

Chapter 5

Department of Community, Rural and Gaeltacht Affairs

5.1 Introduction

The Department of Community, Rural and Gaeltacht Affairs was established by Government in June 2002. The Department has specific responsibility for a range of functions including:

- ◆ Community Development Programmes
- ◆ Local Development
- ◆ the RAPID programmes for Revitalising Areas by Planning, Investment and Development,
- ◆ Co-ordination of the National Drugs Strategy,
- ◆ Volunteering,
- ◆ Rural Development initiatives including CLÁR, LEADER, INTERREG and a number of measures under the EU Programme for Peace and Reconciliation.

The Department also has responsibility for:

- ◆ the Irish language
- ◆ the Gaeltacht
- ◆ the development of Ireland's inhabited off-shore islands.

These functions were previously discharged by the former Department of Arts, Heritage, Gaeltacht and the Islands.

A number of State Boards and agencies operate in the community, rural, Gaeltacht and islands sectors under the aegis of the Department. These are:

- ◆ Commissioners of Charitable Donations and Bequests for Ireland
- ◆ Dormant Accounts Board
- ◆ Western Development Commission
- ◆ Údarás na Gaeltachta
- ◆ Bord na Leabhar Gaeilge
- ◆ An Coimisiún Logainmneacha (the Placenames Commission).

Area Development Management Ltd (ADM) administers the Local Development Social Inclusion Programme, RAPID and PEACE II Programme on behalf of the Department. ADM is an intermediary company established by the Irish Government, in agreement with the European Commission, to promote social inclusion, reconciliation and equality and to counter disadvantage through local social and economic development.

Two cross-border implementation bodies - An Foras Teanga (comprising Foras na Gaeilge and Tha Boord o Ulster-Scotch) and Waterways Ireland - come under the aegis of the Department in accordance with the terms of the British-Irish Agreement of March 1999.

5.2 Policy context

Following contact between the Director General of the CSO and the Secretary General of the Department in May 2004 it was agreed that an assessment of the Department's data holdings, relating to both persons and business entities, would be carried out. An initial high-level meeting took place in the Department in June 2004. Arising out of this meeting bilateral contacts were made between the relevant heads of division in the Department and the members of the CSO team assigned to carry out the examination.

The main data holdings identified from the follow-up contacts with officials of the Department are operated under the following schemes or organisations:

- ◆ Community development programmes
- ◆ Co-ordination of National Drugs Strategy
- ◆ Rural development initiatives
- ◆ Schemes in Gaeltacht areas
- ◆ Charities
- ◆ Dormant accounts
- ◆ Western Development Commission
- ◆ Area Development Management Ltd.

Each of these schemes is considered in turn in the remainder of this chapter. The Údarás na Gaeltachta data holdings are examined in broader context in the chapter dealing with the Department of Enterprise, Trade and employment.

5.3 Examination of individual data sources

5.3.1 Community development programmes

The Department provides financial assistance via a range of programmes with a view to assisting community development projects. The programmes, which include 'Community Support for Older People', 'Scheme of Equipment and Refurbishment Grants' and 'Scheme of Education, Training and Research Grants' are geared to cover local communities and socially excluded groups as well as disadvantaged areas. Funding is provided by means of community-based grant schemes and once-off grants.

The data relating to these programmes are contained mainly on Microsoft Access databases. The following variables in relation to groups and/or individuals are captured: name and address of grant applicant, amount requested, purpose of grant, amount paid (if any) and region involved.

Statistical quality assessment

The data set has limited statistical potential from the perspective of data holdings on individuals although there is scope to derive some limited data for business entities. For example, consideration could be given to categorising the grant applicants and recipients by sector and to analysing the results by standard areas and regions. The resulting data could thus be used to show the distribution of grants across geographical locations and activity classes.

5.3.2 Co-ordination of National Drugs Strategy

The data collected to support the National Drugs Strategy originates from a number of diverse sources. These include Local Drugs Task Forces, Community and Voluntary Drugs Groups, Regional Drugs Task Forces, Young People's Facilities and Services Fund (YPSF), National Advisory Committee on Drugs, National Drugs Strategy Team and Voluntary Organisations funded by the YPSF. The collection of data began in 1997. Most of the data is available only on paper files with a limited amount entered to computer. Data collection is quarterly.

All relevant units are surveyed and a full response is achieved. The geographic breakdown reflects the make-up of the Local and Regional Drugs Task force areas. These are based on specific urban areas and the 10 Health Board areas, respectively.

The following are the main variables captured: cost of structure/services, contact details, service/facility, the number of persons using the services classified by sex and location. Contact details include name, address, telephone number and email address. Microsoft Excel is mainly used to capture the relevant data.

Results are produced quarterly and mainly consist of financial statements and reports produced for the European Social Fund (ESF). These reports set out the cost of structures/services provided and number of persons using them. The data are also used for National Development Plan (NDP) reporting. Both the National Drugs Strategy Team and the National Advisory Committee on Drugs have access to the data sets.

Statistical quality assessment

While the statistical potential of the data holdings is limited, the inclusion of an identification number for each enterprises/unit would facilitate analysis and assist in monitoring the effectiveness of the services provided.

5.3.3 Rural development initiatives

CLÁR (Ceantair Laga Árd-Riachtanais) is a programme set up in 2001 to provide investment in disadvantaged rural areas. At present the areas covered by the programme are roughly those Electoral Divisions (EDs) that have experienced a population loss of more than 50 per cent between the 1926 and 1996 censuses. CLÁR provides funding and co-funding for approximately twenty disparate schemes, largely in collaboration with other departments and agencies. The bulk of CLÁR funding is spent on road projects. In these cases the CLÁR programme automatically tops up funding of a road project by a specified amount once it is taking place in a CLÁR ED.

Information held by the CLÁR programme is at individual scheme level. Some schemes have more information associated with them than others, but in general very little data is collected by the Department as it is largely adding funding to existing schemes. In the cases of the Electricity Conversion Scheme and the Community Initiatives Scheme, applications are made to the CLÁR programme. The applications consist of paper forms. The only data stored electronically is the record of approvals/payments. This database is essentially a register of companies that receive funding. Extra detail is available on the application forms. This includes employment levels in the case of the Electricity Conversion Scheme and some financial information (a breakdown of the different types of funding received by the community group) in the case of the Community Initiatives scheme.

The data collected by the CLÁR in the context of such schemes is used exclusively for internal purposes within the Department, for the compilation of annual reports and for the accounting of expenditure. In the cases above for example, the employment data is used as a criterion in deciding whether or not the applicant qualifies for funding. The financial information collected for the Community Initiatives is collected in addition to similar information collected by the LEADER programme. Only groups that have already received LEADER funding are eligible for this CLÁR scheme. There is therefore some duplication of effort involved here.

Data needs of the CLÁR programme are currently met by CSO census information in the first instance in order to assist in deciding which EDs are to be considered as CLÁR areas. Some contiguous EDs and EDs close to the threshold are also included. However, use could be made of more detailed published information at ED level. With this objective in mind CSO provided some Small Area Population Statistics (SAPS) data from Census 2002 for a random selection of EDs to see if any benefit could be derived from this level of detail.

Some of the individual schemes could also benefit from added detail in order to evaluate their effectiveness. For example, the effectiveness of the satellite broadband scheme may be monitored at ED level detail from the results of the 2006 census.

Statistical quality assessment

The general lack of data sources and the highly specialised nature of the data that is currently collected limits any assessment of statistical quality. It is unlikely the data collected could have any function outside that for which it is currently used.

5.3.4 Schemes in Gaeltacht areas

A core task of the Department is to promote the social, physical and economic development of Gaeltacht areas and to strengthen Irish as the principal community language in the Gaeltacht. The following schemes, administered directly by the Department, are geared to achieving these aims:

- ◆ Improvement Schemes in the Gaeltacht
- ◆ Grants under the Housing (Gaeltacht) Acts
- ◆ Irish Language Learners' Scheme
- ◆ Scheme of Irish Language Courses in the Gaeltacht for Adults.
- ◆ Irish Speaking Scheme
- ◆ Scheme to Encourage Irish.
- ◆ Scheme for Irish Language Courses in the Gaeltacht for young people.

Expenditure figures under the various schemes are maintained by the Department along with details of grant recipients, whether individuals or businesses. Time series of data extending back over twenty years exist for some of the schemes. In most cases the relevant data can be provided at county level (for some it can be provided at the level of Electoral Division). While for the most part the relevant information in relation to schemes is maintained on paper files, progress is now being made on the computerisation of these schemes.

The standard public-service wide procedures apply to grant applicants i.e. they have to supply their PPSN numbers and/or certificates of tax compliance. The data on housing grants are passed to the Department of Environment, Heritage and Local Government.

Statistical quality assessment

The information collected and maintained under the various schemes is mainly management type information. Reporting is done mainly on an annual basis. Typically, the data available from the schemes are used in the preparation of the annual estimates of expenditures for the relevant programmes. The figures are also utilised in specific studies carried out to assist the Department in monitoring the effectiveness of these programmes such as for instance was done in the case of the Irish speaking scheme as an input into the report on Coimisiún na Gaeltachta, 2002.

5.3.5 Charities

The Department has been given responsibility to deliver on commitments set out in the Agreed Programme for Government 2002 to comprehensively reform charities legislation with a view to ensuring greater accountability.

The December 2003 consultation paper on “Establishing a Modern Statutory Framework for Charities” is the first step in delivering on this commitment. This consultation paper proposes the setting up of a Register of Charities to be administered by a proposed Charities Regulator. Such an arrangement would require all charities to register with the regulator and file returns on a periodic basis.

While neither the regulator nor the register have been set up at this point, it might prove fruitful none the less to make a number of suggestions regarding the data to be captured in order that potential cross-cutting issues in particular are recognised early on.

The consultation paper envisages a situation where returns would be filed either to the regulatory body or to the Companies Registration Office (CRO) depending on whether or not the charity is a company. In this instance it would clearly be important that the CRO number be collected where available. Similarly the Revenue Commissioners’ charity reference number would allow linking with revenue data. It is the stated intention to have all register and annual return information available via the World Wide Web (in the same way that data submitted to the CRO is currently disseminated). Given this intention it would be advantageous to collect data using a standardised electronic format such as the XBRL (eXtensible Business Reporting Language) format, the Irish version of which is currently being developed by the CRO, CSO, Revenue Commissioners and many other companies and organisations.

Statistical quality assessment

The fact that the register has yet to be set up affords the Department an opportunity to influence matters at the design stage. Clearly, where the charitable institutions are corporate bodies every effort should be made to facilitate linkages with organisations such as the CRO, Revenue and the CSO.

5.3.6 Dormant Accounts

The Dormant Accounts Fund Disbursements Board was set up under the Dormant Accounts Act, 2001 and the Unclaimed Life Assurance Policies Act, 2003 to oversee the

disbursements of dormant funds and unclaimed policies in insurance undertakings and credit institutions. The aim of the Board is the disbursement of these funds among organisations or projects that assist those who are economically, educationally or socially disadvantaged. Such a dormant fund can be reclaimed by the policyholder at any time.

Invitations by organisations and groups for funding are made via Area Development Management Ltd. (ADM), which deals with the applications, while the Dormant Accounts Fund Disbursements Board decides on the allocation of the funds. The Department provides administrative support to the Board. The Department's Dormant Accounts Unit also receives all their data in relation to dormant accounts from the Board.

The Department's data holdings, currently in the form of Microsoft Excel spreadsheets, relate to all groups who have applied for funding under the above Acts. The data fields include the names of groups applying for funding, whether they got funding, reasoning for allocation/non- allocation of funds, amount if applicable and the purpose for which the funds are intended. Reference numbers are also associated with individual applications although not made public.

The closing date for the first round of applications was March 2004. By the end of August 2004, approximately 133 projects were approved for funding. The process is ongoing.

Statistical quality assessment

With the inclusion of more informative variables, such as geographic codes and activity classifications for each group or project applying for funding, a more concise understanding of the allocation and distribution of payments could be determined.

Also, following some of the provisions of the Dormant Accounts Act, the role of the Dormant Accounts Fund Disbursements Board will change (to an advisory position) with the Government deciding future allocations. While this will obviously have implications for the Dormant Account Unit in the Department it is too early to identify the effect that it will have on its data holdings.

5.3.7 Western Development Commission (WDC)

The only significant data holding of the WDC relates to companies receiving funding from the Western Investment Fund (WIF). This is a fund of €32m that provides risk capital to projects and business on a commercial basis, by way of equity investment and the granting of loans. The commission also has a policy division that uses data from a wide variety of outside sources to track implementation of a range of policies and to suggest alterations where appropriate.

Data relating to WIF projects is collected directly from the companies involved. In the first instance this is by way of applications for funding. Fund managers collect supplementary data as and when required. Data relating to the same unit is given the same ID. Fields recorded include register data (including address by county), business sector, business stage, legal status, employment (including expected future employment) and turnover. However neither VAT nor CRO numbers are collected thereby limiting any potential cross-cutting opportunities.

The data collected is used internally to determine the eligibility for funding of a particular project. As the fund provides risk capital rather than grants, data is examined by an advisory panel of financial experts to ensure that the fund invests in commercially viable projects.

Once a project has been approved, supplementary data is collected periodically to evaluate the effects of the funding given.

In addition to data held by the WIF, the WDC policy division requires a wide variety of data from CSO and other sources. The CSO sources include the Census of Population (CoP), the Census of Industrial Production (CIP), the Quarterly National Household Survey (QNHS), the Annual Service Inquiry (ASI), the Census of Agriculture and Tourism statistics. While some of these sources are adequate for WDC purposes, the lack of detailed geographic breakdowns (on ASI for example) together with timeliness concerns in the case of the CIP, means that their needs are not fully met. Data from other departments/agencies is also used, such as Employment survey organised by Forfás and data on award recipients from the HEA.

Statistical quality assessment

While the WIF database is unlikely in any case to have significant relevance outside of the WDC, given its very specialised nature, there are a couple of issues that further reduce its usefulness. The lack of any standardised registration number such as VAT or CRO numbers, makes linking with other databases difficult. Its usefulness from a cross-cutting perspective is therefore limited. Business sector classification does not currently make use of any recognised standard (e.g. NACE rev. 1) either. Use of such standards would increase the potential usefulness of the data source.

5.3.8 ADM Local Development Social Inclusion Programme

Financial information and throughput data is gathered on a quarterly basis from Partnerships, Community Partnerships and Employment Pacts to allow ADM to manage the Local Development Social Inclusion Programme. The data are used to prepare reports for the Department of Community, Rural and Gaeltacht Affairs and for the relevant BMW and S&E Regional Assembly monitoring committees. The data collected relate to the beneficiaries of the programme (both individuals and groups) and can be aggregated by local area, county and regional authority area.

