# Valuation Office
## ICT Strategy 2017 – 2020

PA Consulting Group

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# Glossary

| | | | | |
|---|---|---|---|---|
| BAU | Business As Usual | | PIN | Prior Information Notice |
| COTS | Commercial Off The Shelf | | PMO | Project Management Office |
| CRM | Customer Relationship Management | | PQQ | Pre-Qualification Questionnaire |
| EA | Enterprise Architecture | | PRA | Property Registration Authority |
| FTE | Full-Time Equivalent | | QA | Quality Assurance |
| GDPR | General Data Protection Regulation | | SaaS | Software as a Service |
| GIS | Geographic Information System | | SLA | Service Level Agreement |
| HR | Human Resources | | VAU | Valuation Administration Unit |
| ICT | Information And Communication Technology | | VO | Valuation Office |
| IPTI | International Property Tax Institute | | VOS | Valuation Office System |
| IRRV | Institute of Revenues Rating and Valuation | | | |
| ITIL | Information Technology Infrastructure Library | | | |
| ITSM | Information Technology Service Management | | | |
| ITT | invitation to tender | | | |
| KPI | Key Performance Indicator | | | |
| LA's | Local Authorities | | | |
| LPS | Land & Property Services | | | |
| MoU | Memorandum of Understanding | | | |
| NMA | National Mapping Agreement | | | |
| NSSO | National Shared Service Office | | | |
| OGCIO | Office of the Government Chief Information Officer | | | |
| OJEU | Official Journal of the European Union | | | |
| OSi | Ordnance Survey Ireland | | | |

# Contents

# 1. EXECUTIVE SUMMARY

The Valuation Office (VO) has historically been well supported by its technology systems and function. However, a number of internal and external influences have created the need for the development of a new organisation-wide ICT Strategy to cover the next three to five years, a period of significant opportunity and challenge for the VO.

*There are a number of potential risks to the on-going and continuous delivery of ICT services due to the bespoke nature of core systems and the limited capacity and capabilities that exists within the VO*

*The VO can learn from international best practice in Valuation Services and current trends in ICT, whilst being fully aligned with Ireland's Public Service ICT guidelines.*

## Need for an ICT Strategy

- Service Delivery
- Business Outcomes
- Tailte
- Best Practice

*Technology has the potential to be a key enabler for the proposed new Tailte Éireann organisation, driving value and reducing costs from key pathfinder initiatives.*

*There is significant potential for technology, and the data it stores and uses, to better support the delivery of the VO's key business outcomes, as set out in its Strategic Plan.*

This ICT Strategy is structured as follows:

| Strategy Component | Summary Description |
|---|---|
| **Business Needs and Drivers**<br><br>*What are the business and technical drivers for change?* | Key <u>Business drivers</u> include<br><br>• Tailte Éireann – proposed merger of the VO, Ordnance Survey Ireland (OSi) and Property Registration Authority (PRA); and<br><br>• Business Mission and Commitments – VO Strategic Plan including the Roadmap for the Future.<br><br>Key <u>Technical drivers</u> include:<br><br>• Best practice ICT trends – Cloud, Digital, Cybersecurity, Software as a Service and Mobile Technology; and<br><br>• Public Service ICT Strategy – Build to Share, Digital First, Data as an Enabler, Improve Governance and Increase Capability<br><br>• There is significant opportunity in the sharing and analysis of the VO's rich |

| Strategy Component | Summary Description |
|---|---|
| | data on the commercial rental market for policy makers and the private sector. |
| **ICT Environment and Achievements**<br><br>*How does ICT currently support the business?* | ICT has historically <u>played an important role in support of the delivery of the VO services</u> and recent highlights include:<br><br>• Tailte Éireann Telephone Pilot;<br><br>• CBRE Revaluation Support;<br><br>• NAV Direct Services; and<br><br>• Remote Working.<br><br>However, the current delivery of ICT within the VO faces a number of <u>significant challenges and deficiencies</u>, due to amongst other things the:<br><br>• bespoke nature of core solutions<br><br>• The limitations of the data structure and design prevents the delivery of best practice valuation services by the VO<br><br>• lack of internal capacity within ICT function, with a number of material business continuity risks<br><br>• need for structured ICT governance arrangements to improve business and ICT alignment, drive value from ICT investments and deliver technology enabled change more effectively;<br><br>• significant potential weaknesses of a concerted cybersecurity attack<br><br>• sub-optimal Master Data Management processes |
| **Governance and Principles for ICT Investment**<br><br>*How will we take decisions on future investments in ICT?* | Key <u>ICT Principles</u> include:<br><br>• prioritising investments based on alignment with the VO's business strategy;<br><br>• procuring proven solutions rather than build bespoke approaches;<br><br>• building internal capability and capacity;<br><br>• exploiting the value of data;<br><br>• providing staff with the information they need, at the time they need it, to take business decisions;<br><br>• enhancing security and the integrity of data held; and<br><br>• leveraging the VO's wider partner (and supplier) network.<br><br>Key components of future <u>ICT Governance</u> include:<br><br>• ICT Steering Group;<br><br>• Change Advisory Board;<br><br>• Enterprise Architecture Forum; and<br><br>• PMO (perhaps integrated within a wider VO function). |
| **Strategic ICT Requirements**<br><br>*How do we want ICT to support the business in the future?* | Key priorities for ICT services within the VO include:<br><br>• Information Driven – driving optimal value from the data and enabling the business to draw insights from the information it holds to the benefit of the policy makers and the private sector, as valuation services become less centred on investigative skills and more focussed on analytical approaches;<br><br>• Modernising Valuation Services Technology – including new core valuation services application, field capture technology, CRM, GIS, Digital and Document Management;<br><br>• Professionalise ICT – better governance, greater capacity and enhanced |

| Strategy Component | Summary Description |
|---|---|
| | capabilities in service management, cybersecurity, business continuity ; and<br>• Tailte Éireann – scheduled merger with OSi and PRA.<br>Overall, these Strategic ICT priorities must be aligned with the central themes of the VO's Strategic Plan (2017-2019). |
| **Delivering the ICT Strategy**<br><br>*What capacity and capabilities do we need to enable the future delivery of ICT* | The enhanced ICT provision that the VO will need access to in order to deliver the identified priority initiatives include:<br>• Future Capabilities and Resourcing Model – supporting an enhanced shaped ICT operating model<br>• Strategic Sourcing Requirements – providing a holistic view of where future capabilities should be sourced |
| **ICT Work Programme**<br><br>*What are the specific initiatives we will progress?* | The proposed programme of work includes four key workstreams:<br>• Information Driven – defining a future corporate data model and getting insight from analytics and business intelligence tools;<br>• Modernisation – providing enhanced technology support for core VO business activities, supporting the delivery of the Strategic Plan;<br>• Professionalisation – enhancing the capacity and capabilities of the ICT function, within a robust governance framework; and<br>• Tailte Éireann – preparing for future merger with OSi and PRA through a series of collaborative initiatives and pathfinders. |

Key <u>outcomes</u> from the implementation of this strategy will be:

✓ Comprehensive and holistic approach to the management of data and the creation of insights from this data to better support business decisions

✓ Best of breed technology support for the delivery of valuation services, giving professional and administrative staff the tools they need to do their job

✓ Robust, structured and sustainable delivery of ICT services for reduced cost

✓ Further integration and alignment with Tailte Éireann merger partners, where appropriate

There are a number of quick wins which can be implemented by the VO during the delivery of this ICT Strategy including:

- Software as a Service and Infrastructure as a Service exploration;

- Cyber security policy development and implementation;

- Business continuity development;

- Data modelling; and

- Delivery of further digital services for citizens and customers.

The conclusions and recommendations arising from this ICT Strategy provide a "call to arms" for the VO to address immediate concerns and to take advantage of modern technologies to accelerate and enhance the provision of Valuation Services in line with the Strategic Plan (2017-2019) and in preparation for a successful merger to Tailte Éireann. The ICT Work Programme sets out an ambitious but achievable portfolio of activities over the next three years which will provide a sustainable return on the investment which is now required.

# 2. PURPOSE AND STRUCTURE OF THIS STRATEGY

In line with best practice ICT strategic management, the VO recognises the need to regularly review and revise its strategy to meet changing business, regulatory and customer requirements, and align its operations with new and emerging best practice models of sourcing and delivery.

The VO is currently engaged in a national programme to revalue all commercial and industrial properties in the State. The purpose of the national revaluation programme is to reflect up-to-date rental levels in the valuations of rateable property, to take account of contemporary economic circumstances and to thereby bring more equity, fairness and transparency into the rating system.

Progress towards the merger of the VO, Property Registration Authority and Ordnance Survey Ireland into Tailte Éireann remains a priority and the publication of legislation is awaited to bring this about. In the meantime, work is continuing on the planning and design of the necessary infrastructure for the new entity.

Having developed a Strategic Plan for 2017 -2019 the VO are now developing a comprehensive ICT strategy, for the period 2017 to 2020, to support and complement the Strategic Plan. The strategy will focus on the delivery of innovative and sustainable information and communications systems across the organisation realising significant strategic, organisational and service delivery benefits while streamlining business workflows.

This ICT strategy aligns with the principles set out in the Government's Public Service ICT Strategy prepared by the Office of the Government Chief Information Officer (OGCIO) in conjunction with the Public Service CIO Council and is structured as follows:

## 2.1 Valuation Office Business Needs and Drivers (Section 3)

There are a number of both internal and external factors that have a major influence on the VO's ICT strategic requirements. From internal staff, the Strategic Plan to external stakeholders, customers and disruption from new technology. This section considers these factors and influences to position the demand for ICT comprising the business and technology influences on future direction.

## 2.2 Valuation Office ICT Environment (Section 4)

This comprises an assessment of the existing ICT environment within the Valuation Office across the following focus areas:

- existing ICT architecture/infrastructure, policies, practices and procedures within the VO including a review of data and information security, disaster recovery and business continuity arrangements, electronic records management policies and practices within the organisation.

- in-depth review of the VO's core line of business applications:

    o in-house Valuation Office System (VOS) database and application; and

    o Geographic Information Systems (GIS) deployment for internal and public-facing systems.

## 2.3 Governance and Principles for ICT Investment (Section 5)

The governance and principles for ICT investment section outlines the principles that will be developed to guide the decision-making process for ICT over the coming three years and explains how decisions regarding ICT should be made once this strategy has been adopted. This section is broken out into two constituent parts:

- The high-level ICT principles, indicating how they are connected to the business commitments and values; and

- ICT governance model, establishing how ICT-related decisions will be made, the tools and methods to be used and the various roles and responsibilities.

## 2.4    **Strategic ICT Requirements (Section 6)**

This section documents the key requirements of the VO for ICT between 2017 and 2020. It describes the key themes and initiatives and details the rationale underpinning each requirement. This section is structured as follows:

- Strategic Themes;

- Prioritisation of Initiatives; and

- Programme and Project Packaging.

## 2.5    **Delivering the ICT Strategy (Section 7)**

To successfully deliver the ICT strategy the VO will require access to specific capabilities and resources. This section outlines exactly what is required in terms of capabilities, capacity and how this might be sourced to deliver the ICT strategy. These requirements are detailed in the following two sub-sections:

- The future capability and resource model considers what the "to-be" ICT Unit looks like and what capabilities and capacity will be required; and

- The sourcing approach that is necessary to meet the needs of the ICT strategy once the decision has been made regarding the future structure of the in-house and outsourced services mix.

## 2.6    **ICT Work Programme (Section 8)**

The programme of projects required to deliver the ICT strategy including proposed timelines and sequencing with indicative costs.

# 3. VALUATION OFFICE BUSINESS NEEDS AND DRIVERS

Valuation authorities worldwide have seen dramatic changes in their ways of working to produce fair and equitable valuations. The VO is no different in this respect and must respond to its ever changing environment. This pace of change shows no sign of abating as new and innovative technologies coupled with a wider range of available information sources that positively disrupt how Valuation Services are delivered. In addition the VO needs to continue to meet its government responsibilities in implementing policies and initiatives. This section discusses these influences and is structured as follows:

- **Business Influences on Future Direction**, documenting the VO's business landscape, mission and commitments, the Strategic Plan (2017- 2019) and the roadmap for the future; and

- **Technology Influences on Future Direction**, detailing ICT technology trends and ICT factors relevant in the Irish public sector.

## 3.1 Business Influences on Future Direction

Understanding the current business landscape and the future direction of the business influences for the VO is crucial in order to provide context for the development of this ICT strategy to 2020. This strategy must also align fully with the Strategic Plan 2017-2019 – Valuing Our Potential.

### 3.1.1 Valuation Office Business Landscape and Drivers for Change

Figure 1 illustrates, at a summary level, the current business landscape that the VO operates in. It also takes into account the key external drivers for change which could have a significant impact on the how the VO operates on a day to day basis.
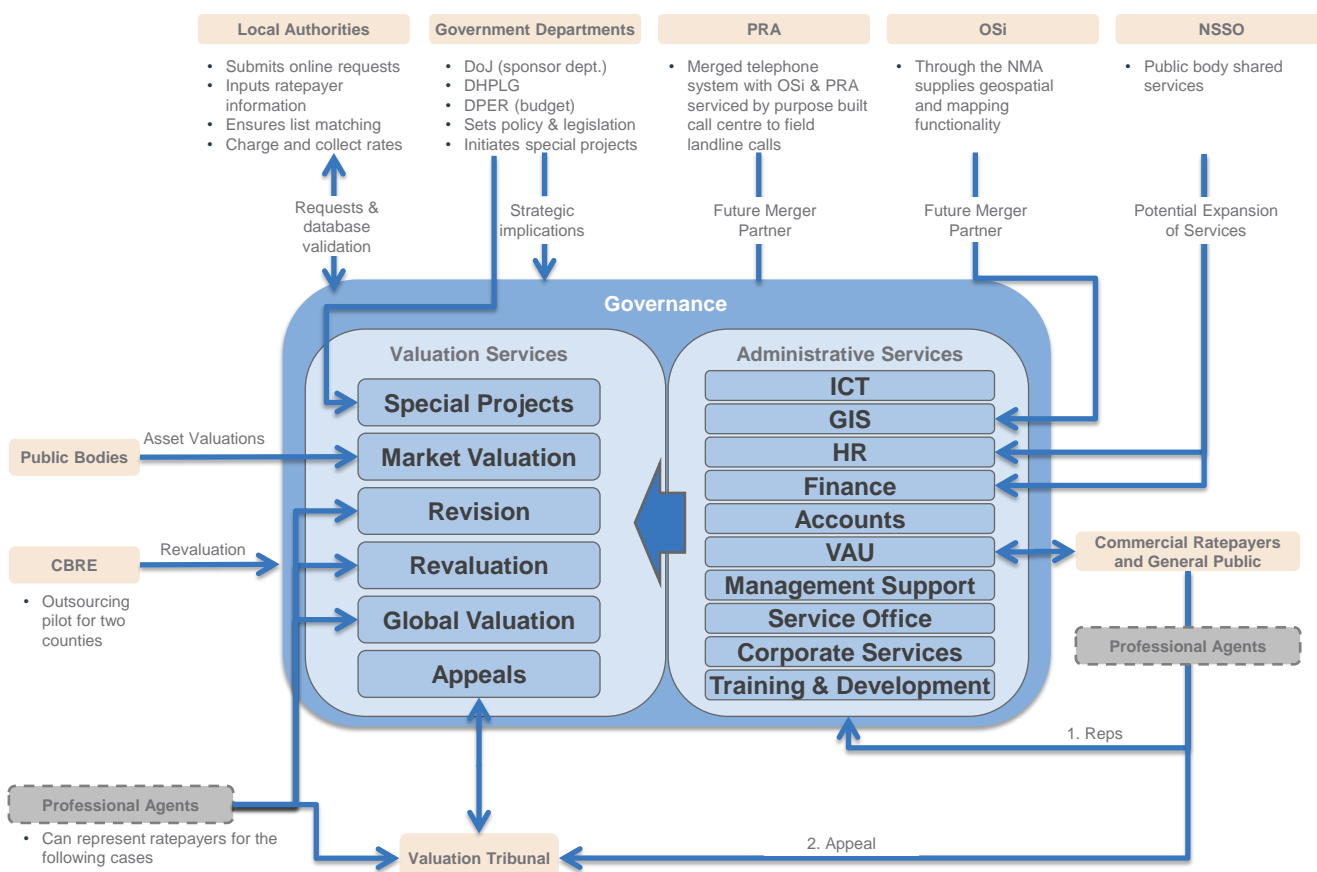


**FIGURE 1: VALUATION OFFICE BUSINESS CONTEXT**

The VO has two core competencies, that of Valuation Services and Administrative Services. Administrative Services has eleven (11) functional areas primarily supporting Valuation Services to conduct fair and equitable valuations. Valuation Services consists of six service lines, each with different influences and business drivers:

- **Revaluation**, the production of an up-to-date Valuation List providing ratepayers and Local Authorities (LA's) with accurate, up-to-date valuations of commercial and industrial properties. Supported by the VOS.

- **Revision**, the means through which the valuation of a particular property may be assessed between Revaluations of the entire rating authority area in which that property is located;[1]

- **Global Valuation**, the global valuation of public utility undertakings. Not currently supported by the VOS or other applications.

- **Market Valuation**, the performance of open market capital and rental valuations for various government departments, state agencies and other public bodies. Not currently supported by the VOS or other applications

- **Appeals**, management of appeals based on valuation services provided by the VO.

- **Special Projects**, commissioned by Government Department on an ad-hoc basis.

Between the three service lines (Revaluation, Revision and Global Valuation) approximately €1.49 billion of revenue is collected by LA's annually.

The overall strategic direction for the VO is set by various government departments which set policy and the legislative context.

**TAILTE ÉIREANN**

Over the next three (3) years the greatest driver of change for the VO lies with the impending merger with the OSi and the PRA. While it is not within the scope of this ICT strategy, it is important to consider the many ramifications of this merger for the future planning of ICT in the VO. In the period leading up to the Tailte Éireann legislation being enacted, there is the opportunity to identify areas where closer cooperation between the organisations would be mutually beneficial. Not only would this strengthen the VO, it would prepare for the establishment of Tailte Éireann. In future there is also the opportunity to leverage the increased data that will become available from both the OSi and PRA.

The level and scale of the potential change for the business is significant but should be seen as an opportunity rather than a threat. It is recognised within the VO that the status quo cannot be maintained so therefore its ICT capabilities should adapt and change in reply to the changing business requirements.

### 3.1.2 Valuation Office Business Mission and Commitments

Any ICT strategy for the VO must consider and reflect the stated priorities of the business. Figure 2 displays the mission and commitments of the VO as set out in the Strategic Plan 2017-2019 – Valuing our Potential.

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[1] The majority of the interaction between the LA's and the VO is channelled through the Online Revision portal which was launched early 2017

**FIGURE 2: VALUATION OFFICE MISSION AND COMMITMENTS**

Table 1 gives further detail on each of the commitments for the period 2017 to 2019.

**TABLE 1: VALUATION OFFICE COMMITMENTS**

| | |
|---|---|
| **Ethical & professional** | We work in an objective, ethical and professional manner |
| **Stakeholder focus** | We commit to meeting the needs of our stakeholders in a timely, effective and value for money manner |
| **Our people** | We align individual and team commitments with organisational goals and objectives |
| **Dignity & respect** | We maintain a positive work environment based on dignity and respect |
| **Continuous improvement** | We invest in leading technologies to foster a culture of continuous improvement and innovation |
| **Openness to change** | We foster personal development, creative thinking, constructive problem solving, openness to change and flexible working methods |
| **Capabilities** | We share our skills, knowledge, experience and information |

These commitments support the stated mission and vision of the VO *"to be a world-class property valuation provider for the State and the people of Ireland"*.

Each of these commitments will have an influence on ICT delivery with the commitment to "*invest in leading technologies to foster a culture of continuous improvement and innovation*" particularly apt for this ICT strategy.

### 3.1.3 Priorities Identified in the Strategic Plan

The Strategic Plan established a number of priorities that will be delivered between 2017 and 2019 as follows:

- **Meet the needs of our stakeholders** specifically through:

  o Advancing and accelerating the National Revaluation Programme;

  o Delivering an effective Revision Service;

o   Seeking and endeavouring to carry out an extended range of non-statutory valuation services;

  o   Implementing an extended range of centralised Shared Services in partnership with the National Shared Services Office; and

  o   Optimising the VO's Information and Communications Technology capacity.

- **Strengthen our organisation** specifically through:

  o   Building capability;

  o   Improved efficiency and effectiveness; and

  o   Improved governance;

- **Prepare for the establishment of Tailte Éireann**.

Every one of the three priorities has an ICT element associated with it. In the development of this ICT strategy each of these strategic priorities have been taken into account and are reflected in the programme of work required to deliver this strategy.

### 3.1.4   Roadmap for the Future

In 2015 a project team from the Institute of Revenues Rating and Valuation (IRRV) and International Property Tax Institute (IPTI) conducted a review of the processes undertaken by the VO in connection with its work relating to the valuation of rateable properties in the Republic of Ireland. The findings and recommendations from this report were accepted with the following key points relevant to this ICT strategy:

- **Revaluation Process Changes** – moving from a single property valuation approach to a multiple property valuation approach (also known as a mass appraisal approach);

- **Revision Process Changes** – moving to a more automated, desk based approach with valuation information where possible obtained from a combination of data sources through the use of modern technology;

- **Field Data Capture** – the use of mobile technology to improve the effectiveness and efficiency of valuation information capture in the field;

- **Desk-top Data Collection** – Deployment of tools and applications that facilitate a comprehensive approach to desk-top data collection and comparison;

- **Data Intelligence** – consideration of leveraging property information available from third party sources such as PSRA;

- **Data Management** – building a data management capability within the VO to enhance data capture, data use and deliverables; and

- **Workflow and Caseload Management** – improve the flow and management of cases through the VO processes providing enhanced operational and performance management information.

These key points have been taken into consideration in the development of this ICT strategy and many of these initiatives are included in the ICT work programme in Section 8.

## 3.2   **Technology Influences on Future Direction**

Technology trends and the relevant capabilities of emerging technology will influence and impact on the future direction of technology within the VO.. We have considered the following key trends that may enable the VO to achieve benefits or avoid undue risk:

- **Cloud**: Many businesses in the public and private sectors have already altered their service offerings to leverage benefits delivered by Cloud Services. Cloud Services enables organisations (private enterprise and public sector) to utilise computing resources more efficiently and cost effectively. Cloud Services are expected to achieve dynamic growth over the next few years. The Public Service ICT Strategy (2015)

promotes the delivery of shared centres of excellence for the delivery and management of common technology infrastructure as a set of services hosted and delivered via a secure Government Cloud network. Embracing cloud technology is one of the many options open to the VO.

- **Digitisation of services**: Digital services and the adaptation of digital innovations from adjacent markets are revolutionising how citizens interact with and consume public sector services. The pervasiveness of digital in all aspects of life is only going to increase in the coming decade. The Public Service ICT Strategy (2015) states that "Government should use the appropriate mix of electronic channels of communication and engagement to improve citizen satisfaction in service delivery, reach new levels of engagement and trust, and increase efficiency within the Public Service". The VO should be considering further digitisation of its services to promote more effective and efficient sharing and capture of information with LA's, Rate Payers and Property Agents.

- **Cybersecurity**: As organisations increasingly link more and more of their operational processes to their cyber infrastructure, effective cyber security is key to an organisation's ability to protect its assets, including its reputation, intellectual property (IP), staff and customers. Investment in technical solutions to protect against cyber-attack is only one part of an effective defence. The VO should consider an integrated approach tailored to their business and risk profile, addressing not only the crucial technical aspects of their defence, but also the people and organisational elements.

- **Software as a Service (SaaS)**: Traditionally the software industry delivered complex and closed products to the market. Today, new consumers prefer to be able to adapt their needs with simple user-friendly applications that can add new functionality as demanded. To close this gap, software companies are changing the way they deliver products to the market. SaaS provides products as services with integrated cloud infrastructure, enabling wider access to software products, and with greater flexibility. The term SaaS is used to describe any application which is managed and hosted by a third party, and whose interface is accessed from the client side. Thanks to modern technologies such as AJAX and HTML5, the vast majority of SaaS applications run directly through the web browser without requiring any additional downloads or installations from the client side. Common examples include Gmail, Salesforce, YouTube and Office 365.

- **Better Information**: Maximising value from their data is a core objective of many businesses and public sector organisations:
    - leveraging real-time analysis of large volumes of data to generate value in terms of analysis
    - promoting better services,
    - promoting greater transparency of process and information to achieve enhanced customer and citizen experience.

Analytics platforms are becoming more user-friendly and affordable (through SaaS models), making data analytics accessible to SMEs and not just large corporate organisations. Proper use of analytics could provide the VO with the capability and toolset to develop appropriate valuation models to improve efficiency and effectiveness of both Revaluation projects and the Revision service. Furthermore, this information can support more evidence based decisions within the public sector as the VO will have the ability to leverage its rich database.

- **Data privacy**: From a general global industry standpoint, addressing concerns about data privacy while maintaining open, competitive and innovative digital markets continues to be a delicate matter. Government efforts to maintain national security and address data privacy issues for their citizens remain a central challenge for the industry. The imminent implementation of the EU's General Data Protection Regulation (GDPR) will have an implication on the VO's digital services and data that it shares. The VO must fully comply with the GDPR to avoid fines being levied; and

- **Mobile technology**: Many organisations are benefitting from the use of mobile technology to enable more efficient capture of information in the field. The use of mobile devices has not only become prevalent across utilities and healthcare but is being used by public sector services to streamline and improve field data collection. This presents the VO with the opportunity to improve data capture and digital sharing at the point of entry.

