



DATA STRATEGY
FOR THE
DEPARTMENT OF
EDUCATION AND SKILLS

Data Strategy and Action Plan – January 2017

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1. Executive Overview

In its Strategy and Action Plan for Education 2016-2019, the Department of Education & Skills sets out its ambition for Ireland, over the next decade, to become the best education and training system in Europe. Among the actions outlined in the plan to achieve this aim is one to ‘provide greater strategic direction in the Department’s governance, management and use of data’. This Data Strategy sets out how we will endeavour to achieve this and it identifies four key objectives in realising our vision of delivering ‘**First Class Data for Education**’.

The objectives reflect the recurring themes that emerged during the strategy’s internal and external stakeholder consultation processes. These themes included the need to:

- address data accessibility, duplication, awareness and quality issues
- centrally coordinate Data Governance and Management processes
- provide new, and enhance existing, centralised data related functions to support staff in developing their data capacity and capabilities so as to initiate a data culture change with regard to how data is perceived and managed within the Department
- improve data collaboration to ensure better use of the increasing numbers of datasets available, both within the Department and across the sector, hence maximising its value while respecting the rigorous requirements of the new EU General Data Protection Regulations
- actively contribute to central Government led data initiatives such as the ‘Data as an Enabler’ objective within the Office of Government Chief Information Officer’s (OGCIO) ICT Strategy¹, the Central Statistics Offices National Data Infrastructure project², the upcoming Data Sharing and Governance Bill, the Civil Service Renewal Plan which seeks “Improvements in how data is collected, managed and shared”, the Open Data initiative and the MyGovid³ identity authentication process.

Research carried out into best practice in the management and use of data in leading organisations also confirms the need to implement strong, structured data governance.

Objectives:

In seeking to address these issues and to enhance our governance, management and use of data we have identified the following four objectives, which are to,

- **Build Data Capacity and Capability**
- **Strengthen Data Management**
- **Strengthen Data Related Collaboration**
- **Maximise the Use and Value of Data**

Comprehensive high level supporting action plans have been developed for each of the objectives as a means of implementing the strategy.

The first objective is wide ranging and focuses on establishing structures and specialised capacity to lead, govern and support the development of data capacity and capability right across the Department. This is key because we want to empower staff to use data more effectively to support

¹ <http://ictstrategy.per.gov.ie/ictstrategy/files/Public%20Service%20ICT%20Strategy.pdf>

² http://ipa.ie/pdf/Forum_Vol_61_4.pdf

³ <https://www.mygovid.ie/>

policy and decision making, to facilitate effective and efficient operations and to inform the evaluation of outcomes, all of which are necessary to achieve the improvements in education and training required to become the best in Europe.

Central to this will be the establishment of a Data Governance & Support Unit (DGSU). The Unit will have responsibility for developing the data capabilities of all staff through targeted education and communication programmes and it will drive the introduction and compliance of organisational best practice Data Governance and Data Management procedures across the Department. We will also develop a plan to merge our separate pupil data collection units into a new Schools Pupil Data Collection section, expand and develop our Data Analytics capacity, assign a Data Protection Officer and, where feasible, re-align existing data related functions such as Business Intelligence, Reporting and Statistics.

Data Management operations will be supported by introducing and communicating clear data ownership and data responsibilities across the organisation and by implementing a number of generic guidelines under the stewardship of the DGSU. The DGSU will develop a new Corporate Data Management Framework under which all data related processes such as collections, sharing, protection, storage/filing, use, maintenance, retention and disposal will be carried out and governed.

Data Forums with our agencies will be utilised to improve direct collaboration between the Department and some of our large data collectors and consumers. More formal all-inclusive collaboration channels will also be investigated with a view to increasing data integration and reducing the administrative burden and duplication of effort on our data suppliers.

More effective use of our data will also be supported by redeveloping our data architecture to improve data integration and accessibility. We will also raise data awareness and make more of our data widely available in a more transparent, intelligible, comprehensible and consumable fashion.

We will strengthen our approach to evaluation and evidence-based policymaking through focussing on some key pathfinder data analytics projects, similar to analysis undertaken to support the Delivering Equality of Opportunity in Schools (DEIS) review.

Benefits:

The Department will establish a number of key outputs from the implementation of this strategy, which will include the provision of a central point of contact within the Department to assist business units in resolving data issues. Specific Data Management guidelines will be introduced and compliance monitored. We will also have a visible network of data stewards who will provide direct local support for data queries. Specific data training programmes and modules will be developed and delivered to staff. Data forums will be utilised to increase data collaboration.

The DGSU will introduce regular communication channels to promote good data practice and usage. An analytics function will be enhanced to support greater use of data in policy development,

implementation and evaluation. Informative resources, such as an Education Data Map (EDM) will be built to improve general data awareness and to enable staff locate data and identify data ownership.

These changes will bring about benefits such as:

- a data-driven data-oriented culture change which introduces data into the everyday conversation in the Department
- a more data informed and empowered workforce
- improved data access and integration providing greater understanding and appreciation of the educational environment
- improved understanding and business insights regarding the effectiveness of policy outcomes through more focused use, evaluation and analysis of qualitative and quantitative data and information
- public confidence in the appropriate management and use of personal data
- public confidence in the transparent, accountable, evidence based decision making capabilities of the Department
- improved data collaboration between the Department, our agencies, education partners and other Government Departments and Offices, and
- reduced administrative effort associated with data provision.

Strategy Delivery:

The Strategy and Action Plan is the start of a process commencing in January, 2017. It is not an exhaustive list of everything that will be done to deliver our ambitions in data reform. Updated annual Action Plans will be published in January each year, covering the actions that will be implemented during the subsequent 12 months. As part of this process:

- Actions will be monitored against published timelines
- Each year a new Action Plan will be developed and published to further our goals in consultation with stakeholders
- Responsibility for actions will be clearly assigned.

Furthermore, the Department will publish an annual progress report that will evolve and improve from the experience of implementation.

Strategy Review:

The Strategy is a living document and will be reviewed every two years and amended as necessary to reflect changing priorities/circumstances and progress achieved until such time as it is deemed appropriate to develop an entirely new strategy.

2. Introduction and Context

In its Strategy and Action Plan for Education 2016-2019, the Department of Education & Skills (DES) sets out its ambition for Ireland to become the best in education and training in Europe over the next decade. As with the Department's sector-wide reform programme, the strategy reflects the key principles of access, excellence, transparency and innovation and has identified five high level goals, each with a detailed action plan:



- (i) Improve the learning experience and the success of learners
- (ii) Improve the progress of learners at risk of educational disadvantage or learners with special educational needs
- (iii) Help those delivering education services to continuously improve
- (iv) Build stronger bridges between education and communities
- (v) Improve national planning and support services.

In recognition of the importance of the role that data plays in supporting most of the Department's activities, Action 122 sets out to:

“Provide greater strategic direction in the Department's governance, management and use of data”.

The development of this Data Strategy is the starting point in achieving this action and it builds on the Department's previous Data Strategy (2008-2010). The new strategy's four objectives are to,

1. Build Data Capacity and Capability
2. Strengthen Data Management
3. Strengthen Data Related Collaboration, and
4. Maximise the Use and Value of Data.

They are designed to support the achievement of the goals and ambitions of the Department's Statement of Strategy while also addressing a number of fundamental data issues and influencing factors. Through the successful achievement of these objectives we will create an environment that facilitates cultural change with regard to how data is perceived and used within the Department and across the sector.

Increasing our ability to professionally identify, collect, manage, utilise and provide data effectively, could potentially play a pivotal role in supporting and enhancing a number of key objectives and processes of the Department and its stakeholders, such as the National Skills Strategy, the National Literacy and Numeracy Strategy, the Framework for the new Junior Cycle Reform, the provision of student grants and the location assessment process for new schools.

Overall, we are seeking to strengthen our use of data in,

- supporting policy making,
- supporting decision making,
- maximising the efficiency and effectiveness of our operations, and
- evaluating outcomes.

3. Data Strategy Influencing Factors

In developing the data strategy and its objectives we have consulted widely with internal and external stakeholders and considered the current Department data culture, ICT Strategy, economic, demographic and social factors, Government Data initiatives and EU directives and legislation. We



looked at examples of how leading organisations recognise data as a corporate asset, strategically align their key data functions and harness the advances in the latest technologies to optimum effect.

