

TUARASCÁIL MAIDIR LE CÓID PHOIST

**THE
POSTCODES
REPORT**



Houses of the
Oireachtas
Tithe an Oireachtais

**AN COMHCHOISTE UM CHUMARSÁID, FUINNEAMH AGUS ACMHAINNÍ NÁDÚRTHA
AN DARA TUARASCÁIL**

**JOINT COMMITTEE ON COMMUNICATIONS, ENERGY AND NATURAL RESOURCES
SECOND REPORT**

MARCH 2010

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PRN: A10/0441

Chairman's Foreword

This is the second report that has been carried out on behalf of the Joint Committee and I would like to express my sincere appreciation and that of the members of the Joint Committee to Deputy Liz McManus for her work on the report, which she has carried out efficiently and quickly.

This report does not argue the case for or against the introduction of postcodes. What it contains is a study of the purpose of introducing postcodes and the principles to be taken into account in selecting the design of the postcode. It also addresses issues around data protection, implementation and the readiness of businesses and the general public to adopt the postcodes when they are introduced. The report also studies the costs.

Most importantly, however, the report contains some practical recommendations that, if acted upon, could help to address the concerns which are already being expressed by organisations, workers and individuals, while assisting in the introduction of a system of postcodes that is both efficient and cost effective.



A handwritten signature in black ink, reading "M. J. Nolan". The signature is written in a cursive style.

M. J. Nolan T.D.
Chairperson

31 March 2010

Report on Postcodes
March 2010

On 21st September 2009, the Minister for Communications, Energy and Natural Resources, Eamon Ryan TD, announced that a national postcode system would be introduced by early 2011.

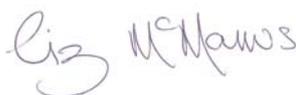
This report is a response to that announcement. I am honoured to have been appointed as rapporteur to the Joint Oireachtas Committee on Communications, Energy and Natural Resources to present the report. It is important that the introduction of postcodes is now assessed in light of that announcement and in the context of a radically altered economic climate as well as developments in technologies that offer new ways of providing this change more effectively.

As an invitation for tenders is likely to be made within months there is only limited time to carry out such an assessment. It is clear, however, that certain issues have been raised by Oireachtas members and by the public that deserve attention. While formal consideration of the introduction of postcodes began in 2005, since then issues have emerged which indicate the range of factors that need to be taken into account.

In this report consideration is given to the following concerns:

1. The purpose and principles underlying a postcode system.
2. The selection of a technology to provide an appropriate system of post coding in the Irish context.
3. The issue of Data Protection.
4. Implementation and the state of preparedness of businesses, organizations and statutory bodies.
5. The apportionment of costs. Costs arise from two factors:
 - a) The introduction of a new postcodes system.
 - b) The adaptation costs for businesses and organizations.

I hope that this report is of some assistance in determining the best way forward to provide a system of postcodes that is both efficient and cost effective. I wish to thank all those who have helped in its formulation.



Liz McManus TD
Rapporteur
Joint Oireachtas Committee on Communications, Energy and Natural Resources.

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a) The Announcement

Minister Ryan announces new postal code system for Ireland¹

Dublin, 21 September 2009

Communications Minister Eamon Ryan today announced that the Government has approved the introduction of a new postal code system for Ireland.

The Department of Communications will issue an invitation to tender shortly for the implementation of this new system. It is expected that post codes will be assigned and in use in early 2011.

A report from PA Consulting put the monetary benefits of postcodes to the State at €2 million in the medium term. It is widely acknowledged, however, that most of the benefits of such a type of system cannot be accurately gauged in monetary terms.

A postal code system throughout the country will bring a number of benefits including faster and more accurate postal delivery. This will benefit householders and business and save money for the State as a major postal customer.

A locational code system, such as the one envisaged, will also unlock the potential across Government Departments for use of this spatial data for policy planning. The information will allow Government to match demographic trends to its policy making i.e. assist in deciding the location of schools, hospitals. Post codes have also been identified by the emergency services as aiding their speedy deployment to the location as required.

It is envisaged that an alphanumeric postal system (ABC 123) will be used to identify clusters of houses.

Sample:

| | |
|---------------------|---------------|
| Ms. A Murphy | Mr. B Collins |
| Apt 7 Blue Building | Main Street |
| Pearse Street | Athlone |
| D02 123 | ATH 123 |

The exact allocation and design will not be finalised until the tender process is complete.

Announcing the move, Minister Ryan said, “A postal code system represents an excellent investment for any modern country and is essential for the development of the digital economy.

I look forward to working on its swift implementation over the next 15 months.”

1

<http://www.dcenr.gov.ie/Press+Releases/2009/Minister+Ryan+announces+new+postal+code+system+for+Irelandhtm>

b) Background

Ireland is the only country in the EU that does not have postcodes. Proposals to introduce a postcode system have been circulating for a number of years. For example, in 2003, the Communications Regulator, ComReg, held a symposium to explore the need for postcodes in the Irish market.

In 2005, the Postcode Working Group reported to the then Minister for Communications, Marine and Natural Resources, Noel Dempsey TD. It recommended the implementation of a postcodes system – suggesting a deadline of 1st January 2008.

In 2006, the National Postcodes Project Board recommended a six character, alphanumeric postcode system with the structure ABC 123.

In 2007, the current Minister stated his position that postcodes should be introduced as a matter of priority, though it would be subject to Cabinet approval.²

In 2009, the Minister announced that the government had approved the introduction of a postcode system, based on the recommendations of the National Postcodes Project Board.

It is expected that the postcode system will be up and running in 2011.

Liberalisation of the postal market:

One of the main drivers for the introduction of a postcode system in Ireland is the forthcoming liberalisation of the postal market. Currently the postal market is approximately 60% open in terms of revenue.

The Minister believes that “with respect to the postal sector, the forthcoming liberalisation of the market in 2011 has highlighted the absence of a postcode as a potential barrier to market development and many stakeholders see postcodes as playing an important role in development of a competitive, high-quality postal sector.”³

The deadline for full market opening and liberalisation of our postal service is 1st January 2011. The Government must transpose the 3rd EU Postal Directive which provides for full market opening of the EU postal services market by this date. This legislation will provide for the removal of the reserved area for An Post, meaning that there will be open competition for all types of business and domestic mail across the country.

In their submission to the Department of Communications, Energy and Natural Resources, the Communications Workers Union expressed concern at the fact that

² <http://www.irishtimes.com/newspaper/finance/2007/1019/1192737567054.html>

³ PQ Reply, 25th November 2009

liberalisation of the postal market has led to a reduction in service and the loss of jobs across Europe, and highlighted the potential threat to the Irish postal sector.

As stated above, there have been a number of reports published on postcodes. These reports examined the various options available and required for the introduction of a postcode system. All reports were favourable to the introduction of a postcode system.

Timeline of reports:

2005 – Working group on postcodes published proposals to Minister of Communications, Noel Dempsey T.D.;

2005 – ComReg report on Postcodes;

2006 – National Postcode Project Board report;

2006 – Technical Design -National Postcodes Project Board;

2007 – PA Consulting report;

March 2010 – The Department invited tenders for a Project Manager to advise on the implementation of a national postcode system.

On foot of a Government decision in 2007 the Department hired consultants, PA Consulting, to conduct an exercise to assess and quantify the benefits of postcodes to the Public Sector. A number of Departments were asked to assist in identifying and quantifying the benefits of postcodes in the context of the strategic objectives of their organisations. The Departments consulted were Social and Family Affairs; Agriculture and Food; Environment, Heritage and Local Government; Health and Children; Transport and the Revenue Commissioners.

All Departments consulted support the introduction of a postcode except for Agriculture and Food which, did not see specific benefits for it of such a system but did not oppose its introduction. Quantification of the likely Departmental costs and benefits still prove to be difficult.

The report identifies annual benefits of €3.6m in the Revenue Commissioners. The Department of Social and Family Affairs identified smaller financial benefits. These additional monetary benefits amount to approximately €2 million over a fifteen year period on a Net Present Value basis.

