



European
Commission

Factsheet:

Access to Base Registries in the United Kingdom

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The United Kingdom towards Interoperability

The United Kingdom (UK) initiated its strategies towards interoperability in 2001. At that time, the UK implemented e-Government initiatives which later resulted in the creation of GOV.UK's first predecessor, the **Government Gateway**¹, a central hub designed to link e-Government services across departments.

In continuation of these initial efforts, a number of National Action Plans have been seen throughout the recent years. These plans have been geared towards achieving of an Open e-Government and enhancing the delivery of public e-services. The **First National Action Plan (2012-2013)**² had its aim to increase Open Government efforts to make the "UK government the most open and transparent in the world". The First Action Plan focused its commitments in three streams of actions, consisting of: (1) upholding commitments proposed as part of the Open Data Consultation in terms of ensuring the right to data, setting standards, introducing and enforcing corporate and personal responsibility, establishing a framework for collection and publication of the right data, maximising the opening of data and finally stimulating the development of innovative ways to use open data; (2) increasing transparency and accountability in the provision of overseas development aid; and (3) setting up and implementing a UK Government ICT Strategy.

Following the First National Action Plan, the **Second National Plan (2013-2015)**³ consisted of upholding commitments to open data, government integrity, fiscal transparency, involving and empowering citizens, as well as increasing transparency in natural resource usage in the UK. As a demonstration of implementation and the ongoing engagement in Open Government, the **Third National Action Plan (2016-2018)**⁴ was developed. The third plan still conveys commitments to transparency, anti-corruption and opening data. However, it also places a special emphasis on improving the use of data, improving tools enabling public e-services and involving data users in shaping the future of open data. The **Open Government Manifesto**⁵ put forward key proposals for commitments in the National Plan. These were produced as a result of a government project, gathering ideas and inputs from citizens and civil society across the UK.

As a result of the National Action Plans, the United Kingdom launched a beta version of its **Open Data Portal** in 2010, **data.gov.uk**, which has since undergone a number of updates and developments. Despite still running in beta version, the portal currently holds 42,302 datasets, of which 38,761 are published, and the remaining 3,541 are unpublished mostly due to personal data content.

In parallel to the Open Government Action Plans, the UK has established digital strategies with the aim of creating the environment necessary to develop the ICT sector, as well as materialising efforts included in the Action Plans. Even though the United Kingdom does not have an official **National Interoperability Framework** as such, the ICT strategies⁶ along with the Standards Hub could be considered as its substitutes. The first strategy of this kind was the **UK Government ICT Strategy 2011-2013**⁷, which had as its main objectives the creation of a common ICT infrastructure which could be used to enable and deliver change through standardisation, innovation and reuse of solutions.

¹ <http://www.gateway.gov.uk/>

² <https://www.opengovpartnership.org/dataset/united-kingdom-2012-2013-documents/resource/162dedf5-fd37-4d92-ade1-c9abebfb5e9d>

³ http://www.opengovpartnership.org/sites/default/files/20131031_ogp_uknationalactionplan.pdf

⁴ <https://www.gov.uk/government/publications/uk-open-government-national-action-plan-2016-18/uk-open-government-national-action-plan-2016-18>

⁵ <http://www.opengovernment.org.uk/open-government-manifesto/>

⁶ <https://www.gov.uk/government/collections/ict-strategy-resources>

⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85968/uk-government-government-ict-strategy_0.pdf

As a natural continuation of the efforts towards strengthening the ICT sector in the UK, the **UK Government Digital Strategy**⁸ became effective in December 2013. Its scope mainly handles the creation, improvement and provision of digital public services. More specifically, the strategy focuses on increasing the availability and accessibility to public e-services by evolving them into the central portal⁹, increasing digital capability throughout the civil service, building technical infrastructures while accounting for digital-by-default and harmonising the legal environment to reduce legal barriers for an interoperable e-Government. Accordingly, the UK has introduced **Government as a Platform**¹⁰ as their central idea of e-Government. Its aim is to break up the stifling silo approach by using platforms, and in turn, to create competition and drive innovation. Furthermore, platforms are seen as a solution to rapidly changing policy and circumstances in today's world. They are highly adaptable due to the unified standards and the interconnectivity design they are built upon, which means that any change can be carried out by simply replacing a current solution or component with a new one.