The financial information is captured using Excel report formats while the throughput data is collected using a specific software application. Annual accounts are published as part of ADM's annual report.

Statistical quality assessment

The statistical potential of the ADM holdings is somewhat limited. Most of the information collected arises as a by-product of the administration of the relevant scheme. Its usefulness is therefore more in the area of management information. No major scope exists for merging the data with other sources with a view to optimising its statistical potential.

5.4 Data needs

The Department has responsibility for a multiplicity of schemes formerly administered by other departments such as Gaeltacht and Agriculture (for rural development). Most of these schemes do not require detailed external data in order to administer them efficiently. Some programmes (e.g. CLÁR) operate at Electoral Division (ED) level and CSO has provided demographic breakdowns for specific EDs derived from the Census Small Area Population Statistics (SAPS) for various years to assist in their administration. The Department's data needs to inform its policy formulation role are mainly at a more general level and can be

satisfied by broadly based indicators such as those distinguished in the CSO publication “Measuring Ireland’s Progress”.

5.5 Overall conclusions

The choice of data sources commented on above is a reflection of the heterogeneous nature of the work of the Department. None of the data sets are of sufficient import in their own right that enhancing their statistical potential would be likely to add significantly to the corpus of official statistics. Most of the data sets can be considered to be management type information. By observing good practice in terms of the design of the variables in the data set and adherence to standard statistical classifications where feasible the data sets involved may, at the very minimum, be made more useful for policy formulation within the Department. Over time consideration could be given to publishing relevant time series to assist public understanding of the schemes being administered by the Department and its agencies.

Chapter 6

Department of Enterprise, Trade and Employment

6.1 Introduction

The functions of the Department and its associated agencies are wide-ranging and consequently the breadth of data required to support these functions must be just as comprehensive. The department relies on a mixture of sources - for some purposes it collects its own data, for others it commissions specific research while in other areas it depends totally on information produced in other areas of the public sector.

In interactions with representatives of the Department and its associated agencies, there was a strong sense of under-utilisation of existing fragmented data together with a sense of perceived powerlessness concerning the content of data collected by others. As is the case with most public sector organisations, information demands are growing - data for purely administrative purposes, data for reporting purposes and, crucially, data for comprehensive and coherent information to support planning, policy formulation and policy evaluation. While there is a similar growth across many public sector organisations, the Department's central role in economic and social development means that data inadequacies are more keenly felt here than in other area of the public sector.

6.1.1 The SPAR/NSB process

The preparation of this report has not been without its problems. Firstly, its finalisation has taken a lot longer than originally hoped. This is mainly because of other demands on the time of the CSO team, who took on this substantial piece of work in addition to their other day to day responsibilities. It became clear that this report could not be and should not be written without giving it full attention, as some of the fundamental issues involved deserved deep and integrated consideration. Finding enough continuous time for such consideration was a serious issue for the CSO team. Secondly, other related activities (NSB and Expert Group deliberations) progressed at different paces which meant that parts of the process which should ideally have fitted together perfectly did not in fact do so. This is particularly true of recommendation wordings included in this chapter, which have evolved and have been fine-tuned since they were originally drafted. Earlier drafts have found their way (deliberately) into other processes and have survived in these earlier formats in some cases. This seems to have been a source of some confusion and the CSO team regrets this confusion. However, the intention has always been that it was the thrust of these recommendations that really mattered, rather than the processes themselves. It is hoped that this work will be seen as the beginning of ongoing engagement rather than the end of a process.

6.1.2 Nature of recommendations

In the course of the analysis of data sources and needs, there were certain recurring issues which can only be addressed by the adoption of a fundamental approach across departments and agencies. This approach is encapsulated in four recommendations, which are presented in Section 2. Of these, only one can be implemented by the Department acting alone. Even then, its implementation will have limited benefits without progress on the other three recommendations. Some ideas as to how sources and needs can be more closely aligned are presented in Sections 3 and 4. These ideas serve to underpin the fundamental nature of the recommendations.

Before these recommendations are presented, it is worthwhile to briefly summarise the data environment in which the Department operates. Five principles are then presented which outline the desirable characteristics of a public sector data collection system.

6.1.3 Data environment

Although its functions are so central, the Department is not in a position to exercise a commensurately central level of influence over the type and amount of fragmented data that is collected by other organisations. The Department, therefore, has expressed its welcome for the thrust of the NSB strategy, which, it understands, will deliver a "whole-system" data environment. In this environment, full regard would be given to the genuine data needs of all public sector organisations, regardless of which organisation is the nominal "owner" or "custodian" of any particular data source.

The fragmented nature of existing data is also of concern to the Department because of the burden that is placed on business. There is a strong perception amongst the business community that the costs associated with duplication or other forms of inefficiency in public sector data collections are largely borne by business. A consequence of this perception is that rates of response to statistical surveys and administrative data collections are falling. This causes a reduction in data quality which, in turn, leads to more cost, effort and difficulty in collecting data. It also leads to more contacts with businesses in an effort to ensure compliance. There is thus a circularity affecting response burden, compliance with business surveys and hence data quality and utility.

The linking of business data (and hence the maximisation of utility and efficiency) from various sources, both at a micro and macro level is hampered by a number of factors. The two main factors are classifications and registers. Even when common classifications are used (such as NACE sector of economic activity) by different organisations, they are often applied differently. This means that aggregate results for, what in theory should be the same sector, are often not consistent. This is frustrating for users of data. Different organisations maintain distinct registers, often with differing definitions of business entities and different coverage.

There are also legal constraints governing the sharing of information on business entities across the public sector. Most individual data are covered by the Data Protection Act while there are other legal issues around the collection of business data. Information collected by the CSO is governed by the Statistics Act. These legal considerations are properly and routinely quoted as reasons why identifiable data cannot be shared. It would seem, however, that the interests of data providers (businesses and individuals) and public sector data users (and hence the public) would be better served if some constraints were to be removed. It should be noted here that the terms of the Data Protection Act do not cover data requested by the CSO; also the CSO has a legal right of access to most data held by public sector organisations. Therefore, it is theoretically possible for there to be a flow of information into the CSO and for all analysis to be carried out in the CSO with statistical information only (i.e. aggregate information) subsequently passed on to other agencies. It would not be efficient or sensible, however, to centralise all data collection and analysis in the CSO. Furthermore, data held and collected by the Department and associated agencies can be used for more than one purpose - they can be used for administrative purposes, for reporting purposes, for purely statistical purposes or for a combination of all three. Indeed, multiple use of the same data for different uses should be considered as desirable and the challenge is to design collection systems to facilitate this.

Given that the Department and its agencies sometimes use the same data for administrative and statistical purposes, it seems logical that such information be collected by the body with the administrative need. However, to increase the utility of data and simultaneously to minimise response burden for respondents, ways must be found to make those data available to those in other areas in the public sector with a genuine need. The major challenge here is the prioritisation of data collections and agreement across the main actors

in the public sector with regard to the standards and classifications for those collections. The question of who collects the data is not the most important – as long as the collecting body has the capacity to do so. The concerns should be around what data are collected, the quality of those data, the organisations and persons allowed to access them and how response burden can be kept to a reasonable minimum.

6.1.4 Principles for Public Sector data collection

Principle 1

Those with a genuine need for identifiable micro-data must be in a position to access those data, regardless of which department or agency is the collection body.

Two cases are considered here. Firstly, where the collecting body is a department or agency other than the CSO, there are legal restrictions around the uses of the data and around who can use them. Secondly, where the data are collected by the CSO, no identifiable micro-data can be passed to other agencies under the terms of the Statistics Act, except with the express permission of the data provider. There are thus two possibilities for the sharing of information collected by the CSO. The first is a change to the Statistics Act to allow data to be passed on under specific circumstances. The second would involve providing the opportunity for a respondent to indicate on an inquiry form that he/she agrees that the data be passed on to specified bodies. While this would have the effect of increasing efficiency and reducing the burden on respondents, its effectiveness would be diminished if there were not close to 100% take up.

Principle 2

Where the same or similar data is needed by more than one body, that data should be collected only once.

This simply stated objective can only be achieved by co-operation across agencies and in particular by removing some the barriers to the sharing of data mentioned under Principle 1. A probable implication of the application of this principle is that some data collections would be merged. Another is that organisations must be willing to collect information (via a survey or an administrative system) on behalf of others where this is the most efficient way – and efficiency here means efficiency across the public sector rather than being seen as specific to any one department or agency.

Principle 3

Response burden on business should be measurable across public sector organisations.

It can be argued that measuring response burden across the public sector is essential in order to demonstrate that the burden is spread fairly and is kept to a reasonable minimum. However, there are a number of impediments to this at present. The first is that most bodies do not keep a detailed list of data collections from business. The second is that, even if such lists were available, it would still be impossible to identify the volume and nature of data collected from a specific business entity, as definitions of business units vary. The obvious solution would be to have a logical common up-to-date Register of Businesses available to all public bodies together with a unique reference number attached to each entity on the register. As well as allowing the measurement of response burden, this would also facilitate efficient sharing of information between organisations.

It is simple to propose the creation of a common public sector business register. Its creation is not trivial. Nevertheless, in its absence, it is difficult to rationalise how data utility can be improved, existing and emerging data needs met and response burden minimised.

It is important to emphasise that there are many possible models for the establishment of a common public sector business register. Its existence does not imply that one complete register, together with all data collected from business, would be available to all public sector organisations. Not all organisations need this detail. It will always be the case that an organisation will collect or store information for its own particular administrative use and that this use is of no interest to others. What is important is that the coverage of any locally held register is exhaustive, the units are the same as those used by other organisations and that it incorporates a unique business identifier. Existence of these registers for local use can be viewed as "satellite" registers, feeding off a centrally maintained "master" register. "Satellite" registers and the "master" register would then make up a logical public sector business register, in the sense that they could be combined via the unique identifier.

A brief description of the existing CSO Business Register is given in Appendix 1(a).

Principle 4

Prioritisation of data needs and data collections across the public sector should be carried out in an ongoing, transparent manner.

The current situation is that all departments and agencies can (or are forced to) institute data collections independently of the rest of the public sector. However, this approach does not guarantee that the most important policy issues are supported by relevant data. Neither does it guarantee that response burden is kept to a reasonable minimum. It also leads to frustration from respondents who are not in a position to appreciate that the collection is necessary and useful from a public administration perspective. This perception feeds into the circularity of low data quality and less than optimal response burden.

Principle 5

Businesses and business representative groups should be directly involved in the design and implementation of a public sector-wide data collection program.

Perhaps the most expensive and time-consuming elements of any data collection involving business is follow-up of non-respondents and follow-up of respondents to query data quality. Given the multiplicity of data collections and the multiplicity of organisations involved in data collection, it is perhaps unsurprising that some businesses will wait until reminded before acceding to requests for information. A common understanding that a particular data collection is necessary and an acceptance that every effort is made to keep the burden to a necessary minimum would help in promoting response of a high quality.

6.1.5 Data quality issues

Where data collections are integrated across organisations, or data are collected by one body for subsequent use by other organisations, it is essential that some minimum data quality issues are addressed directly.

The components of data quality are often listed as:

Relevance, Accuracy, Timeliness, Accessibility, Coherence and Comparability.

In an environment when priorities can change rapidly (and especially using a multi-agency approach to data gathering), it is also essential that the data collection processes are sufficiently *flexible* to react to changes in any one agency's needs and priorities.

Assuming that data are not collected that nobody actually needs and that organisations are skilled at defining their own needs, the component of relevance is taken as a given. Standardisation of classifications and collection modes are the most important features of data collection processes that will guarantee coherence and comparability. This leaves *Accuracy, Timeliness, Accessibility* and *Flexibility* as the main quality components needing ongoing attention in any new data collection environment.

Accuracy, Timeliness and Accessibility

Merely stating that similar data is required by more than one organisation gives only a partial picture. The organisations may need the data at different times and the organisations may have different minimum accuracy requirements. In most data collection processes, there will be a trade-off between accuracy and timeliness. Where integrated data collection is carried out this trade-off must reflect the highest level of accuracy and timeliness needed by any of the stakeholders. As regards accessibility, all those with a genuine need for access to micro-data must have it. Another feature of accessibility is that the very existence of a data collection process must be widely known. This is not the case now.

Flexibility

With an integrated data collection system, the question arises as to who should have the final say in the content and design of the system. In other words, who owns the process? The answer must be that everyone who's needs are addressed must own it and a structure will have to exist whereby this is reality is reflected. If this structure does not exist, then organisations will be forced to "do their own thing" in terms of additional data collection - as is the case now.

Within this structure a program of data collection would be agreed and publicised. The time horizon for this program would be multi-annual. Changed needs or emerging needs would be addressed within the structure implying that the program would be updated and agreed annually.

This is not to suggest that there will never be any need for "once-off" data collections. However, at a minimum, all stakeholders should be made aware of all "once-off" data collections and the nature of these collections. Even when a "once-off" collection is necessary, it still seems likely that its design could be integrated in some respect with other aspects of the program - by, for instance, using common classifications or by adding value in a sample survey by arranging the sample judiciously. This could be achieved by aligning those selected units with those selected for another collection or it could mean the opposite - avoiding certain units selected in other collections with the objective of spreading response burden. In this sense, even "once-off" collections could be considered to fit within a defined collection program.

6.1.6 Expression and prioritisation of data needs

Data needs are often expressed with varying degrees of precision and conviction. An urgent and tightly specified need from one analyst might be regarded as "nice to know, but not essential" by another. In designing sources to meet needs, it is important that the expressed

needs properly reflect real priorities. It is not enough for local functional areas to specify their own data needs without detailed scrutiny. The needs must therefore be prioritised and signed off at an appropriately high organisational level.

Needs can be expressed in the context of existing sources, or can be expressed in the absence of any context. A data user who specifies in the context of available sources is often compromising from the beginning, by realising what may be possible within an existing framework. A data user not familiar with potential sources is more likely to specify more rigidly and in a way that would lead to additional collection processes being required. However, contextual knowledge might allow that user to specify an alternative requirement, which also meets the perceived need, but is feasible within already existing collection processes.

Some needs, of course, are not discretionary. Some arise directly from national or international law. Some are necessary for reporting purposes, while others arise from the partnership process and various sub-groups thereof.

There is currently no exhaustive procedure to carry out this necessary prioritisation. It is likely that effort and expense are being wasted on low priority items, while high priority ones are not addressed at all. This perception is widespread amongst businesses, further adding to the circularity of low quality and response burden.

6.2 Recommendations

Recommendation 1

The Department, the CSO and other agencies (including the Revenue Commissioners and CRO) should progress the creation of a current logical Public Sector Business Register (PSBR) which:

- ◆ Is available or partially available to all public sector organisations with a genuine business need;
- ◆ Includes a unique business identifier to be used by all public sector bodies, especially CSO, Revenue, CRO and D/ETE; and
- ◆ Is comprehensive and includes all business types, regardless of legal form.

