Report

Sage's economic impact on the UK

A Cebr report for Sage

Sage

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Executive Summary: key takeaways

Productivity (GVA/worker) stood at **93,660 GBP**, **60%** higher than UK's last reported average* of **58,327 GBP**.

*in 2021

For every **£1** of turnover directly generated by Sage in the UK, a further **£1.57** worth of turnover is supported in the wider economy.

Sage's productivity level is also higher than the average in Newcastle, London, and Manchester.

The aggregate contribution to the Exchequer is estimated to be **£124.9m**

Compensation per employee increased every year since FY19, from **£67,296** to **£79,722** in FY22, equivalent to an increase of **18.5%**.

Report Overview

Sage commissioned the Centre for Economics and Business Research (Cebr) to quantify the company's impact on the United Kingdon's economy – its home market. As one of the few tech companies on the FTSE 100, and one of the most prominent UK employers headquartered in England's North East region, Sage wanted to understand the depth of its influence on the UK economy, employment and supply chain. This report looks at these criteria on a national level, but also presents Sage's direct economic footprint broken down by three of the cities where its day-to-day activities are most prolific:

- Newcastle
- London
- Manchester

Beyond the direct economic contributions made, this report also considers the wider economic footprint supported through indirect (supply chain), induced (wider spending) and down-stream (Sage's services as an input for other firm activity) impact.

Our analysis relied on data provided by Sage and official data sources, for the last financial year, at the time of analysis this was FY22 (1 October 2021 to 30 September 2022); for ease, this is labelled as FY22.

The analysis on four key economic indicators:

- **Turnover:** which refers to the business revenue generated by Sage.
- **Gross Value Added (GVA):** which refers to the 'value added' to the UK economy by Sage. It is often used as a proxy for estimating the contribution of a firm or industry to GDP.
- **Employment:** which refers to the number of colleagues Sage employs. This is presented in full-time equivalent (FTE) terms, i.e., the hours worked by one employee on a full-time basis. It is used to standardise the hours worked by several part-time employees to one full-time. This is important for comparisons across industries/businesses, if the share of employees working full-time varies.
- **Employee Compensation (or Compensation of Employees):** which refers to the total compensation paid to employees in return for work done. This includes wages, benefits and employer pension and tax liabilities.

Sage's direct economic contribution across the UK

In FY22, it is estimated that Sage directly contributed:

Fig A: Direct impacts 2022, at a UK level

The turnover, GVA, employment and employee compensation contributed by Sage in the UK all consistently increased from FY19 to FY22, despite the challenging business conditions brought by COVID-19 in the intervening years.

Productivity (GVA/worker) increased by 6.4%, from £88,067 in FY19 to £93,660 in FY22. Productivity (GVA/worker) stood at 93,660 GBP, 60% higher than UK's last reported average* of 58,327 GBP.

Sage's productivity level is also higher than the average in Newcastle, London, and Manchester.

In nominal terms compensation per employee increased every year since FY19, from £67,296 to £79,722 in FY22, equivalent to an increase of 18.5%.

In 2021

Sage's holistic economic impact on the UK goes beyond the direct contributions outlined above.

Indirect impacts consider the demand supported along the supply chain of Sage.

Induced impacts consider the demand supported when colleagues associated with the direct and indirect layers spend their earnings in the wider economy.

Our analysis shows the following:

Fig B: Aggregate impacts 2022, at a UK level

Another way of looking at this is through the lens of multipliers, which show the additional economic activity and jobs supported by Sage throughout the UK:

- For every £1 of turnover directly generated by Sage in the UK, a further £1.57 worth of turnover is supported in the wider economy.
- For every £1 of GVA directly generated by Sage in the UK, a further £1.23 of GVA is supported in the wider economy.
- For every job directly generated by Sage in the UK, a further 1.51 jobs are supported in the economy.

For every £1 in employee compensation paid to Sage employees in the UK, a further £0.86 worth of compensation is supported in the wider economy. Downstream economic impacts measure the extent to which Sage's own goods and services (such as for finance or HR services) are sold to other firms, who use them as inputs to produce final goods and services.

In FY22, Sage supported the following downstream impacts:

Fig C: Downstream impacts 2022, at a UK level

We also studied the income-related tax contributions made by Sage. **In FY22, Sage directly contributed £77.6m from Income Tax, as well as Employees' and Employers' National Insurance Contributions (NICs)**. When we consider the tax contribution supported through Sage's indirect and induced impact layers, **the aggregate contribution to the Exchequer is estimated to be £124.9m**. Given that these are income-related taxes, and Sage employees earn higher than average salaries, Sage's contribution to the Exchequer from income-related taxes will be higher than average as well.

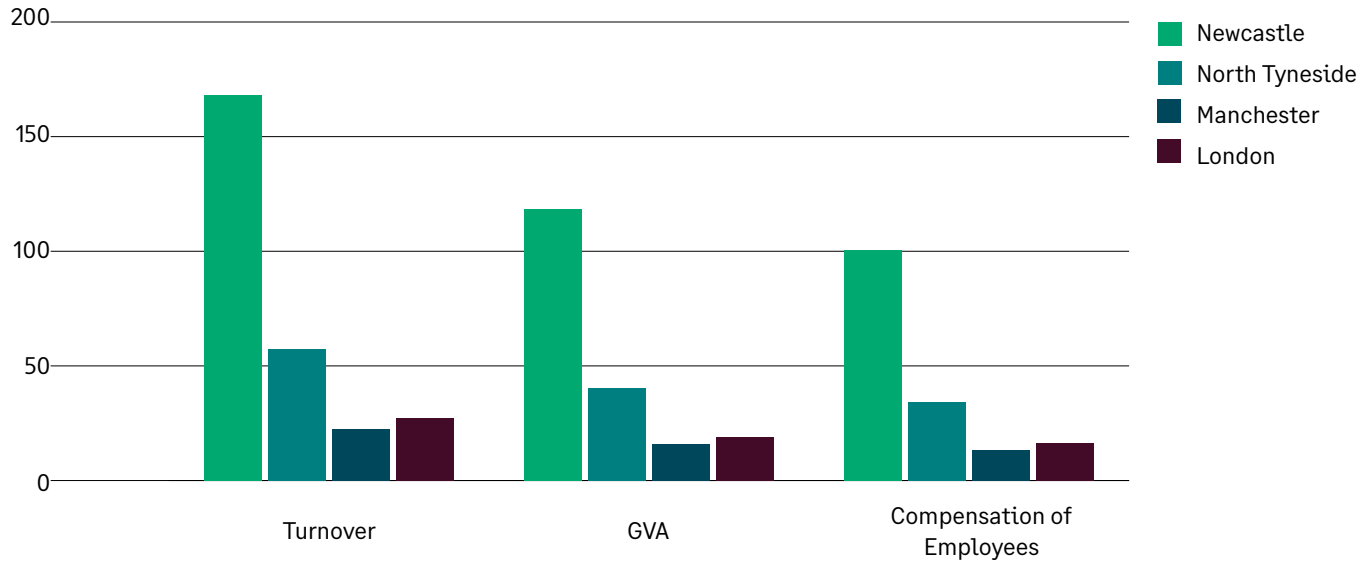
Sage's regional economic footprint

Our analysis is also broken down by three of the cities where Sage's operations are most prominent: Newcastle, London, and Manchester. We also present figures for the North Tyneside area to show the Local Authority where Sage's global head office is located.

Of the 3,047 total Sage employees in FY22, **1,262 of them lived in Newcastle, of which 432 resided within North Tyneside**. Comparing the number of residents in the North Tyneside area employed by Sage with data from the 2021 Census, **we estimate that 0.21% of all residents in the North Tyneside area were employed by Sage in 2021**.

Unsurprisingly, most of the business turnover, GVA, and employee compensation generated by Sage in the UK comes from Newcastle. **Of the £285m directly generated by Sage across the UK, over £118m alone comes from the five local authorities that make up Newcastle** (Gateshead, Newcastle upon Tyne, North Tyneside, South Tyneside, and Sunderland).

Fig D: Direct impacts 2022, at a regional level, £m



Our analysis also goes one step further to show the aggregate economic footprint of Sage's operations within the wider North East region. This is the region where Sage was founded almost 45 years ago and where its global headquarters is still based:

Fig E: Aggregate impacts 2022, at a North East level

Wider contribution by the Sage Foundation in the UK

Sage's commitment to **skills development, particularly in STEM subjects**, can be evidenced through the significant volume of training supported.

10,663 people have been upskilled in STEM and life skills as a result of Sage's commitment to supporting social inclusion.

Sage's commitment to volunteering is extensive:

47,278.8 UK volunteer hours donated

43,259.5 UK colleague community volunteer hours

Sage's fundraising efforts and commitment to the arts through the support of National Portfolio Organisations (NPOs) are also notable:

£130,307.41 raised through UK colleague fundraising

£202,745.13 raised through fundraising from colleagues, groups, community and partners

21 UK NPOs supported with a total of 30 grants

281 UK NPOs supported with discounted products

Introduction

1.1 Purpose of the report

This is a report by the Centre for Economics and Business Research (Cebr), on behalf of Sage, detailing the economic contribution of Sage to the United Kingdom and three of the cities in which its day-to-day operations are most prominent (Newcastle, London, and Manchester).
The purpose of the report is to highlight the positive economic contribution made by Sage to regional and national economies. Our report is designed with a narrative in place to provide Sage with a clear, robust and evidence-based understanding of their ongoing economic impact.