The **UK Digital Strategy**¹¹ was updated in March 2017, and focuses on seven strands, among the most important, in this context, being building digital infrastructure for the UK, improving the means to start and grow a digital business in the UK, helping British businesses to become a digital business, serving the citizens online and unlocking the power of data in the UK economy. The former aims at encouraging innovative uses of the data, ensuring it is used to its maximum potential within government in order to provide more efficient and responsive public services. The way this goals are to be achieved is by supporting the data economy through building the right data infrastructure: creating value from data, helping business make better use of their data, sharing data across countries; improving data skills and building public trust.

At the same time, the **Transformation Strategy**¹², let by the Government Digital Service (GDS), enforces the UK aspiration to digital transformation, one step being to make data easier to share across government and ensure it is managed securely. The strategy emphasises the data being a fundamental resource for enabling more efficient and effective government and public services that adapt better to citizens' needs. The purpose is to avoid government data being held and used solely within the organisation that collected it. The goal is to avoid duplication, overlap and inconsistencies in the datasets the government holds and sharing data across organisational boundaries in ways that citizens are comfortable with. This is set to improve trust between citizens and state, by making the government activity more transparent and making publicly-owned, non-personal data available for reuse where appropriate.

In the UK, registries are clearly defined as being open, closed, shared and private, and it is the nature of the registries which defines what services are appropriate for it. An example of a service designed to exchange personal data is the **Tell Us Once service**¹³, which allows the reporting of birth or death to be carried out once but automatically distributed to the appropriate government organisations. The personal data entered for the purpose of the service is held for a maximum of 35 days, after which it is deleted to protect the person's data. Additional resources have also been created by **Government Digital Service (GDS)**¹⁴, which have as their objective the facilitation of building registries and services such as the ones mentioned above. **Guidelines for building registries**¹⁵ provide the necessary information, contacts and specific steps to be taken during that process, as well as the procedures required to run the registry and release it for usage. Furthermore, a **manual for building services**¹⁶ is also made available by GDS, and

⁸ <https://www.gov.uk/government/publications/government-digital-strategy/government-digital-strategy>

⁹ www.gov.uk

¹⁰ <https://gds.blog.gov.uk/2015/10/07/government-as-a-platform-for-the-rest-of-us/>

¹¹ <https://www.gov.uk/government/publications/uk-digital-strategy>

¹² <https://www.gov.uk/government/publications/government-transformation-strategy-2017-to-2020/government-transformation-strategy>

¹³ <https://data.gov.uk/dataset/tell-us-once>

¹⁴ <https://gds.blog.gov.uk/>

¹⁵ <https://www.gov.uk/guidance/creating-a-register>

¹⁶ <https://www.gov.uk/service-manual>

its aim is to ensure that services are built so well, that users will not resist using them regardless of their approaches to government services in the past.

As previously mentioned, the **Standards Hub**¹⁷ in the UK has an increasingly relevant role in the country's interoperability. It is a new service which is currently running in its beta version, and it provides uniform standards for software interoperability, data and document formats. When applied, these standards guarantee interoperability among the bodies that are using them. Additionally, the portal allows stakeholder involvement in the development of standards in the government IT through 4 stages: Suggestion, Response, Proposal and Solution.

Furthermore, bearing in mind that the United Kingdom is composed of England, Scotland, Wales and the Northern Ireland, it is necessary to mention their separate strategies designed to develop a digital administration in their environments. Thus, **Scotland's Digital Future**¹⁸ is based on seven main themes: broadband and mobile networks, cyber resilience, effective use of data, digital participation, digital public services, digital skills and digital support for businesses. The themes themselves are quite self-explanatory and have been devised to ensure Scotland is well placed to take full advantage of all the economic, social and environmental opportunities offered by the digital age. Similar to Scotland, Wales set up their **Digital Wales Strategy**¹⁹ in 2010. The Welsh strategy aims at equipping citizens for the digital nation, building a competitive Digital Economy, transforming Public Services and laying down a first class digital infrastructure to deliver a brighter future for everyone in Wales. Finally, Northern Ireland set up their **Digital Economy Action Plan for 2013-2014**. The plan aims to develop a Connected Digital Economy, increase the usage of data and promote the establishment and development of secure connections between traders and customers as well as employers and employees.