### 3.2.1 Public Service ICT Strategy

There are a number of relevant factors external to the VO that have influenced this ICT strategy. These ICT drivers come from a variety of sources, internationally, at EU level and at national level. There are a series of policies which have a bearing on ICT within the public sector in Ireland. The five key objectives as set out in the Public Service ICT Strategy 2015, are the primary focus:

1. **Build to Share**: Creating shared services to support integration across the wider Public Service to drive efficiency, standardisation, consolidation, reduction in duplication and control cost. The **establishment of Tailte Éireann** is an example of the continued transition to merged or shared services whereby further efficiencies can be gained from having common systems and the ability to share among public service entities.

2. **Digital First:** Digitisation of key transactional services and the increased use of ICT to deliver improved efficiency within Public Service bodies and provide new digital services to citizens, businesses and public servants. The VO has made great strides recently in digitising its services. It is important to maintain this drive and provide further digital services to stakeholders that adds value to the business.

3. **Data as an Enabler:** Facilitate increased lawful data sharing and innovative use of data across all Public Service bodies to enable the delivery of integrated services, improve decision making and improve openness and transparency between Government and the public. In order for the VO to fully achieve this objective, the manner in which data is stored must be standardised and codified and the data itself cleaned and consolidated through a data transformation exercise. This will enable better use of the data to drive more efficient and effective Valuation Services.

4. **Improve Governance:** Ensure that the ICT strategy is aligned, directed and monitored across Public Service bodies to support the specific goals and objectives at a whole-of-government level and with an emphasis on shared commitment. The VO must maintain their push for increased transparency, openness and accountability in the production and maintenance of fair and equitable valuations.

5. **Increase Capability:** Ensure the necessary skills and resources are available to meet the current and future ICT needs of the Public Service through the professionalisation of the ICT departments, targeted recruitment, improved mobility and succession planning across all Public Service bodies. The delivery of this ICT strategy will require additional capabilities beyond those that currently exist within ICT in the VO.

These overarching objectives are focused on improving the efficiency, effectiveness and range of Public Service delivery leading to better outcomes for citizens, businesses and Public Servants. At its core, the strategy aims to deliver on three core opportunities – sharing, digital and data. As this ICT strategy represents a radical departure the implementation represents a significant challenge due to the transformational nature of the changes proposed. The opportunity exists to add value to the delivery of this change through the enhancement of the Public Sector ICT capabilities. Each government department, Local Authority or other public body must also strive to meet these objectives and should keep them to the forefront when developing their own ICT strategies to ensure alignment across the Public Sector. It is only through this collaboration and centralisation that increased efficiencies and improvements to services provided can be delivered in a coordinated manner.

### 3.2.2 Issues (and Opportunities) observed in the Public Sector

There are a number of ICT factors that can be observed in the public sector, both domestically and internationally, that are worthwhile in recognising as they may have a degree of influence on ICT within the VO over the coming three years. Some of these trends are linked to the public sector ICT objectives but they merit mentioning in isolation. They include:

- **Digital Services** - Both citizens and business, are demanding an ever wider range of online services through an increasing multitude of channels (such as mobile or social media). They also want quicker delivery, improved quality of the services and better customer experience with direct engagement. For example there are increasing requests for cloud services among many Public Sector organisations. Responding to these challenges requires constant innovation and improvement, and calls for Public Service

ICT to remain at the forefront of developments to deliver customer/ citizen centric online services.  In many cases this change represents a significant cultural shift for the Public Service and transformational change of this kind must be given the appropriate time to be implemented and embedded;

- **Shared Data** – The VO is currently the holder of data that, were it to be shared, could be of enormous benefit to government, the policy making community and to the private sector.  It is the recommendation of this ICT strategy that the VO shares its data on the open government portal.  The VO, through the sharing of its data, could play a strong role in contributing to informed policy analysis as it would provide valuable insights to the national and regional commercial rental markets.  This would require the development of analytical capabilities and systems within the VO.  Significant value would be derived to the policy making community and the VO would also benefit hugely from operating within this space.  Open sharing of public sector data, is a prerequisite for big data but brings a series of challenges including:

    o Data governance regarding the access, usage and ownership for increased information flows is now a major consideration.

    o Effective information management is also a prerequisite for big data and open government.

    o Data must be produced in a standardised format should it be required for sharing, business intelligence or analytics while data that cannot be used is essentially worthless.

The recently released Open Data Strategy 2017-2022 sets out seven strategic themes to guide the open sharing of data.  This ICT strategy will be fully aligned with the Open Data Initiative where possible to ensure that the VO promotes the effective use of open data.  The ICT strategy also recognises the significant opportunities that are made possible through the sharing and subsequent analysing and mining of the VO's data.  Before this can be achieved it will be necessary to rectify the current data model within the VO to ensure that the data is of sufficient quality to be shared.

Cybersecurity also remains a critical matter with increased focus being given to the implementation of firewalls, encryption, counteracting fraud, authentication and protection against denial of service attacks to avoid comprising both systems and data.  Maintaining the security of systems will remain an ongoing concern for the foreseeable future.

- **Shared Services** - The provision of common corporate services to a number of organisations by an independent service provider that previously were carried out by each organisation separately.  Shared services reduces the duplication of effort by consolidating transactional functions, such as Finance, Payroll, Human Resources, and ICT to enable quicker access to data and improved data quality through increased standardisation, specialisation, automation, and control.  In 2012 the Irish Government gave a mandate to expand and accelerate the use of shared services in the Irish Public Service as a key cross-cutting initiative under the 2011 Public Service Reform Programme.  The VO is no different in this regard as many of the HR and Finance administrative tasks are now carried out by the National Shared Services Office;

- **Common Standards** - PA's experience in Ireland and across Europe suggests that there is a significant drive by both the national government and at the EU level for increased eGovernment and digital services.  This is compounding the increasing demands of Public Service customers for more online services across a range of channels.  Ensuring that eGovernment services are fit for purpose and address the real customer needs opens out new and previously unfamiliar challenges for the Public Service.  A significant opportunity exists to deliver process improvement, including the streamlining or centralisation of processes, and cost savings (which could be reallocated elsewhere).  In many instances the underlying architecture of the ICT systems are unable to effectively support these demands and the VO is no different in this regard;

- **Legacy Systems** - In many Public Service bodies' legacy systems remain operational with outdated and ageing technology. They require replacement due to their lack of support, ineffectiveness and/or lack of reliability.  Often these legacy systems operate in a technology silo which preclude data sharing, lead to a fragmentation of information and duplication of effort and data.  These legacy systems often present a real risk to the Public Sector with the threat that the ongoing delivery of services will be compromised due to the systems failing or becoming obsolete.  Currently the scale of investment in these existing systems is relatively high but such investment does not deliver the required value to be seen as having a positive return

on investment. The phasing out and replacement of these systems and those that are redundant can be both costly and time consuming but through their substitution cost savings and efficiency gains can be achieved. The VOS is a prime example of such legacy systems as it is not designed for the sharing of information and requires significant development investment on an ongoing basis;

- **Under-investment in system and infrastructure upgrades over past decade** - Modern ICT service delivery is reliant on the sound foundations provided by information and technical architecture so ICT upgrades and maintenance are necessary for integrated systems, an expanded range of online services and more efficient and responsive services. The focus on doing more with less has resulted in significant under-investment in system and infrastructure upgrades over the past decade. This has (and will continue to do so until the situation is remedied) a limiting effect on the ICT capabilities of certain Public Sector bodies. Until this investment is made, it will be particularly difficult to drive real value from the ICT systems. Securing sufficient funding for this investment remains a challenge and must be overcome in the VO to meet their ICT commitments as set out in the Public Service ICT Strategy 2015 and in other government policies (such as the Open Data Strategy 2017-2022); and

- **Workforce and recruitment constraints that make the public sector uncompetitive in the ICT market** - New ICT technologies, associated products and services often mean that Public Sector ICT functions require new skills. Lack of access to appropriately skilled staff can restrict the successful adoption of these technologies. Governments in advanced economies around the world are struggling to address this key challenge as key staff are attracted by the financial rewards available in the private sector. The VO must be flexible in adopting solutions to meet this challenge.

### 3.2.3  Summary of the key demands for ICT

The VO must consider how technology can be used in the future to enable the delivery of valuation services that best meets the current ICT environment, the Strategic Plan and the roadmap for future delivery whilst also considering current ICT trends. The following key themes have been identified for further consideration within this ICT strategy:

- **Information Driven**: capturing the correct data to drive valuations is key for the VO in delivering a world class valuation service in Ireland. The digitisation, analysis and processing of this data will transform it into valuable information that will help drive efficiency and deliver enhanced services to stakeholders;

- **Efficiency**: the focus will be on reducing the effort required to produce quality information negating the need for, often, resource intensive data manipulation and modelling. This includes supporting the VO to deliver more efficient valuation services through increased automation, providing the tools and technology to support business process change such as a multiple property valuation approach, commonly referred to as "mass appraisal";

- **Professionalise ICT**: to support the development of VO ICT professionals to provide ICT services that are aligned with business need and incorporate ICT industry best practice. This includes initiatives such as cyber security and business continuity and the use of infrastructure and software as services;

- **Enhance Business Capability**: supporting the VO to provide new or enhanced services to meet the needs of Valuers and stakeholders. This can be through the digitisation of agreed services, better use of GIS, mobile technology for field valuations and in providing solutions for VO services that lack technology support; and

- **Tailte Éireann**: supporting the VO to prepare for the merger through improvements in the design and delivery of shared pathfinder projects with partner organisations. This will include further shared services and tools and the development of a common data model.

# 4.  VALUATION OFFICE ICT ENVIRONMENT

It is a critical exercise for any organisation to understand the current ICT environment as it provides the foundation for understanding how ICT currently supports the organisation, acknowledging recent achievements, identifying opportunities for improvement and in providing a starting position for delivering the ICT strategy. This section is therefore structured as follows:

- Recent ICT Achievements;

- Current ICT Environment;

- Review of Core Line of Business Applications:

    o   VOS Application;

    o   GIS; and

- Key recommendations for this ICT strategy.

## 4.1  Assessment of the Current ICT environment

The assessment of the VO's ICT environment has been conducted across a number of defined focus areas and dimensions to ensure that the full picture has been captured in terms of current challenges, opportunities for improvement and ICT initiatives. This is shown in Figure 3.
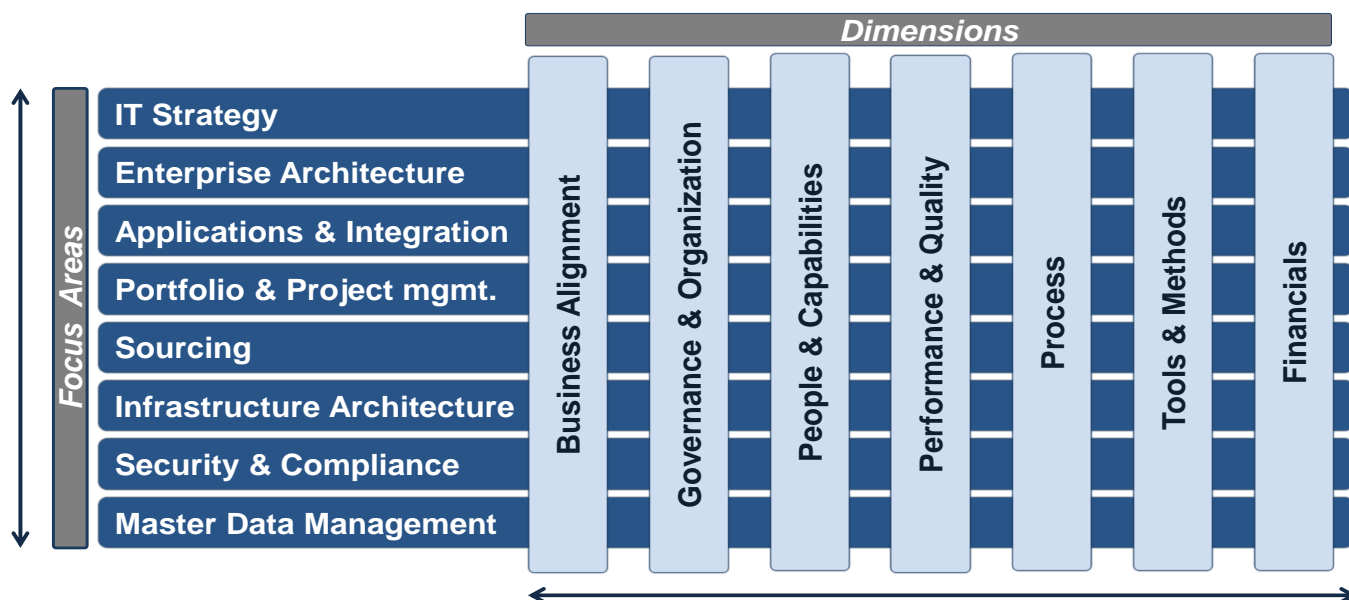


**FIGURE 3 ICT FOCUS AREAS AND DIMENSIONS**

This assessment was conducted across the following focus areas:

- **ICT Strategy**, the documentation of objectives, principles for ICT, and plan for execution to ensure that ICT supports the realisation of the VO's Strategic Plan and annual business plans;

- **Enterprise Architecture**, the organising logic and blueprint for business processes and ICT infrastructure to determine how the VO should achieve its current and future objectives;

- **Applications and Integration**, the blueprints for the VO's individual application systems, their interactions and relationships to the core business processes;

- **Projects, Portfolio & Project Management**, the steering and coordination of initiatives to realise the ICT strategy and enterprise architecture objectives;

- **Sourcing**, the strategy and established principles for sourcing with regards to achieving goals and controlling supplier delivery through a vendor ecosystem;

- **Infrastructure Architecture**, the technology in terms of software and hardware required to support the VO's information needs and application services (includes infrastructure, middleware, networks, communications, processing and standards);

- **Security Compliance**, organisation & governance for security & compliance including principles, policies and processes to secure the VO's business assets; and

- **Master Data Management**, the structure of the VO's logical and physical data assets and data management resources.

Each of these ICT focus areas was reviewed across a number of dimensions (lenses) to help identify gaps, deficiencies and good practice to enable the development of initiatives (recommendations) to ensure that the VO demands for ICT are fulfilled.  These dimensions are:

- **Business Alignment**, how ICT aligns with the VO strategy and delivers value to the organisations and its customers and users;

- **Governance and Organisation**, which enables ICT and the wider VO organisation to collaborate in taking ICT decisions that promote the optimum value and ensure effective delivery.  This includes ICT organisational structure including roles and responsibilities, ownership, escalation and communication processes, principles and policies;

- **People and Capabilities**, ICT capabilities, leadership and environment to deliver and build effective ICT teams;

- **Performance & Quality**, the KPI's and performance measurements that enable ICT to demonstrate value to **the VO;**

- **Process,** the operational processes and procedures within the ICT organisation;

- **Tools and Methods,** standard methods, process frameworks, tools; and

- **Financial control,** cost control, actual cost and business case justification requirements.

The key challenges, deficiencies have been captured in Figure 4 and the solutions and potential initiatives to improve the delivery of ICT services for the VO in Figure 5.  They also summarise the review of the core line of business applications, carried in Section 4.2, and the findings of the key recommendations, as shown in Section 4.3.

Figure 4 uses the traffic light system to assess each focus area and dimension with the aim of highlighting areas for improvement

- **green** indicates that the area is running optimally.

- **orange** indicates the area could be improved but the foundations are in place

- **red** indicates there maybe some basic documentation, disciplines and/or processes be missing or not be formalised.

**Note:** It is very important to note that the effort required to move from a red to an orange light may not necessarily be overly onerous, it may simply require the formalisation of previously ad-hoc arrangements.

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The table below indicates the challenges and deficiencies that are currently being faced in the delivery of ICT Services to the VO.

| Focus Area / Dimension | Business Alignment | Governance & Organisation | People & Capabilities | Performance & Quality | Processes | Tools & Methods | Financials |
|---|---|---|---|---|---|---|---|
| IT Strategy | • There is a yearly plan but little input from ICT<br>• Board representation light when compared to valuer side of business | • No well-defined IT strategy<br>• SG has helped matters<br>• Loose and informal escalation paths and processes | • Yearly plan not deliverable<br>• Resourcing an issue<br>• Loose job descriptions | • No KPI's, targets not defined for ICT and hence no measurement | • Lack of project retrospectives<br>• Lack of ICT involvement with yearly plan generation | • N/A | • Opportunity to have more cost focus and save money on certain projects<br>• Business cases are put forward for all major initiatives |
| Enterprise Architecture | • No formal enterprise structure<br>• VOS needs upgrading to new platform<br>• Lack of field technology currently | • ICT have degree of autonomy to carry out initiatives<br>• Little accountability or responsibility for annual plans<br>• No roadmap | • Resource constraints<br>• Team of generalists rather than specialists<br>• Keeping VOS running is very time consuming | • Lack of enterprise standards for organisation | • Informal processes<br>• Little documentation<br>• Process inefficient as it is not always the right people who are taking on initiatives | • Frameworks are not applied in general<br>• Opportunity to introduce methodology | • Budget can be an issue as large percentage is already allocated<br>• Possible decommissioning opportunity |
| Applications & Integrations | • There are applications on the market that could support the valuer<br>• Little digitisation of services | • Informal principles and policies<br>• No formal change control<br>• Opportunity for the identification of super-users | • Several single resource dependencies<br>• Constant firefighting<br>• Reactive rather than proactive work | • No SLAs<br>• No continuous monitoring<br>• Focus is on bugs<br>• Perception that ICT is doing well with limited resources | • Testing is informal, no lab environment<br>• Informal incident management<br>• No problem management<br>• Loose processes | • Methodologies aren't used on the whole but approach is informal Agile | • Maintenance 25% of budget, 75% for new development [Other factors to be considered, staffing] |
| Projects Portfolio and Project Management | • No definition of benefits at the outset<br>• Informal realisation of benefits | • Inconsistent standards across project sponsors<br>• Accountability is not clearly set out<br>• Light project controls | • Little formalisation of roles & responsibilities<br>• ICT act as informal PMO and project delivery<br>• Best endeavours | • Little tracking of project KPI's<br>• Constant firefighting<br>• Downtime is not available to work on system – out of hours | • Loose project management processes<br>• No project reviews<br>• Informal project prioritisation | • Ad hoc methodology, no standardised approach or project management framework | • ICT owns budget for most projects |
| Sourcing | • Outsourcing where skills aren't held internally | • ICT manage procurement<br>• Exchequer is not managed by ICT but paid for from ICT budget | • Loosely defined roles for sourcing<br>• Not fully mature in sourcing (procurement) | • Some contract management but no KPI's<br>• Opportunity to introduce good practices (SLAs) | • Loosely defined and informal processes | | • Little measurement of sourcing contracts and analysis / reporting |
| Infrastructure / Technology Architecture | • Old / outdated infrastructure – e.g. unsupported 32-bit architecture<br>• ICT do apply appropriate technology standards | • No standardised cloud approach in the public sector<br>• Prioritisation of projects an issue | • Resource capacity an issue<br>• No formalised ICT service desk<br>• No SLAs for infrastructure | • KPI's loosely and informally defined<br>• No measurement of performance | • All patches go out to live system, no middle environment<br>• Loose processes<br>• No hot site<br>• No business continuity plan | • ITIL processes not followed<br>• No ticket handling<br>• Informal help desk support tools<br>• Fixes not documented | • Opportunity to identify application list for decommissioning |
| Security & Compliance | • Business is the biggest threat<br>• Need to tighten controls & standards<br>• Cybersecurity is an immediate need | • No information manager<br>• Lack of documentation<br>• Need more support with applying security standards | • Need staff to take ownership of actions | • No reports available for the measurement of security and compliance | • No documented disaster recovery plan<br>• No capacity to review existing processes | | |
| Master Data Management | • Only access to reports is through ICT, ad hoc or regular / periodic | • No spec for ICT project on reports<br>• More accountability required for data quality / governance<br>• Little quality control | • Reports are very time consuming<br>• Resource shortages on data side<br>• Staff not fully aware of responsibilities | • No metrics for case management<br>• No tracking of poor inputting of data | • Loose processes<br>• Poor data management – opportunity for more automation of processes | • Processes not fully followed<br>• More training could be useful | |

FIGURE 4: CURRENT ICT DELIVERY CHALLENGES

The table below displays a number of recommended solutions and initiatives to improve the delivery of ICT Services to the VO.

| Focus Area / Dimension | Business Alignment | Governance & Organisation | People & Capabilities | Performance & Quality | Processes | Tools & Methods | Financials |
|---|---|---|---|---|---|---|---|
| IT Strategy | • Three year ICT Strategy(*)<br>• Appoint dedicated representative for ICT at senior management level | • Formalise role of ICT Steering Group<br>• Institute governance review(*) | • Define job descriptions | • Identify and define KPI's, targets for ICT | | | |
| Enterprise Architecture | • VOS review(*)<br>• Establish EA view of business and ICT solutions | • Identify and implement good roadmap(*) | • Develop EA capability | | | | |
| Applications & Integrations | • Opportunity to use applications on the market that could support the valuer<br>• Initiative to digitise services<br>• Initiate market valuation project<br>• Push through with field technology project | • Opportunity for the identification of super-users to act as champions within the valuation services staff | • Identify areas for and implement knowledge transfer to avoid single resource dependencies | • Develop SLAs for all applications | | • Pilot use of Agile in application development and deployment | • Opportunity to decommission redundant applications |
| Projects Portfolio and Project Management | • Define approach to benefits realisation | • Define approach to PMO | • Formalisation of roles & responsibilities for ICT<br>• Formalise roles & responsibilities for project delivery<br>• Formal responsibility to manage portfolio of projects | • Identify project KPI's | • Institute project reviews<br>• Formalise project prioritisation | • Identify and apply standardised project management framework and methodology | |
| Sourcing | | • Procurement team to manage procurement activities<br>• ICT formalise contract management approach | • Formally define roles & responsibilities for sourcing | • Opportunity to introduce good practices (SLAs) | • Define and formalise processes | | |
| Infrastructure / Technology Architecture | | • Consult with OGCIO as to standardised cloud approach in the public sector | • Formalise ICT service desk | | • Develop business continuity plan | • Introduce and apply ITIL processes<br>• Develop known error database | • Opportunity to identify application list for decommissioning |
| Security & Compliance | • Develop cyber security strategy and supporting policies | • Appoint information manager | • Conduct training for staff to educate them to take ownership of actions regarding security | • Measure security and compliance on an ongoing basis | • Develop formal disaster recovery plan<br>• Review existing processes | | |
| Master Data Management | • Appoint data manager | • Develop spec for ICT project on reports<br>• Initiate project to comply with GDPR regulations | • More training on responsibilities could be useful for data management | | • Opportunity for more automation of data management processes | | |

(*) – denotes that this will be considered further during the development of this ICT Strategy

**FIGURE 5: RECOMMENDED ICT SOLUTIONS AND INITIATIVES**

## 4.2    **Review of the Core Line of Business Applications**

This section provides an in-depth review of the core line of business applications used by the VO:

- Valuation Office System (VOS); and

- Geographical Information System (GIS).

### 4.2.1   Review of the VOS application

The VO uses the VOS application as the core application for valuation services.  It is a bespoke solution that was developed in 2011, replacing the previous (and also bespoke) VO system.

The review of the VOS Application and database was conducted through:

- focus groups with a selection of Valuers and of the Administrative Staff;

- discussions with the VO ICT team and outsourced support for application development;

- comparison of functionality against the recommended processes from the report produced by the Institute of Revenues, Rating and Valuation; and

- analysis of COTS applications currently being utilised internationally by counterparts.

#### 4.2.1.1    VOS Application and database

**Ease of Use:** The database is built on the same structure as the previous VO application meaning that there are a series of legacy fields within the database. It has had to be amended, updated and patched on a multitude of occasions over the past number of years leaving a less-than-intuitive-system.  This has resulted in an application that is not particularly user-friendly and one that does not fully meet the needs of the organisation or the workforce.

**Standardised Data Entry**: Modern ICT applications facilitate the capture of data through standardisation and codification, minimising the input from users but more importantly adding real value to the data through analytical comparators and the production of better management information.   Currently statistical analysis is conducted using MS Excel as the VOS provides no analytical or modelling functionality.  Improved validation for data capture will lead to enhanced data quality and integrity.  Prior to any improvements to the system a data cleansing exercise is required to standardise all database entries.

**Functionality Gaps**: As it stands the VOS application does not support the Global Valuation Function.  It is understood that this is due to the competing priorities of the ICT Unit and budgetary constraints associated with developing a solution.  All Global Valuation work performed using MS Excel, Word and paper records.  .

In a world where desk based valuations are increasingly the norm, the VOS does not meet the needs of modern Valuers with no support for computer assisted mass valuations.  There is no functionality to perform modelling or statistical analysis.

Furthermore, the VOS has not been developed with mobile field work in mind.  In the field staff currently use a paper based process to capture information.  All information must be printed out prior to leaving the office.  Survey information is captured on paper based forms and then entered into the system when they're back in the office.  As mobile field technology project has been included in the development pipeline for 2018 but until this solution has been developed Valuers will have to adopt a more dated process.

**Workflow and Case Management**: The VOS application lacks sufficient workflow and case management functionality.  The system does not capture in sufficient detail or at the appropriate level the status of each case to track progress adequately or forecast when cases should be complete by.  Tracking progress is equally vital to identify the appropriate interventions to maintain progress and deliver as forecast.

**Historical Information Gaps**: The appropriate information is not captured to support a chronological view of properties and valuations. In addition document attachments contain formatting inconsistencies with no sequencing being applied against valuation records.

**Management Information**: The VOS application does not adequately support the running of management reports by users. The ICT Unit are required to run all ad hoc and periodic reports for Valuation Staff and senior management. There is no functionality provided to "drill down" into the detail meaning that further reports may need to be requested from ICT to understand issues at a lower level. This exercise is resource intensive for ICT limiting the value that could be delivered to the business in other areas.

