Information Governance

Information and communication technology strategy for the NDA's estate

December 2015

1.0 Contents

2.0 Document control

2.1 Approvals

Approver name (Print)	Organisation	Signature	Date
Rob Higgins NDA Director of Business Services	NDA		

2.2 Version history

Version	Date	Author
1.0	December 2015	Simon Tucker

2.3 Distribution

The approved version of this document will be published as an NDA document and available on the NDA website.

3.0 Background

3.1 The Case for Change

The Nuclear Decommissioning Authority (NDA), by virtue of the Nuclear Transfer Schemes by which the assets of British Nuclear Fuels Ltd (BNFL) and the United Kingdom Atomic Energy Authority (UKAEA) passed into the NDA's ownership, owns all of the information (with few exceptions) contained in its estate. With ownership comes legal and regulatory responsibility for all of this information and the NDA has a duty to ensure information is managed across the estate. Information & Communication Technology (ICT) is a key enabler in this regard and the NDA therefore needs to have an effective approach to estate-wide ICT.

The NDA has historically taken a position allowing the estate to determine its own ICT strategies and services with each organisation effectively operating autonomously. NDA's limited control and direction were maintained through collaborative procurement, where possible, and sanction & validation and contract management processes.

In 2013, the NDA conducted an internal audit of estate-wide ICT expenditure which concluded that there were serious deficiencies in the control framework. The report was given an overall 'Red' rating. The resultant actions from that exercise are not yet complete and the NDA's changing approach to estate-wide ICT is a part of the required remediation activity.

The NDA's change in approach is also in response to a number of other emerging factors:

- the estate's need for guidance and direction on ICT strategy (NDA being an 'intelligent client')
- the increasing cyber security threat and changing/diverse risk appetites
- a history of underinvestment or ill-considered investment in ICT in certain areas leading to serious degrees of obsolescence
- the digitisation of business with ICT now at the core of the majority of business processes as a critical enabler
- the increased need to exchange information across the estate, its stakeholders and supply chain
- the opportunity to realise greater benefits from a coordinated and cohesive approach to ICT which maximises collaboration and promotes improved knowledge management and reuse of existing assets.

The NDA has a critical role to play in addressing these issues. At the same time we should provide leadership regarding how technology should be procured and exploited, both now and in the future, to optimise business value. This is particularly important given the significant investment that is needed to adapt to the requirements of the individual businesses, the security challenges and to meet our stakeholders' needs.

3.2 The Information Governance Strategy and Associated Programme

NDA has developed an Information Governance Strategy (IGS) to promote the efficient management and re-use of NDA information assets. We will achieve this by establishing estate-wide communities who share business processes, collaborative procurement opportunities, procedures and policies and by adopting common standardised technologies and solutions for information governance where it is practical to do so.

Our Information Governance Strategy consists of five interdependent strands:

1. **Information Management** to ensure compliance, promote wider openness and transparency and reduce risk and baseline costs.
2. **Knowledge Management** to improve business efficiency by sharing information and encouraging learning; capturing and transferring that knowledge which is necessary to the decommissioning mission.
3. **Information Risk Management** to improve information assurance and reporting by building confidence in our ability to manage risk effectively.

4. ***Information & Communication Technology*** to use common standards and technologies, enabling collaboration through shared solutions and procurement strategies.
5. ***Intellectual Property Management*** to protect information, knowledge and know-how and exploit its value where appropriate.

The Information Governance Programme (IGP) has been established as an NDA National Programme to underpin the IGS and to address the estate's shortcomings in these areas.

3.2.1 IGP Mission Statement

The purpose of the IGP is stated below, and the ICT strand must demonstrably align to this:

> **"To optimise value from NDA knowledge and information assets in a compliant and secure manner, investing only in that which needs to be retained to deliver the NDA's mission"**

3.2.2 IGP Scope

The IGP applies to the NDA, a number of its wholly owned subsidiaries and the Site Licence Companies. The in-scope organisations at the time of writing are listed below. This list will change over time as organisations are brought into or taken out of scope.