The Departments consulted also identified a number of potential benefits of postcodes but were not in a position to put a monetary valuation on these benefits

Consultations

As well as the consultations conducted by PA, the project has already benefited from a number of consultations and all have revealed support for the introduction of postcodes:

- In 2003 ComReg conducted a public consultation and symposium on postcodes and then invited further comments and feedback after the symposium. According to the regulator it elicited a large response with a significant proportion of considered responses largely in support of postcodes.
- The National Postcode Project Board engaged two sets of consultants (technical and cost benefit analysis) each of which consulted widely among Government, private and voluntary sector stakeholders.

c) The Purpose and Principles Underlying Postcodes

There is a wide range of views in relation to the purpose of introducing postcodes. They can be condensed into the following:

- to improve An Post's quality of delivery;
- to improve mechanisms to handle spatial data, facilitating health service planning;
- to improve targeting of government expenditure;
- to provide population information for planning for new school infrastructure;
- to facilitate emergency services;
- to improve charities' ability to create profiles of most appropriate target audiences;
- to permit new types of "geographic" based services;
- to facilitate competition in the postal sector.

A common misconception among the public is that postcodes will lead to a speedier postal delivery service. In fact this is not evident.

An Post's next day delivery target has been consistently improving over recent years, without the help of postcodes. The most recent figure from ComReg shows that 85% of mail was delivered throughout the State within one working day in the third quarter of 2009. This quarterly performance result compares with 80% for the same quarter in 2008.⁴

The year-to-date performance for next day delivery stands at 84% for the period January-September 2009, which is a 5% improvement for the same period in 2008. An Post's target for next day delivery is 94%.

While there is no hard evidence that postcodes will generate more business for An Post they can ensure "smarter" mail which can secure mail business into the future at a time when alternatives – ecommerce etc., – as well as the impact of the recession are taking their toll. The view of An Post is that the introduction of postcodes would facilitate their continued improvement in quality of service and should assist in achieving the 94% next-day delivery of domestic mail.

The role of the postman and postwoman is seen as central to the successful delivery of mail and we would want to ensure that the introduction of postcodes did not put the current delivery service at any risk. In our view the social benefits must be taken into account to ensure that there are no cutbacks in delivery capacity in order to pay for postcodes.

The benefits of postcodes – particularly if the correct technology is adopted – extend to enabling emergency services to reach destinations promptly; to inform Government departments and organizations so that they can plan accurately for current and future needs and deliver services more effectively; to achieve a more targeted and informed delivery for services for the private sector.

4

http://www.comreg.ie/publications/comreg_reports_on_an_post_quality_of_service_performance_between_july_and_september_2009.597.103522.p.html

Principles to be taken into account

The principles that have been applied to the development of postcodes were set out in the ComReg report in 2005.

“There are a number of complex technical issues that need to be taken into account in designing postcodes. However, it is desirable to set out some general principles that underline the work being undertaken moving forward.

- It is a public postcode that is proposed, not a “hidden” or technical code.
- It should be structured, at least to the level of specific areas within each county.
- It must be easily memorised so that it will gain maximum usage.
- It must solve the issue of non-unique addresses without asking people to change the name of their townland, parish or county.
- It must be neutral as between operators. In particular it must enable the postcodes to be aggregated for operational purposes in whatever way each operator desires. Just because An Post has decided to deliver mail for East Clare from Limerick doesn’t mean that another operator cannot decide to use Ennis as its base for the whole of Clare – and the postcode shouldn’t ask the addressee whose affinity is with Clare to use a different county name in the address.
- The approach to funding should ideally be self financing /minimal cost to operators and government.
- The working group will also have to agree “ownership” issues.”
(ComReg report, 2005)⁵

To this list we would add one more:

- that the system of postcodes must be appropriate to the needs of a developing smart economy and that future proofing should be an essential yardstick.

In our experience it is important is to ensure that the public, business and statutory sectors are informed and consulted about the introduction of postcodes. At this stage, the public is generally unaware of the changes planned and many organizations have not given full consideration to their implications. The principles outlined are laudatory; however there is a genuine fear among experts in the field that these principles could be used to prevent the emergence of the most advanced technological solution.

Recommendations:

1. The system of postcodes must be made appropriate to meet the current and future needs of the Smart Economy.
2. To prepare the public, the business and statutory sectors for the change, it is recommended that a roadmap of implementation be published by September 2010 and a facility for consultation provided to take into account concerns as they arise.

⁵ http://www.comreg.ie/_fileupload/publications/ComReg0507.pdf

d) Choice of Technology

Postcode Model

After considering a number of models, the six-character code was selected by the National Postcode Project Board for a number of reasons including the ability of the population to remember their codes.

What is required of a Postcode?

According to the published reports into the introduction of postcodes here, some general principles were to be taken into account. It was generally agreed that:

- It is a public postcode that is proposed, not a “hidden” or technical code.
- It should be structured, at least to the level of specific areas within each county.
- It must be easily memorised so that it will gain maximum usage.
- It must address the issue of non-unique addresses without asking people to change the name of their townland, parish or county.
- Its must be neutral as between operators.
- The approach to funding should ideally be self financing/minimal cost to operators and government.
- It should be route based but with a spatial reference element.⁶

A number of models were considered, but the main recommendation that emerged from the reports and which was accepted by the government was:

- **The code should be six characters long with the structure ABC 123.**

This model – an area code – was chosen over a unique identifier code. The stated reason a unique identifier was not chosen was down to concerns expressed by the Data Protection Commissioner (see section on Data Protection).

Area code:

To clarify, the term ‘area code’ refers to this model of alpha-numeric, where the country will be divided into approximately 200 post towns, and within those post towns there would be groups of approximately 40 to 50 properties.

The Minister outlined the government approved model of postcode in the Seanad on 21 October 2009.

⁶ National Postcodes Project Board, <http://www.dcenr.gov.ie/NR/rdonlyres/9A989A87-03EA-484E-B0F5-446FCF037D1A/0/NationalPostcodeProjectBoardRecommendationofNPPBonImplementationofPostcodesReport2006.doc>

Minister for Communications, Energy and Natural Resources (Deputy Eamon Ryan):

“The National Postcode Project Board recommended an alpha-numeric, publicly available and accessible postcode model. The country would be divided into approximately 200 post towns. Within each post town there would be groups of approximately 40 to 50 properties. The postcode would have the structure ABC 123 in its numeric code, the first three characters representing the post town, the second three representing the group of properties in which the particular building is located.”

The Minister has stated that one of the main benefits of postcodes is that they will facilitate better location-based services and will also facilitate the speedier deployment of emergency services.⁷

The Unique Identifier Alternative

As technology continues to advance it is essential that a new postcode system has the capability to link in with these advances. In recent times, there has been a widespread increase in internet mapping, google maps and iphones. In this day and age, do we want to introduce a traditional postcode system which would limit our capability of integrating systems?

The alternative model is to have a unique identifier that identifies each individual property.

There are modern day requirements that would necessitate a model that could be used as a navigational tool.

Following on from this position, there have been calls on the Minister to implement a postcode that would incorporate a Global Positioning System (GPS) capability.

The Minister has claimed that his approved area code system would be compatible with global positioning or navigation systems. However, this would still not identify a unique address and would have little value in navigational terms. An area code that has a GPS at its centre, meaning that you can pinpoint the centre of an area of 40 to 50 houses is of little value.

However he also claimed that: “the exact mechanism and format will depend on the competitive process. I am not ruling out any one technology but we maintain it should fit within the characteristics set out as a result of the work done over the years in terms of having memorability, accessibility and the ability to evolve into a whole range of other uses which will bring benefits to our economy.”⁸

⁷ PQ reply, 13th October 2009

⁸ Dáil debates, 26 January 2010

As approximately 35% of addresses in Ireland are non-unique addresses, meaning that they are either unnamed houses or on unnamed streets, the proposed postcode system grouping addresses to 40/50 properties will not solve the existing issues.

If the main purpose of a postcode is to locate a property, it is not clear how this system will improve the situation. In fact, it is argued that the approved government approach would magnify existing problems.

The public have been led to believe that we need a postcode for a more efficient delivery of mail and services. There is a real concern that the system that is being proposed is unsuitable, is based on old technology and could therefore result in a waste of resources.

We believe that there is still time to choose the right technology. Since we are the last in, should we not be the most up to date in the technical solution to postcodes?

What exists at present?

GeoDirectory

GeoDirectory is an autonomous company which was jointly established by An Post and Ordnance Survey Ireland.