**Application Performance**: the speed and responsiveness of the VOS is seen as an issue among users at present. This issue should, however, be remedied once the current network refresh project has been implemented.

**Testing and Deployment**: is an issue for the VOS as there is no sandbox area or lab environment. All development is conducted on a mirror system and then released onto the live system.

**Contractor Dependence**: currently the VO has an outsourced support contract for VOS support and development. This contract is a time and materials contract for VOS support and development implying that the risk of support and delivery resides with the VO rather than being shared with the contractor. The ICT Unit have seen the benefits of having one developer work on the VOS and they have built up significant expertise with the application. This can now be seen as a business risk due to the expertise that they have built up.

## 4.2.1.2    VOS Application and database options for delivery

In its current guise the VOS application does not support the VO in its mission of delivering an effective property valuation service of commercial and industrial properties. Neither does it support the stated vision of the VO in being a world-class property valuation provider for the State and the people of Ireland or in taking advantage of modern technology and delivery options such as SaaS or Infrastructure as a Service. If the VOS application is not replaced i.e. nothing is done the VO will struggle to achieve the further delivery (beyond the current strategic plan) of strategic objectives such as:

- **Adoption of international best practice**, leaving Ireland out of kilter an behind other countries in assessing taxation for local government funding;

- **Advancing and accelerating the National Revaluation Programme** – achieving this objective will be significantly impacted through a lack of case management and workflow which would introduce efficiencies across the revaluation process. In addition the use of modern approaches to delivering valuation services will be restricted by the current information sets and VOS application limitations;

- **Delivery of an Effective Revision Service** will be restricted to improvements created through the use of additional resources and again the lack of case management and workflow will prevent further efficiencies;

- **Extending the range of non-statutory valuation services** will be impacted by the efficiencies not gained in the revaluation and revision services as they will be resource dependent; and

- **Optimisation of ICT capacity** implies that taking a "do-nothing" approach for the VOS is simply not acceptable.

The key conclusion of this review is that the VOS application, as it stands, is not fit for purpose and it will therefore prevent the VO from achieving its future objectives unless either significant staff resources are utilised or the VO deploys a modern Valuation Services application. In addition, continued use of the VOS threatens the VO with being further left behind by their international counterparts in terms of ability to take advantage of modern technology. As such, until a solution is found, the ambitions of the VO, a major funding arm of local government, will be thwarted.

It is our **strong recommendation** that the VOS should follow international best practice and be replaced by a: Commercial Off-The-Shelf (COTS) solution specifically developed for Valuation Services (preferably one that is also being used by another leading international counterpart). However, to ensure that the VO can deliver both the most appropriate solution and demonstrate value for money, a business case should be developed that fully considers the options for delivering the solution, including this Strategy's recommendation and other options including:

- major enhancement and revision of the existing VOS application by an external vendor; and

- new bespoke solution developed by an external vendor.

It should be recognised that all options would require major data transformation work to be undertaken in preparation for any move from the current system. A staged process would be required ahead of any procurement of a new system to firstly review the legacy fields in the database, then to cleanse the data, then to codify elements of the data and finally prepare it for any data migration exercise.

The high level comparative analysis for the two options is summarised in Table 1.

**TABLE 1: BESPOKE AND COTS MODEL COMPARATIVE ANALYSIS**

| Criteria for analysis | Bespoke (enhanced & new) | COTS | Comment |
|---|:---:|:---:|---|
| **Time to deliver** | | ✓ | • COTS solution will come with functionality out of the box, meaning it can be configured and implemented very quickly<br>• Bespoke requires developing from ground up or adapting current VOS which would be extremely laborious |
| **Training costs** | | ✓ | • COTS solution will have existing training materials for core functionality<br>• Training material would need to be drafted in its entirety for a bespoke solution |
| **Community support** | | ✓ | • As numerous other instances of COTS solutions exist across valuation authorities worldwide using similarly configured software, there is an existing global community to help support the system and its users<br>• A bespoke solution would only be recognised internally and as such would not have this rich wealth of global knowledge available |
| **Functionality** | | ✓ | • COTS systems are tried and tested in other valuation authorities, leading to international best practice functionality and methods being developed and refined over time<br>• This functionality will also be available immediately out of the box pending configuration<br>• While a bespoke solution opens up the possibility of specialised functionality, the core common functions needed for the VO will have to be built and will not have the benefit of years of experience and refinement |
| **Upgrade path** | | ✓ | • COTS providers frequently release updates, patches, bug fixes, and refinements to their solutions which are typically available immediately<br>• Integrating these upgrades is usually simple if the core system is already in place<br>• A bespoke solution would allow the VO to upgrade continually<br>• However, this would be extremely resource intensive an costly, requiring significant design, development, and testing resources |
| **Tailored for Valuation Office** | ✓ | | • A bespoke solution offers the greatest possibility for absolute tailoring to the every individual and specific need of the VO<br>• COTS solutions would allow for some tailoring through configuration and possibly some custom development, but not to the same degree |
| **Perpetual licence fees** | ✓ | | • In-house development and ownership of a solution means there is zero reliance on an external provider and hence, zero licence implications<br>• COTS licences may incur costs based on a number of factors such as size of the solution, number of valuations (transactions), level of support required<br>• This would also necessitate a robust supplier management approach |

| Criteria for analysis | Bespoke (enhanced & new) | COTS | Comment |
|---|---|---|---|
| **Contract flexibility** | ✓ | | • A bespoke solution by its nature means that the VO has the flexibility to change anything across the system as long as they are willing to accept the risk involved<br>• An arrangement with a COTS provider would lock the VO into a particular solution for the length of a contract term |
| **Modern technology and delivery options** | | ✓ | • Can avail of modern technology delivery options such as SaaS and infrastructure as a service (Cloud) |
| **Cost** | | ✓ | • The cost of implementing a COTS solutions is inherently lower than that of a bespoke solution<br>• Each element of delivery from design, build, test, system integration, change management, support et al. is simplified as there is an existing and proven solution to work from<br>• End-to-end delivery of a bespoke solution necessitates in-house design, build, test, integration etc. starting from a green field, meaning all of these costs would be borne by the VO<br>• The greater time required to deliver a bespoke solution means staff costs are far higher<br>• There is a significantly greater cost of delay associated with a bespoke solution versus a COTS solution (i.e. while the system is in development it is not delivering value, so the longer development cycle) |

As can be seen in 1, both the COTS and bespoke options offer the VO with opportunities to enhance the delivery of Valuation Services through either the:

- procurement of a COTS solution offers the VO a proven, robust solution at a lower cost delivered faster and with ongoing support; or

- development of a bespoke solution (or enhancement and transformation of the existing VOS), providing better tailoring to VO requirements, flexibility, and a lack of licensing costs.

**COTS**

By utilising a best-in-breed COTS solution, the VO would benefit from functionality and reliability developed and refined over time based on the learnings and experience of a deep pool of users across the globe to deliver international best practice in this field, from desk-based valuation through to business intelligence and workflow management. This applies not just in terms of the solution's existing functionality, but in the available training materials, a global support community, and continued development of the solution in terms of upgrades, patches, and bug fixes. It could be deployed with minimal development effort once configuration was complete. If bespoke elements are still required, these could be tackled on a case-by-case basis to hang off the core COTS functionality. COTS would also be relatively easy to integrate with other systems due to the common standard technology protocols for information sharing, platforms and links between industry sector solutions such as GIS, Valuation mobile and field solutions including sketch tools and desktop valuation tools. This is of crucial importance ahead of any merger with OSi and the PRA. Significant value is to be gained by sharing data, as this enables efficient inter-departmental collaboration. It would also streamline the sharing of data with other public bodies and internationally.

Historically it is understood that the rationale for retaining an in-house solution was that the VO retained control of the data, and a bespoke solution still offers this today. This is no longer a major issue – today's COTS providers are accustomed to providing solutions to public sector entities and realise that protecting sensitive information and preserving ownership over data is paramount for their customers.

**BESPOKE**

A bespoke solution does however have some benefits. It could be tailored specifically to the meet the needs of users and the specific requirements dictated by the VO. As the solution is owned in-house there are no additional licensing costs as users are added to the system. All intellectual property is held by the VO and there is no reliance any one specific vendor, although this independence from a vendor means that separate support arrangements must be made. However, the necessity for significant, time-consuming and costly development work negates much of this benefit.

**IN SUMMARY**

It is our recommendation that the VO should:

- Develop a business case to explore these options further; and

- Procure a new solution allowing the marketplace to inform the VO of the best option in terms of value delivered and cost.

## 4.2.2 The deployment of Geographic Information Systems (GIS) within the Valuation Office

Currently the VO utilise GIS functionality such as mapping and geospatial data to support the work conducted on the core valuation application, VOS. The GIS functionality has been integrated into the VOS enabling Valuers to leverage OSi's geospatial data to support the production of fair and equitable valuations for commercial and industrial properties.

### 4.2.2.1    GIS Deployment

Significant advances have been made in the use of geospatial data over the past decade despite resource constraints. Recently the VO have effectively leveraged the National Mapping Agreement (NMA) and now utilise much of the OSi's geospatial data through MapGenie. From this the VO has access to cost efficient OSi data to facilitate both the assessment of properties, and also the transparent dissemination of the results of ratings exercises. This information is linked to the VOS database enabling Valuers to benefit from the high quality map data with a complete mapping service at their disposal, including access to streetview.

Ratepayers, LA's and citizens can also benefit via the VO website which has seen a meaningful increase in its mapping functionality with value provided to its users. This functionality has been delivered despite the resource constraints that currently exist within the GIS Unit.

Whilst advances that have been made, the VO's GIS functionality should be further developed to deliver enhanced functionality for Valuers, for example functionality could be developed to provide rental information on a heat map, facilitating greater efficiency and accuracy in completing appraisals.

### 4.2.2.2    GIS recommendations

It is recognised that while notable advances have been made in the use of mapping and geospatial data in the VO, there remains significant future potential for its enhanced use; in the collection/submission of information, the undertaking of valuations and the dissemination of results. However, at this time there is no clear understanding of the business priorities that GIS can best support, nor indeed the process by which these could be realised. As such, for a further leap to be made in the generation of enhanced mapping and geospatial data competence, a significant level of business analysis, with associated budgetary and resource investment would be required and it is questionable whether this should be an immediate priority.

One of the "quick wins" that have been identified as part of this review is the implementation of enhanced functionality whereby Team Leaders can assign revision cases by geography through the GIS. Very little additional development work would be required to push through these changes and it would enable Team Leaders to quickly and easily assign revision cases to Valuers based on the geographic proximity of cases.

The proposed merger to Tailte Éireann offers a tangible opportunity to deliver increased cooperation with the OSi, although it shall be necessary for the VO to identify the business need and opportunity. In the interim, it is

our recommendation that the VO would be advised to continue to maximise the use of the OSi's geospatial data through the NMA as it is currently doing.

There are three distinct elements where improvements can be made to the VO's GIS capability in the medium term. As some of these relate to the format of the data the improvements may not be perceptible at the front end of the VO's GIS offering but the exercises would be extremely worthwhile nonetheless. The three elements are as follows:

1. Inputting data into the system

2. For valuation purposes

3. To disseminate information

### 4.2.2.2.1    Inputting data into the system

Firstly, the VO own the property boundaries which means that LA's must reference this in the system. This is not an intuitive step. Building coordinates (or Geodirectory Building ID if this is available to the VO and Local Authority) are all that should be required. There should be no need to go to maps in order to find the right parcel of land that pertains to a certain property.

### 4.2.2.2.2    For Valuation Purposes

When valuing areas, the VO has divided areas into local benchmarking areas where the properties within this area have relatively similar characteristics and are seen to have close valuations (on a per square meter basis). These local areas are identified and formulated by Valuers based on a defined number of indicators. The identification and maintenance of these benchmark areas are subject to manual effort and maintenance over a period of time. Access to a commercial rental database would make it possible to automate the identification and formulation of these benchmark areas based on the defined key indicators. The Valuers role in this scenario would be to quality assure this exercise and tweak, where necessary.

### 4.2.2.2.3    Good transparency from GIS

Currently the VO uses raster digital files as data inputs as opposed to vector images. While historically using raster files is cheaper, since the advent of the National Mapping Agreement with the OSi the cost of data is no longer an impediment. The VO should move to using vector digital graphics as this would open up areas of significant opportunity, specifically the VO could move to the Prime2 spatial data storage model. This, when placed alongside Eircodes and Geodirectory, would ensure a consistent and unique referencing of topological state information. While this would be a more expensive option it would enable the VO, Valuers and those using the GIS functionality on the web portal leverage more intelligent data at the general level. This would act as a Tailte Éireann pathfinder as it would also bring the VO in line with both the PRA and OSi. By carrying out these recommended actions the VO would be able to provide significantly enhanced GIS functionality for the Stare, LA's and Rate Payers.

At current resource levels the VO would struggle to provide these GIS enhancements meaning that external support would be required. Should these three elements be introduced, there would be significant improvements made to the GIS capability within the VO, making the investment worthwhile. When this increase in capability is coupled with a modernisation of the core valuation services system there will be a rich dataset that can be leveraged by Valuers, citizens, the State, LA's and ratepayers, all of whom would see substantial benefit.

## 4.3    **Key recommendations for this ICT Strategy**

The key recommendations documented in this section address a number of the major challenges and deficiencies for the provision of ICT Services and have categorised as follows:

- **Immediate**, requiring the attention of the VO with the recommendation that they should be delivered promptly to minimise business risk or deliver significant value; and

- **Strategic**, initiatives that will be delivered throughout the term of this ICT strategy.

### 4.3.1 Immediate:

- **The development of the ICT Disaster Recovery Plan to support the Valuation Office's Business Continuity Plan** – Current arrangements are informal and there is therefore an immediate need for the VO to develop and establish a formal ICT disaster recovery plan and arrangements to support the organisations Business Continuity Plan.

- **The development of security and cybersecurity policies and procedures**. In light of the recent high profile cyberattacks (WannaCry and Petya) that affected both the public and private sector the VO is duty bound to ensure that security and cybersecurity policies are established. This is essential as the VO stores personal data. Having documented policies and procedures in place and communicating roles and responsibilities to all staff is an urgent priority for VO.

- Policies need to be drawn up to ensure that the ICT Unit and the business as a whole is compliant with the **GDPR**, prior to the 25th May 2018 enforcement date. Non-compliance could lead to large fines and significant reputational damage, so both achieving and demonstrating compliance is critically important. It should also be noted that GDPR does not only apply to future data collection but it also covers all legacy personal data, some of which may be stored in old systems or applications. A gap assessment is well underway to assess the readiness of the VO for the GDPR.

### 4.3.2 Strategic:

- As a core application for the supporting of all valuation services within the VO, the **VOS is no longer a fit for purpose solution**. Therefore, there is a need to replace the system with either a bespoke solution or a COTS option. Section 4.2.1.2 benchmarks the two options with a business case and procurement recommended to define the preferred option. Before any replacement can be considered there is a significant amount of work required in preparing for the data transformation and migration exercise that will be necessary, regardless of the option selected.

- GIS capability has been enhanced significantly over the recent past but it is recognised that the **full potential has yet to be realised**. Before additional GIS functionality is made available Valuers must have access to a fit-for-purpose core valuation application.

- The **GIS should adopt Eircodes** as the basis for identifying commercial and industrial properties. For the potential benefits to be realised, LA's need to validate the Eircodes stored on the database;

- It would be valuable for Team Leaders to be able to **assign revision cases based on geographic proximity**. Very little development work would be required for this GIS quick win.

- A **succession plan** is required ahead of the retirement of the GIS Manager to ensure that the expertise, capability and knowledge are not lost to the business.

- The VO requires **business intelligence software** to retrieve, analyse, transform and report data to drive efficiency and effectiveness across both the delivery of Valuation services and the supporting Administrative services. Currently a disproportionate amount of time and effort is spent by the ICT Unit on generating reports. Reports are generated from VOS extracts and are processed through MS Access or MS Excel. This onerous burden takes the ICT Unit away from more productive work that could benefit the business. Furthermore, management is not able to dig down into the detail behind the reports to interrogate the data further. As a result, the current reporting solution is not fit for purpose. There is a need for an initiative to develop a better solution which would give management and designated staff direct access to the right information when they need it to enable them to make better informed decisions.

- **Developing a formal project management framework and methodology** for the ICT function within the VO will aid the delivery of the ICT projects and initiatives that are planned. At present all ICT projects have informal governance, roles and responsibilities, documentation and processes. Without a formal project management framework priorities can constantly shift and projects struggle to get delivered in full to the planned timelines. Implementing sound project management disciplines will ensure that the number of in-flight and planned projects accurately reflects the needs and priorities of the VO. This framework should enable the capturing projects from conception to benefits realisation.

- **Metrics for ICT** - the **establishment and measurement of key performance indicators** (KPI's) for the delivery of ICT services will enable the VO track ICT performance and demonstrate the value ICT services and initiatives deliver.  The  **introduction of service level agreements** (SLA's) for ICT services will create a better understanding users in terms of expectations but will also assist the ICT unit to prioritise demand for services based on business priority.

- **ICT Contract Management** - The VO would derive significant benefits from instituting a **professional and standardised approach to contract management** for all ICT contracts.  Currently ICT contracts are managed on an informal and unstructured basis.  The organisation as a whole would obtain more value from their outsourced ICT providers if a standardised approach was implemented.  Included in a standardised approach would be the negotiation of the terms and conditions in contracts, ensuring that they are implemented as defined, documenting any changes to these terms and conditions and minimising risk to the business. With the appropriate contract mechanisms the VO will be able to deliver quality ICT services and transformation whilst being able to control the cost and risk associated with them.

- Several **single resource dependencies** and single points of failure have been identified within the ICT Unit and this presents itself as a significant risk to ICT and the business as a whole.  There is an opportunity now to fully address these capability areas and to implement a knowledge transfer policy to mitigate against this risk;

- The VO has identified the need for the appointment of a **Data Manager** and a **Head of ICT**.  Recruitment for these key roles is in train;

- The VO would benefit from establishing a **formal view of the VO's enterprise architecture** to enable future improvements planning and delivery of both business and ICT change..  To facilitate this the VO should invest in developing its enterprise architecture capability.

- At the time of writing there is **no dedicated ICT representative at senior management level,** the ICT Unit being represented by the HR/Finance Manager.  It is noted that the VO has recently commenced the process to appoint a Head of ICT.   This will ensure that the ICT will have representative voice at the senior and strategic management levels;

- There is an opportunity to carry out a project to review the list of applications that are currently available to staff and assess as to whether there are any **redundant or obsolete applications that could be decommissioned**.  It is important to ensure that the ICT budget is not being utilised by legacy applications and that resources aren't being consumed in their maintenance.  Any initiative in this area would have to be carried out with the requirement of retaining access to the historical data meaning that a data migration exercise would be necessary; and

- In order to better prioritise ICT helpdesk queries the VO would benefit from the introduction of a **helpdesk ticketing system**.  Helpdesk queries can be resource intensive and without a ticketing system all service requests are received, processed and responded to in an ad-hoc manner.  Adopting a ticketing system would enable the ICT Unit to move away from firefighting and enable the prioritisation of all requests.  It would automatically divert tickets to the appropriate member of staff, depending on their speciality.  The implementation of a ticketing system would also facilitate the setting of service level targets and the tracking of them.  It would also be possible to track and gain insights from the service requests through the generation of reports.

# 5. GOVERNANCE AND PRINCIPLES FOR ICT INVESTMENT

This section sets out how the contribution of ICT will be controlled and governed in the lifetime of this strategy by:

- Defining the ICT design principles that will provide a guidance to ICT decision making; and

- Outlining the governance framework under which these decisions will be made;

## 5.1 ICT Principles

ICT principles provide the link between the VO's business objectives (as set out in the Strategic Plan) and business drivers for ICT (captured in Section 3 of this document), guide ICT decision making..   These principles:

- have been specifically developed for the VO using the insights and information provided through extensive stakeholder engagement, in consultation with ICT and through supporting documentation;

- shall seek to translate insights from the external and internal environment, known constraints and 'good design practice' into 'rules' that will guide IT decision making; and

- shall be sufficiently detailed so as to help drive decisions and behaviours.

The table below details these principles and the rationale for their selection.

TABLE 2: VALUATION OFFICE ICT DESIGN PRINCIPLES AND RATIONALE

| | ICT Design Principle | Rationale |
|---|---|---|
| 1. | Prioritise ICT investments based on alignment with the business strategy, return on investment and business necessity; it will shed and retire obsolete applications while maintaining those which support the organisation | By prioritising ICT investments that are aligned with the business strategy the VO can ensure that investments meet stakeholder needs, strengthen the organisation and prepare for the Tailte Éireann merger.  The focus on return on investment and business necessity will maximise operational efficiency but delivery value for money.  Simplification of the ICT estate within the VO e.g.  opportunities to reduce the number of systems will also drive both efficiency and cost savings |
| 2. | Seek to procure, not build, fit for purpose applications and infrastructure, maximising the use of enterprise solutions and minimising the reliance on bespoke solutions; the VO will outsource ICT and GI services for capabilities not internally available | By outsourcing value for money applications, infrastructure and services the VO will be able to gain access to best of breed applications and infrastructure and external expertise without having to commit significant resources to source them internally. ICT can therefore refocus on contract management and the provision of core services.  This should only be the case where a defined product / service can be articulated is available in the market competitively |
| 3. | Provide ICT staff with the appropriate skills, capabilities and governance to carry out their roles effectively, control costs, maximise benefits and minimise risks; the VO will ensure alignment between ICT and the business | Ensuring that ICT has appropriate skills and capabilities that will lead to a more efficient ICT unit within the VO providing increased value and benefit to the business.  Having appropriate governance will support the VO in ensuring that ICT related projects are effectively governed, controlled and delivered to meet expected business benefits |
| 4. | Fully leverage and exploit all data sets and take advantage of the latest technology and digital opportunities to ensure that staff have access to | The VO will explore and exploit opportunities to use the latest technology, the digital environment and its database to become a fully data driven organisation.  This will allow the mutual sharing of information with stakeholders and partner |

| | ICT Design Principle | Rationale |
|---|---|---|
| | the right information at the right time for effective delivery of services | organisations and enhance the value it creates for customers and stakeholders alike. It will facilitate the utilisation of rich internal and external information flows in data and information in the delivery of services |
| 5. | Ensure that all staff have access to the appropriate valuation information at the appropriate time to facilitate efficient and effective delivery of services | The VO will utilise the best of breed valuation applications and tools which provide value for money support to the production of fair and equitable valuations. This includes the taking advantage of mobile solutions to facilitate improved delivery of service |
| 6. | Proactively maintain ICT security policies, in accordance to international best practice, that will evolve to meet changing business requirements and environment whilst aligning with overall risk appetite | Effective ICT security policies will be designed to ensure that the data, systems and infrastructure held by the VO are protected as best possible and that mitigating steps have been taken to reduce risks. Business continuity plans ensure that the day-to-day running of valuation services can continue in the event of an adverse incident occurring |
| 7. | Leverage the relationship with partner organisations through the alignment of best practices processes, technology and capabilities where appropriate | The VO may be able to deliver value at a reduced cost or in a reduced timeframe by adopting / adapting proven solutions from the OSi and / or the PRA that align with best practice and suit the needs of the VO |

These ICT principles have been developed fully cognizant and in reference to the wider business principles, to ensure that ICT is aligned to support VO' s success delivery of its services and priorities.

## 5.2 Governance

ICT Governance is an integral part of enterprise governance and comprises the leadership, organisational structures and processes that will ensure the VO's ICT sustains and extends value delivered to the business. For each type of ICT-related decision, this section explains who will have input, who will make the decision, and what tools and mechanisms will be used in making, communicating and enforcing the decision.

The demands on ICT, as described in Section 3, necessitate a change to the existing governance structures in order to deliver wider business success. Key amongst these are:

- Clarification regarding roles and responsibilities of the relevant layers of governance, through an agreed terms of reference for each structure. This will enable the Valuation Service ICT Steering Group manage operational-level decision making, thereby enabling the Management Board to focus on strategic governance whilst also providing operational governance and co-ordination at the appropriate level;

- The introduction of a PMO function that will coordinate ICT governance (whilst also providing project support); and

- The establishment of solution forums for core systems, and the introduction of an Enterprise Architecture forum that has overarching visibility and control across the application/telecoms/infrastructure estate.

