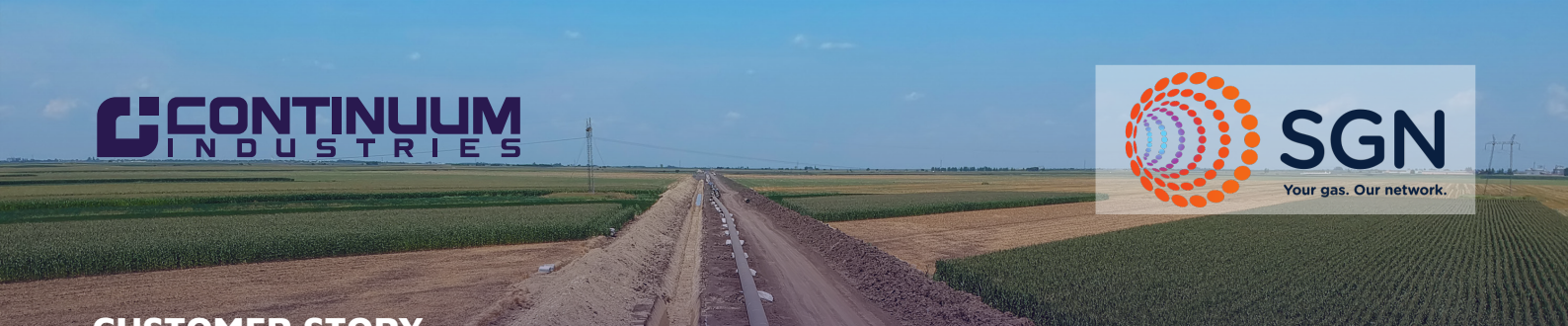

CONTINUUM INDUSTRIES

SGN Your gas. Our network.

CUSTOMER STORY

SGN identifies initial pipeline routing options in 1 week, with Optioneer™

SGN wanted to ensure the highest quality of analysis to evaluate multiple pipeline scenarios in sufficient detail with limited resources and time. Optioneer's AI-powered route engine returned detailed route options in hours. SGN shortlisted preferred routes that outperformed alternatives on environmental impact.

20 million
detailed pipeline route options assessed

1 week
time to initial options identified

<4 hours
iteration cycle for new scenarios

About

SGN Your gas. Our network.

3,000+
Employees

UK
Based

70,000+km
pipelines

The challenge of exploring all possible route scenarios, before using Optioneer

SGN, as part of its 'Aberdeen Vision' programme, is currently developing a new pipeline to transport hydrogen gas from St Fergus to the Aberdeen area, with a future extension towards the Scottish Central Belt. This requires a thorough evaluation of all possible pipeline routes.

Faced with strict timelines and finite resources, traditional approaches to planning and development of linear projects limit both the number of route scenarios that can be assessed and the depth of analysis that can be undertaken.

That makes it difficult to undertake a robust route selection process where all possible options have been identified and analysed in enough detail, in support of planning applications. This is necessary and critical to understand and outline the potential impact on protected areas, local communities and individuals, and ultimately making a case for preferred route options.

With ever more complex criteria to consider for new linear infrastructure, SGN needed a new solution that could simultaneously accelerate the process and increase the breadth and depth of route analysis.

How SGN used Optioneer

Working together with engineering company Wood, Continuum Industries deployed Optioneer to help the project team study over 20 million potential route options and assess each of them against hundreds of detailed environmental, engineering and cost criteria.

SGN's project team was able to incorporate all feedback from external stakeholders and internal disciplines right from the beginning with configurable rules for Optioneer to follow when analysing and identifying prospective route options, such as avoiding population centres and protected sites.

Optioneer returned an optimised shortlist of route scenarios within hours aligned to the most relevant and critical criteria set by the project team. The quality of results meant that follow up site visits confirmed the feasibility of the preferred route with only minimal rework needed.

Consistent set of assumptions linked to internal guidance for all projects

Identify & assess route options **in hours, not weeks**

Flexible & rapid iteration on alternatives

> Using Optioneer on the Aberdeen Vision hydrogen pipeline gave us the confidence early on that all possible alternative routes were assessed against environmental, social, engineering and cost criteria and that we were putting the best options forward. When the team got out on site, we found that the route required much fewer modifications than we would have normally expected.
>
> **Phill Bradwell, Energy Futures Manager, SGN**

The outcome

- **Optioneer helped SGN build confidence in the identified corridors by assessing a total of over 20 million potential route options**
- **The team at Wood and SGN were able to minimise environmental impact through an in-depth understanding of trade-offs between environmental impact and cost**
- **They identified initial corridor options faster and were able to focus effort on the most challenging locations including strategic river crossings**
- **They achieved a feasible and economical shortlist of route options with minimal re-work as verified through site visits**

CONTINUUM INDUSTRIES