- Nuclear Decommissioning Authority
- Direct Rail Services
- International Nuclear Services (including Pacific Nuclear Transport Ltd)
- NDA Archives Ltd
- NDA Properties Ltd
- Radioactive Waste Management Ltd
- Low Level Waste Repository Ltd
- Magnox Ltd
- Sellafield Ltd
- Dounreay Site Restoration Ltd

No variation in this scope is made for the ICT discipline and this strategy applies to all of the entities listed.

3.2.3 Vision, Mission, Objectives, Strategy and Action Plan (VMOSA) Approach

The IGP is addressing 5 Information Governance strands by using a business analysis technique called VMOSA, or Vision, Mission, Objectives, Strategy and Action Plan.

- **Vision:** A statement describing the desired future state

- **Mission:** The articulation of what the Vision means for the current estate and the practical translation of the vision into meaningful and realistic themes

- **Objectives:** A set of 'SMART' (Specific, Measurable, Achievable, Realistic and Timely) objectives to deliver the mission which will define and allow the monitoring of success

- **Strategy:** The approach or approaches the NDA will take to achieve the objectives across the estate

- **Action Plan:** The consolidated, estate-wide schedule of activities to deliver the objectives

The aim of the IGP is to effect positive change in the performance of IG across the NDA estate. This will be achieved by defining in the action plans, the schedules of activities and projects which will produce the business outcomes the programme needs to deliver. In order to create the action plans and ensure they are aligned to the IGP's goals, the visions, missions, objectives and strategies will be defined.

This document contains the VMOSA elements for the ICT discipline and is being followed in sequence.

3.3 ICT Considerations

As a Non-Departmental Public Body, the NDA is required to adopt or align to UK Government initiatives and ICT strategies and must also recognise that these may be further mandated to some or all of the organisations that constitute the estate. The following is a non-exhaustive list of current publications and initiatives which this strategy has considered in addition to the regulations, laws and policies which affect the civil nuclear industry and nuclear decommissioning:

- HMG Government ICT Strategy[1]
- HMG Greening: ICT Strategy[2]
- HMG Digital Strategy[3]
- DECC Departmental Digital Strategy[4]
- Government Digital Service[5]
- Crown Commercial Services[6] and the Cloud Store[7]
- 2015 CPNI Assessment of the Threat to UK Defence and Civil Nuclear Material Sites and Assets
- The UK Cyber Security Strategy[8]
- The emerging Civil Nuclear Cyber Security Strategy (in draft at the time of publication)

Full consideration will be given to other relevant future initiatives, standards and/or publications, such as the DECC Family ICT Strategy, as and when they are published.

3.4 Priorities for ICT

A number of priorities have been identified by the NDA as being vital and these will shape the approach to estate-wide ICT and the future development of this strategy and associated programmes:

- ensuring ICT is enabling and contributing to the business goals of each organisation in the estate
- operating in a secure and compliant manner at all times, cognisant of the developing and increasing cyber security challenges
- being flexible to the changing needs of the business particularly where this relates to security threat levels
- achieving value for money for the tax payer
- adopting and exploiting the principle of 'Digital by Default' and other emerging initiatives where appropriate to do so
- addressing all current priorities, risks and opportunities whilst considering the long-term needs of the estate.

3.5 Positioning this Document

Whilst this strategy represents the NDA's approach to estate-wide ICT, it does not invalidate or supersede the existing Agreements and Contracts between the NDA and organisations within the estate and the delivery of existing requirements should continue. Where this strategy results in a need for changes to existing Agreements and/or Contracts, this will be communicated by the NDA and managed through the

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[1] Cabinet Office, Government ICT Strategy, March 2011

[2] Cabinet Office and Efficiency and Reform Group, Greening government ICT strategy, October 2011

[3] Cabinet Office, Government Digital Strategy, December 2013

[4] Department of Energy and Climate Change, DECC Departmental Digital Strategy, December 2012

[5] Blog: Government Digital Services

[6] Crown Commercial Service website

[7] Digital Marketplace website

[8] Cabinet Office, Cyber Security Strategy, November 2011

existing change control processes. If the reader has a query or identifies a potential conflict then it should be raised to the NDA through the appropriate channel.

