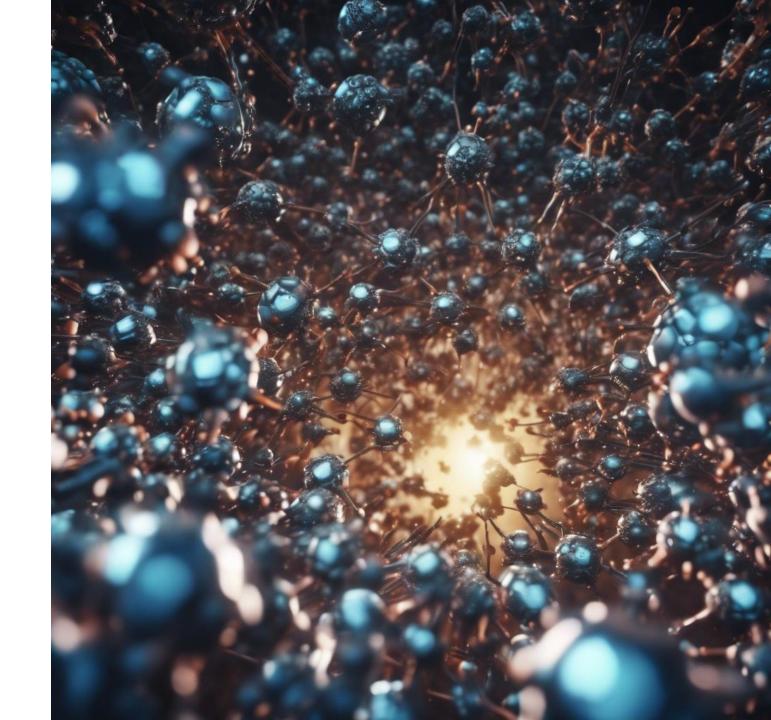
# NEXUS

is a new foundational AI architecture based on artificial swarm intelligence

Logistics Pharma Economics and financial predictions Fields sports analysis and many more





## **THE PROBLEM**

"Current generative AI models struggle or even fail when faced with solving complex math, analytical and optimisation computations, forcing developers to manually create unique algorithms when building complex systems for their clients.

This approach slows development, increases costs, and sometimes limits the capabilities that can be built into their customer facing solutions.

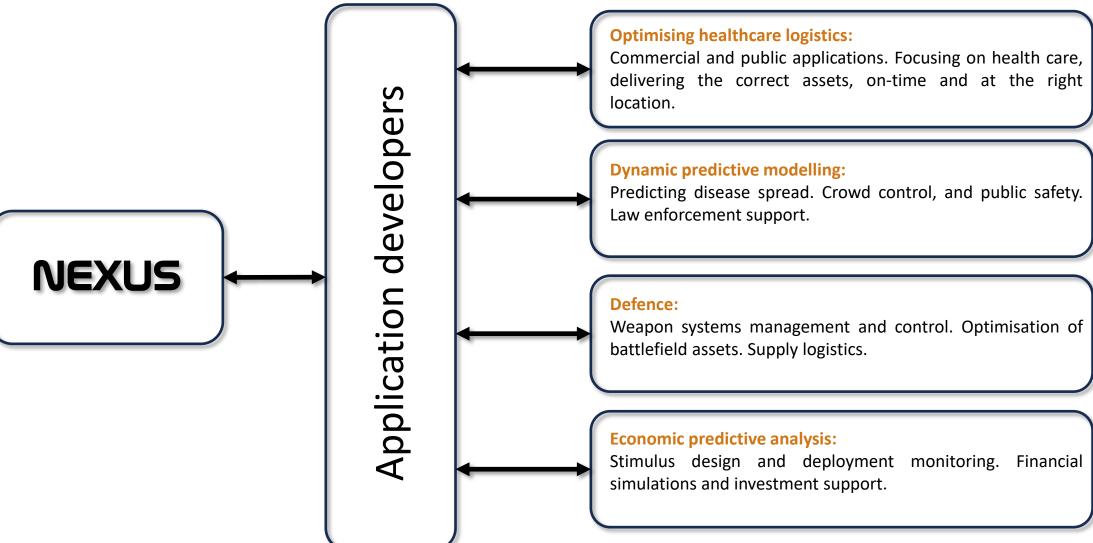
A new foundational AI, that can think and generate unique solutions, is needed to efficiently solve complex math, optimisation and analytical problems for developers.

