TPI UK ITL3 Productivity Scorecards and Dashboards 2025 Edition

Sources and Methods

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The TPI productivity scorecards are produced to assess the UK's subregional productivity performance through a range of productivity indicators and drivers. The ITL3 scorecards complement the ITL1 Productivity Scorecards, published by the Productivity Lab in August 2025. Providing a higher level of geographical granularity, the ITL3 scorecards can be used as a tool by policymakers at the subregional level to assess the productivity performance in their region, both relative to their ITL1 parent region as well as the UK as a whole.[2]

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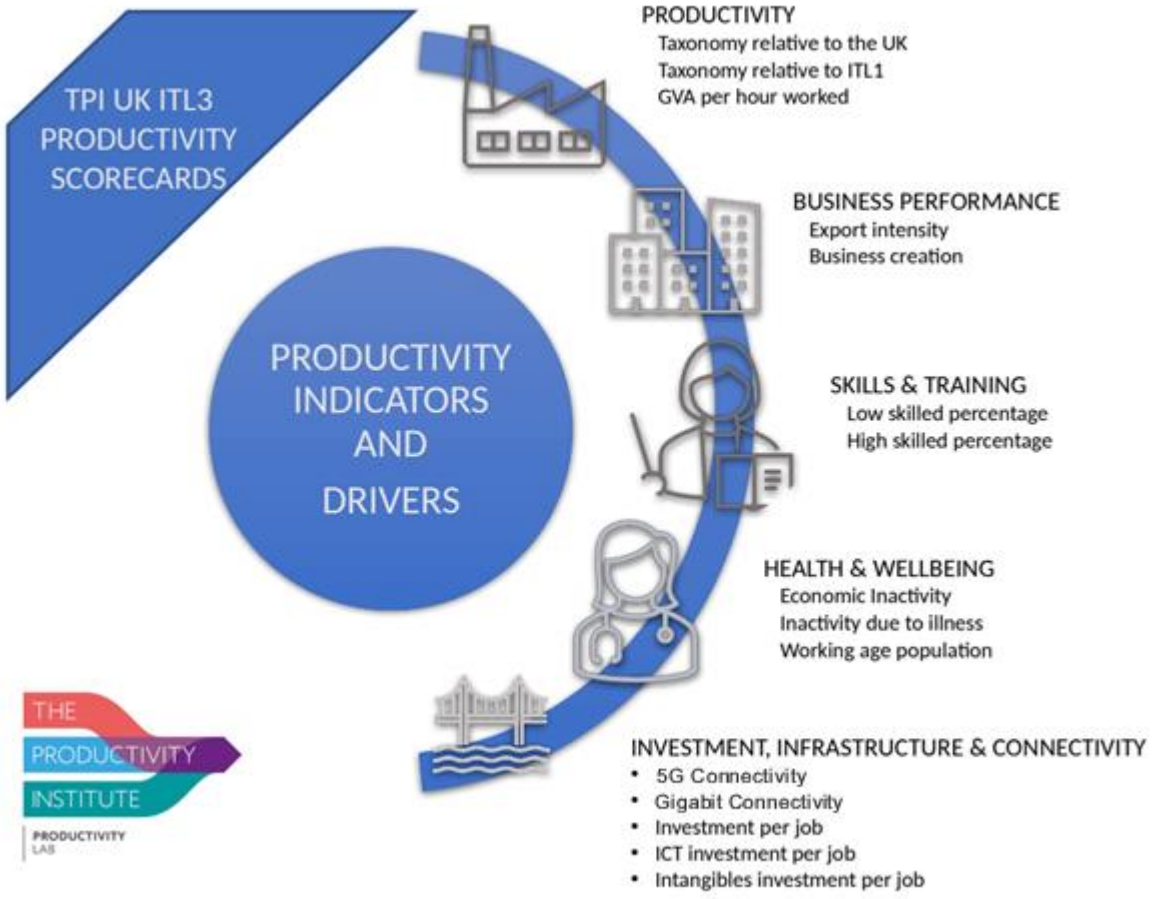
[2] Cite data set as: McKeogh, N; Menukhin, O; Ortega-Argilés, R; Sarsfield, W; Silva Ruiz, A; Watson, R (2025). TPI UK ITL3 Scorecards, 2025 Edition. University of Manchester. Dataset. https://doi.org/10.48420/30030220