GeoDirectory provides a fingerprint for every building in the Republic of Ireland – a unique, standardised address in the form of an eight-digit number, each pinpointed to an exact geographical location. This allows firefighters, ambulance crew and paramedics to get to the scene of an incident swiftly and efficiently.

According to its own website GeoDirectory is now an indispensable tool used by hundreds of Ireland's leading businesses and government agencies. It consists of:

1. A distinct, verified address ID for every property - 1.86 million in total;
2. An exact geographical location - a geocode - for every building;
3. 193,000 individual business addresses;
4. A quarterly update which incorporates all changes;
5. Details of new construction underway.⁹

GPS Ireland

GPS Ireland is a new company in Cork that has been testing a postcode system that it uses in conjunction with a SatNav company.

GPS Ireland has designed a system of PON codes that offers pinpoint addresses. According to its website:

“PON Codes are Position orientated Navigation Codes. They consist of a 7 Character Alphanumeric Code which defines geographic position to within +/- 6 meters of the equivalent Latitude & Longitude or Irish Grid coordinates for the same location.

PON Codes are easier to remember and work with than Lat & Long or Grid and, therefore, can be widely used and accepted as a Postal Code type System.”¹⁰

⁹ <http://www.geodirectory.ie/About-GeoDirectory.aspx>

¹⁰ <http://www.irishpostcodes.ie/index.php>

It is clear that mapping services are becoming increasingly ubiquitous with the rise in GPS enabled phones, Google maps, etc. The technology is available to easily identify individual properties. Given the shift in available technologies nationally and internationally, it is possible that previous data protection considerations around postcodes may have changed.

In order to obtain real benefits from the significant investment required for the introduction of postcodes it would be preferable to introduce location based postcode.

How would a unique identifier work?

A unique identifier could sit neatly with the existing GeoDirectory's database which is based on the X/Y (north / south) coordinates (12 plus 12 digits to give one metre accuracy)

A unique identifier code would have significant benefits:

1. Minimising the response times for emergency services due to the "pin point" accuracy of the address location.
2. Greater efficiency for delivery of goods and services by both private and public sector organisations through route planning tools widely available to interact with GPS technologies.
3. Can be equally applied to built-up and rural areas — resolving an essential inequity in terms of service responsiveness.
4. Solves the problem of non-unique addresses, especially in rural areas.
5. Does not require houses and/or roads to be numbered/named in any formal/structured way.
6. Respects current cultural and local approaches to addressing.
7. Not susceptible to flexible or creative interpretations — such as the attraction of "vanity" in parts of Dublin etc.
8. Independent of local spelling traditions/language versions and variations.
9. Can be translated to any administrative area even as they change over time (Electoral Divisions, further subdivisions of administrative areas, service catchment areas etc.).
10. Quick start up at low cost — GeoDirectory already exists as the essential foundation. This could have very low maintenance costs - a new building is identified and given a postcode only once, a demolished building is removed only once. An area based system would have very significant maintenance cost as it requires endless refreshment to maintain building clusters within a postal area/subarea.
11. Stable over time — locations do not change — unlike an area based system which is essentially fluid.
12. Fully exploits the potential of GPS technologies available in vehicles and mobile phones etc.
13. Supports spatial analysis of data to explain health pattern variations and to plan for equity in service provision/access.

Example – The Health Service Executive:

A submission from the Health Information Unit, HSE made the following points:

“If an address is required to provide a service (such as a hospital or GP consultation), the unique identifier/location postcode is simply a summary "tag" of the address and we understand that the service provider would be entitled to record and use that information in the provision of the service (primary use) – typically for correct identification, care provision and correspondence.

“Secondary use of address data such as determining local health patterns/access, call/recall for screening or vaccination purposes require good information governance processes and procedures to be in place to ensure the continued maintenance of confidentiality of personal data. There are well established techniques for anonymisation and "rounding up" to larger areas for analysis and display purposes. We understand that such matters, if not fully addressed under current legislation, could benefit from clarification within the context of the forthcoming Health Information Bill or equivalent measures.

“We would envisage a short and memorable location post code solution. It could look rather like a car number plate: county (1 or 2 letters) followed by a 5 digit number/letter combination which would identify a property. Additional digits would provide a “finer” degree of accuracy. However, the 5 digit design would bring the user to within steps of the required address – hence fulfilling the essential purpose of the address code.”¹¹

Recommendations:

1. The option of a postcode system based on a unique identifier system should be taken up in view of its range of benefits using the best, most up to date technology.
2. Rigorous cost analysis to be done on both postcode options.
3. The structure of postcodes could be subject to an open competition to attract young scientists or university interest, but this should only be considered if there is no undue delay as a result.

¹¹ Carmel Cullen, Howard Johnson, Health Information Unit, HSE.

e) Data Protection

The issue of data protection has been a central factor in the deliberation over postcodes. The view of the Data Protection Commissioner was set out a number of years ago and appears to have been used as the yardstick ever since in the development of the project. We believe that this issue needs to be revisited as it has a significant bearing on the outcome of consideration on choices in technology and delivery of postcodes to be made in the coming year.

The report of the Postcode Working Group prepared for Minister Noel Dempsey when he was Minister for Communications, Marine and Natural Resources, stated that the group had consulted the Data Protection Commissioner and reported that the position was as follows.

“A postcode would be considered to be personal data where, in conjunction with other information that is in the possession, or is likely to come into the possession of a data controller it would result in the postcode identifying a living individual.

“It may be the case, for example, that where a postcode identifies a domicile occupied by a single individual, and that individual is known to the data controller, then that postcode will be personal data in the hands of the data controller. This could be the case with a postal operation if it were certain that an address related to a sole occupant. Consequently, any postcode referring to such an address also becomes personal data in the hands of a postal operator.

“In other scenarios a postcode is not likely to be linked to a single individual and consequently is not likely to be or become personal data, therefore it would not be subject to the provisions of the Data Protection Acts 1988 and 2003. Given that a spatial postcode would not identify an individual this is probably the most relevant scenario.

“The Commissioner further advised that the issue of using postcodes for data matching or database cleaning purposes may only be addressed definitely when the Commissioner is in a position to examine the conditions under which a specific type of postcode is introduced.”¹²

On 26 June 2006, John Tierney, Chairman of the Postcodes Project Board, received a letter from the Data Protection Commissioner in response to his request which sets out in detail his concerns.¹³

¹² Report from Postcode Working Group, <http://www.dcenr.gov.ie/NR/rdonlyres/D7CC39A0-F92F-4715-A157-E7B3F8C880E7/0/PostcodeWorkingGroupexaminationofissuesinrelationtointroductionofpostcodeireland2005.doc>

¹³ See appendix 4

Comment:

There is an anomaly where the urban dweller tends to be easily identified by way of house number and street name while a rural dweller is not. Approximately 35 % of the Irish population has neither a house name nor a street number. It is hard to see how a safeguard of privacy can be provided to urban as well as rural dwellers despite what the Data Protection Commissioner (DPC) states on the matter. The postcode relates not to the person but to the property. If a person moves house they do not take their postcode with them.

The position in regard to data protection deserves to be subjected to greater scrutiny and legal opinion, in light of the wider practice that already pertains whereby:

- a. The register of electors already identifies private persons with addresses without difficulty. Local Authorities sell this data for marketing and other purposes;
- b. The telephone directory also specifies individual households;
- c. In the UK (subject to the same EU data protection legislation as Ireland) the PAF — postal address file — with exact addresses and exact locations with postcodes – is widely sold and distributed;
- d. An Post already sells its data system GeoDirectory. This system provides a unique identifier for each property although on a random number basis;
- e. There are many benefits to establishing a unique identifier system of postcodes not least the advantages gained by the emergency services to reaching their destination;
- f. It must also be remembered that many commercial organizations, state facilities, tourism facilities want their location to be well known.

It seems that the Postcodes Project Board and PA Consulting Group took the letter from the Data Protection Commissioner which stated that a postcode should not identify individual houses and accepted this without a formal legal opinion being sought.

The resultant policy flows from that advice of basing a postcode system on groups up to 30/50 properties and where no one house could be identified individually.

In reply to a Parliamentary Question the Minister stated, *“I have not had contact with the Data Protection Commissioner since the decision by Government approving the postcode implementation process but contact will be made as necessary in the context of advancing consideration of legislation.”*¹⁴

We believe it the time has come to make that contact.

