Article

Supporting devolution: developments in regional and local statistics

This article presents a brief summary of the main developments that we are working on over the next few years to provide a solid information base for regional and local decision-making in this new era of devolved policy-making.

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1. Introduction

In November 2014, the UK Government and the Greater Manchester Combined Authority signed a devolution agreement devolving policy powers and responsibilities to Greater Manchester. This agreement, which included the adoption of a directly elected mayor, marked a new step in the process of devolution across the UK. Prior to this there were devolution agreements for the nations of Scotland, Wales and Northern Ireland and also for Greater London, but none for any other city or region in England. However, the agreement with Manchester marked a step change in policy such that, by May 2016, a further 10 devolution agreements had been agreed, mostly with city regions.

The increase in devolution brings with it an increase in the demand for regional and local statistics to monitor the economy and society at a sub-national level, so that devolved administrations of all types have the information they need to make policy decisions on the basis of sound statistical evidence.

In 2015 the Chancellor of the Exchequer commissioned Professor Sir Charles Bean to carry out a review of the economic statistics produced by ONS. One of the main strands of this review was to examine the need for and provision of regional economic statistics in the face of growing devolution.

The Bean Review made various observations and recommendations, of which the main messages relating to regional statistics were:

- there is a need for more timely regional statistics

- there is a need for greater flexibility to provide statistics for different geographic areas

- that we should look to make more use of administrative data sources in the compilation of regional statistics

The review confirmed what we already knew from our regular discussions with users of country, regional and local statistics, and it gave additional impetus to the drive to develop new and better ways to meet these changing needs. This article presents a brief summary of the main developments that we are working on over the next few years to provide a solid information base for regional and local decision-making in this new era of devolved policy-making.

We intend to organise a conference later in 2016 to bring together users of country, regional and local statistics from government, academia and the business world to discuss these and any new developments and talk about any additional needs that people have for information to support devolution.

2. Regional accounts

Background

The UK Regional Accounts is a subdivision of the UK National Accounts that provides similar information to that contained within the national accounts but for smaller areas within the UK. In practice only a subset of the full accounts can be produced on a sub-national basis, owing to the lack of complete source data for smaller areas and the fact that some aspects of the accounts are not conceptually meaningful at a regional level. To date we have concentrated on providing the accounts required under European legislation (currently the European System of Accounts 2010), which comprises estimates of economic activity in the form of gross value added (GVA) and a partial household sector account that delivers estimates of gross disposable household income (GDHI).

The UK Regional Accounts currently produces annual estimates, with a time lag of between 12 and 17 months. The areas for which estimates are produced cover the top three levels of the European NUTS classification (Nomenclature of Territorial Units for Statistics), which comprise the following:

- NUTS1: Scotland, Wales, Northern Ireland and 9 English regions (equivalent to the former Government Office Regions)

- NUTS2: 40 sub-regional areas, mostly comprising groups of counties and unitary authorities

- NUTS3: 173 local areas, mostly comprising single counties or unitary authorities

There is also an additional category known as Extra-Regio, which exists as a place to put any activity that cannot be assigned to a region or regions of the UK. This category currently includes activities carried out on the continental shelf (North Sea oil and gas extraction), as well as the overseas activities of UK embassies and armed forces.

In the following sections we will give a brief description of the main developments going on in the regional accounts, starting with the ways we are enhancing the GVA and household accounts, then how we intend to use these to create estimates for any user-defined area of interest, and finally the development of more timely regional economic statistics.

Balanced regional GVA

For many years we have compiled estimates of regional gross value added (GVA) using the income approach, whereby the components of income (compensation of employees, mixed income, rental income, gross trading profit and surplus, non-market capital consumption, holding gains, taxes less subsidies on production) are summed to give a measure of GVA on a workplace basis.

More recently we have developed an alternative measure of regional GVA using the production approach, whereby GVA is calculated as total output of goods and services less the value of goods and services used up in the production process (intermediate consumption). The principal aim of this second estimate is to provide the means to calculate estimates with the effect of price inflation removed, known as "real" GVA. However, it also presents us with a further complication.

Having two independent estimates of regional GVA (in nominal or current price terms) presents us with a communication issue. There is only one true value of GVA for any given area and no statistical estimate based on sample surveys will ever be able to guarantee complete accuracy. We are therefore faced with having two different answers to the question "what is GVA?" and no definitive way to advise users on which one to believe.