Also, the above stakeholders should form an opinion as to the best physical location for the master register and the legal issues to be addressed and resolved.

(It is acknowledged that the creation of unique business identifiers is not a new idea and that it has previously been discussed. However, the precise reason(s) why the idea has not been progressed are unknown to the CSO team. It also must be acknowledged that such a joined-up approach is becoming more prevalent internationally, in spite of the organisational complications and technical complexity of its establishment. The impetus for such work varies between countries. For some it is a public sector efficiency issue. For others it is a competitiveness issue, while for other countries it is a combination of these and other factors. It should also be acknowledged that, domestically, the value and power of other similarly used broadly based classifiers, such as PPS Number and Postal Codes are becoming increasingly recognised by the public administration system.)

Recommendation 2

The CSO and D/ETE (together with FAS and Forfas) should, drawing on the work already done as part of the SPAR exercise, take the lead in identifying the nature and content of an Integrated Annual Program of Business Collections (IAPBS). The focus should initially be on the data items that should be collected and the frequency of collections. This group should propose a structure to facilitate the annual updating of the program which takes account of:

- ◆ Regular annual, sub-annual data needs as well as data required less frequently;
- ◆ How "once-off" data needs can be catered for within the program;
- ◆ How specialists and analysts, regardless of parent organisation, can influence the design and implementation of the program; and
- ◆ Which data items are suitable for collection as part of an administrative system rather than by business surveys.

Recommendation 3

The NSB should take the lead in facilitating the implementation of (1) and (2) by convening a meeting or series of meetings, which should include representatives of:

- ◆ The main policy formulation and support departments (including D/ETE);
- ◆ Representatives of data providers (business);
- ◆ The Data Protection Commissioner; and
- ◆ CSO.

The focus of these discussions should be arriving at a direction and more precise terms of reference for the groups established under (1) and (2) above.

Recommendation 4

The Department should, building on the work done in the SPAR project, initiate an ongoing process which more precisely outlines and prioritises all of its data needs. This process must be driven and supported at an appropriately high organisational level and include all of the agencies attached to the Department.

6.3 Data sources

A large volume of material was collected on sources as part of the SPAR project. All of this information is not contained in this section. The focus is on those that are perceived to be the most important needs and sources.

6.3.1 Forfas data sources

Forfas relies on several administrative sources as well as business surveys. It holds enterprise data on behalf of its associated agencies (Enterprise Ireland, IDA Ireland, Science Foundation Ireland) as well as on behalf of Shannon Development, Udaras na Gaeltachta and County Enterprise Boards.

The data dealt with by Forfas can be considered in three categories.

Administrative data at enterprise/local unit level collected or supplied by the operating agencies (IDA, EI, SD and UnG) and held on the Forfas Business Information System (BIS). This information is accessible to the Department and to the relevant agencies and contains details of financial support (grant aid and equity participation). Classification variables, such as NACE sector of economic activity, are held on the BIS, as are contact details. When used in conjunction with employment details (from the Annual Employment Survey (AES), see below) the data form the basis of indicators such as trends in agency financial support and value for money indicators (financial support per sustained job, etc).

Each agency creates (its own) unique reference number when setting up a new entity on its own database. This unique number is combined with an agency ID to create a unique identifier on the BIS.

Records on the BIS relate to all entities which have (or have had) dealings with the operating agencies. With respect to the year 2004, this amounted to about 8,000 local units. Historical data is held on about 42,000 units relating back to the early 1970's.

Where new information is available, the BIS is updated every 2/3 months. There are quality issues with respect to some data (including NACE codes). Entities that are part of the Annual Business Survey of Economic Impact (ABSEI, see below) can have their NACE codes updated on the basis of descriptions supplied for this survey. The quality of NACE coding does impinge on its usefulness in a broader context - it is difficult to reconcile information from the BIS with data collected by other agencies (such as CSO) which also (theoretically) use the same classification structure.

The second category is *survey data* used mainly for agency-specific functions and reports. The primary purpose of the Annual Employment Survey (AES) is to monitor jobs created and lost in agency-supported units. All agency-supported local units are included. Simple counts of full-time, part-time and temporary employment are collected from each local unit. No occupational information or other labour-input type characteristic is collected, and the headcounts are entered on the BIS as described above.

Data is delivered to the boards of operating agencies in December of every year and form a basis for annual reporting. This is typically 4-6 months after the annual cycle of data collection begins.

It would seem reasonable to assume that this basic employment information could be made readily available from elsewhere within the system, either from CSO or Revenue sources. The CSO is in the process of commencing a quarterly survey of Earnings, Hours and

Employment Costs (EHECS) which collects information on numbers employed (by full/time distinction and major occupational grouping), as well as on hours worked, earnings and other non-earnings employment costs. Many agency-supported entities will be included in this new (statutory) inquiry, which also collects information about labour turnover and vacancies (See Appendix 1(b)). This information would be of interest to Forfas and its agencies. It would provide reliable estimates for other labour market variables (earnings, labour costs, vacancy rates etc.) which may be useful from an agency perspective and may also be useful in a wider perspective by contrasting characteristics of agency-supported entities and non-supported entities.

Of course, while the above sounds appealing and intuitive, it is dependent on CSO and the agencies using similar register variables, so that each unit on the Forfas BIS is identifiably contained on the CSO Business register (or more general public sector business register). It is also contingent on access constraints being successfully addressed.

The Annual Business Survey of Economic Impact (ABSEI) is conducted by the ESRI on behalf of Forfas and covers all agency-assisted units with employment of 10 or more persons in the manufacturing and the internationally traded services sector. Response rate is typically of the order of 55% to 60%. It is a structural inquiry, which covers data items such as sales, turnover, exports, payroll details, materials and services purchases, R+D activities etc. Results for this survey are used extensively within Forfas for planning purposes and the information is available to the operating agencies to assist in day to day dealings with clients.

Recently, there has been a growing requirement to customise survey questionnaires for each of the operating agencies, which introduces complexities to the collection process.

The ABSEI is extremely similar in content to annual structural inquiries carried out by the CSO - the Annual Services Inquiry (ASI) and the Census of Industrial Production (CIP). This similarity is widely accepted and again there would seem to be an opportunity to rationalise by amalgamating the surveys. Again, however, the same register and access issues need to be addressed initially.

There is also a strong case for treating the ASI and CIP as one logical data collection process, with differences in questionnaire design depending on sector. Customising forms issued under the same survey is an issue that arises for many surveys conducted by the CSO. It would be possible to issue distinct questionnaires in the future, depending not only on sector, but on aided status.

Forfas has also been carrying out four Science and Technology (S&T) surveys from the 1980's – these include three R&D surveys – Business R&D, Higher Education R&D and the Science Budget (GoveRD and GBAORD data), governed under legislation in the 1987 Science and Technology Act; and also the Community Innovation Survey. These activities are included below as part of the third category of data collected by Forfas - *Survey Data* for policy purposes.

Survey of Research and Development in Industry

This is a survey of approximately 3,100 enterprises, which is carried out every two years. There is an EU regulation to this effect and classifications and definitions are covered in the Frascati Manual. The latest survey is for the reference year 2003 and was carried out by the ESRI on behalf of Forfas (as was the 2001 survey). The response rate was 47% for the 2003 survey.

The target sample size of 3,100 is identified by combining many sources. Those included are

- enterprises whose response to the previous BERD indicated an incidence of R+D activity, or who didn't respond but were thought likely to have R+D activities,
- units who were identified in previous ABSEI inquiries as performing some R+D
- large units from the ESRI register for whom it was known R+D activities were carried out
- other units which came to light during the course of the ESRI fieldwork

The outputs from the survey are total spend in R+D across the relevant sectors, with sub-sectoral classification. Estimates of costs, components of costs and numbers of persons engaged (with gender breakdown) in R+D activity are produced, as well as estimates of the spend on various aspects of R+D. There is a wide circle of users for these survey results and its importance is growing, reflecting national and EU focus on the importance of R+D.

The sample selection mechanisms reflect a need to establish an incidence of R+D activity, which is then followed by detailed questions on the type and nature of activity. It seems apparent that a cleaner register, with an up-to-date filter for "does/does not" carry out R+D activities would be a huge advantage in designing this survey. Also, certain classificatory variables are collected as part of the data collection operation, where it would again seem that these items either are or should be available from other sources. These include sales turnover, ownership details, full-time employment at the end of the reference year and a textual description of the nature of the economic activity carried out by the enterprise. (The textual description of the economic activity is also collected in the ABSEI.) Plans are underway to streamline the data collection process in the 2005 BERD survey by making use of some data already available from the ABSEI. This should have the effect of removing three questions from the questionnaire and will hopefully help to increase the rate of response. This work will mirror similar work already undertaken in the CIS survey.

It is apparent that Forfas needs micro-data from this survey to perform its policy functions. Without prejudice to any deliberations as to which organisation should carry out this survey, it should be possible to streamline the data collection and place it in a broader context (again subject to accessibility and register considerations).

Annual CSO inquiries (ASI/CIP) could be used to establish the incidence of R+D at enterprise level and would thus provide the basis for the survey to measure the prevalence and nature of the activity. The CSO sources could also be used to provide the enterprise profile - it should not be necessary to ask for these data items again. Working from a single, logical up-to-date register would also have distinct advantages in weighting the survey to population level. Some work is ongoing in an attempt to flag entities active in R&D although there are, of course, methodological issues. One of those issues concerns the necessity for clearer questions to elicit occurrence of R&D in CSO surveys.

The Forfas publication *"Business Expenditure on Research and Development (BERD) Ireland 2003/4"* which contains results of the 2003 survey contains the following statement

"An overall response rate of 47.2% of companies to a survey such as the one in question is very much in line with expectations and is the norm in what can be achieved in surveys of this nature in Ireland today"

Results of the 2001 survey contained a similar statement. The statement is undoubtedly true, but it does beg the questions about how all of our expectations are conditioned by the way this type of data collection is carried out in Ireland.

Community Innovation Survey (CIS)

The CIS is carried out under similar conditions to the BERD - under an EU regulation and with a sample size of approximately 3000. The regulatory arrangements have been updated so that the CIS will take place every 4 years with a "lighter" data collection two years after each main occurrence.

The target population is enterprises in manufacturing and services with 10 or more employees. The sampling frame for the CIS is compiled in a similar way to BERD, in that combinations of the Forfas, ESRI and other agencies' registers are used.

The 2001 CIS was carried out by MRBI and achieved a response rate of 17%. (The subsequent survey had a slightly higher rate of 23%.) There is no national publication of the results although some information was transmitted to Eurostat. The purpose of the survey is to measure the quality of the innovation activities of business in Ireland. Data collected include types of innovative products and services, expenditure on innovation, turnover, collaboration activities as well as perceived obstacles to innovation.

Above comments about the BERD are also relevant to the CIS, although given the perceived importance of innovation, the response rate of 17% is even more of a concern. However, significant improvements to these response rates are envisaged for "CIS4". This survey has been carried out by Forfas rather than by an external contractor on behalf of Forfas. A response rate of 40% is likely to be achieved. This would be close to the average response rate across European countries where there is no legal mandate to enforce compliance with the survey. (However, it should also be stressed that Ireland is one of those countries where legal obligations to comply with statistical surveys can be enforced. Almost all CSO business inquiries are now carried out with this legal enforcement option and it is the policy of CSO that all new business surveys introduced by it should be obligatory under Ministerial order, made under the Statistics Act, 1993.) Sample size for "CIS4" is now a stratified 2500 firms (1500 manufacturing and 1000 service sector entities). The primary focus is on innovation activities of firms employing more than 10 people, though a small booster sample of firms with 6-10 employees was added in response to user requests.

Two other smaller scale (in terms of number of units) inquiries are carried out regularly by Forfas. These are the Survey of Research and Development in the Higher Education Sector (commonly referred to as HERD) and the Survey of Scientific and Technical Activities in the Public Sector. The HERD is targeted at third level institutions. Both surveys are carried out under EU regulation. Classifications and definitions are governed by the Frascati Manual. The HERD includes spend and components of spend (labour costs, other current costs and capital costs) on R+D together with information on source of funding and (gender disaggregated) employment information. The Public Sector inquiry is a survey of 46 government departments, agencies and offices and is a complex task carried out under the legislation of the Science and Technology Act, 1987.

6.3.2 FAS sources

FAS maintains comprehensive sources of information on its clients - particularly on persons. FAS is also a major user of information produced elsewhere in the system, especially aggregate information from the CSO and individual records from the DSFA, DES and the HEA. The remit of FAS includes generation of reports on Labour Market issues and advice to the Minister on any aspect of its functions. FAS is also a key contributor to various groups including The Expert Group on Future Skills Needs. In its research and input to such groups, it is often in the position of having to commission research from outside of the public sector (usually surveys of business) specifically to inform certain topics, notably on skills gaps and

vacancies. While FAS does maintain some information on businesses, its use is primarily internal.

Many systems exist within which are maintained mainly to monitor work and caseloads. These are not treated for the purposes of this report. Others are maintained for administrative purposes but are relied upon heavily for planning and reporting purposes and have a use and significance beyond day-to-day FAS operations.

The FAS Client Database (CDB) is updated on a daily basis and increasingly contains the PPS identifier. Subsets of the database contain age, gender, region, disability status and nationality. Sub-systems of the CDB include:

- ◆ Trainee/apprentice recruitment system;
- ◆ Placement monitoring;
- ◆ Certification;
- ◆ Job-seekers register;
- ◆ Job vacancy register;
- ◆ Client CV's;
- ◆ Job order taking system; and
- ◆ E-recruitment.

The CDB system is in the process of being superseded by a new system – the Client Services System. Also, it is now FAS policy to utilise PPS Number wherever possible in its systems.

There is one other FAS source that currently contains the PPS Number - the CSCS (Construction Skills Certification System). Other FAS databases currently use identifiers unique to FAS and are thus not linkable with other sources – however, this will change in time as the new FAS policy becomes further operationalised.

The National Skills Database (NSD) is maintained by the Skills Unit. There is restricted access to this database. The purpose of the NSD is to hold information on the demand for and supply of employees. The database includes the following components:

- ◆ Work Permits - there is a link with the Department's system;
- ◆ Work Visas and Work Authorisations (again linked with the Department's system);
- ◆ QNHS estimates;
- ◆ Educational/Third level enrolments;
- ◆ Irish Times vacancies (with MANCO occupational classifications); and
- ◆ FAS vacancies extract, which is taken from the CDB.

FAS needs to monitor the level and types of vacancies that occur across the economy, with particular emphasis on some rapidly changing sectors. To that end, it maintains its own databases of advertised vacancies as well as those notified to it by clients. Particular attention is given to "hard-to-fill" vacancies and the ESRI (on behalf of FAS) carries out quarterly data collection from businesses in the Construction, Industry, Retail and Services sectors. The value of these surveys would be hugely enhanced if FAS could use Revenue P35 data.

