

## Section 1

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### **Overview**

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## **Introduction: A Strategic Direction for National Statistics**

### **Introduction**

**This introductory chapter sets out the strategic direction for National Statistics (NS) and puts the remaining chapters, which contain the overarching and theme-based plans, into context. It begins by setting out a world class vision for NS, then describes the policy and statistical context for NS, before outlining the core capabilities which NS needs. The chapter concludes by outlining the contributions which the Office for National Statistics (ONS), other UK Government Departments and the devolved administrations will make to statistical directions and priorities for NS.**

Through the National Statistics (NS) Framework, Ministers in the UK and the three devolved administrations have set out significant expectations for official statistics in the UK. The four administrations share a common framework and this strategic direction, although priorities and approaches differ. The NS strategy set out here identifies the directions which UK official statisticians across the UK need to take to meet these clearly expressed expectations.

In particular, the next four to five years will see more priority given to building a relevant statistical and technological infrastructure for the coming decade, while only the most significant emerging needs for new statistical sources will be met.

## Summary

The aim of NS is to provide an accurate, up-to-date, comprehensive and meaningful picture of the economy and society to support the formulation and monitoring of economic and social policies by government at all levels. National Statistics also seeks to publish the information needed to allow the impact of government policies and actions to be assessed; to provide the statistics required to assist businesses, researchers and analysts; and to promote these objectives internationally.

The UK's national statistical system aims to be among the leaders of official statistics world-wide. Such leadership will give ready acceptance and unqualified international confidence to the official statistics published about the world's fourth largest economy. World class statistics add confidence to the quality of government and wider decision making, and bring specific benefits to the UK economy through increased market certainty, and to the direction of public finances through population and social information. National Statistics will be recognised as world class through the following attributes;

- the integrity of UK statistics is seen as valued by all, and not questioned, through public statements, attribution, benchmark and evaluation studies. The relevance and validity of the statistics are similarly valued for the influence they have on decisions;
- the performance of UK statistics in timeliness, reliability, accessibility, responsiveness and cost is recognised by users as close to that achieved by the best five performers world-wide for every major statistical measure;
- common standards and practices apply across all major UK statistical sources and measures, and international standards apply as soon as practical;
- the way in which we cope with the statistical implications of, and draw strength from, political devolution;
- NS surveys obtain the highest achievable response rates for surveys done in the UK, and UK survey response rates are generally within 5 percent of the best achievable anywhere;

- development of UK research, analysis and methods is normally through international engagement in evaluation, review, publication and application;
- UK statisticians contribute actively to the effectiveness of European and international decision-making forums, and influence European and international practice;
- adoption by other countries of UK NS systems, practices, policies and methods across the range of major statistical outputs;
- UK is seen as a source of expertise by countries that are also statistical leaders, as well as by neighbouring countries, traditional partners and emerging countries;
- We participate and are recognised for our statistical leadership in all major forums that advance methods and practice of official statistics, in both emerging and evolving areas, and we are well placed to be the first to innovate where it is relevant to do so;
- We are building our capability for the future: research capability; addressing emerging issues; flexible Information Systems (IS); and staff recruitment and development strategies are working effectively.

These aims are challenging. They require us to deliver high quality statistics that:

- exploit all known sources;
- are fully integrated; and
- provide a sound foundation from which short term needs can be met.

This requires resources to be diverted towards exploiting modern technology and expanding our methodological capability. These strategies will enable our statistical processes to be re-engineered and outputs to be delivered to customers in a way that meets the challenge of the Information Age.

In addition the policies needed to take forward these strategies will:

- involve stakeholders;
- protect the confidentiality of respondents at all times;

- harness the skills and enthusiasm of those who work in NS; and
- improve efficiency and effectiveness.

Our analysis of the wider pressures and policy drivers suggests that the following will be priority areas for NS:

- new economy;
- joined-up government;
- Europe;
- neighbourhood statistics;
- local statistics and UK regional analysis;
- sustainable development;
- broader international development; and
- social justice and equality.

The key objectives of NS are to improve the quality of statistics; to improve public confidence and operate efficiently. The theme-based work plans outlined in this document form an important part of the NS quality improvement process by providing an opportunity for users to comment on and consider the statistics work programmes being implemented across the UK government and devolved administrations. This will help ensure that NS remain relevant and meet the quality standards that users need.

Quality will also be managed by the adoption of clear quality management processes, ensuring that statistical measures are fit for the uses to which they are put; by developing and maintaining standards; by maintaining a transparent mechanism for consulting users and by reviewing the scope of NS.

Public confidence in statistics will be improved by the adoption of the new Code of Practice; through the roles of the National Statistician and the Statistics Commission; and by arrangements for Parliamentary scrutiny.

Efficiency will be enhanced by setting challenging targets, exploiting technology and maximising the use of existing data sources.

## National Statistics outputs

National Statistics include a variety of statistical sources and analyses for each of which we aim to publish measures of quality that enable users to judge their fitness for use. On the launch of NS, it was Ministers who designated which UK statistics would come within the scope of NS and they (under the Framework for National Statistics) retain this responsibility, while the National Statistician decides whether specific statistical outputs meet the professional standards he sets. National Statistics cover official statistics prepared from statistical sources explicitly designed to provide reliable and relevant measures, together with management information from the administration of government which allows the public to judge public sector performance. National Statistics can also include published quantitative material intended to develop, explain and present public policy. Because NS covers such a broad domain, the quality measures needed to validate their fitness for use and integrity varies considerably. The following describes the various forms of NS, and sets out what is needed to assess their quality.

## Statistical sources that have the capacity to respond to new needs

Statistical sources are made up of multi-purpose business and household surveys with robust designs and, often, large scale ad hoc surveys that build on these multi purpose surveys and are designed for very specific questions and measures. They also include the decennial population census, and a wide range of administrative sources that can be used to produce pictures of the nation, and to support the evidence for decision-making.

Departments need to build and maintain these sources both for NS itself and for its business and research customers. Each statistical survey will be available and accessible as a resource for NS; and more widely to users subject only to the need to protect the confidentiality of respondent data.

The role of statistical sources in providing the foundation for further analysis, tabulation and presentation gives them an enduring value to commercial, scientific and policy analysis beyond that originally planned. Quality attributes for statistical sources include the survey design, validation, variability, response rates, and bias measures.

### Pictures of the nation that are relevant and accessible

These include the statistics that allow users to see the current trends in the economy and society, thereby enabling government to understand these trends and helping everyone to assess the Government's performance, the state of the nation and their own position within it. These statistics will draw on all relevant source material to provide an authoritative statistical assessment of any issue of interest.

These statistics include those *analyses and compilations* where the National Statistician is responsible for the objectivity of methods, impartiality of release and confidentiality of records, and where it is the statistician who has selected the most appropriate measures from those available. The selection of measures takes account of the conceptual validity, methodological soundness and practicability of the statistics, bearing in mind the use to which the statistics are to be put and international standards. Quality is measured by conformance with international standards and practice, measures of coherence, bias and variance, and the robustness of estimates over time, as well as timeliness and contextual fit.

The key statistics of this type are:

- population counts and analyses;
- price indexes; and
- National Accounts etc.

*Statistical compendia* are also included in this category. They usually present little new information, but add considerable value from the selection, presentation and context of the content. The quality of a compendium is judged by the presentation of the content, the statistical standards of the components, and the understanding that the context adds. The timeliness of the statistical content, its relevance and its wider accessibility are also part of the quality, and the objectivity of the selection of content is assured by the independent responsibility of the head of profession.

National Statistics, whether they are statistical sources or pictures of the nation will be made available to all through the NS Website, through departmental websites and websites of devolved administrations, and through publications.

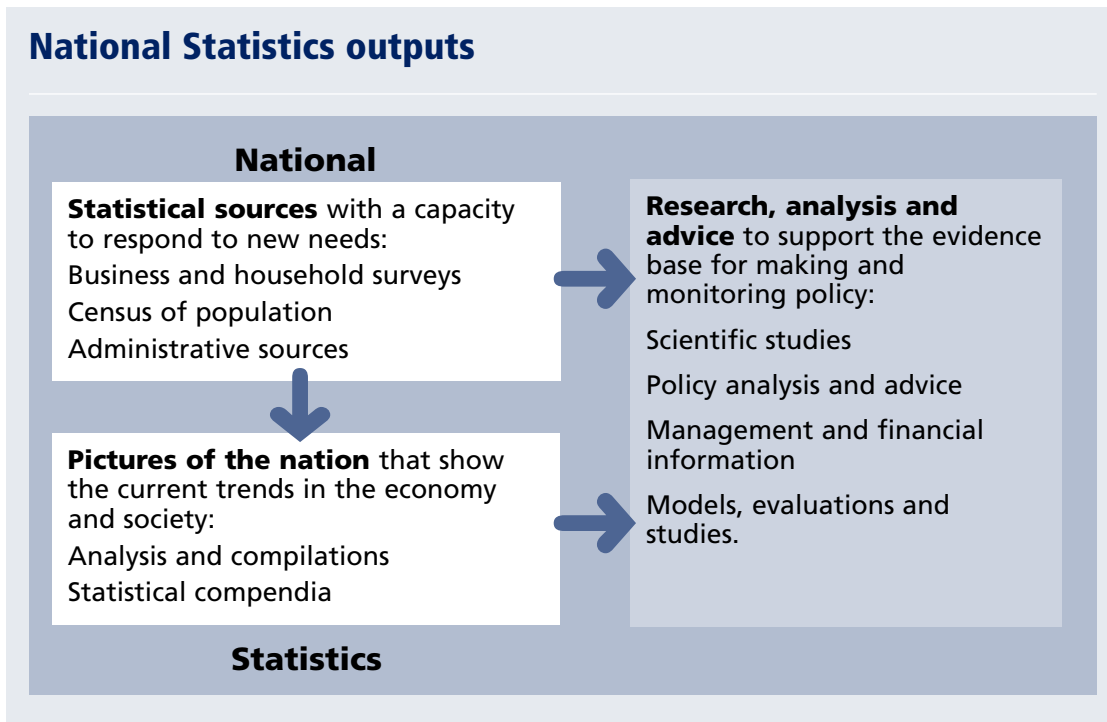
### Research, analysis and advice that provides evidence for making and monitoring policy

*Scientific studies* are designed, carried out and published according to accepted standards for assuring objectivity in scientific work. Such work may involve well-defined standards of peer review, depth of detail being published, and clear referencing of comparable studies. The release of scientific studies can involve wide and considerable exchange of knowledge among peers, far beyond that accepted as reasonable for NS, even though such studies may be designated as such.