In particular, the existing Programme Controls Procedures (PCP) relevant to ICT should continue to be adhered to and the initiatives identified in this strategy will supplement and build on the requirements within the PCP and not render them obsolete. 'PCP 17.5.6 IT Programmes and Expenditure' and 'PCP 17 Appendix N' describe the current IT programme planning and sanctioning processes and these should continue to be adhered to.

This strategy has been endorsed by the Chief Information Officers and/or Heads of ICT from around the estate and they have committed to delivering it via their own IT strategies, visions and work programmes.

4.0 Vision

This Vision sets out the target end state for ICT across the NDA estate.

The NDA estate's ICT services should be efficient and driven by business outcomes.

ICT Strategies, Visions and work programmes are striking the correct balance between achieving business efficiency and security.

ICT Strategies, Visions, work programmes and contracts are cognisant of the requirement to be flexible in order to address emerging issues such as an increasing cyber threat.

The ICT services across the NDA estate support and enable Information Governance and knowledge sharing without introducing unmanaged risks or unacceptable resource burdens.

All parts of the estate adhere to common standards and principles where appropriate.

Issues and risks associated with legacy technologies and digital obsolescence are eliminated and the estate's ICT services are in line with the current industry trends and good practices, with a cost and quality which compare favourably with both UK Government and private sector organisations.

Where required, cross-estate services are provided directly by the NDA for the greater good of the estate, whilst the Shared Services Alliance drives a strategic, collaborative approach to individual service provision, creating a lean and efficient service portfolio which delivers cost savings to the tax payer.

The NDA's approach to the estate's ICT is viewed as exemplary within UK Government.

5.0 Mission, Objectives, Strategy and Action Plans

The ICT Vision is an end state that will not be achieved in one step. To enable the NDA to begin realising the ICT Vision a number of themes and related objectives, strategies and action plans have been identified.

As the environment within which the estate is working changes over time, so too will the priorities for ICT. The ICT themes will be reviewed and amended to reflect the changing priorities.

Mission: The ICT vision is broken down into a number of themes.

Objectives: SMART objectives to deliver the mission.

Strategy: Approach the NDA estate will take to achieve objectives.

