



CANDIDATE INFORMATION BOOKLET

PLEASE READ CAREFULLY

GDPR Privacy Statement is appended at the back of the booklet

Transport Modeller - Engineer Grade II (Panel)

National Transport Authority

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

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TRANSPORT MODELLER – ENGINEER GRADE II (PANEL)

National Transport Authority

TITLE OF POSITION: Transport Modeller – Engineer Grade II (Panel)

REPORTING TO: Head of Transport Modelling

OFFICE: National Transport Authority

LOCATION: Dublin

The National Transport Authority (NTA) is a statutory body established by the Minister for Transport on 1 December 2009. The relevant legislative provisions underpinning the Authority are the Dublin Transport Authority Act 2008, the Public Transport Regulation Act 2009 and the Taxi Regulation Act 2013.

At national level, the Authority has responsibility for securing the provision of public passenger land transport services, including subsidised bus and 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 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.

Currently the Authority is involved in the implementation of a number of major projects and programmes, including the BusConnects programme, Metrolink, the DART Expansion Programme as well as a cycling infrastructure programme and various other projects and programmes in the

sustainable transport area. In addition, the Authority is currently planning networks of public transport services in several towns throughout the State, and regularly reviews the effectiveness of urban networks in cities outside of the GDA at achieving transport and climate related objectives.

Further information on the Authority is available on its website www.nationaltransport.ie.

In support of the above activities the Authority maintains a suite of sophisticated transport modelling tools that are used to analysis and support service and scheme planning and delivery as well as land use planning. The suite of tools covers the four stages of transport modelling (Generation, distribution, Choice and assignment) and has been developed in line with international best practice. They are complemented by a set of analytical tools that ensure consistent appraisal nationally.

Further information on the models is available at www.nationaltransport.ie/planning-policy/data-analysis/modelling

The National Transport Authority wishes to establish a panel of suitably qualified professionals for the position of Transport Modeller Engineer Grade II from which candidates can be drawn as relevant vacancies arise within the NTA. The panel will be live for two years.

DUTIES AND RESPONSIBILITIES:

The Transport Modeller Engineer Grade II role will contribute and perform tasks, at an appropriate level, across all modelling functions as required. A long list of the types of activities is listed below. 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 Engineer Grade II duties and responsibilities may include some or all of the following activities as determined by the modelling department's work programme and the candidate's skills:

Model Development

- Estimation, calibrating 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;
- Undertake research to support model enhancements.

Model Maintenance – maintaining the existing 2012 Base Model

- Supervising and/or rebasing the Authority's models to 2016 – to contain the most up to date transport and travel data, as well as the refinement of existing components as appropriate;
- Supervising and/or updating the Authority's 2012 base models to include new infrastructure and services as they change over time (biannual or annual releases) and the Authority's reference models with the most up-to-date view of future years;
- Extending the 2012 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;
- 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;
 - Attending meetings to discuss and explain modelling results.
- Setting up of any of the 5 NTA Regional Models 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;
 - Presenting and participating fully with team to discuss and explain modelling results and advise on improvements.
- Undertaking scheme appraisals following DTTAS CAF 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 Traffic Data store including:
 - Extending the data store to include travel time data, public transport data etc.;
 - 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.
 - 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;
- 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;
- Formulating potential solutions to transport problems arising from analysis of data;
- Striving to introduce new or improved transport infrastructure in line with best practice;
- Participating in public consultation initiatives as required.

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

ESSENTIAL REQUIREMENTS:***Character:***

Each candidate must be of good character.

Health:

Each candidate shall be in a state of health such as would indicate a reasonable prospect of ability to render regular and efficient service.

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:

- a) Hold a minimum of a NFQ degree level qualification in 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;
- b) Have at least 5 years' relevant post graduate experience;
- c) Proven high level experience in the use of transportation modelling software or equivalent, for example, SATURN, Voyager, OmniTrans etc.;
- d) Excellent numeracy skills and the ability to interpret data;
- e) Have a detailed understanding of Transport Modelling theory, including: 4-stage modelling, mode choice, model calibration and other modelling principles;
- f) Proven ability to collect, analyse and assemble transport data and code it in a form suitable for incorporation into a strategic transport model;
- g) Demonstrate an advanced level of computer literacy including experience in the use of data analysis tools including databases, spread sheets and GIS, and a knowledge of statistical modelling.