This is why we have created **NEXUS**".

**David Gammond - CEO** 







ÍSD/

### **ACCESS**

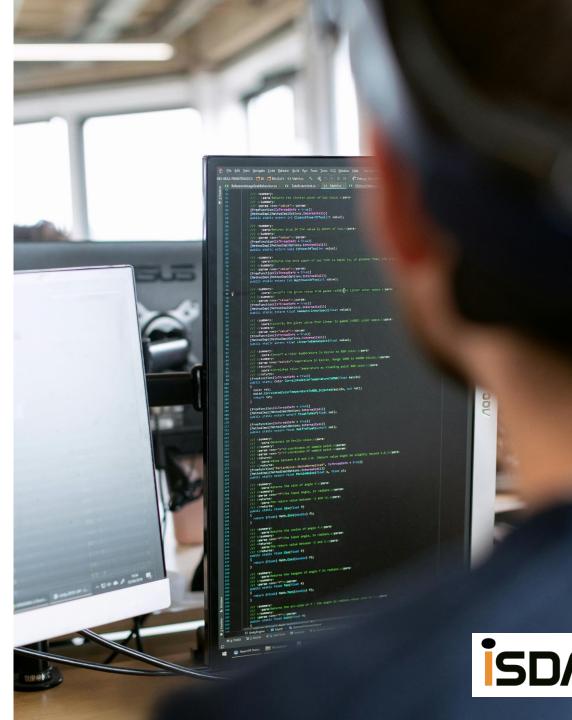
Our target clients for **NEXUS** are developers servicing large and medium sized corporates, for whom they are running analytical systems, processing complex mathematical problems, utilizing large volumes of data for optimisation purposes, or designing complex structures.

Our clients can access **NEXUS** through a bespoke API, purpose built for each individual use case.

We can also build bespoke systems for clients based on the **NEXUS** engine. These systems are provided on a full development and support basis.

We are offering access to **NEXUS** on the basis that we share in our client's financial upside. This pricing strategy perfectly aligns our interests with those of our client.

Please contact us to discuss your application and how **NEXUS** can increase your profitability with minimal upfront financial risk.



## **HOW IT WORKS**

We have shown that emergence\* is created by the **NEXUS** architecture, using an environment filled with what we call Dants (Digital Ants). Running their evolution at thousands of times natural speed, we have created an intelligent, thinking AI capable of solving real world problems.

Mathematical, analytical and optimization problems can be input into **NEXUS**. These problems include warehouse optimization and route planning, investment strategies, climate change or designing new pharmaceuticals.

The Dants swarm around the problem to discover the most efficient path to a solution, working together they create chains of processes. These chains are then used to solve the problem creating the output.

**NEXUS** is a core technology which creates artificial intelligence in a completely different way to generative AI or LLMs. We have found that by utilizing the power of emergence, **NEXUS** is able to evolve original, efficient solutions.

Typical generative AI architecture comprises a network of neurons which contain data. These neurons are linked together using parameters.

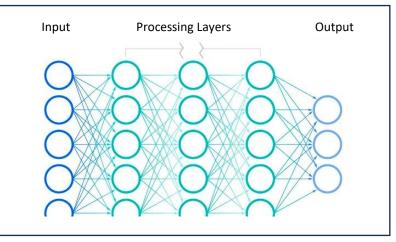
Input is passed through the processing levels, which make decisions to create an output that is based on training data.

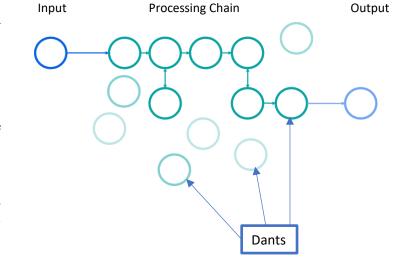
This architecture is very good at processing text but lacks ability when processing complex math.

