

The Economic Contribution of Primary Aggregates in Scotland

September 2025,

A report from BiGGAR Economics





Introduction

This report assesses the economic contribution of primary aggregates in Scotland

Primary aggregates are aggregates produced from naturally occurring mineral deposits and used for the first time, i.e., not recycled or secondary. In Scotland, this means crushed rock and sand and gravel won from land.



BiGGAR Economics was commissioned by the Mineral Products Association Scotland (MPAS) to produce a baseline assessment of the sector's economic contribution.

This study highlights the sector's role in supporting both traditional industries and new high-growth sectors, helping to retain value and jobs in Scotland.



The primary aggregates sector supplies the essential materials that underpin the national economy.

This research focuses on the economic contribution of primary aggregates and their enabling role in the construction sector, as these are the activities that will be directly affected by the forthcoming Scottish Aggregates Tax (scheduled for April 2026). The analysis was undertaken in advance of the tax's introduction and responds to the limited availability of public data.

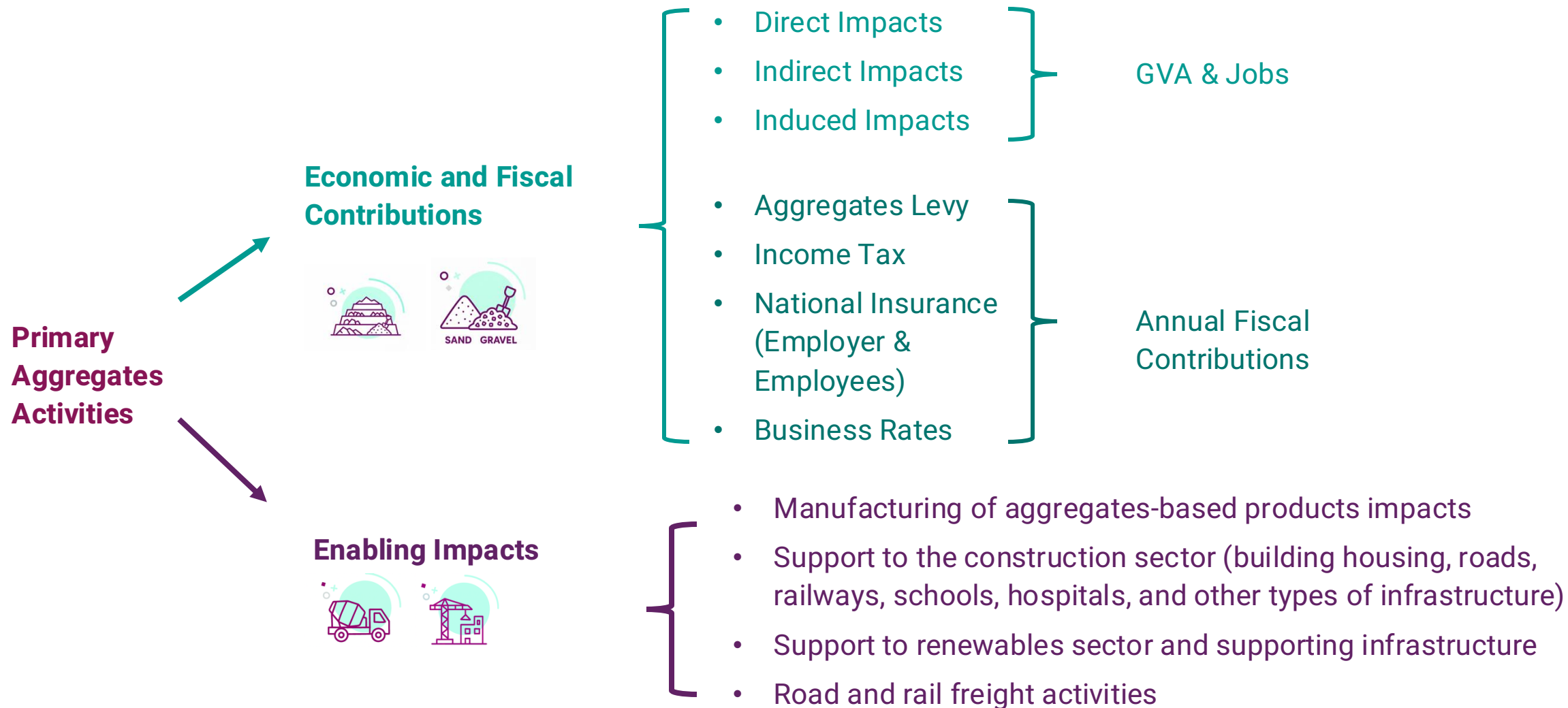


Executive Summary