¹⁷ [:http://standards.data.gov.uk/](http://standards.data.gov.uk/)

¹⁸ <https://beta.gov.scot/policies/digital/>

¹⁹ <http://gov.wales/docs/det/publications/101208digitalwalesen.pdf>

Legal Interoperability

The Government Digital Service (GDS), leading the digital transformation of government, defines base registries as “authoritative lists you can trust, having characteristics such as: (1) Registers are canonical and have a clear reason for their existence; (2) Registers represent a ‘minimum viable dataset’; (3) Registers are live lists, not simply published data; (4) Registers use standard names consistently with other registers (5) Registers are able to prove integrity of record; (6) Registers are clearly categorised as open, shared or private; (7) Registers are clearly categorised as open, shared or private; (8) Registers must have a custodian.”²⁰

The United Kingdom’s base registries are grounded in separate pieces of legislation, pertaining explicitly to the activities of each specific base registry. It is equally important to mention that the national registries in the UK, as well as the laws regulating their activities, pertain mostly to England and Wales, while Scotland and Northern Ireland keep their separate records defined by their laws.

- The **Births and Deaths Registration Act 1953**²¹ defines the Person Registry, known in the UK as the General Registry. The Act states that births and deaths shall be registered in the registry of the sub-district in which the event occurred. Furthermore, the legislation explicitly states which persons are qualified to register the birth or death of the person concerned. Additionally, the Act sets out the maximum length of time within which the life event must be officially registered. In the case of births, the maximum time for proper registration is three months from the day of birth, while for deaths the maximum time for registration is 12 months from the date of death.
- The Vehicle Registry is regulated by the **Vehicle and Driving Licences Act 1969**²². The Act does not define the registry as such. However, it provides with rules and requirements about the licencing, registration and vehicles construction, the payment of duties, drivers licencing, and related matters.
- The Business Registry’s principal legal provision is the **Companies Act 2006**²³. Amidst a large number of provisions, the Companies Act states the requirements for the registration of a company as well as the effects of the registration on the company. The principal information required for registration of a company includes the company’s name, location, type of company and whether it is to be private or public. The law also states which registry will enter and keep the information of the company, which is most commonly the registry of the sub-district in which the company is located. The most relevant effect of registering a company pertains to making the body corporate capable of exercising all the functions of a company incorporated in the registry.
- The Land Registry is regulated by the **Land Registration Act**²⁴. The Act contains rules and provisions about the information included in the registry, the form in which information included in the registry is to be kept, and the arrangement of that information. Furthermore, the law states who is in charge of the registry as well as how the conduct of business in the Land Registry is to be carried out.

Additionally, the legislation pertaining to e-Government and promoting interoperability of base registries in the United Kingdom exist as follows:

²⁰ <https://gds.blog.gov.uk/2015/10/13/the-characteristics-of-a-register/>

²¹ <http://www.legislation.gov.uk/ukpga/Eliz2/1-2/20/contents>

²² <http://www.legislation.gov.uk/ukpga/1969/27/contents>

²³ <http://www.legislation.gov.uk/ukpga/2006/46/contents>

²⁴ <http://www.legislation.gov.uk/ukpga/2002/9/contents>

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- The **Freedom of Information Act (2000)**²⁵ explicitly states that any person making a request for information to a public authority is entitled to be informed by the public authority whether it holds information of the description specified in the request and if it is possible, to have that information communicated to him. Furthermore, it states the maximum time within which the public authority must provide a reply to the information request, which corresponds to 60 working days from the receipt of the request.
 - The **Data Protection Act (1998)**²⁶ provides regulation for the processing of information relating to individuals, including the obtaining, holding, use or disclosure of such information. Moreover, the Act provides definitions for a number of relevant terms such as data, data controller, data processor, public authority, etc. and states the data protection principles to be upheld in the UK. The Information Commissioner is the officer in charge of ensuring that data protection policies are respected, and in the case of their breach, he/she shall be in charge of taking punitive actions against the subject in breach. Therefore, it follows that the **Information Commissioner's Office** is an independent supervisory authority in charge of enforcing and overseeing legislation in data protection/privacy and freedom of information. The Commissioner has a range of duties, including the promotion of good information handling and the encouragement of code practice for data controllers regarding the collection and processing of personal data. The Information Commissioner directly reports to the parliament. Three regional offices were established in 2003 as a direct response to the devolution process in the Northern Ireland, Scotland and Wales.
 - The objective of the **Electronic Communications Act (2000)**²⁷ is to facilitate the use of electronic communications and electronic data storage ensuring safe and secure channels for communication, as well as providing resources to ensure their safety. Furthermore, the Act provides a mandate for the establishment and maintenance a registry of approved providers of cryptography support services, to ensure that the administration has the necessary access to electronic channel safety providers.
 - The **Reuse of Public Sector Information Regulations (2015)**²⁸ in the UK transposes parts of the European PSI Directive (2013/37/EU), as well as the INSPIRE Regulations from 2009. The Act states that if a person makes a request for re-use in writing, stating the applicant's name and address for correspondence, specifying the document requested as well as the purposes for which the document is to be re-used, a public sector body must permit re-use.
 - Furthermore, in July 2016, new **data access legislation was published as part of the Digital Economy Bill**²⁹. The aim of the newly introduced data clauses is to make services better, more agile, and more tailored. The improvements in this context will be made possible by removing obsolete barriers to enable citizens to make the most out of the data made available for reuse. Data clauses have been created for three separate streams, whereby the first one is to improve public services by providing limited access to personal data within the public sector to identify those citizens who are in need and ensure that they are helped. The second stream deals with tackling fraud and debt. The emphasis here is on improving coordination and cooperation of local authorities to detect, prevent, or investigate and prosecute any debt related issues. Finally, the last stream seeks to increase the research and statistics capabilities in the United Kingdom. In doing so, the

²⁵ http://www.legislation.gov.uk/ukpga/2000/36/pdfs/ukpga_20000036_en.pdf

²⁶ <http://www.legislation.gov.uk/ukpga/1998/29/contents>

²⁷ http://www.legislation.gov.uk/ukpga/2000/7/pdfs/ukpga_20000007_en.pdf

²⁸ http://www.legislation.gov.uk/uksi/2015/1415/pdfs/uksi_20151415_en.pdf

²⁹ <https://data.blog.gov.uk/2016/07/07/data-access-legislation-and-data-reform/>

Office for National Statistics will be granted access to detailed data from across government to provide more accurate, frequent and timely statistics.

Additionally, it is important to note that the UK is taking users' suggestions into account for legislative changes³⁰ with regards to data regulations and practices. This is evident from the fact that full birth dates of companies' directors in the Companies House used to be visible to all users, however, due to privacy concerns from users, this has been addressed and changed to conform to users' needs and personal data policy.

³⁰ <https://companieshouse.blog.gov.uk/2015/06/17/great-news-were-listening-to-our-customers-and-making-changes/>

Organisational Interoperability

In the United Kingdom, a registry is defined as “**the only authoritative list of a specific type of thing. It is the source of that information, kept accurate and up-to-date**”³¹. For example, the company registry administered by Companies House should be the single, authoritative place to find data directly related to a limited company such as the date it was formed and the date it was dissolved and a link to the registered office. Moreover, in the United Kingdom, registries are categorised to 4 different types, i.e. **open, shared, private and closed registries**³². Accordingly, **open registries** are public registries through which data can be accessed, copied and derived freely with clear licensing terms designed for reuse. **Shared registries** allow access to a single registry entry, which in essence means that the user can search and view the data about a specific entry in the registry. There is often some form of access control for the use of such registries. For example an access token, a small fee for signing in through the identity authentication services provided by GOV.UK. A **private registry** contains sensitive information not directly accessible by services. However, it may be able to provide answers to simple questions such as “Is this person registered as a potential organ donor?”. Finally, a **closed registry** contains data which is private to a single organisation, locked away and not directly connected to a digital service.

