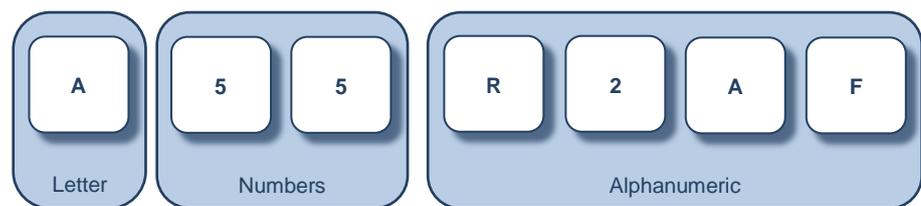


13 The Development of Eircode, the National Postcode System

- 13.1 A postcode is defined as ‘a code consisting of numbers or other characters, or both numbers and other characters, that identifies the locality of an address and, where appropriate, the geographic location of an address’.¹
- 13.2 Although the Department of Communications, Energy and Natural Resources (the Department) has estimated that over 35% of Irish addresses share an address with at least one other property (i.e. are non-unique), Ireland was one of the few developed countries that did not have a system of postcodes. Work on the development and implementation of a system of postcodes commenced in 2005.
- 13.3 The Communications Regulation (Postal Services) Act 2011 made provision for the Minister for Communications, Energy and Natural Resources (the Minister) to enter into a contract for the development, implementation and maintenance of a national postcode system. At the end of 2013, a contract was entered into for a ten-year period (with an option to extend this for a further five years) with Capita Business Support Services Ireland Limited which was appointed as the postcode management licence holder (the licence holder).² The new postcode system, referred to as Eircode, was officially launched in April 2014 and dissemination of eircodes commenced in July 2015. It is expected that every address in Ireland should now have received its unique eircode.
- 13.4 An eircode is a seven character code and is unique to each address. The structure of an eircode is shown in Figure 13.1. The code is non-sequential which is intended to allow for further expansion and to avoid the need to change assigned codes in the future. The use of an eircode is voluntary.

Figure 13.1 Structure of an eircode number



Source: Eircode

1 The Communications Regulation (Postal Services) Act 2011.

2 The licence holder contracts elements of the project with a number of project partners and subcontractors.

Figure 13.2 Key characteristics of postcodes in some European countries

	UK	Denmark	Germany	Switzerland	Austria
Format of postcode	5 – 7 characters	4 digits	5 digits	4 digits	4 digits
Level of disaggregation	A number of addresses	Locality	Section of street	Locality	Locality
Publically available	Yes	Yes	No	Yes	Yes
Date introduced	1959	1967	1963	Early 1960s	Early 1960s
Database maintained by	Royal Mail	Post Denmark	Deutsche Post	Swiss Post	Austria Post

Source: 2005 Working Group Report

- 13.5** Ireland is a late adopter of postcodes. Many other European countries have had postcodes in place since the 1960s.
- 13.6** The key characteristics of the postcodes used in a number of other European countries are set out in Figure 13.2. Eircode will differ from the postcodes in these countries as it has a one-to-one relationship with an address. In addition, Ireland's postcode database will not be maintained by the national postal service.
- 13.7** Stakeholders have expressed divergent views regarding Eircode in correspondence to the Joint Oireachtas Committee on Transport and Communications. For example, the delivery firm, Nightline has stated that Eircode is workable and suited to the particular circumstances in Ireland. However, the Freight Transport Association has stated that, while Eircode is useful as an address identifier, it is not capable of performing in the manner expected of a 'modern postcode'.¹
- 13.8** This report reviews
- the project management structure and project timescale
 - project expenditure
 - the development of the business case for the project, and in particular, the assessment of the costs and benefits
 - the various procurements associated with the project.

The report does not examine the relative merits of the different postcode models that could have been implemented.

¹ The Freight Transport Association is a not-for-profit membership trade association for Irish freight and logistics companies.

Project Management

- 13.9** The cost of developing, implementing and maintaining the Eircode system is borne by the Vote for Communications, Energy and Natural Resources. Therefore, the overall responsibility for governance and oversight of the system rests with the Accounting Officer for that Vote.
- 13.10** The management advisory committee of the Department did not make decisions relating to the day-to-day management of the project, but was updated regularly on the status of the project and was involved in approving funding proposals for the project as part of the estimates process.

2005 to 2009 – Project Development

- 13.11** A national postcode project board (the Project Board) was established in 2005 to bring the proposal to introduce a postcode to the point where there was a technical specification, a cost benefit analysis, a project plan and an agreed structure for the ownership, management and funding of the system. In a report to the Minister in 2006, the Project Board set out recommendations of how to proceed with the project. Following this, the Department assumed responsibility for the project.

2010 to 2013 – Project Planning

- 13.12** A project steering group was established and first met in February 2010. This group was made up of a number of department employees and two external members – an employee of ComReg and a business consultant. In 2010, following the engagement of PA Consulting to provide project management services, two representatives of that company were appointed to the steering group. An interdepartmental postcode group was established in November 2010. This group had a discussion capacity only.
- 13.13** The steering group was the implementation and decision-making forum for the project during the period February 2010 to September 2013. It provided strategic direction, guidance and monitoring of the progress of the project, and sought approvals of the Secretary General of the Department or the Minister, where appropriate.

2014 to Date – Project Implementation

- 13.14** Following the appointment of the licence holder in December 2013, a revised governance structure was put in place. A new steering group was established in February 2014, made up of representatives from the Department, ESB, the Office of the Revenue Commissioners (Revenue), DX Delivery, ComReg, Irish Rural Link and An Post. This group acts in an advisory capacity only and assists in resolving project issues and conflicts.
- 13.15** A programme board was set up in March 2014 comprising representatives from the Department and the licence holder. The programme board approves project work-plans, monitors progress, assesses achievement of milestones and agrees revisions to the scope of the project. Two project teams, comprising representatives from the Department and the licence holder, were also established.

