How a UK government agency is transforming operations using Nexus's AI Factory

NEXUS CASE STUDY

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Background

The impact of artificial intelligence (AI) is the object of excitement for many organisations and the implementation of AI models is an ongoing trend across the globe. Organisations are trying to figure out what AI can and can't do, often through pilot projects. However, most AI pilot programmes end up getting stuck in the planning stage or are parked due to hidden challenges.

Challenges

We are mixing up implementation and pilot projects. IT leaders often face pressure to ensure initial pilot projects succeed to secure further funding. It is common for departments to spend months planning for a pilot instead of getting started with testing the feasibility of the technology.
Once an AI pilot project finally launches and the technical feasibility of the technology is proven, many hidden challenges can still emerge such as the integration complexities, high maintenance costs and the need for business process reengineering.

Our Solution

Nexus's AI Factory is a production programme to identify, prioritise and execute pilot projects systematically and quickly. We offer solutions to:

- ◆ Address business problems and identify benefits using the analysis framework called NAFTA (Need - Alignment - Finances - Tech Complexity - Assess Risks) and the Nexus ROI calculator

- ◆ Design solution architecture and new business workflows

- ◆ Manage timelines and costing for implementation and build to productionalise pilot solutions

Situation

A UK government agency needed to scale their onboarding and operational business processes in a short time frame. Before COVID-19, the agency ran a bulk of their operations manually and their strategy was centred around being a people business. This model, however, is no longer suitable. AI and automation technologies were identified as tools to achieve a digital transformation and enable business continuity.

Due to having many manual operations, over 100 candidate use cases were identified, but the client did not have a framework to prioritise them. They also needed a trusted technology partner to test the technical feasibility of each use case and finally go on to implement the solutions.
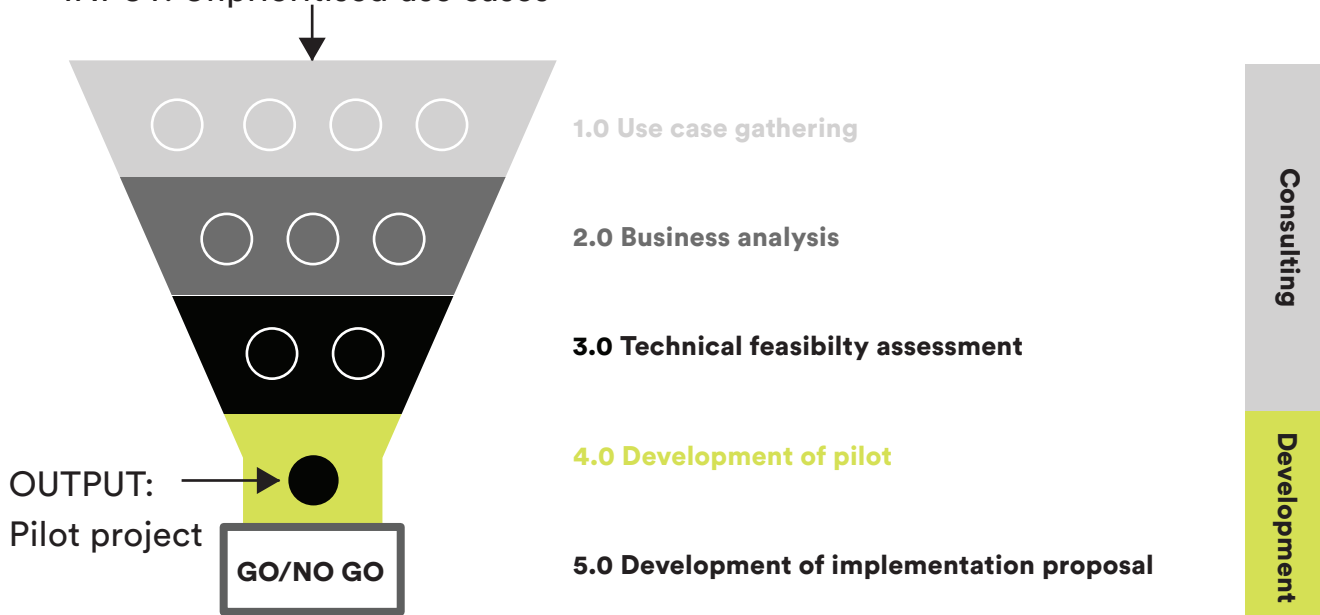
Key Issues

- ◆ It was difficult to prioritise the use cases and figure out which one to develop first

- ◆ Tight timeframe: a full proposal had to be turned around within 1 month evidenced with a successful pilot project to prove the feasibility of the technology

- ◆ Like many projects, securing the funding for development depended on pilot project success , so IT leaders felt pressure to ensure the right use cases were taken forward

- ◆ Lack of AI and automation expertise

The following is the steps we took to help our client achieve their objective

Birdseye view: How the Factory works

INPUT: Unprioritised use cases

1.0 Use case gathering

2.0 Business analysis

3.0 Technical feasibilty assessment

4.0 Development of pilot

5.0 Development of implementation proposal

OUTPUT:

Pilot project

GO/NO GO

Consulting

Development

Consulting Phase

1.0 Use case gathering

A 360 scan of the business was conducted to build a holistic view of the organisation and to build a matrix of use cases. A prioritised use case backlog was presented to stakeholders in line with the strategic objectives of the business, ready for an analysis deep dive.