Action Plans: Consolidated estate wide schedule of activities to deliver objectives.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
The NDA estate's ICT services should be efficient and driven by business outcomes.	The NDA will adopt a new approach to influencing and intervening in ICT issues across the estate.	For any given ICT service or project across the estate, the NDA will decide the level of oversight based on the following factors: price; risk; strategic impact; and, potential to deliver greater estate-wide benefits.	Where any of these factors are high, the NDA will intervene and become directly involved. This is to ensure that value for money is maximised as well as considering the wider needs of the estate and the NDA. Where these factors are low, the NDA will greatly limit the influence it exerts, empowering the individual organisations to operate with relative autonomy. The NDA will always intervene where the greater good of the estate is not being considered, or where it is believed that greater value could be achieved.	NDA to establish and chair a regular ICT Governance Forum as a way of capturing cross estate initiatives that are likely to trigger any of the four factors identified. NDA will consider sanction and validation processes and limits with a view to simplifying them and delegating more responsibilities to the SLCs and subsidiaries in the estate.
	The NDA has had a devolved IT Strategic and Operating Model that has the given the participating entities (PEs) within the estate considerable autonomy, including the formulation of policy. This provides clarity of purpose and accountability for business outcomes, but has led to a complex landscape with fragmentation and duplication in information, systems, and processes; and missed opportunities for sharing between businesses. Given future HMG funding targets this approach is not deemed sustainable as it is expensive to control and maintain.	The future direction for the NDA estate is a more simplified, supportive and joined up approach. This will involve a more collective and common approach to many aspects of its ICT.	Commoditised services and other 'vanilla' or 'off the shelf' solutions will replace bespoke services where appropriate. This means that future decisions that benefit the NDA estate will be preferred to those limited to localised benefits.	This approach will be embedded within all future ICT Procurements.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
ICT Strategies, Visions and work programmes are striking the correct balance between achieving business efficiency and security.	To improve cyber protection and minimise risk without hindering the flow of information or the adoption of new technology across the estate	Each entity within the estate will elect a Senior Information Risk Owner (SIRO)(an Executive Director or Senior Management Board member) and senior ICT representative (accountable for all ICT deliverables within the organisation).	NDA's SIRO and ICT representative will chair regular governance meetings.	Quarterly SIRO and ICT Governance fora chaired by NDA.
			Each SIRO will balance the benefits of working collaboratively through the sharing of information and the adoption of new technology against the overarching business strategic objectives and the company's information risk appetite.	Creation and regular review of PE Information Risk Policy (including the current information risk appetite)
				Produce an annual Information Risk Assessment
				Ensure adequate incident management processes are in place and regularly tested.
				Ensure all business critical information assets and systems are identified, regularly reviewed, appropriately protected and strategically managed.
				Regular communication that builds a community of informed users, where everyone understands the threats and acts accordingly, whilst at the same time improving business efficiencies.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
ICT Strategies, Visions, work programmes and contracts are cognisant of the requirement to be flexible in order to address emerging issues such as an increasing cyber threat.	Each organisation's ICT strategy must be able to adapt to both the changing needs of the business, emerging technology and the information risk appetite. Multi-year long ICT projects should be the exception and not the norm.	Reduce the amount of time taken to engage with the supply chain.	Crown Commercial Frameworks should be the preferred method for procuring ICT services.	All organisations will develop work programmes that deliver business and cyber-focussed solutions with an appropriate sourcing plan.
		Award contracts that are flexible/agile enough to cater for changing threats.	Long running ICT projects are at risk from changing technology and changing business needs. Benefits need to be regularly reviewed to make sure that project remains on target to deliver.	Each organisation will identify all ICT projects with a planned duration in excess of 12 months. Those projects identified will be subject to further scrutiny and review.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
The ICT services across the NDA estate support and enable Information Governance and knowledge sharing without introducing unmanaged risks or unacceptable resource burdens.	Estate wide technology and infrastructure to support Information Governance initiatives; enabling staff, contractors and the supply chain to work together collaboratively and to capture, retain and share knowledge.	The NDA will provide and/or facilitate the provision of enabling ICT infrastructure and solutions to connect the disparate communities. For the period 2015 to 2016 the focus will be on delivery of the Knowledge Management Hub 2 (KM Hub 2) Platform.	The KM Hub 2 platform will facilitate much of the Knowledge Management discipline's activities and initiatives as well as supporting many of the estate's Information Governance needs. To satisfy the need to Records Manage and share digital records and information across the estate and with the Public, the NDA will consider the provision of an estate-wide solution for electronic document and records management (EDRMS).	NDA to manage delivery of the KM Hub 2 Project being operational in Q1 2016/17
	Support information and records management with user-friendly, compliant, standardised (where appropriate) and efficient ICT solutions which make it easy for users to manage records and other information across the full lifecycle; and to retrieve records when needed.	The NDA will provide an Archive Management solution which will remove the need for the individual organisations to implement their own services for medium-term to very long-term Records Management and storage.	As well as the full lifetime management of the relevant records (including destruction) the Nuclear Archive will provide appropriate records submission, search and retrieval mechanisms. The NDA will provide the ICT systems to deliver both physical and electronic records management and storage.	NDA to produce guidelines and rules for records management, driven by the Records Retention Schedule.
				NDA will assist the estate in implementing the appropriate workflows and processes through the provision of expertise, system integration and cross estate technology services as appropriate.
	Support and enable the effective management of Information Risks and Intellectual Property.	Ensure NDA estate's ICT services comply with Information Risk Management objectives. The requirements of cyber-security and information assurance will be embedded in the common ICT infrastructure.	Proactively support the mitigation of cyber security threats, allowing information to be shared throughout the estate in a secure and compliant manner.	NDA to approve the cyber resilience plans of each entity ensuring a consistent approach is applied that is fit for purpose, flexible to the changing need and affordable.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
All parts of the estate adhere to common standards and principles where appropriate	Ensure the estate organisations' ICT Services are aligned to the needs of the estate through the creation, dissemination and adoption of ICT Principles, NDA ICT Strategy and Minimum Standards.	These Principles, Strategy and Standards will be communicated to the estate and their consideration enforced. The NDA will provide expertise and collateral to assist the estate in understanding and implementing them.	The use of common standards can make ICT solutions fully interoperable to allow for reuse, sharing and scalability across enterprise and organisational boundaries. The adoption of compulsory open standards will help NDA to avoid lengthy vendor lock-in, allowing the transfer of services or suppliers without excessive transition costs, loss of data or significant functionality. NDA will align with the UK Government principles and adopt open standards for software interoperability, data and document formats as published by the Cabinet Office from time to time.	Mandatory use of open standards wherever feasible.
				Rigorous consideration of Open Source compared to proprietary technology.
				Adoption of Agile methodology for software development wherever appropriate.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
Issues and risks associated with legacy technologies and digital obsolescence are eliminated and the estate's ICT services are in line with the current industry trends and good practices, with a cost and quality which compare favourably with both UK Government and private sector organisations.	Manage the operational and knowledge risks associated with legacy ICT systems and prevent future risks from arising.	Operational risks are being carried by the estate with legacy ICT systems becoming increasingly difficult and expensive to manage and maintain in a secure and compliant manner.	The NDA will drive activities to address the management of legacy systems with migration, modernisation and decommissioning paths identified for all at risk systems; thereby assuring continued service and a marginalisation of associated information risks.	Implement a controlling procedure within the procurement and management of ICT services to ensure that the full system lifecycle is considered at the point of purchase. Under investment is a false economy when it leads to future operational and knowledge risks.
			Knowledge risks are also being carried by the estate with the knowledge required to effectively and efficiently operate legacy systems at critical risk of loss. In conjunction with the knowledge management discipline, knowledge capture and retention activities will be undertaken to ensure that knowledge risks are identified and mitigated.	All entities to ensure that all key operational systems have a decommissioning plan in place.
	Proactively manage information obsolescence	To supplement the Information Management disciplines Records Retention Schedule and Records Management procedures, the NDA will provide leadership on maintaining the currency of digital information ensuring that information does not become obsolete.	Guidance on digital storage media and file formats, as well as procedures to monitor and update over time will be issued. The NDA will aim to ensure information is managed across its full lifecycle so that currency is maintained and information and records, including their associated contextual information, are continually available across their full lifecycle.	NDA to issue a Standard for digital storage media and file formats as well as procedures to monitor and update them over time.
				NDA to Issue a Standard for more complex information, such as 3D designs or data models, including the manage of any non-standard infrastructure required to use this information.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
Where required, relevant cross-estate services are provided directly by the NDA for the greater good of the estate, whilst the Shared Services Alliance (SSA) drives a strategic, collaborative approach to individual service provision, creating a lean and efficient service portfolio which delivers cost savings to the tax payer.	The NDA will promote the adoption of the 'Digital by Default' principle, exploiting digital channels to improve operational efficiency across the estate.	All new application requirements will be captured and evaluated against the UK Government 'Digital by Default' Service Standard.	The '80/20' rule will be adopted where sensible to help ensure solutions are not over engineered and that common components are re-used. This will enable the NDA to drive out full value from its ICT spend and help to reduce the complexity of its current operation. There will be fewer large and high risk bespoke developments with a move towards smaller incremental projects with time and cost caps.	PEs to identify new application requirements as part of their ICT Business Plan submissions to the NDA. NDA will focus their assurance on sharing and collaboration opportunities, whole life costs, return on investment and the capability to realise benefits.
	Procurement of ICT Services through the Shared Services Alliance (SSA) will be promoted.	A year on year increase in the number of collaborative ICT procurements and shared ICT services. Tracking of estimated benefits derived from economies of scale and increased buying power.	To ensure that ICT services are procured in the most efficient and cost effect manner, the use of the SSA will be promoted and, where appropriate, mandated across the estate. This is expected to drive an increase in collaborative procurements and shared services as well as increasing the reuse of procurement processes, terms and conditions and learning from experience.	All entities to work with their SSA representatives to identify potential collaborative ICT procurement opportunities and report progress on a quarterly basis.
			ICT Operational services will sourced wherever possible using Crown Commercial Service ICT Framework Agreements. Use of other routes to market, such as, OJEU will only be considered once approval has been agreed with the SSA.	NDA via the Shared Services Alliance to mandate the use of Crown Commercial frameworks for ICT related services. Exceptions to be approved by the SSA Group.

