

Report of the Fingal Data Sharing Initiative



Prepared by TEKENABLE for the Fingal Development Board

Fingal Development Board

Forbairt Fhine Gall

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1. ACKNOWLEDGEMENTS

The County Data Initiative Committee wishes to acknowledge the continuing commitment and co-operation of the following agencies and organisations who have been involved in the Fingal Administrative Data Sharing Initiative project.

- Fingal County Council;
- Health Service Executive Northern Area;
- An Garda Síochána;
- County Dublin VEC;
- FAS;
- Department of Social & Family Affairs;
- Blanchardstown Area Partnership;
- Swords Chamber of Commerce;

Particular thanks are extended to Ms. Ann Brophy Chairperson of the County Data Initiative Committee and Mr. Ciarán Staunton an Executive committee member for their continued support and assistance throughout the project and in the production of this report.

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4. GLOSSARY OF TERMS AND ACRONYMS

Term	Explanation
Anonymising	The process to removing details from data records until it is no longer possible to determine which person that data related to
BAP	Blanchardstown Area Partnership
ComReg	The Commission for Communication Regulation
CSO	Central Statistics Organisation
Data Set	Multiple Records of similar data. Analogous to a list.
DCMNR	Department of Communications, Marine and Natural Resources
DED	District Electoral Division – Set by Central Government
DFSA	Department of Family and Social Affairs
Geo-Coding	The process of examining a postal address and determining in which county, DED, Townland it resides and (optionally) at which map grid reference and in future which Post Code it belongs to
GIS	Geographic Information System. A computer system that presents data in the form of maps
REACH	Government agency charged with the development of a strategy for the integration of public services and the development and implementation of a framework for electronic government
SGSES	Steering Group on Social and Equality Statistics

5. CHAIRPERSON'S STATEMENT

It gives me great pleasure to present this report of the Fingal Data Committee. This report has gone through detailed processes of discussion, debate and development within the Committee, within the respective member organisations of the Committee and at a well attended seminar held in February 2006 involving the various stakeholders and national bodies.

The Fingal Development Board has taken a lead role by setting up an advisory Committee in 2004 to work intensively on the issue. I want to thank the Board for supporting the process and enabling the committee to conduct its work in an atmosphere of progress and support. I feel I must personally acknowledge the hard work and dedication of my colleagues on the Committee and the co-operation and support of the agencies they represent.



Ann Brophy
County Data Initiative Chairperson

This report discusses in detail the reasons why data is not routinely reported on a Fingal basis. It also discusses how this situation can be improved. The data deficit in Fingal is one that has presented a number of challenges and blockages to interagency co-operation, service planning and statistical profiling over the last 5 years. Fingal is one of the fastest growing counties in the state, and as such, can least afford not to have good data infrastructure.

The Data covered in this report is administrative data and is drawn from several state agency sources. While this is a beginning point many more sources of administrative data not covered in the terms of reference of this committee should be brought on stream in the future. We also envisage that data providers at national level will improve the extent to which they disaggregate their official statistics on a Fingal basis.

The findings of this report will create excitement for communities, public and civil servants and data professionals who have sought good Fingal Data over the last decade. I believe the report represents ground breaking progress. However, it is only the start of a process and the recommendations section shows that ongoing commitment, creativity and enthusiasm will be needed to demonstrate the real benefits of our work.

A handwritten signature in black ink, appearing to read 'Ann Brophy', written in a cursive style.

6. COUNTY DATA INITIATIVE COMMITTEE

Ms Ann Brophy (Chairperson)

Fingal Community Forum (Baldoyle Family Resource Centre)

Mr Ciarán Staunton (Executive Member)

Fingal Development Board

Mr Aidan Coss

FÁS

Mr Tony Grehan

An Garda Síochána

Ms Orla Treacy

Health Services Executive (Northern Area)

Mr Conor Ryan

Blanchardstown Area Partnership

Mr Kieran O'Sullivan

Co. Dublin VEC

Mr Kevin Hannigan

Department of Social & Family Affairs

Mr Dominic Byrne

Fingal County Council

Mr Tony Lambert

Swords Chamber of Commerce

7. INTRODUCTION

7.1

BACKGROUND AND TERMS OF REFERENCE

Fingal came into being as an administrative county in 1994 as a result of a Local Government re-organisation that is described in the 1991 and 1993 Local Government Acts and resulted in the abolition of County Dublin. The rationale for breaking County Dublin up into smaller territories that underpins these Acts is that there was a dramatic growth in population and under the influence of European Charters and Directives on local self-governance the Government had little choice but to provide much more local democratic structures.

This Act implements the establishment of the Counties as separate from the Councils. Local Government Act 1993 Section 9 (1) "On the establishment day the Administrative County of Dublin shall cease to exist". Local Government Act 1993 Section 9 (2) "On the establishment day the area of the county, as existing on the commencement of section 8, shall stand divided into three administrative counties which shall be coterminous with the area of the corresponding electoral county".

The re-organisation of the Corporate entities which administer the 3 resultant territories (Fingal, South Dublin and Dun Laoghaire-Rathdown) was covered in a detailed "Reorganisation Report" which divided up the logistical delivery of services. There has been ongoing discussion of whether Fingal should be regarded as a County, and this was clarified further by the 2001 Local Government Act Section 10:

"The State continues to stand divided into local government areas to be known as counties and cities which are the areas set out in Parts 1 & 2, respectively, of Schedule 5" (Schedule 5 of the Act explicitly lists 29 counties and 5 cities as existing within the Irish State.)

The Fingal Development Board has been examining the issue of administrative data sharing on a Fingal basis for almost 5 years. In that time several efforts to obtain administrative data from various state and state funded organisations have foundered. Many state agencies maintain detailed databases of their clients that, without breaching privacy protocols, can be examined to get a picture of service use in Fingal. However, because very few of these agencies operate on a shared geographic (Fingal) basis, the accuracy of geographic reporting is very limited. The current postal code system does not assist this situation since Fingal covers parts of what An Post term "County Dublin", as well as some of codes 9, 11, 13, 15 and 17. The post code system is of no practical use to the Fingal Administrative Data Sharing Initiative. In extreme cases the administrative boundaries of the state agencies cover parts of adjacent Counties Meath, Louth, South Dublin and Kildare.

From the point of view of the Board there were at least three systematic efforts to identify and share data in the past six years. Each one of these attempts failed because member agencies of the Board encountered the following problems:

- There was no statutory reason for the various agencies to comply with requests for Fingal specific data;
- It was not technically feasible to extract the data without labour intensive hand searching of databases;
- There were concerns about the position in relation to Data Protection and privacy and without formal clarification the agencies tended to reject requests;
- It was unclear if the board would be the correct forum to analyse data given that it is multi-agency and multi-sectoral.

Nevertheless the following datasets were shared, did not breach data protection standards and did not result in any misinterpretations:

- FÁS, Community Support Programmes;
- Enterprise Ireland, uptake of various supports;
- IDA supported companies, and number of jobs supported.

In the autumn of 2004 the Board decided to set up a sub-committee to re-examine these issues in detail and proposed that the committee could hire external expertise to investigate the problems and find workable solutions. This Committee is called the County Data Initiative and has its own terms of reference.

In June 2005 the County Data Initiative Committee issued a Request for Tender (RFT) to complete a project to:

- Verify the existence of example statistics and contact points for each data item
- Complete a root and branch review of client system capacity in a range of organisations
- Identify methods to overcome geographic reporting limitations of data systems
- All suggested solutions fully describe technology including estimated costs
- Arrival at workable set of protocols for sharing data

TEKenable Ltd. was successful in the tender competition and commenced the project in July 2005.

7.2

WORK PLAN

The following table outlines the key dates and deliverables as set out in the RFT and amended during the project, these dates were extended due to the number of personnel on holiday during July and August.

Milestone	Original Date	Revised Date
Invitation to tender	5th April 2005	
Final Date of briefing documents	15th April	
Tender submission deadline	21st April	
Notification of selection	3rd May	9th June
Inception meeting with CDC	6th May	29th June
Draft 1 report (CDC)	10th June	3rd October
Draft 2 report (CDC)	22nd June	Mid October
Report For Seminar(FDB)	1st July	End October
Semi-public Seminar	24th February 2006	
Final Report Launch (FDB)	June 2006	

After the final decision to go out to tender in April the need to revise the schedule emerged based on the fact that

- (a) The selection process took longer to initiate than anticipated;
- (b) The availability of key people in the July- September timeframe was restricted;
- (c) The Seminar could not be scheduled for the December/January period due to holiday season commitments.

The new schedule was jointly agreed between TEKenable and County Data Committee at the end of June with the assent of the Board.

8. EXECUTIVE SUMMARY

This report covers a number of specific issues that impact upon the ability of organisations in Fingal to share administrative data. The report examines in detail the current capacity of systems maintained by Fingal Development Board and its partners to report administrative statistics on a Fingal basis. It discusses in detail relevant aspects of technology, privacy and confidentiality and the relationship of this initiative to national initiatives, none of which on their own will address the absence of Fingal specific data.

At present the Development Board encounters significant difficulty in undertaking its obligations because of the lack of data available that describes service usage, service provision and demand and demographics on a Fingal basis. Regardless of the needs of the development board a significant opportunity exists to enhance inter-agency service planning and delivery through sharing of data between organisations in Fingal. This report shows how this can be achieved and what steps must be taken to achieve it.

In the course of this project we have met with seven organisations and investigated in excess of 30 systems. Even just considering the example systems which we examined it is clear that there is a wealth of data relating to the Fingal area that would be of significant value and benefit to Fingal if it could be made available to the Development Board. Data sharing should not be limited to the systems examined in this exercise but is a broad agenda and all systems that hold data relating to Fingal ought to be considered for sharing in due course.

There are a series of obstacles to making the data available. It is these obstacles that this report concentrates upon making suggestions as to how they may be removed.

Starting our consideration of the issues with the data we have found that the vast majority of computer systems considered have no in-built understanding or recognition of Fingal as a geographic entity. Most computer systems considered record only a postal address as a means of identifying geographic locations, which, due to the many inadequacies of the present postal code system (Dublin 11, 17 etc), are inadequate to enable reporting on a Fingal basis.

At the most fundamental level, to enable reporting on a Fingal basis it must be possible to distinguish (as easily as possible) which data records in a database relate to Fingal and which do not. For systems that record District Electoral Divisions – DEDs (and there are a few) this is easily achieved as the DEDs can be collected together (aggregated) to form Fingal County. For databases that record only address details the addresses must be analysed and assigned a geographic location such as a DED reference. This geographic location must then be stored on the database

and recorded for new or amended addresses. The analysis of an address and assignment of a geographic location is the process known as “Geo-Coding”. For larger databases Geo-Coding gives rise to the majority of the financial cost involved in enabling reporting on a Fingal basis.

The National Post Code Working Group under the auspices of the Dept. Communications, Marine and Natural Resources is in the process of defining a new Post Code scheme that will identify the location of any given address and enable that address to be associated with a DED and a county. If the proposed National Post Codes were implemented then they would be a near ideal mechanism for enabling reporting on a Fingal basis. As a statutory requirement will be imposed on all state bodies to adopt and use Post Codes (see DCMNR Post Code Steering Group Report) this will drive the Geo-coding of most existing databases and in the process enable the data for reporting on a Fingal basis.

However, while the timescale for the rollout and adoption into general use of Post Codes is not clear it will certainly not drive the short term changes needed to progress the Fingal Administrative Data Initiative. We are therefore recommending that the organisations included in this report begin a programme of change in which their systems are modified to record DED Geo-Codes against addresses and that as far as possible provision be made for the recording of Post Codes simultaneously. Further discussion of this can be found in Appendix A – “Organisation and System Summaries”.

Once data has been Geo-Coded and can be selectively reported on a Fingal basis the first and in our opinion greatest obstacle to achieving the objectives of the Fingal Administrative Data Initiative will have been removed. As organisations complete the work against their computer systems each system may begin to contribute data in turn. It is not necessary to await the completion of all systems before beginning to provide data about Fingal.

At all times in the reports that are generated it is an absolute necessity that privacy and confidentiality of individuals and organisations be preserved. All of the Data Protection and Privacy officers that we met with in the course of this initiative are happy that provided the reports provided are anonymous statistical aggregations of the data they can be freely provided. The legal responsibility for privacy and confidentiality lies with the data providing organisations and not Fingal Development Board but we recommend that all proposed reports should additionally be approved by the Board prior to their provision and use.

Preservation of anonymity is not the only issue that concerns us with respect to the data provided to the Board but the potential for misinterpretation need also be addressed. Some systems we examined hold data that has the potential to be of great value to the Board but is of a nature that is easily misinterpreted. To avoid this we make two recommendations. Firstly, that the data reported to the Board be held and made available in a controlled manner only to those persons and organisations which have a full and proper understanding of that which the data describes. The understanding of the data can be disseminated through the Board by means of clear

explanation by the data providers and an agreement of understanding from the Board. Secondly, we recommend that a “fair-use” policy be established and agreed to set the parameters for how information derived from the data provided can be used and published.

A fair-use policy would include consideration of the meaning of the data and what derivations would be valid and why others would not. It would include limitations on the publication of the data, the audience to which it may be made available and any disclaimer or qualifier that must accompany the publication of any derived information.

Having enabled reporting on a Fingal basis through Geo-Coding of the data and addressed the data privacy and fair-use concerns the next issue that is encountered is the technical problem of how best to extract and provide the data to the Board.

The systems that we examined varied widely in technology ranging from older technologies (generally referred to as “legacy” systems) through to very modern systems, from simple to complex and from systems handling large data volumes through to short lists. The lack of commonality is hardly surprising but does mean that each must be considered individually. Within this report we examine each system and give an opinion of what will be required of the system’s owners to enable it to provide data to the Fingal Development Board and the associated costs. In broad terms each system must be modified to hold Geo-Codes, to be able to identify those codes that reside within Fingal, to generate a data extract of Fingal data, aggregating as necessary to preserve privacy and then to transmit that data to the Board.

Providing that the necessary IT changes have been made there are a number of possible approaches to providing the data to the Board. The easiest to achieve is for each organisation to periodically run an agreed set of pre-defined reports against each of their systems and to pass the results around to the participating Board organisations, perhaps by email or on CD. This is a very manual solution and depends heavily upon individuals. Imposing controls upon the data and performing analysis of that data is an activity that would be both difficult and duplicated amongst each of the member organisations but this solution does require the least work and effort to achieve data sharing.

A number of the organisations that we examined including FÁS and the DSFA have either constructed, or have started to construct a central MIS (Management Information System). This system draws in data from systems within their respective organisations with the specific intention of providing a single, central reporting capability. This is a highly effective planning and management tools for most organisations and a strategy that we fully endorse. Where such a system exists we recommend that it be considered the source of data for the Fingal Administrative Data Initiative. This recommendation arises because in creating the MIS system considerable investment will have to be made in obtaining data from the organisations operational computer systems, investment that would otherwise have to be duplicated to achieve data sharing.

We encountered one organisation that has a body responsible for the extraction of information to inform planning and strategy and others which have a reporting line to a Government department. Where such a body or Department exists they may not have a single central computer system that holds all of the data they receive but they represent a single point of contact from which data could be obtained in respect of multiple systems and we recommend that they should be considered a key source of data.

Once it is accepted that Fingal data can be extracted from the various systems under consideration the next challenge to be addressed is the controlled circulation and presentation of that data. Data could be provided to each and every member organisation by each member organisation but this would be lacking in control and would be a significant manual process. While it would achieve the basic objective of sharing administrative data it has to be recognised that the publication, control, storage, analysis, presentation and maintenance of the data would be processes and effort duplicated by each of the participating organisations. A better model, and the one we recommend, is that the data be provided to a centralised repository or "Data Hub", owned and operated by the Fingal Development Board on behalf of its member organisations. The Hub is more than just technology but is an embodiment of the Fingal Data Initiative providing a Group Purchase Scheme for Geo-Coding, Policies for Data Usage, Guides to Data Interpretation, Access to representatives from the data providers and of course the technology to glue it all together. Data is provided once to the Hub from each participating organisation and is available from the Hub to all participating organisations. The Data Hub will eliminate the duplication of effort inherent in the approach just described above and hence realise substantial cost savings for each of the participating organisations. While the cost of Geo-Coding and IT changes remain essentially the same for each organisation between the two approaches the cost of distribution of the data is minimised, appropriate controls can be applied centrally and hence consistently and investment in potentially costly analysis software can be at least shared if not completely avoided. Furthermore, by centralising the data each organisation can guarantee that the data they are using is the most recent available and receive updates with no additional effort.

