

Case study: Critical infrastructure
 Client: NAM
 Location: Groningen, The Netherlands
 Time: 2000 - 2016



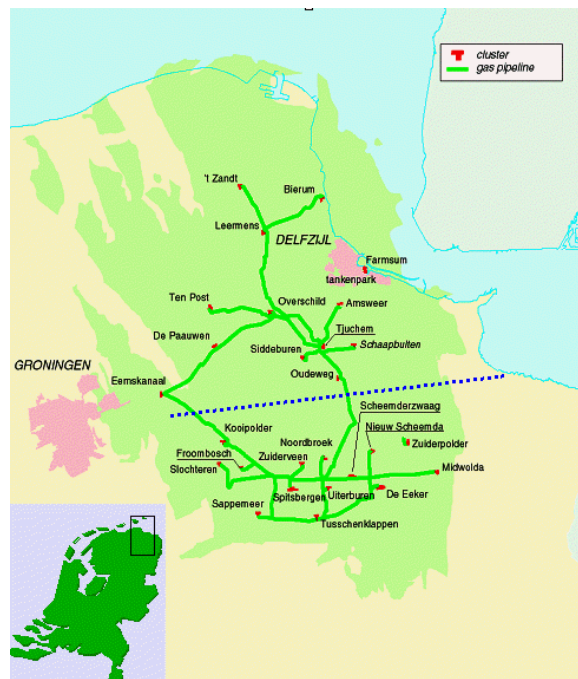
Problem

The Groningen gas field in The Netherlands is operated by NAM and has been in production for over 50 years without interruption. Until recently, it had the role of largest swing producer in the Dutch and many of the other EU gas and electricity markets.

The Groningen production system has to provide an extremely high level of security of supply (>99.999%). NAM meets this contractual obligation through the installation of ~10% spare capacity.

SecuoS approach

We had built up a long term strategic consulting relation with NAM, aimed at optimisation of the Groningen production system. During 2000 - 2016, we supported NAM with developing their Availability Assurance process, with production availability studies, modelling and data collection support, reviews and training. The minimum level of required spare capacity is quantified through the support of our team.



Groningen gas field

Outcome

Our ongoing support has generated accumulated cost savings of 400 M Euro on capital investment and extra revenues exceeding 20 M Euro per annum.

The modelling software is fully embedded in the long term planning software of NAM. This enables a fully automatic background calculation of the required spare capacity between 2009 and 2034. The results form the basis of the NAM business plan, short and long term investment program, and existing and future contractual obligations. Models and calculation methods are formally accepted by shareholders, partners, and customer.

Availability Assurance

presented at TIOGE, 2003.

We have assisted with setting up the Availability Assurance process for many companies and plants all over the world. The savings in project development applications are substantial. Typically, 2-5% reduction in capital investment and 10-20% reduction in unavailability are achieved.