

XERINI

Optimising Business Productivity Using Technology and AI

Beyond the Hype: Real-World AI Challenges and How We Overcame Them



Alex Luketa
Partner

ABOUT US

About Xerini



Xerini is a software and AI solutions provider on a mission to inspire and empower businesses by optimising productivity through technology and AI. We help organisations break free from silos, eliminate slow manual processes, and unlock the full potential of their data.

Founded in 2019, we initially focused on civil engineering and the built environment, working with HS2 and National Highways. Today, we've expanded into finance, wealth management, recruitment, insurance, and other industries.

Alex Luketa

Partner / Chief Geek

14+ years in financial technology at Morgan Stanley, Goldman Sachs, and Credit Suisse. Expert in AI, machine learning, and building bespoke solutions that enhance existing IT infrastructure. Under Alex's guidance, Xerini develops AI applications built on the scalable XeFr platform.

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Stories of failure resonate more than stories of success. Few people reach the top, but everyone has failed, including those who eventually succeed.

If you're teaching people how to succeed in a given field (or talking about your own success), start with how you failed.

James Clear

➔ CASE STUDY 1

AI for Tender Intelligence: Smart Bid Summaries & Scoring

KEY FEATURES



Structured Summarisation

Extracted specific data (milestone dates, commercial details) rather than generating generic summaries.



Bid Scoring

Generated a bid/no-bid score to help prioritise opportunities. Evaluated bid quality based on configurable client criteria.



Question Extraction

Identified front-end administrative questions. Extracted deeper, technical questions for internal review.

The screenshot displays the TESS (Tender Intelligence & Scoring) interface. On the left, a sidebar shows the bid details for 'James Peake' and 'LCC Consultancy Framework - PQQ stage'. The main area is divided into two panels. The top panel, titled 'Critical Information', lists key project details such as 'Project Name/Reference: Project Construction Professional Services Framework Agreement PAN2200', 'Tender Type: completely new framework', and 'Open-source Opportunity: restricted procedure'. It also lists 'Lots' (1-10) and 'Lot Restrictions'. The bottom panel, titled 'Summary', provides a detailed timeline of key milestones, including 'PQQ advertised and PQQ available (SQ): 11-01-2021', 'Tender information session (SQ): 26-01-2021', and 'Award decision approved and communicated to Suppliers (ITT): 11-07-2021'. Below the summary is a table of documents:

Name	Description	Category
Appendix 2A - Core specification.docx	general	#
Appendix 2B - Technical specification.docx	general	#
Response - Frontend.docx	frontend,general	#
PAN2200 PQQ.docx	frontend,general	#
Appendix 3b - Lot 2 - Programme + Project Management.docx	general	#
Appendix 3i - Lot 9 - Quantity Surveying + Cost Management.docx	general	#
PAN2200 ITT 20210617.docx	quality,general	#
Response - Quality.docx		

Tender Intelligence

Handling Large & Complex Documents

- Documents varied wildly in format and structure
- Token windows too small for entire documents
- Had to chunk and aggregate extracted data
- No consistent template across tenders
- Mixed PDFs, Word docs, and spreadsheets
- Numbered lists, bullet points, and tables extremely problematic



Inconsistent AI Performance

- Stochastic nature led to inconsistent extractions
- Same prompt produced different results each run
- Questions extracted in one run, missed in another
- Confidence scores varied unpredictably
- No guarantee of completeness or accuracy
- Made testing with the client tricky



Iterative Refinement & Overfitting Risks

- Fixing one prompt issue often broke another
- Risk of overfitting to specific tender formats
- Had to generalise across unseen documents
- Regression testing was essential but slow
- Each improvement needed validation at scale
- Prompt engineering is an art, not a science

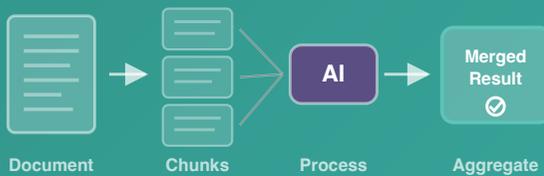


Tender Intelligence



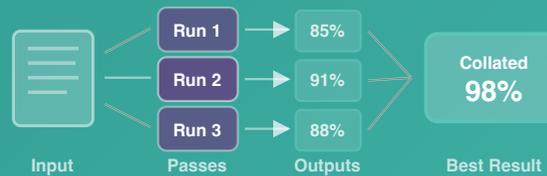
Chunking & Aggregation

Processed documents in segments and merged extracted results for better accuracy. Employed a moving window across the document to ensure context was captured.



