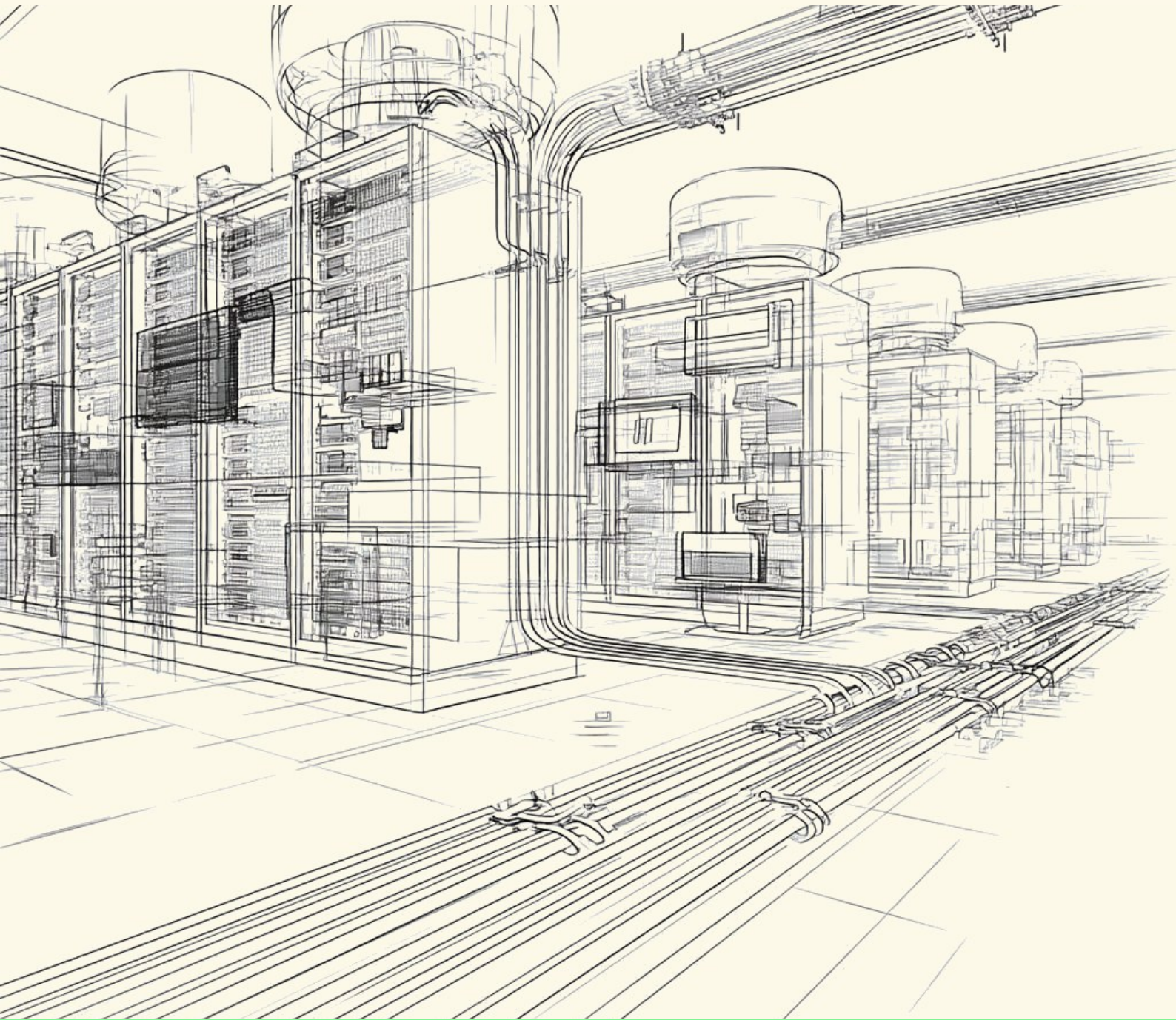




REPORT

Reforming the Alan Turing Institute

The UK's national AI institute has lost its way. Major reform is needed to turn it into a vital asset for defence and national security.

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[Science](#)[AI](#)[Technology](#)[Defence](#)

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Summary

- The Alan Turing Institute (ATI), the UK's national institute for AI, stands at a critical juncture. It has struggled to deliver on its original mission to make great leaps in research, suffering from a lack of clear purpose, a fragmented and thinly spread research portfolio, and a governance structure misaligned with national priorities.
- A recent letter from the Secretary of State provides a critical and timely mandate to reform the Institute and give it a new, vital role in Defence and National Security (D&NS). To achieve this, five core reforms are necessary:
 - **Governance reconstitution:** The Board of Trustees should be completely replaced with experts in D&NS and AI, who are fully committed to the success of the Institute. The formal governance role of the founding universities must be phased out.
 - **Leadership renewal:** The new Board of Trustees must appoint a new CEO and executive team with experience in institutional transformation and the D&NS sector.
 - **Research strategy refresh:** The ATI must discontinue non-core missions in health and the environment to concentrate exclusively on a new D&NS research strategy with a mix of user-focused and longer-range research. A new foresighting capability should be developed.
 - **Funding and accountability reform:** The core EPSRC grant must be repurposed to support the new mission, with continued funding made conditional on the swift implementation of governance and leadership changes. Core funding should serve clear purposes.
 - **Develop national security capabilities:** The Institute must invest in secure infrastructure and significantly increase its number of security-cleared personnel to operate as a trusted partner to government.
- Success is contingent on using the leverage of the core grant to enforce these changes. A phased 36-month implementation plan is proposed, beginning with a foundational reset to install new leadership and cease non-core activities.
- A reformed ATI will provide the UK with a decisive national advantage by developing sovereign AI capabilities for defence and security, returning the Institute to the principles of its namesake, Alan Turing, by delivering groundbreaking research in the direct service of the nation.