*Policy analysis and advice* is not usually published, and so is not usually NS. Where it is published, it may draw on published NS and the quality measures of those will be relevant. All statistical policy advice and analysis (whether published or not) provided by members of the Government Statistical Service (GSS) will be produced under professional standards set out in the relevant parts of the National Statistics Code of Practice and as directed by the Statistics Head of Profession.

Particular *management and financial information* may be selected by Ministers and public officials as representing or summarising the performance of public bodies or programmes. When these are NS, this management information will be regularly published, usually monthly or quarterly. The reliability of management information that is not the result of any statistical process needs to be assured through various forms of statistical validation of the basic processes. The importance of this validation will depend on the extent of the political and public interest in the counts and accounts. This will confirm the administrative compliance and performance essential for NS, so that they can be used as though they did come from some statistical process. Where management information forms a significant part of resource accounts, the standards to which it is prepared will be subject to the ultimate oversight of the respective Comptroller and Auditor Generals.

For *models, evaluations and studies* that form part of NS, but which may be released at the wish of Ministers, then it will be the demonstrable professional expertise, and validity of their judgements shown through peer review, that will assure fitness for use, as well as the experience and authority of the particular model, and the sensitivity analyses and tests that confirm the applicability of the particular application.



### The challenge for National Statistics

The decentralised UK statistical system has developed considerably since it was set up in the post war period, and the last decade has seen several fundamental changes. These developments, culminating in the launch of NS in June 2000, signalled a strong intention to drive forward profound changes in order to build and maintain trust in official statistics. The effectiveness of these measures in the short term rests significantly on the capacity of ONS to provide the statistical infrastructure essential to all partners in this networked statistical system. Devolution and its ramifications has added another challenging dimension.

### The context

Official statistics continue to have an increasingly important role in both public and private sector decision-making. National Statistics need to respond to, and reflect, a variety of drivers and pressures: current government policy and government and international initiatives to meet the aim of supporting policy formulation; changes in society and the economy, to ensure NS remain relevant to the activities they are measuring; and statistical challenges that are faced by statistical offices across the world and need to be tackled to ensure that the quality and relevance of NS is maintained, and meet the expectations of

users. Some of the main drivers and pressures are described below.

### Government policies

An important role for NS is to inform government policy making and allow these policies to be monitored. NS serves the UK government and the devolved administrations in Scotland, Wales and Northern Ireland. This section highlights some of the key common policies of these administrations which act as drivers for NS.

Government policies for the future emphasise the following:

- long term economic stability.
- living standards;
- the expansion of higher education and higher standards in secondary schools;
- the health of the nation;
- full employment;
- opportunities for children and young people;
- security for pensioners;
- the Criminal Justice System (CJS);

- local government;
- the reform and enlargement of Europe;
- global poverty and climate change; and
- social justice and equality.

The election manifesto of the UK government included five pledges for the next five years covering:

- economy – mortgages, inflation and public finances;
- schools – number of teachers and standards in secondary schools;
- health – number of nurses and extra doctors;
- crime – police numbers; and
- families – support for pensioners and the minimum wage.

### Implications for statistics

There are several implications for statistics from these explicit policy directions.

The first, given the importance attached to economic stability, is the continuing priority given to monitoring the economy, particularly the rate of inflation, Gross Domestic Product (GDP) growth and productivity. This will require economic statistics to continue to be timely, to reflect changes in the new economy and to meet high standards of quality. As well as meeting the needs of the Monetary Policy Committee of the Bank of England, and those who wish to monitor its performance, new directions for economic statistics will need to be set in an international context particularly within Europe, to meet the needs of the European Central Bank, and more generally to enable economic competitiveness to be assessed.

Secondly, the modernising agenda and focus on investment and reform provides a drive towards long term improvements in service delivery, exploiting IT and applying statistical information in evidence-based decision making. This is an important driver for providing rapid intensive access to UK statistics, modernising our computing systems, developing and exploiting our statistical capability, and ensuring our statistics are used in decision making at all levels.

Thirdly, the continuing emphasis on an inclusive agenda which embraces all members of society. This will require statistics which compare the social and economic position of different sections of society and identify influences on deprivation, and how and where it is concentrated.

Fourthly, a focus on information about communities and the regions, which will require community based statistics and require us to think more about the various geographic levels (local/devolved/national/international) for which statistics are being produced, and the distinct needs of each geographical level.

Lastly, information on government performance, especially standards of delivery in health and education, rates of crime and equality of opportunities. The government is increasingly interested in monitoring its performance in quantitative ways through service delivery agreements. This will require the statistics used to measure key aspects of government policy to meet the standards of integrity that NS need to have.

In addition there are some specific UK policies which impinge on statistics:

- a desire to cut back on regulation – especially for small firms;
- all government services to be made available on-line by 2005;
- a commitment to maintaining the political impartiality of the civil service; and
- a commitment to developing environmental productivity indicators.

More generally, UK departments and devolved administrations are taking forward a number of long term policies that have significant statistical implications. These are shown in more detail in the theme plans, but include:

- the 10 year Transport Plan;
- the National Health Service (NHS) Plan (England) and National Health: A Plan for Action, a Plan For Change (Scotland)
- sustainable development;
- crime reduction programme

- rural policy initiatives; and
- targeting Social Need and the Equality Agenda (Northern Ireland).

### The European Union and international imperatives

One of the chapters sets out an NS strategy for international work. This section describes some of the key drivers influencing this work programme.

#### Europe

As a member of the EU (European Union), the UK plays a full role in providing statistics for the Commission and other European institutions. National Statistics are used, together with those from the other 14 member states, in European policy making and its evaluation. They are also used for distribution of resources, both in terms of member states' contributions to the Commission and contributions from the Commission to the regions, for example for the distribution of structural funds. Furthermore, many NS, particularly on the economic side, are required by EU legislation. Statistics departments play a full role in the European process of planning for and producing harmonised statistics and need to be able to respond to the rapidly changing EU agenda.

There are over thirty EU regulations and directives covering UK statistics which determine the collection of key series such as overseas trade, product statistics, industry structure statistics, labour force statistics, the harmonisation of national accounts, business registers and classifications.

Eurostat has established the following priorities for 2002:

#### Contribution to European Commission policy priorities

##### The Euro

The introduction of Euro notes and coins in 2002 is an important step forward in the progress of the Euro. Of particular importance in this context is the endorsement by Council (ECOFIN (Economic and Finance Ministers, EU)) of a report proposing significant improvements in five areas of statistics, which are mainly ONS' responsibility in the UK. These areas are national accounts, government accounts, labour market statistics, short-term indicators, and balance of

payment accounts. NS plans for the next three years have taken account of the report's recommendations.

The creation of the European Central Bank has increased the demand for high quality and timely short term statistics. A recent study (in which the UK was involved) showed that the timeliness of EU and Economic and Monetary Union statistics was, on average, poor compared with the United States. This has led to a further study of the way in which statistical timeliness in the EU can be improved. Although the UK is generally amongst the fastest of EU member states in producing short-term statistics, the ONS is playing an active part in this study which complements the action plans on the ECOFIN report.

#### EU Enlargement

2002 is likely to see completion of the entry negotiations for the first wave of candidate countries. This will place significant additional burdens upon Eurostat and upon the assistance needed from existing member states.

#### Sustainable Development

Eurostat has tried to ensure that the potential statistical demands to support this policy area have been developed over preceding years on a progressive basis.

#### Other priorities

##### Structural Indicators

A set of structural indicators is being developed to complement the indicators specifically identified for the support of the Euro. This is described more fully in the International Strategy Chapter.

##### Social Exclusion and Poverty

The European Statistical System has commenced a significant development of work in this policy area, directly influenced by the Cardiff and Luxembourg summits.

##### e-Economy

This is an area where early investment is required to anticipate the statistical needs. The preparatory work on definitions and methodology must be accompanied in 2002 by investment in the collection of the indicators that will be required to measure the impact of this phenomenon in the

economy. Additionally, the increasing use of e-commerce will itself provide rich potential for the direct provision of indicators in processable form to Eurostat.

These annual priorities fall within the Eurostat 5-year work planning process. Priorities for 2003-7 are described under the heading 'Eurostat's work programme' in the International Strategy chapter.

### Wider international imperatives

National Statistics have a wider international dimension and it is becoming increasingly important to compare our country with others. Organisations such as Eurostat, the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF) are responsible for developing ways of ensuring comparability. Producers of NS are well placed to play an active role in leading and co-ordinating the UK government's contribution, so helping to ensure that statistics are of good quality, timely and relevant.

Our participation in a wide range of technical assistance projects with many countries will also continue with the support of the Department for International Development (DFID), helping those countries develop and implement common international standards. These international partnerships provide a wide range of mutual benefits:

- new methodologies and concepts to keep abreast of the changing world and changing demands for statistics;
- internationally-agreed principles and standards that form a basis for increased public confidence and trust in statistics; and
- the interchange of knowledge through technical assistance programmes.

International issues are set out more fully in the separate international strategy.

### Devolution

The establishment of the devolved administrations in Scotland and Wales, together with that in Northern Ireland transforms radically the structure of government in the UK. The statistical challenges and opportunities raised by devolution remain to be worked through fully. Partnership between the administrations is even

more important on issues that straddle the line that divides matters that are reserved and those that are devolved. National Statistics are one such issue, and the Concordat on statistics between the UK Government and the devolved administrations sets out arrangements for safeguarding the co-operation and data sharing necessary to meet the needs of all partners.

Although the UK government and the devolved administrations share this NS Strategy, specific priorities and approaches differ. The devolved administrations' statistical needs are clearly different to those of the UK as a whole. The devolved administrations' statistics offices have inevitably faced a lot of pressure to meet their growing needs for information on their countries and areas within them. The administrations have also adopted a relatively open approach to decision making and evidence gathering.

Within the Scottish Executive (SE) there has been a considerable development in statistics and statistical capability on the economy, social justice and equalities, and on local areas. However there has been an increase in demand across the board and increase in capacity in many areas. The experience has been similar in Northern Ireland.