Stakeholder Engagement

13.16 In 2006, the Project Board consulted stakeholders in a number of sectors (public and private postal, insurance, banking and utilities). It found that almost 90% of those consulted were in favour of the introduction of a postcode system.

13.17 In 2008, PA Consulting was engaged to assist in evaluating the project proposal. They consulted six departments that were identified as being likely to have the largest potential benefits in order to understand and quantify the benefits to the public sector.¹ That consultation found that

- all but one department supported the introduction of postcodes
- two departments had concerns as to whether the postcode model proposed was the most appropriate
- concerns were raised in relation to the funding of any departmental implementation costs.

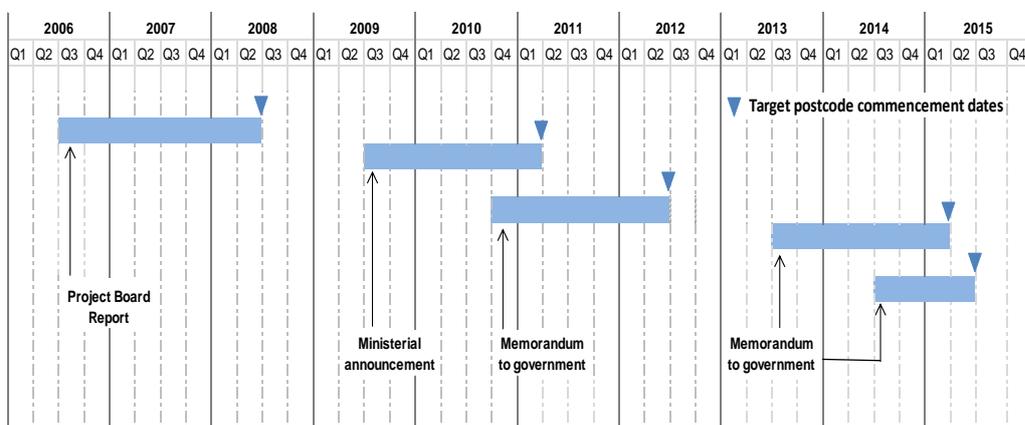
13.18 In November 2010, prior to the commencement of the procurement process for the licence holder, PA Consulting conducted another stakeholder engagement exercise. The sectors consulted were the public service, postal delivery/courier services, financial services, retail, telecoms and utilities. The consultants recorded that overall, the introduction of postcodes was viewed as positive, and reported that the main feedback points were

- a postcode with a location-based code capability should be developed, and the more precise the postcode the greater the assessed potential benefits
- a postcode should facilitate improved postal service operations
- members of the public should be educated on the use of postcodes
- the postcodes address database should be publicly available.

Project Timescale

13.19 During the life of the project, a number of target dates for the commencement of the postcode system were set (see Figure 13.3).

Figure 13.3 Target postcode commencement dates, 2006 to 2015



¹ The Department of the Environment, Heritage and Local Government; Department of Agriculture, Food and the Marine; Department of Health and Children; Department of Transport, Tourism and Sport; Department of Social Protection; and the Office of the Revenue Commissioners.

13.20 Progress to completion within the target timeframes set was interrupted or delayed due to

- a cost benefit analysis in 2006 that indicated the project would have an overall net cost of €96 million, leading to a government decision not to progress the project at that stage
- difficulties in agreeing terms and conditions with GeoDirectory
- a requirement to enact data protection legislation
- difficulties with tendering/procurement of a licence holder.

Access to GeoDirectory

13.21 GeoDirectory is a database maintained by An Post GeoDirectory, a company established by An Post and Ordnance Survey Ireland that holds the address and location of every residential and commercial property in the State. In 2006, the Project Board recommended the use of GeoDirectory as the base data for the development and introduction of postcodes.

13.22 In 2010, the Department and An Post began discussions relating to the use of GeoDirectory by the licence holder for the purpose of establishing a postcode address database and rolling out a national postcode.

13.23 Discussions and negotiations were ongoing during the procurement process for the licence holder. As the terms on which GeoDirectory would be available to the licence holder were an important component of the procurement process, the prolonged negotiations were a factor in the length of time taken to complete that process. Although the use of GeoDirectory by the licence holder was not mandatory, it was considered to be the most complete likely data source for the postcode.

13.24 The Department has stated that due to differences in interpretation in relation to the terms to be offered to the licence holder, agreement was not reached until August 2014.

13.25 The final terms agreed stipulate that the licence holder will pay An Post GeoDirectory the following amounts

- an annual fixed fee of €35,910
- a value-added reseller fee (for the use of GeoDirectory by a licence holder distributor) based on the volume of use, capped at €976,835 a year
- an end-user fee (for the use of GeoDirectory by end-users) based on the volume of use, capped at €913,481 a year
- a royalty fee of 5% of incremental revenue from the point at which the volume cap is reached.

13.26 With the exception of the royalty fee, the aggregate annual payments by the licence holder to GeoDirectory are subject to a minimum of €100,000 and a maximum of €1,926,226.

- 13.27** GeoDirectory is entitled to increase the fees payable annually, with the exception of the royalty fee. The amount is limited to the increase in the customer price index. In addition, the value-added reseller and the end-user fees are subject to periodic price reviews.
- 13.28** Further issues arose following the signed agreement relating to differences in interpretation of terms for the commercialisation of intellectual property in the GeoDirectory database. The Department has stated that GeoDirectory believed that full access rights to the intellectual property excluded commercialisation, whilst the licence holder believed that it did in fact include commercialisation.¹ These issues were resolved in February 2015.