A clear mandate for radical reform

At a time of national peril during the Second World War, Alan Turing cracked the Enigma code – turning pioneering computing into a strategic advantage that brought Britain back from the brink. His work at Bletchley Park is widely credited with shortening the European war by two to three years, saving countless lives. The enormous scientific and technological impact of Turing’s work on computing and information theory still resonates today.

Alan Turing is a national hero, and any research institution that bears his name ought to match the audacity of his vision and the ambition of his work. This means pursuing research that is both scientifically groundbreaking and directly useful to the nation’s security and prosperity. Our standards should be high, and we should not be afraid to speak up when performance falls short.

The Alan Turing Institute (ATI) was established in 2015 as the United Kingdom’s national centre for data science. It was launched as a joint venture between five leading universities and the Engineering and Physical Sciences Research Council (EPSRC). Since launch, the ATI has benefited from over £200 million in government funding.

The ATI’s [founding goals](#) were to make great leaps in research, apply those advances to pressing real-world and policy problems, train the next generation of specialists, and keep the UK a global leader in the fields. Unfortunately, since inception, the ATI has struggled to deliver on these goals and to find a clear and meaningful national role.

Its original remit was to make advances in data science, but in 2017 the Government expanded its mandate to include AI, in line with the recommendations set out in the [Industrial Strategy](#) published in November of that year. This change was made without corresponding reforms to the Institute’s governance and leadership, which resulted in a research portfolio that neither kept pace with the frontier nor distinguished itself from existing academic work.^[1]

This was incongruous with what was happening in the field. By 2017, strides in AI had already shifted from academia to industry. Google Brain published its seminal paper, “[Attention Is All You Need](#),” laying the groundwork for today’s large-language models. DeepMind’s [AlphaGo Zero trained itself from scratch](#), toppling all previous Go programmes in 40 days. And Facebook AI Research (FAIR) [launched PyTorch](#), an open-source framework that quickly became the research community’s go-to tool. The ATI has visibly not kept pace with those advances – nor has it visibly established a distinctive role in foundational AI research.

Furthermore, the ATI has not visibly succeeded in turning research into system-wide, real-world or policy solutions. ^[2] While there are isolated examples of policy-relevant or interdisciplinary work, impact has been fragmented and the Institute has lacked a clear national delivery model. The standout exception is its defence and national security (D&NS) portfolio, which is widely praised for the quality of its work, its relevance to real-world challenges, and for keeping ahead of the technological curve. Part of the portfolio’s success stems from an operating model that is distinct from the structure of the rest of the Institute: government D&NS users set the agenda, and projects are evaluated by the concrete results they deliver to frontline decision-makers.

Overall, the ATI has struggled to function as a genuinely national institute. The [2023 quinquennial review](#) (QQR) found its role remained ambiguous, with “slow and difficult” decision-making and governance structures that have failed to support action in the interest of the UK as a whole. While some individual programmes are strong, they do not combine to form an integrated institution capable of serving a broad set of UK and international stakeholders.

It is in this context that the Secretary of State for Science, Innovation and Technology has rightly intervened. In July 2025, he wrote a detailed and prescriptive letter to the ATI’s chair (see Appendix B). The letter provides a mandate for reform: performance issues must be addressed by reorienting the Institute’s work to make its successful D&NS model the central organising principle – and leadership and governance must be reconstituted to reflect this.

This renewed focus arrives amid growing geopolitical volatility and sharper national security threats. The Secretary of State’s letter is well-judged on two fronts: intensifying investment in the Institute’s proven area of strength is strategically wise, and creating a dedicated AI institute focused on defence and national security applications, if done well, could fill a critical capability gap just as our global context is becoming increasingly dangerous.