	Cost savings of 10% year on year, as measured against a 2015 baseline, are achieved for the next 3 years	NDA is required to monitor the totality of ICT costs across the estate. This includes those costs associated with plant and near plant systems that are currently managed and reported through other business functions. Going forward, Participating Entity (PE) ICT business plans are required to capture the totality of ICT related costs.	In order to ensure as much of the total available funding to the NDA is used to reduce major hazards, the cost of ICT across estate must be seen to be reducing over time. Currently NDA sanctioning is principally focussed on project cost. NDA will look to improve the PCP-17 controls to also capture any ICT project that appears; high risk; to have shared service or collaboration opportunities.	PEs to work with their PE colleagues to identify the totality of ICT costs.
				NDA to review PCP-17 controls and amend as appropriate.
	The retained IT organisation is seen as a vital component of the NDA estate rather than a cost of doing business.	The retained IT team will act as an intelligent customer, procuring services through its strategic partners. It will also support those ICT suppliers to deliver their commitments, removing barriers and obstacles where necessary.	NDA will consult with the PEs to understand the actions required to position the IT Retained Organisation (RO) to be seen as the 'go to' body for all matters relating to ICT. Using the supply chain to source operational ICT services will enable PE retained teams to focus on developing a deep understanding of their business' digital needs, identifying new opportunities and addressing legacy issues.	The findings from the 2015 Project and Programme Review Group (PPRG) review will act as input.
				As part of the ICT 2017 project a responsibility matrix will be developed and agreed that defines the key roles and responsibilities of the retained IT organisation.