Devolution does not just affect the devolved administrations. In some areas the needs for statistics specific to Scotland, Wales and Northern Ireland drawn from UK-wide surveys exceed what can be provided from current designs. As a result some samples (such as the Labour Force survey for Wales) have been enriched to meet the devolved administrations' needs. While it is recognised that the costs of enriching samples to meet devolved administrations' needs will generally fall to those administrations, ONS and other UK departments acknowledge that restructuring of sample designs may also be necessary to ensure that maximum precision and value can be gained from the data. They also recognise that this must be taken forward in partnership with all the administrations as part of the ongoing redesign of the UK statistical infrastructure.

During 2001/2, ONS initiated a review of the devolved arrangements for statistics which built on the experience of the first year of NS. This will be completed in 2002-03.

### Modernising Government

Modernising Government is a key initiative which impacts on the development of statistics. It is

central to the UK Government's programme of renewal and reform and has been adopted in similar forms by the devolved administrations. There are three aims:

- to ensure that policy-making is more joined up and strategic;
- to make sure that public service users, not providers, are the focus of government, by matching services more closely to people's lives; and
- to deliver high quality and efficient public services.

Statistics have a key role in assisting each of these objectives. Joined-up policy requires joined-up statistics. Policy users are less interested in which departments produce which statistics, or which survey is the source, and more interested in statistics that address specific issues and policy areas. It is for this reason that the statistics in this National Statistics Work Programme are organised by theme rather than by producing department, and why the integration of data sources and of analysis is an essential part of this strategy. It is also reflected in the production of comprehensive statistics plans by each of the devolved administrations. Modernising Government also puts evidence at the heart of policy development, enhances the role of statistics and requires a high degree of trust and confidence. This leads to a need for more analytical development of NS, ensuring that the statistics collected are analysed and their messages are clearly understood by policy makers.

The Freedom of Information Act will add an important new dimension to statistical work because it requires a greater sense of openness in all aspects of government. We publish NS plans at a draft stage and invite comment. The process of ministerial response to the Statistics Commission's comments on the plan is open and transparent. Producers of statistics must be more aware of the way users want to receive statistics and make the greatest use of new technology to ensure they are appropriately delivered. Plans for improved electronic access to statistics are set out in chapter 2.

Quality and efficiency are important drivers to our plans, underpinned by the Quality Assurance Framework and Departmental Efficiency Plans.

## Changes in society and the economy

The pace of economic and social change has accelerated in recent years, and this has compounded the challenge of providing up-to-date and relevant statistics. These challenges are outlined below.

### The 'e-Economy' – a rapidly changing economy

Information and communication technologies (ICT) are transforming economies and societies throughout the world. The UK Government has indicated its determination to harness the benefits of information and communication technologies to ensure that the UK is at the forefront of the world's 'knowledge economies'. The rapid growth in the information economy raises a number of issues for NS. These include making sure definitions are consistent; taking account of the growth of activities generated by e-commerce; and measuring the growth of e-commerce.

The impact of ICT will be equally important in the social sphere. As individual and household access to the vast range of rapidly changing information technologies increases, there will be an increased impetus to understand more about how, and for what purpose, people are making use of them. It will also be important to establish what sections of the population are not making use of new technologies, and what factors explain this.

### Growth of services sector activity

The services sector is a rapidly growing part of the economy, while over the longer term the manufacturing sector has experienced a relative decline. Services now account for over 66 per cent of output. Clearly, accurate measurement of services is needed if the economy as a whole is to be measured accurately. But it is also important for many other areas of macro- and microeconomic analysis. Measuring service sector output raises some difficult conceptual issues, which benefit from close international co-operation.

One consequence of the growth of the services sector in the economy as a whole is the increase in the proportion of the population employed in these areas. This has implications for the type of education, training and skills required of people, which subsequently impacts on migration patterns, as well as the gender, age and working patterns of those employed across these sectors of the economy.

**Measuring quality change**

Rapid change in the specification of products and services necessitates adjustment to constant price measures for quality changes. Research has concluded that differences in the techniques used for quality adjustment can contribute significantly to differences in the rate of change of prices of goods and services in the information and technology sectors. The issue is particularly topical as policy makers look for evidence of the 'new' economy, namely, sustained high productivity growth due to increased use of information and communication technology (ICT).

**Globalisation**

The high level of integration of the major world economies places an increasing demand on statisticians everywhere to measure trade and capital flows in a timely, accurate and comprehensive manner. Producers of NS need to be aware of international initiatives to produce new measures of economic integration and the need to ensure that existing measures are adapted for use in an international context.

**Changing age structure of the population**

The age structure of the population will continue to be an important factor affecting society in future years. One of the key features is the overall ageing of the population, due to falling birth rates and increased longevity. For NS, this brings a number of challenges, including trying to predict what the future age structure of the population will be, and how migration will interact with birth and death rates to determine this.

There are also many challenges in providing a coherent and extensive picture of the older population to enable policy development to meet the needs of this group. For example, data are required to effectively measure the amount of paid and unpaid care people give and receive in these years. How will the changing requirements and provision of social care impact on society? How do older people spend their leisure time, what is their general health?

Impacting on the labour market, the large scale move into retirement of the post war baby boom generation will impact heavily in particular industries over the next decade. Those most affected will be those industries which recruited heavily during the post war period to cope with the rise in living standards that occurred at the same time.

**Ethnicity**

We need to understand what drives population change across different ethnic groups in the UK. Given that ethnic mix varies tremendously at a local level, then in areas with a substantial ethnic minority population, the different ethnic communities will each make a substantial contribution to overall population change.

**Immigration as a dominant source of population change**

Over recent years, the UK has shifted from being a country with net out-migration to a migrant receiving country. It is important to understand the reasons behind this shift, the rationale of those who migrate to this country, and to be able to establish migrants' destinations. These enable us to get a full picture of the contribution and impact of migrants on the economy and society.

**Families under pressure**

There were dramatic changes in family life during the second half of the 20th Century, which will impact well into the 21st. These are mainly characterised by the rise of less formal family structures. Marriage rates have declined whilst cohabitation has risen. Divorce and partnership breakdown, second marriage and cohabitations have increased. This has led to increased numbers of people having more than one partner over a lifetime, and more children experiencing parental separation and being in a step family. These changes have, and will continue to impact on a wide variety of social issues such as housing, poverty, education and health.

**Geographic comparisons**

It will be increasingly important to make comparisons on a consistent basis between domains and across areas. Harmonisation and standards, especially geographical standards, will assume greater significance if demands for comparable data are to be met. At the same time we will need to take account of the impact of varying legislative programmes and differing organisational structures on our understanding of inter country comparisons. Demands for small area information will be especially strong, and we will increasingly be asked to provide statistics at neighbourhood, local authority, regional, country, EU and international levels.

### Performance measurement

The need to provide robust time series for performance measurement in the major policy domains, especially labour market and health, will be ever greater. Given the additional requirement to explore the conditions of sub-groups of the population, including ethnic minorities, and to analyse distributions in order to understand inequalities, each and every data item will need to stand up to scrutiny. There will be an increased focus on longitudinal studies to track changes to sub-populations over time.

### Responding to statistical challenges and developing statistical capability

In addition to responding to the pressures from policy users, and to changes in the economy and society, NS must respond to the statistical questions facing national statistical offices world-wide and understand global developments in statistical methodology.

- Are we still asking the right questions? For example, do we want to know about wage rate inflation or earnings changes?
- How far do we need to use new forms of information? Should we have greater access to administrative data, for example?
- How far do we need to use new statistical models and processes, such as Time Use Surveys?
- What is changing the quality of NS? For example, are response rates under pressure?
- How can we further reduce compliance costs? Could we, perhaps, use electronic data capture more extensively?
- Do our policies and practices for data security and access meet the current challenges of societies expectations and the developments in ICT?
- Have we developed our analytical and presentational capability far enough?

The relevance and effectiveness of NS are continually challenged by changes to the world we measure and in the things that users want measuring. A failure to develop our statistics will eventually cause them to lose relevance and credibility, and lead to a loss of public trust. National Statistics need to be able to respond

quickly to changing needs, on a planned basis, and in response to crises such as the Foot and Mouth outbreak.

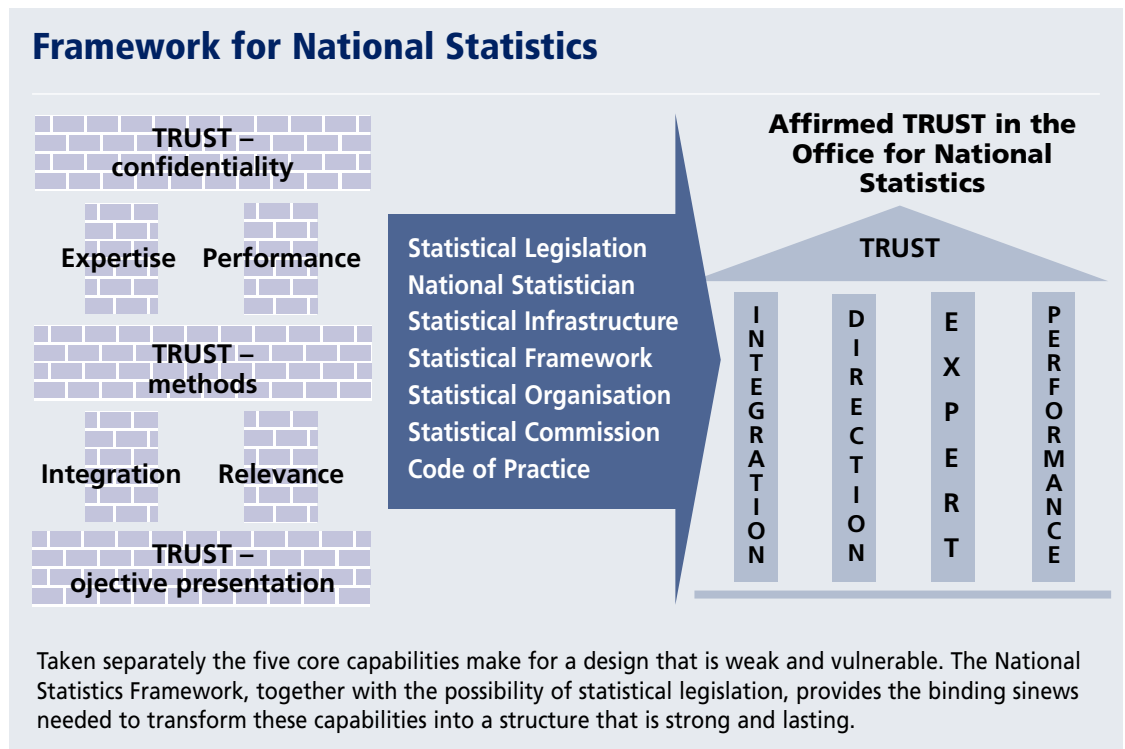
Statistical organisations add value to the data they collect by:

- gathering only the data that are needed;
- making full use of the data through integrated analysis; and
- giving full and easy public access through electronic and paper products, subject to confidentiality.