2.0 Business analysis

The use cases were evaluated systematically in priority order using the NAFTA framework (need, alignment, finances, tech complexity and assess risks).
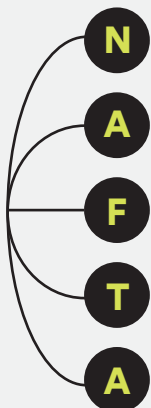
N **(N)eed:** Does the use case solve or contribute to a core need of the business?

A **(A)lignment:** Does the use case align with the long term strategic vision of the company?

F **(F)inances:** How will the cost & benefits be decided based on the specific use case?

T **(T)ech Complexity:** How complicated is it to design and implement the AI model?

A **(A)assess :** What are the model deployment and model failure risks and is there a suitable mitigation strategy?

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Nexus consultants evaluated the entire development workflow and estimated benefits using the unique ROI calculation tool. The ROI calculator took into consideration both tangible and intangible factors e.g. social impact. This tool built a more accurate and realistic ROI calculation.

3.0 Technical feasibility assessment

Nexus technical consultants conducted a technical feasibility assessment by experimenting with small-scale systems to demonstrate the capability of AI technology. This enabled the client to gain insight on the technology without a large upfront time and capital investment.

A recommendations report was produced with the findings from the business and technical feasibility assessment with a suggestion for how to move the use case to the development phase, saving the business time and effort. The technical feasibility assessment allowed the business to understand the technical feasibility without a large upfront cost investment.

The consulting team transferred a technical feasibility assessment report along with recommendations to the development team to move the use case further into the development phase, and repeated the same process for the next use case.

Development Phase

4.0 Development of pilot

The chosen use case moved into the pilot development phase. This stage was expedited due to the organisational knowledge gained in the consulting phase. Results with real client data were presented to the client and feedbacks were taken into account until the pilot met the success criteria of the business.

5.0 Development of implementation proposal

A full implementation plan, backed by results from a successful pilot study, was presented to the business for full scale delivery. The pilot was repurposed to accelerate delivery.
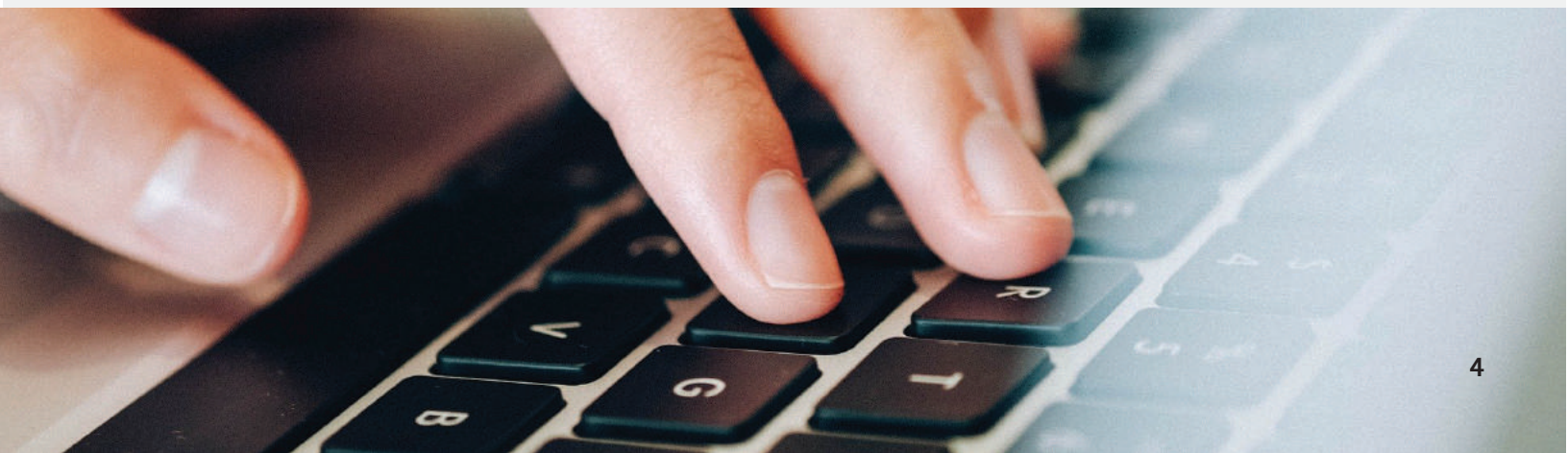
Results

◆ More than **100 use cases** were more than 100 use cases were identified, analysed and prioritised using Nexus tools and frameworks

◆ **The holistic approach** ensured that use cases aligned with the data strategy of the business and areas with an imminent need and value were prioritised.

◆ Along with pilot development, we organised **leadership training sessions** to provide insights and goal setting for C-level executives to ensure that the business was equipped for starting their AI journey.

◆ The business is left with a reusable framework to continue experimenting with and executing AI pilots.

◆ The full scale implementation plan of **4 use cases within 2 months** including integration plans and accurate costing evidenced with real pilot project results. More use cases implementation plans are expected to be delivered in the next few months following the framework stated above.

◆ Overall, using AI Factory, the UK government agency accelerated their operational process by **60% within 3 months.**

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Discover more information about the AI Factory:

www.nexusfrontier.tech/product/ai-factory/
www.linkedin.com/company/nexusfrontiertech