- In 2024 **primary aggregates** contributed **£450 million Gross Value Added (GVA)** and **4,930 jobs** in Scotland, including direct, indirect and induced impacts.
- **Fiscal contributions in 2024** from the primary aggregates sector amounted to **£99.1 million**, including £60.6 million in Aggregates Levy, National Insurance, Income Tax and Business Rates.
- **Aggregates-based product manufacturing in (2024)** contributed an *additional* **£210 million GVA** and **2,630 jobs** in Scotland.
- **GVA per head (productivity) in 2024** was **£113,850 in the primary aggregates sector**, compared with a Scottish economy average of £74,420.
- **60% of other mining and quarrying output** (crushed rock, sand and gravel mainly) and **76%** of cement, asphalt, concrete and related products are sold to **Scottish construction** (housing, roads, railways, schools, hospitals, and other forms of infrastructure).
- **Scottish aggregates are used in renewables and relating infrastructure** including port expansions, foundations, ballast and scour protection for stability, and onshore wind site infrastructure.
- **Tax changes, demand peaks and competitive pressures** are key constraints for the sector, **restricting growth, shifting value out of Scotland** and **increasing carbon risks** through longer-haul sourcing.



Sources of Impacts





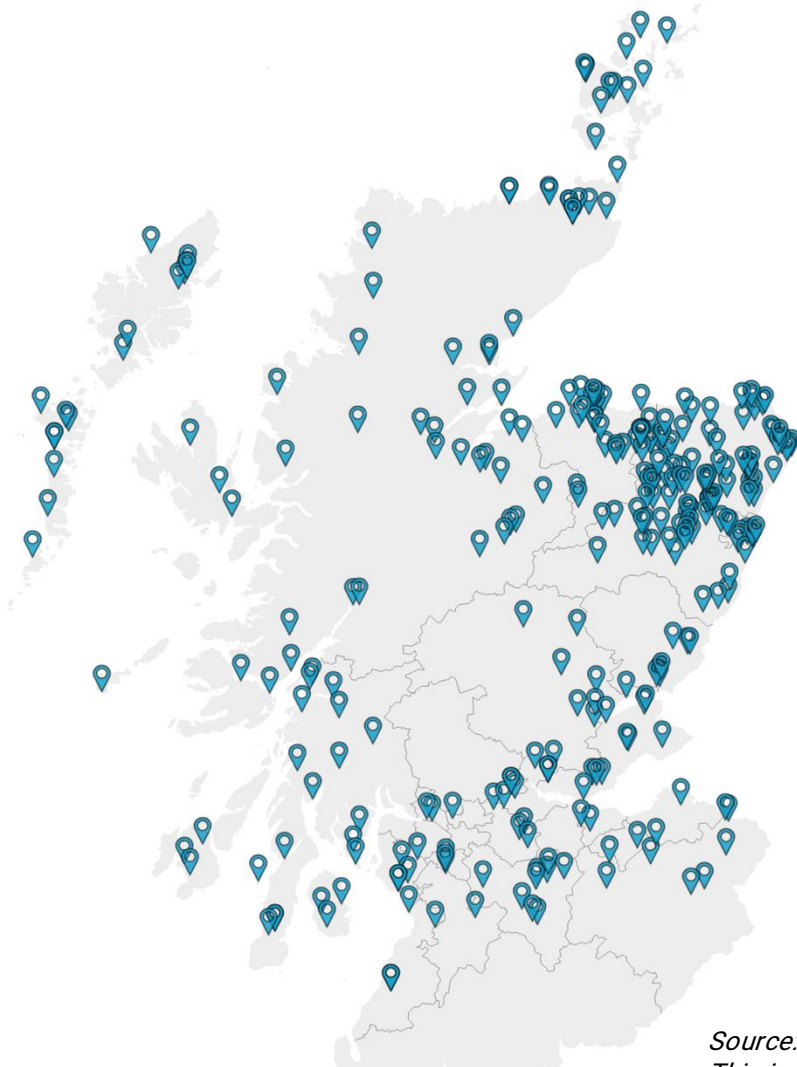
Primary Aggregates Economic Contribution