In addition to delivering high performance results, statistical offices need to develop the capability of NS. Statistical capability is the potential to respond to user needs. It requires a comprehensive statistical infrastructure that can be sustained in the long term. Statistical infrastructure includes statistical methods and tools, a survey base, judgement and experience, policies, technology, systems and skills. For NS, statistical capability requires the development of fit-for-purpose statistical tools and methodology, developed in the full knowledge of available options and applied uniformly to reap maximum productivity gains. Policy development will be provided in the context of the NS Framework, particularly through the Code of Practice and its associated protocols, including the quality assurance framework. Up to date technology needs to be effectively deployed to ensure NS are compiled and accessed using robust systems which are efficient to use and can be flexibly adapted to meet new needs. Finally there is a need for people with the skills – statistical and managerial – to develop and apply these tools, and ensure NS outputs remain relevant and of high quality. The GSS has developed a human resource strategy we now need to apply, in order to develop the skills to the level required.

Increasingly it needs the capacity to understand and relate to policy making processes, within government and beyond. The relationship with other analytical services and policy makers needs to be developed.

Statistical infrastructure can continually degrade, and needs to be reinforced and rebuilt, as a result of, for example, structural changes in the economy and society. We need to make long-term plans perhaps over a decade or so about the level of infrastructure that is appropriate and can be afforded. Infrastructure is not an annual



discretionary commodity, and it requires insightful leadership and the capacity to manage long-run cost-benefit trade-offs across the whole range of statistical outputs. Much statistical infrastructure is developed with international collaboration, where long-term stable professional relationships provide a rich capital base to draw on. The current statistical infrastructure in the UK is dated, incomplete and fragmented.

In building statistical capability, attention must be paid to the five key pillars which underpin all NS: trust, integration, relevance, expertise, and performance. NS are collected by people who can be *trusted* to meet legal obligations to protect confidentiality, present results impartially, and use objective methods. A strong identity gives citizens a clearer idea of the overall benefit they obtain in return for their trust in government statistics. There will be less need for every statistical transaction with every citizen or business to have a specific reward. Increased trust results in a good public response to a wide range of information-gathering projects.

Public confidence is crucial for the effective operation of official statistics: in surveys it is reflected in response rates, response quality, and in confidence in statistical results. It also determines the ability of the state to use administrative records for other purposes, particularly NS. Reduced confidence would mean that some information could not be collected or

used at all, much may not be able to be integrated with other data, and would mean that some NS would be treated with suspicion when released. Achieving higher levels of public trust will need justified demonstrations of trust at a political level, particularly from within government.

*Integration* is key to getting the best value out of statistics. To improve statistical integration, departments will develop classification and meta-data systems and ensure their common application across NS; they will integrate administrative data using key cross-cutting variables and bring together time series into a single 'virtual' location. Of particular importance is the integration of information technology and information management to ensure a seamless IT architecture across NS, using the internet and state of the art technology. Data linkage for statistics needs to be achieved in a way that is consistent with policies on confidentiality.

To operate effectively we need *expertise* in a range of areas:

- scientific strength;
- statistical capability;
- policy focus;
- information resources;

- working environment; and
- tools and skills.

We need to develop this expertise further, learning from colleagues in NS and elsewhere, and complementing our skills with the private sector.

We also need to measure the *performance* of NS in meeting demand. The key to managing performance is managing each statistical process to maximise return on investment. The core capabilities can be measured through benchmarking, evaluation and so on. Results are assessed through standard statistical quality measures and by measures of cost and scope.

Taken separately the five core capabilities make for a design that is weak and vulnerable. The National Statistics Framework, together with the possibility of statistical legislation, provides the binding sinews needed to transform these capabilities into a structure that is strong and lasting.

### **The role and contribution to National Statistics of the ONS, other UK Government Departments and the devolved administrations of Scotland, Wales and Northern Ireland**

The scope and range of statistical activity for which the ONS is responsible, particularly as the principal UK government survey organisation, gives it a greater opportunity and need to influence public trust in official statistics. This creates opportunities and vulnerabilities that need special management, which is achieved by:

- building up the statistical survey and source base that all components of NS can draw on;
- maintaining the body of expertise and experience essential to statistical measurement of the UK economy and society;
- providing the statistical architecture essential to integrated statistics and the thoughtful accumulation of statistical information across the UK government; and
- developing a clear, strong identity as a key channel for public access to all NS, at low cost to citizens anywhere.

Statisticians in other UK Government Departments also play a special role in the UK's statistical system by ensuring the relevance of statistical inputs and advice to all areas of government policy-making, service delivery and evaluation. This combination of a strong central department in ONS, and wide ranging co-ordination of responsibilities and mechanisms across the GSS is designed to ensure that the new arrangements for NS combine the advantages of centralised and decentralised statistical systems to the greatest possible degree.

The devolved administrations share the aims and objectives of NS. They are each wholly responsible for statistics relating to devolved powers. They are often key users of UK statistics on reserved matters, and they work with ONS and other UK departments in respect of issues that inform both reserved and devolved matters. Many of the central tasks and programmes that are the responsibility of ONS within the UK Government are managed separately within devolved administrations. However a number of ONS's responsibilities recognise the common approach adopted across the UK. The devolved administrations also face issues concerning statistical capacity; but on one hand they do not benefit from the same economies of scale as UK departments and have to deal with all the resultant issues that raises. On the other hand they need to respond to rapidly developing user demands. At the same time, they work closely with UK Government Departments, and with each other, to ensure that collective responsibilities, for instance to fulfil international obligations, are met; that statistics are developed coherently and consistently; and that together they promote the integrity of official statistics and adherence to common high professional standards.

### **Responding to users**

National Statistics have responsibilities to all groups of users: to ministers and policy colleagues in departments; to the EU and international agencies; to business and academic users and interest groups; and to the media and the citizen. Departments will have a strategic approach to these groups of users, and will have set up arrangements for discussing future priorities and needs. National Statistics adds an extra layer of user involvement by presenting statistical priorities transparently across government. Arrangements for consultation with users will be set out in protocols under the Code of Practice.

The discussion in this chapter makes it clear that user expectations for statistics are high. Government pressures for evidence-based decisions, coupled with outside user pressures for decisions to be monitored; heightened expectations about what Information Technology (IT) systems can deliver; and the impact of devolution are adding pressures to statistical systems at a time when the social and economic activities being measured are changing fast. The challenge is not only to respond to rapidly changing user needs, but also to develop and promote more rapid access to statistical services through the internet. Statistical offices need to respond to all these challenges.

### Risks and Quality

The failure to invest in the UK statistical infrastructure, and lack of resources, have led to a statistical system which is run down and at risk of failure. Past attempts to meet user needs through short term developments which have not always contributed to the statistical integrity of the overall system have led to statistics which are not as well integrated as they need to be if they are to be fully exploited for maximum use.

In addition, a lack of investment and maintenance in computer systems means that they cannot provide the robustness that high profile NS need.

This has led to statistical systems that are expensive to maintain and from which it is difficult to extract efficiencies and quality improvements.

An increasing part of the ONS discretionary budget has to be spent on the repair and maintenance of existing statistics. It is not always straightforward to anticipate preventative maintenance through regular review and development studies, and on occasions the need for resources to be devolved to a particular statistic becomes evident only through an error, an unusual event the statistics fail to pick up, a change in context or an inconsistency between data sources.

The infrastructure developments set out in this work programme are long overdue. Their funding will divert resources from shorter term improvements in outputs, but will enable user needs to be met in the longer term in a more sustainable, robust, consistent and cost-effective way.

### Strategic direction and priorities

Meeting these growing expectations will require greater integration of, and analyses from, current survey processes and further exploitation of existing government information sources, including administrative data. It will also require more quality specifications, and faster methods of exploiting, for specific policy purposes, the information we have available.

Improvements in statistics can be obtained in several ways: not only by developing new outputs or improving the quality of existing outputs, but also by developing further analysis from existing data sources, and by strengthening and extending the framework needed for the future.

The key goal of this strategic direction is to add to statistical outputs by widening the range and improving the integrity of the information we obtain from official statistics. One way for us to do this and improve access to statistics is to make full use of technological opportunities that exploit data already held in government administrative records.

In summary, the NS strategy aims to deliver *high quality statistics* that:

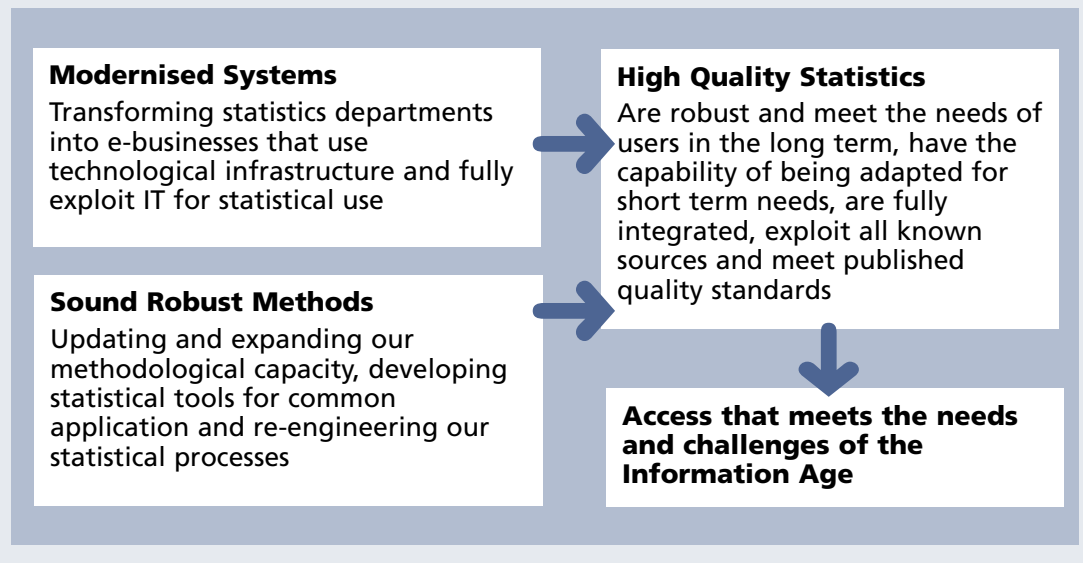
- meet the long term needs of users;
- exploit all known sources;
- are fully integrated; and
- provide a sound foundation from which short term needs can be met.