Productivity Indicators and Drivers

The ITL3 scorecards include data for 182 regions and 12 aggregate regions, as defined by the International Territorial Levels (ITL) 3 and 1, covering the whole of the United Kingdom. For the 2023 scorecards, data is taken from the latest year available for the indicator. These years range from 2020-2025. Due to the increased level of geographical disaggregation, the scope and measurement of the productivity drivers and indicators deviate from the aggregate ITL1 scorecards. The diagram presents an overview of the productivity indicators and drivers by category, available for the ITL3 scorecards. The *Productivity* category shows 3 indicators of each region's relative performance in labour productivity. The remaining categories include productivity drivers with data taken from several sources, which are provided in the Data Sources Overview table in the next section.

ITL3 Scorecard productivity indicators and drivers by category



Published Formats

The data for the TPI ITL3 scorecard indicators are published in two ways. Firstly, a bulk file in CSV format is provided, which can be used for statistical analysis of the indicators. Secondly, the scorecards are published in PDF files organised by ITL1 aggregate region, with annual tables for the productivity indicators and drivers by category for each of the ITL3 sub-regions. These tables are colour-coded to show the performance of each indicator relative to the regional **average** of the ITL1 parent region in that year. This deviates from the ITL1 scorecards, which compare productivity drivers against the UK **median** of the ITL1 regions. For some indicators, data is not available at the most detailed ITL3 level, while data for the higher geographical aggregate (ITL1) region are. We include all available information for calculating the aggregate ITL1 average to provide the best reference for comparisons of the underlying ITL3 regions. Greyed out cells indicate that there is no data available for the region in the given year due to ITL3 code changes, while pink cells refer to data that has been suppressed for two possible reasons:

- Confidentiality
- Disclosive due to low sample size

The colour codes indicate whether the ITL3 region is performing better (green), worse (red), or equal to the ITL1 regional value (orange). Green indicates performance higher than 105% of the ITL1 average. Orange shows a value of a productivity driver between 95% and 105% of the ITL1 average. Red indicates performance lower than 95% of the ITL1 average.

Data Sources

For the compilation of the ITL3 scorecards, data is taken from several sources and is harmonised into a consistent format. While most of the information on the indicators and drivers of productivity could be obtained from a single source for all regions, the Labour Force Survey data for Northern Ireland had to be collected from the Northern Ireland Statistics and Research Agency (NISRA).

Unfortunately, for many of the data sources, there is little consistency in the published data formats, even when data is collected from the same source. This is a problem when the layout of spreadsheets changes between annual publications, particularly when indicators are denoted as numbers in one year but as text in the next or when regional codes have been redefined over time. Therefore, extensive efforts have been dedicated to data cleaning, harmonising data formats across time and space, creating uniform mapping tables for generating ITL3 aggregations, and thoroughly checking the results for consistency. Consequently, although the source data remains accessible from the original sources, we also provide the raw data aggregated to the ITL3 geographical level, which served as the foundation for deriving the indicators. This supplementary research data is available in CSV format for analytical use. When using these data, references should be made to the original data source providers.

The Data Sources Overview table below presents the sources for each indicator, along with information on the specific release of the data set and the geographical level at which the data is available from the source. The following section describes, for each category, how the indicators are calculated from the source data.