FAS has in the past also carried (or contracted) out the Continuing Vocational Training Survey (CVTS), responsibility for which has now passed to the CSO. The next survey will be carried out under EU regulation for the first time. Response rates to past surveys have been low, with the latest response rate being 20%. Like the Forfas CIS, the CVTS is a difficult

inquiry for business. Similarly to the CIS, it could lend itself to filter questions being asked in other surveys (ASI/CIP) - previous versions of the survey have been run on a two-stage basis, with incidence of vocational training established first, with follow-up questionnaire to establish the prevalence, nature and participation in "training" enterprises.

6.4 Data needs

A thematic description of the major (unmet) data needs is given in this section. Where appropriate, indications of how those needs can be met are given. Sometimes the themes are identical to functional areas within the Department and agencies, and sometimes not. Data needs which are either fully or partially met are not included here, but are nonetheless highly relevant for the purposes of designing an integrated collection program.

6.4.1 Basic business demographics

Both the Department and Forfas have highlighted the need for some basic business demographic information, which is simply not available. The information can be as fundamental as the number of SME's operating in Ireland. Basic breakdowns by size (as measured by employment and turnover), sector, region and value added are required. The lack of such basic information hampers analysts and has hampered the work of the Enterprise Strategy Group, among others. A general requirement for consolidation of data collection for SME's has also been expressed.

The point has been made that the necessary data probably exist. While this may be true, they do not exist in a linkable way that would allow these business populations to be established.

These basic requirements would be met by an up-to-date public sector business register.

6.4.2 Increased detail of existing statistics - industry and occupation coding

The Department, FAS and Forfas have all expressed a need for more detailed breakdowns of existing classifications for current data. Industry (NACE) and Occupation (SOC/ISCO) are the main classifications in question.

The CSO is prohibited from disclosing confidential information. Even when reliable survey information is available at NACE 4-digit level, it is often necessary to aggregate to higher hierarchical levels. The availability of a current PSBR, containing detailed CSO NACE codes, would provide the departmental user with an additional analysis tool - whether or not the survey micro-data could be disclosed.

There is also a stated need for more ISCO/SOC codes to be supplied at 4-digit level. This is impractical for household surveys, but may be feasible from administrative sources - Revenue sources would seem the most appropriate.

The inadequacy of the current NACE classification has been highlighted, specifically with respect to more modern activities (ICT etc). A revised version of this classification (NACE 2007) is to be implemented over the next few years which addresses some of those weakness. This new NACE classification has structure which gives far more prominence to the services component of the ICT sector with a lot more meaningful disaggregation. Given the urgent need for more detail for the ICT and services sector in general, this further

emphasises the point that NACE coding be integrated across organisations, as would be the case with a PSBR.

6.4.3 Labour Market, Skills, Training, Education and Workplace needs

There is a wide-ranging and growing set of needs in the labour market area. These include vital policy needs as well as information for national and international reporting.

Among these needs are estimates on the nature and extent of partnership agreements, collective agreements and financial participation schemes. Regular estimates of trade union density and numbers of employees on the national minimum wage, disaggregated by gender, sector, occupation and full/part-time status are required. The Department also needs less regular information on employer and employee attitudes towards certain workplace related topics - many of those needs are also shared by the NCPP, who commissioned specific survey research conducted by the ESRI on the issue of workplace attitudes. While the NCPP was not consulted directly as part of the SPAR project, it was kept informed of the NSB strategy via the "Forum on the Workplace of the Future" and a recommendation regarding workplace data integration is contained in "Working to our advantage - A National Workplace Strategy". Some of these data needs require annual or sub-annual information while others (attitudinal workplace issues) are required less frequently.

Questions on the minimum wage were included in the 2003 NES and from 2006 can be included annually. The quarterly EHECS inquiry will also collect information on the minimum wage. In time, these solutions should avoid the need for specific surveys on this topic. Other HR, participation and attitudinal information is very suitable for periodic inclusion in the annual NES.

FAS has very specific needs for occupational forecasting and for servicing the Expert Group on Skills Needs. Some of this occupational information is available regularly from the QNHS, while training and some lifelong learning is available from special modules which are carried out as part of the QNHS. More detailed occupational information could come from Revenue administrative systems - alternatively it could come from targeted surveys to specific sectors within an annual program of business statistics collection.

FAS has indicated that it would like to see the reintroduction of "previous occupation" questions in the QNHS. The likely introduction of a second major household survey vehicle (Appendix 1(c)) should lessen the load the already overburdened QNHS. It should then be possible for it to be re-focused on demographic and labour market variables. A Forfas request for more frequent QNHS data on education and life-long learning would also be more feasible.

FAS and others also have an interest in vacancy information across the economy, with particular reference to specific sectors. It is likely that an annual structural information on the subject of vacancies and "hard-to-fill" vacancies, together with quarterly information on vacancy rates will become mandatory under EU regulation in the medium-term. (There is already a "gentleman's agreement" in place, which is normally a precursor of regulation). CSO has included information on vacancies and labour turnover in its quarterly EHECS inquiry, which will form the basis of compliance with some of the regulatory requirements. It is likely that a dedicated structural vacancy survey will be required and will be run by CSO. To this end FAS input will be important in ensuring that the survey is designed to meet domestic needs while fulfilling EU requirements, rather than being introduced to fulfil EU legislative requirements alone. The availability of Revenue P35 data to CSO in conjunction with an annual structural inquiry into vacancies raises some very interesting opportunities from a FAS perspective. Of course, the same familiar register issues are relevant here. A

common public sector register would allow CSO (or FAS, depending on access considerations) to put in place a highly powerful set of indicators on vacancies and a range of other labour market variables - when used in conjunction with P35 data returned to Revenue. It does not take much imagination to envisage the powerful potential of this scenario for both policy-making and for targeted labour market interventions, as well as for reducing response burden on business.

FAS would benefit from the collection of more information from non-nationals. These data items include occupation, qualification and educational attainment and could be collected at the point of PPSN issue.

Outcome information and information from educational and training bodies

FAS has an interest in outcome information - not only for persons that it has had as clients, but, from a wider policy perspective, for those who have left any form of education, including early school-leavers, those who have finished second-level education and those who have enrolled or finished a third-level course. Therefore follow-up information on all those who have left education or training (at varying intervals) is of high importance to FAS (and others). Moreover, more extensive use of the PPSN in registration purposes for education and training would be a significant aid in having this follow-up information, given that DSFA and Revenue Sources contain PPSN. It would then be technically feasible (at any time interval) and relatively straightforward, to check the employment and social welfare status of leavers from education/training. Any additional data collection which is deemed necessary via specific surveys could then be more precisely focused. (In past school-leavers surveys, information was sought on data items that already existed in DES records). A previous SPAR report for DES highlighted the urgent need to use the PPSN at all stages of education, beginning with primary level. (PPSN already exists on the Department's Post-Primary Pupil Database). It is unclear at this stage what progress has been made in relation to the development of an individualised Pupil Database at Primary level. Regarding data collection in higher education, DES is anxious that PPSN is collected at the point of registration for all entrants to third-level institutions.

The HEA has been in the process of developing a student record system since 2002 and third-level institutions have been supported to develop systems to feed data to this central database - the intention now is that it will contain the PPSN. In addition, the Institutes of Technology are developing a student record system in the context of a broader Management Information System that is being delivered through "An Chéim". An idea emanating from the Department is that there should be a common registration form used across institutions - similar data is collected now but there are still significant differences that undermine the quality and comparability of these administrative data across higher education institutions. While this idea originated as a means of monitoring access and equity issues, there is a strong case for adopting a standardised set of basic common registration details for registration across all (publicly aided) providers of both training and education.

DES currently uses the PPSN details recorded in Post-Primary Pupil Database to undertake cohort analysis of the issue of early school leaving and retention to Leaving Certificate. However, for many reasons (including the broadening of understanding of retention to include completion of upper second-level or equivalent (Revised NAPS targets)), the DES has a need to be able to distinguish between school leavers who depart school to pursue other legitimate forms of education and training and school leavers whose education ceases at the point of (early) departure from school. While as of now the DES can identify leavers by PPSN, there is no easy way of identifying whether leavers go on to vocational or other training. Inclusion of PPSN in FAS training registration forms would enable this broader policy need to be met.

6.4.4 Competitiveness

To monitor business costs in Ireland over time, and to compare Irish costs with those elsewhere, Forfas has proposed a Business Costs Index, as well as indicators assessing the costs of regulation and red tape on industry. One of the major outputs of the EHECS inquiry will be the production of a robust hourly labour costs index disaggregated by sector and components of labour costs. One possibility would be to include (either on a quarterly or annual basis) further items to allow direct compilation of a Business Cost Index. Another option would be to include targeted questions on other annual structural surveys and using these sources allied to desk research to compile the required index. The solution adopted would depend on the precision and the degree of disaggregation required.

It has also been proposed that the costs of regulation (particularly for smaller business) should also be measured on an ongoing basis.

A general need for more data on the housing market - including transaction costs, land ownership and the price of housing land has also been expressed.

6.4.5 Trade policy

Both the Department and Forfas have expressed a need for more detail on imports and exports of goods and services. The detail includes geographic breakdown as well as product and service breakdowns. Given that exports of trade in services now account for approximately 40% of all exports, this need for further data is seen as urgent.

A need has been expressed for indicators of outward direct investment. There is little currently available to indicate the type of organisation which is engaged in ODI. This phenomenon is becoming increasingly important as tight labour market conditions allied to rising costs prompts an external investment focus.

6.4.6 Research and Development, Science and Technology

As well as more quantitative information on research and innovation activities (both in the private and public sectors), there is a strong interest in gender disaggregated personnel data. This encompasses personnel in the higher education sector (including postgraduates) with grade and field of science classification. It also includes researchers in the business, government and health sectors. Data on qualifications and on "seniority" of staff is needed and work is ongoing in this area.

Some of this information should be routinely available from administrative sources. Currently Forfas, the HEA and the DES collect information from the higher education sector. The data are not comparable, as coverage and classifications differ among the collecting organisations.

The NES, as part of an integrated program of business surveys could also be developed to provide tailored, coherent, consistent and targeted information on personnel in these sectors of activity. The individual part of the NES questionnaire already contains some information on qualifications and experience.

6.5 Relevant CSO Data Files

6.5.1 CSO Business Register

The CSO maintains a register of businesses. This statistical register is required under EU regulation. It consists of statistical units (which can be linked to administrative/local units) and covers much of the economy. Full coverage will be required under forthcoming legislation. The key information stored on the register includes name, address, contact details, employment, turnover, economic activity and links to certain administrative numbers. The register is maintained through the use of a number of sources - data from the Office of the Revenue Commissioners, CSO surveys and, in the case of enterprise groups, commercial data sources. Keeping the register current and duplicate-free is a difficult task and is hampered by the lack of a common identifier across data sources (Revenue, CRO) and a lack of available data in suitable electronic format (CRO).

The CSO business register is used as a sampling frame for CSO business surveys. The data on the register are confidential (Statistics Act, 1993) and thus cannot be shared with other public bodies. The Act does allow the CSO (for statistical purposes) to attach sectoral and size class codes to the records of other public bodies. This is only possible where there is a common identifier on both files. Where there is no common identifier, records would need to be matched by name and address. Experience has shown that this process is hugely time and cost intensive, where feasible at all.

6.5.2 Some relevant existing CSO Business Inquiries

Some regular CSO inquiries that are referred to in the main body of text are briefly outlined here.

Earnings, Hours and Employment Costs Survey (EHECS)

This new quarterly inquiry is now being introduced. In time it will cover the whole economy and will replace all other CSO short term earnings inquiries. There is a focus on earnings and components of earnings as well as on other non-earnings labour costs. The whole quarter is the reference period, rather than a week or pay period within the quarter. Information on hours worked is also collected for three major occupational groups. As well as providing hourly earnings estimated (disaggregated by sector and occupational group), details are collected to allow the derivation of labour market turnover information as well as vacancies. Questions on the NMW are included.

National Employment Survey (NES)

This survey replaced the Structure of Earnings Survey (SES). It has a wider focus and was designed as an integrated business and employee survey. Businesses completed questionnaires as did samples of employees. PPS Number was used as the person identifier.

This survey is a suitable vehicle for data items that have both an employee and employer perspective. It will be an annual survey from 2006 and is suitable for the inclusion of certain topics on a modular basis. In 2006 it will encompass the Continuing Vocational Training Survey and a wider consultation process is planned to begin in January 2006 to develop the survey from 2007 and subsequent years.

Census of Industrial Production (CIP) and Annual Services Inquiry (ASI)

Both the CIP and ASI are annual structural business inquiries covering items such as turnover, production, sales, purchases etc.

ICT (and E-Commerce) Survey

The ICT survey is an annual survey of approximately 7000 units. The response rate is currently of the order of 50%. The questionnaire is light in the sense that it mainly contains "tick-box" type questions on the topics of ICT systems and strategy, use of the internet, and e-commerce via the internet. This household survey is part of a wider data collection process that also covers households. An annual ICT module is included in the QNHS but this approach is likely to change.

6.5.3 Future development of household surveys

There are growing demands for more information from household surveys. These demands originate domestically and from emerging EU legislation. The Quarterly National Household Survey (QNHS) is an ongoing survey of about 35,000 households per quarter. It was introduced in September 1997 to replace the then annual Labour Force Survey and to provide a vehicle in which modular social topics could be included. Currently the QNHS is overloaded and is used for long modules which are unsuitable.

Because of the growing demands in the areas of Health, Education, Time Use, Victimisation and Household ICT Use, a requirement has been identified to introduce a second ongoing survey vehicle to complement the QNHS. The design of this vehicle is at a very early stage. A development which would add value to all household surveys is the extensive use of the PPS Number in administrative sources. One of the advantages would be that sub-samples from registers could be embedded in these household surveys. The development that would facilitate this most of all is the continuing improvement in DSFA's Client Records System (CRS) so that it could be used as a viable population sampling frame. This would be a rich avenue for streamlined and integrated data collection.

Chapter 7

Department of Environment, Heritage and Local Government

7.1 Introduction

The mission of the Department of the Environment, Heritage and Local Government, as set out in its statement of strategy 2003-2005, “is to promote sustainable development and improve the quality of life through protection of the environment and heritage, infrastructure provision balanced regional development and good local government”.

Targets set in the strategy include for instance:

- ◆ All major urban discharges will have environmentally advanced waste water treatment;
- ◆ There will be major increases in recycling and in the participation of the relevant industries and businesses in support of this;
- ◆ The potential of Ireland’s regions will be progressively activated under the co-ordination of the National Spatial Strategy;
- ◆ The performance and influence of local government will be stronger.