It must be made clear that no personally identifying data would be provided to the Data Hub, only anonymous data.

If it is accepted that a central hub represents the best approach to the control and publication of data then the next issue to be considered is what analysis services that hub could or should provide to the Board members. In order to be truly useful the data will need to be combined and data from individual contributors compared, contrasted, overlaid, visualised and plotted as historical trends. Because the data relates to geographic areas this is in our opinion best achieved through a centralised, World Wide Web accessible GIS (Geographic Information System). Fingal County Council are currently working with just such a GIS system and are open to the idea that it may form the analysis service for the Data Hub.

We recommend that the Board begin to integrate systems that currently hold DED Geo-Codes on a trial basis with the Fingal County Council GIS system and publish the resulting maps to member organisations via a restricted access web site. Initially this could be achieved with the CCSDATA system in use within Fingal County Council for tracking Community, Culture and Sports groups. Provided that the pilot is undertaken keeping the wider objectives in mind we believe that it will prove a useful pilot and starting point for growing the Data Hub.

The costs of establishing the Hub are a combination of the cost of the provision of the Hub itself, its computers, database, GIS system etc, the cost of changing the Hub to accept each new data set and the costs of the data providers incurred in providing the data. For the pilot we estimate that the Hub can be built for around €10,000 (to be borne by the Development Board), €1,000 for each data set incorporated into the Hub (whether the Development Board or the data holding organisation bears this specific cost is a matter of policy for the Board to agree) and the cost of the data providing organisation in changing their systems and Geo-Coding their data. The estimated costs to the organisations concerned can be found in section Appendix A – “Organisation and System Summaries”.

Beyond the pilot stage the Hub will require some additional investment to create a fully functional Web portal. The Web Portal will identify users, enforce access policies, provide text descriptions of the data sets and facilitate access for Board members and optionally the general public. The Web Portal addition to the Hub will incur costs probably in the region of €20,000-€30,000 but provided Fingal County Council is willing to allow its existing database servers and GIS system to act as the Hub infrastructure little additional costs should be required. It is clear that the Hub concept is both economic and achievable.

As organisations become capable of reporting on a Fingal basis their systems can be linked to the Data Hub and the value of the Hub increased at an incremental cost but with exponential increase in shared value.

It is clear that with an EU Directive to require member states to establish a Spatial Data Infrastructure approved in Draft form and scheduled for full approval in 2006 that the provision of Administrative data for analysis will be a legal requirement in future. The proposed Data Hub is expected provide a substantial level of compliance with the Directive (in so far as can be foreseen before its final publication).

Despite the many drivers of the data initiative and the demonstrable benefits of a data sharing strategy benefits will not be realised without a guiding hand a local level. We are therefore recommending that the Development Board constitute a committee charged with the implementation of the recommendations in this report to continue the progress made to date and maintain the momentum that has been built.

The remainder of this report develops the findings and recommendations made above in more detail and includes some less significant findings and recommendations.

9. FINDINGS

The Fingal Administrative Data Sharing Initiative is in our opinion a quite unique example of inter-organisational cooperation. The objectives are well supported by its participants and the benefits are clear. While the Initiative is ambitious and there are hurdles to pass we believe that it is completely achievable. We have deliberately focused in our findings below on hurdles but we also provide workable solutions in the “Recommendations” section of this report that will enable Fingal Development Board to pass these hurdles and deliver on the promise of an integrated information system for Fingal.

This section of our report documents the issues that we feel are the most significant and generic. It is not concerned with specific systems (these are considered elsewhere in the report) or matters arising from one or two systems alone but broad-brush issues that must be resolved in order to deliver usable information to the Fingal Development Board. In some cases we may indicate possible resolutions but these are mainly reserved for the Recommendations section of this report.

9.1

FINDING ONE – WILLINGNESS TO SHARE

Organisations are Willing to Share Data

Without exception all persons and organisations we have spoken to have been open to the idea of data sharing and willing to cooperate with the Fingal Administrative Data Sharing Initiative.

Some concerns have been expressed as to the whether the Data Initiative will require direct access to computer systems for data extraction and hence what controls will be required. Concern has also been expressed as to the amount of manual effort and costs that would need to be incurred to participate.

9.2

FINDING TWO – DATA QUALITY

Data Quality is High

Except for a small number of systems in which the address details are of little consequence to the users of the system and hence are not well maintained, the data quality was found to be high. In general the systems exist to fulfil a real business/organisational need and this is recognised

and respected by the users, leading to good data quality and effective processes for maintenance and review of the data.

It has to be noted that just over 20% of the data sets examined were only fully updated annually or bi-annually as part of a scheduled review process with a lower level of updates applied between these reviews. In such datasets the data is accurate on completion of the update but becomes progressively less so over time until the next review.

9.3

FINDING THREE – GEOGRAPHIC ISSUES

Geography and Confidentiality Conspire

There are two issues that above all others combine and conspire to make data sharing a challenging initiative. The two issues are the lack of geographic location information in the data and the privacy and confidentiality constraints placed upon it. These are both substantive issues that have prevented the extraction and release of data in the past.

Few agencies outside the remit of the Department have adopted Fingal in their administrative geography, although there are some exceptions including the County Childcare Committee, Fingal County Enterprise Board, the Revenue Commissioners, the Citizen's Information Centre and Fingal Sports Partnership. It should be understood that the pace of administrative boundary change is a slow one in Ireland and while there are these examples there is no compelling reason for organisations to change their boundaries so long as they are adequately resourced to deliver the services and discharge the responsibilities set on them from the Centre.

The data covered in the scope of this project is overwhelmingly data to do with service-use. While the Fingal Development has been consistent in arguing for the adequacy of local services given the rapid growth of the county, some services will continue to be delivered on a Dublin Regional rather than a county basis. The geographic element of these data are dominated by the 'point of access', which will involve people crossing administrative lines to avail of these services.

In order to select Fingal relevant data, visualise it and analyse it each individual record of data must be associated with a geographic unit in Fingal. The geographic units need to be large enough to preserve privacy but small enough to support analysis within Fingal and not simply make a statement about Fingal as a totality.

In the vast majority of cases the data we examined held no location information beyond a postal address, there are no location indicators (Post Codes, DEDs, Townlands etc) that are in common use.

Few of the systems examined outside of Fingal County Council incorporate the concept of Fingal as a county into their data.

Data sets will be available in the form of “point” data (specific locations such as post offices or Youth Clubs) and as region based statistics (“Thematic” statistics) that may be delineated by any number of types of boundary including Health region, County, Electoral division, Community care areas, Hospital catchment areas, Local authority areas, Postal area, Gardaí Divisions etc. The graph below shows the coding schemes that were found to be in use in the data we examined:

Geographic Coding Schemes

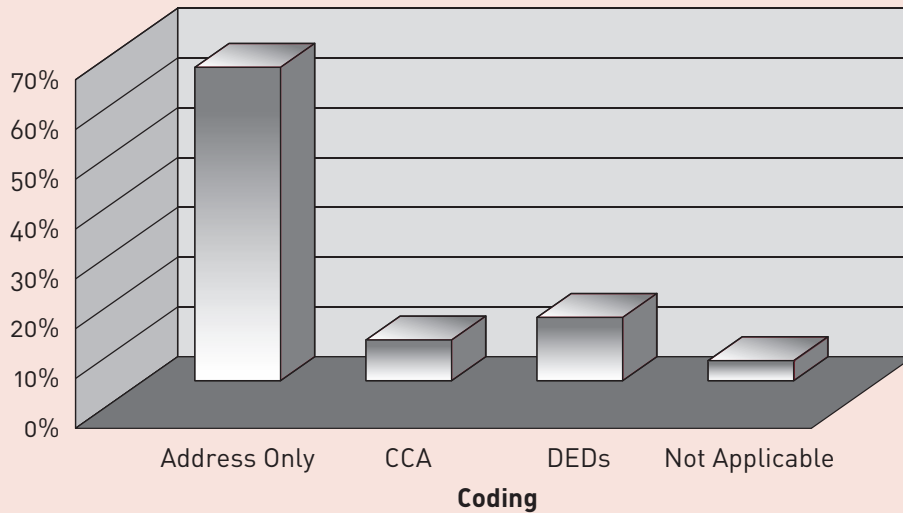


Figure 1 - Geographic Coding in Examined Systems

As can be clearly seen above the vast majority of Geographic coding in use is “Address Only” i.e. no Geo-Coding. For these databases in order to associate a specific data item with a geographic unit within Fingal it will be necessary to take the address details, compare them with a national database such as the Geo-Directory from An Post and hence determine the region in which the address is located.

The privacy issue conspires here by preventing the data holders from providing the address data to Fingal Development Board.

The maps illustrate some of the boundaries that are in use:

9.3.1 Gardaí Divisions and Fingal Boundary

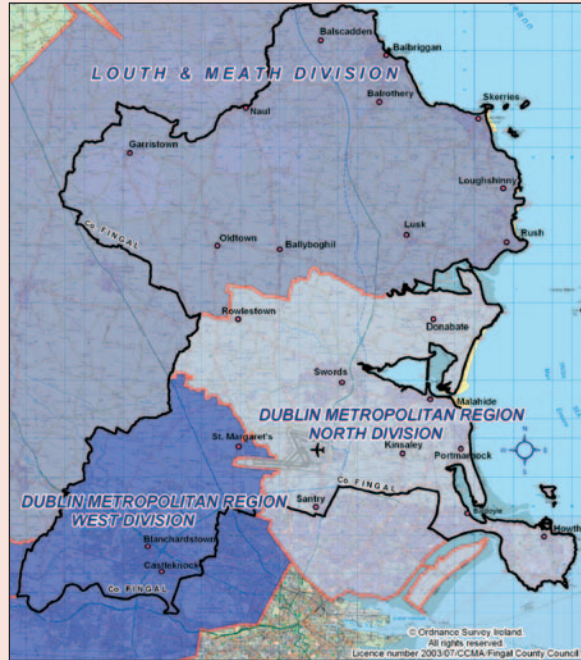


Figure 2 – Gardaí Division and Fingal Boundary

9.3.2 DSFA admin area and Fingal County Boundary



Figure 3 – DSFA and Fingal Boundaries

The lack of homogeneity of geography between organisations means that the Fingal Administrative Data Sharing Initiative will have to find a way of either normalising the data to a standard set of boundaries or dealing with the lack of coincidence of boundaries.

9.4

FINDING FOUR - ISSUES OF CONFIDENTIALITY AND PRIVACY

Confidentiality and Privacy must be Respected and Protected

The graph below shows the relative sensitivity of the information held in the systems we examined:

Data Sensitivity

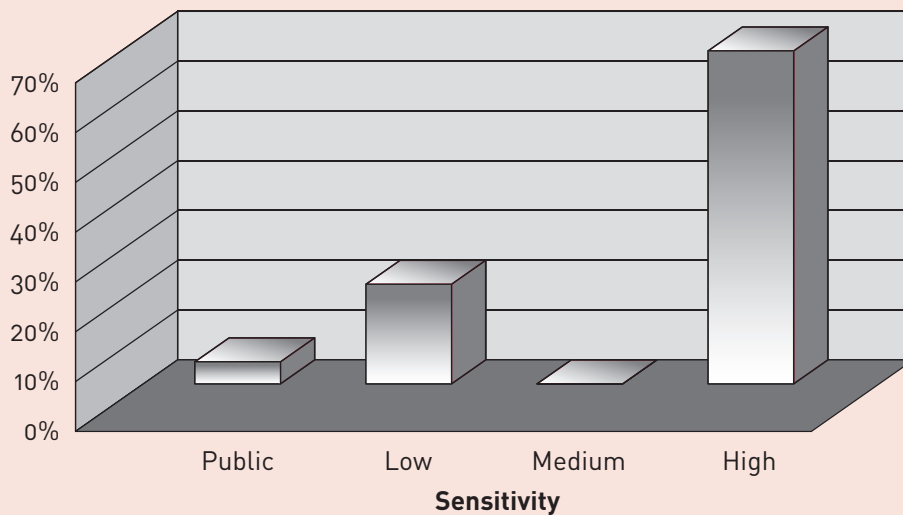


Figure 4 – Data Sensitivity

It can be clearly seen that there is a large body of highly sensitive information.

The Data Protection Act exists to provide a basic regulatory framework to ensure that the privacy of individuals is respected and safeguarded by organisations that keep data about them. The act requires that persons from whom data is collected be informed as to the purposes for which that data may be used and that their permission sought for that use.

None of the systems that we have examined have included permission for such raw personally identifying data to be provided to Fingal Development Board and as the Development Board represents a wide range of organisations the Data Protection Commissioner would almost certainly regard any such provision of data (even with permission) to be uncontrollable and hence unsafe.

The Development Board does not seek to obtain raw personally identifying data about individuals for two reasons:

1. It is inappropriate that the Board should seek or hold such data from a privacy perspective;
2. The data is not statically meaningful and analysis at the level of an individual does not yield information that will inform the Board in its remit of service planning and co-ordination.

It is permitted under the Data Protection Act that personal data be summarised and presented as statistical facts provided that confidentiality and privacy are safeguarded i.e. no individual or small group of individuals can be identified from the statistics.

It is difficult to anonymise data. Simply removing references to name and address is not always adequate. For example, the Teagasc Farm Survey is published annually and contains details of farm income, efficiency and other sensitive details. Data about specific farms is obscured through publishing only aggregated statistics but if there is only one farm in a specific region and the statistics show 200 head of cattle, 50 sheep and 50 acres of arable land in that region then that farm could be identified by persons with local knowledge. Once identified that farm's income band could then be determined from the report's statistics.

It is the presence of multiple items of potentially identifying data that makes identification possible. The greater the number of data attributes in the data set the greater the potential for identification.

It is imperative to the success of the Fingal Administrative Data Sharing Initiative that privacy not only be safeguarded but be seen to be safeguarded.

9.5

FINDING FIVE – INTERPRETATION

The Consequences of Misinterpretation

A major concern that emerged from the data holders is that if they provide data to the Board will it be interpreted correctly and how widely will it be made available?

It is clear that some data sets while very relevant and applicable to this project, are easily misinterpreted. Any misinterpretation could reflect negatively upon the providing organisation and Fingal and undermine the very planning and decision making process that the data is intended to support. The more widely the data is distributed the greater the risk of misinterpretation.

Data that is difficult to interpret is usually so because it is narrowly defined, incompletely describes Fingal or has filtering criteria that are not obvious to the casual observer. These are expanded further in the sub-sections below.

9.5.1 Narrowly Defined Data

Data that is narrowly defined is well defined and useful in the context for which it is gathered but

may have limited applicability in the wider Fingal context. An example may be the FÁS Community Employment scheme data which indicates the social welfare status and project membership of individuals. The entry criteria for such projects is well defined and the data is clearly highly useful to FÁS but represents a very narrow data set for use in a Development Board context as it covers a very small percentage of the population of Fingal.

9.5.2 Completeness of Data

Completeness is an issue for some of the FDB participant's data sets, the Blanchardstown Area Partnership for example, as the name suggests has good data relating to the Blanchardstown area but does not hold data relating to the whole of Fingal. While it may be obvious in this example it is not always obvious that this is the case, particularly when administrative boundaries for the organisation do not coincide with the Fingal county boundaries. Care is needed in dealing with such data sets to ensure they are not interpreted as providing complete coverage and incorrect conclusions drawn.