Several converging factors make a renewed focus on defence and national security timely:

- **A new technological reality.** Recent prominent AI breakthroughs have come overwhelmingly from industry; academic research has not kept pace. With cutting-edge work concentrated in commercial labs, the UK can no longer rely on academia alone for state-of-the-art capabilities or strategic advice.
- **An increasing role for AI in defence.** AI is already shaping the outcomes of conflicts around the world and forming the basis of various defence and national security strategies. Ukrainian units, for example, [now rely on AI-driven fire-control apps](#) to steer most artillery and drone strikes. Across the Atlantic, the [U.S. DARPA ACE programme](#) has flown an AI-piloted F-16 in live dogfights against seasoned human aviators. Meanwhile, China is [testing swarming drones](#) that split into multiple autonomous units mid-air, hinting at the next phase of massed, machine-coordinated attacks. Sovereign AI capability is already becoming a cornerstone of defence and national security.
- **A need for British AI defence and national security capabilities.** Dependence on a handful of overseas commercial labs for core national capabilities leaves the UK exposed. Both the latest [Strategic Defence Review](#) and the [National Security Strategy](#) call AI decisive to future military advantage; over-reliance on capacities from abroad risks eroding the nation’s operational independence.
- **The importance of an aligned institutional landscape.** The establishment of the world-leading AI Security Institute (AISI) and the ambitious Sovereign AI programme both signal a clear shift towards creating public institutions designed to serve specific, targeted national priorities that academia or industry will not address on their own. Further government investment into AI capabilities must fit into this wider ecosystem and vision.

The Secretary of State's letter is a formal mandate to enact a transformation that is long overdue. To deliver on this mandate, the ATI will have to move away from its current operating model and governance, and adopt structures built for a single purpose: defence and national security for Britain. The challenge ahead is to restructure the ATI to meet this mandate and secure a role as a vital national asset for the coming decade.

This paper provides a concrete plan for achieving that goal. This is not a departure from the Institute's heritage, but a return to the foundational principles of its namesake, Alan Turing, whose own work provides a blueprint for the Institute's future.

How did we get here?

Three principal challenges have impeded the ATI's ability to deliver on its national potential:

1. Structural governance deficiencies

At the core of the Institute's challenges is a governance model that, while designed to protect academic independence, has created structural incentives that are misaligned with ATI's original mandate and Britain's evolving national priorities. This governance model shields the ATI from the direct accountability typically expected of a national body, contributing to its underperformance and lack of focus.

Governance authority is unhelpfully dispersed between the Engineering and Physical Sciences Research Council (EPSRC) and the five founding universities, producing a dysfunctional dynamic:

- EPSRC, the primary funder, has not converted its financial leverage into clear policy direction, allowing a gap to open between the Institute's work and the public interest.
- The partner universities naturally press for activity that benefits their own institutions, ahead of wider national goals.
- Non-funder and non-university Trustees have not been selected for their willingness to take a long-term interest in the Institute's success, to invest in its future, or to demand results.

Moreover, the Institute's governance arrangements no longer suit today's AI landscape. As the technological frontier has shifted from universities to well-resourced private labs, ATI's university sector orientation has pulled it away from where significant breakthroughs now occur.

These are significant enough problems on their own. But a bigger issue is that the Board of Trustees lacks members with defence and security expertise, so it cannot steer the Institute toward those ends. Any plan for reform must confront this issue head-on; without a decisive change in governance, the Institute's future success is impossible.

Some may cite the [Haldane principle](#), and wider precepts of scientific independence, in defence of the existing governance model. However, invoking that principle would be misplaced in this debate. The Haldane principle is meant to protect the integrity of individual research funding decisions, not to insulate an entire institution from accountability for poor performance or misalignment with national goals.

A national institute is created to advance clear public objectives, and ministers (who shoulder the political consequences when those objectives are missed) must retain the authority to set the direction, as they did in 2017 when AI was added to ATI's remit. The Haldane principle – or any other point of convention on research governance – in no way stops a body like the EPSRC from directing its major national investments toward clearly stated government goals; it simply keeps routine research grant decisions at arm's length.

2. Mission drift and a lack of strategic direction

The ATI's most persistent challenge has been the absence of a clear role within the UK's research ecosystem. This lack of focus has resulted in a research portfolio that is fragmented, duplicative, and ultimately subscale for a body intended to serve as a national institute. The [UKRI quinquennial review](#) reached a similar conclusion, noting that many stakeholders felt ATI's research "could have been carried out by an individual university" and highlighting governance and operational effectiveness as areas of significant weakness.

Without a coherent national purpose to guide its investments, the Institute has been susceptible to mission creep. Its resources have been spread thinly across niche academic interests, overlapping with the mandates of other public institutions. For example, the "[Knowledge discovery from health use data](#)" project (which aims to improve healthcare efficiency through better access to patient-linked data) overlaps directly with the publicly stated goals of NHS data organisations. Similarly, environmental work supported by the ATI's "[AI for Science and Government](#)" programme could just as easily have been undertaken by the Met Office, DEFRA's public sector research establishments, or any number of universities.

While it would be unfair to expect the ATI to avoid *any* competition or overlap with other research institutions, the scale of overlap in research priorities demonstrates a systemic failure of the ATI to define an overarching distinctive and value-adding role, leading it to invest time and effort into work that could more appropriately be undertaken by others.

The Institute has also suffered from mission creep, particularly in work originating from its wider network of university fellows. The most significant example of this has been its drift away from its core technical mission toward work rooted in social and political critique. Although events on [critiquing AI through the lens of social theory](#), and introductory materials like the "[AI Ethics and Governance in Practice](#)" workbooks may have intrinsic value, they do not advance the primary founding goals of the Institute. This misalignment is a direct consequence of a leadership and governance structure that has failed to set and enforce a clear role for what should be a vital national asset.