DESIRABLE ATTRIBUTES:

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

The ideal candidate will also:

- h) Have a creative approach to problem solving;
- i) Have a capability to communicate complex ideas and issues clearly;
- j) Have an ability to work and contribute positively to multi-disciplinary teams;
- k) Have excellent interpersonal, communication and presentation skills;
- l) Have excellent time and project management ability with minimal supervision;
- m) Have excellent written (e.g. report writing) and oral communication skills;
- n) Have a Proven track record of engaging with a wide array of internal and external stakeholders;
- o) Commit to Continuous Professional Development (CPD), lifelong learning including participation in professional bodies (e.g., Engineers Ireland, Transport Planning Society, CILT);
- p) Have an interest in transport and urban planning issues and political awareness with a good understanding of transport issues nationally.

EMPLOYMENT CONDITIONS:

Eligibility to Compete:

Candidates should note that eligibility to compete is open to citizens of the European Economic Area (EEA). The EEA consists of the Member States of the European Union along with Iceland, Liechtenstein and Norway. Swiss citizens under EU agreements may also apply.

A candidate who is in doubt with regard to their eligibility to compete should consult the Department of Jobs, Enterprise & Innovation.

Incentivised Scheme for Early Retirement (ISER):

It is a condition of the Incentivised Scheme for Early Retirement (ISER) as set out in Department of Finance Circular 12/09 that retirees, under that Scheme, are debarred from applying for another position in the same employment or the same sector. Therefore, such retirees may not apply for this position.

Collective Agreement - Redundancy Payments to Public Servants:

The Department of Public Expenditure and Reform letter dated 28th June 2012 to Personnel Officers introduced, with effect from 1st June 2012, a Collective Agreement which had been reached between the Department of Public Expenditure and Reform and the Public Services Committee of the ICTU in relation to ex-gratia Redundancy Payments to Public Servants. It is a condition of the Collective Agreement that persons availing of the agreement will not be eligible for re-employment in the public service by any public service body (as defined by the Financial Emergency Measures in the Public Interest Acts 2009 – 2011) for a period of 2 years from termination of the employment. Thereafter the consent of the Minister for Public Expenditure and Reform will be required prior to re-employment. People who availed of this scheme and who may be successful in this competition will have to prove their eligibility (expiry of period of non-eligibility) and the Minister's consent will have to be secured prior to employment by any public service body.

Department of Health and Children Circular (7/2010):

The Department of Health Circular 7/2010 dated 1 November 2010 introduced a Targeted Voluntary Early Retirement (VER) Scheme and Voluntary Redundancy Schemes (VRS). It is a condition of the VER scheme that persons availing of the scheme will not be eligible for re-employment in the public health sector or in the wider public service or in a body wholly or mainly funded from public moneys. The same prohibition on re-employment applies under the VRS, except that the prohibition is for a period of 7 years, after which time any re-employment will require the approval of the Minister for Public Expenditure and Reform. People who availed of either of these schemes are not eligible to compete in this competition.

Department of Environment, Community & Local Government (Circular Letter LG(P) 06/2013):

The Department of Environment, Community & Local Government Circular Letter LG(P) 06/2013 introduced a Voluntary Redundancy Scheme for Local Authorities. In accordance with the terms of the Collective Agreement: Redundancy Payments to Public Servants dated 28 June 2012 as detailed

above, it is a specific condition of that VER Scheme that persons will not be eligible for re-employment in any Public Service body [as defined by the Financial Emergency Measures in the Public Interest Acts 2009 – 2011 and the Public Service Pensions (Single Scheme and Other Provisions) Act 2012] for a period of 2 years from their date of departure under this Scheme. Thereafter, the consent of the Minister for Public Expenditure and Reform will be required prior to re-employment. These conditions also apply in the case of engagement/employment on a contract for service basis (either as a contractor or as an employee of a contractor).