¹⁴ Minister Eamon Ryan, PQ reply, 3 March 2010

Recommendations:

1. It is recommended that the Data Protection Commissioner be requested to consider afresh his advice already set out in 2006. It may be that, in light of new technologies, a different approach is possible.
2. Legal opinion should also be sought to assess the implications of the advice of the Data Protection Commissioner before any final decision on the project is made and, if necessary, new legislation should be considered by the government.

f) Implementation and state of preparedness of businesses and organisations

Implementation:

The easy part of the project could well prove to be its construction. Its implementation may well be problematic unless considerable effort is made to promote the changeover to postcode use.

Northern Ireland experience:

Postcodes were introduced in Northern Ireland between 1970 and 1974. However, take up and use of postcodes remains an issue in some areas.

Certain sectors, for example, exporters, companies reliant on the internet, the utilities, the banks etc., – have an inbuilt incentive to make the changeover and no undue delay is envisaged. “Bulk mailers make up 40% of mail volumes and will be the driver of business take-up.” (ComReg report) Government departments too, should be in a position to make the transformation, although budgets will have to provide for the costs involved.

A comprehensive analysis needs to be done in conjunction with business and community bodies like ISME and the SFA and indeed farming bodies like the IFA etc., to assess the obstacles to implementation.

We carried out a limited survey of organizations from the business, State and community sectors in order to get a picture of the state of preparedness – or otherwise – in the various sectors.

The following sample of the responses deal with the most common concerns expressed.

Example 1- A large insurance company:

“There are three principal areas of concern, some of which pertain directly and some relating to how the “mechanics” of postcodes will work in the marketplace.

“Definition of Postcode Boundaries and Postcode structure:

This concerns how postcode area boundaries will be defined, how this definition methodology or system will be made available to the marketplace and its ease of implementation and integration into existing business processes. This will have significant impact in how large institutions are able to update their existing address dataset with the appropriate postcodes, particularly outside the major towns and cities.

“Utilisation and Enforcement:

From a commercial perspective, any proposals for mandatory utilisation, penalties for non-compliance, honeymoon periods from introduction to mandatory compliance for

business, etc., as well as incentives for adoption in the form additional postal rate reductions over and above existing postal discounts, would also need to be clarified.

“Implications

The introduction of postcodes will impact on our existing business processes and IT systems. Development will be necessary across both our front and back office systems to accommodate the Postcode field as well as potential system development to enable correct allocation of Postcodes to both new and existing customers. This will require significant investment in terms of time and money to implement the necessary infrastructure to support compliance.”

Example 2 -A National Hospital:

“My view would be that the new postcode is only entered for new patients as they attend and old patients as they re-attend the hospital. The reason for this is that we have to balance the limited resources available, especially the staff time that would be required, versus the benefits achieved.

“This does also assume that the extra changes required to our software systems is not only possible, but fully funded.”

Example 3 - A State marketing board:

“In 2008, following the introduction of the Official Languages Act Regulations, Bord Bia commenced a process to comply fully with these Regulations, which meant re-printing stationery, envelopes, compliment slips, etc. However, the Regulations allowed for a transitional period which enabled existing stocks of stationery to be used and new stock was printed as necessary and not as an additional cost.

“If the introduction of post codes could be introduced similarly allowing adequate time to use existing stock, expenditure could be kept to a minimum. While the Official Languages Act Regulations covered only certain stationery items, the introduction of postcodes will cover most stationery and reports. As reports are generally printed annually, the new postcodes can easily be incorporated into new reports and also into any new stationery stocks without serious additional costs if there is an adequate lead-in time to the changeover.”

Example 4 - A Third Level Institution:

“There would be no impact on the internal mail operation arising from the introduction of postcodes. Incoming mail is sorted by An Post so our Mail Room staff would retain their normal practice of sorting by Faculty, School or Department and delivering as usual. The use of the correct postcode for outgoing mail would be the responsibility of the sender but we would circulate the new postcodes to staff to promote awareness. The Mail Room staff would only be in a position to intervene should an incorrectly addressed item of mail be handed into the Mail Room in person. Otherwise, given the large volume of outgoing mail, they would be unable to trace the sender of an incorrectly addressed item of mail.

“In terms of stationery, all ‘headed’ stationery such as letterhead, business cards, etc., would have to be replaced but old stocks could be used up before becoming obsolete. A long ‘lead in’ time would facilitate this. Where large stocks of stationery are held, the purchase of a cheap rubber stamp incorporating the new postcode could be used until stocks are exhausted and this would probably be the most common solution for many of the Schools and administrative departments within College.

“Departments holding databases of addresses in the Republic of Ireland such as the Student Records Office and the Alumni Office will have to update their records which may take time and resources.”

Example 5 - A Major Irish Bank:

“We believe that both consumers and businesses will benefit in the long term from the introduction of postcodes into Ireland despite the potential implementation challenges and costs of this initiative. Full implementation of postcodes for all consumers and businesses across the country should address current inefficiencies and anomalies and significantly enhance the nature of postal communications in Ireland going forward.

“We are already engaged with Data Ireland (An Post) to update our customer records based on the “Precision Address” information. This will allow for a smoother transition to postcodes when they are introduced.

“The following is an outline of the likely benefits and costs considerations related to the introduction of postcodes.

“Correct Addressing:

Implementing postcodes should enable the precise addressing of every deliverable address in Ireland. This should lead to improvements especially in the following:

- Customer Service;
- Customer Identification and Data Protection;
- Anti Money Laundering Verification;
- Fraud Area Identification;
- Reduction in the return of “Incorrectly addressed mail”.

“Postcode introduction will facilitate postal communications getting to the exact address. It will bring benefits in terms of customer matching which is a huge issue for us where common customer name and common townlands/addresses are concerned. This will be an improvement on the current situation where organisations have had to rely on databases such as the “Register of Electors” etc.

“Correct Customer Records:

As there has been no precise database of registered addresses to date, it has been very difficult to manage customer records by linking the same address. The introduction of postcodes will improve this position and will allow organisations to link all customers to the precise registered address and use this as the correct address. This is currently the process in other countries such as the UK where the Postcode Address File (PAF) is used. From a customer point of view, this improves customer service.

“This allows for the Database improvements such as:

- Duplicate entries can be identified and removed – to get rid of unwanted or duplicate wasteful mailings;
- Databases can be linked more easily so giving a better picture of the database contents thus improving customer service;
- Improvements in Market and Customer analysis.

“Marketing:

Current marketing Models are limited due to the lack of a single mechanism to allow for precise customers targeting. Postcodes will enable businesses better manage their mailings to prospects by the certainty that postcodes can give to ensure that current customers are not mailed asking them to become customers etc.

“Postal Codes:

We expect the processes that rely on correct addressing to become more streamlined and efficient with the introduction of this initiative. This will ultimately benefit both consumers and businesses. We have seen these benefits in other jurisdictions in which we operate.

“Cost Considerations:

There will be a number of activities associated with the implementation of this initiative. This change will impact every system and database which capture, validate and store customer ‘Address’ information. The complexity and associated implementation costs of the changes required can only be assessed when formats and validation rules are agreed on confirmation of all aspects of the proposed codes. We are assuming that the State will build on the “Precision Address” information to offer Businesses a file showing all postcodes and all addresses within each postcode.

“As an organisation we understand that there will be costs associated with the upgrade of all our impacted systems and databases. These costs could be significant if implemented in a date driven way. This is especially important in the current economic climate. Phasing the implementation over a period should allow for the flexibility that keeps costs to a minimum for everyone concerned.”

Small and Medium Enterprises:

Generally the large corporations and bodies envisaged that, with a generous lead-in time, the benefits made the project worthwhile. Smaller businesses and organizations were less enthusiastic.

“I estimated the minimum cost to me will be €7,000 to €8,000. As I’m a small service provider with 14 staff that is struggling already, I don’t relish postcodes being introduced at a time of such uncertainty.”

A Retailer:

Recently published figures showed that approximately five companies a day became insolvent in February 2010. These latest statistics from InsolvencyJournal.ie reveal the number of retail companies that went belly-up more than doubled in February to 26 — equivalent to almost one a day.

If this trend continues, it is predicted that the total insolvencies this year could exceed the 1,406 recorded in 2009.¹⁵

Most small businesses and service providers we spoke to had not given postcodes any consideration. Those dependent on web sales were very positive but there may well be reluctance in this sector to make the change for reasons of cost, convenience and culture.