Furthermore, the UK has created a number of characteristics of registries which correspond to the following:

1. Registries are canonical and have a clear reason for their existence
2. Registries represent a “minimum viable dataset”
3. Registries are live lists, not simply published data
4. Registries use standard names consistently with other registries
5. Registries can prove integrity of record
6. Registries are clearly categorised as open, shared or private
7. Registries contain raw not derived data
8. Registries must have a custodian

Accordingly, if registries adhere to and possess the above-mentioned characteristics, it should be easy to integrate them into an ecosystem of linked registries. To ensure the realisation of this interconnected environment, it is necessary to incorporate this idea into the initial phase of designing the registry, and the body in charge of the process is the **Registry Design Authority**³³. As a part of Government Digital Services (GDS), the Registry Design Authority is charged with guaranteeing that registries accurately reflect the interconnectedness of government data. In doing so, the Authority has to **determine which registries get built**, which implies also definition of **where the new registry will be placed** within the linked ecosystem of registries, establishing whether the **registry data constitutes a “minimum viable dataset”** and ensuring that **data kept is accurate and up-to-date** so that it is considered good enough to build services, as well as determining **which part of government is best placed to run the new registry**.

Another important item introduced by the UK is the **Registry of Registries**³⁴. Even though it is currently running in a beta phase and contains only six entries, it will certainly prove to be an extremely useful tool for the management of registries in the future. At the same time, the **UK Government Data Programme’s**³⁵ principal objective is to transform the way in which the Government uses data to drive benefits to citizens. Consequently, improvements will be made in the usage of data for public benefit, in particular data science and open data, the data infrastructure will be modernised in a way that core data will be held in canonical registries which can be accessed across government through APIs using common standards, and finally developments in data policy and governance will facilitate data access and sharing with particular emphasis

³¹ <https://gds.blog.gov.uk/2015/10/13/the-characteristics-of-a-register/>

³² <https://gds.blog.gov.uk/2015/09/01/registers-authoritative-lists-you-can-trust/>

³³ <https://gds.blog.gov.uk/2016/03/11/getting-from-data-to-registers/>

³⁴ <https://register.register.gov.uk/>

³⁵ <https://data.blog.gov.uk/2015/09/24/work-of-prog/>

on data sharing legislation, open data policy and open government. The Programme is headed by a Director of Data who has stressed that it is important that the management of data remains with its respective departments. However, there should be an emphasis on collaboration. This includes increased communication of future work and plans, more focus on execution, all while collaborating with stakeholders across government.

Moreover, the United Kingdom does not define the term base registry in its legislation. Instead, the term registry is appropriated with a similar definition, whereby a registry is the only authoritative list of a specific type of thing. Accordingly, the following table gathers the main base registries in the United Kingdom, the Public Administration bodies to which they belong and the Master Data Type (s) they handle:

Base Registry	Authority	Master Data
Civil Registry (General Registry Office) ³⁶	Ministry of Interior (Home Department)	PERSONAL DATA (NATURAL PERSONS)
Business Registry (Companies House) ³⁷	Department for Business, Innovation and Skills	BUSINESS
Vehicle Registry (Driver and Vehicle Licensing Agency) ³⁸	Department for Transport	VEHICLES
Tax Registry (Her Majesty's Revenue and Customs) ³⁹	Revenue Department	TAX
Land Registry ⁴⁰	Department for Business, Innovation and Skills	LAND, PARCELS, BUILDINGS

The governance of base registries in the United Kingdom is distributed, as there is often no central body in charge of them. The base registries at the national level often report to an overarching body, as evident from the table above. However, their governance is mostly carried out through Chief Registrars, who are the heads of the particular registries, as well as agencies in charge of maintaining them. An example of such governance can be conveyed through the Tax Registry, which is maintained by Her Majesty's Revenue and Customs, and divided into four operational groups: Personal tax, Benefits and Credits, Business tax and Enforcement and Compliance. Furthermore, it must be pointed out that entries and registrations by citizens are not made in any of the central registries at the national level, but rather in the local or sub-district registries. This, in turn, suggests that to procure authentic data at national level, the information must be retrieved and extracted from the local registries and made available or at least accessible through the National Registry.

As an exceptional British example, the Companies House has done a great job in making its data available digitally and has set itself as the model for registries in the future. Through its beta phase page⁴¹, the Companies House has made over 170 million company records accessible digitally and free of charge. It is a website as well as an API, in turn creating a registry of data open to humans and computers. The latter is an extremely relevant feature as it allows for third parties to access real-time updates from the Registry and ensures the provision of dependable government data to users.

