

**Transport Modeller**

**Competition Information Booklet**

Please read carefully

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| **Position:** Transport Modeller **Grade:** Engineer Grade II**Directorate:** Transport Planning and Investment**Reporting to:**  Head of Transport Modelling**Location:** Haymarket House, Smithfield, Dublin 7 with a blended working  model**Starting salary:** €74,701Closing date for receipt of completed applications:**12pm (noon) on Friday, 10 October 2025****Contact:** Careers@nationaltransport.ie |

The National Transport Authority is committed to a policy of equal opportunity.

**Overview of the National Transport Authority**

The National Transport Authority (NTA) is a statutory body established by the Minister for Transport on 1 December 2009.

At national level, the Authority has responsibility for securing the provision of public passenger land transport services, including subsidised bus and rail and light rail services. The Authority also licenses public bus passenger services delivered by private operators and has responsibility for the regulation of the small public service vehicle (SPSV) industry (taxis, hackneys and limousines). Other areas of responsibility include the State’s rural transport programme, integrated information systems for public transport customers, management of the Integrated Ticketing Scheme for Ireland (the Leap Card system), and regulation of vehicle clamping.

Within the Greater Dublin Area (GDA) the Authority carries additional responsibilities including:

* Strategic planning of transport;
* Development of an integrated, accessible public transport network;
* Promoting cycling and walking;
* Provision of public transport infrastructure generally including light rail, metro and heavy rail; and
* Effective management of traffic and transport demand.

The GDA includes the local authority areas of Dublin City, Fingal, Dún Laoghaire-Rathdown, South Dublin, Kildare, Meath and Wicklow.

The Authority’s Capital Investment Programme includes an exciting and challenging range of projects and programmes for development and delivery over the coming years. These include mega-projects such as MetroLink, BusConnects Dublin and the DART+ Programme, together with numerous other major projects/programmes in the heavy rail area, light rail area, bus infrastructure and public transport fleet, in addition to a large portfolio of projects in the active travel area. Along with other initiatives in the areas of micro-mobility, transport technology and climate adaption, there are stimulating and rewarding opportunities to make a real contribution to enhancing Ireland’s overall transport system.

Further information on the Authority is available on its website [www.nationaltransport.ie](http://www.nationaltransport.ie)

The National Transport Authority wishes to recruit a suitably experienced and qualified individual to the role of Transport Modeller. Successful candidates may be placed on a panel from which future vacancies may be filled.

**Duties and Responsibilities**

The Transport Modeller role will contribute and perform tasks, at an appropriate level, across all modelling functions as required. The successful candidate will gain exposure to a wide variety of tasks and projects and will be encouraged to develop professionally and will be afforded opportunities to take on additional tasks and responsibilities as their career progresses.

The Transport Modeller duties and responsibilities may include some or all the following activities as determined by the modelling department’s work programme and the candidate’s skills:

**Model Development**

* Estimation, calibration and validation of the Authority’s models to ensure a good fit of model outputs to observed travel and transport data;
* Contributing to the development of new transport models as well as updating and enhancing existing models; and
* Undertake research to support model enhancements.

**Model Maintenance – maintaining the existing 2022 Base Model**

* Rebasing the Authority’s models to 2022, to contain the most up to date transport and travel data, as well as the refinement of existing components as appropriate;
* Updating the Authority’s 2012, 2017 and 2022 base models to include new infrastructure and services as they change over time (biannual or annual releases), and updating the Authority’s reference models with the most up-to-date view of future years;
* Extending the 2022 base model capabilities through the enhancement and/or refinement of existing components, in line with emerging best practice trends and reflecting the needs of the Authority and other key stakeholders; and
* Developing complementary components that improve the quality of secondary inputs to the model, e.g., goods, overseas travellers, etc.

**Model Application**

* Supervising, preparing and/or running land use scenarios using the NTA’s National Demand Forecasting Model to prepare Trip Ends as input to model runs including:
	+ Writing technical notes on model scenarios as required; and
	+ Attending meetings to discuss and explain modelling results.
* Setting up the NTA Regional Modelling System (RMS) or any other model developed by the NTA to represent specific land use and transport network scenarios, executing runs of any of these models including:
	+ Coding transport networks and transport scenarios;
	+ Ensuring quality of input, output, trip demand and network supply;
	+ Extracting model outputs, analysing, collating and summarising model results for given model runs;
	+ Writing technical notes on modelled scenarios where required; and
	+ Presenting and participating fully with team to discuss and explain modelling results and advise on improvements.
* Undertaking scheme appraisals following DoT TAF guidance including economic assessment (e.g., Cost Benefit Analysis) of infrastructural schemes using outputs from the NTA models.

