# WHAT IS NODEM

National Asset Management Steering (NAMS) Group is a non-profit organisation established in 1995, has been promoting asset management in New Zealand through the development of best practice guidelines.

NAMS Group has 'Optimised released Decision Making' (ODM) Guidelines in 2004 for decision making and economic analysis of the maintenance, renewal and replacement of infrastructure assets.



Following the ODM guidelines, NIS has developed a software tool, NODEM to assist in decision making of infrastructure assets.

NODEM is the only software currently endrosed by the NAMS Group as ODM software.

# WHAT NODEM CAN DO

Asset owners have several difficult but critical decisions to make in distributing available (more often limited) funds to maintain assets. For example where and how to allocate available funding between:

- → Social sector or infrastructure development;
- → Pipelines improvement or transportation network development;
- → Roads or railways or cableways; or
- Replacement or rehabilitation or continue maintenance etc.

Decisions made based on quadruple bottom line (QBL), i.e. social, cultural, economical and environmental factors, would ensure sustainable management of the infrastructure assets. NODEM can be used to undertake economic analysis, risk analysis and multi-criteria analysis

and thus QBL reporting is possible.



NODEM'S CROSS-ASSET OPTIMISATION MODULE ASSISTS IN DECIDING WHICH ASSET SHOULD BE GIVEN PRIORITY IN FUNDING.



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New Zealand Info Systems Ltd

# NODEM - NIS Optimised Decision Making System

Endorsed by the National Asset Management Steering (NAMS) Group

NIS, based in Auckland, is a specialist asset management firm providing consulting services in asset management and decision making systems in New Zealand, Australia and world wide.

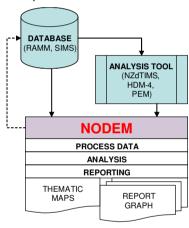
# WHO CAN USE NODEM

NODEM is designed for asset owners and their consultants in weighing potential alternatives and making optimised decisions. The system can be configured to compare between different Levels of Service, so that its outputs can be discussed with community in making decisions as part of the LTCCP consultation.

NODEM is an open ended system that can be integrated with any other asset management systems such as RAMM, HANSEN or Confirm. The outputs from other analysis engines such as NZdTIMS, HDM-4 or any other AMIS can also be imported into NODEM for further ODM analysis and reporting.

NODEM is non-asset specific software. NODEM

can be applied to all types of infrastructure assets such as footpaths, streetlights, traffic signals, bridges, culverts, retaining walls, storm sians, water and sewer pipe lines, other utilities, railways, airports, parks,



buildings, swimming pools, and libraries etc.

# WHAT ANALYSIS NODEM CAN DO

NODEM is an open ended platform that can be customized to any type of analysis. However, NODEM is easily customised for:

### **Data Analysis**

- → Understanding Current network statistics and condition status;
- → Defining target Levels of Service (LOS) or Long-term performance standards;

→ Needs analysis for achieving LOS.

#### **Benefit Cost Analysis**

(Including Community Optimisation)

- → Predictive modelling;
- → Quantifying benefits and costs;
- → Evaluating different methods or alternatives;
- → Prioritisation and Optimisation;
- → Programming and scheduling.

#### **Risk Analysis**

- → Defining expectancy and uncertainty;
- → Managing risk;
- → Prioritising based on risk identified.

#### **Multi Criteria Analysis**

- → Defining priority and weighted index for different parameters;
- → Prioritisation based on defined criteria.

#### **Asset Valuation**

- → Based on NAMS Infrastructure Asset Valuation and Depreciation Guidelines -2006;
- → Compatible to IFRS requirements.

#### **Cross-Asset Optimisation**

- → Strategy analysis for policy formulation;
- → Prioritising projects between different assets.

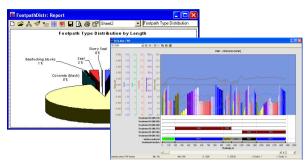
# CAN NODEM GENERATE ENOUGH REPORTS

NODEM can present results in multiple formats:

- → Reports and Graphs;
- → Strip Maps;
- → Tables and Forms;
- → Thematic Maps.

NODEM has seamless integration with MS Excel for reporting and further analysis or pasting into other reports or documents.

**NODEM-**reporter is an extremely flexible reporting software easily customisable to generate variety of information required by the users and the



NODEM has in-built GIS module for generating thematic maps of the analysis results.



# CAN END USER CUSTOMISE NODEM

NODEM is one of the most user friendly, affordable yet powerful software available around.

NODEM is available in two versions as:

**Developer Version** provides all functionality available in the software to develop analysis models and relevant functions;

**User Version** provides access to the predefined models and analysis for Managers who do not wish to develop models, but required to run analysis and view results.

Please contact us for further information on NODEM and its prices at <a href="mailto:raj@nis.co.nz">raj@nis.co.nz</a> or <a href="mailto:deng@nis.co.nz">deng@nis.co.nz</a>.

Please contact us for obtaining a copy of NODEM technical brochure and organizing a demonstration to see how you can benefit from its capabilities.