The Land Registry serve as an excellent example to demonstrate the gathering of data from local offices, which are then made available through the Land Registry's portal⁴². The Land Registry in the UK registries ownership of property and as such is one of the largest property databases in Europe. It has 14 offices, with

³⁶ <https://www.gro.gov.uk/gro/content/certificates/Login.asp>

³⁷ <https://www.gov.uk/government/organisations/companies-house>

³⁸ <https://www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency>

³⁹ <https://www.gov.uk/log-in-register-hmrc-online-services/sign-in>

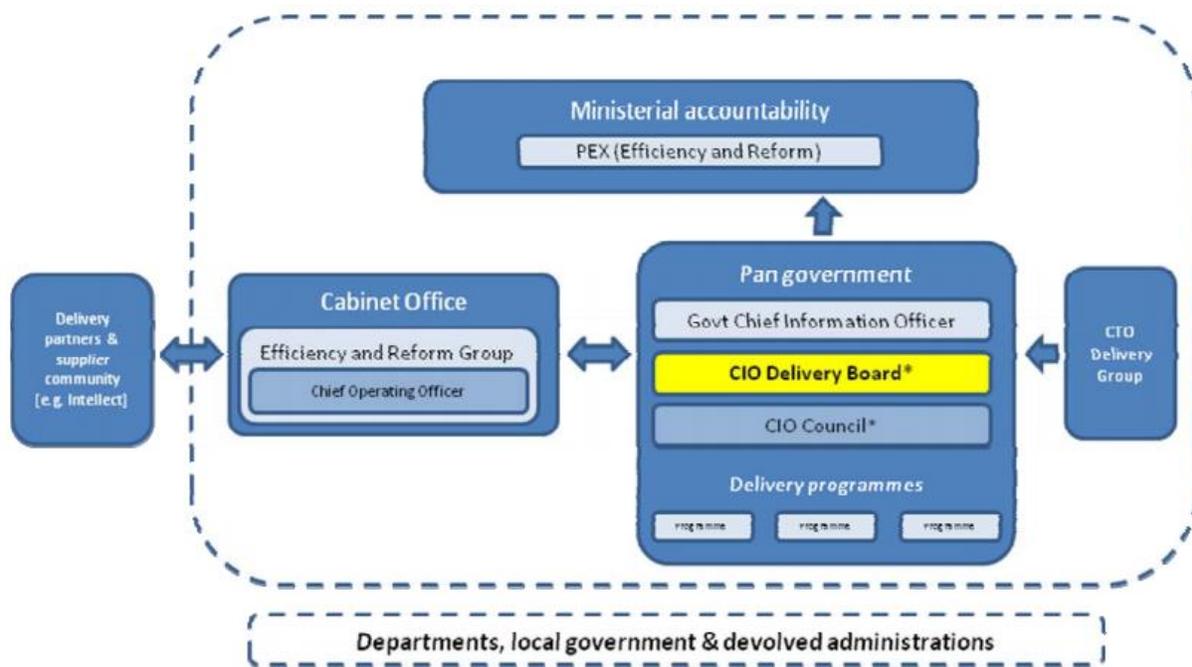
⁴⁰ <https://www.gov.uk/government/organisations/land-registry>

⁴¹ <https://beta.companieshouse.gov.uk/>

⁴² <https://www.gov.uk/government/organisations/land-registry>

its head office in Croydon. It is self-sufficient regarding funding, as it receives no government funding, but rather finances its operations from registration and search fees. Each local office has an Area Manager, a Local Land Registrar, an Operations Manager and an Integrity Manager, while the national office is headed by the Chief Land Registrar. As mentioned earlier, the customers usually send their applications to the office managing them for the geographical area the property is located in. However, in recent years, it has also been possible to send applications to dedicated customer teams who handle applications regardless of where the property is located.

Additionally, the **UK Government ICT Strategy 2011-2013**⁴³, which had as its main objectives the creation of a common ICT infrastructure which could be used to enable and deliver change through standardisation, innovation and re-use of solutions. To achieve fruitful results through the Strategy, a new governance structure was devised and put in place to ensure effective cooperation, collaboration and accountability among authorities at the highest instances, as well as those at a subordinate level.