The functions of the DEHLG are wide-ranging and include Planning, Housing, Roads, Environment, Heritage, Local Government and Water Services. Each of these areas have information derived principally from the administrative records of Local Authorities or data compiled by the agencies reporting to the Department. This is the second such exercise involving the DEHLG and many of the other activities of the Department were reported on in last year’s SPAR report concerning social statistics.

It is important to note that both the Department and its agencies are already engaged in many initiatives relating to data management and data interchange. A series of meetings were held with the DEHLG and the Environment Protection Agency. Of the many public bodies operating under the aegis of the Department, it was decided that the Environmental Protection Agency and the Local Government Computer Services Board (LGCSB) were the most relevant to this exercise. Given the tight time constraint for the SPAR BES Project, the CSO Team decided to concentrate on the most important data holdings, which follow:

- ◆ Planning Statistics
- ◆ Commencement Notices within Building Standards Division
- ◆ Review & Outlook in Building and Construction
- ◆ Waste and Waste Licensing
- ◆ Water Quality and Water Services
- ◆ Integrated Pollution Prevention Control Licensing
- ◆ Inventory of Air Emissions
- ◆ Bio-diversity

In addition the activities of both the Spatial Policy Unit as advocate for regional development and the Local Government Computer Services Board as a provider of services to Local Authorities were examined given their importance from a cross-cutting perspective.

In the following sections these topics are individually discussed.

7.2 Quarterly and annual Planning Statistics

The publication of the Planning Statistics series commenced in 1990. Its main objective is to monitor the implementation of the Local Government Acts (Planning and Development) 1963-1999 and the Planning and Development Acts 2000-2002. Its focus is therefore different from Planning Statistics as published by the CSO. The DEHLG is responsible for conducting a quarterly survey of planning permissions, across 88 Local Authorities. Much of the data supplied by the Local Authorities recently are collected as a by-product of a system called iPLAN (administered by the Local Government Computer Services Board) whose purpose is to process and monitor applications through the different stage of the planning process from receipt to decision. The system is used by most of the 88 Local Authorities, however, some of the larger Local Authorities have developed their own systems.

The data collected on planning permissions include the number of applications, the number of decisions to grant, to refuse, to defer and the number of decisions issued within eight weeks. Appeals to and disposal of appeals by An Bord Pleanála are also collected by planning area and City Councils. The results of the survey are published on a quarterly (lag of 9 months) and annual basis (lag of 15 months).

Statistical potential and recommendations

These are a measure of the efficiency of the planning system in processing applications for planning permission. The data published can be cross-referenced with the CSO quarterly Planning Permissions publication, which concentrates on the number and size (in metres squared) of planning permissions granted. There is a significant overlap in the data collected by the CSO and the DEHLG and efforts to streamline the process should be intensified particularly as iPLAN and related initiatives mature (in the Local Government Computer Services Board).

7.3 Commencement Notices within Building Standards Division

The Building Control Regulations 1997 (S.I. No. 497 of 1997) require all builders to lodge, before starting any new construction work, a commencement notice to their local Building Control Authority (37 in total). It is the responsibility of the Building Control Authority to inspect these for adherence to building regulations.

The Department in turn requires a record of the number of commencements, and details of the inspections that have been carried out, for purposes of administering the entire system. Thus the data holding within Building Standards Division is mainly a measure of regulation control and consists of figures for commencements and inspections. The Department compiles returns twice yearly.

The commencement notices themselves provide some measure of activity in the previous six months. The Department compile statistics on a county basis concerning the number of valid commencement notices, buildings covered by commencement notices, invalid commencement notices, inspections prior to work commencing and number of buildings inspected by Building Control Officers and by Fire Control Officers. These statistics are not published.

The data collected includes the commencement date of work, project particulars (description of proposed works/material change of use), building location and details of designer, builder, drainage systems and foundations contact persons, and other contact persons plus Planning Permission number and Fire Safety Certificate number (if applicable).

Statistical potential and recommendations

The data could act as a useful indicator of building starts (particularly when the benefits of the iPLAN product comes on stream) and therefore consideration should be given to regular publication, not necessarily independent of the Review and Outlook in Building and Construction.

7.4 Annual review and outlook in Building and Construction

The principal data archive used by the DEHLG for compiling the Review and Outlook (R&O) publication consists of returns from 85 sources, mostly in the public or the semi-state areas. The data collected is used to review the overall performance of the construction industry for the previous year and forecast output for the current year and is the basis for the publication entitled the Annual Review and Outlook for the Construction Industry (R&O). The R&O estimates are used by the CSO (in preparing the National Accounts), by Government Departments, the various bodies involved in the construction industry and by economic commentators. The report incorporates, inter alia, details of construction related output valued at both current and constant prices on a national basis and at current prices on a regional basis. The publication also provides forecasts and economic commentary on the collated data and statistical trends.

The value of new construction output in a given period is defined as the value of work put in place in the specific period on the construction of buildings and structures and on civil engineering and land improvement projects. In general, the value of expenditure on all fixed facilities and equipment, which are integral and unmoveable parts of the structure, are included in the output. New construction output also includes the value of all site development work but excludes land costs and repair maintenance expenditure. Professional fees, expenses and site supervisory costs are included in the estimates of output. Expenditure on furniture and furnishings are not included in new construction output.

The data is not collected using a specific questionnaire - rather the respondents can sometimes send in a 2-page outline of costs which the Department then summarises to a figure. The survey aims to measure the cost of non-private construction (excluding site costs) but there may be some gaps in the coverage. The Department is attempting to broaden their coverage by including private elements of construction that previously would have been included under public or semi-state (for example Telecoms, Energy and Education). The data may be compared with expenditure proposed under the Public Capital Programme as appropriate.

The Department is continually seeking ways to improve the estimation process and emphasised very strongly the need for up to date information on the construction industry. With this in mind it has published a critique of the methodology used for estimating building and construction output. At present improvement in the estimation process is heavily dependent on the success of the new Quarterly Construction Survey being undertaken by the CSO.

Statistical potential and recommendations

The DEHLG intention to publish estimates more frequently is welcomed and it is clear that the existing interaction between the CSO and the DEHLG must continue. Every effort should be made to strengthen it in order to improve the quality of the Building and Construction statistical outputs of both.

7.5 Waste and Waste Licensing

An important tool in the Waste Management Strategy is the National Waste Database, which is managed by the EPA. This database measures the amount of waste generated in Ireland over time. Waste generation is increasing in Ireland in tandem with increased economic activity.

The data is collected from all local authorities and enterprises involved in the waste industry. This includes recycling organisations, industrial facilities (all IPPC and targeted non-IPPC licensed) and landfill operators. Data are separately extracted from annual environmental reports submitted by IPPC licensed enterprises. The tonnage of waste generated is recorded and the method of its disposal (recycled, landfilled, incinerated, exported etc). Gaps may exist in the information collected but it is an evolving process. All key data sources are followed up. Factors outlined in “Developing a National Phosphorus Balance for Agriculture in Ireland” (EPA 2001) are applied to livestock statistics published by the Central Statistics Office in order to calculate the generation of manure and slurry by livestock. Factors presented in the “Factsheet on Construction and Demolition Waste 2001” are used to calculate the waste generated in construction and demolition activities. These factors are applied to construction statistics published by the Department.

National waste databases exist for 1995, 1998 and 2001 (3-year cycle). A two-year cycle will be used from 2004 onwards with interim reports prepared for the intermediate years from 2002 onwards. The target timeliness of results is within 12 months from the end of the relevant year. The themes identified in the reports specifically focus on Municipal (Household plus Commercial) waste, Industrial waste, Hazardous waste, Healthcare waste and Packaging waste together with the recovery and disposal of waste and includes projections of waste arising and landfill capacity.

All waste activities are subject to regulation and control. There are a number of national regulations which cover waste collection the principal of these being the Waste Management Act 1996. An EU regulation is in force in respect of waste statistics from 2004 onwards. Waste collection, movement and transfer is controlled by a system of waste permits and waste licences.

Statistical potential and recommendations

Consideration should be given to creating, in the public domain, an explicit longitudinal time series on waste statistics. It may also be useful to link waste and material flows generally to the Census of Industrial Production statistics and to develop statistics on waste by 2-digit NACE section. The EPA see merit in an information system, for use at local authority level, being established for the collation and management on waste generation, collection, transport and authorisations. Characterisation surveys on the composition of household and commercial waste on a continuous basis will be a necessary element of this system.

7.6 Water Quality and Services

Data arising from the National Monitoring Programmes in respect of rivers, lakes, groundwater, estuaries and coastal waters gives rise to an extensive data archive. Each dataset has been built up over a number of years with rivers being the longest established (since 1971), followed by lakes (1979), estuaries (1986) and groundwaters (1995). Water quality is monitored for biological conditions in 1,080 rivers at some 3,200 locations with an overall surveyed channel length of 13,200 kilometres. A chemical monitoring programme, operated by local authorities directly or by the EPA on their behalf, covers 2,100 locations. In total 304 lakes were monitored in the period 1998-2000. A network of 250 groundwater

sampling locations exists. Regular water quality monitoring is carried out in 25 estuaries and bays. Water is surveyed for eutrophication, siltation and chemical composition (e.g. nitrate and phosphate concentrations, toxic metals and pesticides). Groundwaters are sampled twice yearly to correspond to periods when the highest and lowest groundwater levels are likely to occur. Estuary surveys are mainly carried out in the summer months. The statistics from this monitoring and analysis of river water quality are published every three years.

The EPA also has a database on drinking water quality going back to 1989. Drinking water is monitored from all suppliers including public water supplies from the local authorities, group water schemes and the rural water schemes and is analysed for aluminium, ammonium, colour, faecal coliforms, heavy metals, iron, manganese, nitrates, odour, PH, taste, total coliforms and turbidity. The results of the annual Drinking Water Report are usually published 6 months after the end of the relevant year. Drinking water quality in the EU is covered under the EU Drinking Water Directive (80/778/EEC) and the EU Commission Directive 98/83/EC.

The Department has a water services section which administers investment in the water infrastructure in Ireland. It compiles statistics on the investment in the sector. The Local Authorities (LA) initially apply for funds and subsequently administer the water improvement scheme, which is monitored by the Department. Wastewater will attract considerable investment into the future. There is a system of Discharge Licenses with regard to wastewater, which are issued at LA level. The type of information collected as part of its reporting includes operational cost of water services provision, cost recovery from non-domestic users and details of the customer base. Water Services in the DEHLG are primarily charged with the responsibility of providing the infrastructure to enable the delivery of quality water and wastewater services to the community. It also provides investment data to the EU as part of the requirements to qualify for EU supports.

Statistical potential and recommendations

Improvements in the availability of data relating to water services can be achieved when a computer system known as the "Complete Information System" is generally deployed. This system which is part of the Local Government Computer Services Board portfolio, incorporates engineering, mapping, customer and other data into an integrated framework.

The water quality data is currently published on a three-year basis by the EPA. The data could be usefully integrated with other spatial data in a GIS framework. It may be useful to more formally publish investment in water services cross-referenced with the water quality in a river basin area. This work is likely to be undertaken as part of initiatives under the Water Framework Directive. As the Local Authority information systems evolve it is desirable that its customer information is expanded to enable analysis by economic sector of activity and size of enterprises for example. This can be best achieved through the creation of mechanisms whereby the CSO Business Register can be levered to code the Local Authorities records.

7.7 Licensing (IPPC and Waste)

Specific industrial and intensive agriculture activities have been required to apply to the EPA for an Integrated Pollution Prevention Control (IPPC) licence since 1994 on a phased basis. The licensing is required in order to regulate activities that have significant polluting potential. At present 561 activities are licensed. The licensee is authorised to carry out a listed set of activities - all of the larger IPPC licensed sites are inspected at least once a year. The conditions of the licence stipulate the recording of emissions under the headings of air, water, noise and waste together with resources used including energy efficiency,

monitoring and recording, materials handling, accidents and emergency response, residuals management and financial provisions. The number of employees and the gross capital cost of the new facility are also recorded. The data is recorded by the enterprise and reported to the EPA on a set frequency and within a specified time frame in a format to the satisfaction of the EPA. Licensees are required to submit an Annual Environmental Report to the EPA containing all relevant information relating to the environmental performance of the site. The format and data content required is set out in the IPPC application form and in the detailed application guidance notes. The timeliness of data returns to the EPA is set out in the conditions of the individual licences.

The EPA publishes summary data on IPPC licence applications, numbers granted and number refused. They also publish summary data on enforcement of the licences, including the number of visits (routine and reactive), audits, notifications of incidents of non-compliance, requests for approval of alterations, complaints, Section Notices, and prosecutions.

Statistical potential and recommendations

An exploration should be undertaken regarding the linking of this licensing information to the Census of Industrial Production (CIP) in order to add an ongoing environmental perspective to the existing economic one of the CIP.

7.8 Inventory of Air Emissions

The EPA collects and collates data on Ireland's emissions of the greenhouse gases (carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride), acid rain precursor (sulphur dioxide, oxides of nitrogen and ammonia), and local air quality indicators (VOC, carbon monoxide, PM10, lead and other elements).

The data on greenhouse gases is derived from fuels usage in energy production for example to generate electricity, drive industry, run the transport sector and provide heating in households. The results of the exercise are published annually in Ireland's National Inventory Report (NIR) of Air Emissions, which is submitted to the United Nations Framework Convention on Climate Change (UNFCCC) and is compliant with their standard. The methodologies have evolved as scientific understanding improved through ongoing studies which gave rise to ongoing revisions to the historical series dating back to 1990.

In addition to complying with the UNFCCC reporting guidelines, the report is intended to inform Government Departments and other national agencies of the state of Irish Greenhouse Gases (GHG) inventories. Ireland, along with the other EU countries, ratified the Kyoto Protocol to the UNFCCC, which established international emission reduction targets for GHG. The National Climate Change Strategy (NCCS) provides a pathway for the achievement of national GHG emission targets. Ireland faces significant challenges in staying within its Kyoto Protocol target of a 13% increase over its 1990 base by 2012. The rapid economic growth experienced in Ireland since the mid 1990's has not helped in this regard. The EPA has compiled a consistent time-series of GHG emissions for the years 1990-2003. The report is also aimed at energy users, with a view to making them aware of the importance of sectoral contributions to the inventory process and to serve as a means of identifying areas where emissions could be reduced or curtailed.

The EPA is putting greater emphasis on quality assurance/quality control and documentation related to the inventory process. This is in keeping with international requirements. Ireland's NIR 2003 was the subject of an in-country review as part of the rigorous review process underway under the Convention. The review report recorded no major problems or

shortcomings in the Irish inventories but nevertheless made recommendations that the inventory agency could pursue to increase transparency and achieve better compliance with the UNFCCC reporting requirements in general.