This requires resources to be diverted towards *exploiting modern technology* and *expanding our methodological capability*. These will enable our statistical processes to be re-engineered and outputs to be delivered to customers in a way that meets the challenge of the *Information Age*.

The policies required to take forward these strategies will:

- **involve stakeholders** by developing and maintaining a transparent mechanism for taking their views into account when shaping statistical measures and sources, as well as the statistical system that underpins them;
- **protect confidentiality of respondents at all times**, ensuring NS are collected by people who can be trusted to meet legal and other

## Improving the capability of National Statistics



obligations to protect confidentiality, present results impartially and use objective methods;

- **harness the skills and enthusiasm** of those who work in NS and support them in applying statistical thinking through training and tools; and
- **improve efficiency and effectiveness** by exploiting the benefits of electronic technology in data collection, processing and dissemination and by using common statistical methods and systems.

Our analysis of the drivers suggests the following priority areas for advancing the content and scope of NS across the UK.

- **New economy**  
Ensuring statistical outputs remain relevant to the changing economy and developing new outputs as required.
- **Joined up government**  
Maintaining and developing joined up planning for NS and ensuring we deliver ‘whole of government’ solutions to cross-cutting statistical problems.
- **Europe**  
Being an active statistical partner in Europe, working with leading EU countries, ensuring EU requirements meet UK needs and minimising EU burdens.

- **Neighbourhood statistics, local statistics and regional analysis**

Developing a Neighbourhood Statistics system that meets the needs of UK and devolved administrations.

- **Sustainable development**

Developing and maintaining a set of sustainable development indicators.

- **Broader international development**

Contributing to international development, especially by developing statistical capability.

- Social Justice and equality.

### Conclusion

The following chapters set out the overarching plans for NS and the development plans for each NS theme. National Statistics are central to effective public policy making in the UK, and for confidence in the operation of government. They are an element of the value chain of a substantial number of public organisations, and uncertainty in their performance will result in increased policy uncertainty.

The UK is one of the most numerate societies in the world, with a rich history of statistically-informed public policy analysis. This strategy will enhance the contribution of NS to this tradition.

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## **Creating an Infrastructure for National Statistics**

### **Introduction**

**The strategic directions set out for NS in Chapter One emphasise the need to develop the NS infrastructure. This chapter details the plans for developing that infrastructure particularly within the UK Government and describes how those plans will impact on NS outputs.**

The word 'infrastructure' can mean different things to different people. For NS we mean the systems, tools, multi-purpose surveys and administrative sources, databases, methods, policies, skills and people needed to produce our outputs to the standards expected by our customers, and to meet the changing external pressures in the long term as well as the short term.

When describing the NS Infrastructure we distinguish six areas.

- **Statistical Sources**  
These include large scale multi-purpose surveys and administrative sources – the fundamental source of many NS. Infrastructure developments which will have an impact on the major cross cutting survey and administrative sources, and developments in common classifications, frameworks and approaches that support specific analyses for particular themes are described in chapter 3.
- **Quality & Methodology**  
the development of an NS quality strategy so that we know what we mean by quality, can measure it, manage it and assure it; and the identification and study of cross cutting methodological issues, so as to provide a methodological lead across NS. These plans are described in chapter 4.
- **Statistical Infrastructure**  
the creation of a regime for the production, analysis and dissemination of statistics using those agreed methodologies, common statistical tools and standards and high quality robust systems; together with the developments in common classifications, frameworks and approaches across NS described in chapter 3, they ensure coherence and consistency in our statistics.
- **Information Management**  
upgrading our IS for data collection, compilation, analysis and dissemination, and placing the web at the heart of our systems.
- **Human Resources**  
systemising and managing the way we recruit and develop our staff.
- **NS Policies**  
The direction of NS for the future.

Much of the rest of this chapter describes two ONS development programmes: the Statistical Infrastructure Development Programme (SIDP) and the Information Management Programme (IMP). These two programmes, together with the work being taken forward on Human Resources (HR), in the GSS and the ONS, and plans for NS Policy development, both also described here, will deliver the improved infrastructure we need.

The devolved administrations are developing their own programmes to respond to these needs.

Where appropriate they will work jointly with and/or draw from the UK Government programmes. They will also develop programmes to meet their own strategic priorities.

The intention of all these endeavours is to build our assets – our human, intellectual, methodological and systems capability – for the future. Their rate of progress will depend upon the availability of resources. They require a substantial investment programme.

### **Statistical Infrastructure Development Programme (SIDP)**

The SIDP is a programme initiated within ONS to create a regime for the effective production, analysis and dissemination of statistics based on agreed statistical methods, supported by high quality, tested systems that facilitate the various stages of statistical work within the ONS. It will use the methodologies approved by the quality and methodology programme as standard and build on systems already available where appropriate, to develop a number of common statistical tools for use across the ONS and potentially more widely in NS.

The aims of the programme are to:

- identify a statistical infrastructure that spans the whole organisation and can be applied to any other part of NS;
- create a statistical infrastructure made up of tools, practices, methods and standards (either by standardising existing tools or by building and, where necessary, procuring new tools); and
- apply the standard statistical infrastructure to all NS operations.

The SIDP completed a review of statistical processes within the ONS during 2001/02. The results of this are being benchmarked against the systems of other National Statistics Institutes (NSIs), and will enable priorities for development to be established. This review has led to:

- analysis of statistical work by delivery of a standard set of processes (The Statistical Value Chain);
- identification of a number of standard statistical tools which will be available for each component of the Statistical Value

Chain and will be applied across the office in a standard way. Where possible new 'tools' will be imported from other NSIs or an in-house standard will be developed;

- identification of the key re-engineering projects within the office and review of statistical systems, where the initial gains are the most significant for the integrity and cost of NS; and
- definition of performance indicators for the SIDP.

The first major projects applying the SIDP will be the re-engineering of the computer systems which produce the following key outputs:

- national accounts;
- labour market statistics;
- population estimates and projections;
- prices (not confirmed); and
- neighbourhood statistics.

The SIDP has also commenced work on several projects including:

- selection and roll out of Fast Tabulation Tools; and
- euro standardisation tools and software.

Once developed these new statistical tools and standards will be published and will be made available for wider use within the GSS. This will improve the quality of NS across government more generally.

### **Information Management Programme (IMP)**

The IMP aims to transform ONS into a modern e-business with an integrated enterprise-wide IS architecture. It is a major undertaking, requiring significant resourcing, which will bring about major change to the ONS and have a substantive impact on NS. The IMP will provide modern, integrated information systems that will enable ONS to respond quickly and flexibly to the information needs of its customers. It will transform ONS into a comprehensive e-business, enabling customers to get information quickly in the format of their choice. This is an essential foundation for the SIDP.

The programme will create systems for the production, management and dissemination of NS; a pool of managed and coherent data and information resources; a common metadata structure; and standard software to support the statistical process.

The IMP is working in tandem with the SIDP, which is reviewing ONS's statistical methods, tools, tasks and classifications.

The IMP will oversee a range of core infrastructure projects to establish the new IM environment, and will pilot the planned approach by integrating a number of lead systems. The programme will run for the five years up to March 2006. The aim, budget permitting, is to develop the core infrastructure systems by March 2003, and to progressively redevelop the business applications thereafter.

A first stage has been to make interim improvements in access and availability to our data and outputs, almost exclusively via the Internet, ahead of more fundamental changes that will result from full implementation of the IMP. Major gains have been delivered for users of statistics during 2001 and these will continue in the first half of 2002, including a range of user access services such as an integrated telephone and e-mail enquiry service and a major presence on the cross-government Knowledge Network. It will be supported by a new easily searchable and content driven website structure with an integrated content management system.

The following achievements have already been delivered:

- major gains in the web presentation of flagship publications have already been delivered including Social Trends, Living in Britain and Social Focus on Men;
- a programme of converting the great majority of database publications into web only formats is underway, with the support of users. In total there are now some 220 ONS publications on the website "bookshelf";
- a detailed plan for the improvement of StatBase is underway;
- a project to standardise and improve headline time series information is underway; site searching and navigation is much improved;

- content coverage is significantly increased;
- there were 4.7 million hits to the website in January 2002 (defined in terms of successful page requests). This compares with 0.8 millions hits in June 2000 when the NS site was first launched. The growing popularity of the NeSS has played a significant part in this growth.

The key elements of the IM programme has been the definition of an overall IM environment. Neighbourhood Statistics will be used as a pathfinder to provide focus and help create the environment. The components needed for the programme will be procured or developed using the experiences in other countries, and the transition for business systems will be phased to manage the risk to outputs. The programme is ambitious and requires the Office to attract new resources and new skills. The key benefits of the programme include:

#### Common Statistical Infrastructure

- greater comparability between data sources and outputs will allow the production of more and higher quality outputs from existing data;
- user confidence and trust will be increased because doing things in several ways will be eliminated (or explained through the metadata);
- costs will be reduced and quality increased because infrastructure will be developed once in a well managed and implemented way, and used many times;
- responsiveness to emerging needs will improve because there will be a sound infrastructure on which to build new solutions, already available.

#### Web-based dissemination

- a comprehensive publishing strategy, with policies, standards, editorial processes and plans for future delivery;
- replacing paper publications with electronic services will improve delivery and reduce costs;
- meeting the government's target of 100% electronic delivery by 2005;

- single (i.e., one output for all media), automated production streams will reduce errors and shorten the 'time to market'.

#### Data Management

- datasets will be managed in a standard way because of the incorporation of agreed data standards that will embrace all aspects of data management;
- the integration of datasets will enable considerably more information to be readily extracted from existing resources.

#### Metadata Management

- metadata management will complement the data management catalogue systems by providing the ability to find, use and understand data;
- greater visibility of not just data, but processes and methods, thereby supporting understanding and comparability, and making possible the improved management of the statistical infrastructure;
- provision of the information for user navigation of the rich variety of statistical sources, tables and series that will be on the NS website;
- whole life-cycle (or 'statistical value-chain') improvements will inform the statistical design process for future work.

#### Better Access to Administrative Records

- a reduced need for surveys;
- integration with existing data to extract additional outputs.

