



Invest Northern Ireland Key Performance Indicators

Quality Report 2022

QUALITY ASSURANCE

Quality, when referred to in terms of statistical outputs, can generally be thought of as the degree to which the data meet user needs or the degree to which the data are 'fit for purpose'. It's recommended that the quality of a statistical output be determined by its performance against a range of indicators or measures. This section provides information on the quality of the KPIs, based on the European Statistical System (ESS) key quality dimensions.

1. Relevance: The degree to which the statistical product meets user needs in both coverage and content.

The KPIs provide information on the value of employment and economic activity generated by Invest NI account managed and entry businesses as well as associated expenditure across the main industry sectors supported.

The KPIs provide high level indicators of economic activity among Invest NI supported businesses such as the total value of sales and work completed by businesses (sales), external sales and exports, full time equivalent employment and total employment costs. The contribution of different industries and councils are also assessed.

The KPIs are collected on an annual basis and are timed for inclusion in the Invest NI annual conference and annual report.

2. Accuracy: The proximity between an estimate and the unknown true value.

The KPIs are designed to provide a value for sales, external sales, exports and FTE for Invest NI account managed and entry businesses. Additionally, the KPIs must be able to split these values by industry, market and council.

The KPI sample is a census of all Invest NI account managed and entry businesses. Data are not grossed to produce population estimates and it is therefore important that responses or estimates for close to 100% of the sample are received. Given that the NI economy is dominated by a relatively small number of large businesses, responses from all of the largest 500 businesses are essential. Where businesses fail to provide a response, an informed estimate is provided in its place by the client facing member of staff responsible for the account.

The accuracy of the results are affected by a range of issues; some of these are related to the fact that any estimates are based on individual interpretations of a business's likely performance and that not all businesses respond to the survey.

Standard errors/confidence intervals:

The KPIs are a census of a particular subset of NI businesses and therefore standard errors and precision estimates are not calculable or relevant.

Coverage errors:

The survey is designed to cover all account managed and entry businesses. The sample is drawn from the Invest NI CRM system. As the CRM system is a continuously updated register it is possible that misclassified businesses may be included/excluded from the sample.

Non-sampling error:

Non-sampling errors can be difficult to quantify accurately but can be caused by measurement, processing and non-response. Details of the impact of these as well as the methods employed to minimise their effects can be seen below.

Non-response errors:

Non-response errors occur when the response rate falls significantly below 100%. As the characteristics of respondents and non-respondents may differ, biases can be introduced into the results. As the response rate before estimates for the 2022 KPI survey was approximately 85%, non-response error is not considered to have a large effect on the results. However, to reduce the influence of non- and low-response rates, survey response rates are carefully monitored throughout the collection process. Client facing staff are provided with a response tracking dashboard to allow teams and managers to monitor rates by division, team and staff member. Client facing staff are encouraged to follow up with non-respondents to maximise response rates. Larger companies are given priority in terms of non-response chase-up and quality assurance of results.

Processing errors:

Processing errors happen when mistakes occur in the implementation of the administrative and statistical methods used to produce the survey. 90% of KPI forms are collected online and manual editing is avoided where possible.

The primary risk from processing errors occurs from the merger of manual (excel based survey responses) with returns downloaded from the online survey management system. Manual forms account for only 10% of all forms collected and are carefully merged with online data to form a final file. Processing errors are considered to have a negligible impact on the results.

Measurement errors:

A business may provide incorrect data to the KPI questions – for example providing out of date figures or data for a UK wide business. A range of systematic validation checks are applied to the returned data and where the value is deemed to be outside of predefined bands of acceptable variation a validation flag is

raised. These individual returns are queried with client facing staff and may be amended depending on the result of the check. Where a company has also provided comparable information to an external source, for example Companies House, the information can be compared to this. This is used to understand and explain movements in the data. Data validation is thorough and conducted for every business on the survey. Measurement errors are considered to be minimal.