Ireland is committed to reducing the three acid rain precursor emissions and volatile organic compounds (VOC) under the 1999 Gothenburg Protocol. Acidification results when potentially acidifying substances are released into the atmosphere and subsequently participate in atmospheric deposition. The primary air pollutants contributing to acidification are sulphur dioxide (principally from burning coal and oil), nitrogen oxides (from vehicle emissions and power generation) and ammonia (from animal wastes in agriculture). The EU has put in place a Directive setting National Emission Ceilings (NECs), which in Ireland's case are the same as the Gothenburg Protocol targets. Significant reductions in Ireland's emissions are required if these targets are to be met by 2010. Inventories of these emissions are used to assess trends, to develop abatement plans and to monitor progress towards the targets. The detail provided is determined by the requirements of the international organisations to which Ireland is obliged to report statistical and scientific data. The EPA, as elsewhere, draws on data from numerous sources in compiling its estimates of emissions for these gases. These sources include fuel usage, agricultural livestock numbers, electricity generation by fuel type and vehicle numbers.

The EPA also implements a monitoring programme to put into effect a new range of EU Directives to assess air quality in Ireland. The most important pollutants in this area are sulphur dioxide, nitrogen oxides, particulate matter, lead, ozone, benzene and carbon monoxide. Ireland is divided into zones for monitoring and reporting of emissions. The assessment and management of air quality is undertaken in relation to assessment thresholds (upper and lower), limit values and margins of tolerance (which reduce over time). The extent of monitoring is determined mainly by population size and the air quality status of the zone. The greatest monitoring applies where concentrations are above the upper assessment threshold. The national Air Quality Standards Regulations 2002 specify the manner in which air quality management plans would be implemented. A small number of fixed and mobile measurement stations cover the four zones defined for the purposes of the EU Directive and the Air Quality Standards Regulations. The data recorded are published as part of an ongoing time series on air quality.

Statistical potential and recommendations

The level of air emissions is closely related to the level of energy use. Accordingly an improvement in air emission statistics can be achieved by realising improvements in energy statistics which are, of course, very important in their own right. Consideration should therefore be given to widening the participation in the Energy Statistics Co-ordinating Group, in which the CSO and the SEI participate, to include the EPA and perhaps other bodies.

7.9 Bio-diversity and Heritage

A division within the DEHLG is responsible for nature conservation and EU directives considerably influence its focus.

The **Habitats Directive** requires land to be designated by habitat and by the species of animal being conserved. The land area is mainly privately owned and is primarily in the west of Ireland. Most of the survey work for this directive is completed and approximately 15% of the land cover of Ireland will be designated. The Department of Agriculture and Food has a similar scheme under the LPIS (Land Parcels Identification System). Farmers who sign up for REPs 3 have to agree to allow the information gathered on their holdings to be used for

other schemes. This is a significant step in supporting the integration of datasets held in different departments (e.g. DAF and DEHLG).

The **Bird's Directive** is in place since the late 1970's but not adopted fully in Ireland. The directive designates land, mainly private lands, for conservation. There are confidentiality issues with obtaining access to administrative data held in other departments, principally the Department of Agriculture and Food. This has changed in recent years with the evolution of the REPs scheme. The payments to farmers under REPs will be decoupled from production from January 2005 and this will assist the conservation of natural habitats for birds.

The Department has a **Heritage site** on the web. The level of detail goes down to townlands and EDSS. The heritage data includes monuments, wildlife and architectural information. The tabular data is very scientific - much of it is recorded in the Latin names of the species, for instance.

Statistical Potential and Recommendations

Databases are being built up and GIS information is currently published on the web. It is important that this core data archive is integrated with all existing/evolving GIS based data.

7.10 Spatial policy

This division in the DEHLG is primarily a policy area and has no significant data holdings at present. The division is developing a set of indicators to monitor the National Spatial Strategy. Information is collected on an ad hoc basis in relation to developments in the various Gateways and Hubs. The main formal stream of data collected at present relates to statutory development plans, which are published in the Department's Annual Planning Statistics publication referred to previously. The 8 Regional Authorities and 88 planning authorities are the source of this data.

The division is also responsible for the development of the Irish Spatial Data Infrastructure (ISDI) which is progressed by a committee comprised of representatives from other government departments and universities (the EPA and the CSO included). The objectives of the ISDI include the introduction of standard geo-coding at local and state level, the definition of 'small areas' for statistical purposes and the promotion of spatial tagging on administrative records. It is the part of a pan-European initiative, INSPIRE, which intends to trigger the creation of a European spatial data infrastructure that delivers to the users integrated spatial information services linked by common standards and protocols.

Statistical potential and recommendations

The ISDI is a very important initiative in the context of data and administrative holdings and therefore the National Statistics Board (NSB) should seek ways of actively promoting this project.

7.11 Local Government Computer Services Board

The Local Government Computer Services Board (LGCSB) provides computer and communication services to a significant number of the Local Authorities and therefore is a key influencer of the management of administrative data within the local authorities.

Among their portfolio of products are iPLAN – an application to address the entire planning cycle; CiS – a system intended to address the information needs of water and wastewater

programmes; FMS – a financial management system including procurement, billing and receipt, loan management and payroll and Labinfo – a laboratory information system. Other initiatives relate to supporting web access for the public and for specific bodies such as agencies set-up under the Water Framework Directive.

Statistical potential and recommendations

The Board is primarily a provider of services rather than being the source of data and statistics. It does however have access to large datasets compiled from the Local Authorities. Perhaps the Department should consider extending the scope of the existing management information framework, such that this data can be further classified and made into a more useful statistical archive. Classifications which come readily to mind are COFOG (Classification of Function of Government) etc.

7.12 Overall conclusions and recommendations

The emphasis of this study has been to highlight the statistical potential of the major data holdings. The Department through their agencies are well advanced in developing the technical infrastructure which will be a solid foundation in realising the statistical potential of their existing data holdings.

Improvements to the Building and Construction statistics could be progressed more speedily by making more formal the existing ad-hoc dialogue between the Department and the CSO. This should ensure statistical needs are surfaced more timely in the context of the development of computer based initiatives (for example iPLAN).

The linking of the CSO enterprise data (primarily economic in its perspective) to the EPAs enterprise data (with its environmental view) is becoming more important within the context of a sustainable development framework. Accordingly, mechanisms whereby the necessary integration of the respective datasets, consistent with confidentiality constraints, can be achieved need to be developed more urgently.

It would be useful to more formally publish investment in water services cross-referenced, where possible, with the water quality in a river basin area. This work is likely to be undertaken as part of initiatives under the Water Framework Directive.

Consideration should be given to widening the participation in the Energy Statistics Co-ordinating Group, in which the CSO and the SEI participate, to include the EPA and perhaps other bodies.

Databases are being built up and GIS information is currently published on the web. It is important that this core data archive is integrated with all existing/evolving GIS based data, in particular those based on land use.

Chapter 8

Department of Transport

8.1 Introduction

The original scope of the SPAR BES Project was data holdings relating to “enterprises”, but it became apparent at an early stage that the Department of Transport holds very little of this type of data. It was agreed however, that given the economic, environmental and social importance of the transport sector, the CSO would widen the scope of the project and consider a wider range of data holdings, needs and statistical potential generally.

The Department of Transport’s mission statement is “The Department of Transport will underpin Ireland’s economic growth and competitiveness and contribute to social development through the efficient and effective delivery of a sustainable, appropriately regulated, safe and integrated transport system”⁴¹. With a wide mandate to ensure the provision, development and regulation of competitive, safe and secure integrated transport services and transport infrastructure for the road, rail and air transport modes, the Department is assisted by a number of associated agencies operating under its aegis. These are:

Air Transport: Aer Lingus

Dublin, Cork & Shannon Airport Authorities
Irish Aviation Authority
Commission for Aviation Regulation

Public Transport: CIE Group

Iarnród Éireann
Bus Éireann
Dublin Bus
CIE Tours International
Railway Procurement Agency

Road Transport: National Roads Authority

Dublin Transportation Office
Medical Bureau of Road Safety
National Safety Council

Given this wide remit and the tight timeframe for the project, it was decided in consultation with the Department, to limit the scope of the work to the line divisions of the Department itself, the Dublin Transportation Office (DTO), the National Roads Authority (NRA), Dublin Airport Authority⁴² and the three operating companies of the CIE Group. Consequently, the CSO did not meet with the Medical Bureau of Road Safety, the National Safety Council, the Irish Aviation Authority, the Commission for Aviation Regulation, CIE Tours International or the Railway Procurement Agency. Similarly, it was not possible to meet with any Local Authorities or City Councils though it is obvious from the work done by the Cross-Cutting Research Team⁴³ that they have significant data holdings relating to traffic and roads.

Furthermore, many of the issues discussed in our meetings with the Department’s divisions and agencies undoubtedly overlap with the interests of the Quality Bus Network Project Office, the Gardai National Traffic Bureau, the Irish Spatial Data Infrastructure project and the newly established Commission for Taxi Regulation but again it was not possible to fully investigate these linkages. Nevertheless, 24 meetings were held with the Department of

⁴¹ Department of Transport – Statement of Strategy: 2003 – 2005.

⁴² From October 1st 2004 Aer Rianta was renamed the Dublin Airport Authority. For the purposes of this project the Dublin Airport Authority liaised with and represented the other two new airport authorities (Shannon & Cork).

⁴³ Department of Transport: Cross-Cutting Research Team 2003. The authors had access to the appendix of this report.

Transport and related agencies between June 21, 2004 and January 18, 2005. The data needs expressed by the Department of Transport and related agencies were in many cases echoed by other departments or agencies participating in other streams of the SPAR BES project. In particular needs expressed by IMDO Ireland and Sustainable Energy Ireland were incorporated into this chapter where clear synergies were thought to exist.

8.2 Policy context

The Department of Transport is relatively new as a Department in its own right, having only been established on June 6th, 2002. The creation of a dedicated Department highlights the increasing significance of transport policy, not only for the economy, but also the environment and the social fabric of the state.

The *Agreed Programme for Government*⁴⁴ (2003) promises an integrated transport policy that aims to “overcome existing delays, bottlenecks and congestion and to provide alternative choice by alternative modes of transport”. Through such an integrated approach it is envisaged that the Department will “develop and implement policies designed to improve regional balance, and reduce rural isolation and social exclusion”. These aspirations are encapsulated within the Department’s own Statement of Strategy (2003 – 2005) which identifies (1) Investment, (2) Safety, (3) Competition, regulation and reform and (4) Integration among their high level goals.

In a broader context, the European Commission White Paper “European transport policy for 2010: Time to decide”⁴⁵ highlights the importance of a common EU transport policy by pointing out that 10% of European GDP is spent on transport and that more than 10 million people are employed in the transport sector across the European Union⁴⁶. However, the White Paper suggests that a failure to fully endorse a common transport policy has led to “unequal growth in the different modes of transport” leading to congestion and environmental problems, which need to be redressed. Illustrating this point the Paper points out that road transport accounts for 79% of the passenger transport market, and at the time of writing air transport (5%) was about to overtake rail (6%). In terms of transport policy four main areas are identified for action: (a) Re-balancing modes, (b) eliminating bottlenecks, (c) putting users first and (d) managing globalisation. The first assessment of the implementation of the European White Paper is scheduled for 2005.

Considering the importance of transport policy, the significant budget allocation (the projected capital expenditure on national roads alone between 2004-2008 is €6.8billion) and the breadth of issues involved, it is obvious that many complex measures are required to allow for objective policy development and performance assessment. In the Department’s last annual report (2003), while it does draw on data from many different sources to evaluate its performance against high level goals, it also recognises that there are gaps in the knowledge available regarding private sector activities and identifies integrated policy development as a specific issue that it would like to see advanced. In recognition of these needs the Department established a Cross-Cutting Research Team in September 2003 to advise on the development of a data collection and research strategy. The first phase of their work was to compile an inventory of data holdings within the Department, related agencies and Local Authorities. The team presented their full report to the Department of Transport Management Board on December 16th 2004 and was subsequently stood down. An Integrated Transport Unit was also established in 2003 with the aim of facilitating coherent policy across the remit of the Department.

⁴⁴ An Agreed Programme for Government Between Fianna Fáil and The Progressive Democrats (June 2003).

⁴⁵ European Transport Policy for 2010: Time to decide – White Paper. COM (2001) 370, 12 September 2001.

⁴⁶ Pre-2004 figures.

In this context, the revised focus of the SPAR BES project within the Department was in the first instance to examine existing data sources: to consider whether they are capable of informing high level goals and to determine if data flows and systems are satisfactory. In the second instance, the project looked at data needs that divisions and agencies of the Department currently have and considered what statistical potentialities might exist both within the Department itself and also externally.

8.3 Examination of individual data sources

With few exceptions the line divisions of the Department hold very little primary data, that is, data that they collect and maintain internally. In contrast, many of the Department's associated agencies have sizeable databases that they maintain in connection with their core business. The range of topics covered by these sources is extremely varied and in many cases the data is of a quite technical or specialist nature. In most cases these data did not fit within the original scope of the SPAR BES project and consequently are not listed here. A full listing of data holdings are available in Appendix Z.

8.3.1 Road transport

Road Haulage is one of the few divisions within the Department that collects and maintains data holdings. Their datasets cover a wide variety of topics but largely cover regulatory issues like driver certification, attestation, revocation and suspensions, convictions, permits, roadside and premises inspections. Two datasets however do cover enterprise type data, the Road Freight Carriers Licence database and the Road Passenger Transport Operators Licence database. While the authors have concentrated on these two datasets, the general comments made largely hold for all the datasets.

The ECMTs (Licences issued under the European Conference of Ministers for Transport) dataset were a potentially rich source of international origin-destination data but as this program is currently being phased out there seems little point in pursuing this further.

A large amount of data is collected by this division, of which, only a part is stored electronically. Furthermore data that is stored electronically does not appear to be always or easily accessible, preventing better cross-referencing and full analysis.

The authors recommend for the Road Freight Carriers Licence database and Road Passenger Transport Operators Licence database, the collected data on registration numbers (CRO, VAT etc.), economic activity and ownership should be keyed and stored electronically on a structured database that facilitates cross-referencing and retrieval. In addition economic activity should be coded or classified to NACE and the accounting period should be collected and keyed. More generally, all collected data should be stored electronically on a database structure that facilitates cross-referencing, easy retrieval and a mechanism for dealing with duplicates.

The data potential of new projects such as Digital Tachograph and Digital Cards should be considered carefully from the outset to ensure maximum exploitation possible. The PPSN of Transport managers should be collected on application for Road Freight Carriers Licence or the Road Passenger Operators licence facilitating better-quality links with Social Welfare when conducting the necessary employment checks etc. Improved links to the Vehicle Registration Office (VRO) should also be investigated in order to enhance access to the Driver Licensing File.