### 5.2.1 Good Practice IT Governance Structures

Effective governance within the VO should be comprised of (or include) the structural elements outlined in the figure below. Please note, these structures do not necessarily need to exist as separate governance events. In an organisation of the size of the VO it is appropriate to merge some of the structures within the one governance event, e.g. Project Boards and Change Approval. The roles/responsibilities and outputs need to be represented at an appropriate forum, whether this is newly established or already in existence:

| Structure | Description | Structure | Description |
|---|---|---|---|
| IT Executive Board | • Overall direction for IT<br>• Overall IT budget setting and control<br>• Major IT expenditures within the IT budget<br>• Balance priorities across IS and Movement<br>• Executive stakeholder management | Enterprise / Solution Architecture | • Overall technology strategy & direction<br>• Enterprise architecture roadmap (applications, infrastructure, products)<br>• Convergence to technology roadmap |
| IT Innovation | • IT innovation opportunities<br>• Business strategy enablement<br>• General awareness of new technologies | Change Approval | • Release schedule<br>• Change approvals |
| IT Demand Review | • IT investments<br>• Alignment of demand pipeline and portfolio to the IT strategy | IT Services | • Performance of delivered service<br>• Service delivery effectiveness<br>• Implementation of new/changed services<br>• Capita/supplier performance (re. service delivery) |
| Project Management Office | • Alignment of project delivery portfolio to business performance<br>• Performance of large programme delivery | QA & Risk Management | • Legal & audit compliance<br>• IT security<br>• Overall enterprise risk |
| Project Boards | • Project delivery<br>• Project risk and issue management | Supplier Performance Management | • Supplier performance<br>• Supplier assessment |

**FIGURE 6: GOOD PRACTICE GOVERNANCE STRUCTURES**

## 5.2.2   Valuation Office ICT Governance Model

In order to ensure effective governance for the future, the VO will need to flex and amend its governance structure to ensure all necessary aspects of standard ICT governance are represented, and that leadership are enabled to focus on strategic decision making, rather than operational management activities.  Provided below is a summary diagram illustrating the current ICT governance model within the VO, and how this should change to ensure full governance coverage, appropriate challenge at the appropriate level and adequate project support and assurance mechanisms are established.  Please note, this diagram is not designed to be exhaustive i.e. capture every ICT governance forum that currently, or should, exist:

**Best Practise IT Governance**         **Roles and Responsibilities**



**PMO**

**IT Leadership**
• Confirm Business & IT Strategy Alignment
• Approve investment in IT resources and spend

**IT Governance**
• Evaluate and Approve project proposals
• Assess Business & IT Strategy alignment
• Monitor program and project management activities
• Ensure successful execution of projects

**IT Governing Bodies**
• Facilitate IT Decisions
• Govern Enterprise Architecture
• Monitor & Manage IT Procurement
• Provide QA and Regulatory oversight

**Sources of IT Demand**
• Provide requests / drivers for IT resources and investment, based on business need

**FIGURE 7: BEST PRACTICE IT GOVERNANCE**

## Current IT Governance

**Management Board**

**Valuation Services ICT Steering Group**

Sources of IT Demand

| *Revaluation* | *Revision* | *Out-sourcing* | *Appeals* | *Other* |

## Roles and Responsibilities

**IT Leadership**
• Confirm Business & IT Strategy Alignment
• Approve investment in IT resources and spend

**IT Governance**
• Evaluate and **seek** approve project proposals
• Monitor program and project management activities
• Ensure successful execution of projects
• Facilitate IT Decisions
Forces SG into operational versus strategic management

No formal IT Governing Bodies to focus on the governance of operational performance or overall enterprise architecture. No coordination of projects except at SG level.

Requests from the business are directed towards the Valuation Services ICT Steering Group to provide initial screening of merits of request

**FIGURE 8: VALUATION OFFICE CURRENT IT GOVERNANCE**

**Program Management Office (PMO)**
• Co-ordinate the development of project proposals (IT & Program Sponsors)
• Program and project management
• Facilitate cross project communication
• Co-manage the IT Portfolio with IT Strategy, Planning, and Budgeting

**PMO**

**Management Board**

**Valuation Services ICT Steering Group**

*Enterprise Architecture*     *Project Boards / CAB*

Sources of IT Demand

**Demand**
(incl. via IT business partners)

| *Revaluation* | *Revision* | *Out-sourcing* | *Appeals* | *Other* |

**New role: IT Leadership**
• Confirm Business & IT Strategy Alignment
• Approve investment in IT resources and spend
• Set risk appetite

> MB receives a new remit, focused on strategic decision making

**New Roles: IT Governance**
• Evaluate and **Approve** project proposals
• **Assess Business & IT Strategy alignment**
• Monitor program/project management activities
• Ensure successful execution of projects

> SG receives broader remit, focused on evaluating against strategy & approval

**Introduction of new forums:**
• Project Boards / Change Advisory Board (CAB)
• Enterprise Architecture forum

> New solution forums introduced for QA and operational management

**Introduction of co-ordination & support:**
• Via PMO
• Via IT Business Partners

> Increased co-ordination and support

**FIGURE 9: VALUATION OFFICE 'TO-BE' GOVERNANCE STRUCTURES**

This updated structure will ensure:

• Management Board can focus on strategic decision making, ensuring that appropriate discussion, operational challenge and interim agreement are held / reached prior to this leadership forum convening.

This will allow Management Board to adopt the role of leading IT, as per the model presented in the figure above;

- Valuation Service ICT Steering Group can take on more of a strategic role by gaining the delegated authority to approve project proposals, subject to their being in accordance with the business plan and ICT strategy. This will allow the Steering Group to move away from day-to-day operational management of individual projects to governing ICT and will no longer be simply a conduit to the Management Board; and

- All governance activities are co-ordinated, with PMO also taking on the responsibility to cascade decisions made or points of note throughout the structure to relevant stakeholders for action or as input to their activities.

The ICT unit should also ensure all appropriate governance is represented within the structure put in place. It will establish forums for Enterprise Structure and Project Boards / Change Advisory Boards.

### 5.2.2.1    Enterprise Architecture forum

An Enterprise Architecture forum will be established to provide the framework, structure and view across the entirety of the ICT estate. **Enterprise Architecture (EA)** provides the capability to holistically view the business, information, application and technology layers within an organisation to allow change to be carefully planned and executed. EA is the critical instrument for enterprise efficiency in the short, medium and long term. EA impacts the effect of the business operational processes, their cost and associated risks; the key factors to enable efficiency within a regulated environment and is recognised best practice within the ICT industry. Good practice EA is typically divided into four architecture domains (or views), as shown in the below:

The business functions, processes and activities required to deliver the Strategic Plan (2017 – 2019) — **Business**

Data that must be collected, organised, held securely and access provided to enable the delivery of Valuation Office services — **Data**

Applications such as VOS, GIS , potentially apps — **Application**

Technology such as the move to the virtualised environment — **Technology**

**FIGURE 10: ENTERPRISE ARCHITECTURE DOMAINS**

The benefits of EA can be realised through effective:

o Planning and Execution: Focused on the development of a coherent roadmap supported by technology blueprints to deliver a business aligned ICT estate; and

o Governance and Control: Definition of ICT policies and standards in alignment with the agreed ICT strategy. New solutions will be validated and verified through conformance with policies and standards.

**No Enterprise Architecture**                    **Effective Enterprise Architecture**
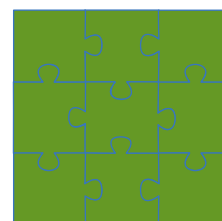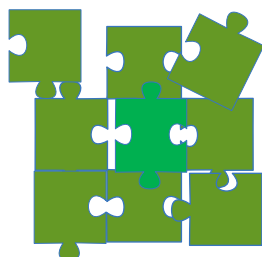
- Business cases often do not consider the full impact on the business
- Inconsistent view of how solutions integrate and work together
- Gaps in the technology and business operations often go unchecked e.g. Global Valuation and Mass Valuations
- Data duplication and limited integration of systems in place
- Benefits to the business and delivery of the strategy and amendments can be unclear

- Better business and ICT alignment
- Increased flexibility and agility
- Better return on existing ICT investment, reduced risk for the future and cost savings
- Increased consolidation, better integration and sharing of information
- More clarity on the benefits and investment required
- Greater control of projects and solutions that are implemented

The Enterprise Architecture forum will be chaired by the Enterprise Architect. As this is a new capability to the VO it will require some external expertise with the requisite skills to fulfil the role. The VO should seek executive backing to establish an Enterprise Architecture capability and put in place appropriate control, skills and processes to allow it to function not only as a form of governance but as a 'direction setter' in support of the business and ICT strategies. The VO needs clear business driven policy guidelines on data management and governance to ensure that the data is acknowledged as a business capability and not just an ICT responsibility. The table below outlines the scope, outputs, objectives, frequency of meetings and attendees for this forum.

TABLE 3: ENTERPRISE ARCHITECTURE FORUM

| Enterprise Architecture Forum | |
|---|---|
| Scope | • Overall technology strategy & direction<br>• Enterprise architecture roadmap (applications, infrastructure, products)<br>• Convergence to technology roadmap |
| Outputs | • Technology vision and roadmap<br>• Technology standards and policies<br>• New project approvals (technology compliance) |
| Objectives | • Review and approve overall technology roadmap<br>• Ensure convergence across infrastructure and application landscape<br>• Define global technology standards and policies<br>• Ensure that technology blueprint is consistent with the overall business strategy<br>• Assess new proposals for compliance to technology blueprints and standards |
| Meeting frequency | • Quarterly |
| Attendees | • Individual Project Managers for new initiatives<br>• Technical Lead for individual projects<br>• Business and Technical Leads from any outsourcing/implementation partners |

| | |
|---|---|
| | • User representation |
| | • Programme Manager |
| | • ICT Strategic Manager |

### 5.2.2.2 Project Boards / Change Advisory Board

For an organisation of the size of the VO it would be advisable and appropriate to merge the Project Boards and the Change Advisory Board. A Project Board / Change Advisory Board will act as a filter to quality assure and facilitate ICT decisions where necessary while acting as the formal change control body for individual projects. While these structures may exist already it is important to formalise the structures around them to ensure that they are fit for purpose and can deliver maximum value to the business. There will be a multiplicity of these fora with one in place for each project. The Chair of this forum will be the individual Project Manager of each project. Below is a table that outlines the scope, outputs, objectives, meeting frequency and attendees of the Project Boards / Change Advisory Board.

**TABLE 4: PROJECT BOARDS / CHANGE ADVISORY BOARDS FORUM**

| Project Boards / Change Advisory Boards Forum | |
|---|---|
| **Scope** | • Project delivery <br> • Project risk and issue management <br> • Change approvals |
| **Outputs** | • Updated project management artefacts (plan, risks, budget, etc.) <br> • Agreed actions <br> • Escalated issues and risks (where necessary) <br> • Approved and rejected change requests <br> • Formal change communications to relevant stakeholders |
| **Objectives** | • Ensure that projects proceed to plan and budget <br> • Manage status, cost, phasing of projects, sign-offs, stakeholders, risks, dependencies, etc. <br> • Develop mitigation actions as required <br> • Manage and control change requests and project scope changes <br> • Ensure that all changes adhere to agreed quality and risk management policies <br> • Manage communications to relevant stakeholders <br> • Review project progress against business case <br> • Ensure projects include the necessary service elements |
| **Meeting frequency** | • Monthly (though this may change depending on the delivery cycle) |
| **Attendees** | • Project Sponsor <br> • Technical Lead for individual projects <br> • Representatives from any outsourcing/implementation partners <br> • User representation <br> • Enterprise Architect (optional) <br> • Other attendees as determined by Project Manager & Project Sponsor |

# 6. STRATEGIC ICT REQUIREMENTS (2017-2020)

Each public sector organisation has a different set of strategic ICT requirements to reflect their individual business needs. The strategic ICT requirements must address the key demands and drivers for ICT in the VO. These crucial considerations are required in order to describe the strategic ICT requirements that the VO requires to fulfil the Strategic Plan. This section sets out the strategic priorities for ICT and how they align with the VO's Strategic Plan. The strategic priorities for ICT are detailed below.

## 6.1 Strategic Priorities for ICT

The key demands for ICT, as set out in 4.2.3, inform the strategic priorities for ICT. To deliver the key demands of "Efficiency" and "Enhance Business Capability" the strategic priority "Modernising Valuation Services Technology" has been defined. ICT is a key enabler in any business, the ICT strategy is intended to support the delivery of the VO's strategic priorities set out in the Strategic Plan 2017-2019 - Valuing our Potential. The strategic priorities for ICT and subsequent requirements have been defined to enable the successful delivery of these strategic priorities. As such, the dependencies between the Strategic Plan and the ICT strategy are established against the strategic requirements. The ICT strategy has been developed to ensure alignment with the Public Service ICT Strategy 2015 and the five pillars/objectives identified by the OGCIO.

### 6.1.1 Information Driven

The data held by the VO is the foundation upon which all valuation services are delivered. The VO currently captures a vast quantity of data in various formats. The VO is rich in terms of the quantity of data it captures but is currently unable to transform this data into intelligent information. For this to happen, the VO must become an information driven organisation. Becoming an information driven organisation will enable VO to:

• operate more efficiently and effectively using information to drive valuations and decision making;

• meet its statutory reporting requirements; and

• where possible derive value from the information itself.

The database must adhere to international best practice regarding the structure of data stored, data standards, management, governance, capture, codification of data inputting and the avoidance of duplication within the system. This would, in turn, prepare the data to be integrated and shared more widely and interrogated with analytical tools to better inform decisions that are made both within the VO and also within the wider system. This would ensure that the VO is more efficient and adds more value to its stakeholders as central government would have ready access to the data held by the VO.

**TABLE 5: INFORMATION DRIVEN STRATEGIC REQUIREMENTS**

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| 1. Understanding the current data model and how they support the business | • Necessary to fully understand the architecture, foundations and structure of the current database, how data is stored, security, scalability, the level of duplication within the system and the legacy fields that exist<br><br>• Understand where the data touchpoints are, which organisations (including LA's) are reliant on what data and in which format<br><br>• Create extensive plan for de-duplication and data matching | • Clear picture of data structures and what pre-cleansing exercise must be undergone ahead of procurement for new core valuation services application<br><br>• Understanding of data requirements for each stakeholder<br><br>• GDPR compliance roadmap outlined |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | • Clear documentation of this is needed to prepare for any future data cleansing exercise<br>• Plan for and begin pre-cleansing exercise<br>• Ensures that the VO has clarity regarding what steps need to be taken for the existing data to comply fully with the GDPR<br>• Preparations for the codification of fields for all future data capture | |
| 2. Understanding and defining the future data model and information requirements | • Outlines the 'To-Be' data model for VO following the introduction of the new core valuation services application<br>• Sets out the data requirements (structures, standards, etc.) under the new application<br>• Data gap analysis carried out on 'As-Is' and 'To-Be' | • Full understanding of how to meet information requirements of new application<br>• Data transformation roadmap developed<br>• GDPR compliance ensured for 'To-Be' data model |
| 3. Data transformation | • Standardisation of key data elements<br>• Codification and standardisation of data capture<br>• Removal of duplication within database<br>• Transform existing data into valuable information<br>• Facilitate the sharing of data within and outside the VO<br>• Ensure that all stakeholder information requirements are catered for<br>• Support work being carried out by digitisation project to enable the rapid transfer of existing hard copy data to new core application | • Data mode aligned with best practice<br>• Data converted to shareable information that will drive efficiency and enable increased scrutiny from stakeholders |
| 4. Business intelligence, analytics and performance dashboards | • Extend use of statistical and analytical tools to facilitate evidence based decision making and business intelligence insights for management<br>• Analytical tools enhance the value of information to the VO<br>• Enable management and Valuers alike to interrogate the data to produce more accurate valuations<br>• Support increased efficiencies to be driven from the system as external data can be integrated and scrutinised | • Realise benefits of information driven strategic priority by supplying staff with the tools necessary<br>• Management will have information required to manage performance and increase the efficiency and effectiveness of the use of resources |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | • Business analytics across all applications | |

This strategic priority is subject to the following dependencies:

- The LA's currently use the data structures issued by the VO therefore significant engagement will be required when defining the future data model.

- Any replacement of the VOS is dependent on the first strategic requirement, understanding the current data model, being complete and for documentation to be written up to pass on to potential suppliers of the new technology;

- The second, third and fourth strategic requirements, as listed above, are dependent on the work being carried out by the modernising valuation services technology strategic priority. Specifically, as these strategic requirements are looking at the future, they need to have a clear picture of the direction that the VO is going. Any system that is introduced to replace the VOS will have a bearing on the future data model meaning that the procurement process of the new system must be complete before this, and subsequent, strategic requirements are launched as it will influence future data requirements;

- Each strategic requirement relies on the previous strategic requirement to be completed prior its commencement.

The Gantt chart below outlines the four constituent strategic requirement of the Information Driven strategic ICT priority along with the expected length of time it would take to complete each strategic requirement.
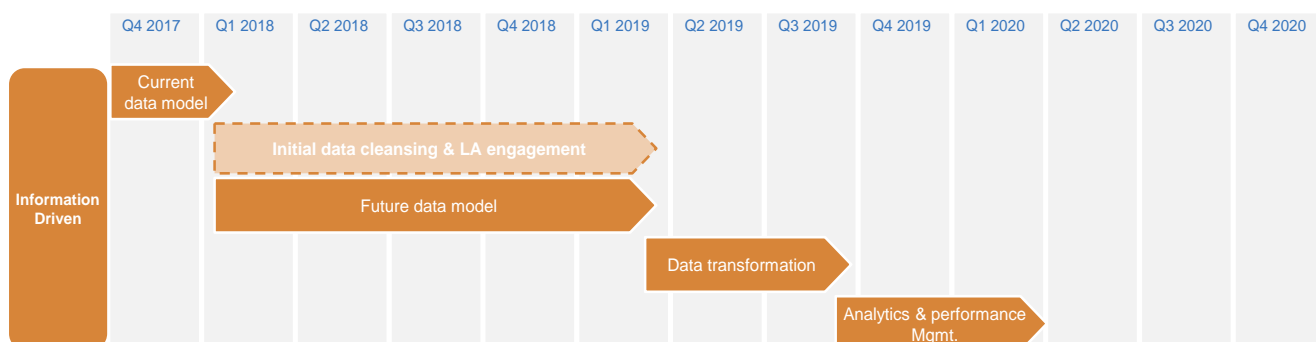


**FIGURE 11: INFORMATION DRIVEN STRATEGIC ICT PRIORITY GANTT**

As can be seen above, each of the strategic requirements should be delivered in a waterfall approach due to the final dependency as described above. Due to the protracted procurement process for the VOS replacement, the development of the future data model cannot be confirmed until this has been completed, however data cleansing can continue.

### 6.1.2 Modernising Valuation Services Technology

There is significant scope to increase the efficiency within the VO and to enhance the business capability. At present the core valuation services application is not fit for purpose. Its replacement is a crucial strategic requirement within this strategic priority given that this is an application that forms the basis for almost €1.5 billion in taxation revenue being levied. This alone will be an onerous and extensive task but one that generates significant benefit to the system. In addition, there are a number of steps that can be taken to modernise the practices, systems and ways of working for the VO workforce. Following the completion of this strategic ICT priority, Valuers will be able to utilise field capture and mobile technology, the GIS capability will be enhanced significantly for Valuers, management and external stakeholders, digital services will be upgraded, automation will be introduced to remove repetitive tasks and customers will be engaged with in a more organised and productive fashion. All of these enhancements will support the VO in providing a more comprehensive and improved service to stakeholders.

**TABLE6: MODERNISING VALUATION SERVICE TECHNOLOGY STRATEGIC REQUIREMENTS**

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| 1. **Core valuation services application** | • Introduce a modern, efficient, system that is suited to the needs of Valuers to increase productivity and create a shareable database for valuation property data<br><br>• Fully integrated software solution that can be tailored to user requirements to provide data from single authoritative source<br><br>• Provide the VO with the capability to accurately and transparently understand the cost of valuations performed<br><br>• Development of new data structure design to enable the delivery of best practice valuation services by the VO<br><br>• Adhere to international best practice, remove the duplication and manual tasks that are currently undertaken while performing valuations<br><br>• Remove significant development effort and cost that is expended by the VO ICT, enabling them to concentrate on more productive tasks<br><br>• Inclusion of modules for workflow management, to allocate jobs to teams and individuals, and case management, to provide a single source of all case related data<br><br>• Automation will be introduced where possible to remove repetitive tasks and manual processes<br><br>• Computer assisted mass appraisal will be an inherent function of the new system<br><br>• Facilitate desk based valuations through the introduction of a broader array of desktop assessment tools<br><br>• Increased transparency in the system with how valuations are calculated<br><br>• Address any ICT gaps that exist and ensure that applications support all services<br><br>• Broaden services that can be completed digitally<br><br>• Conduct comprehensive training on | • World class professional property valuation service application on par with international peers to ensure users have the necessary modern technology to complete valuations<br><br>• Facilitate the more rapid deployment of new technology<br><br>• Achieve higher service standards<br><br>• Ability to report on and to continually improve valuations performed against agreed metrics<br><br>• More accurate and quicker valuations produced for the state and LA's<br><br>• Accelerate the cycles of the national revaluation and revision programmes<br><br>• Increase in Valuer productivity due to removal of repetitive tasks<br><br>• Free up Valuer's time and facilitate the reallocation of resources where there is increased demand<br><br>• Increased stakeholder satisfaction with shared data and information<br><br>• Increased transparency has the potential to lead to a decrease in number of appeals<br><br>• Enable the VO take full advantage of partner organisation information sources |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | new system to ensure end users have the necessary skills to make effective use of modern technology and new application | |
| 2. **Field and mobile technology** | • Support a range of devices and operating systems including personal devices suitably configured for the VO for data and image collection purposes<br><br>• Enable interactions with the core valuation application, capture and input data locally with a tablet/mobile device thereby avoiding the current duplication<br><br>• Mobile and field technology will integrate with full core valuation services application and data support will be made available on mobile devices<br><br>• Introduce sketching service options to provide sketch creation to sketch verification and analysis processes | • Introduce tools to facilitate inputting of data and images in the field leading to a decrease of duplication and a large increase in Valuer productivity during data collection<br><br>• Faster, more efficient, less costly appraisals<br><br>• Enhanced communications for the Valuer<br><br>• Interact with core application locally to increase customer satisfaction<br><br>• Paper free work flow |
| 3. **CRM tool** | • Implementation of a system to hold a single source of all case related data<br><br>• Support the formalisation of how the VO interact with their customers and how customers participate and input<br><br>• Comprehensive up-to-date operational dashboards for customers and management for all services<br><br>• Enable the tracking and measurement of customer interactions and the generation of meaningful customer data<br><br>• Facilitate transparency of information with stakeholders regarding valuations, representations, appeals etc. | • Enable more formalised stakeholder engagement<br><br>• Improve customer relationships and customer satisfaction with deployment of new technology<br><br>• Reduce number of appeals with more effective early customer interventions in process<br><br>• Further insights on customer interactions can lead to greater efficiencies in processes |
| 4. **Document management system** | • Introduce a comprehensive document management system to facilitate access to the wealth of historic documentation and data that is available within the VO<br><br>• Support the tracking, management and storage of documents<br><br>• Enhanced search capabilities to enable staff to search effectively for the information that they need<br><br>• Create a document management | • Adhere to international best practice by making documentation accessible and searchable<br><br>• Establishment of record of all documentation created, the various versions and modifications carried out<br><br>• Further support mobile working by enabling the access of documentation in the field |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | approach to ensure information is managed efficiently and effectively and that a consistent approach is taken to the saving, updating and recording of all documentation | • Realisation of information driven strategic priority strategic requirements |
| 5. **GIS** | • Consolidate GIS expertise through the launching of a succession plan to ensure there is a full knowledge transfer from the outgoing GIS Manager to the designated replacement<br><br>• Source partner to supply GIS services over the coming period to further enhance the GIS capability within the VO (e.g. introduction of heatmaps)<br><br>• Introduce the use of the geo-reference for commercial buildings as a common identifier to increase accuracy of location information<br><br>• Reengineer the existing system to the Prime2 spatial data storage model to give the VO access to more intelligent geo data and the ability to integrate outside data sources | • Professionalise GIS offering within the VO and increase GIS capability<br><br>• Increase number of aerial imagery GIS tools available to Valuers and management to increase productivity<br><br>• Bring the VO into line with partner organisations and enable the increased sharing of GI information with other / partner organisations<br><br>• Promote greater accuracy and transparency in valuations |
| 6. **Digital services** | • Engagement with stakeholders and execution of plan to further develop the web based capturing of data of sufficient quality with property owners, LA's and government agencies<br><br>• Improve the dissemination of data via the online portal according to best practice<br><br>• Codification and automation of data capture and upload to the core valuation services application<br><br>• Driving all processes online except for where paper use is absolutely necessary | • The digitisation of key transactional services would greatly improve the efficiency of the valuation process<br><br>• Deliver new and improved digital services to citizens, businesses and public servants |

Note:

While the Strategic Requirements identified above are all key components of the overall push to modernise the technology that supports core Valuation Services, there is a distinction to be drawn between:

• Those **items that relate "uniquely" to the Valuation Office line of business** e.g. core valuation services application. These are initiatives which VO should progress by itself over the next period in line with the ICT Work programme that is developed to support the implementation of this ICT Strategy; and

• Those **items that require an approach that is aligned across Valuation Office and its future partner organisations within Tailte Éireann** so that, for example, there is (as far as possible) a single solution

across Tailte functions for CRM, GIS and Document Management.   It may be that, on exploration, it is simply not possible to procure/build/develop a single solution that meets the requirements of all the organisations that will merge to form Tailte Eireann but there is an imperative on all parties to fully explore the potential for a single solution before embarking on their own course of action.