The same issue exists in the national accounts, where there are three different approaches to measuring gross domestic product (GDP), compiled using income, production and expenditure. To provide users with a single definitive estimate of UK GDP the three approaches are combined in a "balancing process" that seeks to identify the strengths and weaknesses of each measure and give them appropriate weight in informing a single "balanced" estimate of GDP.

We intend to create a similar balancing process for the two approaches to measuring regional GVA, and we aim to make the process as automated as possible. Work to date has mostly concentrated on the methodology of balancing and setting up the regular calculation of quality measures for the major components of both estimates. The plan is to use these quality measures (coefficients of variation) as the variable that determines the weight given to each estimate in the construction of a balanced GVA estimate.

Our current plan is to design and build the additional processing required during 2016, trial the process in early 2017 using GVA published in December 2016, consult with users over the trial results and if all goes well produce the first official balanced estimates in December 2017.

The full package will provide a significant increase in the data made available to users, as the production approach includes the capacity to provide more detailed industry estimates alongside the component breakdown of income-based GVA, all based on a coherent and internally consistent framework of balanced regional GVA.

The regional household account

Currently we only compile the first two stages of the household account on a regional basis. These are the primary income account, which shows all of the sources of income earned by labour and investment, and the secondary distribution of income account, which shows the effect of taxes and benefits on household income. In combination these two stages take us to the point at which the residual balance of the account is the amount of money that households have left over for spending or saving, gross disposable household income (GDHI).

While GDHI is valuable as a measure of relative wealth between regions, it gives no information on the spending patterns of households. Increased devolution of powers to sub-national authorities and administrators is likely to increase demand for such information, for instance to inform urban and rural planning and investment strategies. For this reason we are undertaking the development of the remainder of the regional household account, to provide a breakdown of household final consumption expenditure (HFCE). We can then derive the savings ratio on a regional basis as the percentage of disposable income that remains after spending.

The project is at a very early stage, and our plans may have to adapt as we discover more about the feasibility of our ideas and the availability of regional data. In brief though, the aim is to provide a breakdown of household spending that matches as closely as possible that in the UK National Accounts, and to provide this breakdown for all three levels of the NUTS geography.

Our current aim is to have the first estimates of regional HFCE and savings ratio ready for publication in the spring of 2018 alongside or just after the regular GDHI release. The amount of detail and quality of the estimates will depend upon the pace and success of the development of administrative data sources.

Flexible geography

In our discussions with users about their emerging and changing needs, one of the things that has stood out as most urgently desired is the facility to produce estimates for areas other than those covered by the Nomenclature of Territorial Units for Statistics (NUTS) classification. Local government users have always expressed a desire for information at the local authority level, but even that has been impractical for us to produce owing to the need to spread the survey data too thinly. Survey sample sizes often become too small to provide reliable estimates for small areas.

With the formation of Local Enterprise Partnerships (LEPs) in England, we became aware of a growing need to be more flexible in the way we compile regional statistics, and over the past couple of years we have been developing a methodology to do that. The LEPs comprise some areas that can be wholly constituted from existing NUTS areas, but also some areas that require a further disaggregation to local authority level (and in two cases even smaller areas) to provide all necessary building blocks.

The methodology we have developed works by breaking down the main components of, for instance, income-based gross value added (GVA) to the local authority level using the most appropriate regional indicator data that we have available. For some components we actually have a direct match down to the lower level, whereas for others we have to use proxy indicators such as employment (or perhaps population for household components of gross disposable household income - GDHI). These estimates lack the quality of the standard NUTS estimates because they are compiled using a vastly simplified process.

The importance of developing a way to produce estimates for even smaller areas, to provide greater flexibility to produce data for user-specified areas, has also been recognised. Policy and analytical requirements do not always correspond to standard administrative boundaries and here we hope to be able to make use of administrative data to apportion estimates down to workplace zones or census output areas, from which any user-specified area can be built.

Our current plan is to develop the data and systems needed for flexible geography over the next two or three years. It is difficult to be more precise at this time, owing to uncertainty about the availability and use of administrative data sources. We also intend to look into the possibilities for a map-based user interface and the extension of the methodology to provide "real" GVA estimates using the implied deflators from our production-based GVA system. While our aims remain ambitious, we need to be realistic and adapt to the various obstacles we will inevitably encounter along the way.