* Chaired by Government Chief Information Officer

⁴³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85968/uk-government-government-ict-strategy_0.pdf

Semantic Interoperability

One of the most relevant developments in semantic interoperability in the United Kingdom is the **National Information Infrastructure (NII)**⁴⁴ project. Regarding open data, the NII aims to make critical government data easier to find, improve the quality and interoperability of data through data standards and ensure the usability of data. Furthermore, the NII also focuses on core data, in the context of its identification, availability, management and access. Consequently, new elements have been added to the NII to make it a data management framework as well as a list of significant data. These elements appear in the form of a set of guiding principles, a list of most strategically important data, a governance structure and a baseline quality criteria.

Furthermore, the **Digital Service Standard**⁴⁵ is a set of 18 criteria to help government create and provide proper digital services. It is a new guidance which still running in beta version. However, all public administrations facing transactional services must meet its standard. It is used by departments and the Government Digital Service to check whether a service is good enough for public use. Among the 18 criteria, the most relevant and useful for access to base registries are:

- **Understand user needs:** research to develop deep knowledge of who the service users are and what that means for the design of the service.
- **Understand security and privacy issues:** evaluate what user data and information the digital service will be providing or storing, as well as address the security level, legal responsibilities, privacy issues and risks associated with the service (consulting with experts where appropriate).
- **Use open standards and common platforms:** use open standards and common government platforms where available.
- **Encourage everyone to use digital service:** encourage all users to use the digital service (with assisted digital support if required) alongside an appropriate plan to phase out non-digital channels and services.
- **Use open standards and common platforms: use open standards and common government platforms where available.**
- **Encourage everyone to use the digital service: encourage to use the digital service alongside an appropriate plan to phase out non-digital channels and services.**

Open Document Format^{46,47} is where all the public administrations are advised to publish their data in a three-star format that means that **data is available online, in non-proprietary machine readable format, with an open license permitting reuse**. ODF is an international standard which UK government organisations must use for creating editable documents. It allows users to send, view and share office documents without concern for the software or device the users have. Additionally, it provides other useful features such as track changes, ability to include digital signatures and a generic metadata system in the form of RDF, OWL, and XML. The version currently in use by UK public administration is ODF 1.2⁴⁸.

Regarding information standards for datasets published as open data on the UK open data portal, **data.gov.uk**, they appear mostly in the format of HTML, CSV, WMS, WCS, XLS and PDF.

⁴⁴ https://data.gov.uk/sites/default/files/library/NationalInfrastructureImplementationDocument_0.pdf

⁴⁵ <https://www.gov.uk/service-manual/service-standard>

⁴⁶ <https://www.gov.uk/guidance/open-document-format-odf-guidance-for-uk-government/introduction-to-open-document-format-odf>

⁴⁷ <https://www.gov.uk/guidance/open-document-format-odf-guidance-for-uk-government>

⁴⁸ http://docs.oasis-open.org/office/v1.2/os/OpenDocument-v1.2-os-part1.html#_RefHeading_1415066_253892949

Furthermore, the United Kingdom is moving forward with an interesting prototype which deals with **modelling registry data**⁴⁹, in particular for open registries. The authority in charge of maintaining and updating the guidelines called the Registries Design Authority which is part of the **Government Digital Services** (GDS). The approach to modelling data in a new registry consists of naming conventions for registries and fields, appropriate data type usage, support for linking registries, privacy protection, extensibility and finally semantics and metadata. In the case of the UK, the main vocabulary used for listing datasets in the open data port, data.gov.uk, is DCAT.

⁴⁹ <http://www.openregister.org/modelling-register-data>

Technical Interoperability

Public Services Network⁵⁰ is the United Kingdom Government's high-performance network, which helps public sector organisations work together, reduce duplication and share resources.

GovTalk website⁵¹ holds the **Technology Code of Practice**, which sets the standard on the best way for government organisations to design, build and buy technology. One of the main technology requirements set in the code pertains to "**Making things interoperable**" to help promote the exchange of systems and information and build flexible technologies. It provides compulsory open standards to be used in government organisations⁵² to share government documents, for multi-agency incident transfer and cross-platform character encoding profiles, among others. Additionally, it states that data held by systems must be clearly known and defined with identifiers to ensure the systems can be correctly connected. In doing so, it is recommended to use RESTful APIs⁵³. Other practices set in the Code refer to "**Make things Open**", "**Make things secure**", "**Make things accessible**", "**Share and reuse**" and "**Use common government solutions**", among the others.