The modernising valuation services technology strategic priority is subject to the following dependencies:

- The core valuation services application strategic requirement is dependent on having an understanding of the current ICT infrastructure and systems and current data model;

- The future data model, the data transformation and the business intelligence, analytics and performance management strategic requirements are all dependent on the VO having selected a preferred solution for the core valuation services application;

- The field and mobile technology delivery strategic requirement is dependent on the selection of the core valuation services application so as to ensure that the mobile data capture is fully aligned with the requirements of the new system;

- Given that the GIS will be integrated into the new core valuation services application there is a level of dependency that exists with the GIS and core valuation services application strategic requirements.  Much of the work can be completed in isolation though, meaning that the dependency lies towards the end of the delivery of this strategic requirement;

- The future data model and the data transformation must be complete before the wider improvements in GIS capability can be initiated.  This is necessary to ensure that the GIS information flows are aligned to the new data structures;

- Finally, for there to be any data capture by external stakeholders (such as LA's) a solution would have to be developed to enable this.  This may create a dependency for the GIS strategic requirement with the digital services strategic requirement;

- The digital services strategic requirement is dependent on the procurement of the VOS replacement to be complete in order for the requirements for the digital services to be developed;

- Digital services may also be dependent on the outcome of the Department of Housing, Planning and Local Government project regarding the creation of a common database between LA's and the VO.  As this project is in the early planning phase and the scope has yet to be defined it cannot be confirmed as yet whether there is a dependency on this project or not.
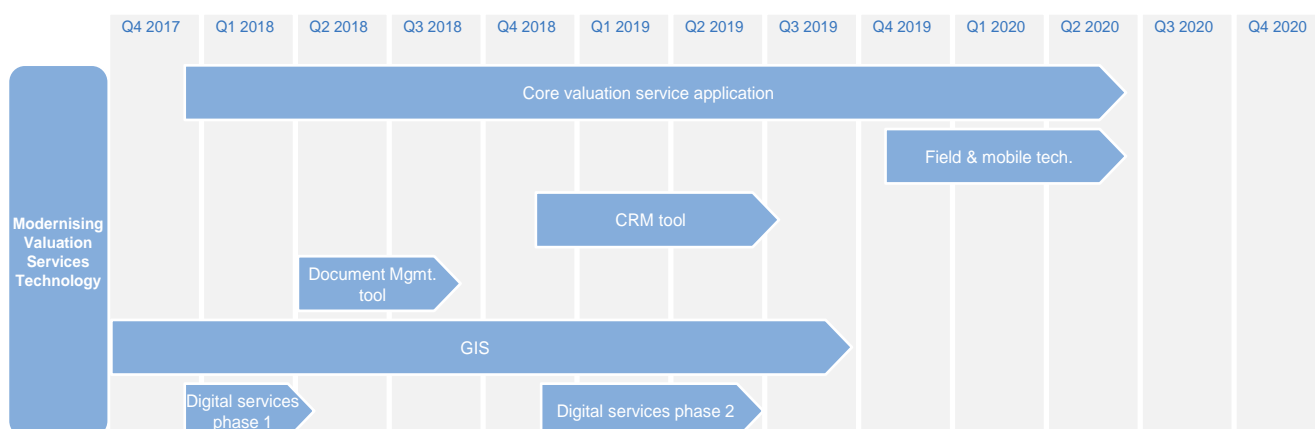


**FIGURE 12: MODERNISING VALUATION SERVICES TECHNOLOGY STRATEGIC ICT PRIORITY GANTT**

The Modernising Valuation Services Technology strategic priority has a series of constituent but independent strategic requirements.  Despite the dependencies that exist within the strategic priority it would be possible for most of the strategic requirements to overlap to a degree.  In order to complete some of these strategic requirements it may be necessary to break them up into distinct phases to deliver incremental benefit to the VO.

There would also be a series of "quick wins" that could be achieved in certain strategic requirements, with GIS or digital services. Below are the individual considerations for each strategic requirement:

- By far the most onerous strategic requirement within this strategic priority is that of the VOS replacement. Barring unforeseen delays, this strategic requirement will take circa two years to complete;

- While the field and mobile technology delivery strategic requirement is a relatively short, but intensive, one it should be completed after the VOS replacement to ensure alignment;

- Both the CRM and document management system strategic requirements can proceed without having dependencies on other strategic requirements, once the solutions selected adhere to international best practice regarding data structures and standards;

- The GIS strategic requirement will also be a lengthy one given the broad remit, the number of stakeholders involved and the procurement effort required; and

- Digital services have been separated into two phases to promote the delivery of quick wins with the second phase focussed on strengthening digital services in line with the new core valuation service system.

### 6.1.3 Professionalise ICT

To fully support the VO core activities the VO needs to adopt and adapt ICT industry best practice formalising processes, standard and policies. The capability of delivering of ICT services needs to be strengthened with access to the appropriate tools to professionalise and to align ICT delivery with best practice. Included are a series of steps that will both align ICT delivery with business need and ensure that relevant measures are taken to protect the business from various threats, internal and external.

**TABLE 7: PROFESSIONALISE ICT STRATEGIC REQUIREMENTS**

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| 1. Cybersecurity and security policy | • Update the cybersecurity and security policy<br>• Implement best practice security policy for all users while allowing for the introduction of new technologies<br>• Roll out the implementation of any new policies and procedures and ensure that there is a common understanding of every user's role in protecting the VO from threats<br>• Enhanced detection and prevention of data breaches and information leaks, advanced persistent threats, insider threats, distributed-denial-of-service attacks and malware<br>• Enhanced continuous monitoring<br>• Rigorous and standardised process for granting, denying, and revoking system access for employees and contractor personnel | • Manage the risk that the VO is exposed to and take mitigating actions to protect the critical infrastructure against cyber-attacks<br>• Ensure that there is safe and secure use on all devices<br>• Reduce number of security incidents<br>• Increase speed of resolution of security incidents and issues<br>• Reduced time to terminate system access for departing employees<br>• Increased speed of approval of new technologies |
| 2. Business continuity and disaster recovery | • Update formal plans for coherent business continuity and disaster recovery approach to ensure adherence to best practice to | • Ensure that the necessary precautions are taken to prevent threats and to mitigate against risks to the VO |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | • ensure that personnel and assets are protected and can function in the case of an adverse event<br><br>• Formalise procedures the VO is to follow in the event of a disaster<br><br>• Explore the potential and suitability in adopting a shared approach to business continuity and disaster recovery among other partner organisations | • Proactive recovery plans are created should the adverse scenarios come to fruition<br><br>• Provide high levels of redundancy and automatic backup of all data and applications |
| 3. Formalise ICT arrangements | • Define roles and responsibilities of ICT<br><br>• Introduction of formal measurement and KPI's within ICT<br><br>• Formalisation of business relationship management<br><br>• Implementing memorandums of understanding (MoU's) and service level agreements (SLA's) with rest of business<br><br>• Introduce a formalised project management approach to all ICT related projects<br><br>• Ensure that adequate documentation exists for all ICT projects and requests<br><br>• Formalise approach to contract management within ICT<br><br>• Implement plan to address single points of failure<br><br>• Explore the use of SaaS options for delivering corporate applications such as office 365 and email<br><br>• Explore the use of Infrastructure as a Service to manage and deliver the ICT infrastructure<br><br>• Explore the potential for introducing a helpdesk solution<br><br>• Develop plan to decommission redundant software<br><br>• Creation of known error database<br><br>• Establish an Enterprise Architecture capability and put in place appropriate control, skills and processes.<br><br>• Develop a clear picture of the | • Formalisation of ICT arrangements and processes to facilitate professionalised approach to structured interactions with the business<br><br>• Maturation of contract management approach within ICT leading to better sourcing outcomes<br><br>• A clear view of the VO's enterprise architecture will be developed and a cohesive roadmap of how to transition towards the future vision whilst meeting current and near term ICT business demand |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| | current Enterprise Architecture from business and information views to the associated applications and infrastructure identifying the gaps, duplication and key risks<br><br>• Assess and prioritise how best to address any gaps and risks to support business continuity and develop a technology roadmap and target architecture | |
| 4. Improved IT governance model | • Establish and mobilise appropriate governance arrangements and processes that are necessary to ensure that IT is used efficiently and that there is effective direction and control on an ongoing basis<br><br>• Introduce new layer of IT governance, set terms of reference and meeting frequency, clarify scope and decision rights, define escalation paths and identify Chair and attendees<br><br>• Create ICT PMO to co-ordinate the development of project proposals, facilitate cross project communication and project management oversight and alignment<br><br>• Establish a formal enterprise architecture view for ICT and for the business as a whole; develop in-house enterprise architecture capability | • Implementing an improved IT governance model would lead to enhanced ICT processes and a more effective and efficient ICT unit within the VO<br><br>• Clear differentiation between operational governance and strategic governance<br><br>• Applied focus on enterprise architecture will develop a coherent roadmap to deliver a business aligned ICT estate |

This strategic priority has the following dependency:

• Any supplier of an enterprise-wide managed service or application solution will need to be given copies of a body of ICT documentation showing the relevant policies, SLA's and procedures within an organisation. This strategic requirement sets out to meet the deficit in formalised processes and documentation. Therefore there is a wider dependency for a large majority of the work of this strategic requirement to be complete ahead of the completion of the procurement process for any VOS replacement and/or GIS managed service.
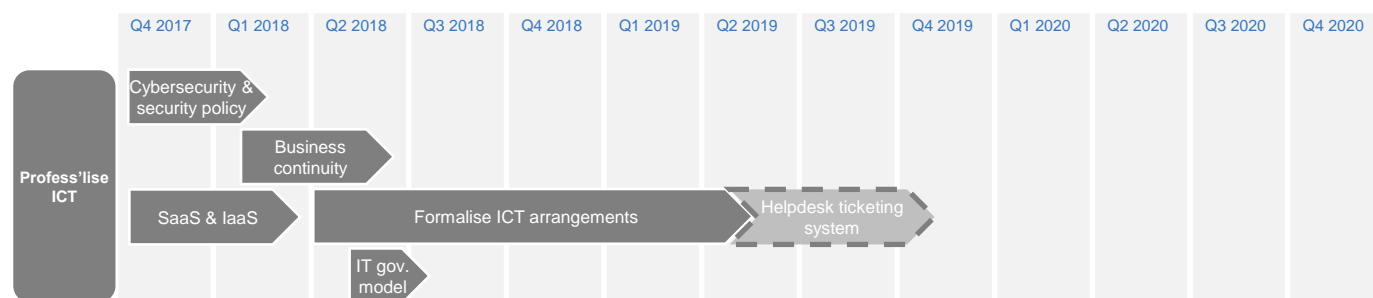
**FIGURE 13: PROFESSIONALISE ICT STRATEGIC ICT PRIORITY GANTT**

There is an immediate need to update the VO's cybersecurity strategy and security policy to reflect the changed environment. Implementing and embedding this plan fully will take several weeks and it is an urgent priority to mitigate against cyber threats. It is understood that, at the time of writing, work in this area has already started. An updated business continuity plan is also regarded as an urgent requirement. Should resource constraints exist regarding the delivery of the two initiatives, the cybersecurity and security policy strategic requirement would take precedence due to the latest cyber-attacks that have infiltrated the core infrastructure and systems of many public and private sector bodies. Its delivery should be closely followed, however, with the imitation of the update to the business continuity plan to satisfy the immediate business need. Tailte Éireann

It is expected that the forthcoming Tailte Éireann merger will have a significant impact on the delivery of corporate services including ICT providing opportunities for collaboration and the leveraging of economies of scale within the new and enlarged organisation. Until full details of the merger are known. the VO should pursue alignment with partner organisations (where it adheres to international best practice). in the form of pathfinder projects. Where it is not possible to establish pathfinders with both of the two partner organisations there may still be value in sharing services and tools with a single partner organisation.

**TABLE 8: TAILTE ÉIREANN STRATEGIC REQUIREMENTS**

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| 1. Pathfinders | • Where there is value to be derived from launching pathfinder projects to merge processes or operations with the partner organisations they should be explored in full<br><br>• Where it is possible and adds value, it would also be worthwhile in mirroring ICT policies with other partner organisations to ensure that there is alignment ahead of the merger<br><br>Examples of potential pathfinders include:<br><br>A. Alignment of document sharing technology<br><br>B. The sharing of servers and infrastructure<br><br>C. Alignment of GIS solutions<br><br>D. Mirroring cybersecurity and security policies and/or business continuity plans<br><br>E. Merging the hosting of websites | • Advances to be made ahead of the merger to have closer alignment of processes, infrastructure and / or operations between some or all of partner organisations<br><br>Potential outcomes for pathfinders include:<br><br>A. Introduction of proven document sharing solution<br><br>B. Leveraging of partner organisations infrastructure minimising the investment required by the VO<br><br>C. Alignment with best practice<br><br>D. Closer alignment with partner organisations and possible integration of plans<br><br>E. Leveraging partner organisation infrastructure and expertise |
| 2. Common data | • One example of a pathfinder project | • Value derived from shared |

| Strategic Requirements | Highlights | Outcomes |
|---|---|---|
| model | between partner organisations<br>• Developing and implementing a common data model, in association with PRA and OSi<br>• Sets out system requirements for the VO that will arise from Tailte Éireann merger to take account of comprehensive data model for the new organisation | exercise and the lessons learned<br>• Initiative that predates this ICT strategy but one that is in accordance with the design principles<br>• Meets requirements of new organisation |
| 3. Merger preparation | • Continued planning activities ahead of merger<br>• Finalisation of the organisational structure and operating model of new entity | • Further prepares for the merger and ensures that the VO is in a position to meet the new and upcoming challenges and opportunities |

The sole dependency within this strategic priority is the merger with the partner organisations into Tailte Éireann. Before the vesting date for Tailte Éireann is fixed there are a series of strategic requirements that can be completed in preparation for the merger. There are also some strategic requirements where incremental progress can be made ahead of the merger. In these areas the initiatives can be launched but which won't be implemented ahead of the announcement of the vesting date. It is in these areas where the dependency lies, in addition to other areas where preparing for the merger cannot be completed ahead of time. There may well be other dependencies to be considered for individual pathfinder projects but these can only be teased out as the finer detail of each project is being considered.



**FIGURE 14: TAILTE ÉIREANN STRATEGIC ICT PRIORITY GANTT**

The pathfinders will last for the duration of this ICT strategy, as will the preparation for the merger for Tailte Éireann, until the execution of the merger itself. The pace of preparation will of course accelerate once the date of vesting is announce. Before this time a series of pathfinders, similar to that of the common data model, should be launched within this strategic ICT priority. As was previously mentioned, pathfinders don't necessarily have to include all of the partner organisations once there is a solid business justification for pursuing them.

## 6.2 **Summary of Alignment with Strategic Plan**

There are three strategic priorities detailed in the Strategic Plan, referring to stakeholder needs, strengthening our organisation and preparing for the Tailte Éireann merger. It is crucial that the strategic priorities and strategic requirements as outlined above align with the three strategic priorities. As ICT is a key enabler for the business, much of the work proposed as part of this ICT strategy supports stakeholder needs, promotes the strengthening of the VO and prepares it for the merger. The diagram below demonstrates in tabular form how each strategic priority and strategic requirement aligns to the Strategic Plan and the rationale why.

| Strategic ICT Priorities | Strategic ICT Requirements | Stakeholder Needs | Strengthen Organisation | Tailte Éireann | Rationale |
|---|---|:-:|:-:|:-:|---|
| **Information Driven** | Current data model | ✓ | ✓ | ✓ | • Clear view state of 'as-is', essential prior to strengthening or merging; GDPR preparation<br>• Pre-cleansing can take place as part of 1st step of data standardisation |
| | Future data model | ✓ | ✓ | ✓ | • Optimise the efficiency and effectiveness of resources through data standardisation<br>• Sets out roadmap for data transformation |
| | Data transformation | ✓ | ✓ | ✓ | • Transform data into functional information that can be interrogated<br>• Standardised data can be shared with stakeholders, partner organisation & government |
| | Analytics & performance dashboards | ✓ | ✓ | ✓ | • Analytical tools to increase efficiency and effectiveness in the use of resources within VO<br>• Allows the VO see value from database & more evidence based decision making |
| **Modernising Valuation Services Technology** | Core valuation service application | ✓ | ✓ | ✓ | • Introduce fit for purpose system with better workflow & case management systems<br>• Accelerate valuation cycles, fewer outstanding revision cases meaning rates are spread more evenly across broad base & ratepayer satisfaction; more transparency re valuations |
| | Field and mobile technology | ✓ | ✓ | ✓ | • Access to modern technology to improve timely delivery of service for stakeholders<br>• Greater valuer productivity in the field, leading to better service for LA's & ratepayers |
| | CRM tool | ✓ | ✓ | ✓ | • Increased LA and ratepayer satisfaction, could reduce amount (and cost) of appeals<br>• Generate management information regarding stakeholder interactions |
| | Document management system | ✓ | ✓ | ✓ | • Tracking, management & storage of documentation; enables effective searching of docs<br>• Greater valuer productivity as they leverage wealth of documentation that exists |
| | GIS capability | ✓ | ✓ | ✓ | • Increased functionality & strengthen accuracy to bring VO in line with int. best practice<br>• Better service to stakeholders including LA's & ratepayers, more accurate rate collection |
| | Digital services | ✓ | ✓ | ✓ | • Improved efficiency & effectiveness of key transactional services; automated data capture<br>• Better rate collection through more automated services, better service for stakeholders |
| **Professionalise ICT** | Cybersecurity & security policy | ✓ | ✓ | ✓ | • Protects VO and sensitive personal data from external threats, complies with best practice<br>• VO playing its part in protecting publicly held data; mitigating risk |
| | Business continuity | ✓ | ✓ | ✓ | • Mitigates risks; addresses single points of failure; brings VO in line with partner orgs<br>• Ensures back up plans are in place; ensures continuity of service; adheres to best practice |
| | Formalise ICT arrangements | | ✓ | ✓ | • Formalises ad-hoc arrangements; aligns ICT with best practice; delivers value from ICT<br>• Enables ICT-related benefits to be realised with improvements across the business |
| | Improved ICT governance | ✓ | ✓ | ✓ | • Ensures strategic alignment with ICT-related projects; more productive ICT unit in VO<br>• Appropriate structures for participation in data sharing across the public sector |
| **Tailte Éireann** | Pathfinders | ✓ | ✓ | ✓ | • Bring VO into line with partner orgs, where appropriate and when aligning to best practice<br>• Applies to sharing / mirroring / merging policies, processes, technology &infrastructure |
| | Common data model | ✓ | ✓ | ✓ | • Smooth integration of data between partner organisations once vesting date is fixed<br>• Example of pathfinder project advancing merger preparations |
| | Preparation for merger | ✓ | ✓ | ✓ | • Ongoing planning for the merger; ensures VO is well prepared & has appropriate capacity<br>• Further align the partner organisations, where appropriate, & prepare new entity structures |

**FIGURE 15: SUMMARY OF STRATEGIC PLAN ALIGNMENT**

# 7.    DELIVERING THE ICT STRATEGY

This section documents the skills, capability and resources required to deliver the ICT Strategy for the VO. Given that the scale of the change proposed in this document is significant, a change programme will need to be delivered while at the same time providing BAU ICT services. This may provide the VO with resourcing constraints in terms of capacity and specific technology enabled transformation capabilities, such that external resources maybe required to support the VO during transformation. These capabilities and estimates are documented further in section 8.5.

## 7.1    Future Capability and Resourcing Model

It is important to capture the ICT capabilities that are required to deliver the ICT strategy in support of the business requirements.  A capability is the ability, through the allocation of sufficient skills, knowledge and experience, to perform a set of related tasks which together achieve a desired outcome.

### 7.1.1   ICT Capabilities Model

As the business and technology environment is changing, the capabilities required to deliver on future needs will be different - and required at different levels of maturity - going forward.  There are several key ICT capability and process changes required, therefore, to deliver on the proposed contributions the ICT in the VO can make to overall business success.  An ICT Capability model refers to the totality of capabilities required to deliver the desired outcomes of an ICT function - provided below is a visualisation and explanation of the ICT capabilities required by the VO.
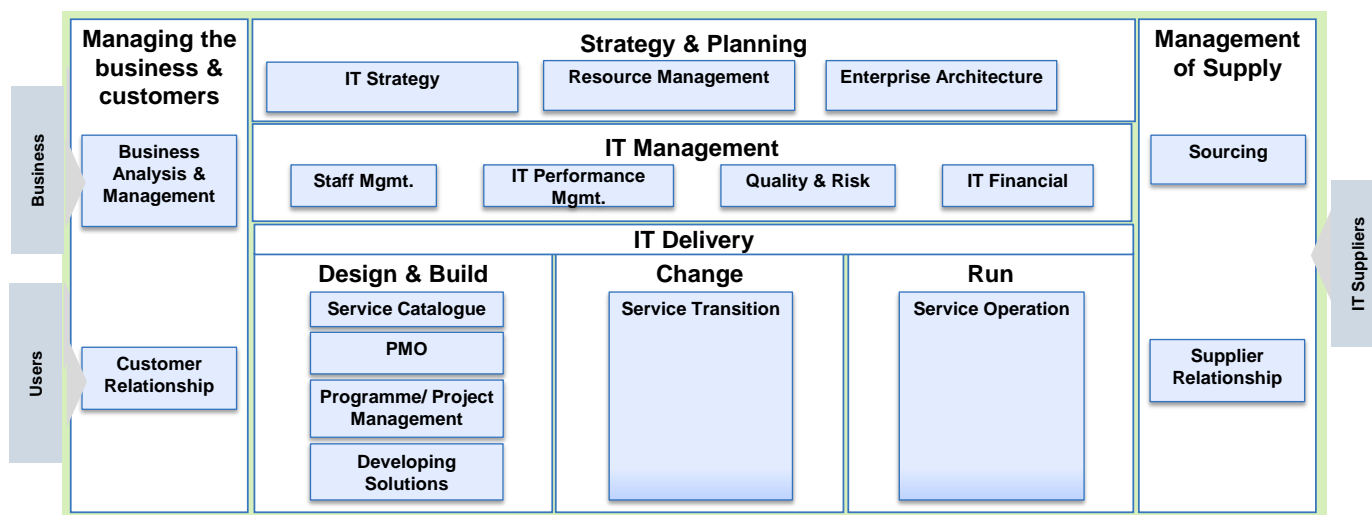


**FIGURE 16: VALUATION OFFICE ICT CAPABILITY MAP**

Description of capability Map Groupings:

- **Strategy and Planning**, ensures that planning, control and resources are used appropriately to inform and steer investment in new ICT projects and programmes which maximise the achievement of organisational objectives;

- **Managing the business and customers of ICT**, ensures that the ICT Function works with the business to prioritise activities/projects and aligns new or changing business demands with existing ICT capabilities, whilst also managing the day-to-day, operational interactions with the business and the users of ICT;

- **ICT Management**, ensures the appropriate management of quality, risk, finances and ICT staff development;

- **Managing Suppliers**, ensures the sourcing and procurement of ICT commodities, solutions and services are optimised, whilst leveraging and building key relationships with ICT suppliers; and

- **ICT Delivery**, ensures the effective management and delivery of the design, build, transition and day to day running of new and existing ICT services.

