand.[72] Box 3 describes a specific example of a case where weighting towards one criterion was cited as a reason for a grant being given to a proposal which 'would not have been funded' otherwise.[73]

[68] Int_31

[69] Int_11, Int_27, Int_35, Int_49, Int_51, Int_54, Int_66, Int_67, Int_68, Int_69, Int_70

[70] Int_35

[71] Int_51

[72] Int_13

[73] Notes taken during internal UK Space Agency RAP panel meeting.

Box 3: Case study of an application impacted by weighting of assessment criteria

- In NSIP Pilot Implementation Call 2 down-select, assessment criteria were extended to include 'Catalysing Investment' as part of the Benefit criterion. An external company provided independent technical support on this new assessment criteria. One of the projects funded encountered issues with their capacity to deliver the work and, upon the request of UK Space Agency Commercial, delivered a Remedial Action Plan (RAP).
- A UK Space Agency panel convened to discuss the submitted RAP suggested that too much weighting was given to 'Catalysing Investment' as a newly introduced assessment criteria, and that the project was funded despite poorer scores in other criteria. The panel also concluded that the weighting of the 'Catalysing Investment' criteria for future calls should be reviewed to avoid projects being funded unfairly or without sufficient confidence in their success.
- **Evidence from the project progress itself suggested that the project 'would not have been funded' if the proposal had been properly budgeted and scoped**, as it became clear that neither the lead recipient nor the sub-contractor could deliver on their proposal. This would have potentially left the UK Space Agency open to legal challenge from unsuccessful applicants.

Potential barriers identified by interviewees show several similarities to the results of a 2021 UK Space Agency survey (Table 12) which called for feedback on the NSIP Pilot from both applicants and non-applicants, and which identified reasons for not applying to the NSIP Pilot. These similarities suggest that the barriers to application as identified by interviews accurately reflect potential reasons why prospective applicants would decide not to respond to NSIP calls.

Table 12: Summary of responses of applicants and non-applicants on barriers in the application process

Reason for not applying	Number of responses
Too little time to develop and submit the proposal	20
Project timeline (time to spend the grant money) too short	16
Project idea and call theme did not match	15
Unaware of the opportunity	12
Single-year NSIP funding not being attractive	8
Total n=65 responses from 50 distinct organisations	

Source: RAND Europe analysis of NSIP Call 1 feedback survey.

3.2.2. Reviewer perspectives on enablers and challenges in the application and assessment processes

Reviewers argued that the definition of novel and disruptive research should be more clearly distinguished. Reviewers said that they found this category especially hard to evaluate and that a clearer definition in terms of expectations would aid in their assessment. One reviewer questioned the difference between disruptive technology and technological innovation.[74] A chair from the NSIP team confirmed this point and indicated that the process for improvement was already underway.

Some reviewers said that there was a high density of information to assess in a relatively short period of time (but felt that the discussion and moderation sessions were helpful). One reviewer said that the proposals for NSIP were relatively lengthy and required considerable attention from the reviewers, which was not reflected in the length of time available to reviewers to submit their scores, especially given the amount of funding being requested for submissions to MPs.[75] The application materials were also seen as redundant or repetitive by one reviewer, who stated that some of the material asked for in the submission was 'not that useful in terms of our review'.[76] In a similar vein, another suggested that the categories were not always clearly distinct, with information being repeated in several sections of the application.

It was more difficult for small or new companies to meet the demands of the application, both in terms of quality of application and formal demands. One assessor also mentioned that the length of the review period disadvantaged smaller companies, who do not have excessive funds, noting that some applicants no longer existed in the same form once award decisions had been made.[77] Some reviewers also thought big companies are more trusted with delivery and capacity for expertise due to their established track record and resources. Multiple reviewers found that, in general, the business cases in proposals from bigger companies were crafted more proficiently. They suggested that bid-writing workshops could help improve the proposals of smaller companies. As one respondent said, 'I think if you're looking to get outsiders outside of normal space industry and start-ups, you do need to help them to be able to bid and do good proposals.'[78]

Multiple reviewers also suggested incorporating a second feedback stage to help address uncertainties relating to the business side of proposals, resulting in the UK Space Agency receiving higher-quality and more comprehensive proposals on which more informed decisions could be based, ideally resulting in high-quality work.[79]

Reviewers said that they found discussions with one another especially useful. Reviewers felt that meetings offered insights into proposals which lay outside their area of expertise, especially for reviewers from a business or project-management background, with one reviewer stating that 'moderation really helps . . . to sort of pull out that bit where we've missed something'.[80] Some mentioned that they would have

[74] Int_05

[75] Int_03

[76] Int_02

[77] Int_03

[78] Int_04

[79] Int_05

[80] Int_03

liked more time to discuss proposals in depth. Others said that they hoped for more guidance and moderation in priorities during discussions. They felt that if it were clearer whether the point of discussion was business or technical, and who the relevant expert was, evaluation could be more efficient. One reviewer suggested separating business evaluations from technical innovations into separate meetings to ensure that the technical aspects of applications were reviewed by people with applicable technical expertise.[81]

Further enablers mentioned in other sections of this report included:

- The recruitment of younger reviewers. Both UK Space Agency chairs felt positive about newly added younger reviewers and thought that they provided high-quality feedback.
- Improvement of the peer-reviewer recruitment process throughout the implementation of Pilot, ETP and KS/MPs. This included building a more formalised and centralised reviewer data bank, including CVs, areas of expertise and previous experiences.

3.3. Feedback and support

Feedback following application outcome

Most survey respondents from the NSIP Pilot calls stated that **improving the feedback process should be a priority**.[82] Following the M&E exercise in 2021 it was recommended that future funding calls should include feedback for all applicants, allowing organisations to understand how to improve future proposals.[82] Some of the feedback collected in a lessons log from the NSIP team also highlighted challenges related to feedback, particularly the need to establish and communicate clear feedback standards early on to the team, assessment panel and applicants.[83] One concern raised was the provision of more qualitative feedback. This could be challenging, as it would require summarising and taking responsibility for reviewers' scoring, which can be particularly difficult when dealing with technical content.

The NSIP Call 1 survey also revealed **significant dissatisfaction with the quality of feedback provided**, with only 38.5% of respondents agreeing that it was 'sufficient and will be beneficial when applying for future funding calls'. Some of the survey respondents criticised the feedback as being generic, contradictory or 'non-existent'. One applicant mentioned that they 'submitted two proposals with very similar business cases. The feedback between the two proposal business cases was contradictory.' Another one stated that 'we received very little feedback, and the projects awarded seemed at odds with the feedback we received.' Many expressed disappointment with the lack of sufficiently personalised feedback, suggesting that one-to-one feedback meetings would have been more impactful and useful compared to the general session that was offered. The absence of detailed scoring was also criticised by some. As mentioned throughout the report, further interviews with successful and unsuccessful applicants were conducted and satisfaction with the feedback received was measured. Findings from interviews with both successful and unsuccessful applicants also point to the fact that better feedback would have been welcome, with qualitative feedback as well as numerical scoring for both successful and unsuccessful proposals.

[81] Int_02

[82] Space Growth Partnership. 2021. 'Sector Feedback for the National Space Innovation Programme (NSIP).'

[83] UK Space Agency. n.d.-b. 'Lessons identified NSIP+NSTP.' Internal Document.

This concludes our analysis of initial applicant feedback on NSIP processes. We now move on to a discussion of lessons learned by the UK Space Agency team in the implementation of NSIP.

4. Programme Implementation and Lessons Learned

This chapter explores the post-award phase of NSIP, focusing on the processes that follow grant allocation. Project monitoring and evaluation is also explored, outlining the evaluation activities that were put in place across different programmes. Finally, the chapter discusses the programme's adaptability, emphasising how insights from previous calls have so far informed ongoing and future iterations, underscoring the importance of learning and evolving in order to enhance the effectiveness and relevance of NSIP.

Box 4: Interim findings from programme implementation and lessons learned

- **Incorporation of feedback:** NSIP has integrated lessons from past evaluations into Call 1, leading to changes in funding structures and thematic areas. This includes a shift to multi-year funding and a broader thematic focus, addressing earlier challenges like the restrictive one-year funding cycle.
- **Bureaucracy in due diligence and contracting processes:** While some applicants were satisfied with due diligence, others report challenges like duplicative processes and delays between application outcomes and contract finalisation, which compress project timelines and affect deliverables.
- **Criticisms of the NSIP delivery model:** Evaluations of previous calls have found NSIP funding is vital for innovation, but financial and administrative hurdles, like complex reporting and delayed collaboration agreements, may hinder progress. Academic institutions often secure less match funding, presenting unique challenges. Many recipients are dissatisfied with short grant durations, advocating for multi-year funding.
- **Ongoing challenges:** Despite improvements, issues such as low satisfaction with feedback and perceived complex processes persist in Call 1, indicating that while progress has been made, some more work may be needed to fully resolve these challenges.