This section shows the geographic distribution of quarries and sand and gravel pits across Scotland and sets out the economic contribution of primary aggregates in Scotland, covering direct, indirect and induced impacts, each reported in terms of GVA and jobs





Quarries and Gravel Pits Scotland's Landscape



The distribution of quarries and gravel pits across Scotland shows that most sites are concentrated in rural areas. Their presence **supports local economies by creating jobs and contracting opportunities in places where jobs can be hard to find.**

Source: Scottish Assessors Association's listings of quarries and gravel pits; only sites with a recorded postcode were included. This inventory is indicative rather than comprehensive.



Direct Contribution: Primary Aggregates

The Scottish primary aggregates industry is responsible for the supply of crushed rock, sand, and gravel from naturally occurring deposits.

On average each year, Scotland produces about **22.1 million tonnes of crushed rock**, and **5.4 million tonnes of sand and gravel**, representing **19% and 9% of total UK production**, respectively (Profile of the UK Mineral Products Industry 2023).

The primary aggregates sector forms the **bedrock of the construction industry in Scotland**, it provides the raw materials for homes, roads, railways, schools, hospitals, ports, and energy projects, and it supports high growth sectors (e.g. offshore wind).

The direct contribution captures the value and jobs generated within Scotland's primary aggregates industry itself, reported as direct GVA and direct employment.

Direct GVA is the value added by firms that supply crushed rock, sand and gravel from naturally occurring deposits. Direct employment is the number of people employed by these firms.

In 2024, the sector generated **£680 million of turnover**, contributed **£262 million of direct GVA**, and **directly employed about 2,300¹ people**.

£680 million
Of Turnover

£262 million
Of Direct GVA

2,300 
Direct Jobs

¹ This figure refers specifically to employment linked to the extraction and supply of primary aggregates within companies that also operate across manufacturing and construction activities. The total employment reported by these companies amounts to 4,185. **7**



Indirect & Induced Contribution: Primary Aggregates

Indirect impacts are the effects that arise when primary aggregates producers purchase goods and services from suppliers in Scotland. This includes spending on transport and logistics, fuel and utilities, equipment and machinery, maintenance and repair, professional and technical services, and capital spending.

Induced impacts are the effects that arise when employees of the sector and its suppliers spend their wages in the wider economy. This spending supports additional activity in retail, hospitality, housing and local services, and a range of other consumer-facing sectors.

In 2024, procurement by primary aggregates producers in Scotland **supported GVA of £111 million and 1,830 jobs across the Scottish supply chain**. The largest contributions were linked to transport and logistics, fuel and utilities, equipment and machinery, business and professional services, and maintenance and repair.

£111 million
Of Indirect GVA

1,830 
Indirect Jobs

Wage spending by employees of the sector **supported additional GVA of £77 million and 800 jobs across the Scottish economy in 2024**.