Data Sources Overview table

Category	Indicator / Driver	Sources	Geographical level	Year used in scorecard
Productivity	Taxonomy relative to the UK	ONS Subregional productivity; June 2025 Release	National level, ITL 1, 2 and 3	2023
	Taxonomy relative to the ITL1 region			2023
	Gross Value Added (GVA) per hour worked.			2023
Business Performance	Export Intensity	ONS Subnational Trade in Goods; February 2025 Release ONS Subnational Trade in Services; February 2025 Release ONS Regional gross domestic product: all ITL regions; April 2025 Release	National level, ITL 1, 2 and 3	2023
	New Businesses	ONS Business demography, UK; November 2024 Release	District, Counties And Unitary Authorities Within Region And Country	2023
Skills & Training	Low Skilled	ONS Annual Population Survey; April 2025 latest revision NISRA Labour Force Survey Tables for Local Government Districts 2009-2023; October 2023 Release NISRA Highest qualification level and participation in education and training 2023; December 2023 Release NISRA Reasons for Economic Inactivity by Local Government Districts; July 2025 Release ONS Regional gross domestic product: all ITL regions; April 2025 Release Mid-Year Population Estimates for Northern Ireland; September 2024	APS data downloaded at NUTS 1 and 3 level Northern Ireland data available from NISRA at the ITL3 level	2023
	High Skilled			2023
Health & Well-being	Active Population			2023
	Inactive due to illness			2023
	Working Age			2023
Investment, Infrastructure & Connectivity	5G Connected	Ofcom Connected Nations; Spring Releases for 2023, 2024 and 2025. Data downloaded on Mobile and Fixed coverage	Local and unitary authority	2025
	Gigabit Connectivity			2025
	GFCF per job	ONS Experimental regional gross fixed capital formation (GFCF) estimates by asset type; June 2022 Release	National level, ITL 1, 2 and 3	2020
	ICT per job			2020
	Intangibles per job			2020

Methodology

The productivity indicators and drivers at the ITL3 level have been derived from the data sources referenced in the overview table. This section explains in detail how the source data was used to calculate the indicators for each category.

Productivity

This category shows 3 indicators which gauge the relative performance of labour productivity across the ITL3 regions, comparing it to other ITL3 regions, the ITL1 parent region, and the UK as a whole. These indicators take into account both the level of labour productivity in the current year and productivity growth for the period from 2008 up to the current year. The data for this category stems from the ONS Subregional productivity data set, released in June 2025.

Taxonomy relative to the UK[3]:

This indicator of productivity reflects how well the ITL3 region is doing in terms of its productivity performance relative to the UK national average. This is measured along two dimensions. First, labour productivity in the current scorecard year, measured as Gross Value Added (GVA) per hour worked, is compared to that of the UK average. Second, the growth in productivity from 2008 up to the current year 2023 (corrected for price changes) is compared to that of the UK average. By comparing the region's productivity along these two dimensions, a Taxonomy of relative productivity performance can be constructed as follows:

- **Falling behind:** Both the region's current year productivity and its productivity growth are below the UK average.
- **Catching up:** The region's current year productivity is below the UK average, but its productivity growth is above the UK average.
- **Losing ground:** The region's current year productivity is above the UK average, but its productivity growth is below the UK average.
- **Steaming ahead:** Both the region's current year productivity and its productivity growth are above the UK average.

[3]The Taxonomy is based on: Zymek and Jones, 2020; TPI, 2021

Taxonomy relative to the ITL1 region:

This indicator of productivity reflects how well the ITL3 region is doing in terms of its productivity performance relative to the average of the ITL1 parent region. The taxonomy is determined using the same methodology as above.

Gross Value Added per hour worked:

This is the standard indicator of labour productivity, measured as output per unit of labour, where output is measured as Gross Value Added, and the unit of labour is an hour worked.

Business performance

This category illustrates Business performance as a driving force of regional productivity. The literature extensively considers business export activity and its dynamicity as the two most important determinants of business performance in a given location. Understanding the dynamics of export activities is essential, as they play a significant role in shaping not only the economic landscape but also the competitive edge of businesses operating in that area.

Export Intensity:

Regional export intensity is an important productivity driver since firms competing in international markets tend to increase their productivity through process efficiencies and cost reduction, and therefore, higher export performance by local firms leads to higher regional productivity. It is calculated by adding the nominal values of trade in goods and of trade in services and dividing by the ITL region's nominal value of GDP. Subnational trade and GDP data are taken from ONS and available at the ITL3 geographical level. Since this metric is constructed from separate estimates of exports in goods and services, confidentiality issues can arise at the detailed ITL3 regional level, resulting in missing values in the data set. This indicator uses the same data as the previous scorecard edition, as no new release has been published.