Regional short term indicators

Of all the things users have told us they want, by far the most commonly mentioned is more timely regional estimates, particularly of economic activity. With increased devolution of powers to regional authorities, the need for up-to-date information is becoming ever more urgent. Unfortunately, the UK Regional Accounts, with the time lags associated with the production of annual statistics, are never going to be able to satisfy this need. For that we need to provide quarterly measures, similar to the gross domestic product (GDP) estimates produced by the UK National Accounts.

The Scottish Government has developed its own measure of quarterly GDP for Scotland, which is an established National Statistic that has been published for several years. The Northern Ireland Statistics and Research Agency (NISRA) has now developed an experimental quarterly Composite Economic Index for Northern Ireland that combines their own Index of Production, Index of Construction and Index of Services into a measure of GDP. The Welsh Government commissioned us to develop an Index of Production, Index of Construction and Index of Market Services for Wales, which have also been granted National Statistic status.

We now plan to complete the coverage of the UK at the NUTS1 level by developing quarterly GDP measures for the nine English regions, which we will publish as seasonally adjusted chained volume measures (indices with the effect of price inflation removed).

These quarterly indicators will be based on the methodology used for the Welsh short term indicators, although we will work closely with all three devolved administrations to ensure the resulting suite of indicators are sufficiently consistent in their data and methods. We intend to share best practice and learn from each other how to deal with particular measurement issues. Where feasible we will aim to share data sources to maximise consistency and efficiency.

One particular development we plan to make use of is the administrative Value Added Tax (VAT) dataset from HM Revenue and Customs, which will provide monthly and quarterly turnover for a near census of UK businesses. We expect the enormous coverage of this data source to provide us with a much more stable measurement basis for regional indicators than has been possible using sample surveys such as the Monthly Business Survey (MBS).

It is too early to say with certainty what level of detailed information we will be able to publish alongside the estimates of quarterly regional GDP growth. Experience gained from the development of the Scottish, Irish and Welsh indicators suggests that it should be feasible to publish industry specific indices for the majority of Standard Industrial Classification (SIC) sub-sections across the whole economy, although the final decision will need to be based on the quality of the data and also take account of any disclosure issues.

We expect the development of the data, methods and compilation systems to take around two years, so we are aiming for a first publication some time in 2018. The development will not end there, though, as the existence of quarterly indicators should make it possible to extrapolate forward from the "real" gross value added (GVA) estimates coming out of the regional accounts. In this way we intend to combine this work with the flexible geography project and develop the capability to provide quarterly "real" GVA estimates for any user-specified area, perhaps as early as 2019.

3. Country and regional public sector finances

Background

Statistics on public finances, such as public sector revenue, expenditure and debt are used by the government, media and wider user community to monitor progress against fiscal policy targets. The monthly UK public sector finances (PSF) bulletin is the primary publication used to monitor this progress and is produced jointly by ONS and HM Treasury (HMT). The statistical aggregates within the PSF bulletin are defined using National Accounts concepts and rules, on which the UK's fiscal framework is based.

At present, we do not produce any country and regional (sub-UK) public sector finance statistics. However, we have begun work to produce a country and regional PSF publication. At the start of this project, we conducted a Scoping Study to compare the coverage, data sources and compilation methodologies of sub-UK public finance statistics that are already published.

The purposes of this comparison were to:

1. provide an overview of the similarities and differences in the current publications

2. highlight any likely difficulties or issues that would be faced in producing a country and regional PSF publication (using the existing statistics) which covers the full territory of the UK

The scoping study concentrated on the following four sub-UK publications:

1. Country and Regional Analysis, HMT

2. Disaggregation of tax receipts, HM Revenue and Customs

3. Government Expenditure and Revenue Scotland, the Scottish Government

4. Northern Ireland Net Fiscal Balance Report

Each of these publications has a different use or purpose, meaning that some differences between data sources and methods exist to cater to various user needs. The producers of these statistics have made great efforts to align methods and data sources where possible. The scoping study document explains in further detail the differences identified and additional needs for producing a country and regional PSF publication.