4.1. Contract negotiations and payment schedule

Several overarching themes encompassing processes such as due diligence and contracting emerged during the evaluation of the post-award phase of NSIP calls. These initial findings highlight the need to streamline certain processes, modernise administrative practices to improve efficiency and effectiveness, and address the diverse needs of different types of participants.

Following the outcome of the application a due diligence process takes place, after which awardees receive a draft grant funding agreement (GFA) along with guidance to simplify negotiation terms, templates for change requests and a list of non-negotiable clauses. Awardees are also asked to confirm the final milestone schedules for their projects. Once terms are agreed through negotiations and revisions, awardees receive a grant offer letter and final GFA for signature.

4.1.1. Due diligence processes

Based on collected feedback from the 2020 NSIP National and International Calls, applicants were generally satisfied with the due diligence process.[84] However, across various calls there is evidence of room for improvement, while feedback indicates that duplicative checks and unclear requirements slowed down the process and created challenges. **NSIP National and International Call** survey responses indicate that 60% of international applicants were satisfied with the due diligence process.[84] However, the remaining 40% reported negative experiences, with dissatisfaction evenly split between those who were somewhat dissatisfied and those who were very dissatisfied. For national respondents, satisfaction was generally high concerning the level of information requested by the UK Space Agency and the timelines for completing due diligence. One interviewee who received **KS Call 1** funding noted that while there were some delays caused by the due diligence process, the impact was not major.[85] They highlighted that this would have had a major impact on the project if they had been dependent on funding for staff recruitment, as is often the case, especially for smaller organisations.

Duplication of due diligence checks carried out by the NSIP team was noted as a significant inefficiency, especially for repeat applicants across different calls. In **NSIP Pilot Implementation Call 1** some of the evidence collected as part of the lessons log indicates that certain processes seem to be designed with companies in mind, leading to institutions having to spend increased amounts of time and effort to compile the required information.[86] Other collected feedback from the UK Space Agency NSIP team highlights challenges within the due diligence process. For example, the lack of clear information available to address all items required on the due diligence check list was mentioned as a challenge which could be overcome with increased guidance and automation. In the lessons log the NSIP team also noted duplication of efforts as another potential concern, with basic company checks being repeated across different grant programmes (including previous NSIP calls – repeat applicants should probably have required a less in-depth due diligence approach) and policy team reviews occurring too late in the process. The increased range of applicants from open calls also adds to the time and effort required for due diligence checks.

Efforts to improve administrative efficiency were noted across multiple calls, with suggestions from participants and the NSIP team that duplication should be reduced and practices modernised. This is partly because the NSIP stakeholder database is not currently aligned with the wider agency database, and addressing this issue could aid the due diligence process and subsidy control. The increased range of applicants from open calls also adds to the time and effort required for due diligence checks. Some other

[84] UK Space Agency. 2021b. 'Monitoring and Evaluation Report. National Space Innovation Programme – Pilot year 20/21.' Internal Document.

[85] Int_49

[86] UK Space Agency. n.d.-b. 'Lessons identified NSIP+NSTP.' Internal Document.

suggestions were made concerning financial reconciliation such as recommending improved alignment between the GFA, milestone reports and finance sheet categories.[87]

4.1.2. Documentation and regulations

Across calls, several applicants encountered challenges related to documentation and financial regulations, often due to a lack of clear communication from the UK Space Agency at the outset. However, survey results highlight that applicants were generally satisfied with the clarity of contracting conditions, with 93% of survey respondents being either satisfied or strongly satisfied, although three respondents expressed dissatisfaction with the process. One applicant (KS Call 1) was not initially informed that overlapping work packages were inappropriate, requiring a significant restructuring of their milestones and adding unnecessary work.[88] Others (NSIP Pilot National) found that the strict milestone requirements in their proposals led to frequent overruns, underclaims, and the need for time-consuming grant-change notices.[89] In another case (MP Call 1) unexpected documentation requests emerged close to deadlines, causing brief disruptions, although these were effectively managed.[90] Additionally, the inability to carry over funds across financial years came as a surprise to one applicant (ETP Call 1), highlighting a gap in early-stage guidance.[91] Administrative formalities also posed obstacles; a partly US-based company had to sign agreements in person to confirm its UK presence, an uncommon requirement which was not anticipated.[92]

The rigid milestone and project plan structure was also identified as a challenge for early-stage research. Participants noted that given the uncertainty inherent in low-TRL projects it can be difficult to predict progress with precision. Some interviewees noted that the UK Space Agency allowed minor adjustments to deliverables and milestones when necessary, but overall the system remains too inflexible. Excessive administrative requirements, such as timesheet tracking, were also seen as burdensome compared to other funding bodies.[93] Some suggested aligning UK Space Agency policies with European grants to enable more efficient use of funds.[94]

Financial complexities were another key issue, with applicants noting inconsistent VAT reclaim policies across NSIP Pilot phases. While Phase 1 allowed VAT claims on goods, Phase 2 unexpectedly removed this option without clear prior notice, leading to unforeseen financial burdens.[95] Monthly reporting requirements also evolved during project delivery, although in this instance changes were clearly communicated.[96] The financial application process itself was perceived as overly detailed, requiring applicants to cost every piece of equipment individually, which increased the administrative burden.

[87] UK Space Agency. n.d.-a. 'NSIP Call 1 – Lessons Log.' Internal document.

[88] Int_49

[89] Int_14

[90] Int_72

[91] Int_60

[92] Int_23

[93] Int_23, Int_32

[94] Int_25

[95] Int_14

[96] Int_15

Frequent grant-change notices were also needed, indicating rigid financial structures which could benefit from greater flexibility.[97]

4.1.3. Timelines and delays

Interview findings showed that, when respondents experienced delays related to awarding processes, this was generally only at the beginning of their projects under NSIP. In total, 14 out of 65 interviewees said that they had experienced delays at the start of their project. Out of the 14 interviewees who mentioned delays in the awarding process, four referred to delays between the initial submission deadline and the announcement of the award.[98] One said that they only received an email that the announcement date had been moved with no further explanation.[99] The other ten delays were related to contracting and due diligence processes.[100] Four interviewees experienced delays when it came to signing partnerships and collaboration agreements.[101] Several stated that the delays were related to the slow workings of university legal departments rather than the UK Space Agency.[102]

Delays in contracting and due diligence processes across NSIP calls impacted project timelines, with some projects unable to meet all deliverables due to compressed schedules. Survey feedback from the **2020 NSIP National and International Call** highlighted issues with contracting delays, with two respondents (one from the international call and one from the national call) reporting delays between award notification and contract finalisation. For one organisation this delay reduced the time available for project completion, resulting in unmet deliverables. The other respondent faced a compressed timeline, with a four-month project officially commencing only in the final two months of the funding period.[103] **Notably, however, all grant recipients who responded indicated that they would apply for future UK Space Agency funding opportunities.**

Feedback from **ETP** recipients also included some experiences with delayed timelines. One ETP Call 4 award recipient stated that, due to contracting delays, their one-year project became compressed to ten months.[104] Another grant recipient from ETP Call 3 commented that the start of their project had to be pushed back due to the initial award announcement being slightly delayed and the due diligence process taking longer than expected. They noted, however, that since then the project had gone smoothly.[105] Similarly, a grant recipient from ETP Call 1 noted that while guidance suggested that their project would start in January or February, notification of its success came just as it was due to begin, which in turn led to a three- to four-month delay in getting the project up and running, exacerbated by back-and-forth

[97] Int_36

[98] Int_8, Int_21, Int_24, Int_36

[99] Int_36

[100] Int_ 9, Int_19, Int_22, Int_24, Int_25, Int_26, Int_38, Int_44, Int_49

[101] Int_ 19, Int_25, Int_38, Int_44

[102] Int_ 9, Int_22, Int_26, Int_38

[103] UK Space Agency. 2021b. 'Monitoring and Evaluation Report. National Space Innovation Programme – Pilot year 20/21.' Internal document.