The Bus Licensing Division maintains a database of the licences issued under the Road Transport Act 1932, which are held by private operators for public bus services. There are however concerns about the functionality that this system offers. The ACCESS database contains a listing of current and past licenses but only contains limited detail about the routes serviced. Any consideration of proposals for new bus services or changes to existing bus services requires original documentation for a given route to be reviewed, which is inefficient and time-consuming. Ideally, the division requires a system that would allow it to evaluate service provision on different routes. While a system incorporating existing timetables would go so far, other types of information would also be useful, such as passenger numbers (public and private), journey patterns etc. There is currently no obligation to provide these data. The database does not contain any VAT, CRO or other registration numbers that would facilitate cross-referencing with other data sources. The structure of this database is currently under review in the context of existing and anticipated requirements.

8.3.2 Air transport

The role of the Aviation Division in the Department of Transport is largely regulatory. Sections in the division regulate according to Irish and international laws and the aviation industry standards on safety, security and viability. To this end, data use is primarily geared towards satisfying accordance with regulations and EU law. Data is also used to monitor the viability of airports in terms of competitiveness and reliability in line with the National Development Plan. The Aviation division of the Department also has a role in overseeing agencies such as the Irish Aviation Authority in the implementation of agreed policy.

The main source of data used by the division is the Airport Authorities. These data are, in turn, collected from data suppliers such as airlines and other service companies operating in and around the airports. Like the Department much of the data collected by the Airport Authorities are for the purposes of monitoring regulation compliance. For example, the aircraft fleet declaration form (AFDF) asks airlines to supply aircraft registration, type, weight, passenger capacity and noise details (including aircraft engine type, any additional noise suppression equipment, a selection of aircraft's noise profile and the international designation awarded to the aircraft). Generally data held by the Authorities would seem to be of good quality, although for some datasets reliability may be an issue. Several of the data holdings maintained by the Airport Authorities are considered sensitive.

8.3.3 Public transport

As mentioned previously, very few divisions within the Department collect or maintain their own databases. However, most divisions make, or would like to make, better use of data held by the Railway Procurement Agency, the Dublin Transport Office and in particular by the CIE companies. CIE has responsibility for the provision of most public transport services in the country and is obviously the key data holder in this area. Department of Transport divisions perceive a number of difficulties in accessing this data however. Firstly, CIE data availability would appear to lack consistency as requests are only considered on an ad-hoc basis. Secondly, concerns were expressed about the classifications used in describing the CIE data that it doesn't always suit user needs and that inconsistencies are sometimes apparent.

One division that does receive regular data from CIE is CIE Corporate Affairs, which receives quarterly performance data (including details of staff and passenger numbers) from the companies, and also on occasion data in response to specific PQs. However, Corporate Affairs do have some difficulties with the data they receive and, for example, pointed out that

data is remitted to them on the basis of accounting periods, which can make comparisons difficult. Beyond this it appears that Corporate Affairs acts as a buffer for many data requests from within the Department to CIE, and acts as a quasi-source of data for the line divisions. However, it was observed that some line divisions within the Department are unaware of the range of data held by Corporate Affairs. Greater use could probably be made of these data.

Another line division with a lot of direct contact with CIE, and Iarnród Éireann (IÉ) in particular, is the Interim Rail Safety Commission (IRSC). The IRSC has indicated this is an opportune time to harmonise the main safety data and classifications flowing from Iarnród Éireann. Under the new EU Rail Safety Directive (2004/49/EC)⁴⁷ the IRSC will be required (from 2007 onwards) to publish data on Common Safety Indicators (CSIs) in their own annual report, allowing rail safety performance to be monitored and compared internationally. At the same time IÉ will also be providing data to the International Union of Railways (UIC) and separate data to EUROSTAT (Regulation 91/2003)⁴⁸ via the CSO. This includes some of the data on safety matters that will be required of the IRSC in their annual report. Consequently it would make sense for the IRSC, IÉ and the CSO to discuss these requirements with a view to adopting a common classification system for reportable accidents and incidents, and adopting harmonised definitions, data capture and reporting procedures.

For the Department as a whole, it is crucial that a broad and consistent flow of data is secured from CIE. A greater level of detail is also essential; a quick examination of the data needs listed below (e.g. route capacity and utilisation data) demonstrates the requirement for data below the macro level. CIE have obvious concerns about these demands as they consider a significant amount of their data holdings to be market sensitive. Consequently the level of detail required by the Department and the purpose for which these data will be used is of great concern to CIE. However given that the Department are mandated to develop an integrated transport system, of which public transport is a key component, some mechanism for data exchange must obviously be found to allow the department and its agencies to develop detailed public transport metrics.

8.4 Data needs

As mentioned above one of the key objectives of the Department is to develop an integrated transport policy that will overcome, as far as possible, delays, bottlenecks and congestion and provide choices of alternative modes of transport. To achieve this goal the Department must be able to measure the outcomes of its policies and investments in order to inform its future decision-making. The Department also needs sufficient data to inform the trade-off between environmental sustainability, emissions reduction, social integration and economic development. More generally there is also a need for more data indicators to facilitate international comparisons and whole sector activity profiles.

In assessing the data needs of the Department the needs expressed by the related agencies have also been included. In meetings with the Department, the authors, as far as possible, tried to match the needs against the stated goals in the statement of strategy in order to avoid listing purely aspirational requirements. In some cases the needs expressed below are

⁴⁷ Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the Licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification.

⁴⁸ Regulation (EC) No. 91/2003 the European Parliament and of the Council of 16 December 2002 on rail transport statistics.

an amalgamation of different requirements specified by a combination of Department divisions and agencies. The needs below are not listed in any order of priority.

Not surprisingly, given its wide mandate, the data needs of the Department are varied and significant. Our broad conclusion is that there is a general scarcity of data available for use within the Department. Where data does exist, many of the divisions consider it inadequate for their purposes, and some of this data is considered difficult to access, incomplete, out of date, ad-hoc or too limited in scope.

1. *National transport or mobility survey.* The lack of data on day-to-day social travel leaves a major gap in the Departments understanding of the nature, quantity, and rationale underpinning transport choice. Likewise the lack of data on integrated trips such as multi-modal and multi-purpose trips makes it difficult for the Department to formulate transport policy and transport solutions. The Department is anxious to fill these gaps in its knowledge as a matter of priority.

A National Transport or Mobility Survey would provide a single authoritative source of data at national and regional level, on relationships between the individual, household and firm and their patterns of transport activity. It would also present an opportunity to establish a comprehensive and wide-ranging data series across all transport modes. This would establish a baseline for transport usage and help in understanding the relationships between demographics and transport behaviour, enabling policy-makers to better evaluate how Ireland's transport network and systems serve its population. By connecting 'travel' to 'individual' it becomes possible to connect 'policy' to 'individual' facilitating better informed policy-making and policy-monitoring. It would inform the Department on the reason why particular transport choices are made (e.g. Why do people choose to use their cars or avail of public transport? Are different choices made for different types of journeys? i.e. do people use one mode of transport for going to work and a different mode for 'social' trips?), the circumstances in which particular policy/investment outcomes could be more accurately predicted, and could subsequently inform the measurement of these actual outcomes. Crucially, it would allow the Department to revise its policy to address the issues emerging from the surveys and thereby design transport solutions to better match the needs of transport users.

2. *Geographic spread, nature and level of disabled persons.* These types of data are needed for planning the provision of services (in particular where there are accessibility issues) and developing an inter-modal transfer policy.
3. *Unambiguous and standardised Small Area Spatial Code* (e.g. postal or zip codes). An unambiguous national location identifier would make the compilation of origin – destination data much easier, cheaper and more exact. It would do away with the costly and time-consuming exercise of coding addresses and facilitate the linking or integrating of results from different data sources.
4. *More detailed road freight vehicle data.* Global data on haulage market growth and contribution to the economy is required. More specifically, road usage data (including inter-modal loading, % of operation abroad) are required and also the number of foreign drivers operating under cabotage by nationality and number of foreign (with EU/Non-EU split) drivers working with Irish operators. The origin – destination data published by the CSO in the annual Road Freight Survey is not detailed enough for Department of Transport purposes. The level of detail required is below the NUTS 3⁴⁹ level. Trip data by

⁴⁹ NUTS - Nomenclature of Territorial Units. For Ireland level 3 corresponds to the 8 Regional Authorities established under the Local Government Act, 1991.

domestic/international/local are required as are details of the number of intervening stops on a delivery route, the nature of the payload, entry/exit seaports (including NI ports) used for international trips and trips to mainland Europe using UK as a land-bridge. This would provide a clearer picture of transport demand by the freight industry and their clientele. The weight of the vehicle, axle configuration, and the model and year of the vehicle would also go some way to inferring the full environmental costs caused by the freight industry. Also incidence of heavy-axle traffic (both Irish and non-Irish) by road type is critical for road planning and maintenance. From this evidence, policies may then be implemented, which would target sustainability issues more effectively. In the view of the Department national freight travel volumes are effectively meaningless without estimates for non-Irish freight hauliers. There is virtually no data on number of freight vehicles operating in Ireland from Northern Ireland or further abroad leaving a significant gap in the data required for traffic management, road design etc.

5. *Modal split data.* One of the key actions outlined in the Commission White Paper on Transport Policy is re-balancing modal split. A key objective is to shift the balance of transport in Europe from road and aviation towards rail, shipping and inter-modal operations by 2010. Explicitly the Commission's target is to ensure that by 2010, the market share held by each mode is returned to 1998 levels. Given the lack of modal split data currently available it may be too late to accurately assess Ireland's performance regarding this target but in order to measure performance going forward, modal split data is needed (including road freight vehicles using RORO services).
6. *Improved road construction inflation data.* The CSO publishes a Wholesale Price Index for Building and Construction Materials (Table 3) combining building, engineering and construction materials into a single index. Although sub-indices are also published, the wide-ranging nature of the index makes it too general to be of any practical use. More dis-aggregation or specialisation of products and in particular, weights are required.
7. *Emissions of pollutants & greenhouse gases from all transport modes (including vessels using Irish Ports).* Estimates for NOX, CO, CO₂, VOC, SO₂, smoke and lead are all required. The preliminary findings from draft report on Ireland's Third National Communication on Climate Change⁵⁰ highlights that improved data are required for the development and evaluation of policies related to emissions reduction. With the implementation of Decision 280/2004/EU⁵¹ and the Kyoto Protocol these data requirements have taken on a critical importance and urgency. These legislative developments also reinforce many of the other needs listed e.g. annual reports are now required on passenger car traffic by passenger kilometres etc. See *Chapter 6 on Department of Communications, Marine and Natural Resources for more details on indicators required under Decision 280/2004/EU.*
8. *Better road accidents data.* More detailed classifications are required e.g. Time of day (night-time/daytime, dark/light), geographic description (built-up/rural area etc.), speed zone, type of injury etc.
9. *Regular speeding and seat-belt data.* This data is required on a regular and systematic basis. Related to this, data on attitudes to driving and road safety are also required on a more regular basis.
10. *Traffic speed data.* Regular and systematic measurement of traffic speeds for "major" roads and urban areas broken down by vehicle class.

⁵⁰ Conducted under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC).

⁵¹ Decision 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring greenhouse gas emissions and for implementing the Kyoto Protocol.

11. *Journey time data.* Journey time data are required for urban areas (but particularly for Greater Dublin Area), national roads (but in particular for inter-urban routes) and port (air/sea/rail) access routes. This is needed on some sort of regular basis to assess “reliability”.
12. *Road Traffic volume, journey & composition data.* Origin – destination data are required classified by vehicle type, road class, month, day and hour. This will allow the construction of road usage and inter-modal connection patterns (e.g. use of public and private transport to and from airports, train stations, seaports etc.). This data is also critical for constructing congestion metrics.
13. *Public transport volume, journey & composition data.* Comprehensive public transport origin – destination data (including sub-urban and inter-city trains and bus) modal capacity (e.g. standing/sitting, wheelchair accessible, QBC etc.), utilisation (number of passengers) and availability (e.g. AM and PM off-peak/peak, weekend/weekday). Data also needed on punctuality (e.g. average waiting times, number of services arriving at destination on time), reliability (e.g. number of scheduled services not operated). This data needs to be integrated with Dept. Education and Science school bus scheme data and Dept. Social and Family Affairs OAP “Free travel” scheme data.
14. *Bus & coach activity.* In addition to publicly provided transport, comprehensive data is also needed for privately operated bus and coach capacity, utilisation and availability by region and route.
15. *Passenger behaviour data.* Data is needed on the potential market for public transport and the propensity for modal shift, particularly now with the advent of LUAS.
16. *School name and address be added to Census of Population questionnaire.* The Census of Population collects data on travel to school but does not collect the school address, limiting the use of this data from a planning and analysis point of view (as only the origin is known but not the destination).
17. *Employment location data.* Origin – destination is needed generally and has already been mentioned in relation to road freight, road passenger and public transport. Related but distinct from this is the requirement for employment location data. In order to successfully plan transport systems (e.g. provision public transport) and in order to measure and understand commuting, data is needed on where people work. How are employment centres clustered? What is proximity to arterial roads and public transport? Most existing employment data is classified by economic activity (NACE) rather than by small area geographic location, however the ESRI has done some interesting research related to this⁵², using Revenue Commissioner data but note that this data is biased toward HQ and underestimates local unit or branch employment.
18. *Data that facilitates cross-cutting analysis.* In addition to the above needs there is a long term need to generally develop better statistics that will allow cross-cutting analysis (e.g. test correlation between road improvements and reduction in serious motor accidents).

8.5 Overall conclusions and key recommendations

When one examines the list of data needs, it is hard to avoid the conclusion that many divisions and agencies within the Department are operating with insufficient data to properly

⁵² Commuting in Ireland: An analysis of Inter-County Commuting Flows – ESRI, April 2002.

develop policy or assess performance. However it also clear that quite a bit of data does exist (albeit in many cases, of a fragmented nature) and that better and more imaginative uses can be made of these. Notwithstanding that, given the general paucity of data, the recommendations below are of a quite general nature and for the most part don't refer to specific datasets, divisions or agencies.

1. *Establish a National Transport or Mobility Survey.* There is nothing new in this recommendation, as far back as 1996 the data gaps for road, rail and bus transport statistics were identified and articulated⁵³, as was the recommendation to establish a survey to address these gaps. The CSO publish some data on Travel or mobility (the Census of Population and the QNHS Travel to Work module) but from a Department of Transport perspective, these are too narrow and simplistic in focus and nature to full-fill their needs.