In **NEXUS** dants are created with differing mathematical skills and other attributes, such as the ability to call on external AI models and other services.

Driven by the input, the dants swarm and stick together to form processing chains. The chains are created through a set of rules that trigger computational emergence.

Once the most efficient processing chains possible are created the remaining dants are removed from the system until again needed.





<sup>\*</sup>Emergence occurs when a complex entity has properties or behaviours that its parts do not have on their own and emerge only when they interact in a wider whole.

## **FOUNDERS**

"Our founders are a team of highly motivated and experienced people. Building a completely new AI model and bringing it to market requires exceptional talent.

I am proud of our journey, and I am incredibly excited about what we will achieve as we continue to develop **NEXUS**".

**David Gammond** Founder & CEO



David Gammond Chief Executive Officer

I have worked in the computer industry for over 40 years, supplying computer technology to both large and small companies. Past projects include data capture rigs for particle accelerators, manufacturing systems based on IBM MAPICS, biotechnology and office automation.

For almost 30 of those years, I have been fund raising for tech projects and companies. These include renewable energy, biotechnology, broadcasting, fintech and SaaS providers.

I am based in Manchester, England.

## FOUNDERS



#### Brandon Lin Chief Science Officer

I have a MEng in Computer Science. Formally educated in cloud architectures, artificial intelligence, machine learning, deep learning, image processing, computer vision, and high-performance computing, I wrote dissertation my on Psychology, the Computational study of how and why deep learning neural networks interoperate data, and what that means for machine learning models.

I am a full stack developer with extensive programming, networks and cloud experience.

I am based in Bristol, England.



#### Kyle Bradley Chief Technical Officer

I am an experienced CTO who has actively supported numerous businesses in building out their solution and teams in the pursuit of achieving product-market fit. As such, I have exposure to all aspects of product development and team growth given different stages of a company.

I most recently supported Umazi with their client growth and subsequent fund-raise. Before that, I helped grow two start-ups, from ideas to successful products. These are HouseME, where I was the CTO, and WhereIsMyTransport, where I was a development lead for their flagship product.

I am based in Leeds, England.

## FOUNDERS



Nancy Singha Head Engineering and Programming

I am an experienced data engineer with experience in life sciences and finance. I recently graduated with a Master of Science in Big Data and High-Performance Computing from the University of Liverpool with merit.

I am proficient in ETL development, Data modelling, SQL, Python, Big data technologies and Master Data management.

I enjoy working with new tools and technologies.

I am based in London, England.



Nithin Nampoothiry Head Analytics and Data

I attained a Master's degree with distinction, marking the onset of a rewarding analytics career. My ability to transform complex data into actionable strategies was further exemplified by establishing a robust operational framework and delivering crucial metrics at NHS Property Services and Mitie.

My focus is set on driving datadriven decisions to propel our ambitious venture toward groundbreaking success in swarm Al solutions.

I am based in Leicester, England.

## **ISDA is supported by:**

Racefields – <u>www.racefields.com</u> OTS Capital – <u>www.ots-capital.com</u> GM Business Growth Hub - <u>www.businessgrowthhub.com</u> Manchester Metro University - <u>www.mmu.ac.uk</u>

Without their valued support building **NEXUS** would not be possible.

Visit our website to learn more: www.isda.world

YouTube videos on this subject which you might find interesting:

https://www.youtube.com/watch?v=16W7c0mb-rE&t=38s

https://www.youtube.com/watch?v=LHgVR0lzFJc

https://www.youtube.com/watch?v=U93x9AWeuOA





#### CONTACT US TO TALK ABOUT YOUR INDIVIDUAL NEEDS:

Intelligent Systems Development Alliance Ltd Highland House, Highlands, Royton, Greater Manchester, OL2 5HP, United Kingdom <u>mail@isda.world</u> – 0161 818 2426 – 07545 264638 (David Gammond)