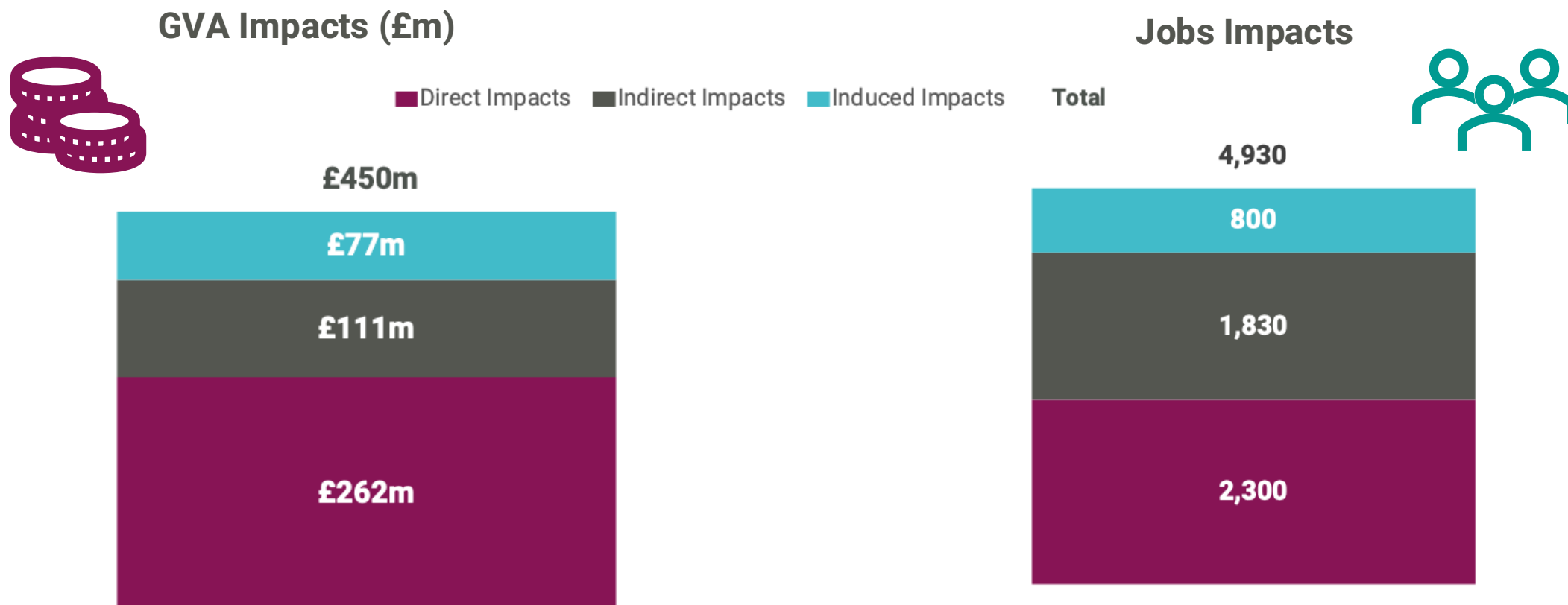
£77 million
Of Induced GVA

800 
Induced Jobs



Total Impacts: Primary Aggregates

In total, taking direct, indirect, and induced effects together, the primary aggregates activities have contributed **£450 million in GVA, and 4,930 jobs** to the Scottish economy in 2024.