9.5.3 Filtering Criteria

A good example of filtering criteria is the data from the VEC that relates to applications for 3rd level grants. The data set is very detailed including details of the applicant, the institution at which they wish to study and the course(s) they wish to pursue. This is very valuable information and could easily be interpreted as representing demand for 3rd level courses. This would however be wrong. The application forms and supporting material make it clear that there are qualification criteria that must be met in order to receive a grant. These criteria will ensure that some persons will not apply as they can clearly see that they will not qualify. Hence, the grant applications data will understate the demand.

The qualification criteria are complex and so it is not easy to understand the manner in which demand is understated and hence to interpret the dataset.

9.6

FINDING SIX – TECHNOLOGY

Multiple Technologies In Use = Multiple Different Problems of Modification and Data Extraction

The systems range from "Electronic Paper" such as Excel Spreadsheets through "Personal databases" such as Microsoft Access up to "Enterprise Systems" such as DB/2, SQL Server or Oracle databases. The lower scale systems tend to have extremely limited accessibility for automated extraction of data and limited or no reporting capabilities. The higher end systems tend to be better served with reporting capabilities and to be more accessible electronically. This is of course a generalism but in our experience, a good guideline.

The two main issues involved in data acquisition are the level of accessibility and the nature of the underlying technology. The graph overleaf shows the distribution of underlying technology amongst the systems.

Underlying Technology of Examined Systems

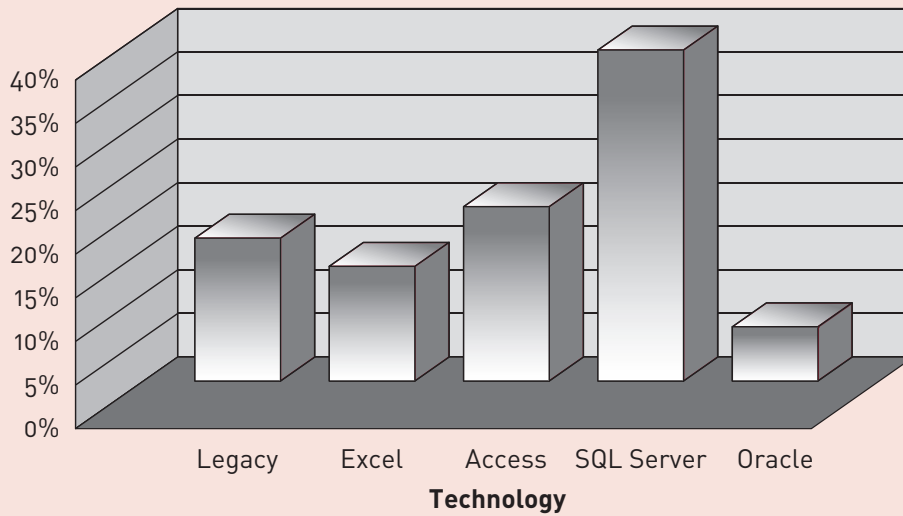


Figure 5 – Types of Technology in use

Ironically, while the “Electronic Paper” type systems are least accessible from an automated point of view, they are the most accessible to end-users and as such the Board has had most success to date requesting data from such systems as the users are able to manually extract and prepare it.

As can be seen from the graph above a considerable number of systems are in the class of “Electronic Paper”, which make them the least accessible systems.

It can also be seen from the graph that there is a significant technical challenge to be addressed to access the data held within the examined systems due to the lack of homogeneity across them.

9.7

FINDING SEVEN – PRESENTATION

No Mechanism for Data Presentation Currently Exists

The Fingal Development Board currently has no mechanism which would support the visualisation and analysis of data provided by Board members that would be suitable for use by the members. A shared, centralised system is indicated but no such system is currently in place in either the Board or the member organisations.

This report concentrates on the identification and collection of data relating to Fingal but there is little point in collecting data unless serious consideration is given to how that data could be usefully presented. The Fingal Development Board comprises many member organisations, all of which are potential consumers of the collected data. Additionally, some extracts of limited presentation may be made available to the general public or to interested research and academic institutions in the future.

It is obvious that the data must be published in some form but what is less obvious is that in order to be truly useful the data will need to be combined and data sets from individual contributors compared, contrasted, overlaid and plotted as historical trends. Such manipulation is only practical if the data publication mechanism is both centralised and easily accessible to all parties (with appropriate controls). Such a requirement is strongly suggestive of a centralised, web based GIS (Geographic Information System).

Data can of course also be presented in the form of graphs and in tabular form but such datasets are hard to interpret and we strongly content that the real value of the Fingal Administrative Data Sharing Initiative will be the ability to combine disparate datasets to provide an integrated view that was not previously available.

Data sets will be available in the form of “point” data (specific locations such as post offices or recycling centres) and as region based statistics that may be delineated by any number of types of boundary (See “Geographic Considerations” below). The analysis and interpretation of such data sets, particularly where they do not have coincident boundaries is most easily facilitated visually.

9.8

FINDING EIGHT – TIMING OF DATA

The Data Providers Use Differing Time Frames for Data Capture

There is no universally accepted timeframe in use across all organisations against which data is collected. Some systems collect and update data continuously and some have periodic reviews of data according to an annual cycle. This is an issue as without synchronisation it is harder to draw a meaningful comparison between the data sets.

Time Frame of Data

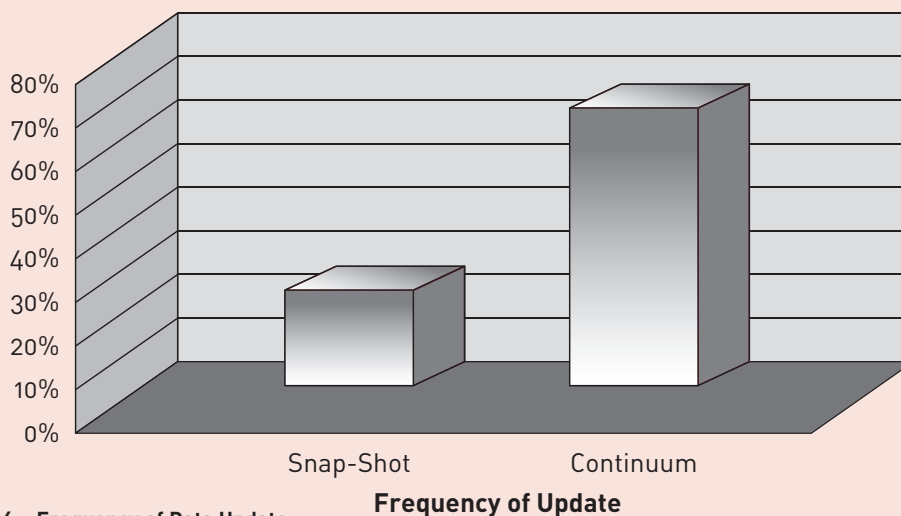


Figure 6 – Frequency of Data Update

While there is a relatively low number of systems that are based on data snap-shots they do represent a problem.

10. RELEVANT NATIONAL INITIATIVES

10.1

TAOISEACH'S RESPONSE TO REPORT OF SGSES

The SGSES is the Steering Group on Social and Equality Statistics. The SGSES have published a report ("Report of the Steering Group on Social and Equality Statistics, National Statistics Board, Government Publications April 2003") which is supportive of the Fingal Data Sharing Initiative. We have reproduced in Appendix D – "Taoiseach's Response to SGSES Report" a small sample of the Taoiseach's response to the publication of this report that shows a clear and unambiguous recognition of the need for government departments and agencies to adopt a consistent system of Geo-coding in order to enable the effective analysis of published statistical data. This demonstrates clear support at the highest level for the objectives of the Fingal Administrative Data Sharing Initiative and promises that in years to come the task of obtaining and analysing information arising from government will become easier.

Supporting material can be found at <http://www.maryhanafin.ie/s&estats.htm> and a press release relating to the launch of the report can be found at http://www.nsb.ie/press_statements/NSB%20Press%20Statement,%20Developing%20Irish%20Social%20and%20Equality%20Statistics.pdf

10.2

POST CODES

The National Postcode Working Group are now meeting under the auspices of the Department of Communications, Marine and Natural Resources to begin the process of designing and implementing a postcode system which will now cover the entire country. This initiative represents a significant opportunity for Fingal Development Board and its member agencies if, as ComReg have recommended, Local Authority boundaries are respected by the postcode. It should be pointed out that the postcode merely has to designate a letter OR digit to Fingal in order to make Fingal data queries much easier in the future. This sort of integration of addresses and official statistical services tends to be what is provided in other EU countries, e.g. the HMSO in the UK disaggregates the Census to a postcode level and still retains geo-privacy.

At its most base level, provided that the Post Code system creates a coding scheme that can be aggregated to the county, whether it be through the allocation of an identifiable letter, digit or through the provision of a list of postcodes and their associated County, DED and Townland as a

database it is clear that this initiative has much to offer Fingal Development Board. It is also clear however that a simple, readily identifiable letter or digit signifier for Fingal in the postcode would not only support the County Identity objectives but would represent the lowest complexity and lowest cost mechanism for enabling Fingal based reporting from the systems that we have examined.

Whether a new postcode will influence postal delivery services is a matter of contention and it remains to be seen if there will be any substantive improvement in that system. Nevertheless, there is a broad consensus that there are a great many benefits in having a new address system, including increased competitiveness, emergency service responsiveness and (most relevant for this report) better local statistical and demographic profiling for service planning (see p.6 of the Postcode Working Group report to Minister Noel Dempsey). This objective aligns perfectly with that of the County Data Committee and the Board generally.

The report to Minister Dempsey goes on to identify that among others the Government Departments and State Agencies will have a key role in the dissemination and reinforcement of the new postcode for the public and that they will be asked to change their databases “BEFORE the formal launch of the scheme” (p.24). The report also says, and TEKenable concurs, that this might involve significant IT costs up-front in updating both the underlying technology and the data within their databases. From the data systems encountered in this project TEKenable would like to point out the following:

1. The class of systems that we have described as “Electronic Paper” in this report will be the most easily modified due to their low complexity, accessibility for modification by the end users and lack of integration with other systems. Conversely, the Enterprise class systems will be the most difficult to modify due to their complexity, need for specific IT skills and independency with other systems. Of the systems examined to date roughly 60% are classed as Enterprise systems.
2. There are a number of “Legacy” systems for which the both the technology skills and understanding of their construction needed to make modifications may no longer be readily available. Such systems will have to be either exempted from the Post Code rollout or replaced. 20% of the systems examined in this report fall into the “Legacy” class and may suffer from these problems.
3. It is not possible to quantify IT costs as this is highly dependent upon the complexity of the system, the charge structure of the chosen vendors and the urgency with which changes are required. However, we have included as Appendix C of this report an indicative set of costs for the IT changes in the systems that we have examined.
4. The replacement of legacy systems with no currently available IT skills or functional knowledge is a sensible IT strategy regardless of the issue of Post Codes so TEKenable would not regard this as a cost arising from the Post Code initiative.
5. It is our belief that the greatest potential cost is not that of the IT changes but could arise from the addition of Post Codes to existing address data if not dealt with appropriately.
6. If each system owner was to contract with a Geo-Coding provider to determine the post codes for their existing data records then a very significant initial cost and a lower but

significant ongoing cost will be incurred. The proposal that we make for a Fingal Data Hub in this report will substantially reduce that cost for all involved by providing a state facility for the Geo-Coding of addresses. The Data Hub will require one license for the Post Code directory, one set of software and one set of personnel to operate it, centralising and sharing the costs over many departments and agencies.

7. We have recommended in this report that the Fingal Data Hub provide the capability to code any address, not just those from Fingal County and in so doing provide a valuable resource at little additional cost. This also recognises the reality that data providers will not be able or willing to code only the Fingal related addresses from their databases.
8. If, as suggested above, Fingal is a recognisable entity in the postcode scheme, all systems will be able to report on Fingal by grouping the relevant postcodes easily.

At the time of changing data systems to record a Post Code we submit that it may be appropriate to also change the structure of the addresses held to match an agreed national standard. All the systems we examined used different structures for addresses as a result will be unable to use a Post Code database to “auto-fill” an address from a Post Code. In the U.K. most major institutions ask callers only for their Post Code and House number/name, the remainder of the address is automatically completed from a national Post Code database speeding data entry and reducing errors. This is only possible if address structures are standardised in the data systems and this ought to be undertaken at the same time as Post Code changes are made to minimise cost and disruption.

10.3

IRISH SPATIAL DATA INFRASTRUCTURE (ISDI)

In the March 2002 New Connections Action Plan issued by the Irish Government it was stated that a National Spatial Data Infrastructure should be established for Ireland.

In November 2002 the Department of Environment, Heritage and Local Government was appointed by the government to take the lead role in developing an Irish Spatial Data Infrastructure (ISDI). Since this time the Department has undertaken a number of initiatives, including establishing an ISDI Work Group which provides specialist advice and comment, holding a seminar on ISDI for all government departments and selected government agencies, establishing reporting procedures from the ISDI Work Group through the National Spatial Strategy (NSS) Inter-departmental Implementation Committee to the Cabinet Sub-committee on Infrastructure and PPPs.

The ISDI Work Group comprises representatives from Ordnance Survey Ireland (OSi), Land Registry, Local Government Computer Services Board (LGCSB), Central Statistics Office (CSO), the Department of the Taoiseach and academics with knowledge in the field. The ISDI web site () sites the following as current difficulties and problems in the Irish context:

- Lack of adequate funding arrangements;
- No coherent overall policy framework, a matter which is currently being addressed;
- Fragmented data bases containing data which can not be seamlessly combined;
- Lack of an integration mechanism such as an ISDI Internet portal;
- Institutional issues and unresolved questions, including the balance between public good and the rights of the individual to privacy and suitable frameworks for protecting intellectual property rights (including copyright) while at the same time ensuring appropriate levels of access to information;
- Lack of a data sharing culture;
- Maintaining interest and support.

The ISDI is anticipating the approval in 2006 of an EU Draft Directive that **will require EU member states to establish an SDI and participate in the EU wide SDI**, the INSPIRE initiative (<http://inspire.jrc.it>). INSPIRE is a reality with the Draft Directive already approved (July 2004). The INSPIRE initiative (and the ISDI) sets out a small number of data sets that it regards a core and of highest priority, these include Health, Crime and Education which are of course also core to the Fingal Data Initiative.

10.4 REACH

A case has been made that the REACH initiative would be well placed to undertake the role of the Data Hub. It certainly has appropriate technology for storing and handling personal data. However REACH's objective is to enable the effective provision of Government services to the general public, it has not been designed as a Data Sharing infrastructure of the sort envisaged by this report and has no remit or capability (at present) for the analysis of data it holds in the manner desired by the Fingal Development Board. Furthermore, the REACH initiative does not provide for access to data for non-state organisations which would exclude a number of Fingal Development Board members. While there are similarities in the sense that REACH accumulates data from multiple parties REACH is not a suitable vehicle for this initiative.

11. RECOMMENDATIONS

In order to meet the objectives of the Fingal Administrative Data Sharing Initiative it will be necessary to Geo-Code the majority of data (some is already coded), establish appropriate controls to safeguard privacy and confidentiality, make the data available from a central managed location and provide the capability to analyse it using advanced GIS tools. The recommendations below establish a framework for this.

11.1

INCORPORATING GEOGRAPHY IN THE DATA

At the most fundamental level, to enable reporting on a Fingal basis it must be possible to distinguish (as easily as possible) which data items in a database relate to Fingal and which do not. For systems that record DEDs (and there are a few) this is easily achieved as the DEDs can be collected together (aggregated) to form Fingal County. For databases that record only address details the addresses must be analysed and assigned a geographic location such as a DED reference. This geographic location must then be stored on the database and recorded for new or amended addresses. The analysis of an address and assignment of a geographic location is the process known as “Geo-Coding”. For larger databases Geo-Coding gives rise to the majority of the financial cost involved in enabling reporting on a Fingal basis.

There are two ways to approach the Geo-Coding of addresses. Large data sets can be submitted to a bureau service for coding and return or, for smaller datasets, the dataset can be inspected and a location code assigned manually.