[104] Int_9

[105] Int_24

communications between their university's contracts department and the UK Space Agency.[106] Another interviewee from the ETP Call 3 cohort explained that the original project timeline was unrealistic and impacted potential partnerships. Initially, the project was set to start in January, with submissions due by 5 November, leaving insufficient time for staffing. Fortunately, although the timeline influenced initial application choices, once it became clear that the January start was unfeasible the UK Space Agency allowed the team to choose their own start date, aligning work packages with staffing capabilities.[107]

Feedback from **NSIP Pilot Implementation Call 1** also included some examples of delays between application outcomes and contract finalisation.[108] Some evidence indicated that the extended period between the outcome of the application and contract finalisation has sometimes led to a reduction in the time available to complete the work and instances where not all deliverables were met.

Another example of impacts caused by delays comes from feedback from the **NSIP Pilot International Call**. One interviewee recounted that they had to start the project at risk due to delays, which initially prevented them from ordering new equipment in a timely manner. Timeline restrictions and NSIP charging rules later forced them to return equipment, which was delivered after the expiry of the grant and thus couldn't be charged to the project. While the delays did not significantly impact project outcomes, the team had work under significant uncertainties. According to the interviewee this had a lasting impact on the stress levels of the individuals working on the project, with further timelines being tight towards the end of the project.[109]

NSIP Pilot Implementation Call 2 faced a specific delay when the review panel was rescheduled from 5 October to 22 October. This resulted in subsequent delays in contract signatures for the two funded projects, adversely affecting delivery timelines.[110]

4.1.4. Stakeholder-specific challenges

As previously stated, universities and research organisations encountered challenges when drafting application materials and completing due diligence, as some processes were perceived to be geared towards industrial or commercial applicants, often creating an additional time or resource burden on prospective applicants. As such, current NSIP processes may not fully address the unique needs of various participant types. One of the most obvious disparities was the spreadsheet for requested financial information. The required spreadsheet (Annex 5) was constructed primarily with companies in mind, leaving little flexibility for organisations whose finances are structured in other ways or are compiled centrally (e.g. at university level rather than department level).

In the remainder of this section, we detail further stakeholder-specific challenges for universities and SMEs respectively.

[106] Int_69

[107] Int_27

[108] UK Space Agency. 'Lessons Identified NSIP+NSTP.' Internal document.

[109] Int_50

[110] UK Space Agency. 2022. 'RE Work on due diligence.' Internal document.

Stakeholder-specific challenges: universities

In **NSIP Pilot Implementation Call 1,** participants from universities struggled with the insurance clause, finding it difficult to assess funding sources. In addition, difficulty in providing the requested financial information was mentioned as a particular challenge for research and education organisations during the due diligence process as their financial information is typically recorded and stored differently compared to that of private companies, given that they are primarily higher-education providers rather than space-technology firms.

An ETP university-led grant recipient explained that their project experienced a four- to five-month delay primarily due to the contracting period, which meant that hiring was delayed until contracts were finalised. The project began just before contract completion, further contributing to the delay. Once contracts were signed, the process of advertising and recruiting staff was prolonged by lengthy university employment procedures and visa applications. While hiring was ongoing, existing staff had to undertake more technical work than planned due to understaffing.[111] Greater flexibility in the project start date could have mitigated these issues by allowing more time between approval and commencement. Similarly, another ETP Call 2 recipient highlighted that their university lacks unallocated staff, making short-term hiring challenging and affecting potential applicants. The one-year project started six to seven months late, with extensions granted until to complete final paperwork. Delaying the start of the entire project could have provided more time to coordinate staffing.[112]

Stakeholder-specific challenges: (micro)-SMEs and start-ups

During consultations with applicants and participants across different calls, some interviewees reported having the impression that the current funding allocation process favours larger companies, creating a disadvantage for SMEs and start-ups.[113] Some suggested introducing a separate funding stream specifically tailored towards these types of organisations or a lighter-touch application and documentation process which would level the playing field and enable smaller entities to compete more effectively. One interviewee mentioned that the complexity of the application process poses a significant barrier for small businesses, which often lack dedicated bid-writing teams. By streamlining the process for smaller grants, accessibility could be significantly improved.[114] The portfolio of successful awards described above shows that only the international calls were geared slightly towards larger businesses.

Several interviewees noted that intensive auditing occurred at the conclusion of their project.[115] One participant noted that this process may be more difficult for smaller companies, as they may have less rigorous internal processes compared to larger organisations. They explained that roles and financial responsibilities had been outlined in their funding requests, but that at the conclusion of the project auditors required far more comprehensive details on pay structures for all staff involved. This posed a dilemma, particularly regarding the sharing of personal employee data for US staff, which without an internal legal

[111] Int_69

[112] Int_38

[113] Int_9, Int_11, Int_22, Int_29, Int_31, Int_38, Int_39, Int_52, Int_68

[114] Int_37

[115] Int_23, Int_33, Int_54

team led to confusion and extensive back-and-forth communication to complete the final audit steps.[116] Advance notice of external auditing may help to avoid such issues.[117]

4.2. Project progression

A consistent theme across **NSIP Pilot National and International** calls has been that **NSIP funding has been critical in enabling the pursuit of innovation** and allowing awardees to undertake projects which would otherwise have been delayed or would not have occurred at all, underscoring the importance of NSIP.[84] Multiple interviewees expressed broadly positive feelings about opportunities for project progression.[118] Some said that eventual success would depend on factors such as the progression of their TRLs or the building of appropriate consortia.

These results are also in line with the survey results, where 90% of respondents across all calls stated that their project progression is in line with initial expectations, with the remainder (five respondents) claiming that their projects were not in line with expectations.

While most survey respondents and interviewees expressed positive feelings about project progression, some specific barriers were identified. The following section portrays the relevant enablers and barriers influencing project progression.

4.2.1. Enablers

Funding levels

The level of NSIP funding is appropriate and helpful in advancing the TRLs of funded projects. Four interviewees said that NSIP funding was instrumental in the progression of their projects and their advancement to higher TRLs.[119] Interviewees indicated that the level of funding is appropriate for their goals, highlighting the relative rarity of funding opportunities for lower-TRL development and the support that NSIP provides compared to other available funding opportunities.[120] This finding is corroborated by the survey results.

When asked 'to what extent are funding levels sufficient to enable project objectives to be met', interviewees responded positively to the level of funding available and the scope and goals of the programme. This also aligns with the survey results in Figure 11, which highlight that 94% of respondents believed that the funding was sufficient to various extents to achieve their project goals. Only three respondents stated that they did not know, while no respondents thought that the funding was not sufficient.

[116] Int_23

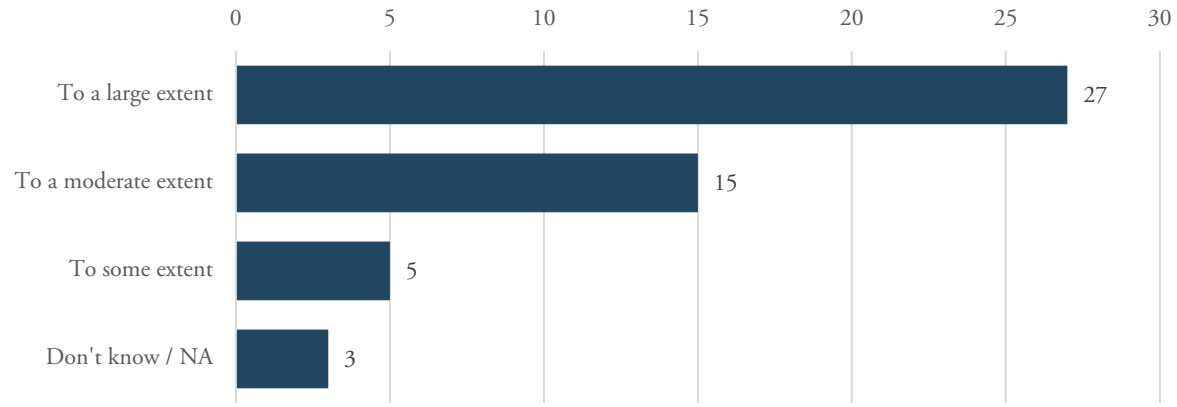
[117] Int_54

[118] Int_16, Int_26, Int_27, Int_40, Int_65, Int_10, Int_15

[119] Int_14, Int_15, Int_16, Int_21

[120] Int_32

Figure 11: Funding sufficiency for addressing original project objectives



Source: RAND Europe analysis of survey results conducted in Q4 2024.