1.2 Scope of the report

Our analysis considers the economic contribution of Sage, measured by macroeconomic indicators such as turnover, employment, Gross Value Added (GVA) – a measure of economic output – and employee compensation. This is estimated at both a national and regional level: we present results for Sage's contributions to the UK, as well as for three of the cities where Sage has significant day-to-day operations – Newcastle, London, and Manchester.
Much of our analysis is focused on the contribution of Sage in Financial Year (FY) 2021-22 (year ended on 30 September 2022). This is due to data availability, as FY2021-22 is the most recent year with full data for Sage's financial accounts, which underpin of the majority of the analysis presented within this report.

1.3 Structure of the report

The report is structured as follows:

- **Section 2** explains our methodology for calculating the direct and aggregate economic impact of Sage, as well as the regional distributions, and downstream impacts.
- **Section 3** sets out our findings on the economic footprint, direct and aggregate impact, of Sage in terms of turnover, GVA, employment, and employment compensation.
- **Section 4** outlines the estimated regional distribution of the direct contribution by Sage in Newcastle, London, Manchester, and North Tyneside.
- **Section 5** outlines the downstream economic impact of Sage.
- **Section 6** addresses some of Sage's wider contributions not covered elsewhere within our analysis.

Sage

Methodology

In this section, we will provide an overview of the methodology employed within our analysis. Following conversations with Sage, our findings are presented for the UK as well as four specific geographic areas: Newcastle, London, Manchester, and North Tyneside (where Sage's head office is located).

2.1 Direct contribution of Sage

Our analysis considered four key performance indicators below:

- **Turnover:** This represents the business revenue generated by Sage.
- **Gross Value Added (GVA):** While turnover captures the entire cost of sales, GVA contributions represent the 'value-added' to the economy by Sage. For the purposes of this report we take the income approach to estimating GVA and define it as the total compensation paid to employees + total operating profit. GVA is also commonly known as income from production and is distributed in three directions – to employees, to shareholders and to government. It is often used as a proxy for estimating the contribution of a firm or industry to GDP.
- **Employment:** Refers to the number of workers employed by Sage. We typically present results as full-time equivalent (FTE) employees. FTE refers to the hours worked by one employee who is employed on a full-time basis and is used to standardise the hours worked by several part-time employees to one full-time worker. This is important for comparisons across industries or businesses, where the share of employees who work full-time varies.
- **Employee Compensation (or Compensation of Employees):** Refers to the total compensation paid to employees in return for work done. This includes wages, benefits and employer pension and tax liabilities.

We conducted our analysis for the four most recent financial years, covering 2018-22. This was based on financial data published by Sage on Companies House and considered the period between Financial Year 2018-19 (FY19) to Financial Year 2021-22 (FY22), inclusive.

The separate legal entities owned by Sage, which make up its total footprint in the UK were confirmed by Sage. These are Brightpearl Ltd, Sage (UK) Ltd, Sage Global Services Ltd, and Sage People Ltd.

Regional impacts

Following the calculation of the national direct impacts, we then allocated these contributions to the main three cities in which Sage has operations in the UK – Newcastle, London, and Manchester – as well as for North Tyneside, the Local Authority in which Sage's head offices are located. The regional analysis was conducted based on employment data provided by Sage on the residence postcodes of their employees.

Residence postcodes were provided and used over workplace postcodes as the latter may not fully capture regional business activity if workers have long commutes, but the former risks misallocating employees registered at head offices, but who actually work in different geographies. Ultimately, both approaches have advantages and disadvantages, but we used residence postcodes as these tend to be more accurate based on previous experience.

These residence postcodes were then matched to their respective Local Authorities, which were themselves matched to the three cities assessed as part of this analysis. The three cities – Newcastle, London, and Manchester – were defined according to the following geographical boundaries:

- **Newcastle:** Defined by the Tyne and Wear area, comprised of these five Local Authorities; Gateshead, Newcastle upon Tyne, North Tyneside, South Tyneside, and Sunderland.
- **London:** Defined by the Greater London area, comprised of the 33 London boroughs.
- **Manchester:** Defined by the Greater Manchester area, comprised of these ten Local Authorities – Manchester, Stockport, Tameside, Oldham, Rochdale, Bury, Bolton, Wigan, Salford, Trafford.

The key assumption about our regional modelling is that productivity, as well as the relationship between the four key performance indicators (turnover, GVA, employment, and employee compensation) remained consistent across each of these regions. Therefore, we used the regional distribution of employment and scaled this to estimate the other three indicators.

2.2 Aggregate footprint of Sage

The wider footprint supported by Sage is not constrained to these direct impacts alone. Our approach conceptualises two further impact layers:

Indirect impacts – Activity supported through the supply chains that feed into day-to-day operations. This will focus on the economic activity (including GVA and other key metrics) supported when Sage purchases goods and services from suppliers. This impact layer looks at the knock-on impact of upstream activity to show the wider impact of Sage's expenditure on the UK. The indirect impact captures the revenue, GVA, employment and employee compensation supported along the supply-chains because of these operations.

1. Direct Impact: The value generated, and jobs supported directly by Sage.

2. Indirect Impact: The value generated and supported in domestic industries that supply Sage (e.g. firms who sell products to Sage).

3. Induced Impact: The value supported in the wider economy when employees associated with direct & indirect impacts spend their earnings in wider economy (e.g. a local coffeeshop next to Sage offices).

4. Downstream impacts: Impact supported when Sage's own goods and services are sold to other firms, who use them as inputs to produce final goods and services to be sold on domestic and international markets (e.g. firms who buy Sage products for their own services)

Induced impacts – Economic activity supported when direct and indirect (supply chain) employees spend their earnings on goods and services in the wider UK economy. This helps to further stimulate demand, supporting additional revenue, GVA, employment and employee compensation. The induced impact captures these wider-spending effects that provide further layers of support.

Summing these direct, indirect, and induced impact layers allows us to estimate the **aggregate footprint** supported by Sage in the UK. Our approach is summarised in Figure 3 below.

1. *For GDPR and confidentiality reasons, this data was fully anonymised. Residence postcodes were provided excluding the final two digits.*
2. *These are City of London, City of Westminster, Kensington and Chelsea, Hammersmith and Fulham, Wandsworth, Lambeth, Southwark, Tower Hamlets, Hackney, Islington, Camden, Brent, Ealing, Hounslow, Richmond, Kingston, Merton, Sutton, Croydon, Bromley, Lewisham, Greenwich, Bexley, Havering, Barking and Dagenham, Redbridge, Waltham Forest, Haringey, Enfield, Barnet, Harrow, Hillingdon*

To model the relationships that exist between these impact layers, we use bespoke input-output models. These models examine the structure of a firm or industry's supply-chain, allowing us to quantify the economic activity supported along them. In addition, by considering the typical distribution of household spending, the model allows us to calculate the output and employment associated with the induced impact layer.

In order to assess the effect of Sage's supply-chain expenditure and the associated induced impact, Sage provided Cebr with procurement data for the most recent period, H2 FY22 and H1 FY23. This provided information on the category as well as the level of spending by Sage. This spending was mapped to the UK's national accounting framework, by assigning Standard Industrial Classification (SIC) codes to this spending. This was done primarily through matching the spending categories to the most relevant SIC code.

Our modelling produces multipliers, which calculate the total footprint supported for a given level of direct contributions. For example, for a GVA multiplier of 2.5, this would be interpreted as "for every £1 directly generated by Sage, a further £1.50 is supported elsewhere in the economy, producing an aggregate GVA supported of £2.50". We have calculated these multipliers based upon the direct economic impacts calculated for FY22.

By combining these multipliers with the calculated direct impacts, we form our estimates for the aggregate footprint supported by Sage across the UK.

Downstream impacts

This captures the activity supported downstream of Sage, where the Group's services are relied upon as inputs for value-generating activity by businesses elsewhere in the economy. For instance, when businesses rely on Sage's products to carry out their accounting or HR activities. This is done using a combination of supply-use tables and commercial data of clients' spending on Sage products and services provided by Sage. Similarly, to the supply chain expenditure data discussed above, the commercial data allows to trace the transmission of Sage to other parts of the economy and estimate the value added that Sage may facilitate through its role in suppling intermediate goods and services to other firms. This includes stripping out estimated expenditure by private consumers and allocating the expenditure by firms, to the different sectors of the economy, per the distribution of this spending by individual companies matched to different SIC codes.