The information gathered during the scoping study formed part of the consultation on country and regional PSF, to inform users about the available public finance statistics both at the UK and sub-UK level. The purpose of the consultation was to gather and assess the user demands for an annual publication on country and regional PSF statistics, on similar methodological bases to those used in the publications mentioned above. The aim of these statistics would be to provide a single overview of the public sector finances for UK countries and regions (NUTS1). This would allow users to see what expenditure has occurred for the benefit of residents or enterprises in a particular country or region and what revenues have been raised in a particular country or region. The following sections provide an overview of the consultation responses received and how we will take this work forward.

Consultation

The consultation ran from 16 February 2016 to 11 April 2016 and asked respondents a number of questions around: the benefits and uses of a country and regional PSF publication; timeliness and frequency; data sources and methodology; and presentation of data. The full list of questions asked, as well supporting documentation, is available on our website.

A total of 16 responses were received from a variety of users, including devolved administrations, local authorities, researchers and academics. Key findings from the consultation were:

- wide support for us to produce country and regional PSF statistics

- users wanted these statistics to aid the devolution debate and to provide additional data for local policy analysis

- most users thought the "who pays" and "who benefits" approaches for apportioning revenue and expenditure, to each country and region, were the most appropriate methods

- a number of respondents would benefit from having data at geographies smaller than NUTS1

- we should be clear on what can and cannot be done with such data as well as providing transparency on the data sources and methods used, to allow users to make informed judgments on how they use these data.

The consultation provided valuable feedback regarding the proposals for us to produce a country and regional PSF publication and we have used this feedback to inform our plans on how to take this work forward. This is discussed in the next section.

Next steps

Based on the responses received, we will take forward plans to produce an annual country and regional PSF publication, with the aim of publishing the first bulletin in 2017.

A key part of this work will be collaborating further with the devolved administrations, key central government departments and users to agree data sources and methodologies to be used, as well as how to present this data. We expect to follow the main apportionment concepts used in the existing sub-UK publications, in particular the "who pays" and "who benefits" concepts. In general however, this work will involve building upon the existing apportionment methods, improving and harmonising where possible.

As users demonstrated their desire to have statistics on PSF at geographies smaller than the NUTS1 level, we will investigate which expenditure and revenue items can be produced to support the needs for data below the NUTS1 level. As with other apportionment methods, this is an area we would look to work with colleagues in other departments, devolved administrations and users to agree.

Respondents highlighted the importance of being clear on the methods and data sources used, so that users can make informed decisions about how they use this data; we will work with users and other stakeholders to ensure we provide this clarity. Our [response to the consultation](#) is available on our website.

4. Other areas for development

Regional prices and real regional GVA

The regular collection of prices for consumer price inflation statistics is optimised for measuring inflation at the UK level, with prices collected in 141 locations spread across Scotland, Wales, Northern Ireland and the nine English regions. As a result, the number of locations visited per region is small, making the data less suitable for regional indices. Improvements in technologies have resulted in new, alternative sources of price data which could be used in the continued compilation of price indices. Obtaining access to retailers "point of sale scanner data" would greatly increase the amount of price observations available each period and may provide the detail required to consider the production of robust regional price indices. Whilst further investigation into the availability of scanner data takes place, the viability of using the existing consumer price inflation data to produce regional price indices will be reassessed over the next 18 months.

An ad hoc source of spatial price indices is available via the relative regional consumer price levels (RRCPL), which can be used to compare price levels to the UK for the nine English regions, Scotland, Wales and Northern Ireland. The next collection of data for use in RRCPL will take place in 2016, with results potentially available in 2017.

Any further development of regional consumer prices may be of use in the development of real regional disposable household income and expenditure measures. For real regional gross value added (GVA) measures, however, we will need to consider how producer prices vary across regions.

The current experimental real measure of regional GVA uses national producer prices to deflate the nominal value of GVA, and relies on its compilation at a very detailed industry level (112 industries) to reflect regional variations in activities, and hence the products and services produced. Should any regional producer price indices become available we will look to make use of them as deflators for both the regional accounts annual measure of real regional GVA and the regional short term indicators.

Productivity estimates

For many years, sub-national productivity data in the UK were only published for NUTS1 countries and regions, with these data updated annually in the December edition of the Labour Productivity bulletin. More recently, data for NUTS2 and NUTS3 sub-regions and for English Local Enterprise Partnerships have been made available in an annual "sub-regional productivity" publication typically following in March or April the following year. Responding to feedback that users would like to see the regional and sub-regional data made available at the same time, these two outputs will in future be merged into a single publication, to be published as part of our productivity bulletin each January.