Data Protection

- 13.29** The Project Board, set up in 2005, considered a broad range of postcode model options. Three models were considered in detail, two of which – the ‘fixed grid’ and ‘post town boundary’ – incorporated a one-to-one relationship between a postcode and an individual property. The third model, the ‘postal sector’ model, did not have a one-to-one relationship with a property. Instead, it was based on identification of a geographical unit, containing a variable number of properties.
- 13.30** In 2006, the Project Board, following consultation with the Data Protection Commissioner, noted that the creation of a publicly-accessible and usable postcode database might require legislation, and that a postcode with a one-to-one relationship with a property would raise data protection issues. The Project Board decided that the ‘fixed grid’ and ‘post town boundary’ models should be excluded from the evaluation process. It concluded that a six character ‘postal sector’ postcode would add value to the Irish economy and could be publicly available.
- 13.31** PA Consulting reported in November 2010 that as part of the design consolidation exercise, it was necessary to consider changing the postcode model to include an additional element that would uniquely identify the location of each building. The report noted that this would enable a licence holder to provide a variety of value added services for commercial clients.
- 13.32** The decision to adopt an address-specific model, including for each apartment in a purpose-built apartment block, was made by the project steering group in March 2012. The Department has stated that the relatively high proportion of non-unique addresses in Ireland was the main reason this model was chosen.
- 13.33** The Department has indicated that in March 2014, the Data Protection Commissioner requested information in relation to the proposed postcodes. At a meeting in April 2014, the month Eircode was launched, the Data Protection Commissioner advised the Department that it considered an address-specific code to be personal data. As a result, the Department began to develop legislative proposals to address data protection issues.
- 13.34** The Communications Regulation (Postal Services) Amendment Act 2015 commenced on 6 July 2015. It aims to address any potential data protection issues and to ensure that a comprehensive data protection regime is put in place in relation to eircodes.

¹ Commercialisation includes the sale of the information in the database or charges for access.

Project Expenditure

- 13.35** When the project to develop a national postcode system was approved by Government in 2009, its projected Exchequer cost was €18 million over an 18-month period.¹ When the Government approved the launch of the system in October 2013, the cost to the Exchequer was estimated at €31 million over a ten-year period of licence operation.
- 13.36** At August 2015, the projected cost of the project is €38 million. The amount paid to date is €18.6 million. The majority of the costs to date, €15.7 million, relate to payments to the licence holder (see Figure 13.4).

Figure 13.4 Projected Eircode Exchequer costs, as at August 2015

	Contract amount	Amount paid to August 2015	Projected future costs	Projected total
	€000	€000	€000	€000
Licence holder	33,533 ^a	15,682	17,851	33,533
PA consulting	1,408	1,315	210	1,525
Technical advice	229	229	–	229
Legal advice	118	207	–	207
Process auditor	9	44	–	44
Support services	442	282	200	482
Cost of departmental staff ^b	n/a	700	1,092	1,792
Secondment	217	196	21	217
Total	35,956	18,655	19,374	38,029

Source: Department of Communications, Energy and Natural Resources.

Notes: a This includes the net cost of three contract changes subsequent to the signing of the contract.

b The cost of departmental staff resources utilised on the project to date is not available. As part of this examination, those costs have been estimated at €700,000 to date.

Role of Licence Holder

- 13.37** The role of the licence holder is to design, realise, disseminate and maintain the national postcode system and the postcode address database.² Capita, as licence holder, provides this service from its own premises. Capita will deal with all queries in relation to postcodes and has available to it a call centre to handle peak demands, such as when postcodes were publicly launched. The Department stated that the licence holder had over 100 staff working on Eircode during the design and implementation phase and will have 20 to 25 staff on an ongoing basis.
- 13.38** When an address is added to GeoDirectory, Capita is informed (of the address, the post town and the geo-coordinates) and the postcode for that address is assigned. The address, post town, GeoDirectory ID and postcode are then added to the Eircode database.

¹ Project expenditure amounts in this report are inclusive of VAT unless otherwise stated.

² Members of the public can check up to 15 addresses a day without charge. For a fee, members of the public can have wider access to the database.

- 13.39** The terms of the licence holder contract provide that all rights, title and interest in any intellectual property vests automatically on creation with the Minister as sole legal and beneficial owner, free from encumbrances. The contract states that the licence holder will maintain an asset register and documentation detailing the technical infrastructure that will allow the Minister, or a replacement licence holder, to understand how the service is provided. The contract also sets out the arrangements to be put in place for termination or expiry of the contract including the preparation of an exit plan which will contain
- how the licence holder will fulfil its statutory obligations to transfer staff to the replacement licence holder, and
 - the governance structure and scope of activities during the transfer and exit period.

Licence Holder Contract Terms

- 13.40** The contract is for a ten year period with the option to extend for a further five years.
- 13.41** The contract provides for payments by the Department to the licence holder on completion of project milestones. There are eight milestones and the cumulative payment for completing the eight milestones is just over €18 million (about 54% of the contract value).¹ Repayment to the Department by the licence holder of one milestone payment amounting to €162,124 in relation to intellectual property is to be made over the term of the contract.
- 13.42** The Department is also obliged under the contract to make three payments each year to the licence holder
- service charge for advertising and media – €184,500
 - service charge for ongoing dissemination – €123,000
 - payment in respect of cost of access to GeoDirectory – €1,167,750.²
- 13.43** The contract requires the licence holder to seek opportunities to develop and market value added services, in order to increase the use of postcodes and to derive revenue. The contract provides for the Department to receive 50% of the licence holder's annual excess profit. This profit sharing arrangement will potentially be activated in any year where the cumulative profit is greater than nil. The excess profit is the difference between the annual profit and half of the annual revenue. An example of how the profit sharing arrangement will work is set out in the contract with the licence holder (see Figure 13.5).