Householders:

The same can be said of householders who may see no immediate direct benefit – although this depends of the technology chosen - so it is important that their concerns are understood and addressed.

A lot depends on the ease of accommodating to the new system and it is clear that the less disturbance and change is caused, the more likely it will be accepted. For example, we welcome the emphasis put on reports already published, that the names of a townland, parish or county would not be interfered with and that the use of different names (including road names in rural areas) would not be required for the convenience of any operator – or indeed for the design of the system of postcodes itself. But there are other issues that will come to the fore as the date for implementation comes closer.

“The benefits of a public postcode will only be fully realised if it used by everyone once it is implemented. While An Post claims that it can take a long time to achieve high levels of usage, the Dutch Post Office achieved 90% usage rates within three years at a time when other usages of postcodes were not as common as they are today.

“However, in order to achieve a high usage rate ComReg considers it vital that all postal operators should accept the official names of townlands, roads, Towns, Counties, etc., and not require the use of different names (including road names in rural areas) for their own operational convenience.”

*-ComReg report 2005.*¹⁶

In its report ComReg estimated a likely take up rate of 70% in around 5 years and an error rate of 1.5% to 2%. This estimate is based on experience in other countries and a quick reduction in the error rate is envisaged. Whether this is accurate or not, it is clear that a relatively long lead-in time is envisaged which underlines the importance of a pro-active approach. A wide ranging promotion strategy incorporating incentives seems essential if reasonable timelines are to be met. This has budgetary implications.

¹⁵ <http://www.insolvencyjournal.ie/index.aspx?Page=2>

¹⁶ http://www.comreg.ie/_fileupload/publications/ComReg0507.pdf

Recommendations:

1. An early consultation process be developed to engage with as wide a range of organizations as possible, with a view to assessing the obstacles and opportunities of postcode implementation, to result in a promotion strategy that can be reviewed in line with progress on a yearly basis.
2. The setting of a lengthy lead-in time to facilitate the changeover without undue costs for organizations, particularly for those for whom the change means changes of databases, stationery, advertising etc., OR alternatively, the setting of a shorter lead-in time with inbuilt financial supports for those organizations which will experience a financial burden in the short-term.
3. The drawing up of an incentive scheme targeting groups and individuals who can be encouraged to use postcodes by way of reward. For example, free postage for a month for householders who use postcodes would provide dual benefits of using postcodes and boosting postal services at a time when they are under pressure.
4. That the familiar and well used form of addresses is retained – i.e. townland, county, Dublin area number – to help an easy changeover and to pre-empt unnecessary disputes about area names or numbers.

g) Costs

A breakdown in costs includes:

1. The cost of construction and implementation of the postcodes system;
2. The cost of ongoing maintenance of the system;
3. The cost to organizations of the changeover.

Introduction of Postcodes

Regarding the cost, the Minister quotes the National Postcodes Project Board's report in 2006, which estimated that the upfront costs of establishing a postcode address database, implementing and promoting the postcode would be in the region of €15m, and the ongoing annual maintenance costs of the address database was estimated to be in the region of €2.5m.

As a result of concerns about the cost of the introduction of postcodes, PA Consulting were asked to carry out an assessment on projected costs.

The published PA Consulting reports include a number of estimates including the following tables:

| | Implementation Costs | Maintenance Costs | Monetary Benefits | NPV ¹⁷ over 15 years |
|---|----------------------|-------------------|-------------------|---------------------------------|
| Postcode holder ¹⁸ | €3,106,230 | €2,236,821 | €0 | - |
| An Post | €7,514,000 | €7,620,000 | €0 | -€85,450,831 |
| Postal Private Sector | €1,273,653 | €12,332 | €1,220,564 | €8,007,293 |
| Banking | €86,555 | €1,000 | €52,082 | €5,734,644 |
| Utilities | €397,836 | €4,449 | €231,411 | €1,213,504 |
| Retail | €2,071,747 | €122,693 | €143,691 | -€1,824,039 |
| Telecommunication | €640,794 | €14,919 | €240,975 | €1,055,006 |
| Insurance | €739,051 | €90,121 | €44,750 | -€1,358,411 |
| Government services | €4,429,990 | €32,267 | €63,344 | €1,622,332 |
| Total - excluding postcode holder set up costs | | | | -€83,066,839 |
| Total - including postcode holder set up costs | | | | -€96,173,069 |

The above analysis was based on a 2007 implementation with full benefits being achieved in year 2. Rebasing to a 2010 implementation with benefits accruing in a more conservative way (25% in year 2011, 50% in year 2012, 75% in year 2013 and 100% from 2014 onwards) and incorporating revised costings from An Post,¹⁹ the following analysis was produced:

¹⁷ Net Present Value, assuming an 8% discount factor per annum.

¹⁸ The Postcode Project Board used the term "Postcode management licence holder" for the body that would be responsible for developing, communicating and maintaining the postcode system.

¹⁹ These were produced in 2007 and have only been inflation adjusted for two years.

| | Implementation Costs | Maintenance Costs | Monetary Benefits | NPV over 15 years |
|---|----------------------|------------------------|-------------------|---------------------|
| Postcode holder | €4,321,531 | €444,235 ²⁰ | €0 | - |
| An Post | €7,477,310 | €24,360 | €2,864,430 | -€4,742,709 |
| Postal Private Sector | €1,391,755 | €13,476 | €1,333,743 | €7,730,207 |
| Banking | €1,078,035 | €44,802 | €1,040,366 | €5,754,711 |
| Utilities | €134,726 | €15,789 | €52,869 | €1,185,635 |
| Retail | €2,263,854 | €34,070 | €57,015 | -€2,282,196 |
| Telecommunication | €700,213 | €6,302 | €63,320 | €988,262 |
| Insurance | €807,581 | €98,478 | €48,900 | -€1,280,939 |
| Government services | €2,655,316 | €5,259 | €15,581 | €1,315,463 |
| Total - excluding postcode holder set up costs | | | | -€1,331,565 |
| Total - including postcode holder set up costs | | | | -€15,653,096 |

The above cost benefit analyses were based on a number of high-level assumptions. The recent consultation process with Departments provided an opportunity to glean more detailed information on projected costs and benefits, specifically for Government. This identified:

- Implementation costs were understated by €1,737,336
- Maintenance costs were overstated by €14,579
- Monetary benefits were understated by €3,345,367 per annum (once full benefits have been realised).

On this basis, the following revised cost-benefit analysis was produced:

| | Implementation Costs | Maintenance Costs | Monetary Benefits | NPV over 15 years |
|---|----------------------|-------------------|-------------------|-------------------|
| Postcode holder | €4,321,531 | €244,235 | €0 | - |
| An Post | €7,477,310 | €24,360 | €2,864,430 | -€4,742,709 |
| Postal Private Sector | €1,391,755 | €13,476 | €1,333,743 | €7,730,207 |
| Banking | €1,078,035 | €44,802 | €1,040,366 | €5,754,711 |
| Utilities | €134,726 | €15,789 | €52,869 | €1,185,635 |
| Retail | €2,263,854 | €34,070 | €57,015 | -€2,282,196 |
| Telecommunication | €700,213 | €6,302 | €63,320 | €988,262 |
| Insurance | €807,581 | €98,478 | €48,900 | -€1,280,939 |
| Government services | €1,392,652 | €0,680 | €960,948 | €2,857,175 |
| Total - excluding postcode holder set up costs | | | | €0,210,147 |
| Total - including postcode holder set up costs | | | | €5,888,616 |

i.e. that the consultation process identified approximately €2m of additional monetary benefits over 15 years.

Three models were drawn up and the variation between them relates largely to the difference in the estimated costs for An Post. We have been informed that even since

²⁰ As per the original cost benefit analysis, it has been assumed that the maintenance costs for the postcode holder will be recovered via income.

the final model was drawn up the costs to An Post have been further revised downwards and that modernization of plant already in train will assist a smooth transfer.

Maintenance Costs

It is envisaged that the start up costs would be borne by the Exchequer but that the ongoing maintenance costs (around €2.5million) would be paid by the sale of products. We understand that to mean sales of the postcode system itself and services attached to delivery and adaptation for organizations.

Currently we know that An Post sells its GeoDirectory in the same way to large businesses and statutory bodies.