**Model Data Management**

* Assist in maintaining and updating the NTA Transport Data store including:
	+ Extending the data store to include travel time data, public transport data, etc.; and
	+ Acquisition and addition of new traffic data.
* Assist Modelling Team in procuring surveys and data to inform the development of the RMS and for use in the estimation, calibration and validation of new and existing models including:
	+ Designing surveys, preparing tender documents and commissioning transport and travel surveys;
	+ Working with external contractors on data acquisition, collation, statistical analysis and reporting;
	+ Quality control and GIS / geo-coding of survey data, including anonymization; and
	+ Presenting data and statistics to managers and stakeholders and performing internal analyses.

**Model Management**

* Development of guidance on the use of the RMS, approach to calibration, etc.;
* Providing training covering the use of the RMS and all the associated tools;
* Periodically attending conferences and/or industry bodies to present on various components of the RMS including preparation of suitable papers;
* Responsible for ensuring model version control procedures are maintained and developed to a high standard;
* Providing modelling project audit services when required;
* Supervising and/or managing access to the RMS and maintaining stakeholder database, managing relationships and outreach relating to the RMS; and
* Undertaking additional modelling tasks specified by the Authority that may arise from time to time.

**Other Duties**

* Management of modelling consultants to ensure effective utilisation of resources;
* Management and execution of transport planning studies and projects within time and budget constraints;
* Formulating potential solutions to transport problems arising from analysis of data;
* Striving to introduce new or improved transport infrastructure in line with best practice; and
* Participating in public consultation initiatives as required.

***Note:*** *The functions and responsibilities initially assigned to the position is based on the current organisational requirements and may be changed from time to time. The person appointed requires the flexibility to fulfil other roles and responsibilities at a similar level within the Authority.*

**Essential Criteria**

**Please note: In order to satisfy the shortlisting panel that you meet these criteria you must explicitly reference how you meet same in your application. Failure to demonstrate these may prevent your application progressing to future shortlisting stages.**

Each candidate must meet the following requirements at the time of the competition closing:

1. Hold a minimum of a NFQ level 7 degree qualification in a relevant area such as economics, civil engineering, behaviour sciences, quantitative or statistical sciences, computational science, data science and/or analysis, geography, physics, chemistry, mathematics, social science or transport planning, but must have involved significant numerical and computational analysis;
2. Have a minimum of 5 years’ relevant post graduate experience with 2 of those years being the management of people and/or projects;
3. Have a high-level experience in the use of transportation modelling software or equivalent, for example, SATURN, Bentley / Cube Voyager, PT Visum, Saturn, LinSig, OmniTrans, etc.;
4. Excellent numeracy skills and the ability to interpret data;
5. Have a good understanding of Transport Modelling theory, including: 4-stage modelling, mode choice, model calibration and other modelling principles;
6. Proven ability to collect, analyse and assemble transport data and code it in a form suitable for incorporation into a strategic transport model and other tools; and
7. Demonstrate a high level of computer literacy including experience in the use of data analysis tools including programming, databases, spread sheets and GIS, and a knowledge of statistical modelling and willingness to learn new approaches.

**Desirable Criteria**

**Please note: Should further shortlisting be required after essential criteria above, a selection of the following may be assessed.**

The ideal candidate will also demonstrate:

1. A creative approach to problem solving;
2. The capability to both learn and communicate complex ideas and issues clearly;
3. The ability to work and contribute positively to multi-disciplinary teams;
4. Excellent interpersonal, communication and presentation skills;
5. Excellent time and project management ability with minimal supervision;
6. Excellent written (e.g. report writing, presentation) skills;
7. A proven track record of engaging with a wide array of internal and external stakeholders;
8. A commitment to Continuous Professional Development (CPD), lifelong learning including participation in professional bodies (e.g., Engineers Ireland, Transport Planning Society, CILT); and
9. An interest in transport, urban planning and environmental issues and have political awareness with a good understanding of transport issues locally, regionally, nationally and internationally.

**Remuneration**

**Salary Grade: Engineer Grade II**

**Salary Scale: €74,701, €76,408, €78,110, €79,821, €81,527, €81,981, €83,662, €85,408, €88,250 (LSI 1), €91,100 (LSI 2).**

**Personal Pension Contribution (PPC) rate.** This salary is payable to an individual who is required to make a personal pension contribution (PPC) to their main pension (in general those persons whose initial appointment to the Public Service is on or after 6th April 1995).