An exercise was undertaken with the senior executives to assess both the current and target ICT capability maturity states. This assessment does not evaluate the quality of services provided; rather it is focussed on the current perceived ability, to deliver these capabilities (either internally or through contractual means), and how they need to develop in order to achieve the target end state. The maturity levels assigned to each capability and its associated processes are as follows:
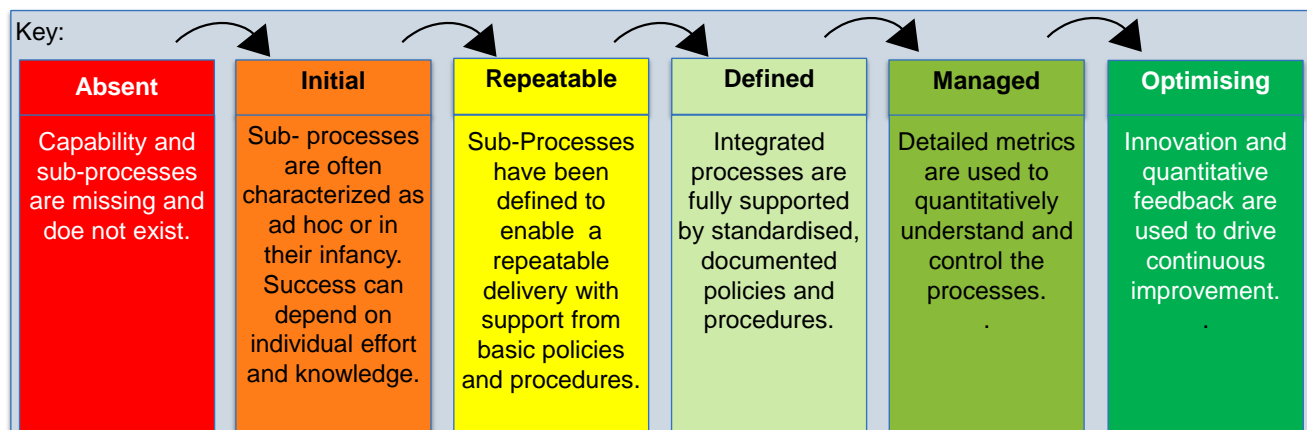


**FIGURE 17: ICT CAPABILITY MATURITY SCALE**

### 7.1.2 Current ICT Capability Maturity Model and actions

The following diagram shows the as-is ICT Capability maturity levels under the five capability groups as described above.
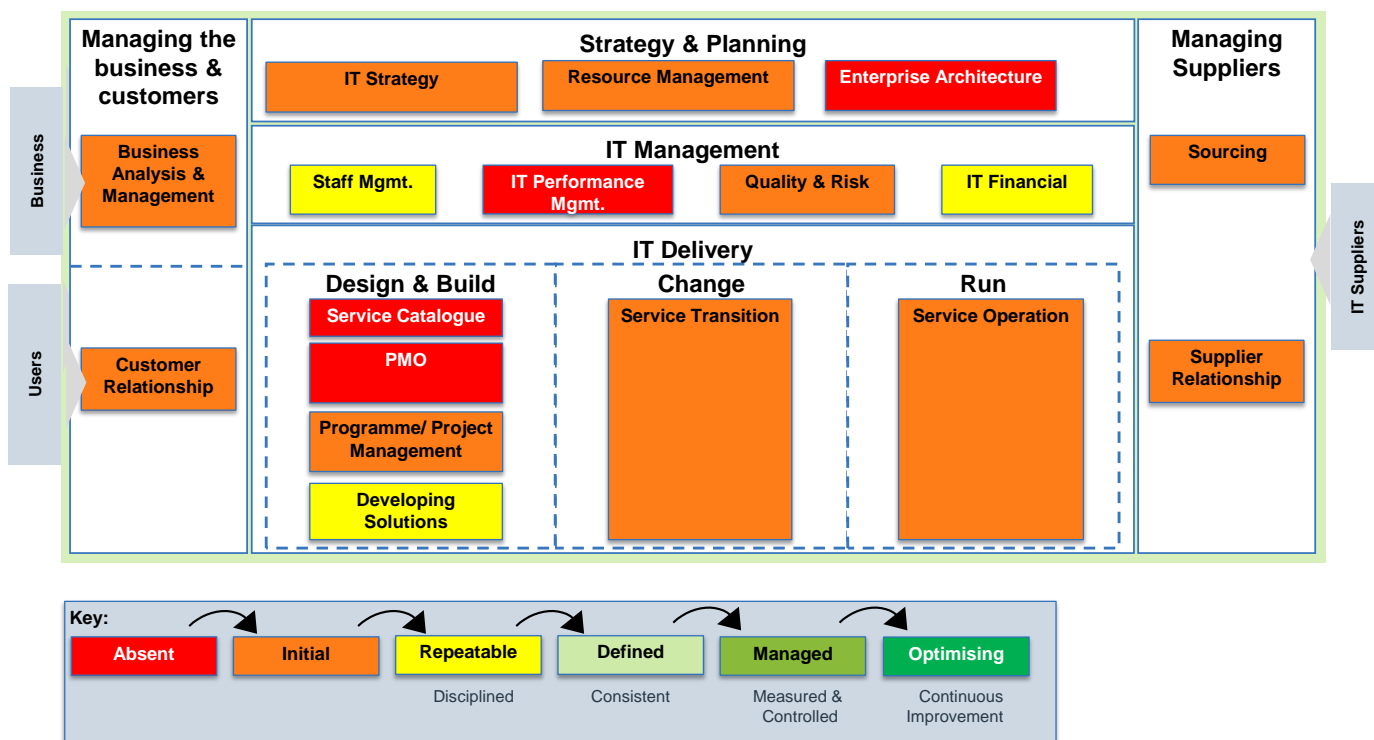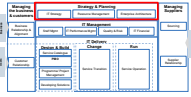


**FIGURE 18: 'AS-IS' VALUATION OFFICE ICT CAPABILITY MATURITY**

Provided in the table below are descriptions of these capabilities, and the key strategic actions to ensure that the ICT has the skill, capacity and ability to deliver this strategy and services in the most effective and efficient manner for the business.
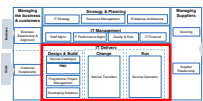
| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| **Strategy & Planning**  | IT Strategy | **Initial** | Planning for and aligning the ICT capability and operations to most effectively contribute to the success of the VO.  This capability links closely with Business Analysis & Management and Enterprise Architecture to constantly check for new and emerging demands for ICT, to understand what is feasible to deliver value for ICT and ensure that the ICT work programme is delivered, maintained and amended as required | Develop the IT strategy capability to ensure that ICT works closely with the business to maintain and deliver the ICT work programme and constituent projects whilst remaining fully aligned to business drivers and demand.  The development of this ICT strategy is the first step towards delivering on this capability as it outlines a programme of work that is aligned to the overall Strategic Plan.  In future this lens must be applied to all projects prior to gaining approval, on a consistent basis |
|  | Resource Management | **Initial** | The management and monitoring of resources to deliver the ICT capabilities and projects required to meet agreed current and future demands of the VO | Introduce strategic resource management disciplines to align the delivery of ICT services more effectively with the portfolio of projects to ensure that both capacity and capability needs are understood |
|  | Enterprise Architecture | **Absent** | Planning the alignment between ICT and the business to ensure that strategies for both are implemented in a consistent and controlled manner.  Enterprise architecture involves the development of a single view across business processes, applications, infrastructure and data, and will be key to realising significant benefits to the business by delivering multiple components of this ICT strategy | Create an in-house enterprise architecture capability that enables the business to operate in a highly connected, information driven and service centric manner, whilst exploiting ICT assets to their maximum, promoting a single source of information and enabling automation. While this expertise may be outsourced in the short term it is important that the VO bring it in-house in the medium to long term.  Additionally there are governance structures and processes that must be introduced for effective enterprise architecture |
| **Managing the Business & Users of IT** | Business Analysis & Management | **Initial** | The process responsible for maintaining a relationship with the VO business including:<br>• understanding business demand for ICT and potential changes to the services | Put plans in place to improve business relationship as a key capability provided by ICT to improve dialogue with the business and move to a partnership relationship.  Moving forward the VO will:<br>• adopt a full-time role for ICT Business relationship manager within |

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
|  | | | provided by ICT<br>• managing relationships with business areas as an organisational business partner<br>• providing input to the ICT strategy and pipeline of ICT projects<br>• capturing and defining business requirements & benefits for potential ICT solutions<br>• ensuring that the ICT Service Operations is meeting business need<br>• provides the link between ICT developments and roadmaps with the overall Strategy and Planning function in the ICT capability model | the ICT organisation who fully understand the business value of ICT and can help the VO consider ICT when defining and governing the business strategy<br>• build the in-house capability to capture and define requirements with a standardised approach<br>• ensure that ICT assesses and measures the contribution of ICT to meeting business performance metrics |
| | Customer Relationship | **Initial** | Managing the day-to-day, operational interactions with the users of ICT to ensure that ICT services are delivered as per agreed SLAs. Ensuring that the services provided by both ICT and outsourced contracts are delivered to meet user needs and promote awareness of ICT services | Currently there is a lack of formalisation of relationships with users and an approach to outsourcing. Establishing these arrangements should be the first step in moving to a defined and consistent approach. This will allow ICT to take a more holistic view, which encompasses all services and sets out metrics to encompass ICT as a whole. Feedback from users of ICT will be incorporated and managed via a set of KPIs/ metrics |
| **IT Management**<br> | Staff Management | **Repeatable** | Working with the VO HR to manage the performance of ICT whilst identifying potential skills gaps and the training or recruitment to fill these gaps | Enhance ICT employee career path within the VO whilst improving the recruitment of staff |
| | IT Performance | **Absent** | Management and monitoring of ICT performance against agreed ICT metrics and | A more formalised approach needs to be defined and implemented with ICT supply contracts underpinning ICT metrics. Establishment of |

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| | Management | | reporting via appropriate governance | appropriate governance structures |
| | Quality & Risk | **Initial** | Defining measures, managing and monitoring policies to manage quality, ICT security, legislative and data protection requirements to ensure that the data held by the VO complies with its statutory and regulatory obligations | ICT will ensure that there is an assigned role with accountability for continually improving compliance and risk management processes through constant monitoring and assessment of legislative and regulatory changes.  These will be fed into the new governance fora.  ICT will adopt a defined model such as the ITIL [2]recommended 7-step process and ensure that projects are tracked with business benefits |
| | IT Financial Management | **Repeatable** | ICT Financial Management provides the effective setting and management of ICT's annual budget.  It plays a key role in supporting changes to the ICT strategy due to new or unforeseen changes | Further improvement of the ICT Financial Management capability is required to support efficient delivery of ICT services with additional capabilities required.  In addition:<br>• The performance of ICT investments will be benchmarked and optimised on a regular basis<br>• The portfolio of ICT investment will be reviewed regularly against business need<br>• Transparency of ICT cost allotment will be increased, supported by underpinning ICT contracts for outsourced services and products |

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[2] ITIL, formerly an acronym for Information Technology Infrastructure Library, is a set of practices for ICT Service Management (ITSM) that focuses on aligning ICT services with the needs of business.  These are standard ICT practices that are viewed as good practice for government agencies and the private sector.

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| **IT Delivery – Design & Build**  | PMO | **Absent** | The definition and maintenance of project templates, processes and structures, and management of their usage to apply consistent standards and governance to all ICT projects.  The PMO will also provide an assurance and support/guidance function throughout the project lifecycle to promote effective project control and benefits realisation | The VO should establish an ICT Programme Management Office that will coordinate and track ICT projects from inception to the delivery of the benefits.  This will be further supplemented by the development of a Project Control Framework to provide an effective guide for all ICT projects and provide a consistent approach to capturing, tracking and reporting on benefits realisation.<br><br>The PMO will operate under a defined and agreed scope (i.e.  what constitutes an ICT project) and terms of reference.  This will ensure that a consistent approach to ICT Project Management is adopted both in terms programme delivery and particularly in terms of progress reporting |
| | Service Portfolio Catalogue | **Absent** | Providing efficient services at the required service levels to meet business needs will have a big impact on the total cost of the VO's IT function. The Service Portfolio Catalogue proactively enables the management and prioritisation of investment in these services from the design and development pipeline, to the provision of live services. | A service catalogue will be developed that reflects both currently offered services and new/enhanced services delivered via other elements of this strategy.  Contents will include ICT commodities listings, outsourced ICT service offering, business analysis / requirement gathering, ICT clinics etc.  This catalogue will support ICT fulfil business demand by setting expectations and to enable ICT to identify opportunities to improve service provision. .  It will be provided through a service catalogue portal and be promoted internally by ICT |
| | Programme / Project Management | **Initial** | The planning, execution and implementation of business and technology change, and ensuring that appropriate benefits are identified, tracked, and delivered on.  The effective development and management of plans, budgets, risks, issues, governance etc., which follow and comply to the project | The VO will seek to support its ICT project management capability with the appropriate guidance and structure offered by a Project Control framework, increased capacity where appropriate and support via the PMO function.  This should provide the VO with the ability to consistently deliver ICT to agreed high standards with the appropriate quality and benefits realisation checks undertaken |

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| | | | control framework developed by the new PMO | |
| | Developing Solutions | **Repeatable** | This entails designing, developing and enhancing ICT applications, systems and components. This will include, for example:<br>• enhancements and major upgrades to systems;<br>• the development / configuration of replacements systems;<br>• infrastructure projects; and<br>• mobile application development | At present this capability is both in-house and outsourced. It is proposed that all development work on the VOS should cease and development should only be in the area of bug fixes as the system will be replaced as part of this strategy. Outsourced support will continue to be required for network support but there is the opportunity to explore the potential of leveraging the OSi's infrastructure. As highlighted in the Demand for ICT section, the VO needs to be more information driven and consideration will therefore be given to the sourcing and provision of the following ICT services:<br>• Business Intelligence<br>• Mobile Application development<br>In addition the following improvements will be implemented:<br>• Solution design standards included in future ICT contracts<br>• Flexible but standard approach defined for solution testing |
| **IT Delivery – Change**<br> | Service Transition | **Initial** | The delivery of new or amended services required by the business into operational use (includes change release, configuration, testing and knowledge management). This includes the delivery of change, managed by the ICT service operation to agreed standards for all infrastructure and applications | Given the potential scale of ICT (or ICT related) projects, the VO will consider if increased service integration capabilities, on a temporary or permanent basis, are required to manage the level of change and minimise disruption to BAU operations |

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| **IT Delivery – Run**  | Service Operation | **Initial** | The management and maintenance of ICT services with continuous service improvements to ensure that the VO day-to-day business requirements are met. This includes for example:<br>• the provision of the ICT Service desk<br>• application maintenance<br>• backup of ICT systems<br>• disaster recovery and service continuity planning<br>• Development and maintenance of an ICT only service catalogue<br>This capability is managed via SLAs for services such as the service desk, incident management, request management, availability management etc. | This capability is currently fully in-house. Service operation should be delivered to ITIL recommendations (or similar).<br>SLA's will be created to formalise the previously ad-hoc processes to ensure appropriate levels of service and value for money.<br>The business continuity and disaster recovery plan will be updated and benchmarked against other partner organisations<br>A known error database will be developed to track all know issues within the remit of ICT within the VO |
| **Managing Suppliers**  | Sourcing | **Initial** | Adopting an effective approach to procurement and structuring contracts to encourage competition and positive supplier behaviour. Selecting the best suppliers, to deliver those services that could and should be outsourced through contracts that incentivise and encourage quality delivery of cost effective ICT services. This capability is essential given the VO use of outsourced ICT services | A formalised ICT sourcing approach will be developed and integrated with both the business and this ICT strategy, incorporating specific goals for the delivery of key ICT services. This approach will enable the VO access to the necessary capabilities and capacity to deliver major ICT procurements linked to business transformation |

| Capability Group | Capability | Current Capability Maturity Level | Description & Need | Actions |
|---|---|---|---|---|
| | Supplier Relationship | Initial | Developing effective relationships with suppliers to deliver business objectives whilst continuously assessing supplier partnership, contribution and viability. Reviewing, monitoring and driving supplier performance to meet the agreed targets and instigating actions to eradicate under performance. | The VO needs to formalise its approach to managing ICT suppliers, aligning deliverables and services with business and ICT objectives to maximise the value of sourcing interactions. This will include the development of a standard documentation set for ICT suppliers that articulates the VO's expectations |

### 7.1.3 Target ICT Capability Maturity Model

The figure below shows the target state for ICT capability based on the delivery of the actions in the table above. Please note that, whilst the target state is more mature in many respects, it is not striving to maximise the maturity of every capability. This is fully justified as the most appropriate level for each capability should be driven by business need with due consideration given to benefits derived in developing maturity versus the costs incurred to reach and maintain those levels.
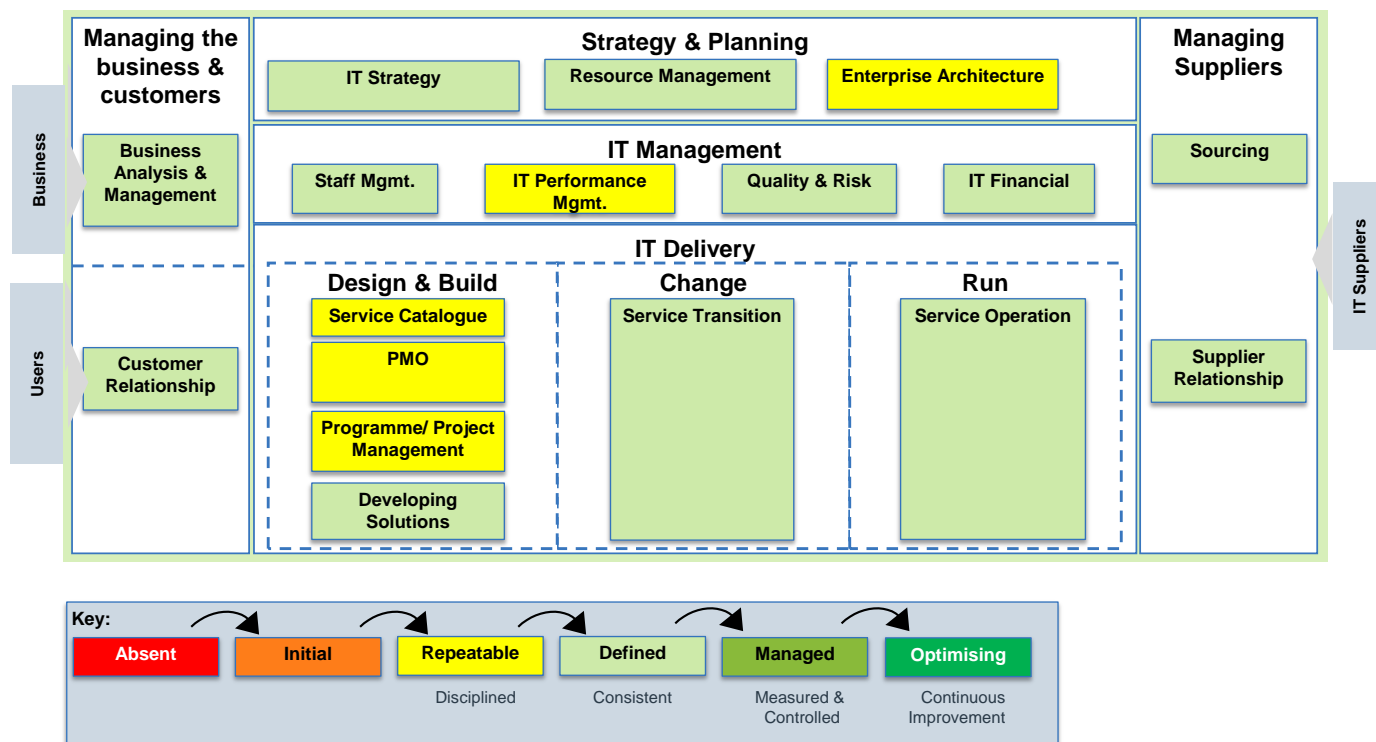


**FIGURE 19: TARGET VALUATION OFFICE ICT CAPABILITY MATURITY MAP**

### 7.1.4 Current Staffing Levels, Capacity and Skillsets

The delivery of this ICT strategy and its corresponding benefits for the VO are directly related to the skills and personal capabilities of its ICT staff, and their organisation into a high performing team. Whilst the ICT unit is delivering on tactical projects and maintenance for the organisation, there are several significant people related changes which will be enacted to maximise ICT's contribution to the business:

- The development of selected core capabilities to ensure highly effective strategic planning and delivery, focussed on the development of Enterprise Architecture;

- Upskilling of best practice project planning, management and support; and

- An increase in personal accountability for the delivery of key outcomes.

### 7.1.5 Current Organisational Structure

The headcount in the ICT Unit has been relatively low (at present 8 FTEs in a current workforce of 125). Three additional positions are in the process of being filled. In the absence of a Head of ICT heretofore, the Operations & Infrastructure Manager has fulfilled many responsibilities of this role. Currently there is one external contractor working within the ICT Unit as the Database Administrator, who has a VOS development role. The diagram overleaf shows the existing ICT organisation chart:
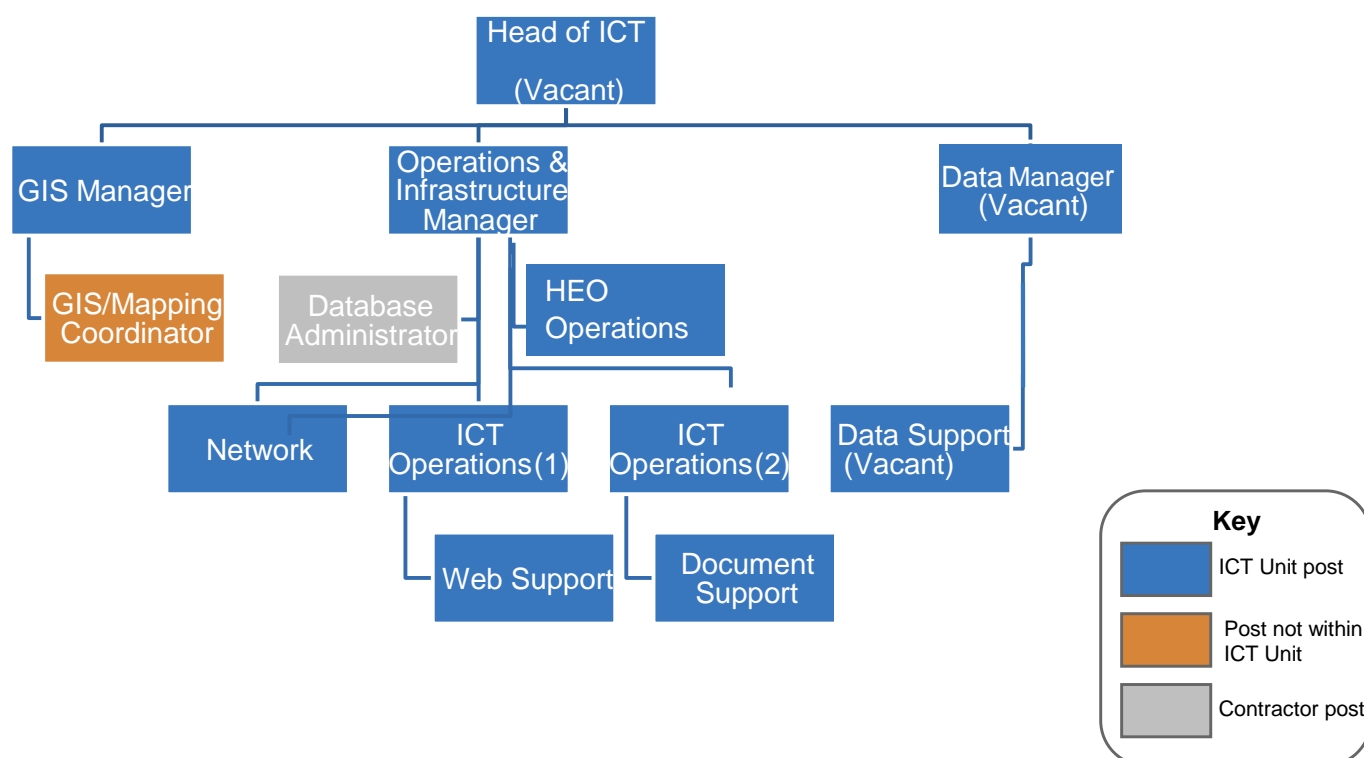
**FIGURE 20: CURRENT VALUATION OFFICE ICT ORGANISATIONAL STRUCTURE**

The current organisational structure has given rise to the following characteristics:

- Multiple points of contact with the business on a day to day basis; and

- Project support and assurance provided by the majority of staff, alongside their core responsibilities.

Structures such as these, whilst delivering on tactical (and often reactive) services required by the business, can lead to significant challenges within ICT organisations, including:

- External lack of clarity on roles and responsibilities by business stakeholders;

- Partial/incomplete view of the business demand on IT, impacting on strategic planning and effective delivery of wider business success;

- Significant single points of failure i.e. expertise residing wholly or heavily with individuals;

- Significant individual efforts to complete work, often with the requirement of additional hours, in order to deliver against timelines / quality; and

- Relatively high levels of low value add activities carried out by senior staff members, to limit the impact of capacity / capability gaps.

### 7.1.6 Future people requirements and organisational structure

Given the demand from the business, the contribution ICT is expected to deliver and the capability changes described throughout Section 7.1.3, the future people and skills/experience requirements can be summarised using the following ICT capability model, as shown below. Please note this analysis is focussed on those capabilities that are increasing on the capability scale by 2 or more levels (e.g. moving from red to yellow / pale green).

Level of capability (skill / experience) change required:     H   M   L

**IT Strategy**   [M]
- Appointment of full time (dedicated) strategy & planning role responsible for planning and aligning ICT capability and operations to the Strategic Plan and ICT business plan
- The increase in both business management & enterprise architecture will provide the key inputs, which can be leveraged to significantly upgrade strategic planning/delivery

**Resource Management**   [L]
- Upskilling of strategic resource management, enabled by increase in the management of capacity through improved business analysis/management and the introduction of formal disciplines

**Enterprise Architecture**   [H]
- Develop in house enterprise architecture skills & experience
- Full time (dedicated) role responsible for developing and maintaining a single view of the EA, project/solution impacts on it and identification of strategic opportunities to deliver on business demand

**Business Analysis & Management**   [M]
- Dedicated Business Management role recruited / trained
- Responsible for liaising, co-ordinating and managing inputs from business stakeholders, and translating these into projects/programmes of work as part of a service portfolio
- Requires significant business requirements definition, analysis & engagement skills

**Sourcing**   [M]
- Dedicated Sourcing role recruited / trained
- Responsible for developing, implementing and managing a formal sourcing and supplier management approach
- Requires significant procurement & engagement skills

**IT Financial**   [M]
- Dedicated financial planning, analysis and documentation resource required to feed into investment reviews, decision making & operating costs reduction

Central capability model:

**Managing the business & customers**
- Business Analysis & Management
- Customer Relationship

**Strategy & Planning**
- IT Strategy
- Resource Management
- Enterprise Architecture

**Managing Suppliers**
- Sourcing
- Supplier Relationship

**IT Management**
- Staff Mgmt
- IT Performance Mgmt
- Quality & Risk
- IT Financial

**IT Delivery**
- **Design & Build**: Service Catalogue, PMO, Programme / Project Management, Developing Solutions
- **Change**: Service Transition
- **Run**: Service Operation

**Staff Management**   [L]
- Whilst talent & performance management may require formalisation, additional skills required are minor, with HR / Training & Development leveraged for training, process and support

**Programme / Project Management**   [H]
- Currently the majority of the ICT team undertake project planning / delivery / assurance roles
- Project support / delivery should be centrally managed and controlled under a single programme manager role
- Best practise methodology training should be invested in to maximise benefits realisation

**PMO**   [M]
- Given development of new Project Management Office, there is a corresponding increase in skills required to:
  - develop standardised project management processes (including reporting, escalation, stage gate reviews etc.),
  - develop templates and guidance, and
  - co-ordinate governance framework

**FIGURE 21: PEOPLE, SKILLS & EXPERIENCE CHANGE REQUIRED**

Alongside these specific changes, the ownership of key outcomes within ICT will be reviewed. This does not detract from the fact that multiple resources may need to work towards a single outcome, but day to day management and accountability will reside with one individual, with the Head of ICT able to focus on strategic level management.