We have categorised the key influencing factors as follows:

Data availability:

In order to support the business of the Department we currently collect

and share large volumes of quantitative data and to a lesser degree, qualitative data from and with multiple sources, such as schools, parents, teachers, the Central Statistics Office (CSO), Education Training Boards (ETBs), our agencies and other Government Departments. It is collected and shared in multiple formats, at structured and unstructured time intervals and through various mechanisms, such as online applications, surveys, focus groups, email or paper.

Progress on the collection of data is such that in the short term, digital data across the entire lifespan of our key educational data entities, the Pupil/Student/Learner, will be available. Previous historical gaps in this dataset have, or will be addressed, as Pobal now collect pre-school data via their Programmes Implementation Platform (PIP) pre-school system and the Department collects primary and post primary learner data through our Primary Online Database (POD) and Post Primary Online Database (PPOD) applications. Examination data is collected by the State Exams Commissions (SEC), the Programme Learner Support Service (PLSS) system being developed by An tSeirbhís Oideachais Leanúnaigh agus Scileanna (SOLAS) collects data on participants in Further Education, student grants information is processed through Student Universal Support Ireland (SUSI) and data on those in 3rd level education is collected by the Higher Education Authority's Student Record System (SRS).

There is also a range of other diverse datasets available across the Education sector, such as geospatial and property information, data in relation to disadvantage and special needs, pupil psychological and school assessments along with 'softer' qualitative data such as learner and parental experiences, longitudinal studies and graduate employment surveys.

Whilst the Department is mindful of its responsibility with regard to the appropriate management of such large volumes of data, some of which is personal, we are also conscious of the need to seek to streamline many of the data collection processes and to pursue opportunities to develop and participate in more data sharing arrangements so as to minimise the burden on data providers. As part of this process, as any new requests for data emerge, the benefits of any such collection must be clearly outlined to demonstrate how the value of having this data balances the overhead in providing, collecting and managing it.

Data Architecture:

Within the Department, collected and generated data is traditionally structured and stored with reference to our 3 main entities, Learners (Pupils/Students), Educational Organisations (Schools, Education Centres etc) and School based employees (Teachers and non-teaching staff).

However, historically some systems and applications have been developed in isolation for particular individual processes and are not properly integrated and therefore do not reference the central underlying data architecture. This has resulted in data dispersion and duplication.

The task is to review our data architecture and to integrate the data where appropriate.

Data Usage:

The Department uses its data for a wide range of operations such as paying over 100,000 payees fortnightly, determining resource allocation across more than 4,000 schools and education centres for more than 900,000 learners, policy development, regulation and administration, assessment and evaluation of education quality and outcomes, statutory reporting, data analysis, administering school building programmes and also for the development of education models such as the new Delivering Equality of Opportunity in Schools (DEIS) model for the assessment of levels of disadvantage in schools and the allocation of teaching resources for children with special educational needs model.

The target is for the Department to further develop the use of this data by assessing its potential not only from the perspective of addressing a specific function but also as a corporate and sectoral resource so as to exploit every opportunity for greater use of existing data to support the development and delivery of education services.

Data Governance & Support function:



What is Data Governance⁴? It is defined, as the practice of organising and implementing policies, procedures and standards for the effective use of an organisation's structured/unstructured data and information assets. As part of the strategy's internal and external stakeholder consultation process, the need for a central data governance unit and an appropriate support service was emphasised. Any such function would need to provide strategic data direction and oversee the development and implementation of a system of decision rights and accountabilities for data and information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods⁵.

⁴ www.sdn.sap.com

⁵ Data Governance Institute

The new function could where feasible provide information, guidance, support and assistance to enable our data collectors, suppliers and processors meet their data governance and data management obligations in their dealings with the Department.

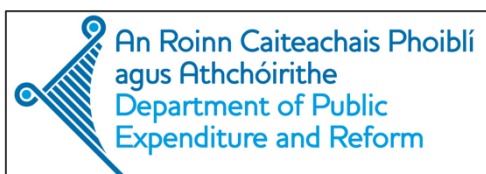
The need for Greater Collaboration:

The Department does not operate in isolation in the development of education policy and the delivery of education services. During the consultation process with our Agencies and Education Partners the need for additional and more managed collaboration was highlighted to:

- a. coordinate sector data related activity
- b. increase data sharing opportunities
- c. increase awareness of the data available across the sector
- d. reduce the impact of the demand of data collections on data providers
- e. standardise data formats
- f. improve data quality by providing guidance on topics such as data cleansing, data validation and data redundancy
- g. lead the design of more integrated data systems
- h. improve general data access.



Central Data Initiatives:



The Government Reform agenda has developed a number of centrally led data initiatives which require a coordinated contribution from the Department. These include the Office of Government Chief Information Officer's (OGCIO) ICT Strategy⁶ with its pivotal 'Data as an Enabler' objective, the Central Statistics Offices National Data Infrastructure (NDI) project⁷ and the Department of Social Protection's MyGovid⁸ identity authentication process.

Action 24 within the Civil Service Renewal (CSR) Plan⁹ seeks "Improvements in how data is collected, managed and shared", whilst the Open Data initiative¹⁰, Open Government Partnership¹¹ and the impending introduction of the Data Sharing and Governance Bill¹², which will provide for greater structured data collaboration across Departments, are all also relevant and considered in this strategy.

Regulations:

Data Protection regulations will become more stringent with the introduction of the EU General Data Protection Regulation¹³ and Directive in 2018. While it can be challenging to address the expectation of limiting public sector data usage for reasons of privacy while also seeking to meet the demand for

⁶ <http://ictstrategy.per.gov.ie/ictstrategy/files/Public%20Service%20ICT%20Strategy.pdf>

⁷ http://ipa.ie/pdf/Forum_Vol_61_4.pdf

⁸ <https://www.mygovid.ie/>

⁹ <http://www.per.gov.ie/en/civil-service-renewal/>

¹⁰ <http://www.per.gov.ie/en/open-data/>

¹¹ <http://www.ogpireland.ie/>

¹² <http://www.per.gov.ie/en/datasharing/>

¹³ http://ec.europa.eu/justice/data-protection/reform/index_en.htm

improved public policy and services, the Department is committed to balancing these elements of data usage. The assignment of the necessary Data Protection Officer (DPO) resource will facilitate the Department's compliance with the new Regulation and Directive.

Department Data Culture:

There is scope to improve the Department's data culture so that we move away from, for example, the traditional approach whereby data activity is process and policy driven and the data is collected, stored and managed more from a local business unit than a corporate perspective, with limited identification for its onward potential use.

Through this strategy we will raise the awareness and profile of data with a view to embedding data into the everyday conversation and culture of the Department.

Best Practice:

In seeking to identify best practice in the areas of data strategy, governance and management we researched foremost examples of how other leading organisations recognise data as a corporate asset, appropriately resource it and strategically align their key data functions. Leading organisations do so by developing data governance and management strategies, frameworks and action plans to ensure that they manage and position their data functions in support of the organisation's key ambitions and regulatory and legislative requirements. We will endeavour to do likewise.



In summary, the aforementioned factors highlight and support the necessity for this Data Strategy. In the absence of such a corporate strategy, the development of a corporate data function and a corporate data management framework there is a risk of piecemeal, ad hoc and operational process-focused use of data, disjointed data governance and management, insufficient capacity planning in respect of data initiatives and specialist data related roles, uncoordinated responses to data issues and initiatives with minimal collaboration and coherence across the sector and with other Departments and organisations.

It is timely therefore to set out a strategy to address these issues.

4. Developing the Data Strategy: Methodology and consultation

A Steering Group, overseen by the Department's Data, Evaluation & Research Management Board Sub-committee (DERMS) was established to govern and support the development of the strategy.

The Terms of Reference for the Group were to deliver a Data Strategy that will enable the Department to:

- ▶ gather, manage, govern and analyse the data it requires and shares with its agencies and other government bodies
- ▶ develop the capacity to use data to provide evidence and insights to support the development and evaluation of services and policies in accordance with the Department's main strategic goals, and in so doing,
- ▶ direct resources efficiently and effectively for the betterment of education outcomes.