Repeated Runs & Collation

Ran extraction multiple times and combined outputs to improve completeness. Outliers were excluded automatically.



AI Unit Testing

Client identified perfect results. These were used to check results against after changes, using a mixture of AI and regular expressions for validation.



Other Risks to Be Aware Of



Data Security



Copyright Infringement & IP
Concerns



Bias and Harmful Content



Hallucinations



Stochastic / Random Results



Prompt Injection Hacks



Model Cut-Off Dates



Weak Logical Reasoning*



Reputational Damage

CONCLUSIONS

What We've Learned

- 1** AI is powerful, but not a silver bullet
 - Each case study highlighted non-trivial challenges
 - AI requires careful implementation, validation, and oversight
- 2** AI models are improving, but challenges remain
 - Better accuracy, lower costs, and more powerful models have helped mitigate some early issues
 - However, progress may be plateauing, requiring smarter engineering solutions rather than just better models
- 3** "You + AI > You"
 - The best results come from AI augmenting human intelligence, not replacing it
 - Explainability, validation, and control mechanisms remain crucial

CONCLUSIONS

Looking Forward

4 Future AI systems will be more autonomous, but also riskier

- As the industry moves toward agentic AI, the issues we encountered (hallucinations, errors, unpredictability) will become even more significant
- The need for governance, safeguards, and human oversight will only increase

5 A clear business case is essential

- AI adoption should be driven by real business needs, not hype
- Projects must consider cost, feasibility, and return on investment before implementation

6 The exciting part: We can now solve previously unsolvable problems

- AI enables businesses to process complex, large-scale data faster and more affordably than ever before
- We're unlocking opportunities that would have been impossible just a few years ago

OUR PLATFORM

Xefr: AI Powered Business Portals

Xefr is a powerful AI-driven Data and Process Orchestration Platform that integrates and automates business data, breaking down silos and providing a seamless, interactive user experience.



Connect

Integrates disparate systems into one unified platform



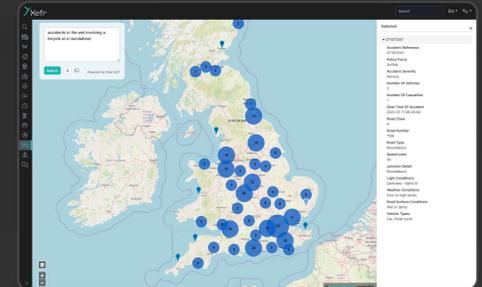
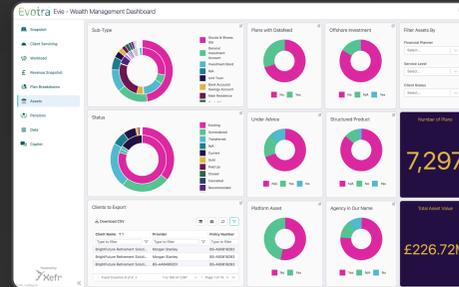
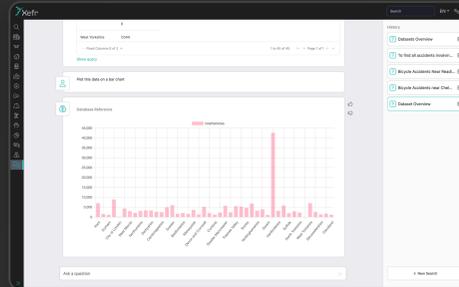
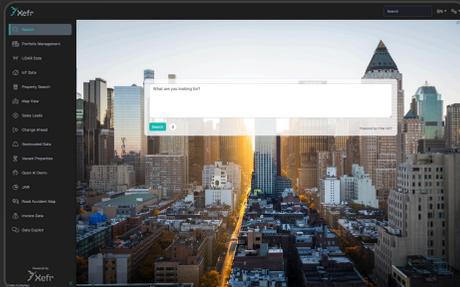
Query

Natural language interface: ask questions, get instant answers



Visualise

Dashboards, maps, charts customised for every role



XERINI

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