To complicate matters there are many possible Geo-Codes that can be assigned to any given location. The Geo-Code could be the Townland in which the location exists, the DED, the County or even a grid-reference or GPS (Global Positioning Satellite) reference which identifies the location to within 10 square meters.

As a statutory requirement, the new National Post Codes will be imposed on all state bodies to adopt and use. This will drive the Geo-coding of most existing databases and in the process enable the data for reporting on a Fingal basis. If the new National Post Codes were imminent then they would be a near ideal mechanism for enabling reporting on a Fingal basis.

However, while the timescale for the rollout and adoption into general use of Post Codes is not clear it will certainly not drive the short term changes needed to progress the Fingal

Administrative Data Initiative. We are therefore recommending that the organisations included in this report begin a programme of change in which their systems are modified to record DED Geo-Codes against addresses and that as far as possible provision be made for the recording of Post Codes simultaneously.

Once data has been Geo-Coded and can be selectively reported on a Fingal basis the first and in our opinion greatest obstacle to achieving the objectives of the Fingal Administrative Data Initiative will have been removed. As organisations complete the work against their computer systems each system may begin to contribute data in turn. It is not necessary to await the completion of all systems before beginning to provide data about Fingal.

As this is a wide ranging and complex area we make a number of recommendations. Each recommendation is detailed in the sections below.

11.1.1 Support for Post Codes

Encourage and Support the Post Code Initiative

The widespread adoption of a Post Code scheme, especially one that makes specific provision to identify Fingal County, will provide solid bedrock upon which the County Data Initiative can stand by removing one of the main barriers, lack of geographically coded data.

It has to be recognised however that this recommendation will not provide benefits in the short or medium term but the universal adoption of Post Codes, provided the scheme is competently designed and effectively implemented will greatly support the objectives of the Fingal data Initiative and is therefore worthy of support and encouragement.

11.1.2 Adoption of DEDs as Standard Geo-Code Unit

Adopt District Electoral Divisions (DEDs) as the standard for Geo-Coding of data

We recommend that District Electoral Divisions (DEDs) be adopted as the preferred means of sub-dividing Fingal and that all data items (where possible) be mapped to specific DEDs.

DEDs are the spatial code used by the population census and hence will map well onto the large body of demographic data available from the CSO. DEDs also have the characteristic of normalising population density (areas of dense population have many DEDs, areas of sparse population have few DEDs) which facilitates a per-capita comparison of data more easily. The boundaries of Fingal follow the boundaries of DEDs (see map below):

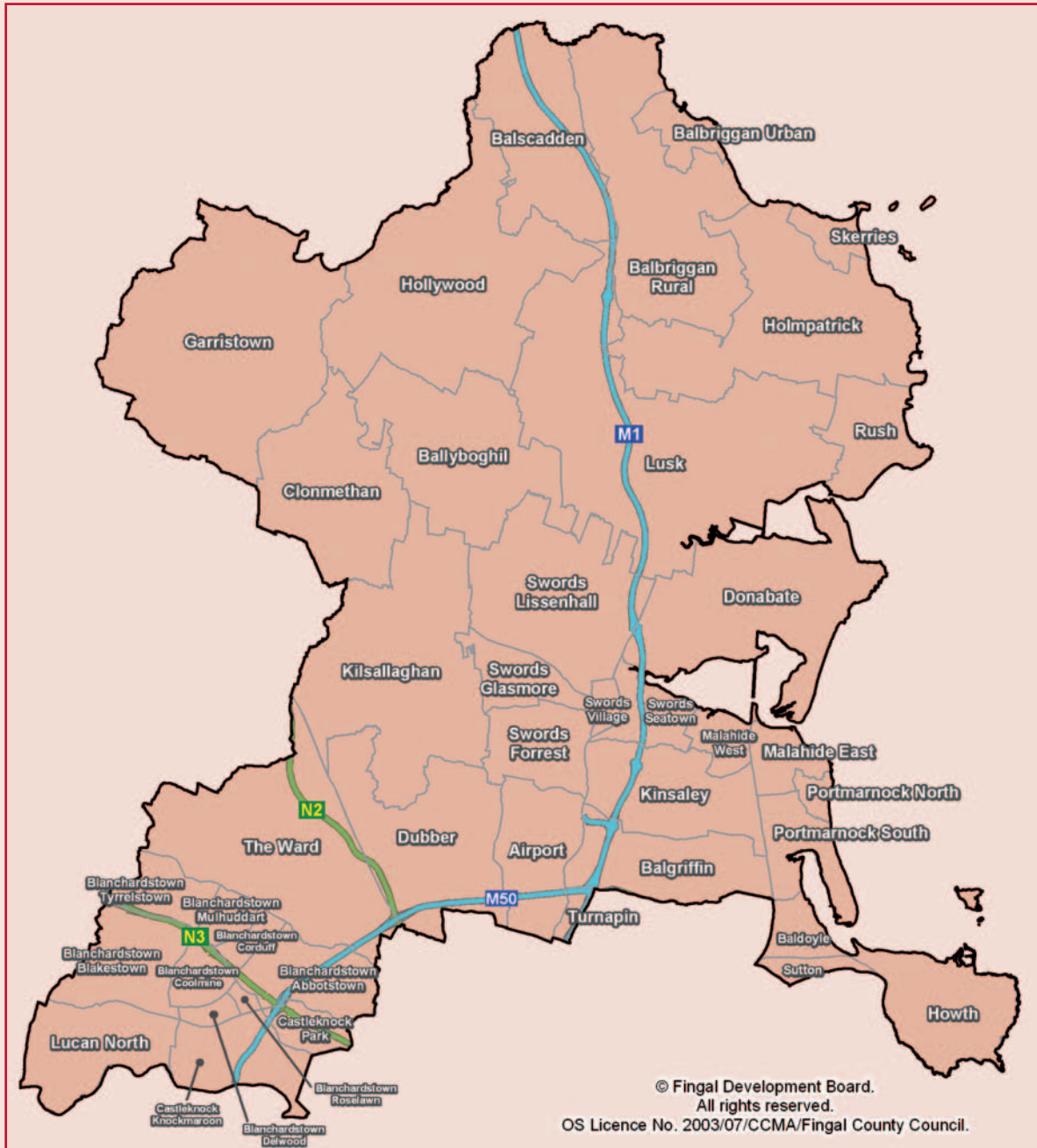


Figure 7 – Fingal Maps to DED Boundaries

Some of the data already uses DEDs as an underlying geographic coding scheme and these data sets can be used without further manipulation. The majority of data sets however have only postal addresses as the geographic indicator. For these the data will need to be Geo-Coded. There are a number of companies that provide a Geo-Coding service whereby they accept a file of addresses and return that list annotated with the DED associated with the address.

11.1.3 Provision of Geo-Coding

Establish or Engage an Independent Body to Geo-Code Address Data and handle Data Sets on behalf of Fingal Development Board

The Data Protection Act does provide a potential solution to the privacy and confidentiality issues by defining a “Data Processing Agent” who can handle sensitive data on behalf of the data holder for tasks such as Geo-Coding.

We recommend that the Fingal Administrative Data Sharing Initiative establish a contract with an independent body which will act as a Data Processing Agent to receive address data from multiple data holding organisations, assign DEDs to each address and then facilitate the data holder in providing anonymous data sets to the Fingal Administrative Data Sharing Initiative. There are two ways in which this may be achieved, the full data sets can be provided to the independent body for geo-coding, anonymisation and onward transmission to the Board or, only the address data is provided, geo-coded and returned to the data holder, who then generates the anonymous data sets for the Board.

The latter solution is better suited to holders of sensitive data (e.g. Disabilities). The former solution is suited to less sensitive data (e.g. Youth Club locations).

We have obtained indicative pricing from one service provider for Geo-Coding to DED level:

1,000 records:	€550 (Minimum cost)
5,000 records:	€2,150
10,000 records:	€4,150
50,000 records:	€7,500
Above 50,000 would be customised pricing.	

The prices assume that the data provider does not have a Geo-Directory license, an approximate allowance of €0.05 per record can be deducted if a license is held.

In the experience of this particular provider 8-10% of records cannot be Geo-Coded due to spelling errors, incorrect or incomplete addresses but this is of course highly variable from system to system.

11.1.4 Group Purchase of Geo-Coding Services

Consider making the Geo-Coding Service Available to all State or Semi-State Organisations that contribute data

It is quite clear that there is a need for a Geo-Coding service in the short term. Such services are available commercially from at least two companies that we are aware of but it may not be feasible for a small organisation to fund the cost of Geo-Coding.

We believe in the interest of fairness that there is an opportunity for the Development Board to provide a service to the smaller Board member organisations to share costs through the provision of a Group Geo-Coding Scheme. It is likely that this would take the form of a group purchase agreement rather than actually building and staffing a Fingal Development Board Geo-Coding service. That said, Fingal County Council has the necessary licenses for the An Post Geo-Directory for the Fingal region which combined with a small software development and a part-time staffing commitment could provide an FDB Geo-Coding service if the members believe it to be warranted.

The cost of providing the service from FDB would be in the region of €20,000 for the software (once off cost) and €15,000 for a part-time administrator per annum. Additional costs would apply if addresses outside of the Fingal region were to be Geo-Coded as additional licensing for the An Post Geo-Directory would be incurred.

Given the data volumes under discussion from the smaller providers it is clear that a Group Purchase arrangement would be more appropriate than trying to provide the service directly unless the larger data holders were to participate. This is beyond the scope of this report and a matter for discussion within the Board.

11.2

PROTECTION OF PRIVACY AND CONFIDENTIALITY

At all times in the reports that are generated it is an absolute necessity that privacy and confidentiality of individuals and organisations be preserved. The Data Protection Act requires this and the privacy obligations of the data holding organisations must be respected. Privacy cannot be ensured in all cases through the simple removal of name and address information from the data. It is necessary to consider a number of factors including how specific and detailed the data is and how large a volume of data is provided.

There is no golden rule that can be applied to ensure privacy but the CSO has developed a guideline that if a DED contains fewer than six instances of that which is being reported and the information is considered sensitive (such as salary bands or disabilities) then privacy could be compromised. Our recommendation is that each report should be examined with a view to privacy issues and the level of detail reduced as necessary to prevent inadvertent disclosure. In the course of writing this report we have sought an opinion from each of the Data Protection and Privacy officers of the organisations as to the implications of the Fingal Administrative Data Initiative. In all cases the officers are happy that provided the reports provided are anonymous statistical aggregations of the data they can be freely provided. The legal responsibility for privacy and confidentiality lies with the data providing organisations and not Fingal Development Board but we recommend that all proposed reports should additionally be approved by the Board prior to their provision and use.

Six Recommendations on Privacy

We make six recommendations here:

1. The appropriate level of statistical aggregation will need to be agreed individually with each data provider;
2. Aggregation of data will need to be performed at source i.e. no personal, unaggregated data is to be supplied to FDB;
3. Fingal Development Board must approve the proposed dataset content prior to its first publication;
4. Data with fewer than six records for a given DED that is considered at all sensitive cannot be accepted for publication;
5. Data sets should contain a small number of attributes to limit the opportunity for identification of individuals;
6. Individuals must not be linked across organisations.

The last point above bears some explanation. While it may possible that person X could be determined through analysis of the raw data to be in receipt of unemployment benefit, to be on the Disabilities database and to have applied for a 3rd level grant such linking of Person X's details across organisations will not take place and it must not be possible from the data provided to Fingal Development Board to draw such a link. It can and has been argued that it is the very linking of the data in the manner we are prohibiting that would enable the derivation of maximum value and we do not disagree however, the privacy concerns and the potential for the perception of "Big Brother" activities lead us to conclude that such linking would not be acceptable practise in the context of this initiative.

11.3

PREVENTION OF MISINTERPRETATION

Preservation of anonymity is not the only issue that concerns us with respect to the data provided to the Board but the potential for misinterpretation need also be addressed. Some data we examined has the potential to be of great value to the Board but is of a nature that is easily misinterpreted and if this happens would cause distress, embarrassment and possibly unwarranted adverse publicity for the concerned organisation and the Board alike. To avoid this we make two recommendations.

Data Must be Centrally Held to Enable Control and Provided Only To Those With Understanding of its Meaning

Firstly, that the data reported to the Board be held and made available in a controlled manner only to those persons and organisations which have a full and proper understanding of that which the data describes. The understanding of the data can be disseminated through the Board by means of presentation by the data provider and subsequent discussion.

Establish Appropriate Controls for Data Set Distribution and Use – a “Fair Use” Policy

Secondly, we recommend that a “fair-use” policy be established and agreed to set the parameters for how information derived from the data provided can be used and published. A fair-use policy would include consideration of the meaning of the data and what derivations would be valid and why others would not. It would include limitations on the publication of the data, the audience to which it may be made available and any disclaimer or qualifier that must accompany the publication of any derived information.

Data that is difficult to interpret is usually so because it is narrowly defined, incompletely describes Fingal or has filtering criteria that are not obvious to the casual observer.

Data that is narrowly defined is well defined and useful in the context for which it is gathered but may have limited applicability in the wider Fingal context. We recommend that such data sets be restricted for use by the administrative officers of the Development Board only and not disseminated to the Board’s members or any wider community. By informing the FDB administrative team of the data’s definition it can be ensured that it will be used judiciously and only in the correct context. Its narrow definition would limit the applicability/usefulness of the data to an extent that limiting access should not significantly disadvantage the members of the Board.

Data that incompletely describes Fingal should be addressed in one of two ways (in order of preference):

Ensure Completeness of Data or Clarity of Boundaries

1. Obtain complete data for the region by seeking data from multiple bodies where necessary or from a controlling or reporting entity such as a Government Department rather than the individual organisations;
2. Ensure that the data set is clearly delineated to show its regional coverage through use of a data set specific boundary file.

Data with filtering criteria that is not obvious to the casual observer (e.g. 3rd level grant applications) needs to be treated in the same manner as data with narrow definition i.e. restricted in access in order to ensure that it is only used by persons who understand its meaning.

11.4

RESOLUTION OF TECHNOLOGY ISSUES

Having enabled reporting on a Fingal basis through Geo-Coding of the data and addressed the data privacy and fair-use concerns the next issue that is encountered is the technical problem of how best to extract and provide the data to the Board.

The systems that we examined varied widely in technology ranging from older technologies (generally referred to as “legacy” systems) through to very modern systems, from simple to complex and from

systems handling large data volumes through to short lists. The lack of commonality is hardly surprising but does mean that each must be considered individually. Within the body of this report we examine each system and give an opinion of what will be required of the system's owners to enable it to provide data to the Fingal Development Board and the associated costs. In broad terms each system must be modified to hold Geo-Codes, to be able to identify those codes that reside within Fingal, to generate a data extract of Fingal data, aggregating as necessary to preserve privacy and then to transmit that data to the Board. We provide in this report a consideration of each system and what is required to make it capable of reporting on a Fingal basis.

The two main issues involved in data acquisition are the level of accessibility and the nature of the interface. We believe that the following recommendations deal with the most significant generic problems:

Five Technology Recommendations

1. Remove duplicated data sets where possible by opening systems for access and use from one organisation to another;
2. Where a system is of the class "Electronic Paper" consider offering a replacement, Web-based system that can be used by the data holder to maintain their data but makes that data available centrally to the Data Initiative;
3. Seek existing aggregators of data as a source of data;
4. For Electronic Paper that cannot be addressed by the recommendations above enter an agreement with the data holder to provide a standard format extract periodically for upload to the Data Initiative systems;
5. Address control and access concerns of data holders by eschewing any direct access into member's systems by the Data Initiative but receive data using a "Push" model instead;

The first three recommendations above are expanded below.

11.4.1 System Sharing

Consider Permitting Limited Inter-Organisation Access to Existing Systems

There are some opportunities amongst the organisations with which we have met to consolidate systems of record and share information continuously. For example, the Fingal County Council CCSDATA system holds details of many Community, Culture and Sports organisations in Fingal and the VEC holds a list of Youth organisations as an Excel spreadsheet. If the VEC could obtain (limited) access to the CCSDATA system both Fingal County Council and the VEC would benefit from improved information. In this particular example the Data Initiative would also benefit from the consolidation of the information into a single coherent source.