A review of issues and progress since the Department's previous 2008-2010 Data Strategy was the starting point for development of the new strategy. This was augmented with an extensive and comprehensive internal stakeholder engagement which sought confirmations as to the current status of data holdings and suggestions for improvements in all data related activities.

External stakeholders, including the Department's Agencies, Education Partners and other Government Departments were also consulted. These inputs were further supplemented by expert advice on data governance along with research into national and international Data Strategy, Data Governance and Data Management practices.

5. Our Vision

Our vision is to deliver **'First Class Data for Education'**.

Whether it is for evidence to assist in the development of policies and to support decision making, to administer day to day operational functions, facilitate the operation of schemes or to inform the evaluation of outcomes, data has a key role to play in supporting the Department in achieving its core strategic ambitions.

This strategy will promote and drive formal recognition of Data as an organisational shared asset. Through achieving the long term objectives of the strategy by the development, expansion and alignment of new and existing corporate data functions, strong data governance and management and greater formal internal and external data collaboration we will create a data-driven data-oriented culture to maximise our use of data.



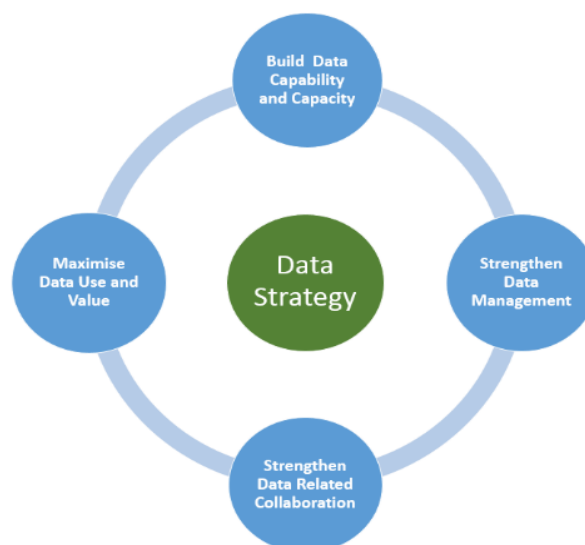
Cementing a data culture and establishing the appropriate data processes and structures will provide a system in which robust, quality and timely – 'First Class' - data is consistently available to those involved in decision making processes which impact the delivery of education.

6. Our Strategic Objectives

Our aim is to deliver systematic improvements in 4 key strategic data areas. The concurrent implementation and delivery of these objectives is documented in the associated Action Plan.

Objective 1 –Build Data Capacity and Capability

Organisations who recognise the need to improve their overall data management practices to maximise their data usage, commonly address five fundamental data related themes; governance, structures, capability, capacity and functions. These same themes need focus and attention within the Department if we are to achieve our **Vision** of delivering 'First Class Data for Education'.



Currently we have a number of functions and related governance structures which are directly or indirectly involved in data related activity. Others which do not yet exist will need to be established. And there is potential for restructuring and re-alignment of current functions to facilitate more effective co-ordination of data activity. The key tasks of this objective are:

Create Data Governance Structures

Effective data governance is achieved via structures at various levels within the organisation that have decision making capability appropriate to their role and responsibility.

Overall Department Data Governance oversight will be the responsibility of the Data, Evaluation & Research Management Board Sub-Committee (DERMS), whose Terms of Reference will be rewritten so that all related Data and Information Technology committees, such as the Data Strategy Steering Group, the Management Board ICT Oversight Sub-committee (MIOS) and the Information Security Committee, reference it.

The development, implementation, administration, monitoring and the coordination of all data governance guidelines, protocols, processes and supports outlined in the Data Strategy will be charged to a new Data Governance and Support Unit (DGSU) under the direction of a Data Strategy Steering Group.

Supporting the new DGSU in its duties will be a network of data stewards who will work at a local Business Unit level to govern, promote and address data activity/issues. These stewards will provide staff with clear lines of support for data issues and they will escalate issues and seek direction via the DGSU and Data Strategy Steering Group if necessary which in turn will report to the DERMS group, when required.

At the Business Unit level, data ownership, roles and responsibilities will be determined, documented, assigned, communicated and managed with the support of the DGSU.

The role and membership of the various governance structures is outlined in **Appendix 1**.

Build and Develop Staff Capacity and Capability

The development of the data capability of staff at all levels of the organisation is foremost to achieving



our ambitions. Capability building, which we see as central to developing the management and use of data, requires a systematic approach to the education and development of staff. It is our intention that staff will be formally and informally educated to become more data informed and will be provided with greater access to data related support, advice and resources.

We will work with the new Civil Service Learning and Development Centre to investigate data related training opportunities.

The aim will be to develop a mature level of ‘Data Literacy’ among staff by providing training and support across a range of areas such as:

- understanding data management
- understanding the steps in the data life cycle process
- understanding their role and responsibility for data management
- using data for policy development and implementation and evaluation
- differentiating between quantitative and qualitative data
- understanding the relationship between data and research
- guidance on how and where to find data
- how to transform data into information and evidence
- putting data into context
- how to collect and organise data
- how to frame data enquiries
- how to define business reporting requirements
- how to ensure compliance with data protection rules.

By so doing we will be enabling staff to develop the knowledge and skills to use data effectively to facilitate operational activity and to inform policy development, decision making and the evaluation of outcomes thereby strengthening every aspect of the Department’s activities as we progress on the road to delivering the best education and training in Europe.

The Data Governance and Support function, described later in the document, together with a **Data Steward’s Network (DNS)** will be key players in this regard.

The role of a Data Steward is one which does not traditionally fall within one functional area – it is not technical but needs to be technology aware and it is not wholly a business role but it is expected to fully understand the workings of the business. Staff identified for membership of the network, who will be up-skilled for the role, will have a number of responsibilities, such as acting as a local point of contact for data related questions and advice, ensuring appropriate data lifecycle management procedures are adhered to, data quality control, identifying data gaps, suggesting data process

improvements, communicating good data practices and collaborating and facilitating with other stewards ideas for improving integration and coordination of data activities.

Further development of staff and organisational data capability will be assisted through collaboration efforts with other central Business Units within the Department, such as the Public Sector Reform office, by incorporating data practices into existing processes e.g. through introducing into corporate project management practices, a requirement for the identification, documentation and appropriate data management during each data lifecycle event within projects and processes.



We will also develop and provide a range of data support resources. These will include the development of an **Education Data Map** to outline and provide pertinent information, initially, on what data is currently available within the Department. Ultimately, data sources external to the Department will also be included in the Map. We will produce an Education Collection Calendar which will outline timeframes and information of key sectoral data collections. We will also develop a Data Register, Data Glossary, Data Dictionary and Data Newsletter which will all play a pivotal role in educating, informing and supporting staff on all data related matters.

Build and Develop Organisation Capacity and Capability

Along with the development of the data capability of staff, the strategy's consultation process and best practice research reconfirmed the need for the Department to bolster its organisational data capacity and capabilities. Much of the feedback suggested that we introduce a data coordinating section to direct, manage, collaborate and provide support for all data issues. The Department also needs to strengthen its statistical, reporting and analytical practices to maximise the benefit from the considerable amount of data available. The establishment/redevelopment/realignment of these and other functions as outlined below will be instrumental in achieving the organisational data capacity and capability goal of the strategy.

Data Governance & Support Unit (DGSU)

A Data Governance & Support function is a pivotal role necessary to lead, coordinate and give prominence to a range of data activity including:

- (a) responsibility for the development and administration of the delivery of the data strategy action plan
- (b) defining the rules and enforcing compliance for how data must be managed at all data life cycle stages from consideration of data needs, to collection through to retention/disposal i.e. a data governance role
- (c) providing information and support for business units to assist them in their data related activity, in the management of data and resolution of data issues
- (d) liaising with business units and agencies to address data gaps and to identify potential opportunities to maximise the use of existing datasets corporately and across the sector
- (e) coordinating, influencing, streamlining, developing and communicating data related activity within the Department and across the sector
- (f) facilitating data collaboration across the sector and with other Government bodies
- (g) supporting and coordinating Department developments and responses to central data initiatives such as 'Open Data', the 'Data Sharing and Governance Bill' and the 'National Data Infrastructure'
- (h) managing and supporting the Data Stewards Network
- (i) providing administrative support for data governance groups, and
- (j) monitoring compliance and reporting breaches of general data practices including collecting, sharing, accessing, using and retention of data.