The Government clearly see this part of the venture as a revenue generating mechanism. However, in our view, this policy needs further consideration.

If this product is sold purely on a commercial basis there is a risk of unnecessary delays in implementation and that it may militate against organizations which could benefit from postcodes but may find the cost of acquisition penal.

Voluntary organisation and charities are generally positive in their view of postcodes. However, the inherent costs may not have been factored into their assessment of the benefits. For example:

“The introduction (of a postcode) will have significant implications in terms of our ability to effectively raise funds for our important work. Our fundraising department has identified the following advantages arising from the introduction of postcodes in Ireland.

- *A reduction in inaccurate addressing and so improvement in the delivery of appeals and direct marketing.*
- *A reduction in data-entry costs and an improvement in efficiency by enabling us to use software that allows us to key in a postcode which auto-completes the address.*
- *Possibility of more targeted, and therefore cost-effective, marketing.*
- *Possibility of a more comprehensive analysis of our supporter database allowing us to map out our relative strengths in different geographical areas.*
- *A reduction in complications with web software that often insists on a postcode being a mandatory field for online payments, which have cost us income in the past.*

We would not expect any significant cost with the introduction of postcodes – and the benefits would certainly outweigh these.” - A National Charity

It is obvious that for such an organization postcodes offer real cost effectiveness but presumably only if the charge for acquiring the system is reasonable, nominal or non-existent.

A clear protocol needs to be worked out and an assessment done to establish costs. For example, one model could be to charge commercial organizations for the information while exempting charities, voluntary organisations and/or government departments. This model did not receive approval from the commercial sector when we consulted them for understandable reasons since that sector would then end up bearing the full costs of the ongoing maintenance of the postcodes system.

It is worth noting that in Great Britain, where postcodes were introduced over a 15-year period from October 1959 to 1974, the Government announced that the postcode data will be available free of charge beginning in April 2010.²¹

Recommendation:

A clear policy should be developed in relation to the acquisition of the postcodes system in terms of costs, taking into account the different uses to which postcodes will be put, and a decision made as to whether any exemptions should be made within such a scheme.

²¹ <http://news.bbc.co.uk/2/hi/technology/8402327.stm>

h) Conclusions and recommendations

At a time of severe economic recession and high unemployment it is important that the postcodes project offers measureable benefits and is delivered at a reasonable cost.

The question we need to answer is, as the last country in the EU to adopt postcodes should we not aim to be the best in terms of postcodes delivery?

To assist in the success of the project we submit the following recommendations for consideration by the Minister for Communications, Energy and Natural Resources.

1. The system of postcodes must be made appropriate to meet the current and future needs of the Smart Economy.
2. To prepare the public, the business and statutory sectors for the change it is recommended that a roadmap of implementation be published by September 2010 and a facility for consultation provided to take into account concerns as they arise.
3. The option of a postcode system based on a unique identifier system should be taken up in view of its range of benefits using the best, most up to date technology.
4. Rigorous cost analysis to be done on both postcode options.
5. The structure of postcodes could be subject to an open competition to attract young scientists or university interest, but this should only be considered if there is no undue delay as a result.
6. It is recommended that the Data Protection Commissioner be requested to consider afresh his advice already set out in 2006. It may be that, in light of new technologies, a different approach is possible.
7. Legal opinion should also be sought to assess the implications of the advice of the Data Protection Commissioner before any final decision on the project is made and, if necessary, new legislation should be considered by the government.
8. An early consultation process to be developed to engage with as wide a range of organizations as possible, with a view to assessing the obstacles and opportunities of postcode implementation, to result in a promotion strategy that can be reviewed in line with progress on a yearly basis.
9. The setting of a lengthy lead-in time to facilitate the changeover without undue costs for organizations, particularly for those for whom the change means changes of databases, stationery, advertising etc., OR alternatively the setting of a shorter lead-in time with inbuilt financial supports for those organizations which will experience a financial burden in the short-term.
10. The drawing up of an incentive scheme targeting groups and individuals who can be encouraged to use postcodes by way of reward. For example, free

11. That the familiar and well used form of addresses is retained – i.e. townland, county, Dublin area number – to help an easy changeover and to pre-empt unnecessary disputes about area names or numbers.
12. A clear policy should be developed in relation to the acquisition of the postcodes system in terms of costs, taking into account the different uses to which postcodes will be put, and a decision made as to whether any exemptions should be made within such a scheme.

Appendices:

Appendix 1

Dear Deputy McManus,

Further to your letter of 17th February 2010 we thank you for the opportunity to comment on the proposed 'Post Code' project.

Our comments are based on our experience of exploiting the geographical potential of health related data using Health Atlas Ireland.

Given that the essential purpose of an address is to provide directions to find a location, we strongly recommend that Ireland should adopt the best methodology to introduce a location based postcode (i.e. an address zip code). We believe that an area based system (hide one property within so many other properties which may be miles apart) is inappropriate, unnecessary, outdated and a waste of resources.

GeoDirectory (an autonomous company jointly established by An Post and OSI) has developed a high quality national data base of all "official" residential and non-residential building addresses, including the verified address ID for all property address points (1.9 million in total), based on the XY (north/south) coordinates (12 + 12 digits to give a 1metre accuracy). This database is available commercially for "looking up" addresses and is updated every quarter. Mapping services are becoming increasingly available on the internet, GPS, mobile phones etc using Google and other providers with the focus on exact locations. A location postcode would sit neatly with these technologies.

Given these initiatives on the national and international scene, we understand that there may no longer be the same data protection considerations for the use of a location postcode as previously intimated. In this regard further discussions might be useful with the Data Protection Commissioner. If an address is required to provide a service (such as a hospital or GP consultation), the location postcode is simply a summary "tag" of the address and we understand that the service provider would be entitled to record and use that information in the provision of the service (primary use) – typically for correct identification, care provision and correspondence.

Secondary use of address data such as determining local health patterns/access, call/recall for screening or vaccination purposes require good information governance processes and procedures to be in place to ensure the continued maintenance of confidentiality of personal data. There are well established techniques for anonymisation and "rounding up" to larger areas for analysis and display purposes. We understand that such matters, if not fully addressed under current legislation, could benefit from clarification within the context of the forthcoming Health Information Bill or equivalent measures.

We would envisage a short and memorable location postcode solution. It could look rather like a car number plate: county (1 or 2 letters) followed by a 5 digit number/letter combination which would identify a property. Additional digits would provide a "finer" degree of accuracy. However, the 5 digit design would bring the user to within steps of the required address – hence fulfilling the essential purpose of the address code.

A location postcode would have a number of very important and desirable benefits, some of which are outlined below:

1. Minimises the response times for emergency services due to the "pin point" accuracy of the address location.
2. Allow for greater efficiency for delivery of goods and services by both private and public sector organisations through route planning tools widely available to interact with GPS technologies.
3. Can be equally applied to built-up and rural areas - resolving an essential inequity in terms of service responsiveness (this is a fatal limitation of an area code).
4. Solves the problem of non-unique addresses, especially in rural areas (this is a fatal limitation of an area code).
5. Improves correct patient/client identification and hence improved safety of care.
6. Does not require houses to be numbered/named in any formal/structured way.
7. Does not require roads or streets to be numbered/named in any formal/structured way.
8. Respects current cultural and local approaches to addressing - the location postcode is simply added to the current address format.
9. Not susceptible to flexible or creative interpretations - such as the attraction of "vanity" in parts of Dublin etc.
10. Independent of local spelling traditions/language versions and variations.
11. Can be translated to any administrative area even as they change over time (Electoral Divisions , further subdivisions of administrative areas , service catchment areas etc).
12. Quick start up at low cost - GeoDirectory already exists as the essential foundation.
13. Has very low maintenance costs - a new building is identified and given a location postcode only once, a demolished building is removed only once. An area based system would have very significant maintenance cost as it requires endless refreshment to maintain building clusters within a postal area/subarea.
14. Stable over time - locations do not change - unlike an area based system which is essentially fluid.
15. Fully exploits the potential of GPS technologies available in vehicles and mobile phones etc.
16. Supports spatial analysis of data to explain health pattern variations and to plan for equity in service provision/access.

No rigorous cost analysis appears to have been done on all postcode options. We believe a cost benefit analysis would support a location rather than an area based approach. The simple reason for this is that a location based infrastructure is actually required to generate the area cluster codes with all the inherent costs and instabilities of that approach.