The development of the "[Turing 2.0](#)" strategy was ostensibly an attempt to impose some shape and structure on the Institute's work by defining a narrower set of research priorities. But its "grand challenges" were defined too broadly (especially in the Environment and Health areas), creating confusion inside and outside the organisation as to the specific areas of these challenges that could be addressed by ATI, and therefore what differentiates ATI's offering from university research. This has meant subcritical or duplicative work has continued unchecked.

The result is a research portfolio that has lacked the coherence and critical mass needed for impact across the AI value chain.

3. An inability (or unwillingness) to support its best work

In the midst of inconsistent research output, the ATI's defence and national security portfolio is the standout exception: government and external observers alike cite it as a genuine success. The work of the Centre for Emerging Technology and Security (CETaS) has been praised by both the QQR and the Secretary of State. [Project Bluebird](#) – which is building AI that can manage a live sector of UK airspace – has been praised as unique and groundbreaking by the

UK air-traffic authority. [UKRI's announcement](#) of the funding settlement of £100 million in 2024 recognised the D&NS teams' "long and successful record of collaboration with UK defence and security agencies".

This success, however, seems not to have been recognised by the ATI's leadership. Interviewees told us that the ATI has not directed meaningful funding from its core EPSRC grant to its grand challenges, meaning the D&NS portfolio has subsisted on hand-to-mouth funding from external partners and occasional project grants. The problem might be driven by process as much as leadership: the QQR panel "found it difficult to understand from documents provided how UKRI-EPSRC core funding has been used", which points to a significant accountability deficit.

Furthermore, the current leadership's reported interpretation of the Secretary of State's letter as an [endorsement of the status quo](#) further demonstrates a misunderstanding of the unique strengths of the D&NS team, and suggests leadership will be unable or unwilling to support a sustained focus on this work.

The government's directive to pivot the Institute towards this successful D&NS model therefore creates a clear imperative for new leadership that recognises the importance of this work and has the requisite experience to deliver goal-oriented defence- and national security-focused work.

The opportunity for renewal

Despite these significant challenges, the current moment presents an unprecedented opportunity to transform the ATI into a vital and globally respected national asset.

1. A unique window for change

Reforming organisations of the size and structure of the ATI is hard – it takes a lot of political capital and activation energy. But a convergence of factors has put us at a pivotal crossroads and presented a unique opportunity to address ATI's long-running issues. Political headroom through direct ministerial intervention, the recognition of the importance of AI in new national strategies for [national security](#) and [defence](#), and heightened geopolitical urgency have created a rare window for fundamental reform. These factors provide the necessary leverage to overcome institutional inertia and implement changes that were previously unachievable.

2. Complementing a world-leading model

A reformed ATI, focused on developing AI capabilities for defence and national security, would complement the globally respected work of the AI Security Institute (AISI). A twin model of the ATI driving "AI for defence and national security" and the AISI ensuring the "security of frontier AI systems" could give the UK the most comprehensive and sophisticated public institutional architecture for AI in the Western world:

- The Alan Turing Institute would be responsible for **leveraging AI systems for defence and national security**: developing and delivering novel AI capabilities to give the UK and its allies a strategic advantage.
- The AI Security Institute would continue its vital work on the **security risks from or related to AI**: evaluating frontier AI models for safety risks and developing mitigations, and the technical standards for assurance, regardless of their application.

As the AISI's role continues to evolve, we see potential to create a virtuous circle where the ATI can develop cutting-edge capabilities, while the AISI provides the oversight to ensure they are developed and deployed responsibly. This structure could represent a powerful strategic advantage and a template for allied nations.

3. Bridging a capability gap

A refocused ATI can perform functions that neither government agencies, traditional universities, nor private industry can execute alone. By operating at the seam between the classified and unclassified worlds, it can engage international academic communities without diplomatic constraints, and play an important role in translating cutting-edge academic research into deployable defence capabilities. Furthermore, it can leverage the interest of funders such as international philanthropic organisations to build and coordinate new institutional capabilities that can accelerate AI applications for security and resilience.

A word of warning: the risk of failure

Navigating the challenges and opportunities outlined above is a formidable task. The new mandate from government is a critical first step, but it does not guarantee success. The history of public sector reform is replete with examples of well-intentioned strategies failing in the face of institutional inertia, complex stakeholder politics, and the inherent difficulty of cultural change.^[3] The path from the current state of the Alan Turing Institute to its revitalised future is therefore narrow and fraught with risk.^[4]

In addition, the pivot to D&NS is not without risk. A refocused ATI could needlessly duplicate the work of defence AI startups and the Defence Science and Technology Laboratory (Dstl), while creating strategic confusion with the new Defence Research and Evaluation (DRE) organisation proposed by the Strategic Defence Review. With the DRE also tasked to “design and deliver an early-stage science and technology (S&T) research portfolio”, there is a clear potential for mission overlap. A successful reform therefore requires the ATI to articulate a precise role that complements, rather than competes with, these other bodies.