The DGSU will be a key resource in the provision of data education, regular communication about data activity/issues, promoting good practice in data use and in providing support to staff.

Schools Pupil Data Collection (SPDC) Section

Annually, the Department collects individualised data on all primary and post-primary level pupils and data on schools via its online POD and PPOD database systems.

Amalgamation and alignment of the ownership, management and on-going enhancement of these data collection facilities will form the nucleus of a new Schools Pupil Data Collection section.

In addition to the day to day operations, this section will work with business units, stakeholders, the DGSU and the IT Unit to assess all pupil data collections from schools that are currently separate to the POD and PPOD systems with a view to their inclusion where appropriate. SPDC will also be responsible for the inclusion of any new Business Unit data request or enhancements or amendments to the POD and PPOD systems subject to appropriate business cases and privacy impact assessments where required.



The SPDC team along with the DERMS Group will be responsible for the strategic direction for all pupil data collections from schools. Both the POD and PPOD systems provide viable platforms to schools for the provision of future functionality, such as that of the soon to be released pre-enrolment facility and possible further functionality including attendance/absence management, assessments (other than Junior Cycle Reform) etc., similar to a shared service.

It is timely therefore to develop a strategy that provides a blueprint for how these online systems will evolve.

Data Protection

The new General Data Protection Regulation (GDPR) comes into effect in May, 2018. This regulation places more emphasis on transparency, accountability and security of personal data. Specific rules



applicable to public sector organisations include the requirement for a legal basis for the processing of personal data and the mandatory designation of a Data Protection Officer. This new role, as prescribed in the regulation, requires specialist knowledge on all facets of data protection and will require close liaison with the Department's Legal and Data Governance and Support Business Units.

While initial responsibility for compliance with data protection regulations is a matter for each data owner, the Department's Data Protection Officer Role will be a central, independent function, reporting directly to senior management within the Department, established to provide advice, guidance and support to all staff to ensure the Department is not exposed to the risk of data misuse and mismanagement. The role will also be expected to monitor compliance along with the provision of Privacy Impact Assessment support, advice and direction. In addition, the further demands and non-compliance penalties within the new regulation underline the need to support all staff in building their capability and understanding of their obligations with regard to all data management and processing activities.

Statistics

There is a long established statistics function in the Department, producing a range of strategic and annual statistics on pupils, schools, teachers, pupil retention and projections, while also fulfilling substantial national and international reporting requirements. A regular evaluation of the value of the statistics produced serves to ensure that this resource is focused appropriately.



The Statistics unit developed the POD and currently manage it – this will transfer to the new SPDC section. This will enable the Statistics Unit to refocus on core statistical functions. The unit will also work closely with the Data Analytics team on designated projects.

Reporting/Business Intelligence (BI)

The growth and diverse nature of data now available to the Department and the demand for greater policy transparency, accountability, direct data access for query writing and the need to develop insights and understandings through greater use of data support the further development and strategic placement of the Reporting and Business Intelligence functions within the Department.



To date activity in this area has been managed by the IT Unit BI Team and relevant Business Units and has been mainly focused on increasing efficiencies around some mandatory labour intensive reporting overheads, such as the Annual Statistical and Payroll reports, whilst BI analytic functionality is being used to assist with aspects of the school inspection process.

It is timely now for a more corporate approach and a more strategic alignment of the reporting, business intelligence and statistical roles and their respective responsibilities. The DGSU Team will work with each of these areas to determine the optimum integration of these activities.

Data Analytics

Data analytics is a specialist skill which is fast becoming a more important core organisational function. The Department will develop its data analytics capability organically as demand develops and real business value is demonstrated.

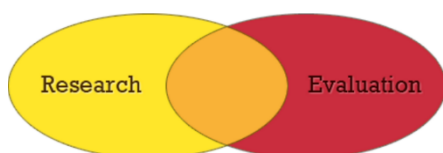
Through the aggregation and anonymisation of our data we can maximise its value to develop key data insights, uncover and identify trends, anticipate future challenges and demands, assess the impact of policy changes under consideration, better evaluate the impact and outcomes of specific supports and assist business units in further understanding the factors that influence their area of activity.



To gain traction in this area we will initially establish a small team to focus on some key pathfinder projects, leveraging in particular, work done to date on the geocoding of schools in the context of the DEIS review to demonstrate how analytics can contribute to and shape our evaluative and policy making capacity.

By documenting, communicating and promoting these examples, practices and their associated benefits, we anticipate that the demand for analytics will continue to grow across the Department, as it does in best practice organisations. In meeting this demand, adequate mechanisms and resources will be required to prioritise, manage and deliver output aligned with business priorities.

Research and Evaluation



Data, in the form of statistics, reports, analysis and analytics is one of a number of key inputs to the **evaluation** of education policies, programmes and supports.

Improved data management processes and procedures resulting in better and more timely access to reliable structured data will support education evaluation activities across the sector thereby providing opportunities for greater impact and outcomes assessments and value for money transparency in line with the guidelines as set out by the central Irish Government Economic and Evaluation Service (IGEES).

It is acknowledged that data feeds into, may be generated by and data gaps may be identified as a consequence of research and evaluation. This linkage is important from many perspectives not least ensuring the availability, quality and understanding of data and developing relationships between data generators/collectors and researchers. The Department is in the process of considering how to develop and direct research activity relevant to its business priorities and will work closely with the statistics, business intelligence and data analytics teams to ensure necessary quality Department data is made available, in the appropriate format, when required.

Information & Communications Technology (ICT)

The Department's IT unit is inextricably connected to many areas of data activity. There is significant demand for and dependency on our IT capacity to facilitate and support data collection, management,



sharing, security, reporting and analysis. This is likely to increase as we seek to improve the management of data, develop our reporting and analytics capacity and empower staff to make more effective use of data.

The IT Unit continues to harness the significant advances in the rapidly changing information technology sector and is in the process of restructuring and seeking to build its capability on foot of a recent review of its current activity.

Actions to implement this strategy that have a dependency on IT will be considered for inclusion in the IT Unit's annual work plans in accordance with the Department's overall business priorities.

Other Data Related Functions/Sections

These aforementioned functions are either specific data functions or inherently connected to the processing/management of data. There are also a number of other Department functions which have a relationship with data, with which the DGSU will collaborate and coordinate future direction. These include:

a) Business Process Improvement/Business Analysis

Business process improvement projects frequently use data to identify the underlying reasons why a particular administrative or operational business process, which is under review, may require a certain level of capacity, be it in its current or future format. Data can equally play a role in identifying how processes can be improved e.g. through better use of data analytics.

b) Records Management & Freedom of Information

The appropriate management of data contributes to both effective records management and to addressing Freedom of Information requests by ensuring that data is stored appropriately, is secure and accurate, accessible and retained in accordance with records management policy.

c) Knowledge Management

Data is a building block towards knowledge when it is used to generate information and combined with expertise and experience. Knowledge Management is the discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise, experience and tacit knowledge in individual employees¹⁴. Consideration will be given to how a Knowledge Management function might be developed within the Department.

Realignment of data functions

With the creation of new data functions and the redevelopment of others it is timely for the Department to consider how these should be strategically aligned to allow for greater collaboration on related topics, improved integration of connected data activity and to streamline data related decision making processes.

It will be the responsibility of the new DGSU to investigate the most efficient organisational structures and management reporting models for these associated areas.

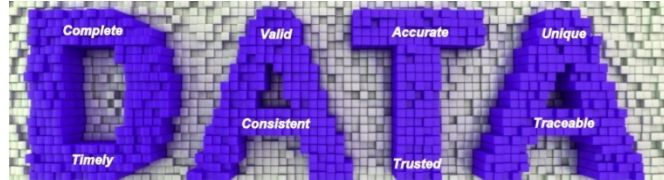
The actions necessary to achieve this objective are outlined in **Appendix 2**.

¹⁴ Definition from Gartner Group.

Objective 2 - Strengthen Data Management

A more guided and formalised approach to Data Management in the Department will play a major part in transforming its overall data culture.