Source: BiGGAR Economics Analysis



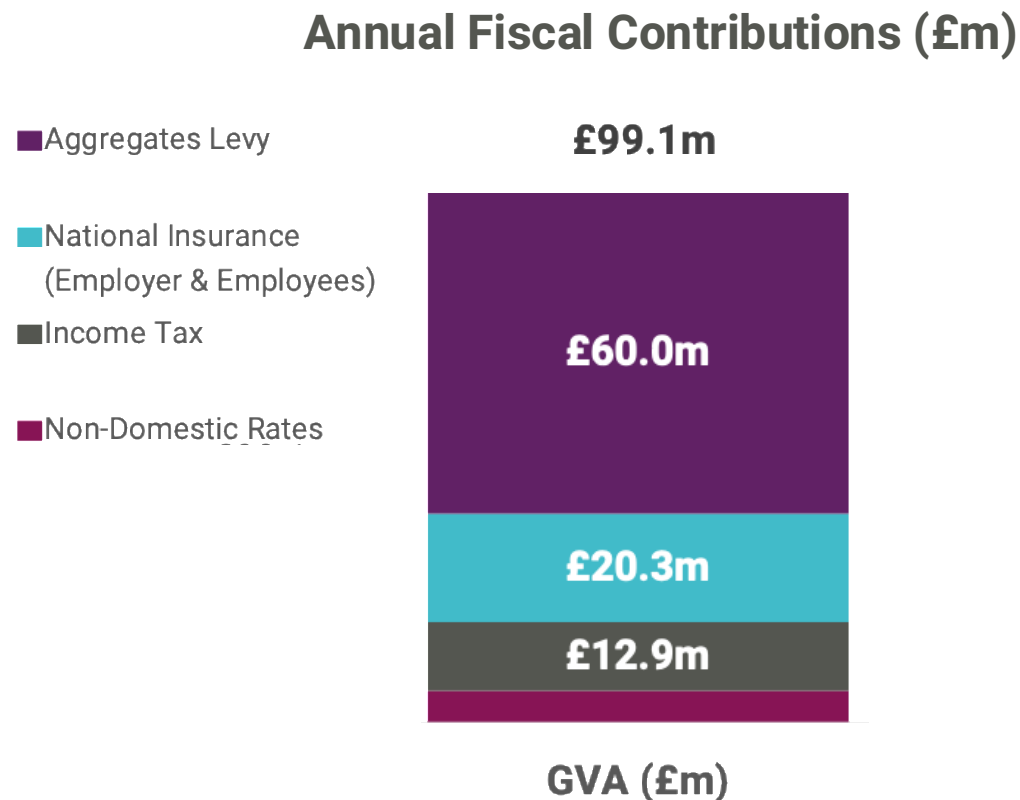
Fiscal Impacts

This section presents the annual fiscal contribution of the primary aggregates sector in Scotland





Fiscal Impacts



Source: Scottish Government, Government Expenditure and Revenue Scotland (GERS) and BiGGAR Economics Analysis

¹ The UK Aggregates Levy will continue to apply in Scotland until the new Scottish Aggregates Tax (SAT) starts, currently planned for 1 April 2026. SAT was created by the Aggregates Tax and Devolved Taxes Administration (Scotland) Act 2024.

In addition to the fiscal contributions paid by all industries (National Insurance, Income Tax and Non-Domestic Rates) **the aggregates sector also pays the industry-specific Aggregates Levy.**

The Aggregates Levy¹ is a tax charged when rock, sand, or gravel that is commercially exploited in the UK, used in construction, or moved for a commercial purpose.

Together, these payments amount to an annual fiscal contribution of about **£99.1 million**, led by aggregates **levy payments at £60.0 million**, followed by **National Insurance contributions of £20.3 million**, **Income Tax of £12.9 million**, and **Non-Domestic Rates of £4.9 million**.



Manufacturing of Aggregates-Based Products Impacts

This section describes the economic contribution (GVA and jobs) of manufacturing activities that use primary aggregates.