Given the capability model requirements in Section 7.1.1 above, alongside best practice organisational design, the organisational structure of ICT will be flexed to accommodate the changes proposed. The **conceptual model** overleaf visualises a potential new functional structure by logically mapping the core capability requirements to the existing organisational structure. Also provided within this diagram is how these new functional elements map to the ICT capability model.
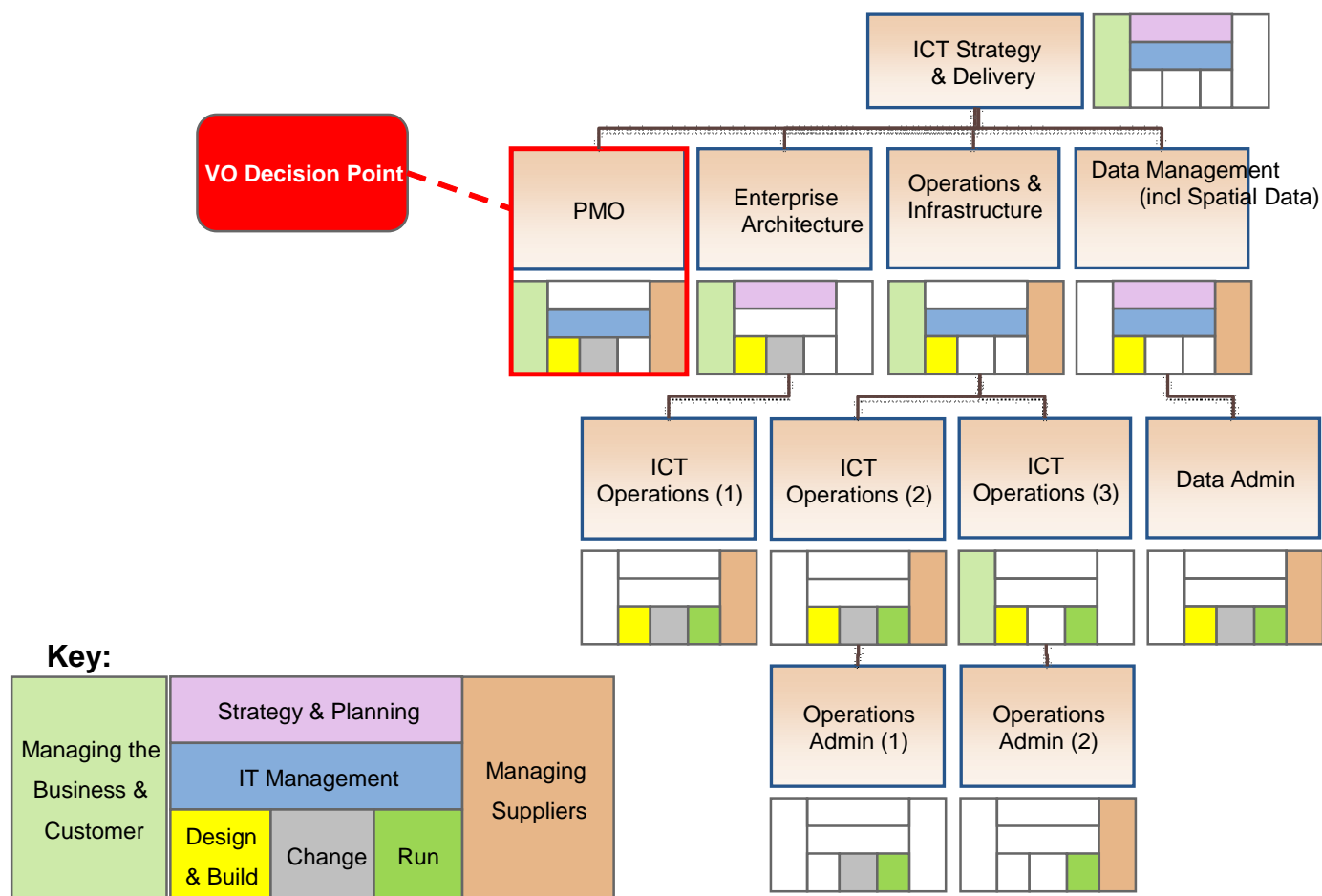
**FIGURE 22: TARGET VALUATION OFFICE ICT ORGANISATIONAL STRUCTURE AND CAPABILITY**

Please note the primary responsibility for Managing Suppliers can be interchanged for Managing the Business & Customer with the Operations & Infrastructure Manager and the Data Manager, depending on the relevant expertise of the individuals in the roles.

As can be seen in the diagram above there is a decision that needs to be made by the VO regarding the PMO. Given the scale of the change proposed as part of this ICT strategy it is likely that there is sufficient demand for either a permanent member of staff or a temporary resource to fulfil this role on a contractual basis. The decision should reflect the VO's appetite for conducting an on-going programme of ICT change activities over the period beyond 2020. Another factor to consider in the deliberations regarding this decision point is how this PMO would be integrated into the wider organisation and whether there will be a centralised PMO for the VO that would incorporate ICT change. While this would be beyond the scope of this ICT strategy it is recommended that further investigation is required by the senior executive.

## 7.2 Strategic Sourcing Requirements

To date ICT procurement and contract management has been managed on an inconsistent basis. Given that there are a series of procurements proposed by this ICT strategy there is likely to be a significant rise in the number of outsourced relationships to manage. As such, it is incumbent on ICT to develop a standardised approach to sourcing and supplier relationships to ensure that the VO deliver the business need while focusing on value for money. This section outlines:

- The current ICT sourcing landscape;
- Analysis and key trends in sourcing;

- The target ICT sourcing model;

- The sourcing criteria; and

- Outsourced and retained capabilities.

## 7.2.1  Current ICT Sourcing landscape

The VO's current ICT sourcing landscape is dominated on an annual basis by the VOS development contract with Zing.  This relationship has been necessary to support the ongoing development (in response to legislation and to enhance functionality) and fix bugs within the system.  ICT also procures outsourced services such as web development, network support, web hosting and GI services.  In addition, there are two Reval 2017 document production and printing contracts that are managed through ICT.

## 7.2.2  Sourcing: Analysis & Key Trends

Following extensive market research[3], and input from PA's global technology and procurement subject matter expertise, the following key sourcing trends have been identified within the ICT outsourcing industry:

- Similar to overall ICT spend, ICT services and outsourcing activity continues to grow, both in terms of total market size and numbers of awards;

- There has been a decline in the number of contracts signed for horizontal work, such as office applications, communications, and database – service providers are being asked to provide greater industry specific expertise in order to match technology provision with business need;

- Within Ireland, key client issues with service providers include lack of innovation, proactivity and the ability to drive change.  From the vendor's perspective, clients need to improve transition management and governance – these are critical areas that determine how successful an outsourced relationship will be in the long term; and

- Key factors influencing outsourcing decisions are the quality and efficiency of services, lower costs, access to skills.

These trends suggest a maturing sourcing market that is recovering from the 2008-14 investment slowdown, and which has moved away from cost reduction as its primary driver and recognised the importance of a holistic, cost effective, value for money sourcing model.

## 7.2.3  Target ICT Sourcing Model

It is crucial that the VO recognise the importance of a standardised and formalised sourcing approach to define and direct procurement activity.  The following key principles can underpin all ICT procurement activities that the VO delivers:

- Procurement activities will be planned and delivered in line with best practice, trends in the ICT & outsourcing industries and appropriate learnings from across the public sector;

- Procurement will be driven by value for money considerations including cost control and productivity gains;

- Procurement activities will be fully aligned to the Business and ICT strategies;

- Sufficient consideration will be taken in the selection, preparation and packaging of the right combination of service requirements, dependent on the procurement, to generate the greatest benefits for the business; and

- Whilst operational delivery is the responsibility of the service / capability provider, ultimate responsibility for ensuring value for money ICT services for the VO resides with ICT.

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[3] 'IT Outsourcing Study UK', 2015, PA Consulting & Whitelane Research; 'Sourcing Evolution and a Product-oriented Approach Needed to Build Adaptive Businesses' June 2015; '; 'Bundled Outsourcing Business Trends ', 2014 - Ovum Reports

## 7.2.4 Sourcing Criteria

In order to develop a model that delivers on both business and ICT success, it is critical that the VO defines which capabilities and services will be outsourced, and which will be insourced and/or retained. When assessing whether a service or capability should be outsourced, insourced or retained, a standard set of best practice criteria will be used to assess suitability. Using these criteria is essential to protect the VO from entering into a relationship with a supplier that may not be in their long term interest. These criteria are summarised below:

**TABLE 10: SUMMARY OF SOURCING CRITERIA**

| Criteria | Description | Key considerations |
|---|---|---|
| Control | Does the capability or service need to remain in-house to ensure that the VO retains control on the strategic direction to maximise ICT investments | • Does the capability set the direction and leadership for ICT?<br>• Does the capability provide the link to business alignment?<br>• Is the capability's main purpose to control ICT investment or plan the delivery of ICT investments?<br>• Is the capability responsible for performance management of ICT delivery? |
| Complexity | The likely complexity of insourcing or outsourcing of the service | • How well the capability is understood?<br>• How well the capability is currently documented?<br>• Number & complexity of bespoke applications; balance of commodity v. customised; level of standardisation |
| Maturity | The existing level of service delivery maturity | • Age of service<br>• Level of maturity: repeatable, ad hoc, following industry best practice etc. |
| Level of change | The level of in-flight change anticipated at the time of service transition | • Number and complexity of in-flight or near term critical projects/changes that could impact service transition<br>• Number of changes required e.g. enhancements and fixes |
| Business criticality | Importance of service to business | • Business criticality of service<br>• Business criticality of processes supported by service<br>• Impact of downtime, by duration<br>• BCP/DRC capabilities |
| Perceived quality | Perceived quality of existing service delivery | • Current perceptions of quality amongst users of ICT<br>• Visibility of service to users of ICT / stakeholder |
| Stakeholder interaction | Level to which a service is internally facing or externally facing | • Level of stakeholder visibility and use of service |
| Market maturity / competitiveness | The market's maturity and ability to deliver on requirements (business, technical and commercial) | • Number and experience of available suppliers<br>• Willingness / commitment to operate / support locally<br>• Interest shown as part of initial market engagement |
| Resourcing | Skills & capacity availability | • Internal skills & capacity availability<br>• Remuneration levels v. planned budget<br>• Local market skills availability<br>• Public sector appointments process |

### 7.2.5 External Support & Retained capabilities

As this ICT strategy proposes a series of fundamental changes to the ways of working within the VO a comprehensive change management programme will be required. As it stands these skills and capabilities aren't available within the VO. For the duration of these change initiatives it will be necessary to procure external support to lend these key skills and capabilities. It should be noted that many of these resources will be required on a project-by-project basis and their resources may only be required over a number of months. Based on an initial assessment of the sourcing criteria above against ICT's target contribution to business success, alongside identified market trends and current sourcing best practice, the following diagram summarises the 'to-be' sourcing of capabilities (and where relevant, specific technical services):
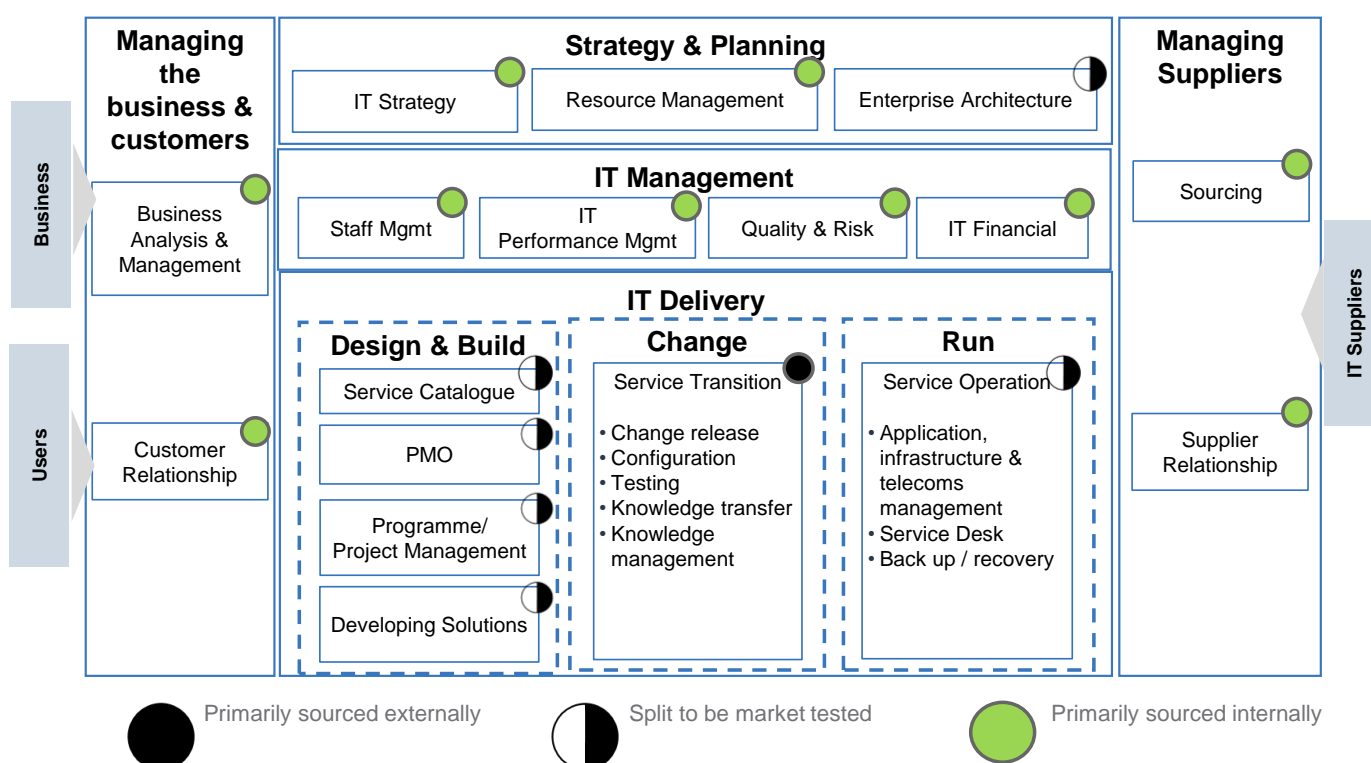


**FIGURE 23: 'TO-BE' CAPABILITY AND SERVICES SOURCING**

Please note that the above diagram categories the *primary* route of delivery – it does not preclude involvement by the VO or suppliers from all activities associated with any specific capability or service that is primarily delivered by the other entity. Please also note that those capabilities marked as 'primarily sourced internally' can also include client side resources brought in to augment ICT's capabilities. The table below provides an understanding of the key roles/responsibilities in the to-be sourcing model, and illustrates this point:

**TABLE11: KEY RESPONSIBILITIES IN PROPOSED ICT SOURCING MODEL**

| Capability Group | Primary Source | Key Responsibilities in Proposed Sourcing Model | |
| --- | --- | --- | --- |
| | | VO ICT Function | Suppliers (as appropriate, dependent on procurement) |
| Strategy & Planning | Internal / External | Responsible and accountable for all aspects of strategy development and delivery and internal resource management. <br><br> Provide input to Enterprise | Provide input to scenario analysis, modelling and planning as requested by ICT. <br><br> Responsible for providing Enterprise Architecture expertise and the |

| Capability Group | Primary Source | Key Responsibilities in Proposed Sourcing Model | |
| --- | --- | --- | --- |
| | | VO ICT Function | Suppliers (as appropriate, dependent on procurement) |
| | | Architecture development process should outsourced model be selected.<br><br>Provide information on strategic direction to suppliers to align and maximise future service/product delivery as appropriate | development and maintenance of the EA view and roadmap, also responsible for knowledge transfer of EA.<br><br>Provide product roadmaps (as applicable) on a regular basis |
| IT Management | Internal | Responsible and accountable for all aspects of management – ultimately including externally procured service/product delivery via performance and quality management regimes | Responsible for providing clear, transparent and accurate data in a timely manner to enable effective management by the VO |
| Managing Business & Customers | Internal | Responsible for engagement to identify and control business demand; Business responsible to follow engagement processes<br><br>Responsible for communicating service offerings to the business | Provide input as requested in the evaluation of demand from the business, as requested and co-ordinated via ICT<br><br>Responsible for day to day ICT user contact and collection/delivery of (and management to) service KPIs |
| Managing Suppliers | Internal | In conjunction with Procurement, responsible and accountable for the development and delivery of the ICT sourcing strategy, and subsequent procurement strategies.<br><br>Responsible for continuously assessing supplier partnerships, contributions and viability.<br><br>Responsible for sharing relevant information with suppliers that will enable effective delivery | Provide input to procurement activities as required and directed by ICT. This will include requested information on applications, infrastructure, hosting, in flight projects etc. to enable open and equitable market engagement / competition and the accurate definition of procurement requirements.<br><br>Responsible for proactively inputting to innovation, continuous improvement and the maximising of the value for money for the VO |
| Design & Build | Internal / Outsourced | Provide solution design standards to supplier.<br><br>Support business engagement to define fit for purpose design.<br><br>Provide input and support to the development service catalogue.<br><br>Responsible & accountable for the ICT PMO function | Responsible and accountable for service catalogue development and maintenance<br><br>Responsible for most aspects of service design, with others such as BI to be market tested |
| | | Depending on the outcome of the core valuation system procurement there may be other specific service sourcing to be defined in conjunction with the market, including the potential sourcing of business analytics / intelligence (given market trends and the target to become an information driven business). There may also be a need for technical project management support (to leverage specific expertise and have the flexibility to source from a wider market) | |
| Change | Outsourced | Provide input as appropriate to the co-ordination of technical change with the business. Leads the internal change process | Responsible and accountable for technical change (i.e. change release, configuration, testing and knowledge management) |

| Capability Group | Primary Source | Key Responsibilities in Proposed Sourcing Model | |
|---|---|---|---|
| | | VO ICT Function | Suppliers (as appropriate, dependent on procurement) |
| Run | Internal / Outsourced | Responsible for continuous improvement

Responsible and accountable for all aspects of service operational delivery including access, availability, capacity, incidents, service desk management and so on.

Provide relevant information on anticipated service demand.

Provide authorisations and approvals as required (in a timely manner) | * *The running of certain service operations may be outsourced to future Tailte Éireann partners as part of a pathfinder initiative* |

# 8. ICT WORK PROGRAMME

This ICT strategy sets the direction for the planning and delivery of ICT within the VO over the coming three year period. It will therefore be used as the basis for delivering the portfolio of ICT initiatives which will be defined and detailed in the ICT work programme. This section sets out the proposed programme of work required to deliver the changes put forward that are required to deliver this strategy for the VO.

The ICT work programme will seek to:

- Provide clarity to the VO, Valuation Services ICT Steering Group and other key stakeholders on what key ICT initiatives will be undertaken and when they will be delivered;

- Be the authoritative source of baseline plans for all major ICT-intensive workstreams and projects, to which all subsequent detailed project/workstream plans should refer to and be consistent with;

- Contribute to ongoing measurement of whether ICT is achieving its strategic objectives and planned benefits over the period of the ICT strategy; and

- Have an outline for estimated costs, timelines and resource requirements for each project.

This ICT work programme will seek to address the key recommendations of this ICT strategy that can found in Section 4.3. In order to apply some structure to the ICT work programme it is broken out into a series of workstreams. Within each workstream are a series of projects that must be fully scoped out. Each project must pass through the IT governance structures and will be judged on the ability to meet the overall business requirements of the VO. In this respect the IT governance must manage the ICT work programme by refining and funnelling these ICT opportunities.

The workstreams, which commence with the delivery of the ICT strategy and establish the ICT work programme, are directly linked to the strategic ICT priorities, as identified in Section 6.1. They are as follows:

- Information driven;

- Modernising valuations services technology;

- Professionalise ICT; and

- Tailte Éireann merger.

The baseline ICT work programme sets out the individual projects for each workstream. It takes account of each of the workstream's dependencies, as described throughout Section 6.1. It must be noted that while the majority of the focus for the ICT work programme lies with the 2018 – 2020 period there are several areas where it is recommended that work commences immediately to address the pressing needs of the VO. Resource constraints have dictated that it has been necessary to sequence the delivery of projects so as to have a realistic yet achievable pipeline of projects. The outline Gantt chart below graphically displays, at a high level, what is required over the three year period of the strategy and an outline of the order it could be delivered. It should be noted that the Reval 2021 programme which has two methods of revaluation calculation, two data paths and structures; for post-reval and pre-reval is out of scope but may have an impact on how this programme is delivered.
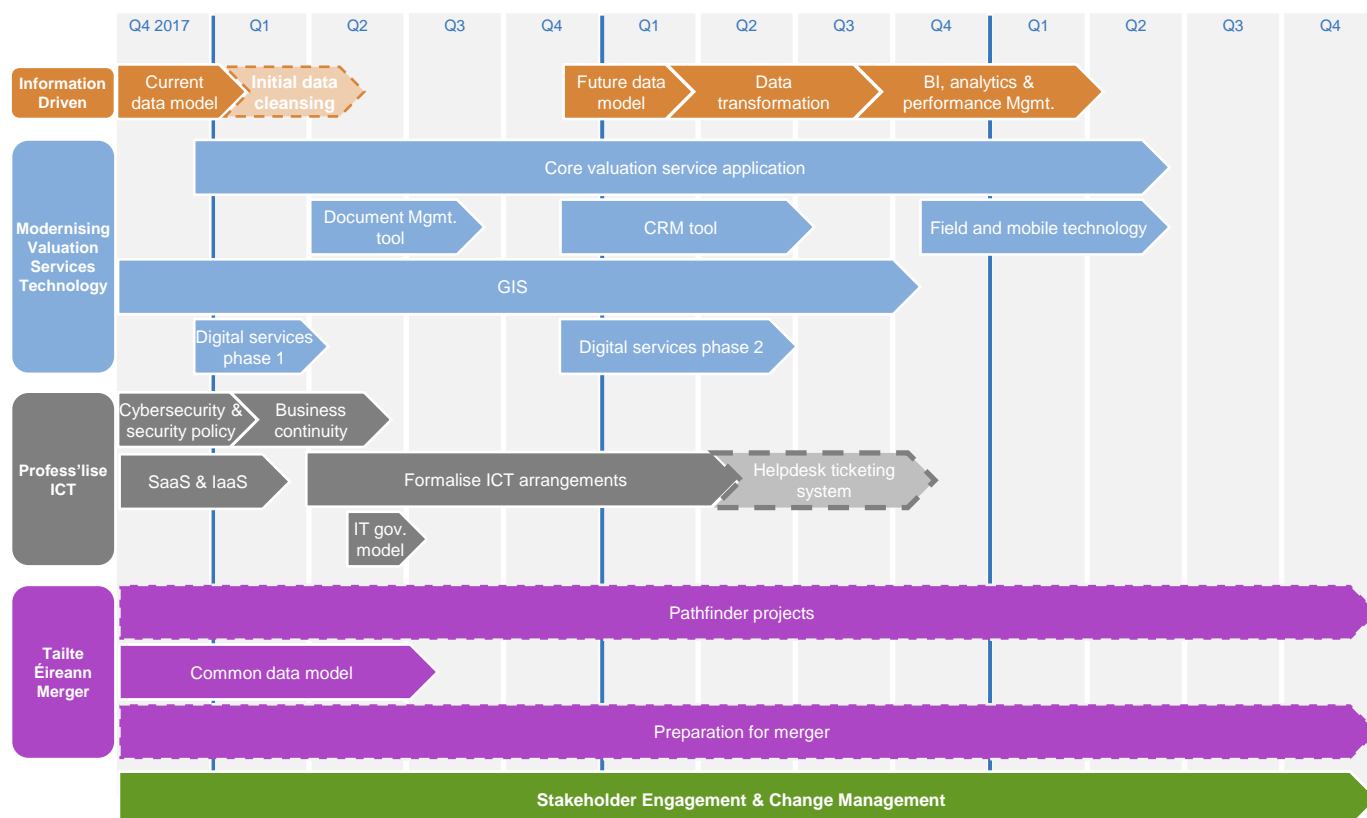
**FIGURE 24: OUTLINE VALUATION OFFICE ICT WORK PROGRAMME GANTT**

The outline plan is ambitious but achievable with the right resources and skills. It is front-loaded in order to deliver business benefit sooner and to build early momentum. In any programme of work of this scale it is important not to overlook the people element of the change. By front-loading the technical elements of the ICT work programme sufficient energy and resources can be focused on the all-important change management effort that will be required given the scale of change proposed. Most critically, there will be ongoing stakeholder engagement throughout the duration of this ICT work programme as the effort cannot progress in isolation without key stakeholder input. This will include the identification and agreement of key stakeholders for each project and the carrying out of a structured engagement process within each area. Among the stakeholders to be engaged with are the LA's, Government departments, partner organisations (PRA & OSi), ratepayers and professional agents.

## 8.1 **Information Driven**

The information driven workstream is ultimately intended to transform the data held by the VO into standardised and shareable information, and to equip the business with the tools it requires to perform modern statistical analysis and data modelling. This workstream will also support the integration and implementation of the new core valuation services application through the standardisation of the data held. Most pressingly, the successful delivery of this workstream will ensure that the VO is fully compliant with the GDPR.

### 8.1.1 Current Data Model

The primary focus of this project is to develop a comprehensive understanding of (and document) the current data model, and to map out what work is required to ensure that the VO and the database is fully compliant with the GDPR. There will be a significant stakeholder engagement process as part of this project to discover stakeholder information requirements. Once the current data model is fully understood and documented, this project will focus on ensuring GDPR compliance (should there be any) and the initial data cleansing exercise (including this primary removal of duplication within the database) that can be completed prior to the selection of the new core valuation services application.

### 8.1.2  Future Data Model

Once the procurement process for the new core valuation services application has been completed it will be necessary to conduct an in-depth analysis of what the 'to-be' data requirements of the new system will be.  A gap analysis will be carried out with the current data model (following the initial data cleansing) in order to develop a detailed data transformation roadmap.  In addition, it will be necessary to conduct in-depth analysis on the future data model to ensure compliance with the GDPR.

### 8.1.3  Data Transformation

This project builds on the preceding two projects and executes the data transformation roadmap.  The goal is to transform the data into functional shareable information that can be leveraged by the VO and its stakeholders.  This will involve the standardisation of the key data elements and the codification and standardisation of data capture.  As key stakeholder data requirements will be well understood as a result of preceding projects the data transformation effort will enable the sharing of VO data with other public service entities (including LA's) in a standardised format.

### 8.1.4  Analytics and Performance Management

Implementing a business intelligence, analytics and performance management solution across all applications will help the VO move towards a more unified and flexible information driven organisation.  It will lead to the reduction of waste related to manual and duplicative processes and the encouraging of more central data management.  Initial implementation of this solution will give the VO the tools necessary to achieve this and will involve the definition of the source data, the requirements for the output reports and dashboards, as well as familiarisation and training in the chosen application for one or more members of staff.  The "owners" of the chosen solution will then be responsible for maintaining and developing additional dashboards as reporting requirements emerge from the business, as well as working with the source data providers.