11.4.2 Put Electronic Paper Online

Provide “Electronic Paper” Replacement System

Many of the data sources have been identified as being held as Excel spreadsheets where they are rendered quite inaccessible to the Fingal Administrative Data Sharing Initiative. We recommend that the Development Board consider providing a service in conjunction with the users of Excel to replace them with a Web-based repository. In so doing the Board will make the data highly accessible and will enable sharing of that data amongst members (subject to appropriate controls). Lists such a Youth Clubs could then be maintained as a shared resource by more than one person/organisation and each would benefit from the efforts of the other while also making the data available to the Hub for analysis and distribution.

11.4.3 Seek Existing Data Aggregators

Seek Data from Existing data Aggregators

A number of the organisations that we examined including FÁS and the DSFA have either constructed, or have started to construct a central MIS (Management Information System). This system draws in data from systems within their respective organisations with the specific intention of providing a single, central reporting capability. This is a highly effective planning and management tools for most organisations and a strategy that we fully endorse. Where such a system exists we recommend that it be considered the source of data for the Fingal Administrative Data Initiative. This recommendation arises because in creating the MIS system considerable investment will have to be made in obtaining data from the organisations operational computer systems, investment that would otherwise have to be duplicated to achieve data sharing.

11.5

ESTABLISH A CENTRAL “DATA HUB”

Create a Central Repository for Data, a “Data Hub”

Providing that the necessary IT changes have been made there are a number of possible approaches to providing the data to the Board. The easiest to achieve is for each organisation to periodically run an agreed set of pre-defined reports against each of their systems and to pass the results around to the participating Board organisations, perhaps by email or on CD. This is a very manual solution and depends heavily upon individuals. Imposing controls upon the data and performing analysis of that data is an activity that would be both difficult and duplicated amongst each of the member organisations but this solution does require the least work and effort to achieve data sharing.

A better model, and the one we recommend, is that the anonymous statistical data be provided to a centralised repository or “Data Hub”, owned and operated by the Fingal Development Board on behalf of its member organisations. Data is provided once to the Hub from each participating organisation and is available from the Hub to all participating organisations. The Data Hub will

eliminate the duplication of effort inherent in the approach just described above and hence realise substantial cost savings for each of the participating organisations. While the cost of Geo-Coding and IT changes remain essentially the same for each organisation between the two approaches the cost of distribution of the data is minimised, appropriate controls can be applied centrally and hence consistently and investment in potentially costly analysis software can be at least shared if not completely avoided. Furthermore, by centralising the data, each organisation can guarantee that the data they are using is the most recent available and receive updates with no additional effort.

It must be made clear that no personally identifying data would be provided to the Data Hub, only anonymous data.

11.6

AGREE A REPORTING FREQUENCY AND DATE

As Far as Possible Synchronise Data Time Frames

We recommend that data should be provided to the hub at defined points in time no more than twice annually. The reason for this is to try and ensure that the data is comparable. If data is changing rapidly then comparison must be on the basis of a shared “point in time”.

It is not actually necessary to provide the data at the point in time but the data provided must relate to the agreed point in time.

11.7

PROVISION OF ANALYSIS SERVICES AND PILOT PROJECT

Provide Analysis and Visualisation Services from the Data Hub

If it is accepted that a central hub represents the best approach to the control and publication of data then the next issue to be considered is what analysis services that hub could or should provide to the Board members. In order to be truly useful the data will need to be combined and data from individual contributors compared, contrasted, overlaid, visualised and plotted as historical trends. Because the data relates to geographic areas this is in our opinion best achieved through a centralised, World Wide Web accessible GIS (Geographic Information System). We believe that a GIS system is the ideal mechanism for the analysis of datasets that have differing boundaries and as a mechanism for unlocking their true potential value through integration of the data sets from disparate organisations.

Fingal County Council are currently working with just such a GIS system and are open to the idea that it may form the analysis service for the Data Hub.

Data sets will be available in the form of “point” data (specific locations such as post offices or recycling centres) and as region based statistics that may be delineated by any number of types

of boundary. The analysis and interpretation of such data sets, particularly where they do not have coincident boundaries is most easily facilitated visually.

Plotting data sets onto a map of Fingal will enable the consumer to quickly understand the data sets in a highly intuitive manner. Correlations will become apparent and where suitable data is available service provision and demand can be determined and matched.

A list of Youth Clubs is much more informative when this list is plotted on a map of Fingal, plotted against the youth demographic and then overlaid with grant aid data. What emerges is a picture of how youth services are being supported by grant aid and regions in which demand appears unsatisfied. Such regions can then be investigated to determine if clubs exist that are unaware of possible funding assistance.

Such presentation and analysis is most easily facilitated through a GIS system and, in order to prevent duplication of effort, to reduce the risk of errors in interpretation and to ensure appropriate controls are applied the system (and the data) this GIS should be centralised at the Data Hub.

11.7.1 Pilot Project

Establish a Pilot Project

We recommend that the Board begin to integrate a system that currently holds DED Geo-Codes on a trial basis with the Fingal County Council GIS system and publish the resulting maps to member organisations via a restricted access web site. Initially this could be achieved with the CCSDATA system in use within Fingal County Council for tracking Community, Culture and Sports groups.

The pilot project is intended to tease out the detail of the full implementation in order to reduce any inherent risks, firm up procedures and act as a platform from which a full statement of requirement can be delivered for the full implementation.

Provided that the pilot is undertaken keeping the wider objectives in mind we believe that it will prove a useful pilot and starting point for growing the Data Hub.

We believe that the Hub can be piloted for around €10,000 euro and that the cost of adding new systems to the Hub will be around €1,000 per data set (plus the costs of the organisation providing the data). Beyond the pilot stage the Hub will require some additional investment to create a fully functional Web portal, probably in the region of €20,000-€30,000 but provided Fingal County Council is willing to allow its existing database servers and GIS system to act as the Hub infrastructure, little additional costs should be required. It is clear that the Hub concept is both economic and achievable.

As organisations become capable of reporting on a Fingal basis their systems can be linked to the Data Hub and the value of the Hub increased at an incremental cost but with exponential increase in shared value.

11.7.2 ISDI Pilot

Propose Fingal Data Hub Pilot as an ISDI pilot initiative

The Fingal Data Initiative has a very strong alignment with the Irish Spatial Data Infrastructure's objectives and deals with data that the ISDI regards as a key segment of data that it will manage and publish. Because of this strong alignment of objectives and the progressive nature of the County Data Initiative (CDI) project we recommend that the ISDI and the CDI jointly explore the possibility that CDI become an ISDI pilot/pathfinder.

11.8

ESTABLISH A COMMITTEE TO OVERSEE THE DATA HUB IMPLEMENTATION

Implementation of the Data Hub needs Management

It is recommended that the Board put in place a committee to oversee the implementation of the Fingal Data Hub. The committee should be formed on roughly the same membership as the Fingal Data Committee but should have reconstituted terms of reference which focus on:

- Implementing the recommendations of this report;
- Forming the fair use policies;
- Agreeing deadlines for the transfer of data;
- Responding to issues as they arise;
- Keeping regular contact with national bodies with a responsibility for data provision.

In particular the committee should act as a conduit for agencies to communicate data needs between member agencies and can examine expanding the scope and potential of data sharing beyond what has been covered in this report.

12. MODEL FOR THE DATA HUB

As recommended in previous sections we believe that the Fingal Administrative Data Sharing Initiative should establish a “Data Hub”. The purpose of the hub will be to:

- Provide the GIS system for data visualisation and analysis;
- Act as a repository for the contributed data sets;
- Provide a central point of control for the distribution/publication of the data;
- Provide an alternative platform for existing “Electronic Paper” data sets.

The Hub will comprise the following modules:

- Web accessible GIS interface;
- Storage for datasets (database);
- Permissions Management (access control);
- Gateway for data set upload (both automated and manual submission);
- Web interface for Electronic Paper lists
- Data export for Electronic paper lists;

The hub can be owned and operated internally within Fingal Development Board or contracted as an outsourced service from a suitable provider.

The diagram overleaf illustrates the components of the system and how they interact.

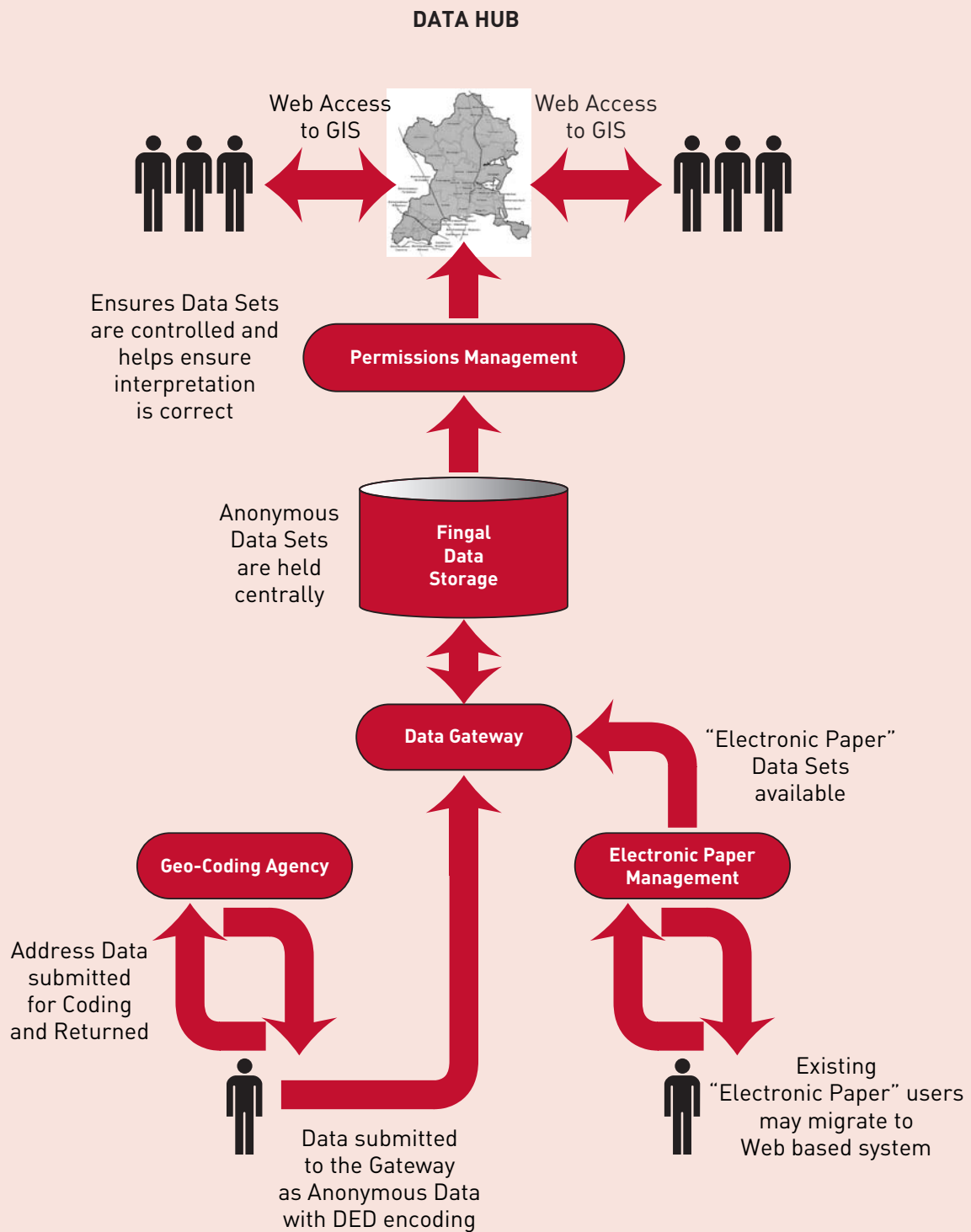


Figure 8 – Suggested Structure for Data Hub

An explanation of the various components of the proposed Data Hub is given overleaf.

The Geo-Coding agency will accept address data, for Geo-Coding and return the address details with a DED reference to the data provider. In the case of smaller, low sensitivity data sets these could be collated by the Development Board and passed for coding as a group to save on agency costs or the providers can take a manual coding approach using a county map. Such data sets may also lend themselves to being included as part of the hub's proposed "Electronic Paper Management" (described below). Whichever route is chosen only anonymous data will be provided to the Gateway.

The Data Gateway is simply responsible for ensuring that only authorised persons/system can submit data sets, that the data sets are structurally correct and well described and for storing the data sets in the Data Hub's central database.

Sitting on the Data Hub's database is the Permissions Management module that ensures only authorised persons/organisations can obtain access to the datasets and provides those data sets to the GIS system on demand.

The GIS system is the presentation and analysis layer. It will allow users to display data sets on a map of Fingal, overlay them, merge and derive new data sets. The GIS should be web based in order to ensure ease of access to all FDB authorised persons. Members of the general public should not be given access to this system but consideration should be given to the publication of a range of maps showing key data sets.

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2. APPENDIX A – ORGANISATION AND SYSTEM SUMMARIES

This section gives a summary of the systems examined. It is organised by Organisation. The answers for each system to the detailed questionnaire we used in this project can be found in Appendix B.

We have included against each organisation a matrix showing the estimated cost of IT changes and Geo-Coding to permit full participation in the Fingal Administrative Data Sharing Initiative and overleaf a summary table presents costs per organisation. The costs shown are based on the same assumptions as are stated in Appendix C – Indicative IT Change Costs. Each cost table shows cost under five headings. The headings are:

1. Extract;
2. Geo-Code;
3. Upload;
4. Extract to Hub;
5. Ongoing Costs (Annually).

The columns should be interpreted as follows:

1. Cost of extracting a list of addresses for Geo-Coding as a once off exercise at the start of the project;
2. The once-off cost of actually Geo-Coding the address list so extracted;
3. The cost of modifying the database to store Geo-Codes, modifying any screens that maintain address details, receiving the Geo-Coded list back and storing the Geo-Codes in the database;
4. The cost of generating a report that will filter data on a Fingal basis and provide it to the Hub;
5. The cost of Geo-Coding records that have been added in the previous 12 months.

The table below summarises the IT and Geo-Coding costs that we believe will arise from compliance with this initiative for the participating organisations. The costs are subject to a number of assumptions, which are documented in Appendix C – Indicative IT Change Costs.

Organisation	Once-Off Cost	Recurrent Annual Costs
VEC	€50,600	€5,600
HSE	€74,000	€7,000
BAP	€11,000	€500
Gardaí	N/A*	N/A*
FÁS	€36,000	€5,000
DSFA	€36,000	€5,000
Fingal Co Co	€11,000	€1,000
TOTAL	€218,600	€24,100

* The Gardaí are unable to provide data at this juncture as they undertake a programme of change. Only once this programme has been progressed will costs be estimable.

2.1

COUNTY DUBLIN VEC

County Dublin Vocational Education Committee provides a wide range of education services that extends from Balbriggan in the north of the county to Lucan in the west, to Shankill in the South. This service ranges from providing full-time education in 22 Post Primary schools, eight Youthreach Centres and 4 Traveller Education Centres, to part-time provision for adults in numerous schools and community based centres.

Participants: Kieran O'Sullivan, Debbie Howlett, Jennifer Talbot, George Murphy, Emer Walsh, Cathy Dodd, Maeve Thompson, Aisling Thompson, Denise Cummins

System Name	Brief Description
VTOS	The VTOS Database contains both personal and payroll information on Adults partaking in the various training schemes provided under VTOS.
Adult Education	The Adult Education information store provides data on Centres for Adult Education Courses and the certifications provided by these courses, including tuition fees, subject areas covered, enrolment numbers, duration & time of class
Community Education	System only recently implemented with data only being populated from September.