Declaration:

Applicants will be required to declare whether they have previously availed of a public service scheme of incentivised early retirement. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Public Service employment and/or where they have received a payment-in-lieu in respect of service in any Public Service employment.

Remuneration:

Salary Grade:

Engineer Grade II

Salary Scale:

€62,034 - €75,399

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).*

€59,021 - €71,755

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 the minimum point 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.

Superannuation:

The successful appointee will be offered public service pension terms and retirement age conditions in accordance with pension arrangements in the NTA depending on the status of the successful appointee:

In general, an individual who has no prior pensionable Public Service history in the 26 weeks prior to appointment will be a member of the Single Public Service Pension Scheme (Single Scheme) which commenced from 1 January 2013 (Section 10 of the Public Service Pensions (Single Scheme and Other Provisions) Act 2012 refers. A copy of the Act can be viewed at:

<http://www.irishstatutebook.ie/2012/en/act/pub/0037/index.html>

SELECTION PROCESS

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 cover letter/personal statement outlining 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 Grade II (Panel)
2. A comprehensive CV (not to exceed 3 pages);
3. A fully completed Key Achievements Form (attached);

Please note that omission of any or part of the 3 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 5th June 2020. 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.

Please note that we advertise our vacancies on various platforms such as LinkedIn, Irish Jobs, Public Jobs and Engineers Ireland. We can only accept applications that are submitted through the process as set out above and that are submitted to Careers@nationaltransport.ie.

Selection Methods

The National Transport Authority will convene an expert board to carry out the competitive stages of the selection process to the highest standards of best practice. The approach employed may include:

- Shortlisting of candidates on the basis of the information contained in their application;
- Competitive interview;

- A second round interview;
- Completion of an online questionnaire(s);
- Work sample/role play/media exercise, and any other tests or exercises that may be deemed appropriate; and
- Reference and online checks.

Prior to recommending any candidate for appointment to this position the Authority will make all such enquiries that are deemed necessary to determine the suitability of that candidate. Until all stages of the recruitment process have been fully completed a final determination cannot be made nor can it be deemed or inferred that such a determination has been made.

Please Note: If you come under consideration for appointment, you will be required to:

1. Undertake a medical with the NTA company doctor
2. Submit proof of your relevant qualification (as applicable)
3. Provide at least two satisfactory references (see below)
4. Submit proof of identity, with a relevant photographic ID
5. Submit other proof, in connection with the essential criteria, as required (e.g. if driving is a requirement, proof of full valid licence will be sought)

References

Should your application progress to the on boarding stage, you will be required to submit a minimum of two satisfactory references. Your completed references will be required in advance of issuing a formal offer of appointment. We would appreciate it if you would start considering names of people who you feel would be suitable referees for the NTA to consult. Our preference is that a minimum of one reference should be completed by your most recent employer. It is also the NTA's preference that your nominated referee has worked with you within the previous five years. Please be assured that we will only collect the details and contact referees should you come under consideration at interview stage.

Should the person recommended for appointment decline, or having accepted it, relinquish it, the Authority may at its discretion, select and recommend another person for appointment on the results of this selection process.

Candidates should make themselves available on the date(s) specified by the Authority
The Authority will not be responsible for refunding any expenses incurred by candidates.

SECURITY CLEARANCES

Please Note: You may be required to complete and return a Garda vetting form should you come under consideration for particular appointment. This form will be forwarded to An Garda Síochána for security checks on all Irish and Northern Irish addresses at which you resided. If you are not successful this information will be destroyed by the Authority. If you do, therefore, subsequently come under consideration for another position, you may be required to supply this information again.

Deeming of Candidature to be Withdrawn

Candidates who do not attend for interview or other test when and where required by the Authority, or who do not, when requested, furnish such evidence, as the Authority require in regard to any matter relevant to their candidature, will have no further claim to consideration.