#### Common Information Systems and Infrastructure

- common look and feel of all systems will simplify training and the elimination/reduction of the risk posed when staff move on and take key knowledge with them;
- a simplified software set will allow IS staff to become experts in a more limited domain and so provide a better service.

Efficiency gains will come from economies of scale of standardisation of the statistical and computing infrastructures, a reduction in errors, the automation and elimination of routine tasks (e.g. web loading, and data recoding) and by passing some 'tasks' to our customers (i.e., providing the data and tools to allow customers to satisfy their own information needs without directly involving ONS staff). The efficiency gains are important because they will unlock resources to be used to improve the quality and scope of NS.

The IMP will develop the ONS' Information Management capability. The information management environment established by the programme will be available more widely for use by departments which produce NS. Greater harmonisation of IM standards and approaches across departments will produce further consistency and efficiency gains, but will be subject to funding by parent departments.

### Human resource management

Statistics departments share the human resource management needs of the Civil Service as a whole, and need to create a more effective capacity for staff recruitment, retention and development. There is more to do to ensure that HR developments focus on preparing for the changes that a technology-driven modernisation programme will require. They will also need to recognise those changes that arise from heightened consumer expectations following successful innovation across the information industry here and abroad. This is being taken forward as part of the across-the-board agenda for modernising the whole UK Civil Service.

The NS strategy and its underlying drivers have required the GSS to begin the development of a new HR strategy. These GSS developments parallel specific developments in ONS.

A new Competence Framework for the Statistician Group has been developed by Statistician Heads of Profession. This will form the basis of a new approach to recruitment, training and development in the GSS covering all grades and skills.

This framework has been developed with the aim of improving consistency of approach across the GSS. It will allow managers to set the requirements of a post in a GSS context, and to judge when people are suitable to meet these

requirements. It provides guidance to individuals and their managers about how they can develop and a basis for managers to gauge overall statistical capacity especially in a planning context.

The framework does not incorporate the general competencies expected of Civil Servants which are covered by departmental and devolved administration competence frameworks. To become fully effective, members of the statistician group will have to acquire both general and statistical competencies. Wherever possible, this framework should be integrated into departmental/administration competence frameworks, and the performance and pay system.

In addition, Heads of Profession have identified a need to look at GSS recruitment schemes outside the Assistant Statistician competition – i.e. recruitment of Statistical Officers, to ensure common approaches, standards and career development.

Other GSS priorities for the coming year will include looking at the need for training and development programmes for Grade 7 statisticians, particularly leadership development, and looking at the information needs for GSS HR.

The GSS has a wealth of expertise and many methodological experts who can give advice and support. Statistician Group members are being encouraged to use this network to assure and improve the quality of their processes and products, and to aid their professional development.

ONS has redeveloped its HR strategy to address the skills needs of the overall NS strategy. This seeks to:

- produce greater flexibility in the way we use our people;
- result in significant upskilling; and
- provide stimulating work, using good tools and facilities.

As well as addressing pressing recruitment and retention issues, ONS has already begun to identify the range of skills of value to the Office in the short and medium term: project and contract management, business analysis; a range of statistical skills including research, analysis and

methodology; leadership and management; and a wide range of different IS skills. Well developed competence frameworks and technical developmental packages have been developed for our statisticians, social survey staff, researchers and methodologists. A Master of Science in official statistics has been developed with Southampton. At the more junior levels there are good technical training programmes: Statistical Analyst and Data Analysts Schemes, and in National Accounts. These schemes are often specific to particular business areas in ONS and form a sound basis for developing and re-training staff across ONS to meet the future business challenges. We have more to do in the area of management development.

It is recognised that we will not always have the specialist statistical skills we need for every statistical application, and will continue to make extensive use of external advice and support – an arrangement already used for taking forward the NS Quality Reviews.

### Developing Policy for National Statistics

ONS will, through working together with the rest of the GSS, complement all of the strategies described above with a programme of work designed to strengthen and extend the structures, policies, practices and procedures of NS put in place over the last two years. The first year of NS saw the appointment of the National Statistician, the establishment of the Statistics Commission and the publication of the first high level work programme, the quality framework and the programme of quality reviews. The second year has seen the publication of the first annual report, the draft code of practice and further development of this overall strategy. The programme of work will encompass:

- further development of the complete range of Protocols to be attached to the new NS Code of Practice. These will cover: professional competence; user consultation; respondent burden; data management, documentation and preservation; data sharing and confidentiality; data matching; quality management; statistical integration; data presentation, dissemination and pricing; revisions; and customer service standards.
- a ‘communication and engagement’ programme designed to foster greater understanding of, and commitment to, the new Code of Practice and its underlying

Protocols prior to their implementation across the whole of the GSS;

- a monitoring and advisory service for the GSS designed to ensure a smooth and consistent adoption of the Code and Protocols across the UK government, and parallel arrangements in devolved administrations;
- further support and improved service for the Statistics Commission;
- a review of the Statistics Concordat attached to the ‘Memorandum of Understanding’ between the UK Government and the devolved administrations. The aim will be to update the Concordat to reflect the new NS arrangements and to strengthen its commitment to joint working, to the greater integration and harmonisation of UK-wide statistics and a stronger response to the UK wide needs arising out of devolution;
- a review of the scope of NS to ensure that they meet the standards of the Code of Practice, and in the longer term, with a view to extending their principles and standards across the complete range of official statistics;
- slimming down the high level work programme into a simple annual update with a more comprehensive periodic strategic plan;
- greater engagement with both the user and supplier community;
- expansion of existing work designed to measure the compliance costs to businesses and local authorities to include the costs for individuals and households of complying with requests for statistical information;
- an ongoing review of the arrangements for taking forward the Quality Assurance Programme in the light of the other initiatives described above;
- a rationalisation of the governance and management arrangements for NS in order to improve linkage, and encourage greater coherence;
- efforts to enhance the identity and image of NS within the wider community;

- moves to improve the NS interface with statistical organisations and institutions, both within the UK and internationally;
- development of a range of efficiency indicators for NS;
- preliminary analysis of the implications of any decision by the Statistics Commission to recommend the introduction of statistical legislation.

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## **Developing the Statistical Sources**

**This Chapter provides a brief insight into the main developments in sources and the basic measures on which much of NS rests. It provides an update from last year on how ONS is providing the lead within Europe in developing a range of measures designed to show the effectiveness of the Single Market, and goes on to describe developments in ONS's Social and Economic Directorates. The chapter concludes with a section on recent developments in sub-national statistics which links to the newly-updated chapter on Neighbourhood Statistics.**

### Structural Indicators – Statistical measurement for EU structural policies

Since the Lisbon European Council in March 2000, work has been continuing to develop a set of structural indicators to help policymakers measure and compare a range of parameters across the EU15. The fields covered by these indicators are:

- economic growth and efficiency measures at national level;
- employment and incentives to participation in economic activity;
- innovation, research and technology;
- pace of economic reform, and market access; and
- social cohesion and poverty.

Their main purpose is to show how effectively Europe is operating as a single market. The focus is on progress in improving productivity and economic growth, in creating a strong environment for business creation and innovation, and in enabling all EU citizens to participate in growing economic output.

ONS is co-ordinating the UK statistical input to this process. Two European working groups have been created to deal with different aspects of the process. One, a subgroup of the Economic Policy Committee is developing the definition and policy use of the 36 indicators agreed to date, and ONS is working with Treasury through this group to ensure that the indicators deliver relevant value to policymakers. The other is a 'network group' of the Statistical Programme Committee (SPC) within Eurostat, where ONS is the lead department, working to bring together those involved in ensuring that the information generated is soundly based, consistent and accurate. In addition, a 'virtual network' of experts across the Member State statistical offices is in process of creation, so that problems of consistency can be addressed rapidly and reliably.

At the suggestion of ONS, a 'dummy run' for EU-wide structural indicators took place during October 2001, followed in November by collection of data from member states for the first real exercise. A 'synthesis report', bringing together the information and commenting on policy implications will be presented to the

Parliament in February 2002 and to the Council of Ministers at Barcelona in March 2002.

### Social Statistics

#### Integration and Harmonisation

There are a substantial and well used set of social statistics in the UK and further significant developments are outlined in the theme chapters of this document. However, ONS has also identified the need for more 'joined-up statistics'. To this end, ONS has formed its new Integration and Harmonisation Division to promote important cross-cutting developments and to provide tools and support for them.

This new division makes regular reports to the National Statistics Social Committee (NS(S)) as well as working closely with the Theme Working Group (TWGs) and departments involved with social statistics. The new division also liaises with economic statistics, to make sure that issues are neither overlooked nor duplicated. In short, the aim is to provide a service that will help to improve coverage, coherence, use and accessibility of data, strategic direction, and business excellence in social statistics.

#### Framework for social statistics

NS(S) has started to consider the development of an overarching framework for social statistics. One definition of a framework is "a structured, meaningful description of the state of society and social activity" but other approaches are being examined. The aim is to help statistics users and producers see social statistics in a more coherent way, and to identify gaps in the current provision of statistics and the priority that should be attached to filling the gaps. A framework should also lead to greater harmonisation, because with the overarching framework the plan is to develop frameworks for domains such as the labour market, health and welfare, education and training, crime and criminal justice, culture, etc.

#### Harmonisation workplan

Much has been done to harmonise inputs (survey questions, edits, interviewer instructions) and outputs (e.g. classifications in publications) across NS, but there is more that could be done, especially to cover administrative sources of data. The drivers include developing coherent and comparable Neighbourhood Statistics and contributing to Eurostat's Key Social Indicators,

as well as addressing emerging social topics (social capital, cultural identity, e-society). There is also a demand for more analysis based on a range of coherent sources (problem areas include: sub-groups within households; income; urban/rural).

NS(S) has discussed a draft workplan, summarised below, which focuses on a few key topics selected according to whether they identify users' priorities and reflect the usefulness of the existing harmonised inputs and outputs.

The draft harmonisation workplan covers the following topics:

Topic	Outcome
1. Administrative data	Extend key concepts for harmonisation across main administrative sources
2. New output classifications	Agree new output classifications for significant variables
3. Dissemination of information about harmonisation standards	Set up a searchable, up-to-date, website facility with print-on-demand option
4. New proposals for harmonisation	Harmonised standards (inputs and outputs) for domains of increasing importance e.g. social capital; household sub-groups; urban/rural; access to internet; benefit/tax credits; current educational status; educational attainment; identity; country of birth; citizenship.
5. Implementation of harmonisation	Understand and overcome barriers to change. Action research findings on differences in outputs from use of harmonised questions in difference surveys

### Coherence of Census and survey estimates

The 2001 Census provides huge opportunities for policy and operational analyses to reflect the UK at the start of the 21st century. However, publication of 2001 Census results will have implications for other government statistics. There may be issues of coherence and comparability between the Census and other sources. Census results may lead to revisions of published estimates or indicators if these are based on population estimates since 1991 which may be revised in light of the 2001 Census. A programme of work has been agreed by the NS(S) to address this issue based on the key concept of a 'preferred source' of data on a particular topic. This programme builds on the experience gained in previous Censuses and from work on labour market statistics. TWGs will also organise user consultation.

