FACT SHEET

NORTH EAST LINK

MODELLING A MAJOR TRANSPORT PROJECT

Strategic models look at:

Trip generation	How many trips? What is the purpose of each trip?
Destination choice	Where will these trips go?
Mode choice	What type of transport vehicle does each trip use?
Trip assignment	What route will each trip take?
Base year	Replicates conditions in the recent past using travel surveys and observed travel data
Future years	• No project case: a future that doesn't include the proposed project • Project case: a model that does include the proposed project

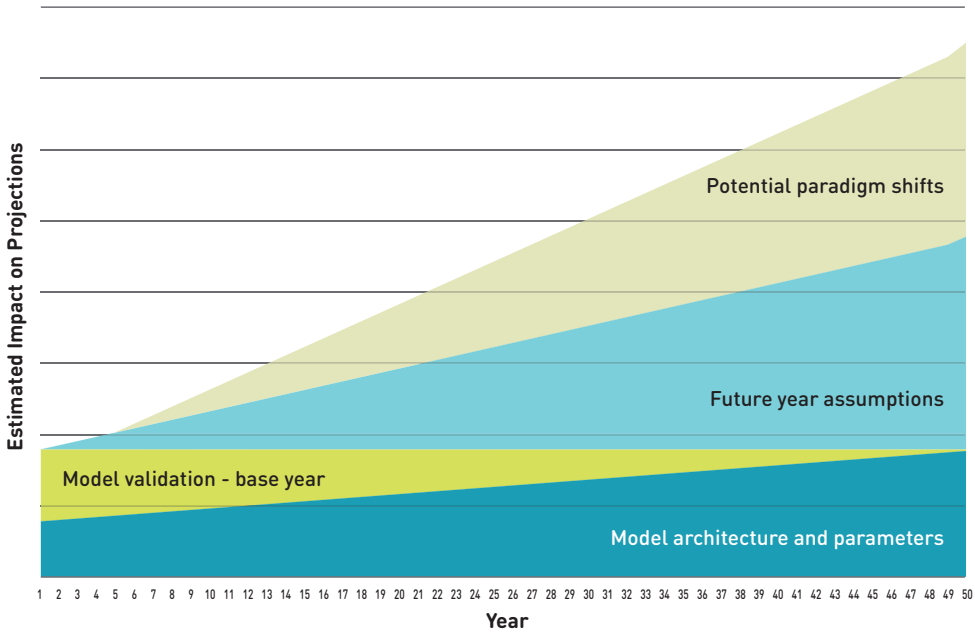
Models use a base year and future years

Validating the base year model

An assessment of model accuracy and validity provides confidence the model is representing observed travel behaviour under known conditions. It is done by comparing modelling outputs to observed travel data.

Base year and future year models

The diagram below shows the relative importance of different elements of the model over time.



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Model architecture and parameters includes types of models, model structure, time periods, data used (e.g. sample size of travel surveys), simplifications
- As time passes these are likely to be more important.

Model validation includes traffic and passenger surveys, toll diversion
- As time passes these are likely to be less important.

Future year assumptions including land use and demographics, road and public transport networks, GDP, fuel prices etc.
- As time passes these are likely to be significantly more important.

Potential paradigm shifts including disruptive technologies: autonomous vehicles, changes in human values (e.g. environmental impacts) and activity (e.g. working from home), digital world (e.g. video conferences), Unknown unknowns (e.g. US politics)
- As time passes these are likely to be significantly more important.

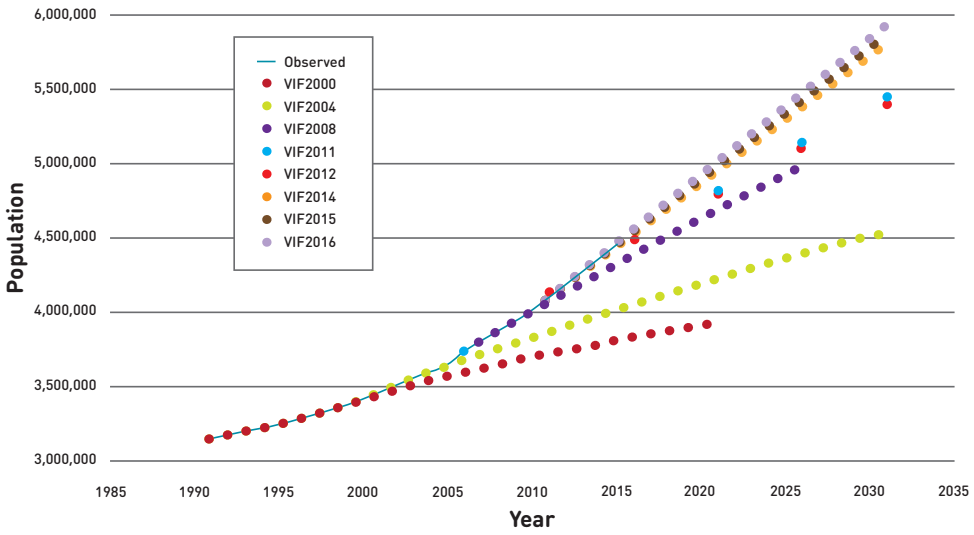
Establishing future year assumptions

Transport infrastructure	• Strategies & future projects • network assumptions
Population and employment	• Age • Labour force status • Household car ownership • Jobs by industry category • School enrolments • Airport passengers

Land uses	• Strategies & future projects • Major tourist attractions • Potential private developments • Growth (eg ports)
Costs and charges	• Fuel price • Road tolls • Public transport fares • Parking charges • GDP • Real earnings

Things to watch out for:

- Comparison to historical trends without adequately assessing future trends
- Comparison to assumptions from other jurisdictions and sources which aren't relevant here
- Realistic 'base case' vs 'do-minimum' network assumptions: including proposed projects
- Assumptions designed to make the project 'look good': e.g. unrealistic costs or charges



In 2000, the 2016 forecast was 3.8 million, but it actually reached 4.5 million

*VIF: Victoria in Future - the official state government projection of population and households

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