There may be opportunities for a creative solution to the structure of the location postcode through an open competition process which might attract young scientist or university interest. The implementation of the project could be seen as a separate piece of work with the successful partner identified through a tender process. It may not always follow that experts in the implementation of such a location post code are also experts in the creation of such a code. The implementation of this project will play a major part in its success. Innovative ways of encouraging business and the public to adapt the new location postcode should be identified. This could include the possibility of a 'free post' incentive for the use of the new code for a set period of time.

Other issues to consider would include the possibility of government agencies and its funded agencies (charities etc) availing of the location code database (similar to the GeoDirectory dataset at present) free of charge. This would ensure the location post code is used by the public sector and could help with the 'bedding down' and implementation of the code while also protecting the commercial aspects of the dataset.

While our comments are presented within the context of the health sector, we believe the concepts would translate equally well into other state and private sectors - finding businesses, delivery of goods to other businesses and customers, courier services, tourist industry and provision of utility services etc.

We are not in a position to comment on the preparedness of the health sector to record location post codes except to say that there is usually a "space" to record the postcode in health systems so we would not envisage significant issues going forward. Currently we exert significant resources trying to "translate" existing address data into a spatially relevant format.

We suggest that the Government has an excellent opportunity to adopt the most innovative, pragmatic and practical address finding system in the world. This is preferable to simply adopting an approach designed for an earlier era predating the technologies and service requirements of a modern society.

If you require any further information or clarification, please do not hesitate to contact us.

Howard Johnson

Carmel Cullen

Health Information Unit
Health Intelligence
Health Service Executive
Dr Steevens' Hospital
Dublin 8

Appendix 2

Liz McManus TD
Dáil Office
Dáil Éireann
Dublin 2



John Hume Building
National University of Ireland, Maynooth
Maynooth
Co. Kildare
IRELAND

Director
Professor A S Fotheringham

26-February-2010

Dear Mrs McManus

Introduction of Postcodes in Ireland

Thank you for contacting myself and my colleague Martin Charlton at the National Centre for Geocomputation to solicit our views on the decision of the Minister of Communications Energy and Natural Resources to introduce postcodes into Ireland.

We welcome the decision to introduce postcodes into Ireland. This will bring Ireland into line with European Union intentions regarding competition in the postal services by allowing a greater range of players in the postal market. However, there may also be other benefits not directly connected with the delivery of post to the residential addresses.

Significant investment has been made by Ordnance Survey Ireland in the creation of a national set of small areas boundaries. These are intended for the reporting of, *inter alia*, data from future Censuses of Population, but may also be used in the analysis of public health, welfare, and revenue information. They are smaller in size than Electoral Divisions, and as such provide a more precise vehicle for the targeted delivery of appropriate public services to those sections of the population who need them than is currently possible with EDs. They were designed so that their boundaries do not cross Electoral Division boundaries. Digital versions of boundaries of these areas, together with codes that permit them to be linked with the individual entries in the BUILDINGS table in GeoDirectory, are available from OSI¹.

The details of the 'postal sector' model to which the Minister refers are somewhat vague. We would strongly recommend that, whatever spatial form these 'sectors' take, they should be completely contained by the boundaries of the small areas that are referred to in the previous paragraph. By this we mean that if the 'sectors' are polygonal in shape their boundaries should not cross the boundaries of the small areas. Furthermore, we would recommend that the postcode units – the lowest spatial level in the hierarchy – should be the individual buildings that are indexed in the BUILDINGS table in GeoDirectory.

The advantage of referencing the individual building as the postcode is that this largely resolves the problem of non-unique addresses which are mainly prevalent in rural areas. If a service provider other than An Post is unable to resolve the address on an envelope, packet or

¹ Details can be downloaded from <http://www.osi.ie/GctAttachment.aspx?id=ccf40b31-0682-429d-b763-cc4a2fca8331>

Tel: +353 (0)1 708 6455

Fax: +353 (0)1 708 6456

Email: ncg@nuim.ie

Web: <http://www.nuim.ie/ncg>



parcel such that it cannot be delivered to its intended recipient, it could be argued that the conditions for competition in the postal market that are laid down in the various EU Postal Directives (96/67/EC, 2002/39/EC, 2008/06/EC) have not been met because competitors are unable to fulfil their delivery obligations.

The lack of unique addresses in rural areas brings another set of problems which are related to the reliable and efficient provision of emergency services. For a patient with a heart attack or a ruptured appendix, waiting whilst an ambulance or locum doctor tries to determine which of a number of houses perhaps spread over a large area, delay in the arrival of professional help might well result in death. A postcode which resolves to an individual building will be a reliable guide in such cases.

The press releases have hinted that the code will be alphanumeric, with a mix of letters and numbers. It may need to be longer than 6 characters, but should short enough to be easily memorable.

In the initial stages of postcode use there will be many businesses who will wish to have their address lists enhanced with postcodes. There are several Irish companies who have the technology to provide such services and expansion in this sector for a brief period would be welcome at a time when the economy needs stimulating to help it out of the recession. Observing the uses to which postcodes have been put in other countries would suggest that economic opportunities will increase rather than decrease following the adoption of postcodes.

Yours sincerely




Professor A Stewart Fotheringham
Director

Martin Charlton
Deputy Director

Appendix 3:



26 June 2006
2/22/10

Mr John Tierney
Chairman
National Postcodes Project Board

POSTCODES AND DATA PROTECTION

Dear John

Following my presentation to the Board last April, I have recently had discussions with the Board's consultants on the privacy/data protection implications of various postcodes options which are under consideration.

I very much welcome the opportunity to have these exchanges at this stage. My approach is to help the Board to arrive at a set of proposals which meet the public good objectives of the postcodes project without giving rise to privacy/data protection issues.

I have been asked to put in writing for the Board some of the key points that were raised in our discussions. I am happy to do so in this letter.

BACKGROUND

Personal privacy is important to Irish people. This was confirmed in a survey which this Office carried out last year, where it came second only to crime prevention in its relative importance to individuals.

Data Protection legislation is part of the overall legal framework in Ireland (and the EU) for the protection of personal privacy. The central theme of data protection legislation is that the individual, as part of their right to privacy, should control the use of information that is personal to them.

"Personal data" is defined in our legislation as data relating to a living individual who is or can be identified either from the data or from the data in conjunction with other information that is in, or is likely to come into, the possession of the data controller (a person who, either alone or with others, controls the contents and use of personal data). This definition of "personal data" is very broad and mirrors a similar broad definition in the EU Data Privacy Directive. Its precise meaning has to be considered in context and is not subject to any hard-and-fast rules.

In the Irish context, a person's home address is an important part of their identity. In the case of a single-occupancy, owner-occupied dwelling, it is, in practice, a unique identifier. In the case of a family home, it typically identifies a small group of related individuals.

I suggest therefore that, for the purposes of postcodes planning, a single-unit residential address should be considered as being part of the "personal data" of the occupant(s). This would not apply to a commercial address. Neither would it apply to a typical apartment blockface containing many individual residential units.

POSTCODE MODELS

'One-to-One' Model

Based on the considerations above, a postcode model which provided, in most cases, a 1 to 1 match between a postcode and a dwelling would raise significant privacy/data protection issues. It is a model I would have serious reservations about, if it were to be put forward as a formal policy proposal. In expressing such reservations, I would have regard to issues such as the potential for ready identification of sensitive information about individuals where postcodes were used for purposes other than mail delivery. Examples could include use of postcodes to identify patterns of crime or illness.

Area Model

A postcode model that matched a postcode (with geo-location coordinates) to an area normally including say 20 – 50 dwellings should not give rise to privacy/data protection issues. Such an area could be a street, a district etc. It would not normally be possible to identify an individual from such a postcode without significant additional details. The risk to privacy therefore would be proportionate to what I assume are the public good aspects associated with a postcodes model. I understand that, in the case of sparsely populated areas, it might be difficult to avoid a situation where a postcode area would in practice include only a small number of residential dwellings. Provided planning were based on keeping such cases to a minimum, I would also see this as a proportionate solution.

