

Head of Data Science and External Data

Reports to: Deputy Director Insight and Analysis

Contract: Full time, Permanent

Location: London or Manchester.

Base salary: (pensionable) £75,000.00

Allowance: (non-pensionable): up to £7,000 subject to experience

Benefits

- 30 days annual leave plus bank holidays
- Employee assistance programme
- Hybrid working (minimum two days per week in the office)
- Access to the Civil Service Pension Scheme, including Alpha (currently 28.9% employer contribution)

About Transport Focus

Transport Focus is the voice of Britain's transport users. We use powerful insight and evidence to challenge, influence, and improve the user experience across the transport sector. Key to our success is our strong stakeholder network and our ability to turn passenger and road user feedback into meaningful change.

We are an executive non-departmental public body sponsored by the Department for Transport (DfT). We are led by a board of non-executive directors appointed by DfT, the Scottish and Welsh Governments, and the London Assembly, and run by a senior leadership team based in Manchester and London.

This is a pivotal period for the organisation as we prepare to take on new responsibilities linked to the Government's railway reforms.

Role outline

The Head of Data Science & External Data is responsible for leading a team that will leverage data to enable Transport Focus to generate actionable insights, develop predictive models, and support strategic decision making across the organisation. This role combines statistical analysis, machine learning, and business acumen to identify opportunities, solve complex problems and drive measurable value. It will increasingly involve the use of emerging technologies, including AI. Working closely with internal stakeholders such as the Head of Insight and Senior Engagement Managers, the Head of Data Science & External Data will translate data into meaningful insights and scalable solutions. The role requires leadership skills, a strong analytical mindset, technical expertise, and the ability to communicate findings clearly to both technical and non-technical audiences.

The Head of Data Science & External Data will operate in a matrix environment, working across teams to deliver on a variety of priorities to ensure data science and external data activity is aligned to organisational needs. The role will work particularly closely with the Insight team, combining operational and external data with passenger and user feedback to generate richer insight and stronger evidence for challenge and advocacy.

What you will do

- Own the Transport Focus Data Service as an ongoing internal capability ensuring it is governed, developed and operated to provide trusted reporting across transport modes.

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- Lead a small multidisciplinary team responsible for the operation and development of the Transport Data Service, including data ingestion, maintenance, data quality, reporting, dashboards, analysis and future data science capability.
- Manage the Data Service roadmap and prioritisation of new data sources and reporting, working with internal stakeholders to make sure the Service meets organisational needs.
- Lead the team to present a consistent, trusted view of performance across different modes of transport, supporting effective challenge, reporting and advocacy by the watchdog.
- Work in a matrix environment and in close partnership with the Insight team to align data science, external data and user feedback, creating richer insight and stronger evidence to inform reporting, advocacy and improvement.
- Analyse large, complex datasets to identify trends, patterns and opportunities for improvement.
- Develop, test and deploy predictive and statistical models to support Transport Focus's insight, reporting and challenge activity as data maturity increases.
- Apply machine learning techniques and other AI developments to solve real-world business problems.
- Collaborate with our data engineer to ensure data availability, quality and suitability for analysis.
- Partner with internal stakeholders to understand business challenges and translate them into data science solutions.
- Communicate insights and recommendations through clear visualisations, reports and presentations.
- Evaluate model performance and continuously refine approaches to improve accuracy and impact.
- Support experimentation and A/B testing initiatives to inform decision-making.
- Ensure best practices in data governance, ethics, and compliance are applied in all analytical work.

About you

- Experience leading or managing a data, analytics or reporting service, including responsibility for service delivery, governance and continuous improvement.
- Experience leading a multidisciplinary data team, including data engineering, analysis, reporting/dashboard development and data science capability.
- Experience working with external datasets, open data sources, APIs or third-party data feeds.
- Comfortable working in a matrix environment, building strong relationships across teams and clarifying priorities and ways of working.
- Proven experience in a Data Scientist or similar analytical role.
- Strong programming skills in Python and/or R, with solid SQL capabilities.
- Experience with machine learning frameworks and libraries (e.g., scikit-learn, TensorFlow, PyTorch).
- Strong grounding in statistics, probability and data modelling techniques.
- Experience working with large datasets and modern data platforms (e.g., cloud-based environments).
- Familiarity with data visualisation tools (e.g., Tableau, Power BI, or similar).
- Strong analytical and critical thinking skills, with the ability to solve complex problems.

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- Effective communicator, able to translate technical findings into clear business insights.
- Curious and inquisitive mindset, with a desire to explore data and uncover insights.
- Passionate about data and its potential to drive business value.
- Strong sense of ownership and accountability for delivering high quality outcomes.
- Committed to continuous learning and staying at the forefront of data science advancements.
- Experience working with transport, public sector, or operational performance datasets would be beneficial.

Our commitment to equality, diversity and inclusion

Transport Focus is committed to representing all transport users. Our team members will play a large part in inspiring the organisation to think differently in terms of approach to this commitment. We must show that our work is representative, relevant, and useful. Diversity and inclusion are key to being able to do this effectively. We believe that everyone in society deserves the same chances in life. Having a diverse and inclusive organisation means we can tap into different perspectives and experiences to generate new ideas and initiatives, which will make our work more relevant and useful. We want Transport Focus to be a place for everybody and anybody to work. We aim to build teams that draw upon the widest range of experiences, talent, and ideas, and for that reason welcome applications from the broadest range of backgrounds and communities.