Cross-sectoral collaborative fEC approach

The cross-sectoral approach and full Economic Costs (fEC) funding aims to incentivise collaborations and buy-in. One interviewee said that they found the level of funding sufficient and thought that the level of funding and fEC approach led to serious collaborations. In their view higher subsidies or funding levels would lead to industry looking for collaborations with academia for the specific purpose of acquiring grants.[121]

4.2.2. Barriers

Short project durations

One of the primary challenges faced by grant recipients is the relatively short grant period, with most NSIP Pilot and ETP projects lasting up to 12 months, KS projects lasting up to 18 months and MPs lasting up to 36 months. Grant recipients from the 2020 NSIP Call said that these short timeframes are unsuitable for fostering innovation, with 32 survey respondents (49%) saying that they were very dissatisfied with grant duration, while 15 (23%) were somewhat dissatisfied. This feedback mirrors the recommendation for longer grant durations from the SWOT Analysis of the UK Space Science Research Base study, submitted as written evidence by the UK Space Agency to parliament.[122]

The concern about overly short project durations was echoed in interviews with grant recipients, with 22 interviewees (34%) across all calls stating that they experienced difficulties with short grant periods, especially when coupled with delays in contracting or kick-offs. Of 65 interviewees, only six (9%) – one each for Pilot, ETP 1, ETP 2 and ETP 3, and two for KS – felt that the grant period was sufficient, with the remaining 37 (57%) sharing no opinion.

[121] Int_26

[122] RAND Europe & know.space 2022.

Hiring

The primary impact of short project duration was on hiring. Seven interviewees specifically stated that the short project duration, especially for ETP projects, was detrimental to their ability to effectively staff projects or hire additional employees.[123] This limitation was especially acute for academic institutions, who often have longer hiring periods due to additional bureaucratic requirements and centralised hiring policies, while short funding periods were also unattractive to prospective post-docs or recent graduates.[124]

More specifically, one interviewee experienced issues due to funding being connected to specific milestones. They argued that this funding model did not allow them to hire a PhD student, which would have been possible through a fixed contract.[125] Two interviewees corroborated this, saying it was difficult to hire postdocs, which requires more funding stability,[126] although other funded applicants mentioned that they had hired PhDs specifically for their NSIP projects.

The difficulties of the relatively short funding periods were compounded by the concrete project deadline in line with the end of the financial year. Two interviewees specifically linked the financial year deadline to delays early in the project, with these combined factors resulting, in effect, in a shortened project duration.[127] Interviewees emphasised that more flexibility in funding would be appreciated, especially flexibility in moving grant funding around the financial year-end to mitigate delays at the onset of the project.

Unexpected costs and maintenance budgets

For low-TRL projects, unexpected costs such as equipment repairs or replacements frequently arise. However, these costs are often not covered by existing budgets, forcing teams to submit grant-change notices (GCNs) to reallocate funds.[128] This process is seen as cumbersome and time-consuming, shifting researchers' focus from scientific work to project management. While such financial rigidity may be understandable for high-TRL projects, interviewees suggested that early-stage research should have greater flexibility in reallocating budgets to accommodate unforeseen needs.[129]

Corroborating this, one interviewee said that they experienced issues due to maintenance costs not being included in the budget. They explained that they had had to acquire external funding for the upkeep of their large infrastructure and, although they were successful, this led to project delays. They suggested including a separate infrastructure budget within NSIP.[130]

However, another interviewee expressed the opposite opinion, saying that most of their infrastructure budget went towards overheads rather than direct project work.[131]

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[123] Int_12, Int_27, Int_38, Int_47, Int_48, Int_68, Int_69

[124] Int_10

[125] Int_25

[126] Int_20, Int_47

[127] Int_44, Int_72

[128] Int_10

[129] Int_10

[130] Int_10

[131] Int_25

Post-award continuity

The lack of sustained funding mechanisms beyond initial grants creates barriers to long-term engagement. For instance, one applicant involved in a NASA science team noted that once UK Space Agency funding ends there is no way to support ongoing collaboration, limiting the realisation of long-term impacts.[132] Another interviewee thought that there was a lack of knowledge concerning follow-on UK Space Agency funding and that they hoped to learn more about this.[133] Three respondents said that they would look to the UK Space Agency for further funding but did not feel there was clear guidance and a roadmap for follow-on funding from the UK Space Agency.[134]

In the context of project progression, two respondents said that it would be helpful to have a clearer plan for future UK Space Agency and NSIP funding calls in order to help them manage their projects accordingly.[135]

Delays and administrative barriers

Interviews with grant recipients highlighted two recurring delays, identifying areas where the UK Space Agency could provide more support or flexibility. Three interviewees referenced difficulties in consortium formation and subcontracting[136] while two experienced delays in contracting with the UK Space Agency,[137] causing knock-on impacts on project progression. Another interviewee also experienced complications in procurement, given that the grant period was not sufficient to allow for procurement of parts essential to the project.[138]

Across multiple calls, financial and administrative challenges were mentioned as barriers to project planning and a smooth progression of projects. In **NSIP Pilot National and International Calls**, feedback recorded from the UK Space Agency M&E exercise revealed that project teams faced difficulties due to complex financial reporting, and that more guidance would have been welcome regarding reporting requirements. One project team observed that while the financial template detailed costs by work packages, the milestones were primarily centred on deliverables as the criteria for payment success. Project teams also noted needing 'longer lead-in time for planning and project set-up'.

Feedback captured across calls and project teams also highlighted that collaboration agreements, which are usually the first milestone of a project, proved time consuming and caused delays.

- One ETP Call 2 grant recipient stated that the project experienced a two- to three-month delay in finalising collaboration agreements with industry partners, taking nearly four months to complete. While such delays are manageable over a three-year project, they significantly impact shorter programmes like ETP2, which lasts only a year. The university was willing to begin work before

[132] Int_26

[133] Int_67

[134] Int_25, Int_27, Int_40

[135] Int_27, Int_40

[136] Int_8, Int_27, Int_54

[137] Int_22, Int_28

[138] Int_21

the contract was finalised, which helped mitigate some delays. However, the project still faced a two-month delay, leading to shortened work packages as the university started earlier than the industry partners.[139]

- Another ETP 2 Call 2 award recipient noted that they experienced considerable delays due to the prolonged process of signing collaboration agreements. Feedback from a recipient of **NSIP MP Call 1** funding highlighted that clearer expectations and timelines for all parties are needed regarding collaboration agreements, as these affect the pace of spending and project commencement. They mentioned that one of the key differences between the UK Space Agency and other awarding organisations like Innovate UK is that the former allows projects to begin without a collaboration agreement. Universities are not generally accustomed to this scenario and prefer to wait until collaboration agreements were finalised, unlike commercial entities, who are usually eager to start.[140]

Further potential improvements

Some feedback from commercial organisations also noted a preference for procurements over grants, suggesting that the UK government should assume the role of a lead customer more frequently. The commercial advantages of procurements include the opportunity to collaborate with a lead customer and the support it offers in reducing investment risks. Some workshop discussions emphasised that procurements are seen as more effective funding mechanisms compared to grants. However, grant funding still plays a crucial role as it supports the development of technologies which form the foundation for new products, services, and government procurement programmes. One interviewee mentioned that they received support from Innovate UK to build new consortia and thought it would be helpful for the UK Space Agency to offer similar support.[141]

4.3. Sustained collaboration

NSIP funding has allowed some participants to attract interest from prospective customers, suppliers and partners. **Some NSIP-funded projects are already attracting international supplier interest**, with multiple interviewees explicitly reporting that the work conducted under NSIP funding has attracted interest from potential partners across Europe and around the world.

NSIP funding presents recipients with a route to market and furthers commercial development, with **several projects having plans to begin commercialisation of their work in the near- or mid-term future.** Two funded interviewees planned to find commercial partners for their work in the next stages of the project, with one example highlighting a timeframe of 24 months following project completion to progress to the commercial stage.

[139] Int_25

[140] Int_60

[141] Int_11

Another interviewee stated that they are currently still in the proof-of-technology phase and that the next stages will enable development to a more mature technology. It was noted that the next phase would also be reliant on grant funding, as private investment is difficult to access until sufficient de-risking is achieved.