New Businesses:

The rate at which new enterprises are being created indicates the level of entrepreneurial activity in the local economy. Entrepreneurship, firm dynamicity and firm creation have been reported by many studies as important drivers for regional productivity and local economic prosperity. The ONS data set on Business demography in the UK presents annual data on total active firms and new firms in the UK by geographical areas, according to postal codes. These codes have been mapped to the ITL3 geographies, and the data has been aggregated according to this mapping. The data has been checked for consistency with reported totals at the ITL1 level. This driver of productivity is then calculated as the ratio of new firms over total active firms.

Skills & Training

This category presents the composition of the local labour force as another key driver of regional productivity. This data is taken directly from the ONS Annual Population Survey (APS) at the NUTS 1 and Local Authority level. The Local Authority data is then aggregated to the ITL3 level. This method is new for this edition of the scorecard since NOMIS data has not been updated for the modified ITL 3 codes. It is important to acknowledge that the APS is currently under revision and being reweighted, however, this doesn't impact the drivers used in these scorecards As data for Northern Ireland is not available from the ONS APS, it

has been obtained from the Northern Ireland Statistics and Research Agency (NISRA), as presented in the overview table. The NVQ skill level definitions are available from Gov.uk. For 2023 data, NVQ levels have been replaced with RQF levels. These definitions are available here.

Low Skilled

This driver of productivity presents the percentage of the working-age population (aged 16-64) with NVQ1(RQF1) or 'no qualifications'. From the ONS APS, data can be obtained on the number of workers with 'no qualifications', 'NVQ1(RQF1)' qualifications, and all working-age persons. The Low Skilled driver is calculated for each ITL3 region by adding the number of workers with 'no qualifications' and 'NVQ1(RQF)' qualifications and dividing by the working age population. For Northern Ireland, only the percentages of the workforce with NVQ2(RQF2)+ level, NVQ4+(RQF4+) level, and 'No qualifications' are available from two different data releases at the detailed ITL3 level. The Low Skilled regional population percentage has been calculated as a residual using the total working age population by ITL3 regions for Northern Ireland. For this driver, higher values inhibit rather than stimulate productivity. This is reflected in the scorecard tables by applying the colour scheme in reverse.

High Skilled

This driver presents the percentage of the working-age population (aged 16-64) with qualification at NVQ4+(RQF4+) level. We use the same sources and methodology as for the Low-Skilled indicator.

Health & Well-being

This category reflects the impact of health and general wellbeing of people in the workforce on productivity. It is measured by the activity rates, illness rates, and the age composition of the working-age population. As with the data on Skills & Training, this data is collected from the ONS Annual Population Survey (APS) at the NUTS 1 and Local Authority levels, and the ITL3 data is calculated by aggregating the Local Authority data. Again, data for Northern Ireland is not available from the ONS APS; it was obtained from the Northern Ireland Statistics and Research Agency (NISRA).

Active Population

Represents the percentage of the working-age population (aged 16-64) in the current year that were active in employment. It is calculated by dividing the number of workers active in employment by the total working-age population.

Inactive due to illness

Represents the percentage of the *inactive* working age population (aged 16-64) that were inactive due to ill health. Note that there is a small inconsistency in the definitions used by the ONS APS, which uses the definition 'Long-term sick', and the NISRA LFS definitions, which uses 'Health reasons'. For this driver, higher values inhibit rather than stimulate productivity. This is reflected in the scorecard tables by applying the colour scheme in reverse. As of the time of this release, NISRA has not published 2023 data for reasons of inactivity at the ITL3 level so has been left as blank in the scorecards.