Many of the Department's fundamental historic data issues are a consequence of data management processes and functions being developed and implemented on a case by case basis, in response to various pressures, thereby making it difficult, at the time, for business units to take a corporate data management perspective.



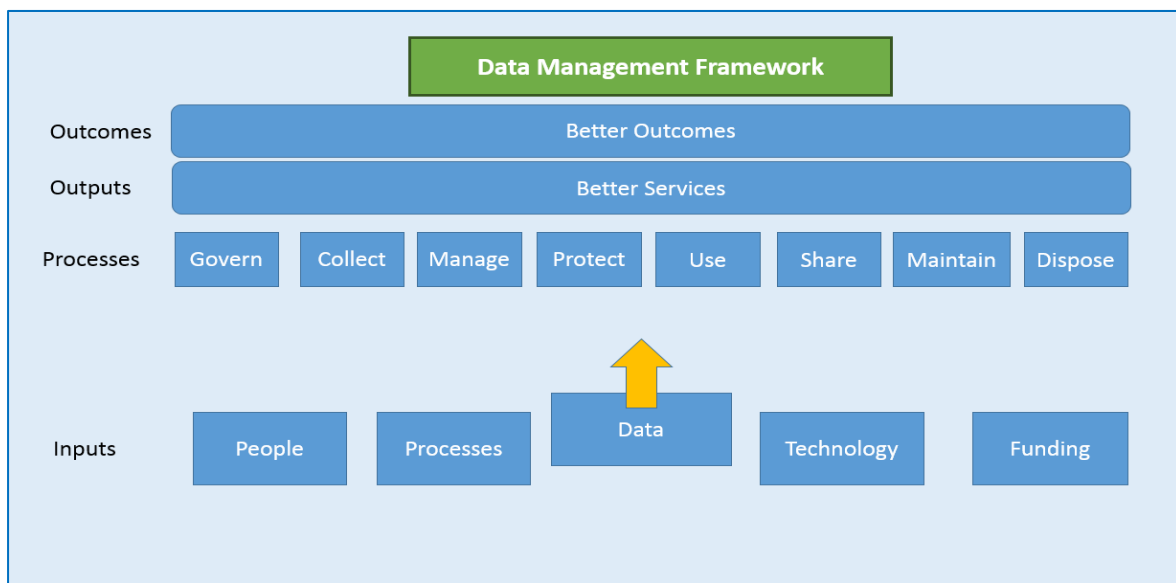
In recognition of the need for formal structured central data management guidance, we will establish a Data Governance & Support function, as outlined in Objective 1. This new function will have responsibility to formally coordinate and provide the necessary central data management guidance to:

- a) develop corporate guidelines for all data management operations such as data

planning	access	gathering
collection	sharing	categorisation
architecture	standardisation	discovery
interrogation	analysis	quality
retention	security	usage

- b) support business units with their Data Management tasks
- c) educate staff on all aspects of Data Management
- d) ensure data is collected only once but used many times.

The function will manage the overall Data Management approach through the development of a Corporate Data Management Framework (CDMF), as depicted in the High Level diagram below.



The DGSU will also develop and administer a Data Management compliance program to ensure corporate data guidelines and procedures become embedded with every Business Unit's standard office procedures and that they are being adhered to. This will develop greater accountability and transparency and user confidence in the process.

The DGSU will be supported in its tasks by the network of data stewards whose responsibility will include the provision of support and guidance for all local data related activity within their business unit or division. The network will also ensure that data issues are corporately assessed, managed and if unresolved, escalated accordingly.

Strengthened Data Management processes and procedures will enable the provision of consistent, reliable, robust, quality data and will streamline and provide clarity for the many data operations carried out by Department staff.

The assurance that data is being managed properly, in a secure manner and is being used appropriately will also minimise any misuse or exposure to risks for the Department, while it seeks to meet its obligations in respect of the new EU data protection regulations.

The key tasks in achieving this objective are as follows:

Develop Data Management Framework and Guidelines

Generic guidelines for all Data Management procedures and processes will be developed and implemented, including standardised data collection and sharing agreement templates to simplify and expedite processes and bolster assurances for both sharing parties. Standardising each process for the transfer of data will lead to improved data quality and consistency.

Initiate Data Management Compliance Program

The DGSU will administer and operate a Data Management compliance process with the Network of Data Stewards. This will ensure that guidelines being developed to improve data management are being observed. Greater compliance will improve the quality of data available to support the delivery of education services and resource allocation.

The actions necessary to achieve this objective are outlined in **Appendix 2**.



Objective 3 - Strengthen Data Related Collaboration

The Department does not work in isolation and is but one of a number of players in the delivery of education. Good, effective collaborative working is a key fundamental ingredient to this and as such, has been highlighted within the recent Action Plan for Education - Statement of Strategy;

“the principle of continuous improvement and being open to external ideas, challenges and debate. We value relationships and working in collaboration within the education sector and with the wider community”.

This Data Strategy recognises that the Department’s commitment to “collaborative working” extends also to its **data** related activity. There are currently some very good collaborative relationships established between the Department and some of its Agencies who consume/process large volumes of data.

Data is shared for the purposes of facilitating the national state exams with the State Exams Commission, with the Education Research Council (ERC) for Ireland’s contribution to the Programme for International Student Assessment (PISA) statistics, with Student Universal Support Ireland (SUSI) for the third level grant allocation process, between the Department and SOLAS to assist with Post Leaving Certificate teaching allocation and from the Teaching Council regarding teacher registration.



Such is the size and diverse nature of the education population and sector it is paramount we ensure, that through the introduction and development of more structured standardised all-inclusive collaborative processes and procedures, that education policies and services are developed and delivered via the input and appropriate use of the highest quality data, derived from all relevant sources.

It is our intention that the DGSU will take the lead in introducing and facilitating greater collaboration not just internally but also with bodies operating under the aegis of the Department, with Education Partners and with other Government Offices and Bodies. The aim is to maximise efficiencies, ensure consistency and co-ordination of approaches and to share data knowledge, expertise and experience both within the Department and across the sector.

Much of the feedback from the strategy stakeholder consultation process identified this need for increased and improved internal and external data related collaboration efforts. Submissions suggested that within the current environment there are opportunities for improvements in the following areas:

➤ Easing the identification of available data and information	➤ Linking key datasets, such as learner and student datasets within the Further and Higher Education sectors
➤ Coordinating central government data initiative responses	➤ Developing generic data collection and sharing procedures and agreements
➤ Central coordination of various elements of data management	➤ Providing central advice on subjects such as Data Protection

➤ Developing more integrated data systems	➤ Improving access to data
➤ Standardising data formats	➤ Data Stewardship and ownership
➤ Identifying greater downstream use of available data	➤ Data sharing

Establishing and embedding greater collaboration to realise the value gains which can be acquired, not just in sharing data and information but also in sharing expertise and experiences, will contribute to creating and sustaining a collaborative data-driven culture.

The key tasks to achieving this objective are as follows:

Enhance internal data collaboration

Through the establishment of the DGSU and the Data Stewards Network we will have the mechanisms to identify, support and where necessary broker data collaboration between internal business units. Collaboration will also be supported through maximising the standardisation of data formats and raising data availability awareness via resources such as the Education Data Map and the creation of a corporate data dictionary to enable the use of a common data language.

We will contribute to and promote the use of data within the current Department project to develop best practice collaboration guidelines and training in the development of policy.

Enhance data collaboration across the education sector

We will use existing forums (such as the Education Data Forum involving many of the Department's agencies) as mechanisms to support and promote collaboration across the sector. Working groups may be established to research and investigate opportunities for improved collaborative working to improve data availability and accessibility for policy and service delivery development.

Enhance data collaboration with other government bodies

We will continue to actively participate in Government led data initiatives and pursue any opportunities to collaborate with other bodies to augment our data activity.

The actions necessary to achieve this objective are outlined in **Appendix 2**.

Objective 4 - Maximise the Use and Value of Data

It is the Department's ambition to achieve the best Education and Training system in Europe through,

- (i) Improving the learning experience and the success of learners
- (ii) Improving the progress of learners at risk of educational disadvantage or learners with special educational needs
- (iii) Helping those delivering education services to continuously improve
- (iv) Building stronger bridges between education and communities, and
- (v) Improving national planning and support services.