3. *SIC codes are a five-digit classification providing the framework for collecting and presenting a large range of statistical data according to economic activity (or industry and sub-industry). In the UK, they are published by the ONS.4. GVA is also commonly known as income from production and is distributed in three directions – to employees, to shareholders and to government.*

Economic impact of Sage – how Sage is supporting the UK's growth and jobs market

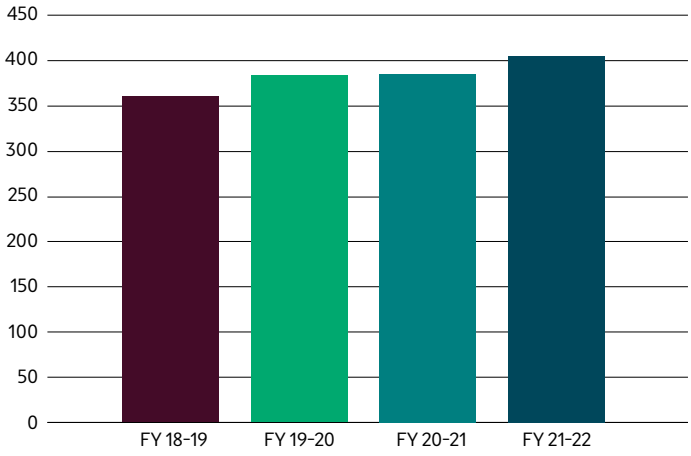
3.1 Direct economic impact

This section details the direct impact of Sage at a national level. Our results are presented in terms of the four key economic indicators discussed earlier – turnover, Gross Value Added (GVA), employment, and employee compensation – as well as three additional indicators: GVA per worker (more commonly known as productivity), average compensation per employee, and Sage's contribution to the Exchequer from income-related taxes.

Turnover

Figure 2 illustrates the turnover generated by Sage between FY19 and FY22. This turnover can be thought of as the total business revenue generated by Sage. **The direct turnover generated by Sage has increased by 12.6% in value since FY19, and stood at £406m in FY22.**

Figure 2: Direct turnover of Sage, £m, FY19 to FY22



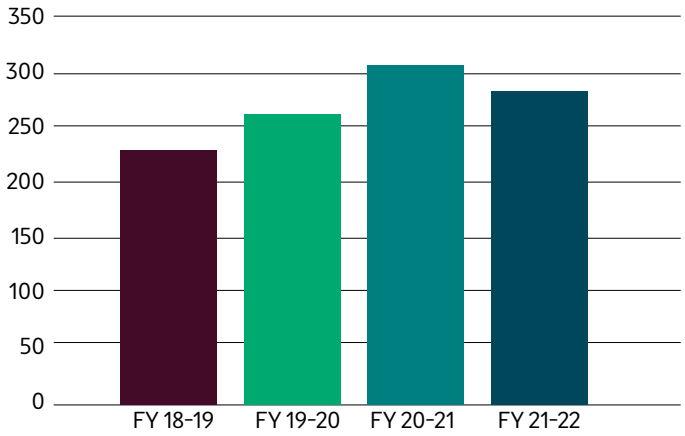
Gross Value Added (GVA)

Next, we discuss the value added by Sage as measured by GVA. This differs from the turnover contributions presented above. Although turnover provides an indication of the size of Sage's operations in the UK, these results should not be interpreted in their entirety as direct value-added contributions. Part of this revenue covers intermediate goods and services purchased by Sage and as such represents the value directly added to the economy by a part of the supply chain of Sage rather than Sage themselves.

Therefore, we focus on Gross Value Added (GVA) when considering the 'value-added' by a company or sector, in this case Sage. This intuitively represents the 'value-added' by Sage and is often considered their contribution to UK GDP.

Figure 3 illustrates the Gross Value Added generated by Sage between FY19 and FY22. **GVA increased by 23.6% over the period and stood at £285m in FY22.**

Figure 3: Direct GVA contributions of Sage, £m, FY19 to FY22

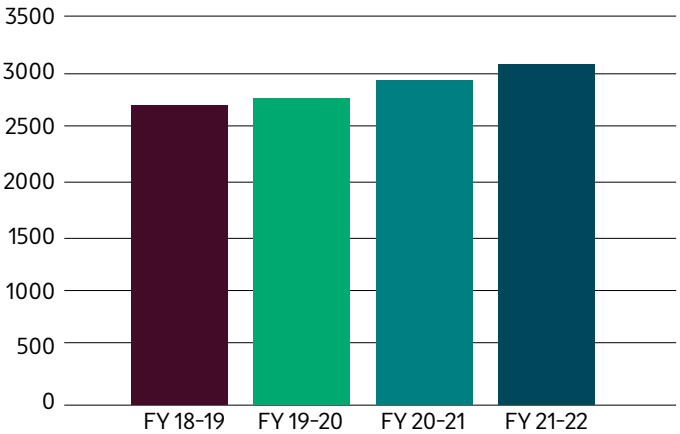


As was seen for turnover, GVA increased throughout the period assessed. However, GVA peaked in FY21 and fell slightly in FY22, due to a decrease in operating profits. Compensation of employees, which we discuss in more detail further down below, actually increased in the last financial year.

Employment

Figure 4 presents the number of people employed by Sage between FY19 and FY22. **Employment increased by 16.3% over the period, to reach 3,047 employees in FY22**.

Figure 4: Employment contributions of Sage, number of jobs, FY19 to FY22



Source: Sage, Cebr analysis

4. *GVA is also commonly known as income from production and is distributed in three directions – to employees, to shareholders and to government.*

Productivity, as measured by GVA per worker, increased over the period but declined in FY22. These results can be seen in Figure 5. It is important to understand that productivity is calculated using the GVA and employment metrics discussed in Figure 3 and Figure 4; since FY22 saw a decrease in total gross value added by Sage and an increase in the number of employees, it follows that GVA per worker (i.e. productivity) decreased in FY22 compared to the previous year. As explained above, the drop in GVA was caused by a fall in operating profits, so these results don't necessarily mean that Sage employees became less productive in the last financial year, and turnover (business revenues) increased in FY22.

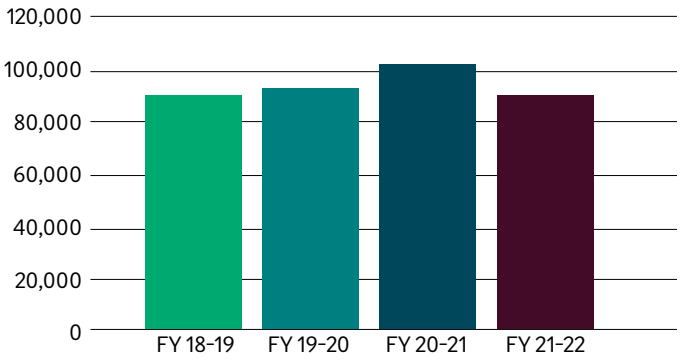


Figure 5: Productivity per worker (GVA per worker), £, FY19 to FY22

Compared with the rest of the UK as well as with Newcastle, London, and Manchester, we can see that Sage's productivity levels are much higher than average – Figure 6 shows the comparison across these in 2021.

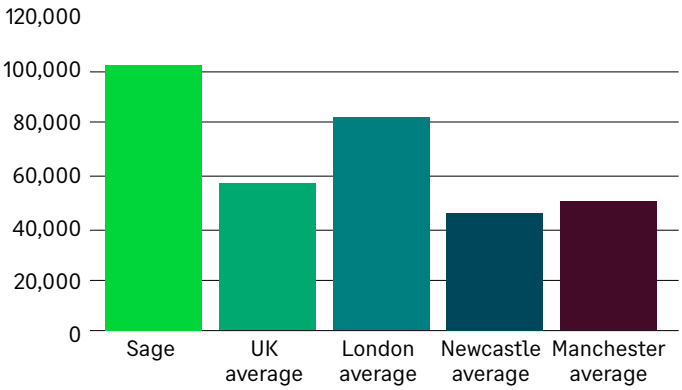


Figure 6: Sage's productivity levels compared with the average productivity for the UK, Newcastle, London, and Manchester, £, 2021

Compensation of employees

Employee compensation, or compensation of employees (COE), refers to the total renumeration or compensation paid to employees in return for their labour. This includes wages, benefits and employer pension, and tax liabilities. Figure 7 shows **the total compensation paid by Sage to its workforce in FY22 was £243m, an increase of 37.7% since FY19.**

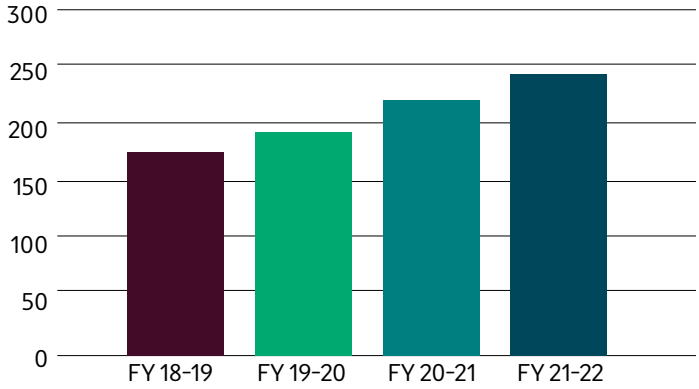


Figure 7: Employee compensation paid to Sage employees, £m, FY19 to FY22

Below we illustrate an indicator similar to productivity; the average compensation paid per employee. As Figure 8 shows, average compensation increased throughout the period. Interestingly, average compensation increased by a small amount in both FY20 and FY22, with the biggest increase coming in FY21.