When asked 'to what extent have applicants received sufficient support in securing further future investment', **some NSIP-funded projects expressed an interest in applying for future NSIP funding after the end of their current project.** One interviewee said that they planned to apply for a further round of NSIP funding to continue the development of their low-TRL technology, while another highlighted that re-applying to NSIP was an essential alternative to potential Innovate UK funding as Innovate does not have space-specific funding calls. Another interviewee stated that further funding would be sought to continue to support a PhD student working on the project and to facilitate a more experimental and iterative design approach.

NSIP may help further opportunities for engagement and funding. One interviewee highlighted how NSIP funding provided their work with the necessary credibility to successfully seek further funding, evidence of a key reputational benefit which facilitates the success of projects after the completion of the NSIP phase of the project. An additional two interviewees said post-project engagement with the UK Space Agency and the NSIP team led to further opportunities for funding and commercial partnerships. One interviewee was able to identify and win EU funding to continue their work.

Some NSIP funding recipients are able to continue the work done over the course of the project through self-funding. One commercial and one academic recipient stated that they were able to continue their NSIP project's work through self-funding, highlighting the importance of support in identifying potential follow-on funding.

Conversely, **some interviewees felt that the UK Space Agency could provide more support in identifying and seeking follow-on funding and subsequent opportunities.** Four interviewees felt that there was limited post-project support offered by the UK Space Agency and the NSIP team after the completion of the project, with few opportunities to work with the UK Space Agency to identify and support post-project opportunities. One interviewee mentioned a specific example where the project had led to an opportunity for a five-year involvement with a NASA science team that they had hoped the UK Space Agency would be able to support, but this was not possible.

In summary, NSIP funding created opportunities for UK institutions to expand their reach and engage with new partners. NSIP participants were broadly interested in applying for future funding opportunities through NSIP to continue low-TRL technology development, given that NSIP plays a unique role in the early-stage technology-development landscape in the UK space sector. Some participants also highlighted the role that NSIP funding played in establishing new opportunities, particularly the positive reputational effects following the successful completion of an NSIP project. However, some participants expressed frustration with the perceived lack of post-project support, including highlighting missed opportunities that they had not been able to capitalise on as a result of limited follow-on funding or support available through the UK Space Agency.

4.3.1. Communication and support

The interview responses provide a broad view of communications and engagement with the UK Space Agency and the NSIP project team, highlighting both positive aspects and areas for potential improvement. Many respondents expressed satisfaction with the UK Space Agency's communications and responsiveness, often noting that it compared favourably to other funding bodies. The UK Space Agency team was described as supportive, enthusiastic and efficient in their interactions. For instance, one participant from the ETP Call 1 appreciated the openness and support during the process of handling GCNs.[142] Similarly, another interviewee found the responses from the UK Space Agency to be efficient and supportive, especially when compared to some other programmes.[143] These findings are in line with survey results, where when asked about satisfaction with communication between project teams and the UK Space Agency team, 94% of respondents stated they were either satisfied or strongly satisfied. Only one respondent out of a total of 52 stated that they were dissatisfied.

Similarly, when survey participants were asked about their satisfaction with support provided by the UK Space Agency during the project, 88% responded that they were satisfied or strongly satisfied, while the rest were dissatisfied.

The UK Space Agency's provision of support was a significant highlight for many respondents. This included guidance through the reporting process, which was particularly beneficial during milestone meetings, where expert support was provided to assist project progress. One participant (ETP Call 3) highlighted the supportive role of the programme manager in guiding them through the reporting process.[144] Another ETP participant (ETP Call 2) appreciated the collaborative approach when seeking support in filling out the North Star Metric from the perspective of a non-commercial applicant.[145]

Positive relationships with UK Space Agency staff were frequently mentioned by respondents. Several reported positive experiences with their monitoring officers and project managers, describing them as helpful and accommodating. Interviewees also emphasized the clarity and responsiveness of their UK Space Agency contact, which made a significant difference in project management, often noting they were able to establish very good relationships.[146]

When asked about their satisfaction levels regarding the monitoring of the project, 88% of survey respondents stated that they were satisfied or strongly satisfied, while 12% were dissatisfied.

Despite generally positive feedback, a few respondents highlighted inconsistencies in engagement across UK Space Agency departments and projects, noting minimal communication and a need for more regular check-ins and feedback.[147] Concerns were also raised about the strictness and bureaucratic nature of some processes, with some feeling that document reviews lacked necessary scrutiny. Several recipients expressed

[142] Int_10

[143] Int_15

[144] Int_26

[145] Int_68

[146] Int_27, Int_38

[147] Int_25

a wish for more regular communication.[148] One interviewee highlighted how their project could have benefitted from more scrutiny and engineering review and said it felt as if 'they were marking their own homework',[149] while another participant stated that they had expected more face-to-face time and that in reality most of the interaction was done through long-form email. This was helpful in terms of time burden, but they like to have been given an option for informal discussion.[150] One interviewee noted that communication from the UK Space Agency was sometimes less frequent than expected.[151]

4.4. Monitoring and evaluation

Table 13 (below) summarises the internal M&E activities undertaken so far for each call (excluding the broad impact, process and economic evaluation that this process report is part of). From the summary it is evident that efforts have been made to take learnings from previous funding calls and implement them into new ones. Both the discovery and implementation phases of the Pilot and main NSIP call are subject to internal evaluations which will feed into future iterations of the programme. These discovery-phase evaluations surveyed projects involved in the National and International Pilot calls, receiving a total of 25 unique responses out of the 27 projects involved in the programme. The implementation-phase evaluation surveyed project partners involved in that phase of NSIP, as well as unsuccessful applicants and non-applicants, although they received no responses from the last two. Feedback and recommendations were used in the 2023–2027 NSIP Business Case. The NSIP committee has also allocated £1.3m for the M&E of project and programme activities in the ongoing programme, of which the present evaluation is part. Looking across all funding calls in Table 13, there are some gaps in M&E exercises, namely for ETP and NSIP Pilot Implementation Call 2; however, these will be covered in this current evaluation.

As mentioned above, most M&E efforts undertaken so far have been carried out internally by the NSIP team. Moving forward, M&E efforts will be carried out externally by third parties.

Table 13: Summary of M&E activities across calls (excluding current contracts)

Funding Call	M&E	Description	Type
ETP Call 1	×	-	-
ETP Call 2	×	-	-
ETP Call 3	×	-	-
ETP Call 4	×	-	-
Pilot Call 2020 (National and International)	✓	Monitoring & evaluation report	Data gathered from surveys and three facilitated workshops

[148] Int_14, Int_24, Int_48

[149] Int_14

[150] Int_24

[151] Int_48

Pilot Implementation Call 1 (2022)	✓	Monitoring & evaluation report	Surveys of project primes and partners, unsuccessful NSIP applicants and non-applicants
		Log of lessons learned	Lessons identified from project team with recommendations and actions
Pilot Implementation Call 2 (2022)	×	-	-
NSIP Call 1 (MP & KS)	✓	Initial M&E (internal)	Survey of KS and MP applicants
		Log of lessons learned	Lessons identified from project team, with recommendations and actions

Source: RAND Europe analysis of NSIP documentation.

4.5. Adaptation between calls

As mentioned above, M&E efforts have been made throughout the NSIP life cycle and findings have been considered and included in the business case for the ongoing Call 1 funding. During different M&E exercises (including those contained in this study, as well as external data collection), several challenges have been identified. NSIP and ETP applicants and recipients who participated in the survey and interviews for this study were asked what main changes they would want to see to improve the programme processes and their experience. The findings are summarised below and provide insights into which challenges are present across calls.

4.5.1. Emerging Technologies Programme

Feedback

In terms of feedback and process improvement, interviewees suggested that feedback should be more detailed, similar to Innovate UK's approach, to provide clearer insights for applicants.[152] Survey respondents echoed this sentiment, noting that the proposal assessment process could benefit from more transparent and satisfying feedback.

Flexibility and administrative burden

Interviewees emphasised the need for more flexible project timelines and milestones to alleviate the pressure of rigid one-year timelines.[153] Survey responses supported this, with calls for more flexible budgeting and the ability to move funds between financial years. Additionally, the financial reporting process was described as cumbersome, with suggestions to adopt formats like those used by UK Research and Innovation (UKRI).

Funding and financial complexity

Interviewees discussed financial confusions and the need for a coherent funding roadmap.[154] Survey respondents also highlighted the need for improved financial management, suggesting that capital

[152] Int_9, Int_11

[153] Int_38, Int_69

[154] Int_18, Int_40

equipment purchases should be allowed without industry match funding and that expense allowances for travel should be increased.