**€71,072, €72,700, €74,313, €75,941, €77,562, €79,183, €80,798, €82,436, €83,836 (LSI 1), €86,539 (LSI 2).**

**Non Personal Pension Contribution (non-PPC) rate.** This salary is payable to an individual who is not required to make a personal pension contribution (PPC) to their main pension scheme.

**Annual Leave:** 27 days per annum. This leave is on the basis of a five day week and is exclusive of the usual public holidays.

**Note:**

* entry will be at point 1 of the scale and will not be subject to negotiation;
* different pay and conditions may apply if, immediately prior to appointment the appointee is already a serving Civil Servant or Public Servant;
* the rate of remuneration may be adjusted from time to time in line with Government pay policy.

**Contract:** Permanent Contract

**Probation:** There is a 6 month probationary period which may at the discretion of the CEO be extended to 10 months.

**Selection Process**

Prior to completing your application, please read the Important Candidate Information Booklet on our careers page here: [www.nationaltransport.ie/about-us/careers](https://www.nationaltransport.ie/about-us/careers/)

**How to Apply**

Please submit your application in one single word document or PDF referencing the title of the role you wish to apply for in the subject of the email to Careers@nationaltransport.ie.with the following:

1. A comprehensive cover letteroutlining why you wish to be considered for the post and where you believe your skills and experience meet the requirements for the role of Transport Modeller; and
2. A comprehensive CV (not to exceed 3 pages).

Please note that omission of any or part of the 2 requested documents, as set out above, will render the application incomplete. Incomplete applications will not be considered for the next stage of the selection process.

**Closing Date**

**The closing date and time for applications is strictly 12pm (noon) on Friday, 10 October 2025. Applications received after the specified deadline cannot be accepted.**

If you do not receive an acknowledgement of receipt of your application within 2 working days of applying, please email Careers@nationaltransport.ie.

**Transport Modeller - Key Competencies**

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| **Team Leadership** | Works with the team to facilitate high performance, developing clear and realistic objectives and addressing and performance issues if they arise |
| Provides clear information and advice as to what is required of the |
| Strives to develop and implement new ways of working effectively to meet objectives |
| Leads the team by example, coaching and supporting individuals as required |
| Places high importance on staff development, training and maximising skills & capacity of team |
|  | Is flexible and willing to adapt, positively contributing to the implementation of change |
| **Judgement, Analysis & Decision Making** | Gathers and analyses information from relevant sources, whether financial, numerical or otherwise weighing up a range of critical factors |
| Takes account of any broader issues, agendas, sensitivities and related implications when making decisions |
| Uses previous knowledge and experience in order to guide decisions |
| Uses judgement to make sound decisions with a well-reasoned rationale and stands by these |
| Puts forward solutions to address problems |
| **Management & Delivery of Results** | Takes responsibility and is accountable for the delivery of agreed objectives |
| Successfully manages a range of different projects and work activities at the same time |
| Structures and organises their own and others work effectively |
| Is logical and pragmatic in approach, delivering the best possible results with the resources available |
| Delegates work effectively, providing clear information and evidence as to what is required |
| Proactively identifies areas for improvement and develops practical suggestions for their implementation |
| Demonstrates enthusiasm for new developments/changing work practices and strives to implement these |
| Applies appropriate systems/ processes to enable quality checking of all activities and outputs |
| Practices and promotes a strong focus on delivering high quality customer service, for internal and external customers |
| **Interpersonal & Communication Skills** | Builds and maintains contact with colleagues and other stakeholders to assist in performing role |
| Acts as an effective link between staff and senior management |
| Encourages open and constructive discussions around work issues |
| Projects conviction, gaining buy-in by outlining relevant information and selling the benefits |
| Treats others with diplomacy, tact, courtesy and respect, even in challenging circumstances |
| Presents information clearly, concisely and confidently when speaking and in writing |
|  | Collaborates and supports colleagues to achieve organisational goals |
| **Specialist Knowledge, Expertise and Self Development** | Has a clear understanding of the roles, objectives and targets of self and team and how they fit into the work of the unit and Department/ Organisation and effectively communicates this to others |
| Has high levels of expertise and broad Public Sector knowledge relevant to his/her area of work |
| Focuses on self-development, striving to improve performance  |
| **Drive & Commitment to Public Service Values** | Strives to perform at a high level, investing significant energy to achieve agreed objectives |
| Demonstrates resilience in the face of challenging circumstances and high demands |
| Is personally trustworthy and can be relied upon |
| Ensures that customers are at the heart of all services provided |
| Upholds high standards of honesty, ethics and integrity |