### Review of the need for a Census in 2006 (for England and Wales)

One of the recommendations of the Policy Action Team 18 (PAT 18) (better neighbourhood statistics) programme invites ONS "to evaluate whether there is merit in conducting a Census in 2006 and put the case to the Ministerial group before decisions are made". ONS is now undertaking this review, in conjunction with the Neighbourhood Renewal Unit. If some kind of benchmarking of typical census variables around 2006 looks necessary then options include a full Census, a reduced set of questions, coverage of only selected areas, a 'sample Census', other sample surveys, or drawing on administrative sources.

### Review of 'Equal Opportunity' statistics

A programme of reviews covering the availability of UK statistics reflecting gender, ethnicity, disability and age (covering children and young people, as well as older people) was announced as a cross-cutting quality review in the last NS Work Programme. The focus is on better dissemination of information about the availability of existing statistics and the first project in the programme is a review of gender-disaggregated statistics, which will be initiated in the autumn of 2001.

### Longitudinal Data

Good progress has been made on a strategy for longitudinal data with government departments and the academic community funding and developing the English Longitudinal Study of

Ageing and the Millennium birth cohort study. The next phase is likely to focus on providing a large, general purpose, longitudinal survey. NS are also looking for ways to promote the use of existing longitudinal data (including the Longitudinal Study), to improve accessibility and to improve analytical skills.

## Economic Statistics

### Classifications/Harmonisation

#### Europe

Aside from the previously mentioned contribution to the Structural Indicators programme, NS will continue to contribute directly to the development of harmonised concepts and methods in Europe and the broader international scene by:

- developing standards for statistical units, including global enterprise groups;
- implementing standards for industrial classification of businesses (Nomenclature Générale des Activités Economiques dans la Communauté Européene (NACE)); and
- developing a demography of businesses (covering births and deaths).

#### Compliance Costs

One of the main aims of NS is to balance the needs of users with the burdens placed on suppliers of data and, more particularly, the costs of complying with NS business inquiries. Initiatives to reduce compliance costs for business respondents include:

- the operation of the ONS “survey holiday guarantee” for small businesses;
- the increasing use of new technology to collect data, in particular through exploiting the speed and versatility of the Internet to limit the numbers of forms and reminders issued; improved sampling methods and a better register of businesses enabling smaller samples for a given quality;
- the merging of the employment surveys with business statistics inquiries;
- examining/improving those forms/surveys which are generating large numbers of

complaints from contributors and aligning definitions used in surveys with those used in business;

- looking for opportunities to further reduce the burden on small/medium sized companies – particularly those with 10-19 employment; and
- making increased use of estimation techniques.

#### Response Rates

Regardless of efforts to reduce the burden on form-fillers, it is becoming increasingly difficult to achieve target response rates for business surveys. To try to reverse this trend, a number of initiatives have been set up which target new contributors, namely:

- explaining NS and the importance of completing the inquiry;
- approaching Chief Executives directly for outstanding returns from key businesses;
- providing alternate means for contributors to supply data such as Telephone Direct Entry and the Internet;
- improving forms design (see below); and
- researching different response chasing approaches, such as the use of e-mail and automatic fax reminders.

#### Accountancy Software

In a complementary move, ONS, Her Majesty's Customs and Excise (HMC&E) and the Inland Revenue (IR) will explore with the British Accountancy Software Developers Association the scope for Accounting Software Systems providing ONS with key data, thereby reducing contributors' compliance costs, improving the quality of ONS statistics and increasing ONS efficiency.

#### Forms Design

Alongside these initiatives ONS will begin work on a longer term project designed to:

- improve the statistical quality of their Inquiry forms (both paper and electronic);

- improve consistency of question design; and
- develop an infrastructure system based on an approved question library that will allow bespoke forms to be targeted at individual contributors.

### Developments of Major Sources

In concert with efforts designed to ease the burden on suppliers and enhance value-for-money, a number of other initiatives are underway, designed to improve the Inter-Departmental Business Register (IDBR) and the Monthly Business Inquiry and estimates of Capital Expenditure.

#### IDBR

NS will develop the capability to provide better access to register data, covering the technical and legal issues. We are examining the feasibility of creating a comprehensive business directory that meets the needs for both statistical and administrative users. For statistics, the benefit from this is the possibility of exploiting existing administrative sources of data more extensively, resulting in lower compliance and better quality statistics.

To better support the increasing demands for sub-national data by both central and local government, ONS are also considering extending the Annual Register Inquiry.

#### Monthly Business Inquiry

A Monthly Business Inquiry project has been initiated with the aim of:

- reviewing the various monthly and quarterly business inquiries;
- considering the scope for rationalisation;
- standardising methodology and sampling arrangements across sectors; and
- experimenting with the use of directly accessible Value Added Tax (VAT) data to reduce the compliance burdens associated with the monthly turnover and sales inquiries.

### Capital Expenditure

A review of the approach to estimating Capital Expenditure will be conducted. This will consider whether estimates based on the supply of such goods can replace wholly or partly estimates based on data collected on expenditure on such goods.

### Regional and Sub-National Statistics

The importance of statistics below UK level continues to grow because of European requirements, the Devolved Administrations' responsibilities and the general need for statistical information for many geographies within the UK. A number of Whitehall Departments, the Devolved Administrations and Government Offices within the regions have been working both independently and jointly to address this for many years. To provide some assistance with this work, and a co-ordinating focus for activity across National Statistics within the UK government, ONS has created a Regional and Local Statistics Division (RLSD). This new division also produces a range of statistical outputs and analyses (such as UK Neighbourhood Statistics, regional accounts and regional compendia publications).

The development of statistics for local areas (principally below local authority district) will be taken forward by the Neighbourhood Statistics Programme. This is a development programme designed to provide the statistical information needs of the National Strategy for Neighbourhood Renewal (see 'Neighbourhood Statistics' chapter for further details). A range of data for small areas, from existing administrative sources or produced as estimates, will be output from this programme. The intention is to provide this data for the smallest areas possible, down to census output area. The size of area and detail possible will be subject to constraints imposed by the need to prevent the disclosure of information about individuals.

### Devolved Administrations and other Government Departments

Work on developing the range, quality and timeliness of statistics for regions, devolved areas and other sub-national geographies has been going on for many years. With the advent of devolution and the demand for more sub-national information both within the UK and by Europe, the activity within a number of Government Departments, and particularly the Devolved Administrations has intensified

significantly. Reviews of priorities, improvements in methodologies, boosting of surveys, new data collections and other improvements have combined to allow the production of a range new or improved indicators at sub-national levels on more timely accessible bases – for example the new quarterly GDP estimate for Scotland, Local Labour Force Survey (LFS) results, and access to National Online Manpower Information Service (NOMIS), free of charge, to all registered users. This work has still a long way to go, and together, with the importance given to sub-national statistics within NS, and the support of ONS will enable accelerated progress to be made.

### Providing a Focus for Regional and Local Statistics

The new Division, RLSD, works closely with other areas of ONS and across Government to co-ordinate activity. In particular RLSD are working with DEFRA and other departments on the development of rural statistics. The National Statistics Theme Group on Agriculture, Fishing and Forestry (AFF) will be taking a keen interest in this subject. Within ONS, there are particularly close links with the Geography Branch which shares a common goal of developing a more stable and coherent geographical referencing infrastructure for NS and the wider public sector.

The Division also acts as a principal point of liaison for the important work being carried out across government departments to address the needs of users of sub-national statistics e.g. Regional Competitiveness Indicators in the Department of Trade and Industry (DTI), the English Index of Multiple Deprivation in the Department of Transport Local Government and the Regions (DTLR).

RLSD is responsible for a range of sub-national publications and articles, including Regional Trends and Region in Figures. Region in Figures recently moved from being a paper-based to a web-based publication, and we are reviewing the whole portfolio of products to make sure we continue to meet user needs and to take advantage of new NS website developments.

### Statistics for Regional Policy Working Group

A new vehicle for assessing sub-national statistical needs of policy makers across the public sector is the cross-cutting Statistics for Regional Policy Working Group, which complements and acts as a channel to the National Statistics TWGs. It has a

membership drawn from the National Assembly for Wales (NAW), SE, Department of Finance and Personnel (DFPN), Northern Ireland (DFPNI), DTLR, DTI, Department for Education and Skills (DfES), Her Majesty's Treasury (HMT), Department for Work and Pensions (DWP), ONS and other departments with a strong sub-national interest, along with representatives from the Bank of England, Government Offices, Rural Development Agencies, Local Government Association and Central and Local Government Information Partnership (CLIP). An annual forum will be held jointly with the NS Geography Group as there are strong links between the two groups and overlapping areas of interest. This event will involve a wide audience including users and suppliers and provide an opportunity for consultation.

The main tasks of the group will be firstly to decide the criteria and then address the priorities for filling the gaps in sub-national statistics. These tasks will be supported by a DTLR-sponsored project to map the availability of, and gaps in, such data in England. It will also include similar work which has been done, in particular, by Devolved Administrations. This will lead to the development of a paper-based data catalogue which the ONS then plan to take forward as a maintainable web based development, and other related work. The DTLR project has taken into account the gaps identified through work done by the GSS Regional Committee in 1997 and a recent follow-up exercise. There will be reports and recommendations made to TWGs on an ongoing basis as to what are the needs and priorities for sub-national statistics to enable such matters to be fully incorporated into those work plans. Every opportunity will be taken to build on good practice, particularly that evidenced from work done within the devolved administrations.

### Other Developments

There is much other work related to the development of statistics for regional/sub-national policy purposes taking place throughout NS which is covered in the Theme chapters in this document.

Within ONS there are improvements taking place to several aspects of regional accounts (currently Gross Fixed Capital Formation, Government Accounts, Gross Value Added and Household Accounts) which should result in new or improved outputs. Further developments are to be agreed in consultation with the Regional

Accounts Advisory Group (consisting of regional accounts users, data suppliers and ONS staff) but are (particularly) dependent on data availability and quality.