Vision - desired future state	Mission - themes	Objectives - SMART objectives to deliver Mission	Strategy - approach NDA will take to achieve objectives	Actions Plans - consolidated estate wide schedule of activities to deliver objectives
The NDA's approach to the estate's ICT is viewed as exemplary within Government.	NDA will benchmark its performance against DECC, its NDPBs and other UK government departments	NDA will share knowledge and apply learning from other UK government departments	Regular meetings with DECC and other UK government Chief Information Officers. NDA will chair an estate wide ICT Governance Forum looking to identify and replicate ICT best practice across the estate.	Attendance at monthly Governance forums. NDA will brief participating entities at the ICT Governance Forum.
	The NDA will continue to monitor the environmental impact of the estate's ICT services and encourage initiatives to make positive change	Green ICT standards will be factored into the design, delivery and disposal of ICT solutions. The NDA estate will plan to monitor and reduce ICT energy and carbon consumption.	In support of DECC's climate change goal and the HMG's Greening Government ICT Strategy the NDA will actively monitor environmental measures such as energy and carbon consumption. This will require cooperation from the organisations in the estate and the NDA will lead and coordinate activities to determine the most effective methods	Create a baseline of current ICT consumption across the estate and develop a reduction programme.

6.0 Appendix A: Illustrative NDA Intervention Model

The NDA will adopt a new approach to influencing and intervening in ICT services across the estate.

For any given ICT service or project across the estate, the NDA will have a level of involvement in its makeup and operation. A number of factors will be considered on a case-by-case basis:

- price
- risk
- strategic impact
- potential to deliver greater estate-wide benefits

As depicted in Figure 1 below, where any of these factors are high, the NDA will intervene and become directly involved in the ICT service provision and management. This is to ensure that value for money is maximised as well as considering the wider needs of the estate and the NDA.