¹ This assumes the contract runs for ten years.

² Under the terms of the contract, this payment is subject to periodic review in line with the agreement between GeoDirectory and the licence holder.

Figure 13.5 Profit sharing arrangement – illustrative example

	Year 1	Year 2	Year 3
	€m	€m	€m
Annual revenue	5	13	10
Annual cost	8	4	4
Annual profit/(loss)	(3)	9	6
Cumulative profit/(loss)	(3)	6	12
Excess profit	–	2.5	1
Department's share of profit	–	1.25	0.5
Licence holder's share of profit	–	7.75	5.5

Source: Licence holder contract

13.45 Following the signing of the contract, there were three change requests agreed between the Department and the licence holder. As a result of the changes, the cost of the contract increased by a net €686,000. The changes related to

- *Update of public sector databases* – the payment in respect of this milestone was based on the licence holder updating at least 60% of an estimated 92 million records in the address databases of ten government agencies. A review of those databases established that the number of records to be updated was significantly less than estimated. While the address databases of a number of additional government agencies were added, there was a net reduction of 12 million in the total number of records to be updated. The net saving was €146,000. In conjunction with the change in number of addresses, the related service level was also revised to require that 92% of records that had a unique address and a direct match with Eircode were updated with an eircode.
- *An outreach campaign* – this is a campaign to assist those who were considered to be vulnerable and hard to reach, who may be bypassed by the marketing and communications campaign, or who may be confused or worried about the introduction of postcodes. At the Department's request, the licence holder prepared a proposal for an outreach campaign. The proposal was that the campaign would be conducted by the charity organisation, The Wheel.¹ The licence holder did not go to tender in relation to this campaign. The cost to the Department was agreed at €492,000.
- *Change in launch date* – an indicative launch date of the end of May 2015 was agreed with the licence holder. Due to delays mainly associated with the introduction of data protection legislation, a revised date of 6 July 2015 was agreed. This was subsequently changed to 13 July 2015. The licence holder sought €1.2 million compensation in respect of additional costs and revenue foregone from the change in launch date. The Department agreed to pay €340,000, comprising €160,000 in settlement of the licence holder's claim, €175,000 in additional payments to third parties (in respect of postal charges and storage – €91,000, and the outreach campaign – €84,000) and €5,000 in communication related costs.

At August 2015, total payments in relation to the outreach campaign are €527,000.

¹ The Wheel supports and represents the voluntary and charitable sector.

- 13.46** The payment terms (including contract changes) and amounts paid to August 2015 are shown in Figure 13.6.

Figure 13.6 Payments to the licence holder to August 2015

Milestone	Contract amount	Amount paid to August 2015
	€000	€000
Licensing of State intellectual property (excluding GeoDirectory)	162	159
Finalisation of the detailed design of the postcode	1,999	1,999
Realisation and validation of postcode address database	1,221	1,221
Update of public sector databases ^a	11,637	11,520
Public rollout media campaign		
– on commencement	181	–
– on completion	742	–
Public rollout dissemination		
– on commencement	1,216	–
– on completion	936	–
Total milestone payments	18,094	14,899
Annual payments		
Service charge – €307,500 a year for ten years	3,075	–
Access to GeoDirectory – €1,167,750 a year for ten years ^b	11,678	–
Total annual payments over life of contract	14,753	–
Total payments	32,847	14,899
Change requests to the contract		
Saving achieved due to fewer than anticipated records ^a	(146)	–
Additional payment for a community outreach programme	492	443
Compensation payment for the delay in launching/disseminating postcodes	340	340
Current cost of contract	33,533	15,682

Source: Department of Communications, Energy and Natural Resources

Notes: a As a result of a contract change, savings of €146,000 were achieved thereby reducing the original cost of €11.637 million to €11.491 million. Total paid to August 2015 is €11.52 million.

b This payment is subject to periodic review.

- 13.47** The annual service charge payment is payable in arrears and is dependent on approval by the Department of a yearly performance report that shows that the licence holder has met prescribed service levels. The annual payment relating to access to GeoDirectory is also paid in arrears and is reliant on the submission to the Department of proof of payment to GeoDirectory by the licence holder and achievement of all relevant milestones in the period. As at the end of August 2015, there has been no amounts paid to the licence holder relating to the annual payments provided for in the contract.

Business Case

- 13.48** An essential element of the business case for a publicly-funded capital project is an analysis of the viable options for delivering the project and, in particular, an assessment of the costs and benefits associated with each option. The panel below outlines the process involved in preparing a cost benefit analysis, including estimates using net present value (NPV). This is a standard business analysis methodology, widely used in public sector investment decision making.
- 13.49** A cost benefit analysis for the project was first prepared in 2006. This was revised in 2008 and again in 2010. The costs and benefits used to calculate the NPV are set out in Annex A. The projected NPV changed from a negative €96 million in 2006 (i.e. a net present cost) to a positive €20 million in 2010. The results of the cost benefit analyses were used in presenting proposals to the Government for approval to proceed with the project. Summary details of each cost benefit analysis are set out in Figure 13.7.

Cost Benefit Analysis

Cost benefit analysis is a key economic appraisal technique that potentially provides a useful basis for decision-making. Cost benefit analysis requires the identification and quantification of the benefits and costs of alternative ways of implementing a proposed project. This allows feasible alternatives to be compared.