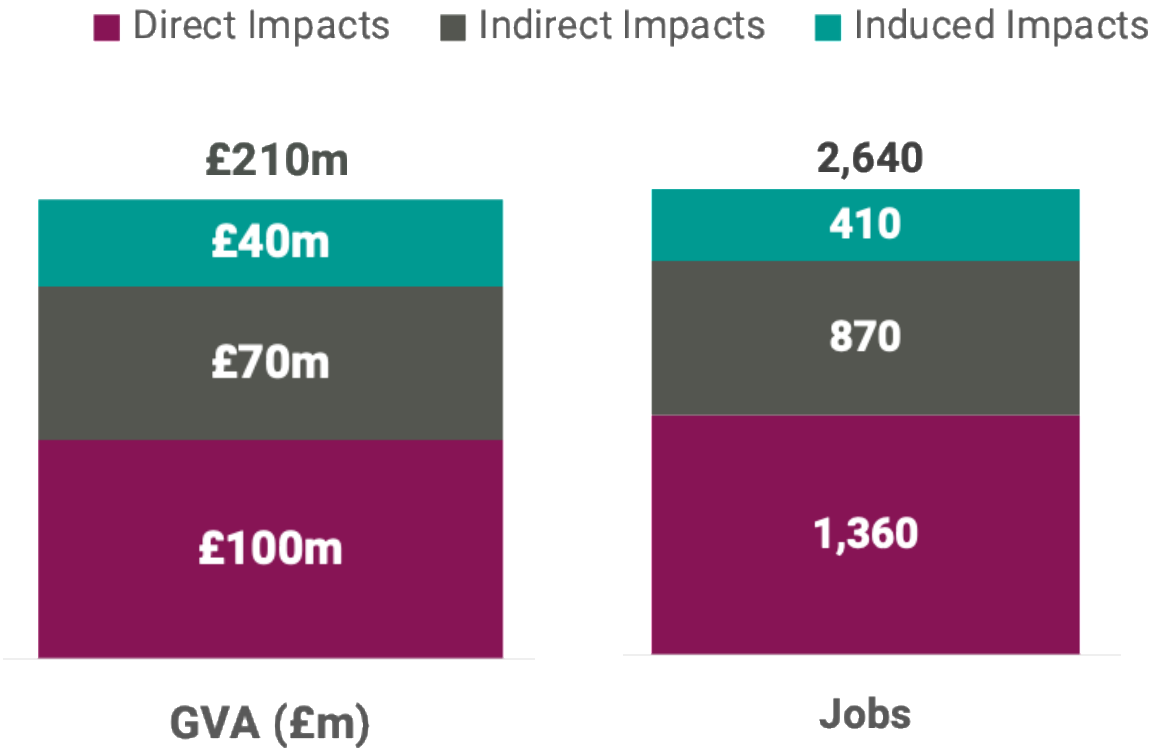




Manufacturing of Aggregates-Based Products Impacts

Beyond their direct use on construction sites, primary aggregates enable a range of manufacturing activities¹. Manufacturing of aggregates-based products in this section captures the economic activity in industries that rely on aggregates as core inputs, particularly ready-mixed concrete, asphalt, mortars and precast concrete products. These activities cannot take place without aggregates. In 2024, manufacturers of these products generated **£310 million of turnover, £210 million of total GVA² and 2,640 total jobs in the Scottish economy.**

Manufacturing of Aggregates-Based Products Impacts



Source: BiGGAR Economics Analysis

¹Non-construction uses of aggregates (e.g., in agriculture, chemicals, or industrial processes) have been excluded from this assessment, as they are not subject to or impacted by the Aggregates Levy.

²Note: double-counting has been avoided by attributing value at the manufacturing stage.



How Aggregates Drive Growth in Scotland

This section explains how Scotland's primary aggregates industry, and the manufacturing of aggregates-based products, supports growth in the economy. It first considers the sector's productivity, then describes how aggregates support construction in Scotland, and finally shows how aggregates act as a critical enabler of activity in renewable energy and supporting infrastructure.





Above Average Productivity – A Driver of Economic Growth

The primary aggregates sector is a high-productivity industry in Scotland. GVA per worker is higher than the Scottish average. This means each job in the sector generates more value than the average across all the sectors of the economy. As a result, retaining and creating roles in the aggregates sector supports stronger growth and higher wages.

GVA per head is a measure of productivity, calculated as direct GVA divided by direct employment.

In 2024, GVA per head in **the primary aggregates sector was £113,850**, and GVA per head in **aggregates-based products was £76,200**. Both figures sit above the **Scottish economy average of £74,420¹**.

¹ Adjusted to 2024 prices

Source: BiGGAR Economics Analysis & SABS

GVA per head (£)





Local Materials, Local Value, How Aggregates Anchor Construction

The primary aggregates industry **is intrinsically linked to the construction sector**, with materials used in the delivery **of housing, roads, railways, schools, hospitals, airports and other forms of infrastructure**. The Scottish Government identifies construction as a **key component of the national economy**, contributing around £10 billion annually (SABS, 2022).

The 2021 Scottish Input Output tables show that about **60% of output from Other Mining and Quarrying**, mainly covering crushed rock, sand and gravel, and about **76% of the cement, asphalt, concrete and related products sector's** output is sold to the **Scottish construction industry**.

Without this local supply, construction firms would need to purchase more materials from outside Scotland, this would shift spending and value added out of the Scottish economy, increase transport and logistics costs, might raise delivery risk for programmes, and add embodied carbon through longer-haul distances.