Where these factors are low, the NDA will greatly limit the influence it exerts, empowering the individual organisations to operate with relative autonomy. The NDA will always intervene where the greater good of the estate is not being considered, or where it is believed that greater value could be achieved.
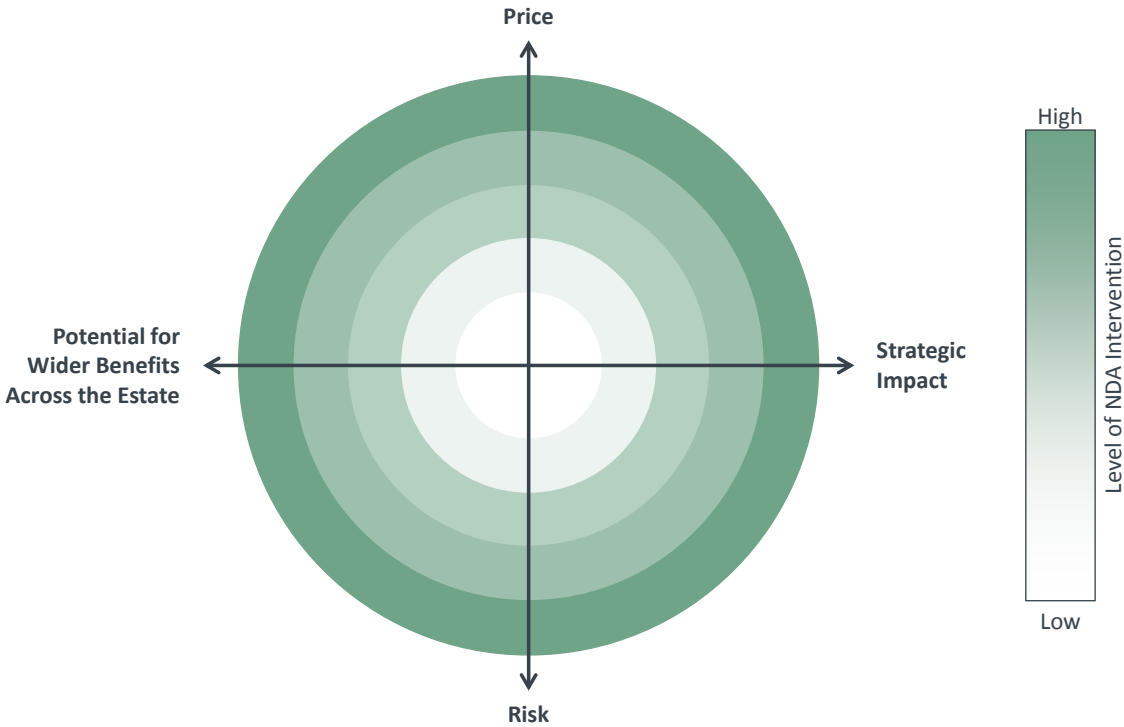
Figure 1

The NDA's intervention will manifest itself in a number of ways depending on the detail of the specific scenario. The model in Appendix A illustrates the type of effects across a number of dimensions. This is not a prescriptive model, but provides guidance on where the NDA will focus.

Translating NDA Intervention to ICT Delivery

Collaboration	Independent, autonomous operation	Informal coordination or collaboration with peers	Project or SSA driven collaboration available to the whole estate	Collaboration mandated and driven by NDA
Sourcing	Informal sharing of good practices	Common suppliers and formal sharing of good practices	Framework-type deals with broad scopes and requirements	Single estate-wide deals for common or shared services
Funding	Solution funded from single organisation's budget	Limited contributions from NDA budgets and/or other estate organisations	Funding shared by NDA budgets and those of the estate	Funded directly by NDA
Infrastructure	Solutions consider their specific needs only but maintain interoperability	Adoption of approved technologies, standards and technology roadmaps	Common architectures	Single integrated estate architecture or solution
Systems	Independent systems meeting specific needs	Complimentary systems or technologies with manual integration	Common technologies and products with some automated integration	Single integrated estate system architecture and/or platforms
Management	Managed independently	Regular delivery reporting to NDA with intervention by exception only	NDA oversee the day to day delivery	NDA are directly responsible for day to day delivery
Processes	Independent processes	Common processes exploiting existing systems	Process convergence and integration with consideration in system design	Common, shared or integrated processes across the estate

Low ————————————→ **Level of Intervention** ————————————→ High