The timing of when benefits and costs are expected to be realised over the life of the project must be identified for each alternative. This provides cashflows for the project options. To recognise the 'time value' of money, a discount factor is applied to each cashflow to give a NPV. The current discount factor used for public sector projects is 5%.

The decision on the feasibility of the proposed project takes into account whether the sum of the discounted benefits exceeds the sum of the discounted costs i.e. it has a positive NPV. Where the discounted costs exceed the discounted benefits, the project has a negative NPV, or net present cost.

Source: Based on the Department of Public Expenditure and Reform's Public Spending Code (September 2013).

Figure 13.7 Overview of cost benefit analyses for the postcode project

Year of CBA	NPV calculated €m	Discount rate used	Project life	Key assumptions
2006	(96)	8%	15	Full benefits will be achieved and maintenance costs incurred in year 2. Maintenance costs of the licence holder will be recovered via income.
2008	6	8%	15	No benefits in year 1, 25% of benefits will accrue in year 2, 50% in year 3, 75% in year 4 and 100% in year 5. An Post benefits will be achieved in year 5. Full maintenance costs incurred from year 2. Maintenance costs of the licence holder will be recovered via income.
2010	20	4% 8% ^a	15	No benefits in year 1, 25% in year 2, 50% in year 3, 75% in year 4 and 100% in year 5 (including An Post). Full maintenance costs incurred from year 2. State will pay an annual contribution of €962,000 towards maintenance costs of the licence holder with the balance of costs recovered via income.

Source: Analysis by the Office of the Comptroller and Auditor General.

Note: a In 2010, the discount rate applied to public and private sector costs and benefits was different – 4% was used for the public sector and 8% was used for the private sector.

13.50 Key changes in the costs and benefits that gave rise to the revised NPV for the project included

- a projected reduction in An Post's implementation and maintenance costs from €45 million to €7 million, coupled with an increase in benefits for An Post (up from nil to €2.3 million)
- projected implementation costs relating to government services increased from €2.4 million to €6.6 million and monetary benefits increased from €563,000 to €4 million
- projected payments to the licence holder for implementation of the project increased from €13.1 million to €17.5 million.

13.51 In 2015, a revised cost benefit analysis was produced. From 2010 to 2015, the projected NPV of the project reduced from €20 million to €16 million. The 2015 calculation relied on some base figures from 2006, 2008 and 2010 with some adjusted for inflation.

Projected Costs

- 13.52** The Department of Finance required the application of a shadow cost of public funds of 150% to exchequer sourced funds when the 2010 cost benefit analysis calculation was carried out.¹ This uplift of costs was correctly applied to all costs relating to government services and to the implementation costs of the licence holder.
- 13.53** However, the examination of the NPV calculations identified that the uplift was not applied to the annual maintenance costs of €962,000 relating to the licence holder. Had this cost been applied as required, the NPV of the project would have been around €5 million less.
- 13.54** An assumption underpinning the 2006 and 2008 cost benefit analyses was that the licence holder's maintenance costs would be recovered via income, and therefore these costs were not included in the NPV calculations. In 2010, a State contribution towards maintenance costs was included. The licence holder contract (signed in December 2013) contains a provision for the Department to pay approximately €1.5 million per year to the licence holder, €538,000 more than assumed in 2010.
- 13.55** The Department has stated that as part of the competitive dialogue process, all bidders expressed the need to have a State contribution towards the ongoing costs of operations as there was too much commercial risk and uncertainty. They concluded that the higher amount was necessary to support the viability of the procurement process.
- 13.56** Direct staffing costs to the Department of developing the postcode project – estimated at €2 million – and consultant costs of €2.5 million were not included when assessing the costs of the project.

Projected Benefits

- 13.57** In 2008, the annual projected benefits attributed to the introduction of a postcode system were valued at €9.9 million. Government services accounted for €4 million of those estimated benefits, including a projected benefit of €3.6 million for Revenue. The bulk of the projected benefits for Revenue related to potential improved data matching of addresses, particularly with third party sources of data.
- 13.58** As part of this examination, Revenue provided an update in relation to its expected benefits. It noted that
- most of the benefits from improved data matching of third party returns have already been realised from improved Revenue processes and the development of an address/property database following the introduction of the Local Property Tax
 - the valuation of benefits in 2008 was very tentative and based on an assumed widespread uptake of postcodes particularly by providers of third party returns
 - benefits will only emerge when a tipping point is reached in the usage of postcodes which is likely to be a gradual process.

¹ The shadow cost of public funds is applied so as to account for the distorting effects of taxation. Infrastructure Investment Priorities 2010 – 2016, Department of Finance

13.59 The remainder of the expected benefits related to An Post (€2.9 million) and the private sector (€3 million).

- An Post identified the benefits in 2007 as an expected increase in revenue from growth in mail volumes. The growth in mail volumes was expected to arise five years after implementation of postcodes. The projected benefits to An Post were revised down to €2.3 million by PA Consulting in 2010.
- The benefits to the private sector were estimated in 2006 and were not subsequently adjusted other than for inflation. For private sector postal services, the benefits related to improved process efficiency and effectiveness. For other sectors, benefits were expected to arise from improved competition in the postal market.

Implementation of Cost Benefit Analysis Methodology

13.60 The 2010 cost benefit analysis includes a sensitivity analysis. This suggests if costs increased by 15% and benefits decreased by 15%, the project would have a marginal positive NPV.