Potentially such a survey could address many but probably not all of the data needs outlined earlier. A National Transport or Mobility survey would necessarily incorporate some sort of household diary as part of the data collection. The type of information a National Transport or Mobility survey might collect are:

- ◆ Household information (region, number of persons, age, sex, employment status, disability etc.);
- ◆ Car details where applicable (registration number, cc etc.) to facilitate linking to NCT or Motor Registration and Tax databases;
- ◆ Route type data (i.e. constituent parts of journey – e.g. linked trips such as dropping off children to school on the way to work);
- ◆ Length of journey;
- ◆ Purpose of Journey;
- ◆ Mode of transport (including identification of inter-modal journeys);
- ◆ Month, day and time of journey (giving complete picture of overall travel demand);
- ◆ Accidents;
- ◆ Traveller satisfaction; and
- ◆ Propensity for modal shift.

A National Transport or Mobility survey could potentially also address some emerging gaps in Tourism statistics. The “Ireland Tourism Satellite Account – First Steps Project”⁵⁴ identified the lack of same-day tourism data as a significant gap in the tourism statistical infrastructure (see Chapter 3 and recommendation c1 of the National Statistics Board report “Policy Needs for Statistical Data on Enterprises”).

2. *Establish a “Data or Statistics” section within the Department.* This section would be responsible for keeping up to date with and disseminating internally, published data relevant to the Department. This section should have a wider mandate than a simple “library” function and should also be central to putting in place and developing new systems that will best exploit existing data. Ideally the section would also develop capability to interpret and understand data and metadata and in time develop economic models (e.g. Computable Equilibrium Models). Such a section might also use existing data to develop and publish comprehensive Department data or reports (e.g. Omnibus

⁵³ A review of Road Traffic Statistics – DKM Economic Consultants, June 1996 & Statistics on Rail and Bus Passenger Traffic in the Republic – DKM Economic Consultants, March 1996.

⁵⁴ Ireland Tourism Satellite Accounts – First Steps Project. Prepared by National Centre for Tourism Policy Studies, University of Limerick and the Centre for Policy Studies, National University of Ireland, Cork.

reports tying together different Transport sectors⁵⁵ or produce comparable indicators for National Competitiveness Council. An interesting illustration of what can be done with the data available is provided in the ESRI report noted earlier, where using CSO data and some not unreasonable assumptions they estimate the basic opportunity cost of commuting in the year 2000 was €718 million or 0.8% of GNP). This section would have a critical role in co-ordinating links between data and stated strategic goals. Where existing administrative data cannot address identified data gaps, the section could address these gaps directly, either through ad-hoc or ongoing surveys. This might be particularly appropriate where specialist or technical transport knowledge is required.

3. *Develop concepts and definitions.* When a concept underlies a strategic goal, that concept should be clearly defined and measurable (e.g. capacity, utilisation, congestion or disability etc.). Furthermore, definitions and any related classifications should be shared or harmonised across all divisions and agencies of the office, and where necessary give due cognisance to EU and international definitions and data requirements. For example, the Employment Equality Act, 1998 and the Equal Status Act, 2000 both define disability. Perhaps this definition could be used or adapted for the purposes of the Department of Transport.
4. *Develop a reliable Measure of Congestion.* Measuring congestion is obviously critical for the Department⁵⁶ and yet no reliable data or indicators are available. Given the lack of data on this topic it will be impossible to assess performance towards the Departments stated targets. At present no definition of congestion is shared or used across the Department and agencies. Before any statistics can be developed, let alone policies to target, reduce or manage congestion it must first be defined.

The U.S. Department of Transportation Federal Highway Administration (FHWA) defines congestion to be “when traffic demand approaches or exceeds the available capacity of the highway system”. They further explain that traffic demand is not constant but varies depending on season of the year, day of the week and time of the day. Also capacity is not constant, but may vary depending on weather conditions, traffic accidents, work zones and other temporary disruptions or non-recurring events. It is because congestion is a combination recurring and non-recurring supply and demand imbalances that makes it so difficult to measure. The most practical approach might be to develop related statistics or indicators, such as levels of speed, travel times or reliability. The FHWA use “travel time⁵⁷” to produce estimates for congestion and network reliability. If a model for measuring congestion, similar to that used in the US were used, metrics could also be used to estimate “wasted fuel” or “un-necessary emissions” etc. A lot of data are required to build the metrics outlined above, some of which may already have been compiled by Local Authorities (albeit in an ad-hoc or un-harmonised manner). The US model is only presented here as an example of what can be done and the Department should give due cognisance to developments within the recently established joint ECMT/OECD working group on traffic congestion⁵⁸. While this group have not reached any final decision on how to define congestion, they are giving consideration to the following: “congestion is

⁵⁵ The UK Department of Transport publishes an annual “Transport Trends” report and “Transport Statistics Great Britain” compendium.

⁵⁶ “...to overcome existing delays, bottlenecks and congestion...” Statement of Strategy 2003 – 2005. Mandate and Mission Statement.

⁵⁷ The U.S. Department of Transport Federal Highway Administration (FHWA) Travel Time Index (TTI), Buffer Time Index (BTI) and Planning Time Index (PTI).

⁵⁸ The joint OECD/ECMT Transport Research Centre Working Group on Tackling Traffic Congestion in Larger Metropolitan Areas was established in June 2004.

the impedance vehicles impose on each other, due to the speed-flow relationship, in conditions where the use of a transport system approaches its capacity.”⁵⁹

5. *Data storage facilities should be improved.* There are a number of sections where data are collected but those data are only partially stored electronically and are not fully accessible afterwards. Collected data should be stored electronically on an organised database structure. This structure should facilitate data access, retrieval and analysis (cross-referencing etc.), have a system for dealing with duplicates and should be flexible enough to accommodate changing requirements (additional variables etc).
6. *Links between CSO and the Department should be improved.* Consideration should be given to the establishment of a formal Transport Liaison Group. This could cover transport, services, demographic and also environmental data etc. For example, the need expressed for data on the geographic spread and nature of disabled persons might well be served by Volume 10 of the 2002 Census of Population, which is dedicated to “Disability and Carers”. This volume provides detailed information on number of persons usually resident in the State with a disability. It also cross-references these data by age, sex, area of residence (county and town), principal economic status, type and number of disabilities etc. Also, some of the haulage data required (e.g. unladen weight of vehicle, maximum load capacity, axle configuration, vehicle age, type of goods carried etc.) are already available in the Annual Road Freight Survey. Other data, although unpublished, may also be available e.g. number of freight journeys. This group should also include the agencies, as in some cases, data they hold may also address central Department needs.
7. *Explore and exploit developing technologies as a potential source of data.* The data potential from existing or developing technologies could be significant. GPS and digital tachograph technology may yield valuable origin/destination, route and speed data (e.g. GPS data from insurance company “Young driver” datasets, GPS tracker data from Haulage trucks, taxis and in-built car GPS navigation systems). When specifying any Intelligent Transport Systems (e.g. Real Time Passenger Information (RTPI) or integrated public transport ticketing systems) the Department should ensure these systems, which are a potentially rich source of passenger data, be fully exploited. This might possibly be a criterion in awarding any licences or contracts.
8. *Incorporate data needs into national law.* When transposing EU Law into National Law, consideration should be given to data or statistical needs as part of this process. Where data needs are identified, data provision requirements should be incorporated into national law if possible and suitable.
9. *Develop comprehensive and meaningful sector data and indicators.* De-regulation and privatisation has led to significant data gaps. As sectors move from a position of state monopoly to only partial or non-state involvement care should be taken to ensure that entire sector is measured and not just the state-owned portion of activity. For example, Appendix E of the latest Annual Report (2003) provides data on the number of aircraft and routes held by Aer Lingus but acknowledges that it provides no data on Aer Arann, Ryanair, CityJet, Starair, Westair etc. or the total aviation sector.
10. *Data held by agencies/semi-state companies should be made available.* As far as possible data held by agencies and semi-state companies should be shared with all Government Departments and also the wider public. Obviously some data, quite properly, may be considered sensitive and might not be suitable for complete dissemination. However this should not prevent data being made available to parent

⁵⁹ ECMT Round Table report 110 on Traffic Congestion in Europe, 1999. Definition recommended by P. Goodwin and J. M. Dargay.

Departments or major shareholders provided any restrictions (e.g. circulation) are made clear. In cases where agencies or semi-states consider their data to be sensitive or consider themselves in conflict with a Department or significant shareholder, some mechanism is required to ensure that data is not withheld. In many cases, the agencies have been very pro-active in sharing their data but unfortunately this is not a universal pattern. An improved flow of data will obviously improve departments or agencies ability to conduct analysis whereas non co-operation or hoarding of data will only result in a duplication of effort and wasted resources.

11. *Separate Building from Construction indices.* The CSO publishes a Wholesale Price Index for Building and Construction Materials (Table 3) combining building, engineering and construction materials into a single index. This index should be split into distinct building and construction indices with appropriate specialist sub or product indices.
12. *Fully investigate appropriate data holdings before establishing new surveys or expanding existing ones.* In many cases there is a wealth of existing data that needs to be carefully examined before placing additional burden on respondents. In some cases this data will not perfectly address needs but it may provide adequate indicators. Some examples are provided, where possible data sources have been matched with expressed data needs. For example:
 - The Department of Education and Science Post-Primary – Pupil database should be fully examined as a potential source of origin-destination school traffic data before adding any additional variables to the Census of Population (i.e. School address). The Department of Education and Science are also developing a Primary – Pupil database and the Higher Education Authority are developing a Third Level – Pupil database which might also prove to be a rich source of origin-destination data.
 - Regarding disability, the Commission on the Status of People with Disabilities provides estimates as to how many people with disabilities there are in Ireland. The Health Research Board has also compiled a database of People with Learning Disabilities and they are currently gathering data for a database of People with Physical or Sensory Disabilities.
 - The Household Budget Survey provides expenditure estimates for private household consumption on petrol, diesel, LPG and motor oil. Deflating these expenditure estimates by National Average Prices (from the Consumer Price Index) would provide volume estimates that could provide a basis for “netting” out private car fuel consumption from the total. Alternately NCT and PSV databases odometer readings might provide sufficient data to estimate fuel consumption by vehicle type (provided confusion over odometer calibration can be resolved). The Road Freight Survey and the Household Travel Survey might also prove a useful source of indicators that could help to estimate “fuel tourism”. Failing that, consideration could be given to establishing a survey of garages or fuel companies to establish the total volume of fuel sold (broken down by fuel type and region). This could possibly be supplemented with data available from “loyalty cards”, for example matching fuel type with vehicle type.
 - The possibility of generating “mirror” statistics should be investigated. The UK Department of Transport may be able to provide statistics on number of UK freight vehicles taking journeys to Ireland. They may also have data on non-UK vehicles transiting through UK en route to Ireland. The Single Administrative Document used by Customs (SAD) are a possible source of data for non-EU trade (which include Mode of Transport and Port of Entry codes) while for EU trade (INTRASTAT) a survey is conducted by VIMA which includes Mode of Transport for larger enterprises. Failing that a small scale survey of ferry companies operating international routes could be

established to estimate the number of foreign freight vehicles within Ireland. These data could probably be classified by nationality, port of entry, date, vehicle and load type.

8.6 Cross-cutting recommendations

1. *Local Authority data be investigated.* From the work done by the Cross-Cutting Research Team, it is obvious that Local Authorities and City Councils have substantial data holdings relating to transport (technical data on National, Non-National and secondary roads, origin and destination data, land use data, rail corridor data, traffic volumes, speed counts, parking data, taxi licensing etc). This data has been compiled at significant expense but in an un-coordinated manner. This data should be fully investigated and documented with a view to harmonisation and exploitation.
2. *Other related data sources should be consulted.* The beginning of this report notes that several agencies were excluded from scope. Longer term, any comprehensive development of transport statistics should consult with the agencies associated with the Department (the Medical Bureau of Road Safety, the National Safety Council, the Irish Aviation Authority, the Commission for Aviation Regulation, CIE Tours International and the Railway Procurement Agency). It might also prove worthwhile to consult with other outside agencies such as the Quality Bus Network Project Office, the Gardai National Traffic Bureau, the Irish Spatial Data Infrastructure project, the Commission for Taxi Regulation, the National Car Testing Service and the Motor Insurers Bureau of Ireland. The above list should not be considered exhaustive.
3. *Introduction of Small Area Spatial Codes.* The development of SAS codes would greatly simplify and improve the accuracy of origin – destination data and eliminate the requirement for expensive and time consuming address coding. This recommendation was also made in the first SPAR report⁶⁰.
4. *Additional variable for the NVD file.* Department of Transport in consultation with Department of Environment should consider imposing a requirement where annual updating of motor tax requires collection of vehicle odometer reading. This would provide population vehicle-KM data that could be classified by vehicle type and age, fuel type, county etc. This would be particularly useful for both transport and emissions data. Of course the NCT file might provide a better source of vehicle-KM data, providing that data is made available and the ambiguity regarding KM/Miles odometer readings is resolved. The same approach could also be taken with the PSV Roadworthiness data holdings.
5. *Use data from Taximeters.* Individual local authorities are responsible for granting and renewing taxi, wheelchair accessible taxi, hackney and limousine licences. The annual renewal of these licences could potentially provide an ideal opportunity to access more data in respect of metered areas without a significant increase in burden. A requirement could be added, that the microchip in every taximeter be submitted as part of this process. This would yield valuable data (e.g. daily data on number of journeys, start and end time of journey and journey km) and could be matched against vehicle type etc. This data could possibly be supplemented by a survey of taxi companies who use GPS tracker systems, to provide actual origin-destination and route data. Obviously any such considerations would probably require consultation between the Department, the Commission for Taxi Regulation, the Legal Metrology Service, Department of Enterprise, Trade and Employment and local authorities.

⁶⁰ Chapter 8 – Cross-cutting Statistical Issues. Statistical Potential of Administrative Records – An Examination of Data Holdings in Six Government Departments. Working Report, CSO, September 2003.

6. *Inter-Departmental/Agency data sharing.* Data should be shared not only between agencies and parent Departments but as far as practicable, this should also apply across the wider spectrum of Government Departments and agencies. For example, the lack of comparable data between the Department of Public Enterprise and the Gardai on road haulage enforcement presented during a study in 1999⁶¹ is striking and serves to illustrate the downside of this practice. While there may well be technical difficulties in sharing these data, clearly the situation hasn't improved significantly since the publication of that report.

8.6.1 Postscript

This chapter was presented to the Department of Transport Management Advisory Committee on December 16th, 2004. Since then, work has begun on some of the recommendations made above. First and foremost liaison between the CSO and the Department has improved and is now regular. The CSO is also assisting the Department and the Irish Maritime Development Office to pilot a Road Haulage frontier survey.

⁶¹ A Strategy for the Successful Development of the Irish Road Haulage Industry 1999 – Indecon International Economic Consultants/PricewaterhouseCoopers Management Consultants in association with NEA Transport Research and Training, The Netherlands.