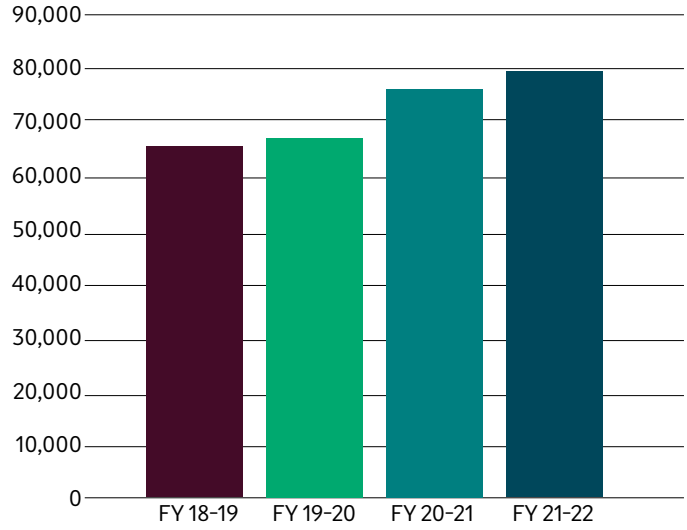
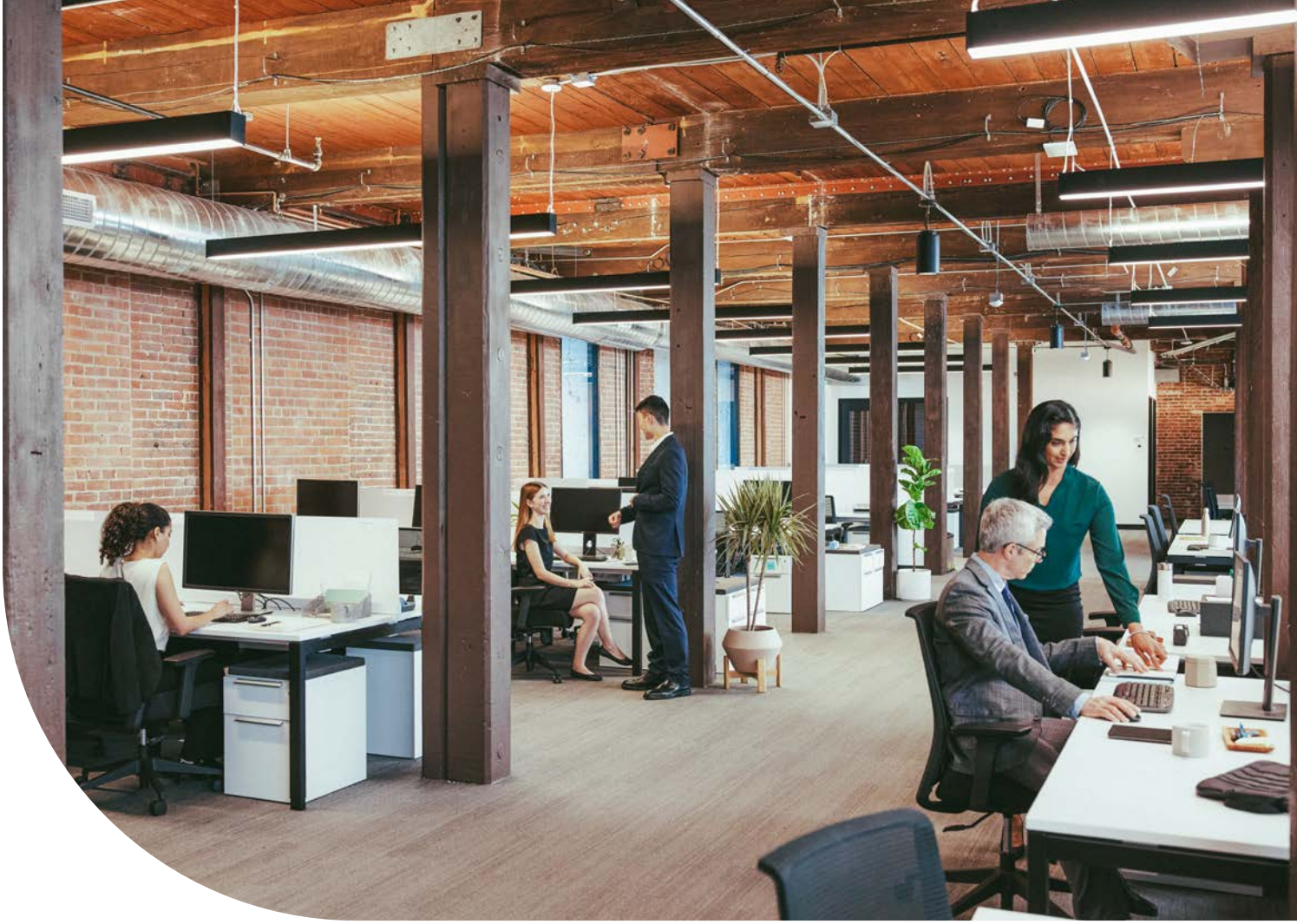


Figure 8: Average compensation paid per worker in Sage, £, FY19 to FY22

5. Note that here we are comparing data from Sage's FY21 (ending in Sep 2021), with data from 2021, so it is not a perfect comparison, but it is still helpful in illustrating Sage's higher productivity levels. Official government statistics typically operate on a two-year lag, meaning that the latest year with full data on productivity in the UK as a whole, as well as broken regionally, is from 2021. Therefore, the productivity level for Sage considered below is not the most recent one.7. Of which 209,000 lived in North Tyneside; 196,200 in Gateshead; 300,100 in Newcastle upon Tyne; 147,800 in South Tyneside; and 274,200 in Sunderland.



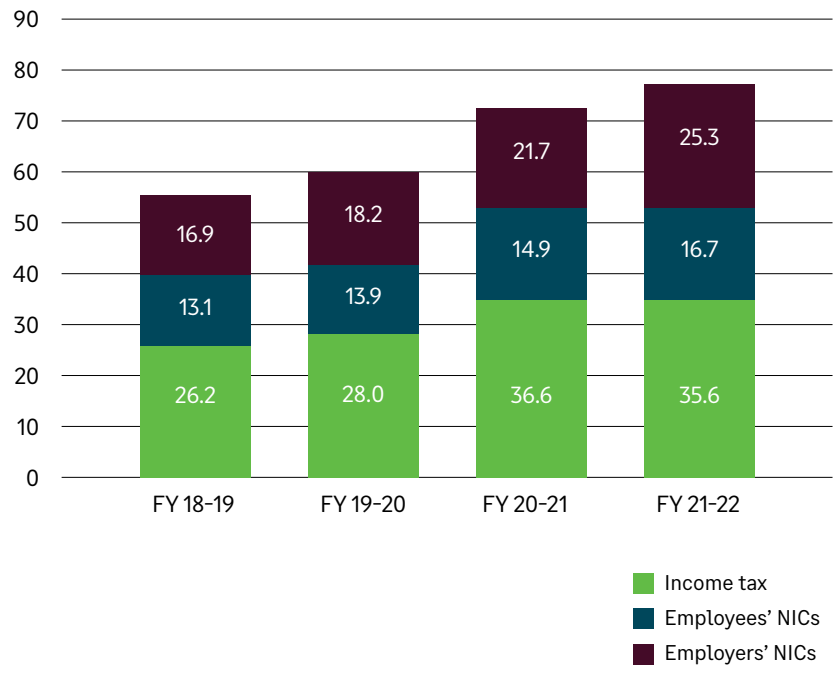
Exchequer contributions

Finally, we present figures for Sage's direct contribution to the Exchequer as measured by income-related taxes. This refers to three types of taxes:

- Income tax paid by Sage employees,
- Sage employees' National Insurance Contributions (NICs), and
- Sage's NICs as an employer.

In FY22, Sage contributed £77.6m to the Exchequer from income-related taxes. Figure 9 below shows how Sage's direct income-related tax contributions have changed from FY19 to FY22. The biggest contributor to the Exchequer is income tax, which has increased by 36% since FY19; however, the biggest increase over the period comes from Sage's direct NICs, which grew by 50%.

Figure 9: Direct tax contributions by Sage, £m, FY19 to FY22



3.2 Aggregate economic footprint

The wider economic footprint of Sage goes beyond the direct impacts discussed in the prior section.

This section identifies the aggregate footprint supported by considering two further impact layers:

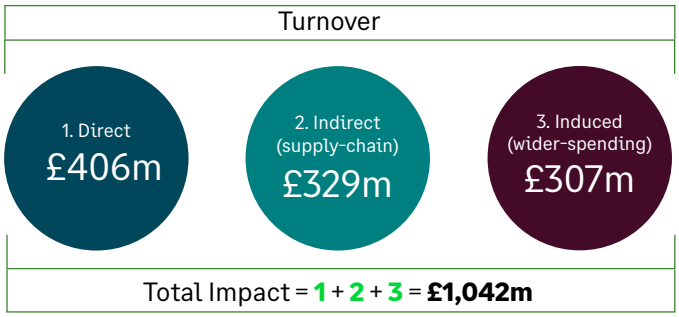
- **Indirect impacts** – Sage places demands on their upstream supply chains, purchasing goods and services they need for operations. The indirect impact captures the revenue, GVA, employment and employee compensation supported along the supply-chains as a result of these operations.
- **Induced impacts** – The workers who receive income and employment benefits through the direct (Sage employees) and indirect (the suppliers to the sector and in turn their suppliers) channels spend their increased earnings on goods and services in the wider economy. This supports additional economic activity in the impacted sectors.

Summing these direct, indirect, and induced impact layers allows us to estimate the aggregate footprint supported by Sage.