13.61 The examination reviewed the relevant supporting back-up documentation for each of the figures included in the cost benefit analyses. In relation to the 2010 cost benefit analysis, the documentation made available for examination does not fully support the projected amounts for

- payments to the licence holder
- costs and benefits attributed to government services
- costs and benefits attributed to An Post
- costs and benefits relating to the private sector.

In some cases, assumed values were rolled over from earlier cost benefit analyses, with some adjustments for inflation or shadow costs. However, support for the original figures was not present in all cases.

13.62 The discount factor used in 2006 was 3% more than the recommended rate for public sector projects and in 2008, it was 4% more. The Department has stated that the higher rate reduced the NPV and was deemed prudent given the novel nature of the project.

13.63 Although the purpose of a cost benefit analysis is to explore differing options, none of the cost benefit analyses were based on the address-specific code system that has been implemented. Instead, each analysis examines the costs and benefits of the 'postal sector' model. However, the report on the 2010 cost benefit analysis did state that an address-specific model would cost marginally less to implement than the 'postal sector' model (approximately €100,000).

Procurement Issues

- 13.64** The Communications Regulation (Postal Services) Act 2011 required the approval of the Minister for Public Expenditure and Reform before the contract with the licence holder was entered into. That approval, which was provided on the same date that the contract was signed, was on the basis that the procurement process was conducted in accordance with public procurement requirements, the contract represented value for money, the costs would be met from within the Department's Vote and all legislative requirements were met.
- 13.65** The examination identified a number of issues in relation to some of the procurements associated with the project.

Licence Holder

- 13.66** The procurement of the licence holder included a dialogue-based procurement process, involving a market engagement exercise to
- identify possible postcode models involving a one-to-one relationship with an address
 - identify prospective suppliers
 - engage with the wider stakeholder community.
- 13.67** The process began in January 2011 with the publication of a tender pre-qualification questionnaire. This contained an indicative timeline for the procurement process with a date of September 2011 for contract commencement. Five responses to the pre-qualification questionnaire were received, with three candidates assessed as meeting the qualifying criteria. An invitation to participate in dialogue and a subsequent invitation to submit a final tender was issued to the three candidates. Only two candidates submitted a final tender.
- 13.68** The procurement process took significantly longer than anticipated. The pre-qualification questionnaire envisaged that the procurement process would take approximately eight months. However, the contract was not signed until December 2013 – 35 months after the process commenced, and over four times the duration envisaged.

Complaint in Relation to Licence Holder Procurement Process

- 13.69** In February 2011, shortly after the procurement process began, a company raised concerns with the Department about the process and asked for it to be terminated. In May 2012, the company lodged a complaint with the European Commission (EC). The EC notified the Irish authorities of the complaint in August 2012 setting out its observations on the issues raised, and requested further information. The notification centred on three issues
- the request for audited financial statements of the ultimate parent company for the previous three years, if the company tendering is a subsidiary of another undertaking
 - a minimum required turnover of €40 million for each member of a bidding consortium
 - a potential conflict of interest involving members of the Project Board, whose related companies were seeking pre-qualification.

13.70 The Department responded to the EC in October 2012 and February 2013. In November 2013, the EC closed the case. In doing so, it set out its position in relation to the following matters.

- The EC could not ascertain whether it was disproportionate to accept tenderers that allegedly gained a competitive advantage by way of their employees having participated in the Project Board at a previous stage.
- The EC considered that the Department's provision on minimum required turnover (€40 million for each member of a consortium) seemed to preclude the possibility of members of a consortium relying on the capacities of other members, a possibility specifically permitted under Article 47(3) of Directive 2004/18/EC.¹ The Irish authorities were requested to adopt measures to avoid similar errors in the future and to inform the EC of those measures.

13.71 In October 2014, the Department notified the EC of the measures put in place to deal with minimum turnover thresholds. The measures were stated to be in the form of a circular issued by the Department of Public Expenditure and Reform – Circular 10/2014 on Initiatives to assist Small and Medium Enterprises (SMEs) in Public Procurement. In April 2015, the EC notified the Department that it did not consider that the circular addressed the concerns raised.

13.72 In June 2015, the Office of Government Procurement provided material for a further response to the EC indicating that the Irish authorities are actively encouraging and helping SMEs to participate in tender competitions. The response explains the various circulars, administrative arrangements and advisory services in place to do this. It also states that the consortium that was awarded the contract includes an SME.²

Procurement of Project Advisors

13.73 Since 2006, PA Consulting has been engaged under four contracts, with a total estimated value of €1.5 million, resulting in its effective continuous involvement in the project. The examination noted the following issues in relation to the award by the Department of two of those contracts.

- A 2008 contract with a value of €54,000 was awarded without a competitive process. The Department considers that PA Consulting's familiarity with the project through its earlier involvement allowed it to minimise the duration of this contract with consequent cost savings.
- Four tenders were received in early 2014 for the provision of technical advice and support services. The request for tenders stipulated that payment would be on the basis of milestones achieved. The contract was awarded to PA Consulting, on the basis that payment would be made on receipt of monthly invoices for the support provided in the previous month, rather than on the basis of milestones as required by the request for tenders. The Department estimates that total payments under this contract will be €399,000.

¹ This directive deals with the award procedures for public contracts.

² The licence was awarded to Capita, which has subcontracted elements of the work to a number of companies.

Other Consultants Engaged Without a Competitive Process

13.74 A number of contracts were entered into with six other consultants without the use of a competitive process. The total paid to August 2015 to these consultants is €423,520.

Consultant A

13.75 Consultant A – a retired public servant – was engaged under four contracts. Even though the first contract provided for an extension of the contract on the same terms, an increase of two-thirds in the daily rate payable was agreed for subsequent contracts. The three extensions were back-to-back contracts. A summary of the four contracts is set out in Figure 13.8.