By meeting demand domestically, the primary aggregates sector anchors jobs, GVA, and tax revenues in Scotland.



Source: Scottish Input Output Tables, 2021



Enabling Emerging Industries

The aggregates industry is a critical enabler of Scotland's net zero target, as it supports the expansion of ports, energy and transport networks, and reduces reliance on long-distance sourcing.

Scottish aggregates can support both fixed and floating offshore wind, including the manufacture of concrete structures for floating projects through established domestic capacity.

How Scottish aggregates are used in renewables and supporting infrastructure

Ports and harbours. Larger aggregates reinforce breakwaters and revetments as facilities expand to service offshore wind.

Foundations. Gravity base foundations in shallower waters use concrete made with Scottish crushed rock, floating offshore wind uses concrete mixes that can incorporate lighter, lower carbon cements.

Port expansion. High volumes of aggregates are required for projects at offshore hubs such as Moray, Montrose, and Ardersier.

Stability. Aggregates provide ballast for both fixed and floating foundations and are placed around foundations as scour protection, limiting seabed erosion and supporting long-term stability.

Onshore Wind. Aggregates underpin site infrastructure, building access tracks, crane pads and hardstandings, while high-quality granite coarse and fine aggregates are batched into turbine and substation foundations.



De-Risking Renewables with Scotland's Aggregates

Stable, local, lower-carbon, and ready to scale.



Local content delivery. By sourcing aggregates from Scotland for ScotWind and Scottish infrastructure upgrades (ports, grid expansions etc.) developers can better meet their binding local content targets from their supply chain development statements.



Lower transport emissions. Shorter haul distances reduce CO2 and embodied carbon for energy projects and can ease logistics constraints.



Strategic assets. Scotland hosts Glensanda, one of Europe's largest quarries, which has a deep-water load-out and quays capable of handling heavy components for major infrastructure projects.



Source: MPA <https://mpascotland.org/about/>



Constraints and Risks in the Industry

This section highlights the key constraints and risks facing Scotland's primary aggregates industry





Constraints and Risks in the Industry

Levy considerations. The Scotland Act 2016 gave the Scottish Parliament the power to create a devolved aggregates tax for Scotland. In November 2024 the Parliament passed the Aggregates Tax and Devolved Taxes Administration (Scotland) Act 2024, which establishes the Scottish Aggregates Tax (SAT). The Scottish Government's current plan is for SAT to replace the UK Aggregates Levy in Scotland from 1 April 2026. The rate, scope, exemptions and transitional rules will shape delivered costs and relative competitiveness (including border effects with the rest of the UK).

Demand peaks. The pipeline of offshore and onshore wind, grid upgrades and port works points to rising aggregate needs; demand spikes of aggregates are likely and will require early, coordinated planning across stakeholders.

Competitive pressures. Scotland faces competition from overseas markets (e.g., Norway), especially on scour-protection and breakwater work, where higher-density rock and pricing can be cost-competitive.





Final Reflections

This section sets out the conclusions of the assessment





Final Reflections

Beyond the quantified £450 million in GVA and 4,930 jobs, the primary aggregates sector supports Scotland's economy in multiple, mutually reinforcing ways:

- The quarry and sand and gravel landscape is **concentrated in rural areas**, providing **local jobs** and **contracting opportunities** in places where employment can **be harder to secure**.
- The industry-specific **Aggregates Levy** contributes at least three times as much as any of the other fiscal components common to other sectors (National Insurance, Income Tax and Non-Domestic Rates).
- **The aggregates sector is a high-productivity industry in Scotland**. Each job in the sector generates more value than the average across all the sectors of the economy. Retaining and creating roles in the aggregates sector supports stronger growth and higher wages.
- **Primary aggregates supply underpins Scotland's construction sector**, a £10 billion pillar of the economy. Meeting demand domestically helps retain spend, value added and tax in Scotland, reduce transport and logistics costs, lower programme-delivery risk, and cut embodied carbon relative to longer-haul imports.
- **The industry is a critical enabler of renewables and supporting infrastructure**. Aggregates are required for port expansions, foundations, ballast and scour protection to ensure stability, and onshore wind site infrastructure. This capability underpins net-zero delivery and strengthens domestic supply chains.
- **Tax changes, demand peaks and competitive pressures** are emerging as key constraints, restricting growth, shifting value out of Scotland and increasing carbon risks through longer-haul sourcing.