Turnover

In FY22, Sage directly generated an estimated £406m in turnover. Using our input-output model and the multipliers derived from this, we estimate that this direct turnover supports an additional £329m worth of turnover throughout Sage's supply-chains (i.e., the indirect effect). Furthermore, it is estimated that when Sage's employees (and the employees supported along the supply-chains) spend their earnings in the wider economy, the increase in economic activity through the wider-spending that occurs supports an additional £307m (i.e., the induced effect).

Figure 10: Turnover multiplier results, FY 2021-22



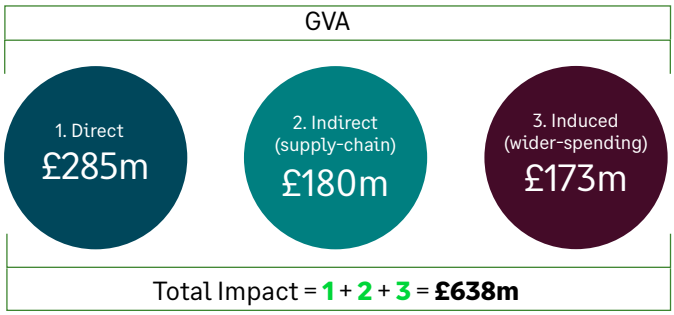
If we combine these direct, indirect, and induced impact layers, **it is estimated that Sage supports an aggregate (or total) footprint of £1,042m in turnover throughout the UK.**

An alternative way of interpreting the results above is as follows. **For every £1 in turnover directly generated by Sage, a further £0.81 of turnover is supported in firms along their supply chains. Furthermore, an additional £0.76 of turnover is supported in British businesses when individuals associated with the direct and indirect impact layers spend their earnings in the wider economy. Summing these impact layers together, we arrive at the following result: for every £1 of turnover directly generated by Sage, a further £1.57 worth of turnover is supported in the wider economy, producing an aggregate turnover multiplier of £2.57.**

Gross Value Added (GVA)

When looking at Sage's contributions in terms of direct GVA, its impact was £285m in FY22. Our modelling suggests that a further £180m worth of GVA contributions are supported along the supply-chains (indirect effect) and an additional £173m is supported when Sage employees (and employees along their supply chains) spend their earnings in the wider economy. Combining these three impact layers, **we estimate that Sage supported an aggregate economic footprint of £638m as measured by GVA.**

Figure 11: Gross Value Added multiplier results, FY 2021-22



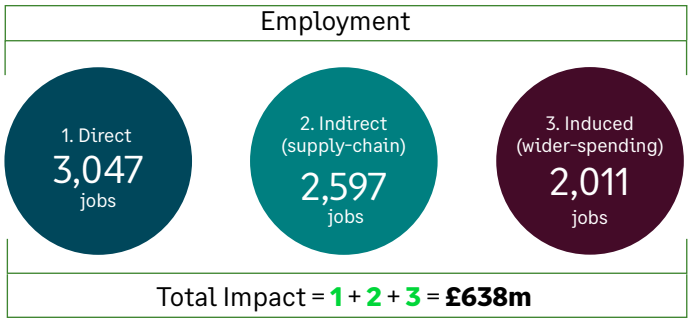
Alternatively, this can be interpreted as **for every £1 in GVA directly generated by Sage, a further £1.23 is supported through the indirect and induced impact channels, producing a total GVA multiplier of £2.23**.

Source: Sage, ONS, Cebr analysis

Employment

We can also consider the same outputs in terms of Sage's employment impacts. Figure 12 illustrates the employment multipliers and associated aggregate employment impacts for Sage: **in FY22, Sage's aggregate employment contribution stood at 7,655 jobs**. For every job directly generated by Sage, a further 0.85 jobs are supported along their supply chains, and 0.60 are additionally supported when employees associated with the direct and indirect impact layers spend their earnings in the wider economy. This is equivalent to the following: **for every job directly generated by Sage, a further 1.51 jobs are supported in the wider economy.**

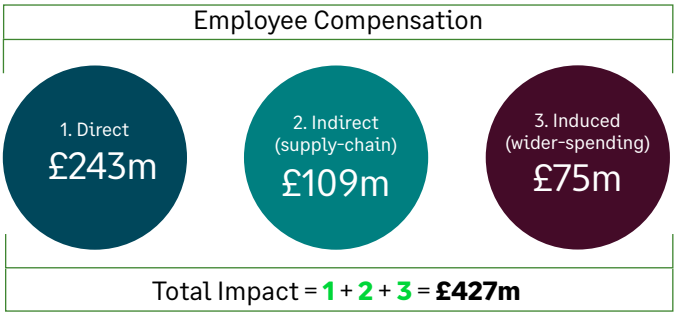
Figure 12: Employment multiplier results, FY 2021-22



Compensation of employees

Finally, we consider the aggregate employee compensation supported by Sage. In FY22, Sage's direct employee compensation was £243 million. Below we present the wider employee compensation impacts, broken down into the indirect and induced impact layers. Combining these three impact layers, **we estimate that Sage supported an aggregate economic footprint of £427m as measured by employee compensation.**

Figure 13: Employee compensation multiplier results, FY 2021-22f

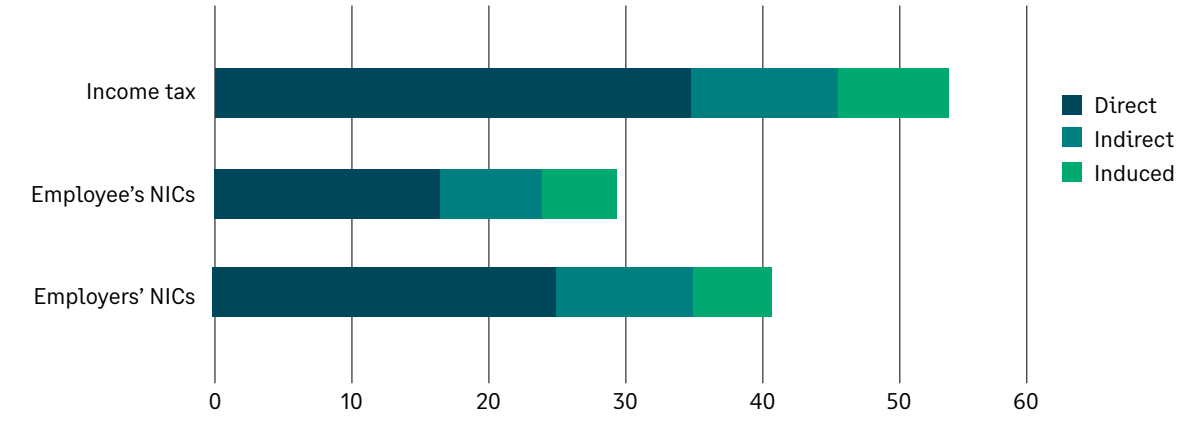


The aggregate employee compensation supported by Sage was £427m. This can be interpreted in the following way: **for every £1 in employee compensation directly generated by Sage, a further £0.45 of compensation is supported through the indirect impact channel (i.e., through the supply chain) and an additional £0.31 of compensation is supported through the induced impact channel (i.e., when Sage employees and those from its supply chain spend their earnings across the wider economy)**.

Exchequer contributions
Below we consider Sage's wider tax contributions to the Exchequer as measured by the income-related taxes directly paid by Sage or Sage employees, as well as those along Sage's supply chain and its wider induced impact layer. **The total contribution to the Exchequer from income-related taxes in FY22 stood at £124.9m, with most of it coming from taxes paid directly by Sage**.

The tax contribution supported by Sage through its indirect and induced impact layers is smaller than its direct contribution because the average compensation of Sage employees is much higher than average, as seen in Section 3.1. Since we are looking at income-related tax contributions, its direct contributions are higher than average.

Figure 14: Aggregate tax contribution by Sage, £m, FY22



Source: Sage, ONS, Cebr analysis

Regional economic footprint

This section discusses the direct economic footprint of Sage in three of the cities where its day-to-day operations are most prominent: Newcastle, London, and Manchester. Moreover, we present results for an additional geography, North Tyneside, one of the five Local Authorities within Newcastle and the one where Sage's head office's are located. Furthermore, we also present the aggregate economic footprint of Sage in Newcastle, as measured by its direct, indirect, and induced impact layers. Before we present the regional distribution results, it's important to note two things. The three cities assessed within this section have been defined according to the geographical boundaries outlined in Section 2 – these are:

- **Newcastle:** Defined by the Tyne and Wear area, comprised of these five Local Authorities; Gateshead, Newcastle upon Tyne, North Tyneside, South Tyneside, and Sunderland.
- **London:** Defined by the Greater London area, comprised of the 33 London boroughs.
- **Manchester:** Defined by the Greater Manchester area, comprised of these ten Local Authorities – Manchester, Stockport, Tameside, Oldham, Rochdale, Bury, Bolton, Wigan, Salford, Trafford.

Furthermore, the key assumption about our regional modelling is that productivity, as well as the relationship between the four key performance indicators (turnover, GVA, employment, and employee compensation), are all the same across each of these regions. This is unlikely to be the case, as different regions tend to have different levels of productivity, average compensation, or output per worker. However, since we do not know the compensation of employees across the different Sage locations, making assumptions about these based on the wider regional economies may not be accurate. Therefore, to maintain methodological consistency in the absence of data, we made the assumption that the relationship between our key performance indicators was the same across the different regions. In practice, this meant calculating the regional distribution in terms of employment, and then scaling this to estimate the other indicators based on Sage's UK-level figures.