Technical support and guidance

Interviewees expressed the need for technical support beyond administrative communications.[155] Survey responses suggested that engaging with technical reviewers could provide valuable outside perspectives.

Project duration and continuity

Both aspects were concerns, with interviewees suggesting that longer-term projects would improve execution and hiring processes.[156] Survey respondents agreed, advocating for longer project extensions to accommodate unforeseen issues.

4.5.2. NSIP Pilot

Feedback

Interviewees expressed a desire for more structured feedback mechanisms to better understand the evaluation criteria and improve future applications.[157] Survey responses did not directly address this theme.

Project duration and continuity were discussed, with interviewees suggesting that the programme could benefit from a model which better accommodates the working styles of academic institutions, allowing for more seamless transitions between project phases.[158] Survey responses did not directly address this theme.

4.5.3. Major Projects and Kick Starter

Process improvement

Interviewees suggested more notice before proposal submission and better-quality assurance in the process.[159] Survey respondents also called for a simplification of the application process and the ability to carry over funding between financial years. Some interviewees suggested a two-stage application process for better feedback.[160] Survey respondents did not directly address this theme.

Flexibility and administrative burden

Interviewees recommended the simplification of financial forms to reduce administrative load. Survey responses supported this, suggesting that internal processes for programme monitoring and delivery should be more robust and transparent.[161] Some interviewees advocated for flexibility in shifting small funding

[155] Int_24, Int_55

[156] Int_68, Int_57

[157] Int_14, Int_23

[158] Int_47

[159] Int_21, Int_22

[160] Int_13

[161] Int_16, Int_43

amounts between milestones, while some suggested that grant money should be paid quarterly rather than via milestones to improve cash flow for start-ups.[162]

Funding and financial complexity

Interviewees noted the need for increased support in commercialisation and clearer funding timelines.[163] Survey respondents suggested that follow-on funding should be available for the best projects to maintain momentum. One interviewee highlighted the substantial effort required in making applications relative to the funding amount.[164] Survey respondents also noted that the movement of budget between financial years created management complexity and associated overhead costs.

From the desired changes mentioned above, as well as reviewed documentation and external survey results, certain themes continue to appear throughout different calls. For example, some dissatisfaction with feedback, lack of a grant schedule at the beginning of the financial year and complex financial forms have not been completely solved and have appeared in NSIP Call 1.

While some of the challenges appear throughout the different NSIP calls and may not have been fully resolved, as mentioned in the previous section, learnings from calls have been considered. For example, data from the M&E exercise from the NSIP Pilot was integrated into the NSIP Call 1 business case. In addition, it is evident that changes have been made, which is clear when analysing differences between funding calls. Some examples are described below.

4.5.4. Differences between ETP, NSIP Pilot and main programme

Changes to the call design and scope

Changes included alterations to the funding structure and thematic areas, informed by learnings from the ETP and NSIP Pilot.[165] One UK Space Agency team member said: 'Each iteration . . . had been . . . an improved version of the last.'[166] In terms of funding structure, the NSIP Pilot was set up in a one-year funding cycle, with projects invited to apply for the discovery phase (financial year 2020/21). The teams behind projects which had successfully submitted all project deliverables and milestones by 31 March 2021 were invited to participate in a mini-competition (closed call) for the Implementation Phase, a further one-year funding cycle (financial year 2021/22). However, organisations participating in the Pilot projects faced challenges in the grant-funding process due to tight post-award contract signing timelines, resulting in shorter-than-expected periods for project delivery. Similarly, the one-year funding mechanism in place was cited as a barrier to innovation and organisations suggested multi-year funding to mitigate this. In the main NSIP, prospective project teams were able apply to a multi-year funding call to support innovation and address challenges encountered during the Pilot.

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[162] Int_64

[163] Int_35, Int_36

[164] Int_29

[165] UK Space Agency. 2021b. 'Monitoring and Evaluation Report: National Space Innovation Programme – Pilot Year 20/21.' Internal document; UK Space Agency. 2022. 'NSIP Monitoring & Evaluation Report – Implementation Phase 21/22.' Internal document; Space Growth Partnership 2021.

[166] Int_07

Separately, the Pilot centred around two key themes: 'Earth Observation to Tackle Climate Change' and 'Ubiquitous Communications for Enterprise, Consumers and Government'. Respondents to internal evaluations suggested that future calls should shift their focus to 'global challenges' (e.g. energy crisis, net zero, climate-change monitoring and adaptation, environmental monitoring) and to emerging technologies (e.g. AI, quantum) and technology transfer. Changes to the scope were also recommended by having open calls by topic as well as calls to provide end-to-end support for innovation at all stages (e.g. market and feasibility studies, product development). Following recommendations from the internal evaluations, the first call of the main NSIP (2023–2027) was not constrained by specific themes in order to reach a wider scope of organisations, projects and themes.

Finally, feedback highlighted the need to include a sector briefing as part of the call process to bring attention to funding opportunities and their purpose. This was implemented in the 2023–2027 NSIP beyond the Bidders' Briefing on 17 October 2023, occurring after the call opened.

Changes to the assessment stage

The weighting and formulation of evaluation criteria were also reworked. Initially, the NSIP Pilot focused most heavily on innovation but, after reviewer feedback, business cases and risk management were taken more into account. Reviewers also mentioned that they tried to be more responsive to the needs of applicants over the course of NSIP.

In practice, the four categories used to assess proposals in the Pilot phase were later expanded into ten parameters for proposals submitted under NSIP 2023–2027. This was done in order to simplify and clarify processes for the applicants and reviewers; the broad definitions of parameters in the Pilot could be a factor behind this change. For example, the 'relevance' criterion in the Pilot calls combined three substantial ideas: market potential, application to space sector and potential to disrupt market. Separating this into four distinct criteria in initial MP and KS calls for NSIP might improve applicants' and reviewers' understanding of the implicit weights in each category.

In addition to the criteria and assessment process, the process for recruiting reviewers was somewhat improved throughout the implementation of the Pilot, ETP and KS/MPs. UK Space Agency team members explained that during the KS phase reviewers were drawn from a previous project pool (NSTP). Over the course of the project the databank for reviewers became more formalised and centralised, adding CVs, specific areas of expertise for reviewers, and taking previous experiences into account.

Interviewees (members of the assessment panel and chairs) also noted that younger reviewers were subsequently included in the assessment process, which was viewed positively by the chairs. Both chairs said that the newly added younger reviewers added high-quality feedback ('they provided some absolutely fantastic feedback'[167]) and were eager to use them again. The chairs indicated that reviewers who are less forthcoming or comprehensive in their feedback may not be invited back to review future calls, highlighting the evolving nature of the reviewer pool and the UK Space Agency's awareness of and willingness to improve NSIP assessment process. The chairs also further indicated that they took care to diversify the breadth of the pool of reviewers over the course of the project, in terms of diversity of technical expertise, age,

[167] Int_06

background and gender. In line with that effort, the NSIP team conducted a recruitment exercise for external assessors, seeking to increase the size and diversity of the experts who were tasked with reviewing applications. Through this process the pool of potential reviewers was broadened from around 30 to around 90, diversifying the available reviewer pool in terms of demographics and area of expertise. In later rounds, diversity was also considered when selecting the moderation panels to ensure balanced and diverse perspectives were represented in the moderation discussions.

Changes and lessons learned from NSIP applied to wider UK Space Agency processes

The lessons learned through the different calls of ETP and NSIP have contributed to changes in the UK Space Agency's assessment processes. According to UK Space Agency team members, this included the Integrated Transformation Programme (ITP)[168] change process, which centralised and standardised key elements such as assessment criteria, application forms, AoOs, finance sheets, GFAs, and reviewer management. Previously these areas were managed in silos across different programmes but they are now centralised under the commercial team. The ETP and NSIP teams provided empirical feedback based on their experience running calls, which informed the development of these centralised documents. While numerous pieces of feedback were actioned through discussions over the past year, two notable changes with wider impacts on the UK Space Agency's assessment processes include the introduction of standardised assessment criteria and improved reviewer management. The ETP and NSIP teams developed, tested and piloted new assessment criteria, which were subsequently used to establish a standardised, process-driven approach adopted across UK Space Agency grant-funding teams. Additionally, the NSIP and ETP reviewer pool was integrated into a centralised UK Space Agency reviewer pool managed by the commercial team, suggesting that NSIP reviewers were seen as appropriate when assessing national space-funding opportunities. The NSIP team provided guidance on identifying, assessing, and allocating reviewers, leading to a more structured reviewer management system with a diverse pool of experts from industry and academia.