It is envisaged that all regional accounts will be produced within six months of the national accounts (to which they must be constrained) being published.

A separate chapter in this document describes the Neighbourhood Statistics programme which is a significant cross-cutting programme of work that has a particular identity within the sub-national agenda. It has established a popular interim service accessible from the NS web site which will continue to be developed and enhanced over the coming years.

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## Enhancing Quality and Methodology across National Statistics

### Introduction

The value of statistics lies in their credibility, and the trust that can be placed in them. Confidence in NS is built on reliable data based on a strong commitment to quality in all aspects of the statistical process, and a sound underpinning of effective, objective statistical methods. This chapter describes the work being undertaken to continue to improve quality and methodology across NS. Detailed information on the work being undertaken on specific topics within each theme is provided in the respective theme chapters.

The following key elements were set out in the Quality Strategy in last year's work programme:

- clearly defined responsibilities for quality;
- management of quality; and
- processes for assuring quality.

This chapter concentrates on current plans for quality and methodology as they have been developed during the last year. The most important aspect of quality is meeting user need. This is described in Chapter 1 and in the forthcoming protocol on user consultation under the Code of Practice.

### Leadership in Quality and Methodology

The NS approach to quality management is steered by a cross departmental group, the **Quality and Methodology Programme Board**. This group is responsible for progressing the cross cutting elements of the quality strategy set out below, as well as sharing best practice and supporting the uptake of good statistical methods across NS. The group has also established the **Methodology Advisory Committee**, to provide a forum for peer review on methodological issues by a group of interested and experienced professional statisticians from outside government. It will also provide an opportunity to build and strengthen links between the GSS and the rest of the statistical profession by openly discussing NS methods and allowing statisticians outside the GSS to gain a better insight into the range of interesting and challenging problems that government statisticians face.

Support for quality management within ONS and across NS is given by the Quality Centre within the ONS. This group leads in the development of quality strategies for NS and more specific quality plans for ONS, and of a statistical risk management strategy and plans for ONS. It works with partners within the ONS, and more broadly across the GSS, to promote and support implementation.

The work programme for quality management and for assuring quality across NS has been substantially developed in the past year, and the main elements of these programmes are set out below.

### Quality Management Across NS

There are seven main streams to the quality work programme. Four components specifically contribute to the development of quality management in NS:

#### 1. Setting standards for quality, built on the principles in the Code of Practice and giving effect to it:

The NS Code of Practice sets out the principles and standards applicable to all NS and will be underpinned by more detailed protocols setting out the practices needed to give effect to the Code. These protocols will be developed over the coming year, and training in their application across the GSS will be provided as they are finalised. Support will be given for self assessment against the code and for a programme of

improvement to meet the standards of the Code in areas where practice currently falls short.

#### 2. Building sound methodologies into statistical sources and outputs:

The methodologies underlying NS will be improved by building a strong methodological capability across the GSS. The first step in this is to build a strong core of capability in the ONS. This will have an early impact on ONS outputs while providing a base for more general access across the GSS in the longer term.

The particular areas of focus for enhanced methodology are:

- **Data Sharing, Confidentiality & Disclosure:** co-ordinating and rationalising data sharing, confidentiality and disclosure awareness and practice throughout NS, covering household surveys, business surveys and administrative data. This includes leading the development of protocols to underpin the Code of Practice statements on confidentiality protection. It will also provide central expertise to support the review and further development of policies and strategies as appropriate. It will develop corporate methods and tools, that support the implementation of the policies and provide consultancy support to business areas to help them adhere to the policies and implement the strategies;
- **Data Collection Methodology:** Leading in the development of standards and corporate tools relating to data collection procedures for household and business surveys, and increasingly in administrative data systems, and providing support in the following areas: principles of question and questionnaire design; development and testing methods for data collection instruments; non-response measurement and reduction; new/improved methods of data collection – appropriateness of different methods; measurement and reduction of response error;
- **Processing, Editing & Imputation:** providing expertise and advice to support developing and implementing cost-effective editing and imputation for household and business surveys, as well as administrative sources, incorporating best practice in generalised procedures and corporate tools;

- **Sampling Frames, Sample Design & Estimation:** developing coherent methods for maintaining population registers of businesses and households, and for rigorous and efficient use of these in design and estimation for surveys; developing appropriate methods and tools to support standard error calculation, outlier detection and treatment, and benchmarking in household and business surveys; reviewing current design and estimation methods for all key surveys to ensure they are efficient and effective for current user priorities;
- **Index Numbers, Prices, Inflation Measurement:** reviewing and developing coherent methods to support index construction and presentation;
- **Time Series Analysis and Seasonal Adjustment:** providing expertise to improve quality and coherence of seasonal adjustment and time series analysis more generally, in ONS and across NS, and developing methods and tools to support effective implementation;
- **Analysis Methods (Methods & Tools For Longitudinal & Other Explanatory Analysis):** supporting more statistically complex aspects of analysis, and developing relevant methods and tools to support repeated analyses;
- **Spatial Analysis and Modelling:** researching and developing small area estimation procedures, and implementing these in small area estimates, as well as providing guidance on spatial analysis more generally;
- **Classifications (industrial, social, occupational and area):** developing, maintaining, updating and advising on the use of, standard classifications and data standards used across ONS/NS and supporting users of the classifications in managing the transition to new classifications and the handling of associated discontinuities; develop and provide training and tools for use.

Methodologists working in these areas will establish a lead in anticipating, identifying and providing statistical solutions, working to become recognised centres of excellence, and networking and sharing knowledge and experience with their peers internationally and within the academic and research community in the UK.

### 3. Developing Statistical Infrastructure, Standard Methodology and Tools:

As set out in Chapter 2, the ONS will be investing, over the next five years, in building an efficient highly professional and responsive technical environment. As part of this, the Statistical Infrastructure Development Programme will identify those aspects of statistical work that are common across business areas, that should be supported by standardised methods and common tools, well developed and built, thoroughly tested, and used many times. This programme will focus initially on the work of the ONS, but will increasingly have application across NS.

### 4. Effective Management: Project Management, Risk Management, Skills Development

Leadership and management skills are essential in maintaining quality in the environment of major change and development confronting NS, and particularly the ONS. Training and development opportunities to refocus and refresh these skills are being developed and implemented. Additional emphasis will be placed on the management of people, and the building of skills and performance across the ONS. The Business Excellence Model will be used as a framework to support effective management practice across the organisation.

Project and programme management are recognised as important contributors to quality, and will continue to be promoted across NS. All significant development projects within the ONS will be managed on a formal project management basis, and tools as well as training to support this are being developed and implemented. Significant changes to ongoing work will also be carried out within a formal project management environment.

Management of risk is an important contributor to quality in a statistical system. A corporate risk strategy is being developed and implemented for the ONS, and will be extended to cover key areas of NS in other Departments.

### 5. Comprehensive and accessible documentation

Producers of NS will provide clear and up to date documentation of their processes, surveys and outputs, to support continued improvement in the statistics from a producer's perspective, and to

facilitate effective use of the statistics. The Current Practices template, used across NS as a method of self assessment and quality improvement, has been reviewed and findings from this review will be used to improve and relaunch it with support and guidance given on how to use the template in self assessment against the Code. Strategies to improve the accessibility of such documentation by the public via metadata systems will be part of the information management programme.

## 6. Quality Measurement

Quality measurement is an integral part of achieving quality and is one of the key principles for NS set out in the draft Code of Practice. A new quality measurement project is being undertaken within ONS, and it will provide a basis for expansion to other areas of NS. The project will develop a framework for quality measurement, setting standards, providing guidance on methods and setting a strategy for their derivation, storing, accessing, presentation, dissemination, and review. The project will also develop strategies for providing training in the methods, assisting in the development of related tools and providing support in their use.

## 7. Quality Assurance, Monitoring and Improving Quality

Continuous monitoring and review is undertaken across NS. It has three layers.

The first layer occurs at the output or service level and is part of the regular production of statistics. It includes informal evaluation built into the cycle of producing statistics, and will increasingly use quality reports including the quality measures referred to in 6 above.

The second layer relates to reviews undertaken as part of the implementation of new policies, practices and tools for a statistical process. The implementation of the Code of Practice and associated protocols will involve a self review/assessment programme across NS.

The third layer is a more formal and structured layer of focused reviews. This will continue to develop in three streams:

- the first a programme of international benchmarking studies across NSIs;

- the second a series of cross cutting methodological reviews across NS; and
- the third, the NS Quality Review programme that results in the review of all NS outputs as part of a five year rolling programme.

*Output-specific methodological reviews* are planned across NS as part of continuous improvement of current processes. Examples of these include:

- the methodology for compiling a full dataset of agricultural-holdings information in the June Agricultural Census (Department for Environment, Food and Rural Affairs (DEFRA));
- an investigation into current imputation methods used by the DTLR;
- the methodology for making projections of the prison population (Home Office (HO));
- the methodology underpinning the statistics measuring the efficacy of sentencing (HO);
- the methodology underlying the measurement of poverty (Northern Ireland Statistical and Research Agency (NISRA));
- the definitions and methodology used in Regional Accounts for Northern Ireland (NISRA);
- disclosure control arrangements for the release of the LFS, including the 'boost' sample and interest in detailed local geography identifiers;
- thorough assessment of the questionnaires used for financial business surveys, and their impact on data quality (ONS); and
- validation procedures for the Monthly Inquiry of the Distribution and Service Sector, including assessing the efficiency of existing procedures and the efficiency and quality implications of alternative approaches (ONS).

In addition, a number of studies and reviews are underway or planned for the more structured layer of reviews (the third layer described above).

The *international benchmarking studies* currently being undertaken are studies of the LFS, the Retail Inquiry, and the timeliness of European

outputs compared with those in the United States of America.

The *cross-cutting methodological reviews* currently planned are:

- review of current practices in seasonal adjustment across NS;
- review of coding arrangements for key classifications within ONS, with the intention of extending this into NS more broadly as a second phase to the review;
- review of design and estimation methods used in ONS, with a view to developing supporting tools in an integrated environment. The implications of this review for NS will be examined as findings from the ONS review emerge; and
- review of quality measures in use across ONS, with a view to developing an integrated framework of measures with standard definitions and supporting tools for their derivation, analysis and dissemination.

The *National Statistics Quality Review programme* is set out in Appendix A.

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