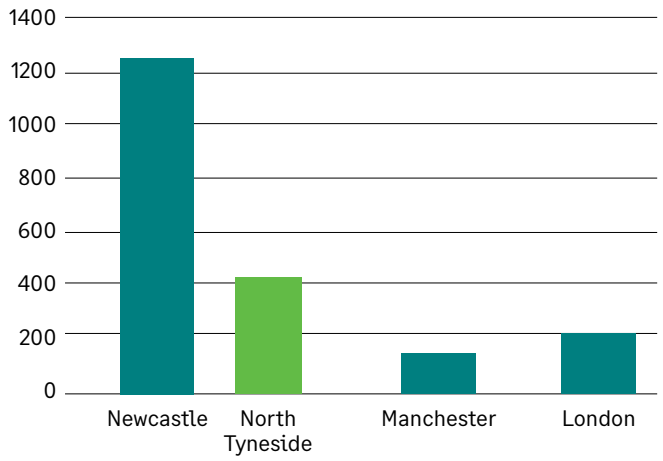
4.1 Direct economic impact

Employment

Given that the regional distribution is based on the employment from each of the different locations, we begin this section with the regional breakdown of employees and then follow this to show the estimated turnover, GVA, and employee compensation figures.

Figure 15 shows the number of workers who live within the geographical boundaries defined above for Newcastle, London, and Manchester. **Of the 3,047 total Sage employees in FY22, 1,262 of them lived in Newcastle, of which 432 resided within North Tyneside**. Despite the head offices being located in North Tyneside, it was not the Local Authority with the highest number of residents that are employed by Sage. Not included in the figure below, 438 employees are based out of Newcastle upon Tyne – the biggest Local Authority in terms of employment.

Figure 15: Direct employment of Sage by geography, number of jobs, FY22



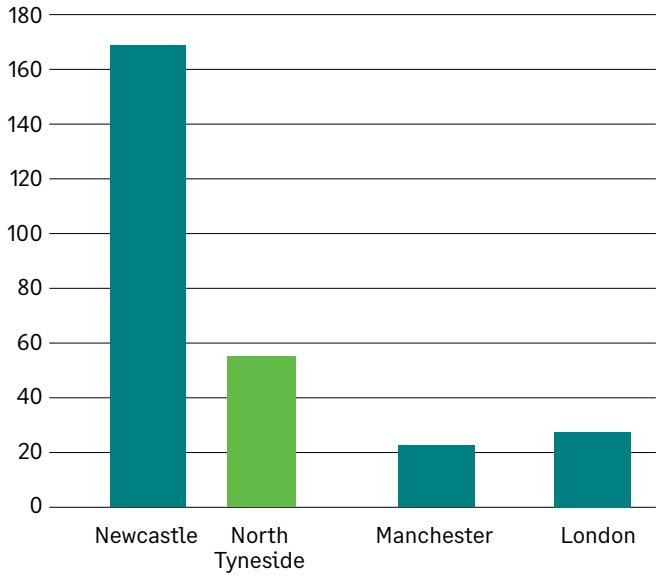
We can compare the number of people employed by Sage across the five Local Authorities that make up Newcastle with data from the 2021 Census for the same geographies to estimate the share of all residents who are Sage employees. According to 2021 Census data, Newcastle had a population of 1,127,300, which means that approximately 0.11% of all residents there were employed by Sage in 2021.

It should be noted that the total number of Sage employees who live within the geographical boundaries for these three cities is less than the total number of people who work in the Newcastle, London or Manchester offices. Approximately two thirds of employees from the offices for these cities live within the boundaries defined above, meaning that a third of the workers live 'outside' of these cities, and commute to the offices from elsewhere.

Turnover

Figure 16 shows the direct turnover generated by Sage in FY22 broken down by the different geographies. As a reminder, Sage directly generated £406m of total turnover, which means that over half (£218m) of this can be directly attributed to Newcastle, London, and Manchester. Not surprisingly, **Newcastle is the biggest contributor to turnover, with an estimated £168m being generated there alone**. North Tyneside, where Sage HQ are located, is responsible for over a third of the turnover from Newcastle.

Figure 16: Direct turnover of Sage by geography, £m, FY22



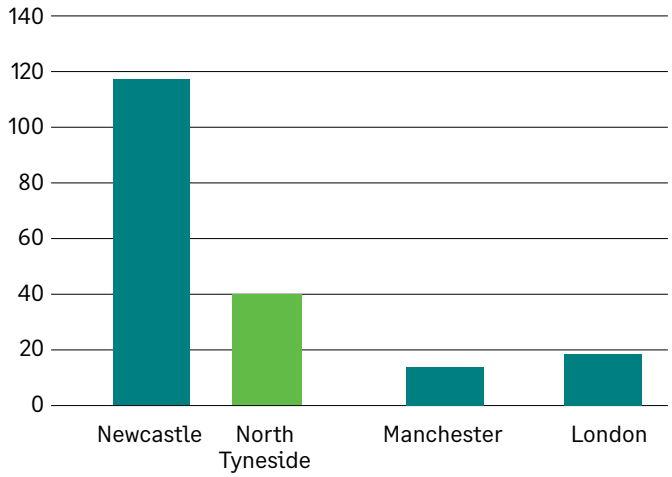
Source: Sage, Cebr analysis

6. *These are City of London, City of Westminster, Kensington and Chelsea, Hammersmith and Fulham, Wandsworth, Lambeth, Southwark, Tower Hamlets, Hackney, Islington, Camden, Brent, Ealing, Hounslow, Richmond, Kingston, Merton, Sutton, Croydon, Bromley, Lewisham, Greenwich, Bexley, Havering, Barking and Dagenham, Redbridge, Waltham Forest, Haringey, Enfield, Barnet, Harrow, Hillingdon*
7. *Of which 209,000 lived in North Tyneside; 196,200 in Gateshead; 300,100 in Newcastle upon Tyne; 147,800 in South Tyneside; and 274,200 in Sunderland. Note that the same caveat as with the overall productivity comparisons in the previous section, this is a comparison between FY21 and 2021 data at face value. As such, caution is, as well as a sound understanding of this fact is advised.*

Gross Value Added (GVA)

In terms of GVA, the regional distribution is the same, as seen on Figure 17 below. **Newcastle is the biggest contributor to value added activities (£118m), of which over £40m can be attributed to North Tyneside alone**. As a reminder, the total GVA directly generated by Sage was £285m in FY22.

Figure 17: Direct GVA by Sage by geography, £m, FY22



We can compare the direct GVA contributions attributable to North Tyneside and Newcastle with those from official ONS data to provide important context as to the relative size of Sage to its local and regional economy. Given that, as discussed elsewhere, official statistics (such as those published by statistical agencies or government departments) operate on a two-year lag. It is not possible to compare data for 2022, so therefore we can only compare data for 2021. We estimate that Sage represented approximately 0.90% of the North Tyneside economy, as measured by GVA, and 0.46% of the total Newcastle economy in 2021.

Compensation of Employees

Lastly, we present the equivalent regional distribution for employee compensation. As can be seen in Figure 18 below, **over £100m of the £243m total employee compensation can be attributed to Newcastle, of which North Tyneside is responsible for around a third of this**.

Figure 18: Direct compensation of employees by Sage by geography, £m, FY22

Source: Sage, Cebr analysis

Case Study

Nigel Platt

Partner Account Manager

Nigel started his career at Sage almost four decades ago, first joining the company's technical support team in 1984, at the age of 18, where he supported customers on the original Sage Accounts software. Over time, Nigel underwent training in bookkeeping and fundamental accounting, laying the foundation for further progression, leading into a career in sales and business development.

Today, he works as a Partner Account Manager, getting to work with our channel partners and supporting their growth and investment into our products. His Sage journey has been marked by consistent support and guidance, and industry-leading training, propelling him to new opportunities and his current role.

Sage was the first company Nigel ever worked for, and he's glad to have been able to build a four-decade-long career at a global company without having to leave his hometown.

4.2 Aggregate economic impact

Following on from the direct economic contribution by Sage for the three cities, here we illustrate the wider economic contribution made by Sage from its operations in the Newcastle region. This captures the economic output directly generated by Sage from its head offices in North Tyneside, as well as its indirect and induced impact layers.

Conceptually, the results presented in this subsection should be interpreted in the same way as those from Section 3.2; the indirect impacts consider the economic contribution supported by Sage through its supply chain, and the induced impact layer is concerned with the wider economic activity supported when workers who receive income and employment benefits from Sage or its supply chain spend their earnings on goods and services in the wider economy.

The one notable distinction with the national-level multipliers discussed in Section 3.2 is that since here we are focused on the regional multipliers – specifically, those related to Sage's footprint in the Newcastle area in the North East of England – the multipliers only capture the industry linkages between Sage and its suppliers within the North East region. Our regional input-output models do not consider the goods and services purchased from businesses based in other regions of the UK and as such tend to be smaller than the national multipliers. This is because the regional input-output models do not consider the trade between regions of the UK, so this is only captured implicitly when analysing Sage's supply chain at the UK-level.