System Name	Brief Description
Back to Education Initiative	This Access Database contains information on all VEC funded schools providing BETI courses, the types of courses, no. of weeks per course, number of hours per course along with the number of participants for the BETI course
Youth Services	This Access Database contains information on all Youthreach registered and funded voluntary groups and youth projects. The system also contains information on grant applications from these groups for training, administration, activity, development and special grants.
V.E.C. Schools	Simple Excel Spreadsheet of all Schools where the County Dublin V.E.C. provides funding for courses and services. This information includes Name, Address, contact persons and details.
Pupils per School	Another simple Excel Spreadsheet of all V.E.C funded Schools showing the number of pupils enrolled in each school, by school year. This information is used to provide allowances to teachers based on the number of students enrolled.
3rd Level Grants	This legacy system (Dbase 4 & Clipper) contains all information on student grant applications for 3rd level courses (for VEC, TLC and PLC Schemes). It captures personal information on applicants along with family details for means testing on grant application.

2.1.1 Projected VEC Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
VTOS	€2,000	€7,500	€10,000	€2,000	€2,000
Adult Education	€100	€500	€300	Manual	€500
Community Education	€1,000	€5,000	€1,000	€1,000	€1,000
Back to Education Initiative	€1,000	€2,000	€1,000	€1,000	€500
Youth Services	€100	€500	€300	Manual	€500
V.E.C. Schools	€100	€500	€300	Manual	€0
Pupils per School	€100	€500	€300	Manual	€0
3rd Level Grants	€1,000	€5,000	€5,000	€1,500	€2,000
TOTAL	€5,400	€21,500	€18,200	€5,500	€6,500

2.2

HSE NORTHERN AREA

The Health Service Executive Northern Area is responsible for the delivery of primary, community and continuing care, hospital management, general population health and social services to the people of Dublin city and county north of the River Liffey.

It uses the resources available to it in the most beneficial, effective and efficient manner to improve, promote and protect the health and welfare of the public.

In order to enable it to undertake these functions the HSE Northern Area, uses a number of databases and data repositories as part of its day-to-day operations.

Participants: Orla Treacy, Susan Donnelly

System Name	Brief Description
Community Occupational Therapy Caseload	This data repository contains information on clients receiving Occupational Therapy, the services they are being provided and the appointments for the delivery of these services.
Regional Interactive Child Health System	This system captures information on child births, child deaths and child immunisations within the HSE Northern Area. The information is records using DED geo-coding, however death and immunisation information may not be 100% accurate.
Social Worker Information System	Captures all data on children in care and fostering, including details of children and care/fostering families. This system is extensively used and has a high degree of Accurate information.
GP Database	This Database contains information on all G.P.'s, their surgery locations and equipment, etc. Its information is linked to the Regional Interactive Child Health System. It will also include details on HSE contracts held by the G.P.'s from July 2005
Physical & Sensory Disability Database	This Database contains information on all clients in receipt of Physical or Sensory Disability services provided through the HSE Areas and CCA's. It contains personal identifying data of the clients along with their service needs, both current and future.
Patient Administration System	This system contains information on all clients who are provided a service by either James Connelly Memorial Hospital in Blanchardstown or St. Ita's in Portrane. It contains patient and diagnosis information on patient visits.

System Name	Brief Description
Drug & AIDS Database	This database contains information on all clients which have been identified with drug issues/AIDS and clients who are receiving related services (Drugs & AIDS).
Homeless Persons' Information	This database contains information on Homeless persons applying for temporary or permanent housing.

2.2.1 Projected HSE Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
Community Occupational Therapy Caseload	N/A*	N/A*	N/A*	N/A*	N/A*
Regional Interactive Child Health System	€1,500	€7,500	€3,000	€1,500	€2,000
Social Worker Information System	€1,500	€5,000	€3,000	€1,500	€1,000
GP Database	€1,000	€2,000	€3,000	€1,500	€500
Physical & Sensory Disability Database	€1,500	€7,500	€3,000	€1,500	€500
Patient Administration System	€2,000	€7,500	€8,000	€3,000	€2,000
Drug & AIDS Database	N/A#	N/A#	N/A#	N/A#	N/A#
Homeless Persons Information	€1,000	€5,000	€1,000	€1,000	€1,000
TOTAL	€8,500	€34,500	€21,000	€10,000	€7,000

* The Occupational Therapy Case Load system is not consistently used across the Health Area and therefore the data cannot be considered to be complete or reliable for the purposes of statistical information. We recommend its exclusion.

Drugs and AIDS database information is too sensitive to provide to Data Hub. We recommend its exclusion.

2.3

BLANCHARDSTOWN AREA PARTNERSHIP (BAP)

Set up in 1995, Blanchardstown Area Partnership (BAP) is one of 38 local area Partnership companies working across Ireland. It works to develop a better quality of life for all the people of Blanchardstown and ensure their maximum involvement in the local decision-making process. It is a vital link between those living and working in the area and community, business and state organisations.

Participants: Gerry Keogh (Local Employment Services Manager), Noeleen Reid, ADM Representatives and Conor Ryan

System Name	Brief Description
Unemployment Education (SCOPE)	The SCOPE database as an indication from a Services to the Unemployed perspective contains quantitative indicator data as to the Partnership's caseload of clients.
Labour Mkt. Unemployment	This Database is provided to BAP from FÁS and is an exact replication of the Local Employment Services provided through FÁS (See overview of FÁS systems).
Unemployment (SPEAK)	The SPEAK database developed by Local Employment Services/BAP captures local statistics on numbers unemployed, lone parents, number of traveller families, in order to allow planning of BAP services.
Education (Millennium Fund)	The Millennium Fund database contains information on clients who are receiving special funding for attending 3rd level education. It is targeted at providing extra grants/funding to low-income families, foreign nationals and social welfare recipients who are attending 3rd level courses.

2.3.1 Projected BAP Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
Unemployment Education	N/A*	N/A*	N/A*	€3,000	N/A*
Unemployment (SPEAK)	N/A*	N/A*	N/A*	€3,000	N/A
Education (Millennium Fund)	€1,000	€2,000	€1,000	€1,000	€500
TOTAL	€1,000	€2,000	€1,000	€7,000	€500

* These systems contain no geographic data (only contain statistics that cannot be related to specific DEDs)

2.4

AN GARDA SIOCHÁNA

For policing purposes the country is divided into six Regions, each of which is commanded by a Regional Assistant Commissioner. The duties of the Regional Assistant Commissioners are mainly operational and they are responsible for ensuring the operational efficiency of their respective Region and, in particular, the quality of operational management exercised by their respective Divisional and District Officers.

Participants:

System Name	Brief Description
PULSE	This system contains details of persons, locations, vehicles, crimes, offence histories etc. The PULSE system is capable of holding a geographic reference in the form of an X,Y co-ordinate but Gardaí are not equipped with the necessary equipment to determine locations in this manner so the only location information is in the form of street addresses and descriptions. i.e. the x,y information is blank and a text description is held such as "Adjacent to SPAR Ballymun, near pedestrian crossing".

The Gardaí are required by the recent Gardaí Act to supply statistical information on crimes to local authorities and other statutory bodies with a legitimate interest. This Act also requires the Gardaí to participate in local policing fora. These fora are described in the Act as operating on a county basis. In order to participate effectively we believe that the Gardaí will be required to provide data on a county basis. The Gardaí are in very early discussion with the CSO as to how this may be achieved. It is expected that the CSO will act as the receiving, analysing and publishing agent for the Gardaí but the talks are not progressed far enough to date for the Gardaí to be able to comment on what information maybe made available, how it would be accessed or in what timeframe this may be accomplished. There is therefore nothing further that can be determined from the Gardaí in respect of the Fingal Administrative Data Sharing Initiative, we recommend approaching them again in Q2 2006 to see how the situation has changed. We recognise the commitment of the Gardaí to the objectives of the Fingal Administrative Data Initiative and the work undertaken by their representative on the Board.

2.4.1 Projected Gardaí Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
PULSE/CSO	N/A*	N/A*	N/A*	N/A*	N/A*
TOTAL	N/A*	N/A*	N/A*	N/A*	N/A*

* No costs can be quantified as the Gardaí are not in a position to be able to provide data to Fingal at this time.

2.5 FÁS

FÁS – Training and Employment Authority, was established in January 1988, under the Labour Services Act 1987 to provide a wide range of services to the labour market in Ireland. Its functions include:

- Training and re-training;
- Designated apprenticeships;
- Recruitment service;
- Employment schemes;
- Placement and guidance services;
- Assistance to community groups ;
- Advice for people returning to Ireland and those seeking employment elsewhere in the EU;
- Consultancy and human resource related services, on a commercial basis, outside the State (through FÁS International Consulting Ltd.)

The statutory functions of the organisation also include the collection and publication of information relating to the labour market and the provision, to the Minister, of information, reports etc. on matters within FÁS’ remit.

Participants: Fergus Ó Cuanachain, Iggy Fields

System Name	Brief Description
Community Employment	This system contains information on all Community Employment based schemes where FAS provided funding to local community projects that provide employment for unemployed people.
* Social Employment	This database shows listing of projects and participants in local projects where FÁS provides funding to support what will hopefully become a viable business (e.g. a local tourism project, local crèche, etc)

System Name	Brief Description
* Jobs Initiative	Similar information is captured as with the Community Employment scheme, however this programme is focused more towards the long-term unemployed.
* Community Training Programme	This repository contains details on all FÁS sponsored local training centres, the courses these centres run, the awards available through this training and the participants in these courses.
* Services to Business	{Awaiting further information}

* Note: Each of these databases of information reside on the one central information platform (MIS) provided by FÁS to its branch offices.

2.5.1 Projected FÁS Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
MIS *	€3,000	€20,000	€10,000	€3,000	€5,000
TOTAL	€3,000	€20,000	€10,000	€3,000	€5,000

* FÁS information can be accessed via its central information system named MIS.

The above pricing assumes that only the central MIS system needs to be changed and no satellite system needs to be modified.

2.6

DEPT. SOCIAL AND FAMILY AFFAIRS

The Department of Social and Family Affairs (DSFA) formulates appropriate social protection policies and administers and manages the delivery of statutory and non-statutory schemes and services.

The Department is responsible for the delivery of a range of social insurance and social assistance schemes including provision for unemployment, illness, maternity, caring, widowhood, retirement and old age. Payments are made to nearly 950,000 people each week with over 1.5 million people directly benefiting from those payments.

Participants: Fintan Hansen, Kevin Hannigan, Bernard Tonge, Paul O'Meara

System Name	Brief Description
* Integrated Short Term Schemes (ISTS)	This system contains information on all clients receiving payments from the DSFA that are of a short term nature – Unemployment Allowance, Supplementary Allowance, Short Term Disablement, etc.
* Pen Live	This database contains all information of clients who have applied for and are in receipt of DSFA pension schemes allowance. This includes retirement/old age pension, lone parent payments, widowers allowance, etc.
* MIF	This central management information system is being developed to centralise the reporting requirement of all the DSFA systems. It will allow the centralisation and collation of data for the generation of reports and management information.

* Note: We have taken an example of the ISTS and Pen Live systems to demonstrate the type of data captured by the DSFA, and have outlined MIF as the new management information system being rolled out with DSFA for data sharing and reporting. This MIF system will become the ideal location to find statistical information that can be shared in the future.

2.6.1 Projected DSFA Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
MIF *	€3,000	€20,000	€10,000	€3,000	€5,000
TOTAL	€3,000	€20,000	€10,000	€3,000	€5,000

* DSFA information can be accessed via its central information and reporting system named MIF.

2.7

FINGAL COUNTY COUNCIL

FINGAL COUNTY COUNCIL as the Local Authority for FINGAL, provides an extensive range of infrastructure services, and plays an active role in the development of the area’s industry, business, social, arts, heritage and cultural affairs. It also functions as the regulatory body for certain matters at local level.

Local Authorities perform both a representational and an operational role because the Irish system of Local Government encompasses both democratic representation and public administration.

Participants: Dominic Byrne, Claire McIntyre, Alain Kervillant, Don Madigan

System Name	Brief Description
Development Plan (GIS)	This GIS system contains data on the current development plan. The information held relates to square kilometre allocations for agricultural, residential, industrial, commercial and amenity lands as outlined in the current development plan.
Recycling Centres (GIS)	This database contains Recycling/Bring Centre locations and information. This includes opening times, accessible vehicle information, etc.
Social Housing (Technipoint)	The Social Housing Technipoint database hold information of social housing applications, applicant's details, and their current circumstances. It also contains details of available social housing properties and their current status.
Community Grant Scheme (CCSDATA)	CCSDATA contains information on all grant applications from local community groups made to the community, culture and sports department of Fingal Co. Co. This information includes the group's details, details of grant applications, status of grant applications and the amounts drawn down on successful applications.

2.7.1 Projected Fingal Costs

System Name	1-Extract	2-Geo-Code	3-Upload	4-Extract to Hub	5-Ongoing Costs (Annually)
Development Plan (GIS)	N/A*	N/A*	N/A*	N/A*	N/A*
Recycling Centres (GIS)	N/A*	N/A*	N/A*	N/A*	N/A*
Social Housing (Technipoint)	€1,000	€2,000	€1,000	€1,500	€500
Community Grant Scheme (CCSDATA)	€ 1,000	€2,000	€1,000	€1,500	€500
TOTAL	€2,000	€4,000	€2,000	€3,000	€1,000

* These systems are already part of the Fingal GIS infrastructure.

3. APPENDIX B - SYSTEM QUESTIONNAIRE ANSWERS

In order to ensure we established a consistent set of facts about each system we examined we used a standard questionnaire to guide the meetings. The answers to this questionnaire are reproduced in the sections below.

3.1 COUNTY OF DUBLIN VEC

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or indicated that might have a bearing on the data?
VTOS	The VTOS Database contains both personal and payroll information on Adults partaking in the various training schemes provided under VTOS.	Information is updated on an on-going basis for clients receiving in various training schemes under VTOS	Data is held in a continuum	The data is up-to-date based on the last update of a record	High Level of Accuracy	Not Applicable	No Geo-Coding	Not Applicable	Annual Reports are prepared, of client profile, progression data	The annual reports are provided to the Dept. of Education	Data Protection covering the personal identifying data	None Adult Education
Adult Education	Information is updated on an on-going basis for the centres and the training course provided	Information is updated on an on-going basis for the centres and the training course provided	Data is held in a continuum	The data is up-to-date based on the last update of a record	High Level of Accuracy	Not Applicable	No Geo-Coding	Yes, all centres for training are held within this database	This information is provided to the public via various publications	None	None	None
Back to Education Initiative (BETI)	This Access Database contains information on all VEC funded schools providing BETI courses, the types of courses, no. of weeks per course, number of hours per course along with the number of participants for the BETI course.	Each BETI centre provided its data to V.E.C where the central database is updated	Based on the update cycle the data forms a point in time snapshot at every 6 month/ annual update	The data is currently up-to-date based on its 6 monthly review cycle.	High Level of Accuracy	Not Applicable	No Geo-Coding	Yes, locations of BETI Centres are provided	6 monthly reports are prepared	The 6-monthly reports are provided to the Dept. of Education, however, ad-hoc reports when required can also be provided	None	None

Youth Services	This Access Database contains information on all Youth Services registered and funded voluntary groups and youth projects. The system also contains information on grant applications from these groups for training, administration, activity, development and special grants.	Data is continually updated as groups provide grant applications and registration details	The data resides on a continuum	The data is up-to-date based on the last registration details provided by the youth groups	High Level of Accuracy	Not Applicable	No Geo-Coding	Yes, all projects/groups are identified by location (address details)	No standard reporting structure	Reports are generated as requested by the Dept. of Education. These reports provide basic statistics	Data Protection/ Privacy issues need to be investigated further to all sharing of this information	None
V.E.C. Schools	Simple Excel Spreadsheet of all Schools where the County Dublin V.E.C. provides funding for courses and services. This information includes Name, Address, contact persons and details.	Data is continually updated as School details change or new additions are added.	The data resides on a continuum	The data is up-to-date based on the last update of each entry.	High Level of Accuracy	Not Applicable	No Geo-Coding	Not Applicable	No standard reporting structure	Not Applicable	None	None
Pupils per School	Another simple Excel Spreadsheet of all V.E.C funded Schools showing the number of pupils enrolled in each school, by school year. This information is used to provide allowances to teachers based on the number of students enrolled.	Data is provided to the V.E.C. from each school every October following commencement of the school term.	The data resides as a snap-shot from October of each year.	The data is up-to-date based on the last update of each entry.	High Level of Accuracy	Data is held for the previous 7 years	No Geo-Coding	Not Applicable	This data is organised and reported on to the Dept. of Education each October	Each October provided to the Dept. of Education	None	None
3rd Level Grants	This legacy system (Dbase 4 & Clipper) contains all information on student grant applications for 3rd level courses (for VEC, TLC and PLC Schemes). It captures personal information on applicants along with family details for means testing on grant application.	Applications are made by students on an on-going basis throughout the year and are processed by the 3rd Level Grants Team.	The data resides as a continuum.	The data is up-to-date based on the last update of each entry.	High Level of Accuracy.	Data is currently accurate back to 2000/2001.	No Geo-Coding, only addresses	Not Applicable	Data is reported on to the Dept. of Education on an annual basis (Manually prepared).	Provided to Dept. of Education, annually.	Data is provided to VEC within the terms of the Data Protection Declaration on the Grant Application Form.	Data being captured changes slightly year-on-year, however, there are no major changes for 2004/2005.