POSTCODE DATABASE

*For the reasons outlined above, a public database of one-to-one postcodes would, in my opinion, give rise to serious privacy/data protection issues. Such issues should not arise in relation to a public database of area postcodes (with geo-location coordinates) typically covering 20-50 individual **but unspecified** addresses. Such a public database of area postcodes would facilitate existing holders of customer databases (utilities, financial institutions, public authorities etc) who wished to apply the postcodes to these databases. It could also be available more generally (e.g. on a website) as a 'look-up' facility to allow individuals to enter an address known to them and be provided with the corresponding postcode. It would not be desirable that the public database be designed on an individual address basis, but rather on a street, district etc basis.*

I have been asked to comment specifically on a scenario where a comprehensive national database, containing the addresses and geo-coordinates of individual properties, was developed under the aegis of a Postcode Authority on the basis that

the database was not publicly available. My answer from a data protection/privacy perspective is that the manner in which such a database was developed, and the conditions of its use, should preferably be set out in law. This would facilitate a full debate on the public good that would be served by such a comprehensive database and the degree to which this would outweigh concerns about the threat to privacy that could result.

I should add, for the sake of completeness, that data protection issues only arise where the individual is not in control of the use etc of their personal data. If an individual were to consent to their address being put on a public database, in the full knowledge of how such a database would be used, then data protection/privacy issues would not arise.

I hope this information is helpful. I would be very happy to engage further with the Board if that would be helpful.

Yours sincerely

*Billy Hawkes
Data Protection Commissioner*

Appendix 4:



Postcode data to be free in 2010

The government is planning to give anyone free access to postcode data.

The move will be made as part of its commitment to make more use of technology and the web to transform official services.

Currently organisations that want access to datasets that tie postcodes to physical locations cannot do so without incurring a charge.

Following a brief consultation, the postcode information is set to be freed in April 2010.

The announcement about releasing postcode data came as part of a much wider plan to use technology as part of the Smarter Government strategy.

As part of this push, the government said it would start "consulting on making Ordnance Survey mapping and postcode datasets available for free reuse from April 2010."

A spokesman for the Ordnance Survey said the consultation would begin before Christmas 2009.

"It's a chance for anyone who has views on what can be given away to make those views known," he said.

"It's more a question of how not if," he said. "It's something that's going to be happening."

The dataset that is likely to be freed is that which ties postcodes to geographic locations. Many more commercial organisations use the Postcode Address File (PAF) that ties post codes to addresses. Currently access to either data set incurs a charge.

In October 2009 the Royal Mail took legal action that cut off the access many websites had to such data.

Sites that used the postcode feed included Job Centre Pro Plus, HealthWare (locates nearby pharmacies and hospitals), Planning alerts.com (monitors planning applications), Straight Choice (finds out who sent political leaflets).

Services online

Harry Metcalfe, who helped sites get at postcode data, said he was "cautiously optimistic" about the decision to open up the OS data sets.

"If the right data is released in the right way, this will be a positive development," he said.

Also included in the Smarter Government announced by Gordon Brown was the intention to get the "majority" of government services online in the next five years.

It also pledged a further £30m cash injection for UK Online Centres to help another million Britons get to grips with the web for the first time.

Story from BBC NEWS:

<http://news.bbc.co.uk/go/pr/fr/-/2/hi/technology/8402327.stm>

Appendix 5:

Members of the Joint Committee on Communications, Energy and Natural Resources

Chairman: M. J. Nolan (FF)

Deputies: John Browne (FF)
Noel Coonan (FG) - *Opposition Convenor*
Simon Coveney (FG)
Michael D'Arcy (FG)
Jimmy Devins (FF)
Peter Kelly (FF) – *Vice-Chair*
Mattie McGrath (FF) - *Government Convenor*
Joe McHugh (FG)
Liz McManus (Lab)
Michael Moynihan (FF)

Senators: Maria Corrigan (FF)
Joe O'Reilly (FG)
Joe O'Toole (Ind)
Jim Walsh (FF)

Notes:

1. Deputy John Cregan was discharged from the Committee and Deputy M.J. Nolan was appointed to the Committee in substitution for him, by order of the Dáil on 5 June 2008.
2. Deputy Peter Power was discharged from the Committee and Deputy John Browne was appointed to the Committee in substitution for him, by order of the Dáil on 26 June 2008.
3. Deputy Brendan Kenneally was discharged from the Committee and Deputy Jimmy Devins was appointed to the Committee in substitution for him, by order of the Dáil on 10 July 2009.

Appendix 6:

Orders of reference of the Joint Committee

Dáil Éireann on 23 October 2007 ordered:

“(1) (a) That a Select Committee, which shall be called the Select Committee on Communications, Energy and Natural Resources consisting of 11 members of Dáil Éireann (of whom 4 shall constitute a quorum), be appointed to consider -

- (i) such Bills the statute law in respect of which is dealt with by the Department of Communications, Energy and Natural Resources;
- (ii) such Estimates for Public Services within the aegis of the Department of Communications, Energy and Natural Resources;
- (iii) such proposals contained in any motion, including any motion within the meaning of Standing Order 159, concerning the approval by Dáil Éireann of the terms of international agreements involving a charge on public funds; and
- (iv) such other matters

as shall be referred to it by Dáil Éireann from time to time;

- (v) Annual Output Statements produced by the Department of Communications, Energy and Natural Resources; and
- (vi) such Value for Money and Policy Reviews conducted and commissioned by the Department of Communications, Energy and Natural Resources as it may select.

(b) For the purpose of its consideration of matters under paragraphs (1)(a)(i), (iii), (iv), (v) and (vi), the Select Committee shall have the powers defined in Standing Order 83(1), (2) and (3).

(c) For the avoidance of doubt, by virtue of his or her *ex officio* membership of the Select Committee in accordance with Standing Order 92(1), the Minister for Communications, Energy and Natural Resources (or a Minister or Minister of State nominated in his or her stead) shall be entitled to vote.

(2) The Select Committee shall be joined with a Select Committee to be appointed by Seanad Éireann to form the Joint Committee on Communications, Energy and Natural Resources to consider -

- (i) such public affairs administered by the Department of Communications, Energy and Natural Resources as it may

select, including, in respect of Government policy, bodies under the aegis of that Department;

- (ii) such matters of policy, including EU related matters, for which the Minister for Communications, Energy and Natural Resources is officially responsible as it may select;
- (iii) such related policy issues as it may select concerning bodies which are partly or wholly funded by the State or which are established or appointed by Members of the Government or by the Oireachtas;
- (iv) such Statutory Instruments made by the Minister for Communications, Energy and Natural Resources and laid before both Houses of the Oireachtas as it may select;
- (v) such proposals for EU legislation and related policy issues as may be referred to it from time to time, in accordance with Standing Order 83(4);
- (vi) the strategy statement laid before each House of the Oireachtas by the Minister for Communications, Energy and Natural Resources pursuant to section 5(2) of the Public Service Management Act 1997, and for which the Joint Committee is authorised for the purposes of section 10 of that Act;
- (vii) such annual reports or annual reports and accounts, required by law and laid before either or both Houses of the Oireachtas, of bodies specified in paragraphs 2(i) and (iii), and the overall operational results, statements of strategy and corporate plans of these bodies, as it may select;

Provided that the Joint Committee shall not, at any time, consider any matter relating to such a body which is, which has been, or which is, at that time, proposed to be considered by the Committee of Public Accounts pursuant to the Orders of Reference of that Committee and/or the Comptroller and Auditor General (Amendment) Act 1993;

Provided further that the Joint Committee shall refrain from inquiring into in public session, or publishing confidential information regarding, any such matter if so requested either by the body concerned or by the Minister for Communications, Energy and Natural Resources; and

- (viii) such other matters as may be jointly referred to it from time to time by both Houses of the Oireachtas,

and shall report thereon to both Houses of the Oireachtas.

- (3) The Joint Committee shall have the power to require that the Minister for Communications, Energy and Natural Resources (or a Minister or Minister of State nominated in his or her stead) shall attend before the Joint Committee and provide, in private session if so desired by the Minister or Minister of State, oral briefings in advance of EU Council meetings to enable the Joint Committee to make known its views.
- (4) The quorum of the Joint Committee shall be five, of whom at least one shall be a member of Dáil Éireann and one a member of Seanad Éireann.
- (5) The Joint Committee shall have the powers defined in Standing Order 83(1) to (9) inclusive.
- (6) The Chairman of the Joint Committee, who shall be a member of Dáil Éireann, shall also be Chairman of the Select Committee.”