Successfully navigating this narrow path requires a clear-eyed understanding of the core challenges of such a transformation. It demands a plan that can reform entrenched governance structures and manage the incentives of multiple powerful stakeholders. It requires leadership that can shift an established institutional culture, while simultaneously building entirely new operational capabilities.

Most critically, it requires sustained political will and decisive action from those with the authority to implement change. Without a robust and detailed plan to address these challenges head-on, the risk of policy failure is significant. Our recommendations provide such a framework.

However, policymakers must be prepared for three contingencies in the event of failed reform:

1. Managed downsizing

The first alternative would be to abandon the concept of the ATI as an important national institute with an ambitious D&NS focus, and salvage its high-performing components. This would involve winding down the central institution, and reconstituting the successful D&NS unit as a smaller, independent, and highly-focused research organisation to ensure its valuable work continues. The new entity would continue its core research under a more agile structure, with a narrower mandate and reduced administrative overhead.

2. Transferring capabilities

A second option would be to dissolve the ATI as a standalone entity but preserve its key functions by integrating them into other existing institutions (for example, AISI). This approach avoids the complexity of establishing a new organisation, while ensuring continuity of high-value work and retention of specialised staff and infrastructure.

3. Full decommissioning

If even a managed downsizing or capability transfer prove unworkable, the final option is to decommission the Institute entirely. In this scenario, the ATI would be closed, its work programmes phased out, and its remaining funding returned to the public purse.

These contingencies are not desirable outcomes as they would represent a missed opportunity for ATI to become the national institute that the UK requires. However, acknowledging them underscores the gravity of the situation and the absolute necessity for EPSRC and the Institute's new leadership to execute the proposed reforms with the urgency and decisiveness that the challenge demands.

The role of EPSRC

The Secretary of State has set the direction, but as a matter of political reality, lacks the direct mechanism to enforce it. Therefore, the success of this entire transformation rests on a single point of failure: the willingness of the ATI's primary funder, EPSRC, to act. EPSRC holds the only meaningful lever – the power of the purse – and it must not be afraid to use it. It must translate ministerial intent into direct action by making continued funding explicitly conditional on the swift implementation of governance and leadership reform. Inaction by EPSRC would be a conscious decision to accept the failing status quo and would render the government's stated policy irrelevant.

Recommendations^[5]

1. Reconstitute ATI's governance

Recommendation: The ATI's Board of Trustees should be entirely reconstituted, moving to a governance model centred around defence, national security and the cutting edge of AI. The Board must comprise engaged, motivated, passionate Trustees who are incentivised to steer ATI's alignment with national objectives while preserving its operational distance from government.

Key actions:

1.1 Establish a completely new Board of Trustees that aligns with ATI's new role

The Board of Trustees must be fundamentally reconstituted, moving from a model of detached oversight to one of **engaged, expert, committed governance**, to swiftly steer the ATI towards its new role in advancing UK defence and national security. The Board of Trustees must be led by a new Chair with the bandwidth, expertise and relationships to provide the high level of grip that the organisation will require. **Trustees must be highly motivated individuals who care about the defence and national security of the UK and who are invested in ensuring that the ATI is a high-performing and highly respected institute making a major contribution to this goal.** Within this, Trustees should be selected to bring a range of perspectives and knowledge from key sectors:

1.
 - **UK national security and defence:** Senior figures with deep experience in defence and intelligence requirements, such as former defence or national security advisers or former intelligence agency directors-general, who can help translate operational needs into overarching research priorities for the Institute.
 - **Defence industry:** Leaders from the UK's defence technology sector who can add a commercial perspective on technological feasibility and pathways to deployment and adoption. However, recruitment should ensure the Board does not become dominated by large defence primes, and should include at least as many representatives from challengers (see below).
 - **AI startups:** Commercial leaders from the UK's AI startup and scale-up ecosystem who can inject a culture of agile, product-focused delivery. Selection should prioritise expertise from firms at the forefront of defence and national security-relevant technologies, such as advanced data fusion for multi-source intelligence; AI-driven geospatial and cyber-physical analysis; and the development of 'edge AI' for autonomous systems. Representation from founders with proven experience in building dual-use technology companies would be particularly valuable.
 - **World-class researchers and thought leaders in AI:** World-class researchers with specific, applied expertise in the technological dimensions of AI, including its applications in defence and national security. Recruitment must prioritise demonstrable experience in applied D&NS research; individuals must be selected for their technical understanding, not for their prominence in the social or political debates around AI.

1.2 Redefine university and funder roles

To prioritise national over institutional interests, the governance role of the founding universities must be fundamentally reconsidered. While their research collaborations will remain valuable, their formal representation on the Board of Trustees should be phased out as quickly as possible to eliminate the conflicts of interest that have impeded the Institute. The relationship with EPSRC must also be restructured from one of passive funding with occasional institutional review to more hands-on performance management with clear accountability metrics.

2. Renew the ATI's leadership

Recommendation: The ATI must urgently appoint a new Chief Executive Officer and executive team with the experience required to lead a high-stakes institutional transformation and operate credibly in the defence and national security domain.