The Importance of Confidentiality

The National Transport Authority may use third party recruitment specialists to manage all or part of the recruitment process on our behalf. We would like to assure you that protecting confidentiality is our number one priority. You can expect, and we guarantee, that all enquires, applications and all aspects of the proceedings are treated as strictly confidential and are not disclosed to anyone, outside those directly involved in that aspect of the process.

If you feel you would benefit from a confidential initial discussion about any aspect of this opportunity, please contact Careers@nationaltransport.ie

Transport Modeller - Engineer Grade II (Panel) - Key Competencies

Effective Performance Indicators

| | |
|--|---|
| 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 team |
| | 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 changes effectively |
| | 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 |

Transport Modeller - Engineer Grade II (Panel)

- Key Achievements Form

Having read the competencies and thought about the demands of the role, for each of the competencies below.

Please briefly demonstrate a specific example which illustrates how you have developed the relevant competency during your career to date and which clearly demonstrates your suitability for this position.

Your answer must highlight all elements of the STAR competency framework – which is outlined below:

| | |
|------------------|---|
| Situation | Present a challenging situation you found yourself in |
| Task | What did you need to achieve from the situation? |
| Action | What action did you personally take to achieve this? |
| Result | What was the result of your action? |

Please note, there is a maximum page count of **2.5 A4 pages at font size 10-12.**

The key achievements form commences on the next page.

Please complete all sections of the form below.

Transport Modeller - Engineer Grade II (Panel)

- Key Achievements Form

Please complete all sections of the form below.

Name:

| |
|--|
| Team Leadership |
| Answer: |
| Judgement, Analysis & Decision Making |
| Answer: |
| Management & Delivery of Results |
| Answer: |

Interpersonal & Communication Skills

Answer:

Specialist Knowledge, Expertise and Self Development

Answer:

GDPR Privacy Statement- Recruitment Process

Purpose of Processing

The NTA conducts a competency based recruitment process to fill vacancies within the organisation. To complete this, interested individuals are asked to submit a CV, Cover Letter and Key Achievements form for assessment by the interview panel. For the successful candidate, some of the information provided will form the basis of the contract of employment (e.g. address).

Legal Basis for Processing

- Necessary for performance of a contract or to enter into such a contract
- Compliance with legal obligation (Terms of Employment Information Act)

Recipients

The following shall receive your information for reasons outlined below:

| Recipient | Reason |
|--------------------------------|---|
| HR (internal) | Storing application, acknowledging responses and corresponding with applicants |
| HR (external Service provider) | If outsourced support is sought, our outsourced HR provider may receive applications to assist with elements of administration, or to manage the entire recruitment process |
| Interview Panel | The Interview Panel will receive your applications to conduct shortlisting and assessing applicants |
| Referees | Applicants are asked to provide references who can be contacted to validate work records and/or comment on suitability of the applicant for the position applied for. These shall be contacted and the applicants name will need to be provided to receive the reference. |
| Company Doctor | We will use your personal details to refer you to the company doctor if considered for appointment |

Details of Data Transfers Outside the EU

This does not apply to this process.

Automated Decision Making

This does not apply to this process.

Retention Period for Data

For unsuccessful candidates, applications and correspondence shall be retained for 12 months. For successful candidates, their application will be placed on their employee file and retained during their employment and for an appropriate period thereafter.

Your GDPR Rights in Relation to this Process

| Right | Explanation |
|---------------|--|
| Access | You can request and receive access to the information requested in the process at any time. |
| Portability | You can request and receive a copy of this data, in electronic/transferrable format, at any time |
| Erasure | You can request the data held be erased. We have outlined the anticipated retention period above. |
| Rectification | You can have any incorrect information, due to this being updated or otherwise, to be corrected. |
| Objection | You can object to this information being processed |
| Complain | You can make a complaint to our internal Data Protection Officer (contact details outlined below) and/or make a complaint to the relevant supervisory authority – Data Protection Commission in Ireland. |

Contact Details

Name: Data Protection Officer

Email: privacy@nationaltransport.ie