## 8.2  Modernising Valuations Services Technology

This workstream holds the key to improvements across the VO and it is here that many of the key business benefits will be realised.  Each of the projects are designed to deliver enhanced functionality to Valuers, management and stakeholders.  It will be necessary to leverage the work completed in other workstreams to successfully deliver this business benefit.  As this project is designed to deliver significant change to the processes and tools within the business the people change element cannot be underestimated.  A comprehensive change management and communications plan will have to be developed and executed to ensure that users are adequately supported.

While the projects set out all are all key components of the overall programme of work to modernise the technology that supports core Valuation Services, there is a distinction to be drawn between:

- Those **items that relate "uniquely" to the Valuation Office line of business** e.g. core valuation services application and field capture technology.   These are initiatives which Valuation Office should progress by itself over the next period in line with the ICT Work programme that is developed to support the implementation of this ICT Strategy; and

- Those **items that require an approach that is aligned across Valuation Office and its future partner organisations within Tailte Ireland** so that, for example, there is (as far as possible) a single solution across Tailte functions for CRM, GIS and Document Management.   It may be that, on exploration, it is simply not possible to procure/build/develop a single solution that meets the requirements of all the organisations that will merge to form Tailte Ireland but there is an imperative on all parties to fully explore the potential for a single solution before embarking on their own course of action.

### 8.2.1  Core Valuation Service Application

For the VO to fulfil their duty provide fair, equitable and accurate commercial property valuations for LA's Valuers need a modern application that is fit for purpose.  Replacing the VOS and procuring a new or enhanced valuation service application is the keystone to this ICT work programme.  It is the project that is aligned with the business requirements and will deliver the most significant benefits to the business.  As such it has been

necessary to go into greater detail into this project. Included in the additional functionality provided will be workflow, case management and computer assisted mass valuations capability. The diagram below sets out the outline phases and indicative timelines of the project that the VO would expect to undergo to procure a new core valuation service application.

| 2 months | 3 months | 6 months | 12 – 18 months | After go-live |
|---|---|---|---|---|
| **Market Engagement** | **Preparation** | **Procurement** | **Transition** | **Operation** |

| | | | | |
|---|---|---|---|---|
| • Draft and issue PIN (if needed) | • Solution design | • Issue PQQ* | • Conduct Exit Strategy, including Transition Plan | • Launch new system |
| • Interactive market engagement to test the sourcing strategy, drive competition and market interest to deliver a value for money contract | • Conduct IT Discovery exercise | • Evaluate PQQ* | • Establish governance based on successful supplier | • Execute communications plan |
| | • Service requirements definition | • Issue ITT | | • Monitor closely and track delivery of agreed benefits |
| | • Service Level Agreement development | • Establish processes for clarifications and authority for key decisions | • Detailed system design | • Decommission legacy system |
| • Revised business requirements and business case | • OJEU / PQQ & ITT preparation | • Conduct initial dialogue* | • Build and test new system | • Manage any ongoing support contract |
| • Procurement procedure defined – Open, Restricted, Negotiated, or Competitive Dialogue | • Contract development | • Issue request for Outline Solutions* | • Data migration | |
| | • Negotiation strategy* | • Detailed Dialogue* | • Assess readiness to transition services | |
| | • Issue OJEU | • Issue request for final submission* | • Perform knowledge transfer activities such as training and documentation | |
| • Procurement lots defined* | • Develop evaluation strategy | • Develop Incumbent Exit Strategy | | |
| | | • Final clarifications | | |
| | | • Evaluate responses | | |
| | | • Award contract | *These steps are dependent on the chosen procurement approach | |

**FIGURE 25: INDICATIVE TIMELINE FOR DELIVERY OF CORE VALUATION SERVICES APPLICATION PROJECT**

The timelines are given in ranges as it is not possible at the outset to dictate how long each phase will take as decisions taken during each phase will have a downstream impact. These timelines are of course subject to change and are dependent on the positive outcomes of other projects, e.g. data transformation. High level market soundings have been undertaken as part of the development of this ICT strategy. Market leading providers have indicated that the expected range for implementation and integration is in a range of 9 – 24 months. Should the data transformation work be completed it would move the timelines towards the lower end of the scale. Some of this implementation and integration includes post go-live support, hence why the diagram above allocates 12 – 18 months. The points below give further detail on each of the phases of this project:

1. **Market engagement (including requirements gathering)**: For this project it will be necessary to engage with a series of potential suppliers in order to give them a background to the VO, an assessment of the current state and the context for the procurement. It will also give an opportunity to engage with the market to give suppliers a clear understanding of what they must deliver when tendering to replace the VOS. The VO must have a view of what the desired high level functional requirements for any new system would be, i.e. the features, functions and attributes that any solution will provide the business. In addition, the VO must have a clear understanding of what are the requirements of each potential solution as the current ICT infrastructure or hardware may be insufficient to support the new core valuation services application. Until the VO have a clear view on this it cannot be included in the ICT work programme but the upgrades of hardware/infrastructure/operating systems may be an additional piece of work that is required prior to the integration and implementation of the new application.

By giving the market this additional information the VO would be in a far stronger position to approach any procurement process having conducted this detailed planning project. It gives the VO an opportunity to test the high level requirements on the market, refine them accordingly and design the procurement. All of these factors highlight the importance of this key step towards the delivery of either a VOS replacement or enhancement. The process of this market engagement must be agreed at the outset of this project. Typically it will take the form of logistics planning, a series of structured interviews and one-to-ones, and an

industry day.  Should a Prior Information Notice (PIN) be required there are the additional tasks of drafting, finalising and issuing the PIN.

2. **Preparation (procurement strategy and business case)**: Following the market engagement project the VO will have an overview of the market and will have tested out the functional requirements.  The procurement strategy component of this project is centred on agreeing the procurement route, the evaluation criteria, the scoring matrix and the identification of evaluation teams.  It is at this point that a decision is taken regarding whether the procurement is broken down into lots or if the implementation should be phased.  Should the procurement be broken into lots it must be agreed on how they should be packaged and the sequencing for the individual lots.  A business case must also be developed at this stage for a procurement of this scale to present the case for investment.  This will include objectives for the VOS replacement project, the scope of the work, the feasibility, the options, the costs, an economic appraisal, the risks and the anticipated benefits to be realised.  The initial planning and design for the project can also be included if necessary during this project.  Given the cost and complexity of procuring a VOS replacement it will be necessary to have both of these documents.

3. **Procurement process**: Having developed the procurement strategy in the previous phase, this project is centred on executing the strategy.  The tender documentation will be developed, the payment mechanisms and commercial terms will be set out and the performance management regime and benefits realisation plan will be agreed and outlined.  This documentation will then have the approval of the VO review process, the VO legal team and the external departmental review.  If the procurement is broken down into lots this project may be elongated as the prioritised lots are pushed through the system first.  Once the documentation has been fully developed the Invitation to Tender (ITT) will be issued to the market.  The culmination of this project is the successful selection of a solution provider for the system that either replaces the VOS or enhances it.

4. **Transition (implementation and integration)**: Once the preferred solution has been selected it can then be rolled out to the VO.  There will be a significant effort required as part of this project to implement the solution, regardless of whether it is conducted in a big bang or in phases.  The business case will have set out, at a high level, the implementation requirements, the delivery options, the technical support required for the implementation, the governance, programme and project management required.  This will have been further developed throughout the procurement process.  A detailed implementation plan, alongside a data migration plan, will be drawn up and then executed.  Once the new system has been fully recalibrated and reconfigured for the core processes and specific demands of the VO it can be tested by (super) users.  As the new system is being integrated across the VO it may be necessary to have some parallel running of the VOS and its replacement.  This will allow for testing in a live environment by (super) users while insuring that there is the safety net of the VOS.

   Due consideration must be given to the change management and communications plan that will be required as a change in technology will inevitably lead to a change in process and people will be impacted.  Initially training and support will be needed but will be a requirement to identify change champions on the ground.  There will also be an organisational development and business transformation effort needed to ensure that the VO changes as an organisation to reflect the new structures and processes that have been put in place.  Built into this there will need to be a formal and comprehensive knowledge transfer plan to ensure that ICT are adequately trained in how to support the new application.

5. **Operation (post go-live support)**: Once the new application has been launched to all users there is a continuation in the execution of the change management and communications plan.  It is important not to underestimate the scale of this challenge as this is frequently where change projects fail.  As people start using the new system, delivery will hand over to the VO and the ICT unit.  When the new system has been fully integrated it would be advisable to decommission the VOS in an orderly fashion so as to ensure that there is no backsliding.

### 8.2.2  Field and Mobile Technology

It is recommended that the VO pursue a project to provide Valuers with access to modern field capture and mobile working technology.  The field and mobile technology project would need to be sequenced after the

procurement of the new core valuation services application so that the new outcome is known. This will ensure that any new technology will be configured to the new application. The new core valuation services application may indeed have a field capture and mobile data collection capabilities but this will only become apparent following the successful procurement process.

### 8.2.3 CRM Tool

Having a modern CRM tool will help the VO to formalise their engagement with customers and key stakeholders. It is possible that the new core valuation services application may offer the roll out of a CRM solution as an additional module. The feasibility of this option, along with other solutions, should be fully explored, in order to develop the functional requirements for such a system. This project will require further engagement with stakeholders to ensure the right solution is selected, one that meets their and the VO's requirements. Stakeholder engagement will also be required to learn what solution the partner organisations use and explore as to whether this project could act as a pathfinder for Tailte Éireann.

### 8.2.4 Document Management Tool

This project is in line with preparing the organisation to move towards a paper light, and ultimately paperless environment (where possible), the first step of which is creating an ordered and indexed repository for storing electronic documents. Depending on the solution selected but it may also be possible for this project to deliver on an updated intranet site as many modern document management tools are built in to company intranet sites. It would be worthwhile to explore what solutions partner organisations have procured, what their requirements were and how this fits their individual needs. If one or both use a system that would suit the needs of the VO it would be recommended that this could act as a pathfinder project to bring closer alignment with the partner organisations.

### 8.2.5 GIS

It is generally recognised within the VO that the maximum capabilities and functionality are not being delivered in terms of GIS. The aim of this project is to explore where delivering increased functionality aligns with the broader business requirements. Within this project are a number of subcomponents that need further examination:

- Firstly, it is of crucial importance that the VO retain a degree of in-house GIS capability and expertise, even if the day-to-day involvement with GI services focuses on contract management. Therefore a succession plan needs to be launched to pass on the knowledge and expertise from the outgoing GIS Manager;

- Once this has been completed the delivery of a series of quick wins (e.g. allocating revision cases by geography, the use of geo-directory with stakeholders, the introduction of heatmaps or the utilisation of Prime2 data) should be explored and the specifications drawn up for the completion of these mini-projects. Given that a wide variety of stakeholders would have a key role to play in this initiative extensive engagement would be required to consider the proposals further;

- It may be possible to leverage some of the GIS expertise of OSi by way of pathfinder project. In advance of the merger it may be possible to further integrate the services and systems as a mechanism to delivering increased GIS and mapping functionality. This will require further examination through structured stakeholder engagement to explore whether the initiating of a commercial relationship with the OSi regarding GI services would be beneficial to the VO; and

- Following the selection of a new core valuation services application it will be necessary to evaluate as to how best to integrate the existing GIS functionality with the VOS replacement.

### 8.2.6 Digital Services

For the delivery of this project extensive stakeholder engagement will be required to explore the broadening of the digital services offered by the VO. Any widening or further improvement of services would need to be completed in conjunction with key stakeholders. This could help the VO to move away from some of the manual and paper based processes that remain to automated digital services facilitating direct data inputting into the core valuation services system by LA's. The work of this project would have to be phased. The first

phase hones the existing services and develops a roadmap for when the new core valuation services application is rolled out. Phase two would see the execution of this roadmap and the rollout of improved digital services.

## 8.3  **Professionalise ICT**

In order for the VO deliver on the strategic priorities, as set out in the Strategic Plan, a structured, well-resourced and capable ICT unit is required to support the numerous initiatives that involved technological change. A professional ICT is the key enabler in the delivery of innovative and sustainable information and communication systems across the organisation, realising significant delivery benefits while streamlining workflows. The goal of this workstream is the formalisation of the previously ad-hoc processes.

### 8.3.1  Exploration of SaaS and IaaS

The exploration of cloud services to deliver corporate applications and the VO's ICT infrastructure could provide the VO with major benefits in terms of financial savings, reduced risk in terms of cyber security, business continuity and reduces the need for internal ICT capability in these areas. The VO should develop a business case to ascertain in detail these benefits and the associated costs. This project will have a direct bearing on cybersecurity and business continuity.

### 8.3.2  Cybersecurity and Security Policy

This project will ensure that the VO is better protected against risks related to data and information loss. There are three elements to this; the first is in relation to staff and other users and ensuring that they fully understand risks, operating procedures, and policies. The second element is in relation to updating policies, processes, and guidelines, and ensuring that they are appropriate and enforceable. Lastly, the ICT element will include a review of the existing encryption and security-oriented software and an assessment as to whether they are appropriate for the VO's specific requirements. It may be possible that the VO could align their cybersecurity and security policies and procedures with one or both of the partner organisations. To scope this out further and to discover whether this can be run as a pathfinder, stakeholder engagement is necessary with the partner organisations.

### 8.3.3  Business Continuity

The development of a new business continuity and disaster recovery plan for ICT is one of the immediate needs that has been identified as part of this ICT strategy. This project has the goal of updating and formalising the existing plans to ensure that the VO adheres to international best practice and to confirm that personnel and ICT assets are protected in the event of a disaster. It may be possible that the VO could align their business continuity plan to that of at least one partner organisation to further prepare for the Tailte Éireann merger. Therefore further stakeholder engagement and exploration is required to determine whether this would be appropriate for the VO.

### 8.3.4  Formalise ICT Arrangements

This project acts as the key enabler for all other projects and workstreams within the ICT work programme as it provides the formal arrangements and processes that are required for efficient service delivery. ICT can only be effective if it aligns to the processes it supports. For ICT to be effective the processes need to be consistent and repeatable, with known interaction points with the ICT infrastructure. The goal of this project is to ensure that ICT have the structured ways of working that allow them to deliver maximum business benefit. Included in this will be the:

- Rolling out of project management training to members of the ICT unit;

- Defining of roles and responsibilities;

- Ensuring adequate documentation exists for all ICT projects and requests;

- Completing and implementing MoU's and SLA's;

- Formalisation of business relationship management;

- Formalising the approach to contract management;

- Establishing an enterprise architecture capability;

- Implementation of a plan to address single points of failure;

- Introduction of measurement and KPI's;

- Development of a plan to decommission redundant software;

- Creation of known error database; and

- Launching of a helpdesk ticketing system.

Under this final element it may also be possible to scope out a pathfinder project and the potential for sharing/aligning a helpdesk ticketing solution with one or both of the partner organisations. Clearly further stakeholder engagement is required for scope out whether this would appropriate for the VO.

### 8.3.5  IT Governance Model

The goal of this project is to implement the proposed governance changes that are proposed in Section 5.2.2. Delivering on this will provide ICT with the governance structures that it needs to administer the pipeline of projects that are proposed by this ICT work programme. As a result this project is of fundamental importance as it manages the portfolio at senior level and gives it the structure and senior engagement that it requires. This will help drive the value from the ICT investment as proposed by this strategy.

## 8.4  **Tailte Éireann Merger**

There is the opportunity for the VO to leverage the impending Tailte Éireann merger to make advances in the area of ICT. While the partner organisation, OSi and PRA, have different business needs and influences there may be areas where pooling their resources may be mutually beneficial. The sharing of resources could give sufficient economies of scale for all three entities (or indeed the VO with one of the two organisations) to pursue a more cost effective solution. A series of pathfinder projects should be launched as part of this ICT programme of work to identify and explore these opportunities. While the vesting date for Tailte Éireann has yet to be fixed much of the planning can be conducted in advance. In this respect developing a better understanding of how ICT will operate across Tailte Éireann would be very informative for ICT in the VO.

### 8.4.1  Pathfinders

For this project it is not possible to go into firm detail to provide a view of what will be delivered as significant stakeholder engagement is required with the partner organisations. What is required is further exploration as to whether it is appropriate to conduct pathfinder projects and what the business benefit could be. A number of potential pathfinder projects have been outlined already and further examination of their merits is warranted, whether with both partner organisations or with one entity. Among the potential areas for further alignment a:

- Using similar or the same CRM tools;

- Mirroring the document management approach and procuring a similar system;

- Further integration of GI services, systems and format with the OSi;

- Alignment, where appropriate, of cybersecurity and security policies and procedures;

- Taking a shared approach to business continuity plans and disaster recovery;

- Sharing a helpdesk ticketing system;

- Alignment on approach to utilising the cloud;

- Leveraging the physical infrastructure (e.g. servers) of one or both entities; and

- Hosting of websites.

### 8.4.2  Common Data Model

This pathfinder project is ongoing and predates this ICT strategy.  That said, it is fully aligned with and supportive of the goals and design principles of this ICT strategy.  When the common data model becomes a reality it may be necessary to bring it under the umbrella of this ICT strategy and the ICT work programme.

### 8.4.3  Preparations for the Tailte Éireann Merger

It is anticipated that planning efforts for the Tailte Éireann merger will continue throughout the period of this ICT strategy up until the vesting date is fixed.  From that point on preparations will ramp up.  For the purposes of this strategy it is anticipated that there will be few day-to-day requirements of the ICT unit for this planning effort.  That said, the development of any 'to-be' operational organisational structure should inform how ICT is to be structured in the merged entity.

## 8.5  High Level Indicative Costings

As identified in Section 6.1.2, there are two key components to the technology investments to be made over the course of this ICT work programme:

1. Those items that relate "uniquely" to the VO line of business, e.g. core valuation services application; and

2. Those items that suggest the optimal approach is one that is aligned across VO and its future partner organisations within Tailte Éireann e.g. GSI, CRM and Document Management solutions.

Given that the second component is largely dependent on engagement with the OSi and PRA it is not possible to give estimated costings until the outcome of these consultations has been reached.  It may well be that the VO may proceed with these projects alone, or with one or more partner organisations.  Either of these approaches will have significantly different cost implications and it is not particularly beneficial to provide cost estimates at this early stage.

The first component is dominated by one project that has a bearing on the rest of the business.  Procuring and integrating a new COTS core valuation services application is the centrepiece of this ICT strategy and significant costs will be incurred.  For these reasons it has been possible to engage with the market in order to generate high-level cost estimates for the upcoming period.  It is estimated that the delivering a new core valuation services application will cost c.€6 million over the course of the three years, with on-going annual costs of c€200k, once the system has been fully integrated and gone live.

This cost estimate includes the following:

System / Solution Provider (circa €4m)

- Application software licences and hosting

- Solution refinement and configuration (including integration with other systems as required)

- Data transformation and migration/upload

- Implementation support (including solution training)

Internal / Client side Support (circa €2m)

- Market engagement and business case development;

- Requirements gathering;

- Procurement strategy development;

- Conduct of Procurement;

- Change management and communications;

- Design, build and configuration;

- Training;

- System testing;

- Knowledge transfer;

- Process redesign of key VO processes;

- Post go-live support; and

- Data pre-cleansing.

Note that these initial estimates are based on a high-level market engagement, with a limited set of requirements, and that a business case will need to be developed which is informed by a more comprehensive market engagement.

# 9. APPENDICES

# 9.1 ICT Strategy One Pager

## Vision

"To be a world-class property valuation provider for the State and the people of Ireland."

## Strategic priorities

Meet the needs of our stakeholders

Strengthen our Organisation

Prepare for the establishment of Tailte Éireann

## Business capabilities

**Delivered by**

**Strategy and planning** – delivering a safe and effective delivery model

**Managing the business and customers –** responding and delivering to the needs of the business and users of ICT

**ICT management –** providing appropriate management of quality, risk, finances and ICT staff development

**Managing suppliers –** optimising the sourcing and procurement of ICT commodities, solutions and services, whilst leveraging key relationships with ICT suppliers

**ICT delivery –** delivering and managing the design, build, transition, and day-to-day running of new and existing ICT services

**Driving**

## Business Demand of IT

Be an information driven organisation

Efficiency

Professionalise ICT

Enhance business capability

Tailte Éireann

**Meeting**

## IT Programmes of work

**Information driven** – transform the data held by the VO into standardised and shareable information

**Modernising valuations services technology** – deliver enhanced functionality to help valuers and management fulfil their roles

**Professionalise ICT –** give ICT the tools, processes and structure it needs to enable the rest of the business

**Tailte Éireann merger** – leverage the impending Tailte Éireann merger to make advances in the area of ICT

**Controlled by**

**New governance framework**, enabling effective strategic & operational management

**New enterprise architecture view**, to view the business, information, application and technology layers to allow change to be carefully planned and executed

**Supplied via**

**Enhanced capabilities**, focused on enterprise architecture and business requirements

**IT organisational change**, including new organisational structures

**Updated sourcing model and criteria,** driving maximum value from partnerships

## Directed by

**IT Vision: "**to act as a strategic IT partner that delivers high value, cost effective services based on stakeholder, business and regulatory needs."

## Underpinned by our commitments

Our people        Capabilities        Ethical & professional

Stakeholder focus        Dignity and respect        Continuous improvement        Openness to change

## Cross alignment

## Underpinned by our ICT principles

Alignment with Strategic Plan        Keep updated ICT security policies        Enable ICT staff to carry out their roles

Buy, not build        Become information driven        Provide staff with the right tools for service delivery        Leverage partner organisation relationship

**Valuation Office ICT Strategy 2017 - 2020**

## 9.2 Proposed Annual ICT Programme Workplans

### Proposed Year 1 Workstreams



| | M10 2017 | M11 2017 | M12 2017 | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | M11 | M12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Current Data Model** | Planning & S.E. | Targeted Delivery | | Planning | Targeted Delivery | | | | | | | | | | |
| **Future Data Model** | | | | | | | | | | | | | | Gap Analys. | Dev. Road map |
| **Core Val. S. Application** | | | Market Eng., OBS, Proc. Strat. & bus. case | | Procurement preparation | | | Procurement | | | | | | | Implemnt. & Integrat. |
| **Document Mgmt.** | | | | | | S.E.& Req. | Procurement | | Design, Build, Integrate & Training | | | | | | |
| **CRM** | | | | | | | | | | | | | | S.E. & Req. Gathering | |
| **GIS** | GIS Succession Plan | | | Quick Win Planning & Specs. & Stakeholder Engagement | | | | | | | | | | | |
| **Digital Services** | | | | Planning &SE | Develop Roadmap | | | | | | | | | Req. Gather. | |
| **Cybersec. & Sec. Policy** | S.E. & Planning | Policy Update | Process Updates | Training & Rollout | | | | | | | | | | | |
| **Business Continuity** | | | | | S.E. & Planning | Updates | | | | | | | | | |
| **Formalise ICT** | Business Case for SaaS & IaaS | | Transition and Implementation of SaaS & IaaS | | | PM Train. | Define Roles & Resp. | Doc. Gap A. | Doc. Upd. | SLA/MoU Rollout | Contract Mgmt. App. | EA Review & Processes | SPOF Plan | KPI Scoping | KPI Rollout |
| **IT Gov. Model** | | | | | | IT governance model | | | | | | | | | |
| **Pathfinders** | Stakeholder Engagement (S.E.) with OSi and/or PRA | | | | | | | | | | | | | | |
| **Common Data Model** | Conceptual Stage | | | Logical & Physical | | | | | | | | | | | |
| **Preparation for Merger** | Ongoing Planning & Preparation | | | | | | | | | | | | | | |

## Proposed Year 2 Workstreams

Timeline: M1 – M12

| Workstream | Activities |
|---|---|
| **Future Data Model** | Develop Detailed Roadmap (M1–M2) |
| **Data Transformtn.** | Targeted Delivery (M2–M7) |
| **BI Analytics & Perf. Mgmt** | Requirements (M8); Procurement (M9–M10); Design & Build (M11–M12) |
| **Core Val. S. Application** | Implementation & Integration (inc. Communications & Change Management) (M1–M12) |
| **CRM** | Procurement (M1–M2); Design & Build (M3–M4); Training & Rollout (M5) |
| **Mobile & Field Tech.** | S.E. & Reqs (M10); Solution Procurement (M11–M12) |
| **GIS** | GIS (M1–M10) |
| **Digital Services** | Procurement (M1–M2); Design & Build (M3–M4); Training & Rollout (M4–M5) |
| **Formalise ICT** | Develop & Implement Decommissioning Plan; Scope Helpdesk Ticketing; S.E. & Req. Gathering; Procurement; Design & Build; Training & Rollout; Develop Target EA; Develop EA Roadmap; Dev. Known Error DB |
| **Pathfinders** | Stakeholder Engagement (S.E.) with OSi and/or PRA (M1–M12) |
| **Preparation for Merger** | Ongoing Planning & Preparation (M1–M12) |

## Proposed Year 3 Workstreams

Timeline: M1 – M12

| Workstream | Activities |
|---|---|
| **BI Analytics & Perf. Mgmt** | Design & Build (M1); Training, Integration & Rollout (M2–M3) |
| **Core Val. S. Application** | Implementation & Integration (inc. Communications & Change Management) (M1–M5) |
| **Mobile & Field Tech.** | Hardware Procurement (M1–M2); Design & Build (M3–M4); Training & Rollout (M4–M5) |
| **Pathfinders** | Stakeholder Engagement (S.E.) with OSi and/or PRA (M1–M12) |
| **Preparation for Merger** | Ongoing Planning & Preparation (M1–M12) |