Key actions:

2.1 Recruit a turnaround leader

After reconstituting the Board of Trustees, the appointment of a new CEO is the next highest-priority action, as delivery of reforms is contingent on having a leadership team capable of executing change.

1.
 - To avoid repeating past mistakes, the appointment panel must speak to leaders in top AI firms (especially British ones) to canvass names, and should seriously consider including one of these leaders in the hiring process.
 - The ideal candidate will bring experience of turning around and rightsizing organisations, excellent stakeholder management skills, and be a clear and effective communicator of ATI's new role. Technical credibility in the spheres of AI, defence and/or national security is highly desirable. This will require competitive compensation to attract the right candidate, with a performance-related component that is linked to clear metrics.^[6]

2.2 Target non-traditional candidates

The search must extend beyond the usual academic and civil service networks. The required profile – an executive experienced in leading high-stakes organisational transformations – will be hard to find in these usual networks. The recruitment process should actively canvas senior executives in the private sector to find individuals with this unique skill-set.

2.3 Build a goal-aligned executive team

The new CEO must be empowered to build an executive team that reflects the Institute's reformed focus. The new CEO must have the backing of the Board of Trustees to make wholesale changes to their top team.

While leadership changes are not cost-free for any organisation, in this case the risks of inaction hugely outweigh any risks of disruption. Furthermore, a failure to resolve the leadership deficit internally will inevitably force government into a position of more direct and sustained intervention, an outcome that would further undermine the Institute's operational independence.

3. Refresh the research strategy

Recommendation: The ATI should comprehensively restructure its research portfolio to fit with its new role. Existing D&NS work should provide the foundation, and non-core research missions should be discontinued. The new strategy should include a mix of user-driven programmes, longer-range research, and strategic foresighting to ensure it both serves the immediate needs of government and anticipates future defence and national security challenges.

Key actions:

3.1 Immediately discontinue non-core research missions

As a consequence of the new D&NS mandate, the Institute must make clean breaks with past work. The Health and Environment "grand challenges" must be terminated, as they lack a meaningful connection to ATI's new role and duplicate work better performed elsewhere in the UK's research ecosystem.

3.2 Develop a research strategy and new work plan for D&NS research

Building on the success of the current partnership with government, ATI's D&NS remit should become the foundation of all future ATI work. This should expand beyond existing contractual work to include a focus on the longer term research challenges that can deliver a step change in UK D&NS capabilities. The new research strategy should have three main pillars:

1. **1. User-focused programmes:** Research that directly addresses the articulated needs of its government customers. Building on existing successful programmes, these programmes should be co-designed with government sponsors in the Ministry of Defence and intelligence agencies to solve specific operational challenges. Success for this pillar will be measured by operational impact and capability adoption by users.
2. **Longer-range research capability:** Research that lies 'over the horizon' from immediate D&NS end-user requirements. This should include some curiosity-driven research which may help serve the overall mandate for AI defence and national security and ensure that the UK stays ahead of the technology curve. This is not a mandate to contort existing work under a D&NS heading; strict tests for additionality and alignment need to be applied (see below). Work must focus on areas where the ATI is uniquely well-placed to deliver results, which will require coordination with other D&NS research bodies and companies to ensure complementarity and additionality.
3. **Strategic foresighting:** The ATI should develop a foresighting or 'Observatory' function to undertake real-time evaluation and assessment of global AI developments, with a focus on assessing adversary capability development. This could include evaluating new model architectures and techniques emerging from both allied and adversary nations, and assessing the potential defence and national security

implications of emerging AI paradigms. A key focus could be on the importance of smaller, highly efficient models that can be deployed at the tactical edge for D&NS ends, providing capabilities that large, commercial models cannot. This could include a focus on identifying critical infrastructure in the private sector where government D&NS partnerships may be usefully developed. ^[7]

3.3 Apply a clear "pathway to sovereign impact" test

The Secretary of State's letter sets out four principles by which future ATI work should be undertaken:

1. Delivers cutting-edge AI research of the type that cannot or would not be undertaken by industry or individual universities
2. Delivers tangible impact in support of government missions
3. Facilitates interdisciplinary collaboration and ecosystem building
4. Forms part of a coherent programme of work that furthers government's defence, national security and sovereign ambitions

These principles are broadly sensible, but principles 2 and 3 appear to leave scope for mission creep. To avoid this, these principles must be applied through a strict decision framework, where every programme articulates a clear pathway to sovereign impact.^[8] This pathway is not limited to adoption by a specific government customer; it can also include the successful commercialisation of a technology through a UK-based company or licensing to the UK defence industrial base. Research that cannot demonstrate a credible pathway to strengthening UK sovereign capability should not be taken forward.

4. Reform funding and accountability

Recommendation: The ATI's funding model should be reformed to support its new role, with the EPSRC core grant used to invest in the capabilities that will underpin the ATI's revised research strategy.

Key actions:

4.1 Clearer stewardship of the EPSRC core grant

The new ATI Board of Trustees and CEO must work with EPSRC to rapidly agree the parameters and measures for the core grant, including any upfront investment required to reform and right-size the organisation.