Data is a valuable asset and a key enabler in achieving these objectives. Data can be used to benchmark and evaluate, to compare, to measure progress, to illustrate a problem and to inform a solution, to quantify, to inform how demand may unfold and how resources can be allocated to best effect, to identify pressure points and to target supports. It can play an integral role in the delivery and continuous improvement of our education and training services.

As we examine how we can, for example, improve the learning experience and success of learners, we must firstly define the questions we need to answer that will enable us to establish where the strengths and weaknesses lie and then ensure that we have the appropriate data to help us answer those questions. In every activity, we must be seeking the evidence to tell us how we are doing, how we compare with others and where adjustments need to be made.

Everything in this strategy is with a view to building the Department's ability to maximise the use and value of its data. The previous objectives aim to develop and sustain our functions, capacity, skills, structures, relationships and culture to support the utilisation of available data effectively and appropriately in new and innovative ways.

The challenging environment in which we work necessitates greater transparency, measurement and accountability of decisions, policies and services and it places increasing demands for the provision of timely, quality data. This strategy seeks to address the cultural, collaborative, quality, integration, accessibility, management, capacity and capability challenges in order to create the essential environment to facilitate the maximum effective use of data so that it serves as:

- a facilitator of effective decision making
- a provider of facts and insights
- a means of predicting future demands
- a mechanism for greater data integration
- an enabler to deliver more comprehensible data
- a quantitative and qualitative feed into research
- a mechanism to enable transparent allocation of resources
- an enabler to identify and mitigate risk
- a robust evaluation and measurement of effectiveness and
- a facilitator of better reporting.

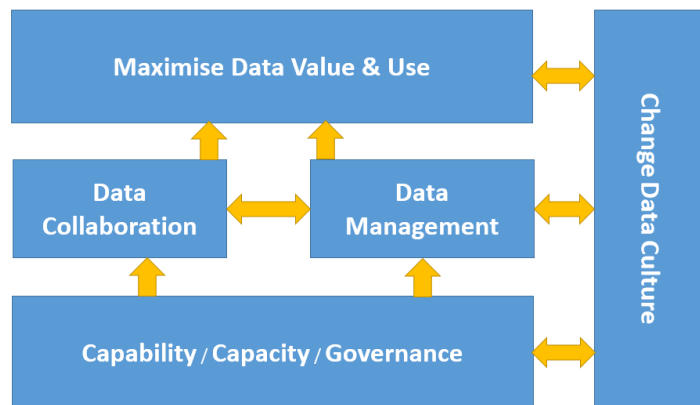
By empowering staff to develop their understanding of and capacity to maximise the value and use of data in all of their business activities, greater use of data will be apparent from,

- more evidence based policies and decisions
- greater efficiency and transparency in the measurement of educational outcomes, and
- efficient and effective operations.

Other means of maximising data use that will be pursued include,

contributing to Government data initiatives; allowing greater appropriate access to and use of our data; improving data collaboration opportunities

- using more effective data reporting methods and greater access to open data to provide more direct information to citizens
- integrating more available data to provide the Department with the ability to build more complete informative pictures of our key Educational Organisation, Learner and Staff Member entities for subsequent analysis, evaluation and research purposes
- harnessing the latest IT technologies in conjunction with Department and Government ICT strategies to greater 'Enable' data
- using data analytics to greater effect to provide more detailed insights into our education system and to identify where actions may be required to support evidence based policy making or to improve and direct necessary resources and services
- visualising more of our data reporting to make it easily intelligible, comprehensible and consumable, and
- reducing data supplier burden by advocating and promoting the 'collect once, use many times' approach.
-



In addition to the tasks associated with the previous objectives, which all contribute to the greater utilisation of data, the key tasks to achieve this objective are as follows:

Improve Data Infrastructure

Within the Department, large volumes of related datasets currently reside in multiple separate systems and databases thereby impeding corporate access and detailed analysis. In some cases data silo culture has resulted in data duplication. While it is a significant undertaking, it is intended that by restructuring our current data architecture and redesigning applications we can reduce duplication and improve data integrity, accessibility, reporting and our capacity for analysis.

Improve Data Integration

The DGSU, working with Business Units and the IT Unit will ensure that the necessary mechanisms, collaborative relationships and access rights are established to facilitate greater data integration and to ensure that data required from internal and external sources, is available to access, share and utilise as appropriate.



Greater and improved two-way data integration, access and sharing between the Department, our agencies, other Government Departments and education stakeholders increases the potential for improved data consumption, analysis and ultimately delivery of services. Sharing information

with Tusla can assist in the development of child Wellbeing policies and services and with the ERC will provide the basis for more inclusive education research. Improved sharing of data and information between the Department and the Higher Education Authority (HEA), on second and third level students, will inform a greater understanding of the effectiveness of the curriculum, progression and retention rates and policy requirements in those areas.

Enhance our Data Insights

Public consumption of, and demand for data continues to grow exponentially and the mediums by which the data is consumed are rapidly changing due to technological advances. This is particularly true of the younger digital generation to whom we primarily deliver education and training. There is also a continuous demand for Education information and reporting both from a national and international perspective. Developing the required reporting and analytical capacity and capability will assist our efforts in meeting these demands. It will also allow the Department to provide greater accountability and transparency to the Government, Education Partners and the Public with regards to the “how and why” of policy formulation. Data driven assessments, analysis and evaluation of our policies and their outcomes, both from a quantitative and qualitative nature, will help us determine their impact and will inform future developments.

Publish more Open Data/Increase Data Availability

We will also publish more data in “Open” format to allow education providers, partners and industry consume our data for analysis and feedback purposes along with opportunities for external development of associated services.

We will review data access options across our current datasets and make more readily available, where possible, to maximise their use. Much of our data exists in business areas who initially identified the need for its collection for a specific purpose only. It is our intention to provide greater access to this data for broader use.

The actions necessary to achieve this objective are outlined in **Appendix 2**.

7. How this strategy will be implemented

This Strategy and Action Plan is the start of our data journey. They are living documents based on current issues and demands and do not constitute exhaustive lists of everything that will be done to deliver our vision. The action plan will be evaluated and updated annually with the strategy being formally reviewed every two years to assess its continued validity. As part of this process:

- Actions will be monitored against published timelines;
- The Strategy and Action Plan will, where necessary, be redeveloped and republished to ensure alignment with the goals of the Department and stakeholders following each two yearly review; the action plans will be revised annually if necessary;
- Responsibility for actions within the plan will be clearly assigned;
- The Data Governance & Support Unit will be responsible for administering the Action Plan/s and will continue to report to the internal Data Strategy Steering Group and the Data, Evaluation & Research Management Board Sub-committee.

Furthermore, the Department will publish an annual progress report that will evolve and improve from the experience of implementation.

8. Stakeholder Benefits

In implementing this strategy to achieve our vision of **'First Class Data for Education'** we aim to deliver benefits to a range of stakeholders. These benefits are outlined below.

Department Staff



Staff will be more informed about data and more experienced in recognising its value and in ways to maximise its use.

Staff will have clear role definition as to their responsibilities with data.

Staff will be more confident in their management and use of data through the support of standardised sets of guidelines and procedures.

Staff will be given more responsibility and accountability for their data related activity.

Staff will be fully supported by a central advisory data resource for their data related activity.

Staff will receive focused data related training.

The Department's data related functions and associated resources will reflect the value the Department puts on its data.

The Department will have clear data governance structures.

The Department will have a data-driven, data-oriented culture.

The Department will operate a set of robust, standard 'best in practice' data governance, management principles and guidelines.

The Department will be optimising its use of data.

The Department's data inputs to the decision making process will be more transparent.

The Department will have developed effective data collaboration channels.

The Department will make available and share all appropriate data.

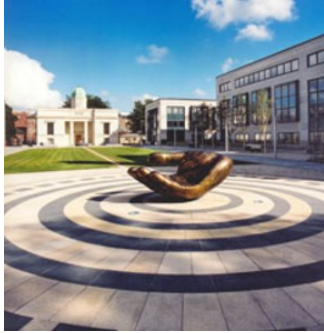
The Department will be well placed to meet all of its legal obligations in respect of the management of personal data under the proposed new EU General Data Protection Regulation.