Additionally, there are plans to expand the productivity data available. In particular, many users have asked for productivity data by region and industry (rather than by region only). Publication of these data, initially for NUTS1 regions and countries, is something we plan to take forward and publish in the current financial year.

Looking further ahead, because regional gross value added (GVA) data are a key input into the published productivity outputs, then the changes to the regional accounts described earlier in this article will also impact in future on the productivity data available. For example, once the balanced GVA data are available (end-2017), then these will replace GVA by the income approach as the numerator of the productivity calculation. Additionally, the increased flexibility in geographies being sought in the production of regional GVA should also enable an increased flexibility in the geographies for which productivity data can be calculated and published.

Small area data

During the past year we have stepped up production of small area data - for geographies smaller than local authority such as middle layer super output areas (MSOA) - with the development and publication of the quarterly house price statistics for small areas output. These data provide a range of statistics describing the price paid for residential properties and the number of transactions in England and Wales using open data from Land Registry. The statistics are presented for different property types and developments of newly built properties, for a range of small geographies.

Over the next 12 months we will also produce an update to the small area income and households in poverty estimates. These will provide modelled estimates of mean weekly household income and associated estimates of the percentage of households living in poverty. Both of these products will be developed to meet users' needs better, be more coherent with other estimates of income and be published more frequently.

Anticipated increases in our access to administrative data sources over the next few years has the potential to allow the development of existing outputs like income and house prices, and also to produce new outputs that provide statistics at the small area level, offering additional insight and evidence on a range of important policy areas.

City statistics

Since the abolition of the Regional Development Agencies was announced in 2010, "regional" policy-making in England has moved to smaller alternative geographies, in particular based around Local Enterprise Partnerships (LEPs) and cities. The LEPs were set up in 2011 and there are currently 39 across England covering every local authority (some local authorities are in more than one LEP). Meanwhile, the focus on cities began in 2012 with the announcement of the first English city deals. Subsequently, city deals have also been agreed with cities in Scotland and Wales, while devolution agreements have been signed for a number of English city regions.

In terms of statistics, we have sought to make data for LEPs available. Publications providing gross value added (GVA) and gross disposable household income (GDHI) data for LEPs have been published, with productivity data for LEPs provided in the sub-regional productivity output. Meanwhile, labour market data for LEPs have been made available on the Nomis website. We will continue to provide these LEP data.

For cities, meanwhile, we have been making data available for the new city regions, and will continue to do so as this policy evolves and further devolution deals are agreed. Key data for English city regions were presented in an article in July 2015 and further such articles will be published to ensure that key data are readily available in the public domain. Additionally, data for agreed combined authorities are now available on Nomis. Increasingly, particularly once further anticipated devolution deals for cities have been agreed, we will seek to make these data available directly in statistical bulletins and datasets on our website.

It is not only city regions that are of interest for policy-making. Sometimes there is a need to analyse data for the urban extent of towns and cities. To enable this, in 2016 we published an experimental geography of major towns and cities in England and Wales. This was based upon the built-up-area geography produced for Census 2011, but simplifies that original geography to provide a single boundary set for the 112 towns and cities in England and Wales with residential or workday populations above 75,000. We are interested to receive feedback on this geography, and if useful to users will seek to provide further data and analysis for the 112 towns and cities in future releases.

Another level of geography of relevance to analysis on cities and larger towns is the travel to work area (TTWA) geography. A TTWA is defined to approximate self-contained local labour market areas, and as such they are popular for labour market, economic and transport analysis, particularly amongst academic researchers. The plans to increase the geographic flexibility of regional accounts data (as detailed earlier) raises the possibility that we will be able to start to make further datasets, such as regional GVA, available for TTWA in the coming years. In the meantime, an article on TTWA is planned for later in 2016 that will focus on some of the data currently available for the geography. It will also present some alternative TTWA boundaries that will illustrate local labour market areas for various subsets of the UK population based on age, qualifications, employment type and method of travel to work.