3.2 HSE NORTHERN AREA

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or indicated that might have a bearing on the data?
Community Occupational Therapy Caseload	This data repository contains information on clients receiving Occupational Therapy, the services they are being provided and the appointments for the delivery of these services.	Used and updated by Occupational Therapists in the community on an ongoing basis, and managed centrally by ICT department in Shared Services.	The data resides as a continuum, however, it is not consistently recorded on the system across the Fingal Region.	The data is up-to-date based on the last update of each entry.	The data that is present is Accurate, however, the system is not used consistently across the region.		There is some DED coding along with CCA mappings, however, this is not consistent within the data.	Yes	There is some waiting list analysis performed on the data on a quarterly basis.	Any analysis is provided to the HSE and Dept. of Health and Children.		The National Primary Care Initiative/Health 1 project may replace this system in the future and change is mainly driven by Occupational Therapists themselves.
Regional Interactive Child Care Health System	This system captures information on child births, child deaths and child immunisations within the HSE Northern Area. The information is records using DED geo-coding, however death and immunisation information may not be 100% accurate.	Used by the Staff within the CCA (Community Nurses) and updated regularly. Information on immunisations are provided from local G.P.'s and also school immunisation programs	The data resides as a continuum, however, child death and immunisation information is not 100% accurate (not 100% up-to-date).	The data is up-to-date based on the last update of each entry.	The data on childbirths is Accurate, however, information on child deaths and child immunisations is not 100% Accurate.	The new system has data back to 2001.	Geo-Coding by DED, also by CCA.	Not Applicable	Reports are generated by CCA Staff for calendar of Community Nurse appointments and home visits, etc.	Ad-Hoc reports generated by CCA Staff		

<p>Patient Administration System</p>	<p>This system contains information on all clients who are provided a service by either Connelly Hospital in Blanchardstown or St. Ita's in Portrane. It contains patient and diagnosis information on patient visits.</p>	<p>The data is updated continually as patients are administered</p>	<p>The data resides as a continuum.</p>	<p>The data is up-to-date based on the last update of each entry.</p>	<p>The information is Fairly Accurate</p>	<p>This is a long running system, therefore, there is good historical data</p>	<p>Possible coding by DED, also by CCA, however, this information may not be consistent</p>	<p>No</p>	<p>Data is analysed by the Health Research Board (HRB) on an Annual Basis.</p>	<p>Data is analysed by the Health Research Board (HRB) on an Annual Basis.</p>	<p>The information provided is very sensitive and is governed by Data Privacy/Protection criteria.</p>	<p>There are proposals to upgrade the system in the near future moving it from its VMS base to an Oracle Platform.</p>
<p>Drug & AIDS Database</p>	<p>This database contains information on all clients which have been identified with drug issues/aids and clients who are receiving services in this areas (Drugs & AIDS).</p>	<p>The data is updated continually as patients are administered</p>	<p>The data resides as a continuum</p>	<p>The data is up-to-date based on the last update of each entry.</p>	<p>The information is Highly Accurate</p>	<p>This is only operation over the last couple of years so there is good historical data from 2004</p>	<p>Possible coding by DED, also by CCA</p>	<p>No</p>	<p>Data is analysed locally by HSE users on an on-going basis.</p>	<p>Reports are provided to the ERHA and the Health Information Unit (HIU).</p>	<p>The information provided is very sensitive and is governed by Data Privacy/Protection criteria</p>	<p>There are currently new modules under development that will extend the functionality of the system.</p>
<p>Homeless Persons Unit</p>	<p>This database contains information on Homeless persons applying for temporary or permanent housing.</p>	<p>Data is continually updated on a daily basis</p>	<p>The data resides on a continuum</p>	<p>The data is up-to-date based on the last update of each entry</p>	<p>The information is very accurate</p>	<p>Information could be accurately reported on from 2002 onwards</p>	<p>The Address is based on ambulance service street index, allowing mapping to CCA and DED</p>	<p>Monthly Reports are generated and distributed to the local authority</p>	<p>Ad-Hoc reports are generated as required, along with quarterly reports for trend analysis</p>	<p>The sharing of statistical data is not seen as an issue</p>		

3.3 BLANCHARDSTOWN AREA PARTNERSHIP

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or indicated that might have a bearing on the data?
Unemployment Education (SCOPE)	The Scope database as an indication from a Services to the Unemployed perspective contains quantitative indicator data as to the Partnership's caseload of clients	The data is updated on a quarterly cycle.	The data resides as a snapshot, based on the data provided in the quarterly update.	The data is up-to-date based on the last update of each entry.	The information is statistically accurate by geographically Fairly Accurate with accurate addresses for centres but not for clients	There is the possibility to run historic results on from 2001 onwards.	There is no consistency in area coding, based only on partnerships catchment area.	The address of all community groups is held but the addresses of clients are not consistently entered or held	Predefined reports are produced locally as required with an Annual Report generated by the Software Managers ADM Ltd. and a quarterly report to the 3 BAP Planning Implementation Boards	Reports are provided to the Department of Gaeltacht and Local Government.	The Partnership and the County Development Board would need to agree the dissemination and understanding of reports. Reports contain statistics only hence no privacy issues.	As part of NDP from 2006, some aspects of this programme may change, but nothing too radical
SPEAK Database	The SPEAK database developed by Local Employment Services/BAP captures local statistics on numbers unemployed, lone parents, number of traveller families, in order to allow planning of BAP services.	The statistical information is provided by ADM to BAP on a ongoing basis	The data resides as a snapshot, based on the data provided by ADM to BAP	The data is up-to-date based on the last update of each entry	The information is Accurate based on the information provided by ADM	This project is starting this year but they are hoping to be able to look archive data year on year	None	Not Applicable	Internal reports are generated for managing BAP service provision	Certain reports may be generated for inclusion in BAP funding proposals, etc.	Not Applicable because this is only statistical information	The SPEAK system is just being released as a pilot phase, so amendments in the future may be possible

Millennium Fund Database	The Millennium Fund database contains information on clients who are receiving special funding for attending 3rd level education. It is targeted at providing extra grants/funding to low-income families, foreign nationals and social welfare recipients who are attending 3rd level courses.	The information is continually updated by the BAP team.	The data resides on a continuum	The data is up-to-date based on the last update of each entry	The information is Highly Accurate	Historical information is available from 1999 onwards for statistical comparisons.	Broken down by Community / District	Not Applicable	Internal reports are generated for annually and provided to ADM	The annual report is provided to ADM, however, other information requests are catered for on an on-going basis.	Data Protection comes into effect on any personal identifying data.	None
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3-4 FÁS

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or indicated that might have a bearing on the data?
Community Employment/Social Employment/ Jobs Initiative/ Community Training Programme/ Services to Business	See Overview of FÁS Systems	The data is gathered and updated on a continual basis via the FÁS branch offices into the central MIS system	The data resides on a continuum	The data is up-to-date based on the last update of each entry	The information is Highly Accurate	There is the possibility to run historic results on the datasets	There is no consistency in area coding, based only on addressing information.	Yes, by address only	Data is analysed on a quarterly basis, but ad-hoc reports are produced when required.	The quarterly reports are provided to the area partnerships, with requested reports provided to Fingal as requested	FÁS and the County Development Board would need to agree the dissemination and understanding of reports.	None

3.5 DFSA

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or might have a bearing on the data?
Integrated Short Term Schemes	This system contains information on all clients receiving payments from the DSFA that are of a short term nature – Unemployment Allowance, Supplementary Allowance, Short Term Disablement, etc.	The data is gathered and updated on a continual basis via the DSFA branch offices	The data resides on a continuum	The data is up-to-date based on the last update of each entry	The information is Highly Accurate	There is the possibility to run historic reports on the datasets from 1995 onwards	The data is county coded along with a Post Office Location Code for the client	Yes, Post Office Locations are held by address	Developing Management Information System (MIF) to allow information to be analysed to provide the National Primary Indicators	Reports through MIF used by sectional, divisional and department managers. Ad-Hoc queries are provided when requested and a department report is generated annually.	Data Protection issue with any personal identifying data	None
Pen Live	This database contains all information of clients who have applied for and are in receipt of DSFA pension schemes allowance. This includes retirement/old age pension, lone parent payments, widowers allowance, etc.	The data is gathered and updated on a continual basis	The data resides on a continuum	The data is up-to-date based on the last update of each entry	The information is Highly Accurate.	There is the possibility to run historic reports on the datasets but this would be difficult. The system has been in existence since 1984	The data is county coded along with a Post Office Location Code for the client	Yes, Post Office clients payments are held by address.	Using IDEA package to generate statistical reports for planning units. It also allows generation of Ad-Hoc Reports.	The generated monthly reports are used by sectional and department managers.	Data Protection issue with any personal identifying data	None

MIF	This central management information system is being developed to centralise the reporting requirement of all the DSFA systems. It will allow the centralisation and collation of data for the generation of reports and management information.	The data is shared from the data capture systems on a weekly/monthly basis	The data resides on a snap-shoot	The data is up-to-date based on the last update	The information is Highly Accurate	This is an new system but following full rollout, it will be possible to run historical reports on archived data	Most of the data is county coded along with a record of the Post Office Location Code for the client	None	Using MIF both Predefined and Ad-Hoc reporting will be available on an on-going basis	The reports generated can be consumed by outside organisations other than the DSFA	Not Applicable	None
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3.6 FINGAL COUNTY COUNCIL

System Name	What data is held?	What is the process for review/update of the data?	Does the data form a point in time snapshot or reside on a continuum?	An estimate of the timeliness of the data overall;	An estimate of the accuracy of the data;	The extent to which historical data is available to facilitate trend analysis;	How are geographical issues dealt with (any form of area coding)?	Are the locations of service provision recorded and/or residence location of service recipients?	How data is analysed within the organisation?	How, when and to whom is the analysis provided?	Permissions sought/restrictions applied to the dissemination of information;	Are any changes agreed, proposed or indicated that might have a bearing on the data?
Development Plan Data	This GIS system contains data on the current development plan. The information held relates to square kilometre allocations for agricultural, residential, industrial, commercial and amenity lands as outlined in the current development plan.	The data is gathered and updated on the inception of the development plan or due to amendments to the plan	The data resides as a snap-shot	The data is up-to-date based on the last update	The information is Accurate	There is the possibility to run historic reports on previous development plans back as far as 1999.	All the information is GIS coded		Very little basic reporting is performed on the data	Only really deal with internal queries on the data, often requested by the development plan team.	Not Applicable	None
Recycling Centres	This database contains Recycling/Bring Centre locations and information. This includes opening times, accessible vehicle information, etc	The data is updated infrequently only when Recycling/Bring Centre information changes	The data resides as a snap-shot	The data is up-to-date based on the last update	The information is Highly Accurate.	Not Applicable	All the information is GIS coded.		Very little basic reporting is performed on the data, like monthly tonnage recycled per site	Information provided to Department of Environment for National Primary Indicators.	Not Applicable	None

<p>Social Housing</p>	<p>The Social Housing Technipoint database hold information of social housing applications, applicant's details, and their current circumstances. It also contains details of available social housing properties and their current status</p>	<p>The data is continually updated by Social Housing staff and is also reviewed every 3 years</p>	<p>The data resides as a continuum</p>	<p>The data is up-to-date based on the last update</p>	<p>The information is Highly Accurate.</p>	<p>The system is not able to support historical reports</p>	<p>4 lines are dedicated to capturing of address information.</p>	<p>Reports are generated bi-monthly for managing the housing list.</p>	<p>The Department of Environment has access to the database information and can run their reports. They gain a copy of the data on a quarterly and annual basis.</p>	<p>Some of this data is highly sensitive, therefore, any data shared would not be able to be personally identifying.</p>	<p>None</p>
<p>Community Grant Scheme</p>	<p>CCSDATA contains information on all grant applications from local community groups made to the community, culture and sports department of Fingal Co. Co. This information includes the groups details, details of the grant applications, status of the grant applications and the amounts of funds drawn down on the successful applications.</p>	<p>The data is continually updated by Community, Culture and Sports staff</p>	<p>The data resides as a continuum.</p>	<p>The data is up-to-date based on the last update</p>	<p>The information is Highly Accurate.</p>	<p>The system is available for historical reports, back as far as its implementation in 2003</p>	<p>The database has the ability to capture group locations by DED, however, not all organisations/groups may be updated with this information.</p>	<p>Ad-Hoc reports can be generated from the system and manipulated in Excel.</p>	<p>The generated reports are used by department staff to manage the grant application process and also used by Fingal Co. Co. councillors to review grant applications within groups in Fingal.</p>	<p>Personal Identifying data would be protected by Data Protection</p>	<p>None</p>

4. APPENDIX C - INDICATIVE IT CHANGE COSTS

One of the objectives of this report is to provide an indication of the costs involved in modifying existing systems to support reporting on a Fingal basis. We believe that the best mechanism to enable this is to support and encourage the adoption of Post Codes, a change that will be required of government departments and state agencies independent of the Fingal Administrative Data Sharing Initiative but which serves its needs well. We fully accept that the Post Code initiative is not sufficiently advanced at present to make this a practical approach as it would delay the Data Sharing Initiative unacceptably. It will however in the future be a great relevance and this is our justification for including indicative costs (at today's rates).

The costs we present below are our opinion, based upon what TEKenable would charge for the work as we cannot speak for other vendors. The costs shown should be taken as the median. The costs assume that the vendor has some degree of familiarity with the system to be changed and that the vendor is responsible only for making and testing changes required to add and use Post Codes and DEDs. The system owner is deemed to be responsible for testing that no aspect of the system has been inadvertently changed (regression testing). No costs are provided for the processing of existing addresses to add Post Codes to them, only for the modification of the IT systems to enable Post Codes to be accepted, stored, processed and displayed/printed. The costs relate only to 3rd party services and do not include cost of internal staff or any element of disruption, retraining of staff, update of manuals etc that may be necessary.

System Type	Conversion Cost (€ ex VAT)
Electronic Paper	300-2,000, best undertaken internally if possible
Mid Range	2,000 - 20,000
Enterprise	10,000 - 50,000

We have not included costs for conversion of Legacy systems because if the IT skills or knowledge of the workings of the system are not readily available then it would be a poor IT strategy to attempt a conversion and a replacement system should be commissioned. The costs for this can only be quantified on a system by system basis.

5. APPENDIX D –

TAOISEACH'S RESPONSE TO SGSES REPORT

The extracts below show clear support at the highest level for the objectives of the Fingal Administrative Data Initiative. Further detail is available in Section 10 in the main body of the report.