4.2 Repurpose the core grant

Core grant funding should be repurposed to enable investment across the research strategy laid out above, with a particular focus on supporting the non-user-driven pillars which will require internal funding. Areas where investment is needed include:

1. Core business functions to support partnerships with government, including vetting, security management and appropriate research and IT domains for government research;
2. Maintenance of the Turing Network with UK higher education institutions where this can enable the best of UK academic expertise to partner on D&NS projects;

3. Establishing closer links with partners in Five Eyes nations;
4. Acting as a custodian for important sovereign AI assets, for example, new, secure datasets, models and tools;
5. Developing a pipeline of AI technical skills;
6. Additional security infrastructure (see 5 below);
7. Maintaining of the ATI's London presence in a headquarters befitting a high-profile national institute.

4.3 Use core funding as leverage for reform

EPSRC core funding from financial year 2026/27 should be made conditional on the successful and timely implementation of the proposed governance and leadership reforms. This provides the necessary impetus to begin the transformation.

4.4 Establish new key performance indicators (KPIs)

In line with the SoS's letter, a new framework of KPIs must be established to measure success against the ATI's new purpose. We make suggestions for these in a later section.

4.5 Prepare for the 2026 mid-term review

The ATI's performance against these new KPIs in the 2025-2026 period will form the evidence base for the 2026 mid-term review. As stated in the SoS letter, this review will be the formal point at which the ATI's "longer-term funding arrangement" is reconsidered.

5. Develop additional national security capabilities

Recommendation: The ATI should invest systematically in any additional secure infrastructure and operational procedures that are necessary for it to function as a trusted and effective research partner for the UK's defence and intelligence communities.

Key actions:

5.1 Build secure infrastructure

The Institute must ensure that all of its relevant teams have access to a multi-classification research environment that can handle classified information up to TOP SECRET levels. This will include ensuring staff have easy access to a Sensitive Compartmented Information Facility (SCIF) near the ATI London office.

5.2 Scale the number of vetted personnel

The ATI should work with UK Security Vetting to ensure that an increased number of staff security clearances can be managed. The Institute should establish a goal for a significant majority of its research staff (aiming for 75%+) to hold at least Security Check (SC) clearance within two years to create a critical mass of cleared personnel.

5.3 Foster a security-conscious culture and communications approach

The transformation requires a cultural shift across the organisation to security consciousness. This involves more than implementing new policies on data handling and publication; it requires fostering a mindset that balances intellectual openness with the discretion

appropriate for a defence and national security body. This must include adopting a communications style that prioritises discretion and trusted engagement with partners over broad public promotion, reflecting the sensitive nature of the Institute's work.

Implementation roadmap

Phase 1: Foundational reset (first 6 months)

This initial phase is focused on the urgent and essential prerequisites for all other reforms: establishing new leadership and governance and clarifying the Institute's strategic direction.

1. **Execute leadership and governance reform:** The highest priority is reconstituting the Board of Trustees and appointing a new Chief Executive Officer. This will be enabled by the EPSRC making continued core funding conditional on these governance changes being implemented within the first quarter.
2. **Formal discontinuation of non-core missions:** The new leadership must immediately begin the formal process of winding down the health and environment "grand challenges" as these are not aligned with the new D&NS mandate. This requires a clear communications plan for staff, and a graceful transition for existing partnerships.
3. **Complete organisational rightsizing:** The ongoing redundancy process must now be accelerated to reduce administrative overhead while preserving essential aligned research capabilities.
4. **Design and establish new research governance:** The new CEO and restructured Board of Trustees must design and approve the formal governance for the new research strategy, with a clear intention to continue the ATI's existing D&NS work as the core of this new strategy:
5.
 1. **User-focused programmes:** Establish a formal engagement mechanism with the Ministry of Defence, intelligence agencies, and other government customers to source and define research problems.
 2. **Longer-range research capability:** The Board of Trustees must oversee the governance, budget allocation, and commissioning process for this work, ensuring it is tied to exploring "over-the-horizon" D&NS challenges.
 3. **Strategic foresighting:** The Board must define and oversee the remit and governance for the "observatory" function to assess global AI developments and adversary capabilities.
5. **Operationalise the "pathway to sovereign impact" test:** The new leadership must turn this test into a formal, non-negotiable part of the project initiation and funding process. A template should be created requiring all new proposals in both research pillars to articulate their specific pathway to impact, be it government adoption, UK commercialisation, or licensing.
6. **Establish ATI-AISI coordination:** A formal Memorandum of Understanding with the AI Security Institute should be developed to define roles, agree areas of common interest, establish coordination protocols, and prevent remit overlap.

Phase 2: Capability building and operational pivot (months 6-18)

With new leadership in place, this phase focuses on building the core operational capabilities required by the ATI's new role and demonstrating early results.