Turnover

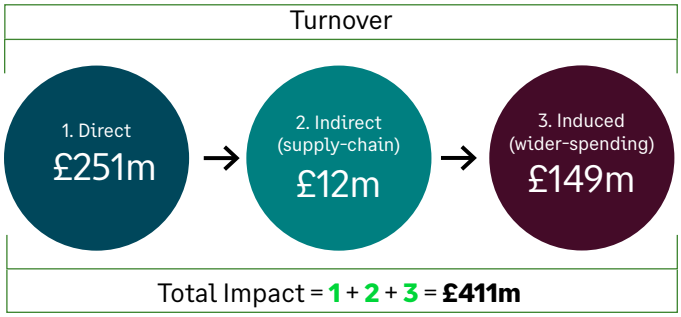
Sage directly generated an estimated £251m in turnover from its Newcastle operations in FY22. Using our regional input-output model and the North East-specific multipliers derived from this, we estimate that this direct turnover supports an additional £12m worth of turnover throughout Sage's North East supply-chains (i.e., the indirect effect). Furthermore, it is estimated that when Sage's employees (and the employees supported along the supply-chains) spend their earnings in the wider North East economy, the increase in economic activity through the wider-spending that occurs supports an additional £149m (i.e., the induced effect).

If we combine these direct, indirect, and induced impact layers, **it is estimated that Sage's operations in Newcastle support an aggregate (or total) footprint of £411m in turnover throughout the North East economy**.

It's important to remember how multipliers should be interpreted at a regional level. Multipliers simply measure the extent to which a business relies on external suppliers to produce the goods and services they sell. At a regional level, multipliers focus exclusively on the regional supply chain and associated wider economic activity supported through the induced layer.

In this case, an indirect impact of £12m in the North East simply means that Sage's supply chain is not particularly extensive *in the North East specifically*. In other words, most of its suppliers are located outside of the North East, and therefore the indirect multiplier for Sage in the North East is much lower than at the UK-level. On the other hand, the induced impact from Sage in the North East is much more in line with that for the UK as a majority of Sage's employees live within the North East and, alongside the employees from its North East suppliers, spend their earnings there.

Figure 19: Turnover multiplier results for the North East, FY 2021-22



Source: Sage, Cebr analysis

8. *Note that the same caveat as with the overall productivity comparisons in the previous section, this is a comparison between FY21 and 2021 data at face value. As such, caution is, as well as a sound understanding of this fact is advised.*

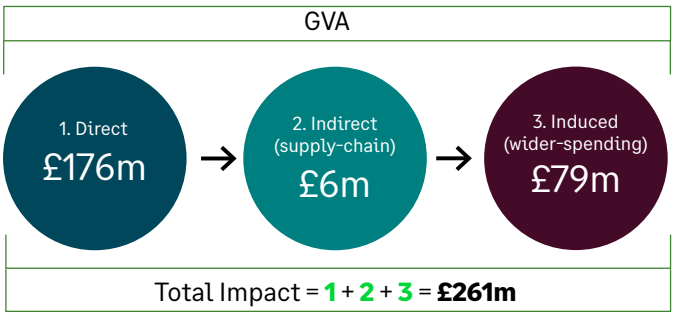
Just like in Section 3.2, we can interpret the multiplier results above in an alternative way; for every £1 in turnover directly generated by Sage in the North East, a further £0.05 of turnover is supported in firms along their supply chain in the North East. Furthermore, an additional £0.59 of turnover is supported in businesses in the North East when individuals associated with the direct and indirect impact layers spend their earnings in the wider regional economy. Summing these impact layers together, we arrive at the following result: **for every £1 of turnover directly generated by Sage in the North East, a further £0.64 worth of turnover is supported in the wider regional economy, producing an aggregate turnover multiplier of £1.64 in the North East**.

Gross Value Added (GVA)

When looking at Sage's contributions in terms of direct GVA from its operations in the North East, its impact was £176m in FY22. Our modelling suggests that a further £6m worth of GVA contributions are supported along the supply-chains (indirect effect) and an additional £79m is supported when Sage employees (and employees along their supply chains) spend **their earnings in the wider economy. Combining these three impact layers, we estimate that Sage supported an aggregate economic footprint of £638m as measured by GVA in the North East.**

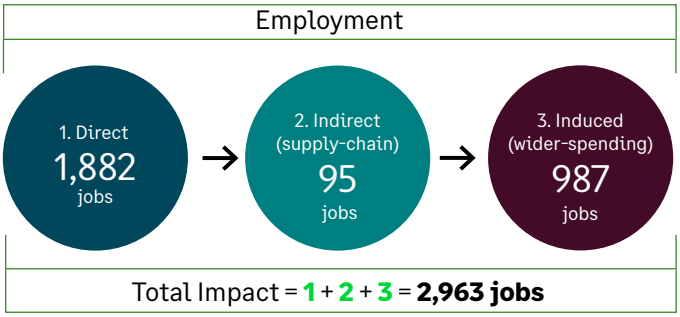
Alternatively, this can be interpreted **as for every £1 in GVA directly generated by Sage in the North East, a further £0.48 is supported through the North East-specific indirect and induced impact channels, producing a total GVA multiplier of £1.48**.

Figure 20: Gross Value Added multiplier results for the North East, FY 2021-22



For every job directly generated by Sage in the North East, a further 0.05 jobs are supported along their supply chain in the North East, and 0.52 are additionally supported when employees associated with the direct and indirect impact layers within the North East spend their earnings in the wider regional economy. This is equivalent to the following: **for every job directly generated by Sage in the North East, a further 0.57 jobs are supported in the wider regional economy**.

Figure 21: Employment multiplier results for the North East, FY 2021-22



Employment

We can also consider the same outputs in terms of Sage's employment footprint in the North East. Figure 21 illustrates the North East-specific employment multipliers and associated aggregate employment impacts for Sage in FY22.

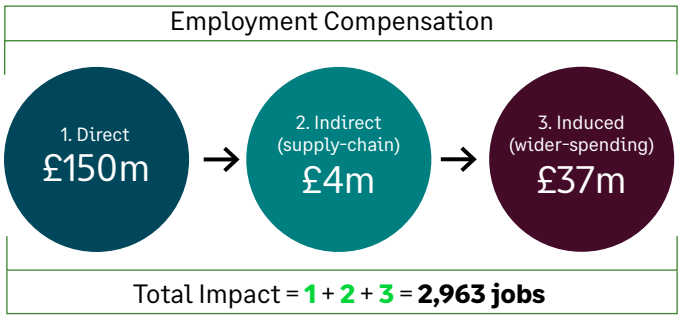
Source: Sage, Cebr analysis

Compensation of employees

Finally, we consider the aggregate employee compensation supported by Sage exclusively within the North East. In FY22, Sage's direct employee compensation from its Newcastle workforce was estimated to be £150 million. Left, we present the wider employee compensation impacts, broken down into the indirect and induced impact layers. **The aggregate employee compensation supported by Sage from its operations in the North East was £191m**.

This can be interpreted in the following way: **for every £1 in employee compensation directly generated by Sage within the North East, a further £0.03 of compensation is supported through the indirect impact channel (i.e., through the supply chain) across the wider North East economy and an additional £0.24 of compensation is supported through the induced impact channel (i.e., when Sage employees and those from its supply chain in the North East spend their earnings across the wider regional economy).**

Figure 22: Employee compensation multiplier results for the North East, FY 2021-22



Source: Sage, Cebr analysis

9. Note that this would not be the case if the entirety of Sage's supply chain was located within the North East, as this would be fully captured within the North East-specific linkages between Sage and other industries.

Downstream economic impact of Sage

The economic analysis thus far has focused on one aspect of Sage's economic contribution, looking at its impact upstream, whereby the company purchases goods and services from other firms in order to produce its own products. The results discussed in the previous section have been an examination of Sage's upstream supply chain, allowing us to calculate its aggregate contribution to the UK economy.

Beyond this economic contribution, Sage also feeds into a "downstream" supply chain, whereby its own goods and services are sold to other firms who use them as inputs to produce final goods and services to be sold on domestic and international markets. Additional value is added to these goods and services before being sold to final consumers. While the downstream impacts are not necessarily causal, the facilitation layer does provide an important indication of the additional value contributed by Sage through its economic associations.

Using a combination of supply-use tables, data from the Annual Business Survey (ABS), and commercial data provided by Sage, we can trace the direct transmission of Sage to other parts of the economy and estimate the value facilitated by Sage through its role in suppling intermediate goods and services to other firms.