Appendix D Extract from the Government Decision arising from the report of the SGSES

Decision sought:

1. The Taoiseach requests the Government to agree to the following:
 - (a) The publication of the attached Report of the Steering Group on Social and Equality Statistics *Developing Irish Social and Equality Statistics to Meet Policy Needs* and accompanying Press Release.
 - (b) The development of a Framework for Social and Equality Statistics to capture a comprehensive set of indicators of trends across the main dimensions of life, which will capture social progress or setback. The Framework to be developed by the CSO, under the guidance of the National Statistics Board (NSB) and Senior Officials Group on Social Inclusion (SOGSI) and to focus on the measurement of key outcomes relating to quality of life and on developing the capacity to identify the factors influencing outcomes.
 - (c) The development of a formal Data/Statistics Strategy within each Department as an integral part of its information strategy. This should be included in its *Statement of Strategy* and be reported on in the annual report. In this context the NSB, supported by the CSO, to develop best practice guidelines within *six months* for Departments for the preparation and implementation of a formal data/statistics strategy.
 - (d) The CSO to take a lead role in the development of the potential of administrative data across Government Departments and Agencies in conjunction with SOGSI.
 - (e) To ensure that statistical confidentiality and data protection concerns are met:
 - (i) the CSO will set out formally how its process of data integration and the subsequent treatment of statistics generated by data integration can be safely employed without data protection problems.
 - (ii) the NSB and the SOGSI will set out formally how Departments would use and protect individual data available to it for statistical purposes.

- ◆ The CSO will take a lead role in the development of the potential of administrative data across Government Departments and Agencies in conjunction with the SOGSI. In particular two actions are essential to tap into the potential data resources at both departmental and agency level:
 - Increased standardisation, coordination and classification of data collection and maintenance to be agreed inter-departmentally.
 - Investigation of the expanded use of common identifiers, such as the Personal Public Service Number (PPS Number) or Postal Codes, if developed.

10. The Group believes that the full potential for administrative records cannot be realised without a link between data sets generated from administrative records and data sets generated by CSO surveys. This potential can more readily be realised through the expanded use of the PPSN. However, in order to ensure that this does not give rise to individual data protection problems it is recommended that:

- ◆ The CSO be asked to set out formally how its process of data integration and the subsequent treatment of statistics generated by data integration can be safely employed without data protection problems.
- ◆ The NSB and the SOGSI should be asked to set out formally how departments would use and protect individual data available to it for statistical purposes.
- ◆ Both of these documents should be referred to the Data Protection Commissioner for confirmation that this process does not undermine the data protection rights of individuals.

Dissemination of information on social and equality data

11. It is essential that Social and Equality Statistics and indicators be widely disseminated. The Steering Group Report recommends that, in line with best practice in other countries, consideration should be given to the periodic publication of a social report. In such a report progress, as measured by key social indicators, would be related to the objectives of social and equality policy, on outcomes relating to life quality aspects and would provide important benchmarks of progress over time.
12. Accordingly, it is proposed that the National Economic and Social Council (NESC) should be asked to undertake this work and to ensure that it is completed in advance of the next cycle of Strategy Statements so as to assist Departments in formulating their Statements.

6. APPENDIX E - THE SEMINAR

On the 24th of February 2006 a seminar was held in the Crowne Plaza Hotel, Swords. 75 invitations were issued and the seminar was attended by around 50 guests who represented organisations that are involved in the Data Committee, National Bodies and other interested parties. Where appropriate the feedback from the seminar has been incorporated into this report.

The seminar invitees were provided with a draft copy of this report and it was evident that these had been read. There were some robust exchanges in the seminar as well as praise from National bodies and an opportunity to clarify the report's content. The Department of Environment and Local Government praised Fingal Development Board for having good foresight and for producing this report at a very timely juncture. John Hearn from the Communications Regulator described the report as one of the best he had seen. Bruce McCormack stated that the report was all good news.

Anne Brophy – Chairperson of the Data Committee – Explained the context in which the report was produced and the background to the initiative.

Four speakers addressed the seminar:

- Peter Rose – TEKenable Ltd – Presented the report's main findings and recommendations;
- Gerry Brady – CSO and National Statistics Board- Presented the CSO's reaction to the report and some CSO initiatives that have relevance;
- Mr Bruce McCormack – Coordinator – Irish Spatial Data Infrastructure project, Dept. Environment, Heritage and Local Government – Presented DoEHLG's reaction to the report and addressed the wider context of the Irish Spatial Data infrastructure, the EU INSPIRE initiative and their work completed to date
- Mr John Hearn – Office of the Communications Regulator - Presented ComReg's reaction to the report and further information about the proposed post code scheme.

The seminar then sub-divided into three breakout groups to discuss the report and the presentations. The salient points arising from these groups are given at the end of this appendix.

6.1

SUMMARY OF PRESENTATIONS

The content of the presentations by Anne Brophy and Peter Rose are captured in the body of this report and will not be repeated here. Copies of the presentations made by Gerry Brady, Bruce McCormack and John Hearn can be supplied on request to the Fingal Development Board. We provide below synopsis of Gerry, Bruce and John's presentations:

Presenter

Gerry Brady –
Central Statistics Office

Synopsis

- The CSO welcomes this report. The project clearly operates at a statistical level and is not interested in individual citizens
- CSO has a long-term objective of streamlining “data islands” and this includes a focus on administrative records
- Fingal is not entirely provided for in CSO stats. This might change in the future
- Data protection is not breached if a secondary use of data is for statistical purposes as recommended by the report
- Lessons can be learned from the general approach in this project
- What classifications should be built onto the data other than geography – nationality codes?
- Postcodes present a great opportunity for Fingal, in whatever form they take.

Presenter

Bruce McCormack –
Department of
Environment and Local
Government

Synopsis

- The Fingal report has a huge synergy with the Spatial Data action in the National Spatial Strategy
- The TEKenable report is excellent, it covers the issues in a proper way and has taken huge care to look at the national picture and work within the terms of the data Protection legislation.
- The Data Hub recommendation shows how costs can be reduced and minimised
- The report was not strong on issues of metadata – the only criticism

Presenter

John Herne –
Office of the
Communications
Regulator

Synopsis

- The TEKenable report is an excellent report
- ComReg welcomes the statement about support for postcodes and agrees that data requirements for service planning are a valid consideration within the postcode initiative
- The level of disaggregation below a Fingal level will need to be flexible, not tied to DEDs or Small atomic areas
- Fair-use policies are a progressive way in which the data culture can change in the public sector

6.2

SUMMARY OF BREAKOUT SESSIONS

There were three breakout groups, each with a leader from the Data Committee, and a representative of TEKenable present. The Data Committee leaders were Orla Tracey, Dominic Byrne and Kieran O’Sullivan. Some of the queries, comments and suggestions are most appropriately addressed by a continuance of the Fingal County Data Initiative and a recommendation has been included to that effect, others have resulted in changes to the report to improve clarity and expand where necessary. The notes below were taken by Anita Morris, Ian McGuinness and David Pryor of the Fingal Development Board.

- What were the precise data needs of the Project? (These are listed on APPENDIX B)
- The privacy recommendations in the report are fair, sound and should be taken as given.
- How do we clearly communicate that this is not “big brother syndrome”?
- Will need to form a network of staff who will be the drivers of this hub?
- What are the benefits of the project and why not outline them in the report.
- Organisations also need to have a supply of data from others for marketing & strategic analysis. Is this a many to one, or a many to many?
- This project needs to present a case that’s clear and strong enough to convince the organisations themselves, not just the IT department.
- Detailed maps of Fingal area must be made available as a matter of urgency.
- What is the relevance of the entire project given Fingal’s low profile. Is Fingal a usable marketable profile to host this project?
- Need for a national directive to backup the theory that the County has primacy over all other boundaries. This is seen as fundamental to the entire project. The national directive could come through the Irish Spatial Data Infrastructure.
- Need to take some positive action around the issue of data. Filtering from the research phase to the action phase so as not to lose the momentum from the project – or to build on the momentum generated by today’s meeting.
- The geographic framework for all the state agencies does not have to be the county/city boundary as long as you can break it down into blocks that can be ‘built back’ up into the larger county.
- The problem here is that local government can’t solve this on its own, there is a need for central government to take some responsibility in this area.
- How can we ensure that there is a link between Fingal data and the other three Dublin Authorities?
- Some reservations about the suggestion of breaking up geography into Atomic Small Areas – too small for the purpose of being able to preserve anonymity?
- These Atomic Small Areas must not divide DED’s. Everything needs to slot neatly into the area above it. – ASA/DED/County.

- Introduce a Fair Use Policy clause that will limit political use of the data (a lot of fears around sharing data and sub-dividing).
- Put in place a strategy to minimise the fear factor around sharing data – mindset change needed.
- Goodwill is only a starting point, staff discontinuity can destroy sharing relationships.
- This report is excellent and has taken us beyond previous initiatives which have been attempted.
- More emphasis is needed on the Meta Data Standards.
- Need to get geography right first time. Redesigning Dbase costs money. Ensure each of the Agencies represented get copies of the reports from Inspire/ComReg/ ISDAI and they should be asked to comment on these reports.
- ED (DEDs) are the logical choice for the Data Hub. Alignment to ED's nationally – ED's should be respected by every organisation.
- Question on monitoring for the PostCode – What if we get it wrong and have to change Dbase all over again? There is also the possibility that organisations could be compensated/funded for the introduction of postcodes.
- There is value in action now because post codes is still at design stage and by changing systems now it is possible to influence the final design/format of post codes.
- PostCodes must recognise County/City boundaries.
- Once Postcodes have been introduced they must be the constant element in the data equation, even over and above ED.
- Information could in theory be realigned to ED boundaries immediately for certain agencies and that is the place to start – get data on an ED basis.
- The data extracted by the hub needs to be practical and of use to the other agencies.
- Data needs to be centralised, interpreted and analysed. Resources have to be in place to do this, i.e. data infrastructure has to be in place.
- Agree that the Fingal Data Hub should go ahead but the Data Hub means nothing without something to compare its output against. Comparisons are paramount for agencies that have boundaries other than the County.
- Suggestion to run the pilot in parallel with another County e.g. Donegal. Have to get beyond the 'so what' question. There might be a way of validating the data hub.
- Issue of the handling sensitive information has to be addressed by the Report. The views of the Data Protection Commissioner have to be made known. There was a suggestion that the Data Protection Act is pre the GIS and Data Monitoring Culture and the constraints in the act need to be addressed.
- What can make the Data Hub attempt work when others have failed?
- If all state agencies cannot be convinced could we go ahead with 80%, prove the worth of the proposals and ask the others to join in at that stage?
- Each organisation involved in the project will have to evaluate what is involved, in particular the nature and the cost of the work that is required to meet the requirements of the project. Agencies should be asked to do up scoping report.

- Make sure that ISDI and postcode requirements are streamlined in 2008 rather than two separate “fixes”.
- From now all dbase must operate to DED boundaries. All new IT systems bring introduced into organisations must recognise the DED boundary.
- Link data requests to the services and responsibilities that require local co-ordination.
- If the pilot is to be successful it needs to have a critical number of key agencies involved.
- Hold a follow up day.
- Establish what we share already. Establish what is most popularly sought from each agency
- Data must be useable – accompanied with explanations.
- Guidelines for the release of data are needed.
- How do we deal with the multitude of boundaries?
- Could pilot in Fingal be treated as an ISDI project and would there be any possibility of funding from the Department?

Several of these issues were taken on board and influenced the final drafting of this report. In May 2006 the Data Committee agreed that all these issues would be considered by the implementing agencies of the Fingal Data Hub pilot.

7. APPENDIX F - METHODOLOGY

The project team are very experienced and have considerable expertise in the field of technology consulting and particularly with respect to data and data issues. We have tried and trusted methodologies which we applied to this project and allowed us extract an abundance of pertinent information with the minimum disruption. The following was the methodology and phases applied to this project:

7.1.1 Phase 1

- Agree terms of reference and establish logistical issues such as contact-lists, status meeting dates etc;
- Agree a reporting framework;
- Establish when meetings can be facilitated with the data holders and generally settle the team into the project;

The deliverables from this phase were:

- Agreed Terms of Reference;
- Agreed Reporting Framework;
- Outline Project Plan (Schedule);
- Contact list for data holders;
- Team able to begin

7.1.2 Phase 2

This phase involved meeting with each of the data holders and examining their systems. The following were the type of questions asked of the Business Users and Data Holders

- What data is held?
- What is the process for review/update of the data?
- Does the data form a point in time snap-shot or reside on a continuum?
- An estimate of the timeliness of the data overall;
- An estimate of the accuracy of the data;
- The extent to which historical data is available to facilitate trend analysis;
- How are geographical issues dealt with (any form of area coding)?
- Are the locations of service provision recorded and/or residence location of service recipients?
- How data is analysed within the organisation?
- How, when and to whom is the analysis provided?
- Permissions sought/restrictions applied to the dissemination of information;
- Are any changes agreed, proposed or indicated that might have a bearing on the data?
- A demonstration of the system(s) involved in the collection, management and dissemination of the data.

7.1.3 Phase 3

This Phase involved meeting with policy bodies with relevant learning or who set policies that may influence the County Data Initiative.

- The Commission for Communication Regulation;
- The Irish Spatial Data Infrastructure Project, Dept. Environment and Local Government;
- REACH;
- Data Protection Commission.

7.1.4 Phase 4

This Phase involved documenting all of the findings and producing the final draft of this report for presentation at the seminar.

7.1.5 Phase 5

The presentation of the report at a semi-public seminar for feedback resulting in the final version of the report.

8. APPENDIX G - ABOUT TEKENABLE

TEKenable is a Specialist Software House delivering high-end software development and consulting solutions to the Government, Finance and Healthcare sectors. We are a certified Microsoft Partner and Microsoft's .NET is our platform of choice in delivering the most up to date business solutions for our clients.

TEKenable employ staff that have in excess of 10 years commercial I.T. delivery experience. A differentiator is therefore our experience and depth of knowledge in the technology sector allied with a strong commercial awareness.

TEKenable have recently merged with Craol Technologies who specialise in the Financial Services Technology sector. We have combined the strengths of both companies to offer our customers a comprehensive range of services and skills. Our customer base includes:

Financial

Irish Insurance Federation, ABN Amro, Ulster Bank (Corporate), Ulster Bank (Treasury), Guild Global Securities, FBD, NTMA, NCB, Bloxham, Merrill Lynch, IIB Bank, IIU, TEPPCO, 1st American Title Company, Mortgage Broker Services, AIB.

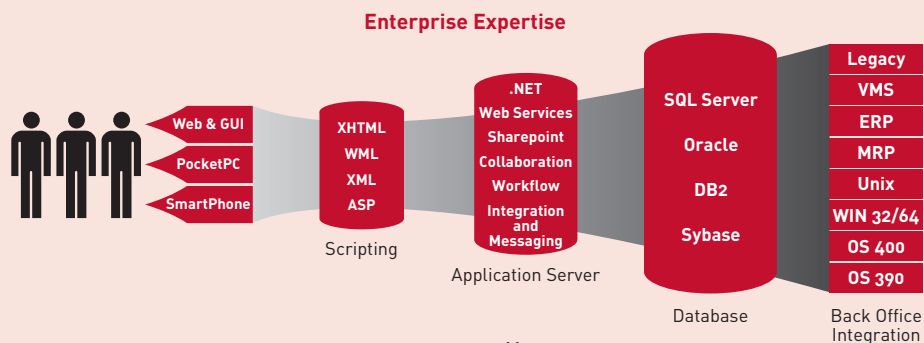
Government

United Nations ICT taskforce and WG3, Dept Health & Children, Fingal County Council, Dept of Communications Marine and Natural Resources, Pre Hospital Emergency Care Council, Valuation Office, Dept Agriculture and Food, Dept Transport, Dept Environment, the Communications Regulator and Enterprise Ireland.

Consumer & Industrial

Golden Pages, Eircom, Johnson Brothers, Media Lab Europe, Dawn Meats, McKenna Engineering and Eason & Sons.

We deliver Consulting, Bespoke Software Development and Managed Services over a range of technologies as illustrated below.



For further details please see our web site at <http://www.tekenable.com>

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