The Department will have improved data insight and analytical capabilities.

The Department



The Department



The Department will have a central reference point for all data related activity.

The Department will have a more data empowered and knowledgeable workforce.

The Department can be relied upon to actively participate in central government data initiatives.

The Department will have improved reporting reliability.

Department Data risks will be reduced and mitigated.

The Department will have increased availability of quality data for operations and more transparent evidence based policy making.

The Department will have clear documented data roles and responsibilities.

The Department will have improved appropriate access to more datasets.

The Department will have the capacity to develop more informed policies.

Department Agencies



The Agencies will benefit from:

Improved documented and clear collaboration responsibilities and processes.

Increased and improved data sharing mechanisms and channels.

Common collaborative approaches to data projects.

Standardised data formats and data management processes.

Improved appropriate data access.

Access to one central support resource/point within the Department for data issues.

The Education Data Forum will provide a platform for collaboration and sharing of expertise.

Schools will benefit through improved Department coordinated, collaborated and efficient data management, collections and processes.

Schools will have greater access to appropriate Open data.

Schools will benefit through more transparent, quality, evidence based policies for resource and services allocation.

Schools will benefit through the Departments better harnessing of ICT for data related processes and applications.

Schools will benefit from improved data quality.

Schools



Learners



Learners will benefit through more robust, quantitative and qualitative, transparent, evidence based policies for allocation and provision of resources and services.

Learners will benefit from more access to quality educational Open data to assist them with making more informed decisions about their education.

Parents/Guardians will benefit through more robust, quantitative and qualitative, transparent, evidence based policies for allocation and provision of services.

Parents/Guardians will benefit from more coordinated, collaborated and efficient data collections.

Parents/Guardians will benefit from more access to quality educational Open data to assist them with making more informed decisions about their child's education.

Parents/Guardians



**Govt
Depts./Bodies/Offices**



Govt DBOs will benefit through greater data collaboration.

Govt DBOs will benefit from greater access to quality educational Open data.

Govt DBOs will benefit through the Department's effective participation in central government data initiatives.

Education Partners



Education Partners will benefit through the Department's improved coordinated, collaborated and efficient data management, collections and processes.

Education Partners will benefit from greater transparency and access to quality educational Open data.

Education Partners will benefit through more robust, quantitative and qualitative, transparent, evidence based policies for allocation and provision of services.

Public

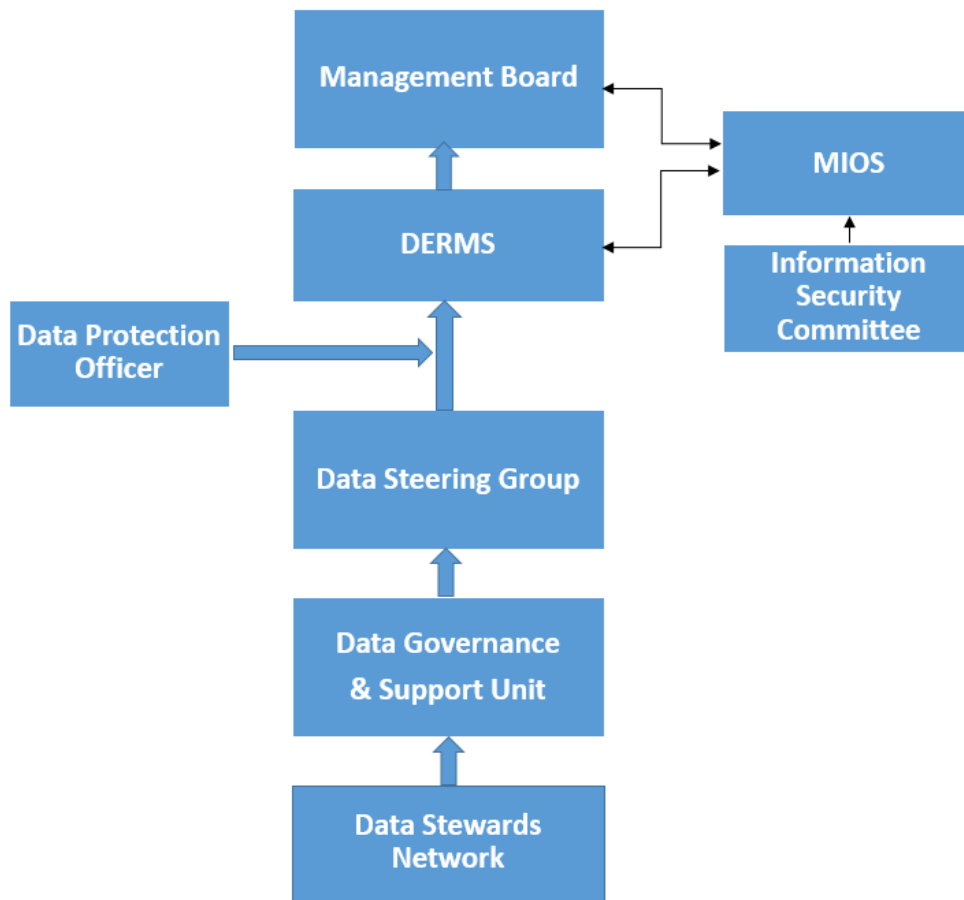


The Public will benefit through the delivery and transparency of robust, quantitative and qualitative, evidence based policies for allocation and provision of Education services.

The Public will benefit from greater transparency and access to quality educational Open data.

9. Appendix 1 – Data Governance structures

Group	Role	Chaired by	Membership
Data Governance Board/DERMS	<ul style="list-style-type: none"> • Strategic direction and oversight of all data related activity in the Department • Ensure consistency, collaboration etc as appropriate across inter-connected areas e.g. data, IT, information security, research, evaluation, reform; • Provide guidance with regard to the Department’s interaction with data related activity across the education sector and other Government bodies 	Assistant Secretary	<ul style="list-style-type: none"> • Assistant Secretaries from key business Divisions • Principal Officers from all data related functions (including research and evaluation) • Data Protection Officer
Data Strategy Steering Group	<ul style="list-style-type: none"> • Provide direction for implementation of Data Strategy and monitor progress • Data issue resolution • Escalation of issues to DERMS 	Assistant Secretary	<ul style="list-style-type: none"> • Principal Officers from key business units • Principal Officers from DGSU, Statistics, Analytics, IT Unit,
Data Governance & Support Unit	<ul style="list-style-type: none"> • Develop and monitor compliance with a corporate Data Management Framework and associated guidelines • Develop, manage and support Data Stewards Network • Escalation of issues to Data Strategy Steering Group • Report Data Strategy implementation progress to Data Strategy Steering Group 	DGSU Principal Officer	<ul style="list-style-type: none"> • DGSU Team
Data Stewards Network	<ul style="list-style-type: none"> • Specific tasks supporting the implementation of the data strategy and the work of the Data Governance and Support team • Escalate issues to Data Governance & Support Unit 	PO DGSU	<ul style="list-style-type: none"> • All data stewards • Assistant Principal Data Governance & Support Unit • Representatives from other areas as appropriate to the tasks being pursued



*MIOS: Management Board ICT Oversight Sub Committee

10. Appendix 2 – Action Plans for each strategic objective

The timelines indicated in these action plans reflect existing capacity as at January, 2017.

