Forecasting

Through our forecasting services we allow clients to take robust decisions to optimise the future performance of their assets or systems

Service Definition

Our forecasting models can be used to explore likely asset performance either in the future, or in regions of parameter space not previously experienced. We have a range of methods (Delphi Modelling, Bayesian to build these models depending on the volume and quality of historical data available.

Service Features

- Delphi Modelling and scenario planning for low data situations
- Statistical models for situations with high data quality
- Scientific models for well understood systems
- Probabilistic or Bayesian Networks for uncertainty propagation
- Machine and Deep Learnt models complex cases

Service Benefits

- Allow the likely future state to be forecast
- Uncertainty modelling allows decisions at appropriate confidence
- Investigate proposed changes before committing to them
- Optimise the performance of assets or systems

Detailed Service Definition

Forecasting aims to predict how a system will behave in some future scenario.

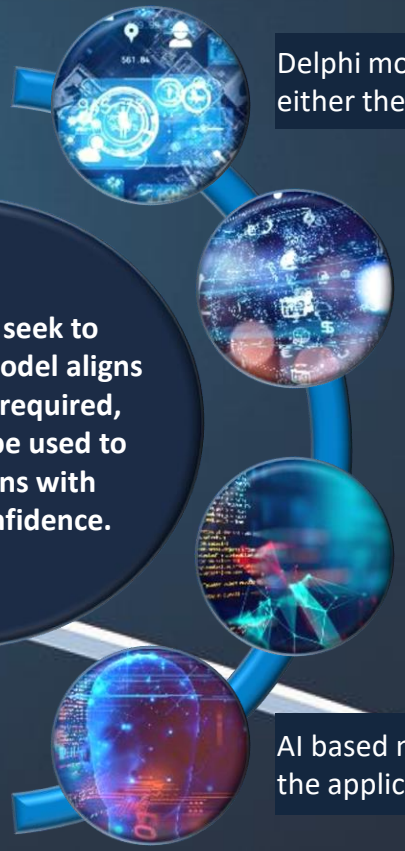
In some cases, the objective is simply to forecast how an existing system will evolve with time, however this becomes more complicated if the system is not yet in place, or if its operational mode is to be changed.

Our approach to forecasting is to firstly consider what outputs are required and hence what aspects of the system must be considered in the forecast.

In all cases we seek to ensure that the model aligns with the insight required, such that it can be used to inform decisions with appropriate confidence. Our approach is also extensible, such that we can advise on appropriate steps should enhanced confidence be required

Detailed Service Definition

A forecast always requires some form of model and we are experienced in a wide range of approaches and can select an appropriate one for the situation. Examples include:



In all cases we seek to ensure that the model aligns with the insight required, such that it can be used to inform decisions with appropriate confidence.

Delphi models and Scenario Planning approaches are ideal for highly uncertain saturations where either the system is not extant or where the operational mode is being significantly changed

Regression or time series based models are appropriate where operational data exists and that this is felt to be informative of future performance

Physical models are helpful where the basis of the system is understood in scientific or econometric terms. These approaches are often deployed as Bayesian networks to allow uncertainty to be treated rigorously

AI based models are appropriate for systems where the driving mechanisms are unclear and where the application permits a reduction in transparency

Why Frazer-Nash Consultancy?

We are an independent consultancy offering a broad range of cloud consultancy services. We have been at the leading edge of digital engineering and software development for over 35 years. We are 'solution agnostic' and provide truly independent advice. We are not tied to any hardware or software products; we design cloud-based solutions which are built on knowledge acquired from a broad range of applications developed across multiple platforms. We utilise this knowledge to add value to our clients through the technological advantages offered by cloud integration.

Our Commitment to Quality

From every aspect of engagement and communication we are committed to providing services and deliverables of the highest quality, to ensure we continually meet and exceed the expectations of our customers. Our processes include suitable controls to ensure progress is closely monitored and decisions are appropriately scrutinised.

In addition to a project manager, every project has a dedicated project supervisor (who impartially monitors and approves monthly progress reports) and dedicated project auditor (who ensures quality is followed). At a deliverable level, all customer outputs are verified for technical accuracy, and approved as appropriate for their purpose by two independent reviewers. Our Quality Management Systems is certified to ISO 9001 and the TickITplus scheme (for software development).

Our Security

Our processes and certification are fit to handle sensitive and classified information up to Top Secret. The majority of our staff are security cleared to at least SC and over 200 of our staff hold DV clearance. We are also experienced in handling highly sensitive commercial information, with the ability to separate teams as necessary for security and conflict of interest requirements. Our IT systems are certified to ISO 27001 and Cyber Essentials Plus.

Our Approach to Subcontracting

Our large base of full-time staff can be supplemented where required through partner companies and trusted associates providing us with flexibility and scale whilst retaining control. We are adept at quickly subcontracting a range of organisations when needed, from sole traders to large multinational companies, through the lifecycle of a project. Our processes focus on identifying, assessing and contracting an appropriate supplier; defining a scope of supply; flowing down terms and conditions where appropriate, and managing risk to ensure the purchase is delivered on-time, within budget and to the required quality. This includes undertaking a due-diligence process to commercially and technically 'approve' the suppliers we work with.

Resourcing

We employ over 1200 technical staff across all grades, from Follow to Set Strategy, with a vast range of specialities, backgrounds and experiences. To enable agile and flexible resourcing, we are grouped into a range of technical delivery areas (e.g. Information Systems, Cyber, Modelling, Software etc.), which can be applied to a range of sectors (e.g. Central and Local Government, Police, Health, Energy). This resource focus combines with our strong portfolio, programme and project management to allow us to monitor demand on a dynamic basis and respond to the changing demands of the project through its lifecycle.

Our staff work across a range of industry sectors allowing us to 'cross-pollinate' ideas and techniques between different domains. We build teams, led by a single responsible project manager, that are tailored to the specific challenge. We are fortunate to have a diverse range of capabilities within the same company, including information security, and human factors specialists. This allows us to efficiently and promptly deliver multi-disciplinary projects that meet your specific requirement.

Our Commercial Approach

Our commercial approach is flexible to provide best service and value to our clients.

We will discuss with you the specifics of the support and services you require and build an appropriate commercial model to deliver this scope. This could be a defined scope fixed priced service, or provision of time and materials agreed day rates suitable for a developing scope.

Where you have service requirements for an extended period, and where we have control of the resource flexibility, we are also able to offer an agreed single blended day rate for support at a range of grades.

FRAZER-NASH CONSULTANCY
A KBR COMPANY

Next Steps

To discuss your requirements in more detail or place an order for services please contact us at **ccs@fnc.co.uk**