lyfX.ai

Turn Data into Competitive Advantage

Data and AI solutions

We work with leading multinationals, SMEs, and startups across producing industries such as agriculture, animal health, engineering, and chemicals.

Services

Data Analytics and AI

Consultancy

Training

Capabilities

Machine Learning

Generative AI

Advanced Analysis

Turn data into *insights*, insights into *action*, and action into *competitive advantage*

www.lyfx.ai

Client Success Stories

Selected Examples

Client Success Stories - Overview

Training / Generative AI	*** AI Adoption Program for Mid-Market Industrial Enterprise**: Delivered tailored AI workshops and integrated advanced tools into daily workflows, significantly enhancing document quality (feasibility studies, technical reports) and reducing preparation time.
Consultancy	**Carbon Credit Feasibility Study:** Led detailed feasibility assessment for novel fumigant technology, accurately quantifying greenhouse gas emission reductions and potential financial returns. The study confirmed significant carbon credit opportunities, now moving forward into active implementation.
Data Analytics and AI / Advanced Analysis	*** Feed Additive Efficacy Trials:** Conducted rigorous statistical evaluations across multiple trials of an innovative, non-antibiotic feed additive. Results conclusively demonstrated superior pathogen reduction, confirming product efficacy for market advancement.
Consultancy / Generative AI	**AI-Driven Industrial Fermentation Insights:** Combined specialised AI tools with domain expertise to deliver actionable insights while simultaneously developing client capabilities in strategic AI application. This pioneering approach predated mainstream Deep Research platforms.

* More details in subsequent slides

Enhancing Efficiency Through AI

Challenge

- Manual report and proposal creation was time-consuming and inefficient
- Reports varied in quality, impacted by language skills and inconsistent practices
- Team lacked familiarity with generative AI tools and practical implementation methods

Solution

- Conducted focused workshops on effective ChatGPT prompting
- Integrated easy-to-use AI tools directly into the team's workflow
- Established processes ensuring consistent, high-quality reports
- Introduced AI-supported data analysis methods

Results

- Reduced time spent on routine reporting (~20%)
- Improved consistency and quality across reports
- Freed team members to prioritize high-value tasks
- Enhanced team confidence and competence with AI, supporting a culture of innovation

stablediffusionweb.com

Poultry Health Management

Challenge
- Complex data from multiple trials with thousands of data points
- Hidden Salmonella detection required specialized enrichment testing
- Evaluating multiple product forms (liquid, coated) with varying action mechanisms
- Need for accurate efficacy comparison under different infection intensities

Solution
- Merged trial data into a unified dataset for rigorous analysis
- Integrated enrichment test results to reveal subtle Salmonella clearance patterns
- Systematic efficacy comparisons of formulations against control groups
- Statistically validated product effectiveness to exclude random variation

Results
- Proved significant Salmonella reductions, typically exceeding a 2-log decrease
- Treated poultry reached low/undetectable pathogen levels ~20 days earlier than untreated controls
- Highest effectiveness observed in scenarios with elevated infection levels
- Coated formulation consistently showed fastest and strongest bacterial load reductions
- Enabled antibiotic-free management recommendations based on robust data

stablediffusionweb.com

6

Startup Advisory and Growth Acceleration

Consultancy

Machine Learning

Veterinary Diagnostics Platform: Developed a scalable data and machine learning strategy for a startup focused on rapid diagnostic kits for livestock disease detection. The approach is integral to their fundraising strategy, with implementation planned post-investment.

Consultancy

Sustainable Sensing Technology: Providing strategic advice to a pre-seed startup developing biodegradable moisture and temperature sensors for agricultural applications. Current efforts focus on refining value propositions, developing market entry strategies, and preparing effective investor communications.

Consultancy

Bio-based Agricultural Protection: Advising a biotech startup creating targeted antimicrobial solutions for agriculture. Delivering comprehensive support across strategy, partnership development, and capital-raising initiatives.

Expanding Technical Capabilities

Agents

AI Scouting Agent (ongoing project): Developed an automated agent to identify and evaluate job openings specifically suited to interim management roles. Collaborating closely with a consultancy currently expanding into interim placements.

- Tech stack: Python, OpenAI APIs, and Pydantic for structured LLM interactions

Agents

Interactive Carbon Emissions Agent (ongoing project): Internal project to build an interactive AI agent for carbon footprint calculations. After evaluating multiple frameworks (OpenAI SDK, HuggingFace smolagents, custom prototypes), currently exploring LangGraph for its scalability and practical applicability.

- Tech stack: Python, LangGraph, OpenAI APIs

Generative AI

AI-Enhanced Regulatory Monitoring (completed): Developed an AI-driven regulatory monitoring workflow initially considered for a legaltech spinoff.

- Sample outputs available at: https://www.policymanager.ai/samples/TM_AI_sample.html or https://www.policymanager.ai/samples/ECJ_Today_sample.html
- Tech stack: Python, Django, OpenAI APIs, Celery, HTML

8

Working with the lyfX.ai team was a great experience. The project went smoothly, the team was always there to answer our questions, and we got many new insights.

Scott Foxhoven
Product Testing Specialist
The Mosaic Company (USA)

lyfX.ai has been helping us adopt modern AI tools in our daily work. Their workshops are organized in a practical, hands-on way.

Markus Pfänder
Executive Director
K-UTEC AG Salt Technologies
(Germany)

9

Team

Dr. Andre Moreira

- PhD in Theoretical Physics
- Executive experience in Chemical, Materials, and AgTech sectors
- International expertise having worked in Germany, USA, Asia
- Actively leads technical development, focus on Data & AI integration strategies into businesses

Prof. Peter Lenz

- PhD in Theoretical Physics
- Expert in modeling complex biological and physical systems
- Professional background in Germany, USA, France
- Focus on advanced AI techniques and big data analytics

10

Data & AI Readiness
A two-days pilot project to assess your Data and AI needs

info@lyfx.ai
www.lyfx.ai