Figure 13.8 Summary of contracts awarded to consultant A

Contract date	Contract terms	Daily rate	Contract amount	Paid to date
October 2013 ^a	40 days	€362	€14,500	€19,000
February 2014 ^a	3 days per week for 6 months	€604	€43,500	€41,000
September 2014 ^b	3 days per week for 4 months	€604	€29,000	€28,000
January 2015 ^b	3 days per week for 7 months	€604	€52,000	€49,000
			€139,000	€137,000

Source: Analysis by the Office of the Comptroller and Auditor General.

Notes: a Contracts for provision of project management support services.
b Contracts for dissemination, marketing and communications work.

Consultant B

13.76 Consultant B – a retired civil servant – was engaged in November 2013 to provide project management support services. A daily rate of €800 was agreed for 1.5 days per week up to June 2015 – a total contract value of €103,000. To August 2015, €145,000 has been paid.

Consultant C

13.77 Consultant C – also a retired civil servant – was engaged in March 2011 as a process auditor to provide five days work over a six-month period at a daily rate of €1,230.¹ Payments totalled some €6,000. Further work was contracted for in March 2012 with the approval of the Department of Public Expenditure and Reform for an ‘all inclusive fee’ of €2,000. However, payments totalled €38,000.

¹ The process auditor was engaged to check that proper procurement procedures and processes were followed in the procurement of the licence holder and to ensure compliance with EU and national regulatory requirements.

Consultant D

- 13.78** A contract to draft an interim privacy impact assessment was agreed with Consultant D in September 2014. The contract amount was €24,000 based on 15 days at a daily rate of €1,605. The total amount paid under this contract was €51,520.
- 13.79** The Department has stated that privacy impact assessments are not a statutory requirement in Ireland and therefore there was limited expertise available to carry out the assessment which was required within a very short time frame. Consultant D was available to carry out this work and had previously done similar work for the Commission for Energy Regulation. Additional work to what was originally anticipated was required.

Consultant E

- 13.80** Consultant E was engaged in August 2014 to provide legal advisory services and draft legislative amendments to facilitate the implementation of the postcode system. The contract provided for a maximum payment of €30,750. Consultant E received €46,000 for the work provided under this contract.
- 13.81** The Department indicated that Consultant E had been involved in the drafting of the postcode contract and therefore had an in-depth knowledge of the project. In addition, Consultant E was able to start work at short notice and given the advanced stage of the project there was not adequate time to tender for the service.

Consultant F

- 13.82** Consultant F was engaged by Ervia as a service contractor in August 2012. He began working for the Department on the postcode project in February 2014. A letter of engagement and an agreement between Ervia and the Department has been drafted, but to date has not been finalised. The Department stated that an invoice for €115,000 has been submitted by Ervia for work completed by the consultant in the period June to December 2014, but the invoice has not yet been paid. The Department estimates the cost of the consultant will be approximately €200,000.

Reporting of Non-Competitive Procurement

- 13.83** Government departments are required to prepare an annual statement of contracts awarded without a competitive process where the value of the contract exceeded €25,000 (excluding VAT). The statement is required to be submitted to the Office of the Comptroller and Auditor General and to the Department of Public Expenditure and Reform. Seven of the consultancy contracts met the criteria for inclusion on the Department's statements for 2008, 2013 and 2014, but only two of the contracts were included.

Conclusions and Recommendations

- 13.84** The postcode project experienced significant delays since it was originally proposed. In 2006, it was envisaged that postcodes would be in place by 2008. When the Government gave its approval to proceed to the procurement of a licence holder in December 2010, it was expected that postcodes would be in operation by the middle of 2012. The dissemination of postcodes commenced in July 2015.

- 13.85** Risks to the project were identified at an early stage, with access to GeoDirectory and compliance with data protection requirements being noted in 2006. Notwithstanding these known risks, the Department did not deal with them in a timely manner. Issues relating to access to GeoDirectory were not resolved until February 2015 and data protection legislation was only enacted in July 2015.
- 13.86** Governance arrangements for the postcode project were in place from 2005, with changes made to those arrangements over time. The Department was slow to establish a project steering group. When it was established in 2010, the initial membership was from a narrow base. The group oversaw the project until September 2013. No steering group was in place for a period of five months until a new steering group was established in February 2014. A programme board with representatives from the Department and the licence holder was established after the licence holder was appointed.

Recommendation 13.1

The Department should ensure that adequate governance structures with sufficiently broad membership, including external private and public sector stakeholders, are in place for all future projects. Such structures should be established early in the project and continue without interruption to the end of the project.

Accounting Officer's response

Agreed. The Department prioritises the putting in place of robust governance arrangements for all large projects. In addition to the governance arrangements set out in this report, a formal project management approach was adopted for the implementation of the project with milestones, deliverables, costs, resources and issues/risks all being tracked and managed.

- 13.87** In tandem with the delays, costs have increased substantially relative to the estimates upon which decisions were based. In 2009, the estimated cost of the project communicated to Government was €18 million over 18 months. The estimated cost was based on the projected payments to the licence holder. It did not take into account the cost of the Department's staffing resources or the cost of consultants. These are projected to be around €4.5 million.
- 13.88** The estimated cost of the project notified to Government in 2013 was increased to €31 million, over a ten-year licence period. Based on a review of costs to date and the outstanding obligations on current contracts, the cost is projected to be around €38 million. This includes a cost of €686,000 relating to changes to the licence holder contract subsequent to the contract being signed.

Recommendation 13.2

In presenting proposals for projects to Government, the Department should communicate all costs, actual and estimated, attributable to a project.