⁵⁰ <https://www.gov.uk/government/groups/public-services-network>

⁵¹ <https://www.gov.uk/government/publications/technology-code-of-practice/technology-code-of-practice>

⁵² <https://www.gov.uk/government/publications/open-standards-for-government>

⁵³ <http://restfulapi.net/>

Cross-border Interoperability

The UK is a member of **EUCARIS**⁵⁴ and provides vehicle and driving license information for the purposes set out in the EUCARIS Treaty. The UK is a member country of **EULIS**⁵⁵, and is partly connected through its Land Registry.

⁵⁴ <https://www.eucaris.net/countries/united-kingdom/>

⁵⁵ <http://eulis.eu/service/countries-profile/england-and-wales/>

E-Government Public Services making use of Base Registries data

The single access point to public services in the UK (for England and Wales) is called GOV.UK⁵⁶ and is maintained by Government Digital Service⁵⁷. The service information, e-services and forms in GOV.UK have been collected under 16 main topics. In the majority of the cases, GOV.UK does not offer services itself, but rather connects citizens with the right authority and provides specific information necessary to successfully receive the desired service.

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In addition to the services mentioned above, the United Kingdom is also offering a “Tell Us Once” service⁵⁸ through a beta page on www.data.go.uk. It allows people to report a birth or death to most government organisations from this single application, and thus promotes the use of the Once-Only principle.

DATA.GOV.UK Beta
Opening up Government

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Tell Us Once (Unpublished)

Published by Department for Work and Pensions. No licence specified.
Openness rating: ☆☆☆☆☆

⁵⁶ www.gov.uk

⁵⁷ <https://www.gov.uk/government/organisations/government-digital-service>

⁵⁸ <https://data.gov.uk/dataset/tell-us-once>

Best Practices

An interesting best practice identified in the United Kingdom is related to **Platform as a Service (PaaS)**⁵⁹. It is a type of cloud architecture which will allow teams across governments to host applications, services and components efficiently. The PaaS approach for holding applications is two-fold. It can be through a **Government Digital Services** managed platform on which service delivery teams can deploy applications or coding in the open⁶⁰. PaaS removes the need for product teams to build and manage the virtual infrastructure running their applications and allows them to focus on application management.

Another best practice is identified in GOV.UK, specifically the step-by-step description approach in the creation of a registry⁶¹ in cooperation with Government Digital Service. The process is divided into five main phases: **Backlog, Discovery, Alpha, Beta** and **Live**.

1. In the Backlog phase, an organisation needs to request a registry from the GDS, if the request is valid the GDS will accept the registry proposal, upon which a custodian, who will keep the registry up-to-date, will be agreed.
2. In the Discovery phase, the datasets to be contained in the registry will be agreed, followed by a review on how feedback will be collected, as well as how the registry will be updated.
3. In the Alpha phase, the registry must initially fulfil the operational standards and meet the technical standards, upon which the custodian must find data lists published elsewhere that duplicate or contradict the information stored in the newly created registry.
4. In the Beta phase comprises the actions of reviewing feedback from the alpha phase and removing the discovered duplicate data lists.
5. Once the Beta phase is concluded, the registry may go live, whereby the custodian will continue to update the information held in the registry, and ensure that operational and technical standards are continuously met.

Moreover, as registries are used to build services⁶² in the United Kingdom, a **Government Service Design Manual**⁶³ was created to ensure that services are built according to the digital by default standard, and thus are built to be compatible with an environment of interconnectedness. The Manual contains guides and resources for all those involved in creating and building services, including service managers, designers, developers, architects, etc. With the aid of the manual, services should be “built so good that people prefer to use them”. Similarly to the steps needed to create a registry, the creation of services happens in 5 stages, namely the **Discovery, Alpha, Beta, Live** and eventually **Retirement** stage.

⁵⁹ <https://www.gov.uk/government/publications/platform-as-a-service/platform-as-a-service>

⁶⁰ <https://gds.blog.gov.uk/2012/10/12/coding-in-the-open/>

⁶¹ <https://www.gov.uk/guidance/creating-a-register>

⁶² <https://www.gov.uk/guidance/using-registers-to-build-a-service>

⁶³ <https://www.gov.uk/service-manual>