Calendar year results:

KPI results are published for calendar years. However, in order to reduce the burden on respondents, businesses have the option to return data for their business year end, provided it falls within the specified calendar year. It is possible that, particularly if the economy is undergoing a period of rapid change such as during a recession, the different reporting periods could introduce some bias.

3. Timeliness and punctuality: Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.

The KPIs are finalised by June each year, some six months (T+6 months) after the end of the calendar year reporting period. This is sooner than larger though comparable business surveys, such as the Northern Ireland Annual Business Inquiry or Research and Development Survey (T+11 months).

4. Accessibility and clarity: Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

KPI outputs are available through a variety of sources. Initial high level outputs are published on InvestNI.com. Following this, more detailed outputs are presented for review to the Invest NI Executive Leadership Team and Board, this presentation is subsequently added to the Invest NI Intranet for broader access.

Council level KPI outputs are included in the annual council briefings, produced for each of the 11 NI councils and published in July of each year. A council dashboard is currently in development.

Additional ad hoc analysis is available on request from the Corporate Information Team.

5. Coherence and comparability: Coherence is the degree to which data derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.

The KPIs are available on a comparable basis from 2013 to 2022. While the KPI sample may change from

year-to-year as companies are reclassified on CRM, the values are considered comparable in the sense they reflect the composition of Invest NI supported businesses at a point in time.

The KPIs require businesses' industry classifications to be the same for all year's returns, therefore when a reclassification takes place for the current year's return, the data for all previous years will be revised. When this occurs for a large business it can have a notable impact on previous year's results by industry.

Invest NI KPI outputs (sales, external sales and employment) are also collected by a number of National Statistics surveys conducted by the Northern Ireland Statistics and Research Agency (NISRA), the Office for National Statistics (ONS) and other public bodies. These surveys are designed to create estimates for all or specified parts of the NI economy. By contrast, the KPIs are designed to capture a specific population of businesses relevant only to Invest NI and are therefore not considered directly comparable to these surveys. While it can be instructive to compare change over time and per head measures between different outputs, total values from the KPIs should not be compared to these external outputs.

Invest NI data are classified using an internal industry classification which is not directly comparable to the Standard Industrial Classification (SIC) of Economic Activities used by most other producers of economic statistics. Users should exercise caution when comparing industry results between different sources.

6. Trade-offs between output quality components: Trade-offs are the extent to which different aspects of quality are balanced against each other.

Data users want the figures to be available as soon as possible after the period to which they refer. Estimates are published as soon as validation is finished and quality assurance is completed. As a result, revisions are an inevitable consequence of the trade-off between timeliness and accuracy. Revisions are implemented when processing the subsequent year's KPI returns and are mostly minor amendments to individual business' returns and do not therefore materially impact overall results. If a large revision is required, users will be notified of this change when the KPI data are released.

7. Assessment of user needs and perceptions: The processes for finding out about users and uses, and their views on the statistical products.

Users are encouraged to provide feedback to CIT on the accessibility of the KPI outputs. This feedback is compiled and revisions to the outputs are incorporated for the following year's KPI outputs. Where a significant change is required ad hoc analysis can be provided.

8. Performance cost and respondent burden: The effectiveness, efficiency and economy of the statistical output.

The burden on business is kept to a minimum, the questionnaire is available both online and as an excel spreadsheet and is reviewed every year to ensure relevance. Where businesses are unable or unwilling to respond informed estimates are accepted.

9. Confidentiality, transparency and security: The procedures used to ensure sound confidentiality, security and transparent procedures.

The Invest NI information security management systems are ISO 27001 certified and all KPI data are held on a network that is accessible only to staff involved in the production process. Staff are reminded of the protocols for ensuring the data remain confidential. This covers physical security, IT security and data disclosure issues.

A summary of Invest NI's privacy policy can be accessed at <https://www.investni.com/about-us/privacy-notice.html>



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