Accounting Officer's response

Agreed. The Department now includes all major costs, where these can be estimated, when seeking Government approval for a project. It is acknowledged that the information submitted to Government did not identify costs of departmental staff other than noting that they would be met from within the existing staffing resources of the Department.

- 13.89** In 2007, the Government decided not to approve the project because analysis had not identified benefits arising from the project that would outweigh the projected costs. Further analyses in 2008 and 2010 projected that the project would yield net benefits of €6 million and €20 million (NPV), respectively. However, a number of shortcomings were identified with those analyses
- the analyses were based on a 'postal sector' model rather than the address-specific model eventually developed
 - the resource costs of the Department or the cost of consultants were not included
 - the discount factor used in 2006 and 2008 was not in line with the factor recommended by the Department of Public Expenditure and Reform for public sector projects
 - the shadow cost of public funds was not applied to the State funded maintenance costs that were included in the 2010 analysis, contrary to capital appraisal guidelines
 - there was insufficient documentation to fully support many of the assumptions used in the projections.
- 13.90** It is not clear that benefits to the value projected will be achieved as a result of the implementation of Eircode. Improved data matching by Revenue was expected to be the main public sector benefit. Revenue have indicated that this benefit has largely been achieved through other address related developments such as the Local Property Tax register and improved data matching processes.

Recommendation 13.3

Where there is a material change to a project, a revised cost benefit analysis should be undertaken promptly to ascertain the continued feasibility of the project. Where material project delays occur, the analysis should be updated to take account of relevant developments.

Accounting Officer's response

Agreed. The Department continues to refine its approach to cost benefit analyses. For example, in relation to the National Broadband Plan, the cost benefit analysis has been prepared in accordance with the Department of Public Expenditure and Reform guidelines and is regularly updated to incorporate material changes in the project design and market conditions. Cost projections are also amended where necessary to reflect results from the project's financial and technical modelling analysis.

Recommendation 13.4

The Department should ensure that where a cost benefit analysis is carried out for a project, all costs that can and will be attributed to the project are included in the analysis thereby giving a complete and accurate net present value for the project. In addition, it is essential that all costs and benefits used can be explained and substantiated with adequate, relevant supporting material. The discount factor used and the shadow cost applied should be in line with guidelines issued by the Department of Public and Expenditure Reform.

Accounting Officer's response

Agreed. The Department will follow applicable public sector guidelines and include all relevant costs in future cost benefit analyses. In relation to the specific issues raised

- the additional costs of an address-specific model were considered to be marginal and not to have a significant impact on the analysis
- the project would still have had a positive net present value had consultant costs and staff costs been included
- given the profile of costs and benefits, the application of a higher discount rate reduced the net present value and was deemed conservative.

13.91 Some aspects of procurement associated with the project were unsatisfactory including

- EU concerns with the qualifying criteria in the licence holder tender
- deviation from the terms of a request for tender in a contract awarded to PA Consulting in 2014
- a pattern of non-competitive tenders for consultants engaged on the project.

Recommendation 13.5

The Department should ensure that all procurement processes are fair, transparent and in line with national and EU guidelines. The Department should remind all staff of the importance of adhering to competitive procurement procedures and ensure that staff are aware of all relevant circulars and guidelines pertaining to procurement and in particular, non-competitive procurement.

Accounting Officer's response

Agreed. The Department has established a dedicated Procurement Unit in its Finance Division which assists in the planning and delivery of procurement. The unit liaises with the Office for Government Procurement and ensures that staff avail of public sector wide framework contracts where available. The unit maintains a contracts register for contracts over €25,000 which records key data including whether or not a competitive process was used and advises individual Divisions in relation to tender specification, design of contracts, use of framework contracts, etc.

Commencing in September 2015, details of all proposed procurements must be forwarded to the procurement unit prior to commencement of the process. This will ensure non-competitive procurement will be avoided if at all possible. Where considered necessary and unavoidable, details of such procurement will be included in the Department's annual return in respect of the Department of Public Expenditure and Reform circular 40/2002. All procurement legislation, guidelines, contract guides and templates, are maintained on the Department's Intranet. The Department runs procurement training courses to ensure that staff are fully aware of procurement rules and best practice in the area. For large scale projects, external procurement expertise is retained where necessary. For the postcodes project an external process auditor was appointed to oversee and validate the licence holder procurement process.

Annex A

Table A1 Costs and benefits by category included in the 2006 NPV calculation

Category	Implementation costs	Maintenance costs	Benefits
	(one off)	(annual)	(annual)
	€000	€000	€000
Licence holder	13,106	–	–
Government services	2,430	32	563
An Post	37,514	7,620	–
Private sector	6,110	296	2,833
Total	59,160	7,948	3,396

Source: Department of Communications, Energy and Natural Resources

Table A2 Costs and benefits by category included in the 2008 NPV calculation

Category	Implementation costs	Maintenance costs	Benefits
	(one off)	(annual)	(annual)
	€000	€000	€000
Licence holder	14,322	–	–
Government services	4,393	21	3,961
An Post	27,477	424	2,864
Private sector	6,676	322	3,095
Total	52,868	767	9,920

Source: Department of Communications, Energy and Natural Resources

Table A3 Costs and benefits by category included in the 2010 NPV calculation

Category	Implementation costs	Maintenance costs	Benefits
	(one off)	(annual)	(annual)
	€000	€000	€000
Licence holder	17,504	962	–
Government services	6,587	31	3,961
An Post	6,497	329	2,300
Private sector	6,673	322	3,095
Total	37,261	1,644	9,356

Source: Department of Communications, Energy and Natural Resources