Objective 1 – Build Data Capacity and Capability				
No	Actions		Timeline	Delivered by
1.1	Develop Data Governance Structures			DES - DGSU
	1.1.1	Establish formal Data Governance Terms of Reference for DERMS	Q1 2017	
	1.1.2	Establish Data Strategy Implementation Steering Group with agreed Terms of Reference	Q1 2017	
	1.1.3	Establish a Data Governance and Support Unit	Q1 2017	
	1.1.4	Establish a Network of Internal Data Stewards		
1.2	Implement Data Governance and Supports			
	1.2.1	Provide admin support to Data Governance Boards – Groups and Networks	Ongoing	DGSU
	1.2.2	Develop Data Strategy Implementation Project Management Documentation	Q2 2017	DGSU
	1.2.3	Develop Data Glossary, Dictionary and Register	Q4 2017	DGSU
	1.2.4	Develop and Implement Data Governance Framework and Principles	Q3 2017	DGSU
	1.2.5	Introduce Data Governance Compliance Procedures	Q3 – Q4	DGSU
	1.2.6	Develop processes to report Data Strategy implementation progress to Governance Groups	Q2 2017	DGSU
	1.2.7	Introduce Benefits Realisation Process for Data Governance	Ongoing	DES - DGSU
1.3	Develop Staff Capability			DES – DGSU – HR – DERMS – MB – Training Unit
	1.3.1	Investigate data related training programme or module opportunities with new Civil Service L&D Centre	Q2 2017	
	1.3.2	Develop staff “Data Training and Education” plan	Q3 - Q4 2017	
	1.3.2.1	Implement staff “Data Training and Education” plan		
	1.3.3	Develop Data Stewards “Data Training and Education” plan	Q3 - Q4 2017	
	1.3.3.1	Implement Data Stewards “Data Training and Education” plan		

Objective 1 –Build Data Capacity and Capability						
No	Actions			Timeline	Delivered by	
	1.3.4	Commence process with HR and Management to have data related activity/responsibilities/training requirements reflected in Business Units’ Business Plans and team individuals’ Performance Management Development Scheme (PMDS)				
	1.3.5	Liaise with HR and others involved in developing staff capability (e.g. in areas such as increasing skills in policy development and evaluation) with a view to ensuring that the role of data in these activities is reflected and supported				
1.4	Build Organisation Data Capability and Capacity					
	1.4.1	Establish a Schools Pupil Data Collection section by merging POD and PPOD pupil data collection management				DES-PLDS and Stats -DERMS -MB
		1.4.1.1	Develop plan to incorporate all school pupil data collections within the new SPDC section			
	1.4.2	Assign a Data Protection Officer				DES -MB -DPO
		1.4.2.1	Undertake Department Data Protection Readiness Assessment			
		1.4.2.2	Develop new corporate Data Protection guidelines, practices and support function to meet the ongoing needs of the Department			
	1.4.3	Develop Data Analytics Function				DES - Analytics - Stats
	1.4.4	Consider options with regard to developing Knowledge Management within the Department				DES KM Team
	1.4.6	Establish regular communication between Departmental functions involved in <ul style="list-style-type: none"> • data related activities, and • organisational capability building 				DES -DGSU
	1.4.7	Determine and implement optimum alignment of data related functions through revised organisation structures				DES-MB -DERMS -DGSU
	1.4.8	Develop Data Support Resources Education Data Map Education Collection Calendar			Q2 2017 Q2 2018	DES -DGSU
	1.4.9	Identify data requirements to support the Department’s Evaluation and Research functions				DES -Eval & and Research Teams

Objective 2 – Strengthen Data Management

No	Actions	Timelines	Delivered by	
2.1	Develop, implement and monitor Data Management Framework and Guidelines		DES -DGSU -DERMS	
	2.1.1	Develop Corporate Data Management Framework	Q2 2017	
	2.1.2	Develop and implement Data Collection Management guidelines	Ongoing	DGSU
	2.1.3	Develop and implement Data Sharing Management guidelines	Ongoing	DGSU
	2.1.4	Develop and implement Data Quality Management guidelines	Ongoing	-DGSU
	2.1.5	Develop and implement Data Storage Management guidelines	Ongoing	-DGSU -IT Unit
	2.1.6	Develop and implement Data Security Management guidelines	Ongoing	DES -DGSU -IT Unit
	2.1.7	Develop and initiate Data Management Framework Compliance Programme	Ongoing	DGSU

Objective 3 - Strengthen Data Related Collaboration					
No	Actions		Timelines	Delivered by	
3.1	Enhance Internal Data Collaboration			DES -DGSU -Data Stewards -IT Unit -PSR Office DGSU	
	3.1.1	Develop Internal Data Collaboration Plan	Q3 2017		
	3.1.2	Document, promote and foster good collaboration practices and experiences through Data Stewards Network and Data Newsletter	Ongoing		
	3.1.3	Develop and publish collaboration support resources such as Data Register, Dictionary, Glossary, Education Data Map - Outlined in previous objective actions	Q4 2017		
3.2	Enhance Data Collaboration across the Sector			DES -DGSU Ed Sector Agencies	
	3.2.1	Establish and promote a central coordinating collaboration support and data advisory role within the DGSU function	Ongoing		
	3.2.2	Develop Sector Data Collaboration Plan	Q3 2017		
	3.2.3	Standardise Data formats to streamline collaboration efforts			
	3.2.4	Facilitate the Education Data Forum to share experiences and to explore new collaboration opportunities	Ongoing		DGSU
	3.2.5	Increase sector data availability and improve sharing opportunities	Ongoing		DGSU Stats
	3.2.6	Reduce duplication of effort for data suppliers through improved collaboration, data awareness and system integration	Ongoing		DGSU Agencies
	3.2.7	Investigate channels and protocols for greater direct engagement with education partners for data related initiatives	Q2 – Q4 2017		DGSU Agencies
3.3	Enhance Data Collaboration with other Government Departments, Offices and Bodies				
	3.3.1	Develop plan and provide Department participation with Government Data Initiatives e.g.: Open Data, Data Sharing and Governance, CSO NDI, Inter Dept. Data Committee	Q3 2017 Ongoing	DGSU	

Objective 4 – Maximise the Use and Value of Data				
No	Actions		Timelines	Delivered by
4.1	Improve Data Infrastructure			DES -DGSU -Stats -IT Unit -BI Team
	4.1.1	Review, redesign and redevelop main internal database Data Architecture and associated Data Applications	2017 Q3 – Ongoing	
	4.1.2	Manage all new data system developments from a corporate data perspective		
4.2	Improve Data Integration			
	4.2.1	Baseline current status of corporate data integration	Q2 2018	
	4.2.2	Develop Data System Integration Plan		
	4.2.3	Integrate corporate siloed data	Ongoing	
4.3	Enhance Data Insights			DES-Analytic Team
	4.3.1	Develop and implement Data Analytic Pathfinder Projects in collaboration with Business Units. Research and Evaluation teams and Management Board reflecting strategic priorities		DES-Analytic Team
	4.3.2	Work with key business areas to build, document and promote examples of good business value added via the use of data analytics		DGSU Analytic Team
	4.3.3	Integrate and promote visualisation into analytical, statistical and Business Intelligence developments and reporting		Analytic / Stats / BI Team
4.4	Publish More Open Data/Increase Data Availability			DES -DGSU -Stats -Analytics Unit
	4.4.1	Continue to promote Open Data in the Department to make appropriate data more accessible to outside parties in line with Government Open Data Initiative	Ongoing	
	4.4.3	Continue to work with the CSO to generate and share appropriate Data in Open format	Ongoing	
	4.4.4	Increase availability and accessibility of current datasets to maximise possible use and consumption		

11. Appendix 3 – Acronyms

BI	Business Intelligence
CDMF	Corporate Data Management Framework
CSO	Central Statistics Office
CSR	Civil Service Renewal
DBO	Department Bodies Offices
DEIS	Delivering Equality of Opportunity in Schools
DERMS	Data Evaluation Research Management Board Sub-committee
DES	Department of Education and Skills
DGSU	Data Governance and Support Unit
DPO	Data Protection Officer
DSN	Data Stewards Network
EDM	Education Data Map
ERC	Education Research Centre
ETB	Education Training Boards
EU	European Union
GDPR	General Data Protection Regulation
HEA	Higher Education Authority
ICT	Information Communication Technology
IGEES	Irish Government Economic Evaluation Service
L&D	Learning and Development
MIOS	Management Board ICT Oversight Sub-Committee
NDI	National Database Infrastructure
OGCIO	Office Government Chief Information Officer
PIP	Programmes Implementation Platform
PISA	Programme for International Student Assessment
PMDS	Performance Management Development System
PLSS	Programme and Learners Support System

POD Primary Online Database

PPOD Post Primary Online Database

PSR Public Sector Reform

SEC State Examinations Commission

SOLAS An tSeirbhís Oideachais Leanúnaigh agus Scileanna

SPDC Schools Pupil Data Collection

SRS Student Record System

SUSI Student Universal Support Ireland