Finally on cities, we also supply data on UK cities to the European City Statistics (Urban Audit) project. This is a project sponsored by the European Commission to provide reliable and comparative information on European cities, particularly on aspects related to quality of life. In the current data collection round (reference years 2013 and 2014) there are over 100 variables covering a range of themes. Data can be downloaded from the Eurostat website and analysis articles using the data are published on our website.

Ad hoc policy support

Listening to the requirements of policy makers and responding to their needs is one of our main aims. A good example of where this has been successful has been the close working relationship we have had with the Greater London Authority (GLA) over the past decade. Our analysts have worked closely with analysts at the GLA to enable our data to be used in informing GLA analysis and policy-making. Examples include work on science and technology businesses, large and small firms and data on the impact of the living wage.

Working closely with our main users can help identify gaps in data provision that are relevant to areas throughout the UK and not just to a single local area. A gap that has been identified through our work with the GLA is the current absence of regional data in the UK on the exports of services. While exports of goods are covered by a regular HM Revenue and Customs data release, there are currently no data available on services exports. A project to produce these data was set up across our organisation, and the first experimental estimates of regional services exports are due to be published later in 2016.

5. User engagement

With devolution agreements now being agreed in many large cities and other areas, there are clear potential benefits to be had from our statisticians developing stronger relationships with policy makers and analysts in the newly devolved areas. Improved access to data can help inform local policy, while fully understanding user needs can help improve our statistics. The next section provides further details of our user engagement plans.

A number of forums already exist where our statisticians meet with users to discuss regional and local data. These are detailed below, and in each case our plan is to continue to use these groups to discuss data issues in these established forums with a range of users. However, with the growth of devolution deals around the UK, including the emergence of new administrative bodies such as combined authorities and Local Enterprise Partnerships, we are also looking at ways that we can improve our user engagement further.

Good stakeholder engagement is crucial to our meeting the aims highlighted both in the UK Statistics Authority strategy "Better Statistics, Better Decisions" and also as detailed in the Bean Review of economic statistics. In brief, good stakeholder engagement enables improved access to our data and staff for local users to help inform analysis and policy-making, whilst at the same time enabling us to learn about user requirements and continue to improve our statistics and services. Current forums for user engagement on regional and local statistics include:

- The Regional Accounts Government User Group (RAGUG) – this meets twice a year, bringing together members from central government, devolved administrations and subject experts to discuss issues related to the regional accounts outputs, namely (to date) regional gross value added and regional gross disposable household income.

- The labour market Central Local Information Partnership (CLIP) – this also meets twice a year and is a forum where a group of representatives from local authorities in the UK meet with the providers of our labour market data to discuss developments in labour market data. The Annual Population Survey, Business Register and Employment Survey, Annual Survey of Hours and Earnings and Workforce Jobs are all covered, together with developments on the Nomis website.

- The Regional and Geography Committee (RGC) – this sub-group of the Statistical Policy and Standards Committee provides guidance and advice on the geographical breakdown of official statistics. Its membership includes representatives from across the Government Statistical Service (GSS) and devolved administrations. The aim of the group is to develop, promote and monitor the application of statistical policies, practices and standards across the GSS with respect to the spatial disaggregation of official statistics.

In terms of improving user engagement further, the UK Statistics Authority and Centre for Cities organised a successful meeting in March 2016 that brought us together with other producers of regional and cities data and a small number of city stakeholders and topic experts to discuss the way forward for city and regional statistics. We plan to follow this up with a further meeting later in the year.

Additionally, in January and February 2016, we held the first Economic Forums to focus on regional, city and local data as well as on national economic trends. These events were held in Cardiff, Manchester and Edinburgh and are planned to be the first of a regular series of regional and country economic forums to be held in major UK cities to complement the regular quarterly London event that focuses on national data.

We are also seeking to build stronger relationships with key city regions and devolved areas. As mentioned earlier, we already work closely with the Greater London Authority as well as with the devolved nations and we are now keen to build similar working relationships with other devolved areas and city regions. We have started meeting with analysts and policy-makers in the new devolution areas and our aim is to continue to expand our network of contacts in these areas and throughout the UK.

Depending on the feedback we get as we talk to individual users, we will look into the possibility of setting up additional forums to ensure that different groups of users are able to hear directly about developments at ONS and are able to discuss their needs and requirements. We will also speak more often at conferences or other events on regional policy-making or data so that stakeholders are kept informed of our plans and developments.