4.5.5. Changes within NSIP

Changes within the ETP programme were more evident than for NSIP. As outlined earlier in the report, the assessment criteria changed between ETP Call 3 and Call 4, expanding the number of criteria from five to ten and introducing a new weighting system. According to the UK Space Agency NSIP team, this change facilitated a more nuanced evaluation of project proposals, allowing for a clearer distinction between good and bad, as well as very good and excellent submissions. By implementing specific weightings, the team could emphasise criteria which were particularly significant, such as technological innovation, thereby aligning the assessment process more closely with strategic priorities. This approach not only improved the precision of the evaluation but also enriched the feedback provided to unsuccessful applicants, offering them more detailed insights into the strengths and weaknesses of their proposals. This system was carried forward to NSIP MP and KS calls, suggesting a positive perception of this change amongst programme managers. While the assessment criteria evolved between calls, the selection process remained largely the same.

[168] The Integrated Transformation Programme (ITP) is an 18-month initiative aimed at transforming the UK Space Agency into a delivery-focused organisation by improving efficiency across people, place and technology.

Changes within the other NSIP Pilot and main programmes were not as evident from our analysis, outside of weighting changes for MPs. Applicants applying to multiple NSIP calls felt there was little difference between them except for timescales and scope.[169] When asked about the difference in applying for various NSIP calls, five interviewees who had successfully or unsuccessfully applied for multiple calls expressed that they noticed only minimal differences between the calls. They felt the calls were roughly the same expect for slight shifts in focus, budget and duration.

However, as noted by the NSIP team, changes were made to the application form in KS Call 1 and MP Call 1, simplifying it for both applicants and reviewers. This was based on feedback from applicants and reviewers that the assessment criteria should be linked closely to the sections of the proposal. Two interviewees said that they thought applications for the KS Call 1 had been easier than those for ETP or MP Call 1. More generally, the UK Space Agency maintained open communication channels with applicants, enabling them to adapt to changes in the project scope or issues with project delivery.[170] This was particularly relevant for the subscription to the programme over time**.** The pilot programme implementation phase went through two iterations of the implementation phase calls.

Various other changes were mentioned by the NSIP team[171] as targets for implementation, with plans to implement them for Call 2, including:

- An amended EOI process moving to an online form rather than email submission to make the process easier to complete for applicants and manage for the NSIP team.
- An amended review and feedback process was being discussed that which would provide applicants with feedback and scores directly from the review process rather than a synthesised paragraph, aiming to provide applicants with more comprehensive feedback while also reducing administrative burden on the assessment team.
- An improvement to the due diligence process to ensure that companies are not in financial difficulties and to identify and mitigate potential risks before they arise.
- An improvement to the feedback process to offer one-to-one feedback calls to all applicants. Across 34 MP and KS applicants, one-to-one sessions were offered to 15 applicants, and the goal is to expand this capability to all applicants for future calls.
- Introduction of a two-stage application process for both KS and MPs in which a short outline proposal will be sought from all applicants, followed by a full proposal stage for those who score highest in stage 1.
- Removal of North Star Metric at application stage, with only successful applicants being asked to complete the associated documentation.

[169] Int_12, Int_15, Int_17, Int_19, Int_20, Int_25, Int_9

[170] In the 2022 Pilot Implementation Call, we found evidence of requests from the UK Space Agency from projects, for example.

[171] Int_5, Int_6

- Increased stakeholder engagement activities prior to the funding call going live to give additional time for prospective applicants to identify ideas, collaborations and match-funding routes. The NSIP team have planned to attend events across the UK to promote the programme and answer questions, in addition to the regular mailing list, social media and gov.uk announcements.
- Longer durations to apply, with 12 weeks across the two stages rather than eight weeks. Due to the highly competitive nature of NSIP most applicants will only have to complete the outline proposal, avoiding a loss of time for unsuccessful proposals.
- Implementation of ITP standardised questions which bring USKA closer to Innovate UK's approach and should offer consistency across UK Space Agency national programmes.
- Increased cross-initiative working within the UK Space Agency to aid funded teams to access follow-on support to maximise the value of public investment. These activities may include signposting opportunities for further public or private funding, training, and introductions to potential business and public customers.

In conclusion, while NSIP has made strides in integrating lessons learned from previous calls, particularly in refining call design and assessment processes, several persistent challenges remain. The ongoing Call 1 has benefited from changes informed by earlier evaluations, such as extending funding cycles and revising thematic focuses, and further targets for improvement have been identified by the NSIP team. However, issues such as insufficient feedback and complex application processes persist, suggesting that the implementation of improvements is still evolving. Continued efforts to address these issues will be crucial for enhancing the programme's impact and applicant experience.

This concludes our analysis of programme implementation and participant feedback on NSIP programme management. We now move on to conclusions and considerations for the future.

5. Conclusions

The findings of this interim report are based on analysis of interviews with applicants, both successful and unsuccessful, NSIP team and assessment panel chairs and reviewers. The reports also includes the results of a survey of ETP and NSIP KS and MP applicants and other available documentation.

Across calls and throughout conversations with stakeholders, several trends have been identified, representing successes and weaknesses of the NSIP process and representing opportunities for the NSIP team to reflect on and improve processes for future calls.

5.1. Summary

NSIP has made progress in expanding its scope and impact since its pilot phase. The programme now supports a diverse range of project themes through its KS and MP calls, achieving a balanced distribution across various NSS technology topics. Recent calls have funded projects across the UK, enhancing geographical diversity beyond the South East and fostering organisational diversity, with smaller and medium-sized organisations finding success in domestic calls.

Despite these advances, several challenges persist. While applications generally exhibit high technical quality, they often lack comprehensive business cases. The assessment process is hindered by the high density of information, making thorough evaluations challenging within the available timeframe. Small and new companies face difficulties meeting application demands. Applicants have highlighted barriers such as the insufficient six-week turnaround for proposal development, specifically for the consortium-building requirement. Applicants also expressed dissatisfaction with financial reporting requirements, indicating a need for more flexibility and clearer guidance. Nonetheless, the willingness of most survey respondents to reapply for NSIP funding suggests that these issues, while significant, do not present insurmountable barriers.

Lessons learned from the NSIP application process have also been used to improve the assessment approach across the UK Space Agency, demonstrating the UK Space Agency's resolve to standardise and improve agency-wide processes.

Amongst successful applicants, perspectives of project progression are largely positive, with interviewed and surveyed applicants generally satisfied with the NSIP process. Some challenges persist, particularly around the short grant period for ETP and NSIP KS grants, which can be compounded by delays in contracting, consortium building and procurement. Reporting processes are seen as appropriate and sufficiently flexible and the support and guidance provided by NSIP team is held in high regard by programme participants, especially when responding to a delay or unforeseen issue. As with the application

process these challenges represent opportunities for the NSIP team to iterate and improve the post-award process for future calls, with opportunities to learn from other processes across government such as those used by Innovate UK.

The programme has integrated feedback from past evaluations, leading to improvements in funding structures and thematic areas, such as the adoption of multi-year funding. However, ongoing challenges, including low satisfaction with feedback and complex processes, indicate that further refinements are necessary.

Table 14 shows our interim findings against the questions laid out in the evaluation framework.