The headline results of this analysis are as follows:

In FY22, Sage supported:

£811.3m
of downstream turnover

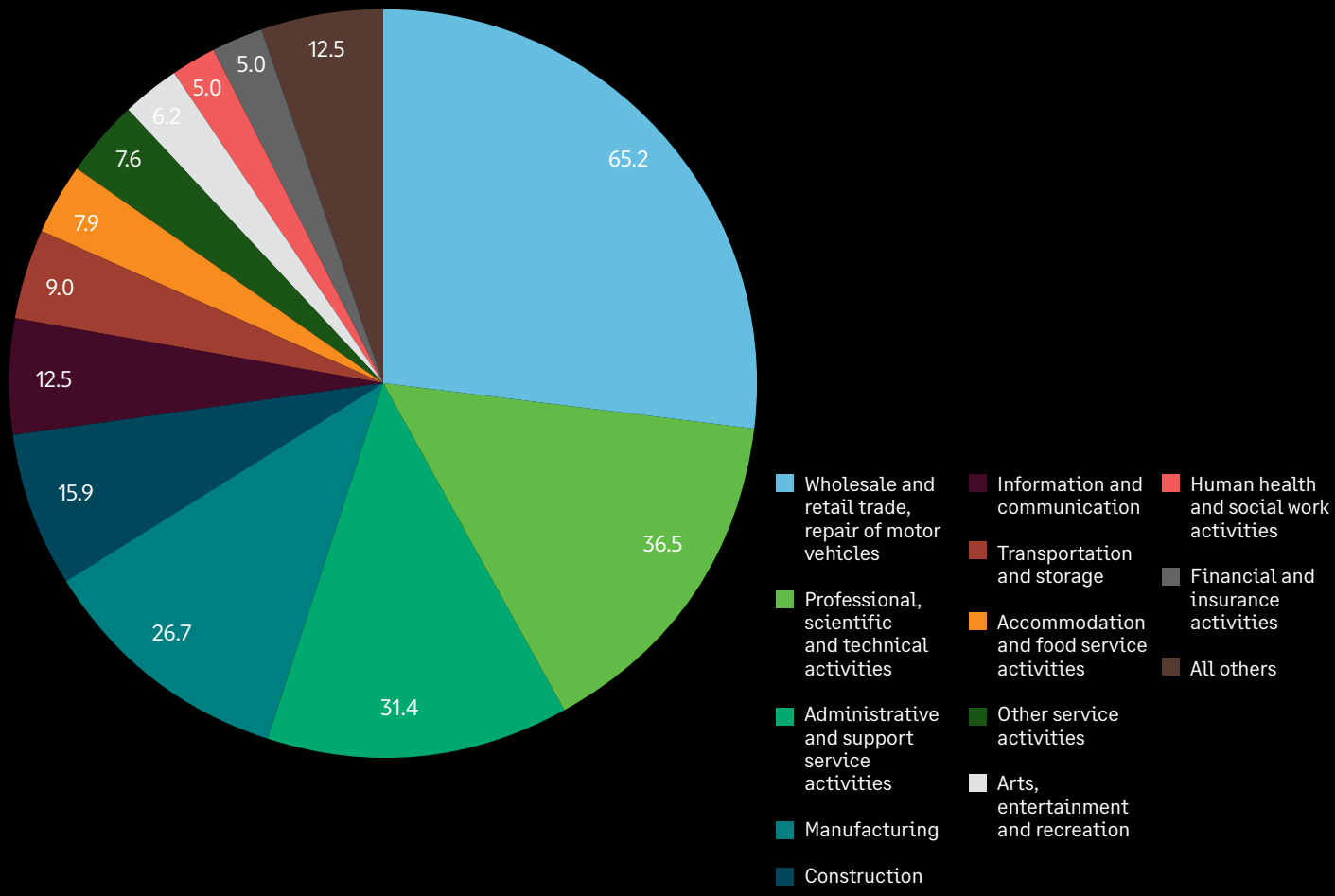
£241.3m of downstream GVA

4,822
downstream jobs

£134.9m
of downstream employee compensation

Moreover, we can show the biggest industries that are part of Sage's downstream sales chain. Figure 23 illustrates the value added facilitated by Sage's downstream sales chain across industries. Wholesale and retail trade is the biggest beneficiary of Sage's products and services. Of the total GVA, an estimated £65m can be attributed to this industry alone, accounting for 27% of the total value of Sage's downstream impact. This is followed by professional, scientific and technical activities (£37m, 15%), and administrative and support service activities (£31m, 13%).

Figure 23: Total downstream GVA facilitated by Sage, £m, FY22



10. *Note that this only considers the value-added through firms purchasing Sage products and services, not of private consumption.*

Case Study

Ryan Panchoo

Owner Borough 22 – gluten free doughnuts and is a Sage Accounting customer

My business 'Borough 22' started with me experimenting making doughnuts as my wife and children began suffering with gluten and dairy intolerances.

For me, the biggest hurdle when starting was the finance and administration aspects of launching your business dream – where do you even start?

When I first started, I had two Excel spreadsheets – one with money in and one showing money out. Pretty basic as at that time that is all I could focus on, since then and for many years now I have worked with Sage Accounting as a solution. But I wish I did this from the start as is so important to have access to great tech right from day one.

I'm delighted to say that business is thriving; we've served more than 3,000 customers this year alone with products being shipped throughout the UK from Essex to Edinburgh, Dublin to Devon, Southampton to Swansea. We've worked with global tech and financial brands, as well as a host of celebrities. I also won Pastry Chef of the Year and scooped four 'Free From' Food Awards including Product of the Year, a Great Taste and a British Food Award!

Sage Foundation

Through its work in training people in digital skills, **10,663 people** in the UK have been upskilled in STEM and life skills as a result of Sage's commitment to supporting social inclusion.

Sage's contribution to the UK goes beyond its economic impact. The purpose of this section is to highlight some of the areas in which Sage has worked to contribute a positive impact to UK society.

Sage's commitment to volunteering is notable and can be illustrated by these two figures:

47,278.8, UK volunteer hours donated

43,259.5 UK colleague community volunteer hours

Sage's fundraising efforts should also be highlighted, as evidenced through the money raised by its employees and wider community:

£130,307.41 raised through UK colleague fundraising

£202,745.13 raised through fundraising from colleagues, groups, communities and partners

Sage's commitment to the arts is demonstrated by the number of National Portfolio Organisations (NPOs) supported through grants and discounted prices:

21 UK NPOs supported with a total of 30 grants

281 UK NPOs supported with a total of 20 grants

For comparison, Arts Council England are supporting a total of 985 NPOs as part of its 2023-2026 Investment Programme.

Case Study

Fareshare

In the last 12 months, Sage colleagues have helped to pick, pack and deliver food to 224 Charities, enough for 2.9 million meals. It is estimated that 25K people in the North East have benefitted from this food.

Sage colleagues have completed 470 Hours of volunteering in the last 6 months at FareShare North East (FSNE) which has been incredibly beneficial.

Case Study

First Lego League

FIRST® LEGO® League is a global hands-on STEM program which engages children aged 4-16 years by using LEGO® to solve real world issues through coding, design and research.

Through Sage's partnership with The Institution of Engineering and Technology (IET), it's breaking down the barriers to digital inequality through a fully funded and inclusive class packs programme. During the last two years our partnership has enabled 32 schools in the Northeast to take part and engaged 14,081 students.

Glossary of terms

Turnover: This represents the business revenue generated by Sage.

Gross Value Added (GVA): While turnover captures the entire cost of sales, GVA contributions represent the 'value-added' to the economy by Sage. For the purposes of this report, we take the income approach to estimating GVA and define it as the total compensation paid to employees + total operating profit. GVA is also commonly known as income from production and is distributed in three directions – to employees, to shareholders and to government. It is often used as a proxy for estimating the contribution of a firm or industry to GDP.

Employment: Refers to the number of workers employed by Sage. We typically present results as full-time equivalent (FTE) employees. FTE refers to the hours worked by one employee who is employed on a full-time basis and is used to standardise the hours worked by several part-time employees to one full-time worker. This is important for comparisons across industries or businesses, where the share of employees who work full-time varies.

Employee Compensation (or Compensation of Employees): Refers to the total compensation paid to employees in return for work done. This includes wages, benefits and employer pension and tax liabilities. Contribution to the Exchequer: This refers to Sage's impact through taxes paid to the Exchequer. Within this report, we are only considering income-related taxes, i.e. the Income Tax paid by Sage employees, as well as the National Insurance Contributions (NICs) paid by both Sage employees and Sage as an employer.

Direct impact: This refers to the day-to-day operations and activity directly generated by Sage themselves.

Indirect impacts: Activity supported through the supply chains that feed into day-to-day operations. This will focus on the economic activity (including GVA and other key metrics) supported when Sage purchases goods and services from suppliers. This impact layer looks at the knock-on impact of upstream activity to show the wider impact of Sage's expenditure on the UK. The indirect impact captures the revenue, GVA, employment and employee compensation supported along the supply-chains because of these operations.

Induced impacts: Economic activity supported when direct and indirect (supply chain) employees spend their earnings on goods and services in the wider UK economy. This helps to further stimulate demand, supporting additional revenue, GVA, employment and employee compensation. The induced impact captures these wider-spending effects that provide further layers of support.

Downstream impact: Economic activity supported when other firms use Sage's goods and services for their own operations. In other words, they measure the extent to which Sage's own goods and services (such as for finance or HR services) are sold to other firms, who use them as inputs to produce final goods and services.

National accounting framework: This is the framework for official UK economic statistics, bringing together transactions and levels of production, income, consumption, accumulation and wealth. Crucially, sectoral accounts are used to classify economic activity into industries in a consistent manner, allowing for comparability over time and between datasets. Mapping Sage's procurement and commercial data to this framework, allows the reconciliation of company-level data with wider economic statistics. For further information please see **this link**.

Standard Industrial Classification codes: Standard Industrial Classification codes, or SIC codes, are a five-digit classification providing the framework for collecting and presenting a large range of statistical data according to economic activity (or industry and sub-industry). In the UK, they are published by the ONS.

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