Appendix

This section describes the key measures, metrics and methods used in this assessment





Appendix - Methods

Price base

All monetary values in this report are expressed in 2024 prices using the Consumer Prices Index (CPI).

Data Sources

The assessment of the economic contribution of aggregates in Scotland used the following sources:

- Information gathered from MPA Scotland members (key companies in the industry);
- Scottish Annual Business Statistics (SABS), 2022;
- Business Register and Employment Survey (BRES);
- Financial statements of companies in the sector (Companies House);
- Scottish Government – Rates and Allowances: Income Tax and National Insurance; and
- Scottish Input–Output Tables.

Key Measures and Metrics

- **Gross Value Added (GVA):** a commonly used measure of economic activity that captures the difference between an organisation's turnover and its spending on non-staff costs;
- **Jobs:** presented as headcount employment;

The assessment has considered the following impacts:

- **Direct Impact:** the economic activity generated by companies' day-to-day operations in Scotland;
- **Indirect Impact:** It captures the economic activity supported in the Scottish supply chain through the companies' procurement of goods and services and capital expenditure (e.g. plant, equipment and vehicles);
- **Induced Impact:** measure the economic activity arising when employees spend their wages and salaries across the economy; and
- **Fiscal Impact:** annual fiscal contribution of companies in the sector.



Appendix - Methods

Input-Output Economic Modelling

The economic impact assessment has been based on an Input-Output methodology. This approach considers the effects of spending across the economy and how they stimulate activity across different industries.

Direct Impacts

To estimate the direct contribution of primary aggregates in Scotland, employment was taken as the starting point. This covers the extraction and supply of crushed rock, sand, and gravel from naturally occurring deposits.

Employment data were gathered from MPAS members, who represent the main companies supplying primary aggregates. Most of these firms are vertically integrated, operating quarries while also producing downstream products such as ready-mixed concrete, asphalt, and cement. The data were apportioned to isolate employment associated with the extraction and supply of primary aggregates.

This apportionment was guided by indicative employment intensities (employment per 1,000 tonnes of output) provided by members.

Where companies were unable to share data directly, financial accounts were used to estimate employment. These accounts covered both MPAS members and other companies producing primary aggregates in Scotland. In all cases, adjustments were made to exclude non-quarrying activities, ensuring estimates reflected only extraction-related employment.

These estimates were then compared with employment published by the Office for National Statistics (ONS) for the relevant Standard Industrial Classification (SIC) codes. The relevant codes were identified using company listings from Companies House. As the total employment recorded under these SIC codes cannot be fully attributed to primary aggregates, the analysis only considers an apportioned share as relevant. This benchmark was aligned with employment levels and appropriate adjustments derived from MPAS member data and financial accounts.



Appendix - Methods

Direct turnover and GVA were subsequently estimated by applying Scottish Annual Business Statistics (SABS) ratios to the employment base.

Indirect Impacts

It capture supply-chain activity supported by the industry's procurement of goods, services and capital equipment.

Procurement and capital investment from MPAS members were first mapped to the appropriate sectors in the Scottish Input–Output Tables, then Type I employment and GVA multipliers are applied to direct jobs and GVA to estimate impacts of supply chain activity.

Induced impacts

Measure the additional activity generated when employees of the sector and its Scottish suppliers spend their wages and salaries in the wider economy. These effects are estimated using Type II employment and GVA multipliers applied to direct GVA and employment.

Vertical integration and estimating the impact of primary aggregates

Many firms are vertically integrated, operating quarries and logistics while also producing downstream manufactured products such as ready-mixed concrete, cement and asphalt. To avoid overstating the impact of primary aggregates, we apportion supply-chain and capital expenditure to the quarrying stage using product-mix turnover shares for crushed rock and for sand and gravel. We then use these shares to scale supply chain spending before applying multipliers.



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