Table 14: Initial findings against process evaluation questions

Evaluation question (EQ)	Initial findings
1. To what extent has the delivery of NSIP been effective?	Across calls, applicants reported satisfaction with the support and communication provided by the NSIP team, although they faced difficulties such as the insufficient six-week application timeline. It is worth noting that the application timeline was extended to eight weeks for NSIP MP and KP. Despite these barriers (see Table 7) applicants expressed a willingness to reapply, indicating that these issues are not insurmountable. The programme maintained open communication channels which facilitated adaptation to changes, although there were noted challenges regarding the clarity of financial reporting requirements and the North Star Metric. The short grant duration in earlier calls was seen as unsuitable for fostering innovation, with many expressing dissatisfaction. Post-award support was generally well-received, although some applicants would have liked more technical discussions.
2. Does the current NSIP represent the most effective approach to achieving the programme and wider NSS aims?	There is a preference among commercial organisations for procurements over grants as procurements offer collaboration with a lead customer and reduce investment risks. Applicants (see Table 7) were generally satisfied with funding levels but advocated for longer grant durations and more flexible financial planning. The programme attracted proposals from both industry and academia, with a 18.8% success rate across all calls.
3. To what extent has NSIP portfolio design incentivised R&D activity?	NSIP has expanded its scope since the pilot phase, offering an open call for NSIP KS and MP, effectively supporting a diverse range of project themes and achieving a balanced distribution across NSS technology topics. The programme has curated a coherent and appropriate portfolio, reflecting its alignment with the wider NSS and UK Technology Roadmap. While the report does not detail specific gaps or duplications in technology, the portfolio's diversity suggests a degree of diversification of investment and therefore, to a certain extent, risk.
4. What lessons can be learned from the scheme design and implementation to support future policy design?	Programme implementation offers some lessons for future policy design, particularly the importance of detailed feedback, appropriate timelines and clearer financial requirements, suitable for a diverse range of applicants. The programme's evolution has demonstrated the value of incorporating learnings from previous phases, such as the introduction of multi-year funding.
5. To what extent has the assessment and selection process been effective and efficient?	The assessment and selection process of NSIP has been effective in some respects but faces some challenges. While discussion and moderation sessions were identified as enablers, the complexity of applications and insufficient feedback were notable barriers. Reviewer selection improved over time, contributing to a more comprehensive portfolio, but contracting delays impacted timelines. Although EDI considerations were not explicitly applied, the programme achieved some degree of diversity organically, resulting in a diverse portfolio with smaller organisations finding success.
6. What activities were undertaken to increase engagement/advertisement?	NSIP undertook several activities to increase engagement and advertisement including providing FAQs and a Bidders' Briefing. While these efforts were beneficial there is room for improvement in providing more rigorous guidance and feedback mechanisms. Suggestions for enhancing external communications included offering detailed pre-application guidance and providing an advance schedule for upcoming calls in a financial year.

5.2. Questions for further consideration

Feedback received raised several additional questions outside of the scope of this report. We pose these questions as suggestions to potentially explore in further evaluation activities and for the NSIP team to consider as future calls progress. However, they do not necessarily lie within the remit of the NSIP team to control or address, and responsibility may lie with the UK Space Agency or DSIT.

1. **What opportunities exist or can be created by the UK Space Agency to ensure that follow-on funding is available to projects that successfully reach their development goals over the course of their NSIP funding?** Multiple interviewees[172] referenced a perceived lack of funding opportunities for mid-stage technology development, creating a risk of a 'valley of death' where early-stage technological development funding, such as that delivered through NSIP, is not met by mid-stage technological development funding to fully demonstrate the in-orbit viability of a technology or product. This is a major risk for the commercial viability of early-stage UK-based space technologies and potentially limits the success of NSIP in terms of providing a robust route to market.
2. **Is NSIP's overall funding approach sufficient to deliver the kind of robust commercial products and entities that are aimed for in the programme's application documents?** NSIP currently funds many different technologies at a relatively low level rather than selecting a smaller number of more established or commercially viable technologies and building a technology investment portfolio around those. This issue is being addressed somewhat by the split of the NSIP programme into Kick Starter and Major Projects, providing higher levels of funding to a smaller number of more robust proposals, but this balance should be considered as future calls are designed. This question is related to the previous point. Some interviewees[173] expressed concern that the 'wide-net' approach to funding is contributing to the 'valley of death' phenomenon by contributing a lot of money to low-TRL and early-stage technology development without providing a pathway for mid-TRL development or in-orbit demonstration, potentially limiting the return on investment from NSIP.
3. **What steps can be taken to ensure a more reliable and predictable call structure going forwards?** Many interviewees[174] highlighted how the irregularity of call announcements and the lack of long-term advance notice of impending calls limits prospective applicants' ability to develop proposals and build consortia outside the prescribed six-week application period. All areas of the UK Space Agency face restrictions in how and when they can spend their annual budget and whether they can move spend across financial years. There is often underspend, or funds become available late in the financial year, which affects when calls are launched. However, consideration should be given to what steps at all levels – NSIP team, UK Space Agency management, DSIT leadership, etc. –

[172] Int_14, Int_20, Int_22, Int_32, Int_40, Int_67

[173] Int_7, Int_14, Int_40, Int_51

[174] Int_12, Int_14, Int_22, Int_25, Int_27, Int_33, Int_38, Int_65, Int_68

can be taken to provide more consistency in call provision. This would give companies more lead time in lining up match funding in advance.

5.3. Next steps

This concludes our interim process evaluation report, providing a synthesis of the perspectives of programme applicants, participants, managers and reviewers on the strengths and weaknesses of the NSIP process across all calls, from the inception of the ETP through to the most recent NSIP KS and MP calls.

As the current slate of NSIP projects (KS and MP Call 1) progresses and concludes, this report will be supplemented by further evaluation reports on KS and MP projects, including additional interviews with programme teams. These reports will be delivered after project completion, targeting late 2025 for KS and early 2027 for MPs.

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Annex A. Interview Questions

Table 15 shows the interview questions put to successful and unsuccessful applicants. Table 16 shows the interview questions put to assessment panel chairs and reviewers. Numbered questions are the primary questions, with bullet-pointed questions representing prompts or follow-ups.

Table 15: Interview questions for successful and unsuccessful applicants

1. How did you first hear about the programme?
2. Can you describe your experience of the process of applying to the programme? • Did you experience any issues? If so, how do you think these could be improved? • Did anything work particularly well for you? • To what extent was the time from application to award as you expected? Did you experience any issues in this regard and what was the impact? • Did you receive feedback? If so, how useful was this to you? • To what extent was there enough support and time to prepare the submission? What worked well/what could have been improved?
3. To what extent did you find the assessment criteria to be suitable for the programme? • How clear was your understanding of the needs and objectives for the funding calls? Prompt: did you attend any of the pre-application activities?
4. Following the outcome of the application, did you experience any delays in the process, both before the start of the project, throughout the progression of the project and finalisation of project?
5. Were there any changes made by the UK Space Agency to the running of the programme? If so, were these changes communicated effectively and was the reasoning behind them clearly explained?
6. To what extent did communication between you and the UK Space Agency programme team work effectively? • What worked well? • What didn't work so well, and what impact has this had on your project delivery?
7. How does this model funding work for your organisation and objectives, compared to other funding models? • Do you believe that the grant amount, grant duration and rules around match funding are suitable?
8. From your perspective, do you believe the programme was adequately promoted within the industry? • If not, why? • What could be improved?
9. How does this model of co-funding grant work for your organisation and objectives, compared to other funding models? • Do you believe that the grant amount, grant duration and rules around match-funding are suitable?
10. What single change to the way the programme is run would make the biggest improvement for you?

Table 16: Interview questions for the assessment panel

1. What is your role/what was your role at the time when the assessment took place?
2. Which NSIP calls were you part of the assessment panel for? (and in what capacity)

3. Could you briefly describe the assessment process for ETP/Pilot/MP/KS? What are the steps? Were there differences between the different funding calls?
• If chair, ask what their role involved.
• What are the different roles in the assessment (e.g. initial assessment, panel, chair)? Can you describe?
• To the best of your knowledge, is any one proposal reviewed by multiple assessors? How does moderation work?
• If involved in the moderation process:
  o To what extent do you think it was effective?
  o Was it consistent with the stated assessment criteria?

4. How did you become involved in the assessment process? • (For non-chairs) Was it through previous contacts with the UK Space Agency or expertise in a specific field?
5. For chairs: Can you describe your experience of the selection process for forming the assessment panel? • What has worked well? • What didn't work so well?
6. Could you comment on the expertise and experience of the overall assessment panel? • Diversification in terms of background, experience, academic vs non-academic?
7. How would you evaluate the effectiveness of the assessment process? Did you encounter any challenges? What worked well, what not so well? • How appropriate do you find the assessment criteria used by the selection panel? • How clear are the assessment criteria? • If you were involved in multiple calls, do you recall differences? Which was most effective and why? • If you could change one thing to improve the process, what would it be and why?
8. Can you describe the approach or any efforts in curating a diversified and relevant project portfolio? Have you identified any gaps or duplications? • What efforts were made to ensure diversification of geographical locations and technological areas within the programme? • Were the selected proposals sufficiently diversified? What could have been improved? • What criteria were used/considered for diversification? (e.g. company size, organisation type, geography)
9. To what extent were EDI factors considered as part of the selection process?