- 1. Launch initial research programmes:** Based on the new governance, the ATI should launch its first co-designed, demand-driven programmes with government partners, chosen for their potential for quick, high-impact results. The Board should also commission the first long-range research projects.
- 2. Build foresighting function:** Formally establish the "Observatory" function with a direct reporting line to the CEO and Board. Its initial remit will be to produce a baseline report on adversary AI capabilities within six months.
- 3. Develop security infrastructure:** Begin the significant investment in the facilities, IT systems, and processes required to handle classified materials, aiming for a multi-classification research environment up to TOP SECRET levels.
- 4. Accelerate personnel recruitment:** Actively recruit researchers and staff with the necessary technical excellence and security experience, and, where needed, begin the process for obtaining security clearances for existing and new staff.
- 5. Deepen government customer relationships:** Strengthen existing D&NS collaborations to build systematic long-term partnerships with the MOD and intelligence community.
- 6. Embed a new research culture:** The new leadership must actively foster a new culture that rewards operational impact, customer satisfaction, and security consciousness over purely academic outputs.

Phase 3: Performance delivery and sustainable operation (months 18-36)

This final phase focuses on demonstrating sustained performance, achieving financial sustainability, and solidifying the ATI's position as a core national asset.

- 1. Scale the research portfolio:** With the models proven, the ATI should ramp up the number of both user-focused and long-range research programmes, and build out the foresighting function.
- 2. Deliver and demonstrate capabilities:** Provide tangible evidence of research impact through the deployment of tools in operational contexts, influencing government policy, and contributing to allied capabilities.
- 3. Gain international recognition:** Solidify the ATI's role as a global leader in AI for defence and national security through leadership in international research collaborations and influence on allied defence planning.

How would we know the reform is succeeding?

The Institute's performance must be measured against a new framework that demonstrates its successful transformation into a vital national asset. This means defining success in terms of strategic value and impact. We can envision success being achieved in three distinct phases:

1. Establishing viability of reform (0-24 months)

The immediate goal is to stabilise the Institute and prove the viability of the new model. Success in this phase means that EPSRC and other key stakeholders have successfully navigated the narrow path that now lies ahead of them. It would be defined by the full reconstitution of the board, the appointment of a new CEO, and the clear and public commitment to the ATI's new D&NS role. Operationally, it would be evidenced by the discontinuation of non-core programmes and the successful negotiation of an initial wave of contracts with government partners. At this stage, the ATI is no longer considered a problem to be solved, but a reformed institution with a clear and promising trajectory.

2. Becoming an indispensable national partner (2-5 years)

With the foundations secure, the ATI will have become a critically important centre of excellence for defence and national security AI challenges. Success in this phase is defined by impact and trust. It would be demonstrated by a portfolio of ATI-developed capabilities, tools, and methods being actively deployed by the MOD and intelligence community. Structured feedback from these "customers" would be overwhelmingly positive, confirming the relevance and quality of the Institute's work.

3. Establishing a decisive national advantage (5+ years)

In its mature state, the reformed ATI will be delivering a genuine strategic advantage for the United Kingdom. Its work will not just be supporting current operations but actively shaping the future of the UK's defence and security posture through its foresight and R&D. Success at this level would be evidenced by the ATI's central role in major defence and national security programmes and its ability to generate novel sovereign technologies that provide the UK with capabilities its adversaries cannot easily replicate. It would be a globally recognised institution, seen by allies as a model for how to effectively harness AI for defence and national security, fully realising the legacy of its namesake.

The Key Performance Indicators (KPIs) outlined below would serve as evidence for tracking progress through these three phases:

- **Mission delivery & impact:** The number of ATI-developed capabilities, tools, or research outputs adopted by the MOD, intelligence agencies, or other government users. The ultimate test is whether the cancellation of a research programme would be noticed by its users.
- **Customer satisfaction:** Regular, structured feedback and ratings from government sponsors on the relevance, quality, and timeliness of the ATI's work.

Capability development: Measurable progress in building institutional capabilities, such as the number of personnel with security clearances and the readiness of secure facilities.

Notes

1. As a [report from the Tony Blair Institute](#) notes, the ATI has been directly behind the curve on numerous strides in AI: "For example, neither the key advance of transformers nor its application in LLMs were picked up by advisory mechanisms until ChatGPT was headline news. Even the most recent AI strategies of the Alan Turing Institute, University of Cambridge and UK government make little to no mention of AGI, LLMs or similar issues."
2. We repeatedly use the word "visibly" here because much of the D&NS work that ATI does is not public.
3. We note here that the ATI is no exception: many of the recommendations from the QQR have not been taken forward.
4. A table setting out the key risks, with high-level mitigations, is given at Appendix C.
5. A proposed Mandate and Terms of Reference for the reformed Institute, which summarises these changes, can be found in Appendix A.
6. We would initially propose a base salary of £250,000 with a performance-related bonus of up to £100,000 (based on specific milestones and success metrics); further market research will be required.
7. This will have some interaction with AISI's work to evaluate the safety of frontier models, and is a potential area of collaboration.
8. 'Sovereign impact' here means delivering for UK defence and national security goals in a measurable way. The term is used here to differentiate from the separate 'pathways to impact' process used by UKRI research councils, which takes a global view of impact.