Working age

Represents the percentage of the total population of working age (aged 16-64) in the current year. Numbers for the population aged 16-64 are taken from the ONS APS and NISRA LFS data. However, neither the ONS APS or the NISRA LFS population data include residents

under the age of 16. Therefore, total resident population numbers by ITL3 region were taken from the ONS data set on Regional gross domestic product to calculate the working-age population percentages for the ITL3 and ITL1 regions. As of the time of this release, NISRA has not yet released their mid-year year population estimates at the Local Authority level for 2023 so ITL3 population data for Northern Ireland has not been included in the ONS Regional gross domestic product release. Therefore, it is not possible to calculate the working age percentage for ITL3 regions in Northern Ireland for 2023 and has thus been left as blank in the scorecards.

Investment, Infrastructure & Connectivity

This category reflects the importance of investments in infrastructure for connectivity as a driver of productivity. 5G connectivity and access to Gigabit-capable services data for 2025 is collected from the Ofcom Connected Nations and infrastructure reports. In addition, investments in machinery and equipment for production are a key factor in facilitating and strengthening productivity. Investments in intangible assets are also included in this category, as this covers organisational capital, such as management skills and patents, that can help improve productive capacity and overall efficiency. Data on regional investments is taken from the Experimental ONS data set on regional gross fixed capital formation by asset type. Unfortunately, this data set does not yet include data for the year 2021.

5G connectivity

Represents the percentage of outdoor areas where at least one operator provides very high 5G coverage. Mobile coverage information at local and unitary authority levels are collected from the four mobile network operators and analysed by Ofcom. For each area, we have divided the geographical area of 5G connectivity, also reported in the Ofcom data, by the total geographic area of a region. The data is collected at the Local Authority level and aggregated to ITL3 level data and then the percentage is calculated.

Access to Gigabit-capable internet services

Represents the percentage of premises with a gigabit connection. It can be viewed as a measure of the availability of connectivity infrastructure. This is calculated by dividing the number of premises with a gigabit connection by the total number of premises in a region. The data is collected at the Local Authority level and aggregated to ITL3 level data and then the percentage is calculated.

Gross fixed capital formation per job

Another type of business investment is the total amount of investment in tangible and intangible assets, such as buildings, structures, roads, transport equipment, machinery, ICT equipment, and intellectual property products per job basis. The 2022 ONS data set on Experimental regional gross fixed capital formation (GFCF) estimates by asset type provides data for all ITL levels of geography. The number of jobs for each ITL region is taken from the ONS Subregional Productivity, June 2025 release. This indicator uses the same data as the previous scorecard edition, as no new release has been published.

ICT investment per job

Using the same sources as for the Gross fixed capital formation per job indicator, the ICT investment per job indicator measures the total amount of investment in ICT equipment per-

job basis for the current scorecard year. This indicator uses the same data as the previous scorecard edition as no new release has been published.

Intangibles investment per job

Using the same sources as for the Gross fixed capital formation per job indicator, the Intangibles investment per job indicator measures the total amount of investment in intangible capital on a per-job basis for 2020. This indicator uses the same data as the previous scorecard edition as no new release has been published.

Dashboards

As an addition to the scorecards, dashboards have also been created to visually represent the drivers from the scorecards. These visualisations can be seen per driver of productivity. These are in the form of a bar chart, interactive map and a spider diagram. The dashboards can be used as an alternative visual representation of the information conveyed in the scorecards.

When calculating drivers, all the input data passes through the same function, a summary is given in the table below:

Indicator	**Calculation**
GVA/Hours current	GVA / hours * 1e6 / 52
Export Intensity	Exports/ GDP
New Businesses	New Business/ Active Business
Low Skilled	(No Qualification + Low Qualification)/ Working Age
Economically Active	Active/Working Age
Inactive Due To Illness	Sick/ (Working Age – Active)
Working Age	Working Age/ Population
5G Connectivity	5G Geographic Area / Pixel Count
Access to Gigabit-capable internet services	Gigabit Premises/ All Premises
GFCF per Job	GFCF/Jobs * 1e6
ICT per Job	ICT /Jobs * 1e6
Intangibles per Job	Intangibles/Jobs *1e6