What a Business Analyst Finds in Four Months

Three Industries. 91 AI Opportunities. One Extraordinary Investment Case.

Contents

About This Document

This document presents real analytical work produced during the first four months of an eleven-month ST0117 Level 4 Business Analyst apprenticeship programme. Three businesses participated as employer partners. All three have been anonymised: no company names, individual names, financial details, or identifying characteristics appear.

What has not been anonymised is the work itself.

The process pipeline maps, AI opportunity catalogues, stakeholder analysis findings, ROI portfolios, and implementation roadmaps presented in the following chapters are genuine outputs, produced by apprentices who entered the programme at Stage 1–2 of the AI maturity framework and reached Stage 4–5 within four months. The numbers are real. The complexity ratings are real. The financial calculations are real.

This document is for three audiences.

Training organisations and providers seeking to understand what ST0117 with AI integration produces in practice, and what distinguishes it from standard BA apprenticeship delivery.

L&D managers, HR directors, and senior leaders evaluating whether the apprenticeship levy can be directed toward an investment with genuinely transformational returns.

Business owners and managers considering what an AI-capable business analyst could do for their organisation, and what it would cost to build that capability compared to commissioning it externally.

The answer to the last question is on the final page of Chapter 9.

A Note on the Programme

The ST0117 Level 4 Business Analyst is a UK government-recognised apprenticeship standard covering 71 Knowledge, Skills, and Behaviours (28 Knowledge, 30 Skills, 13 Behaviours). It is delivered over eleven months and culminates in an End-Point Assessment comprising a Project Proposal with Presentation and a Professional Discussion underpinned by portfolio evidence.

What distinguishes this programme from standard ST0117 delivery is the integration of AI application development throughout. Alongside the BA analytical curriculum, apprentices build six progressively complex AI applications — from a document summariser in month one to an advanced multi-agent customer support system by month eleven — using the professional tech stack of Streamlit, Make, and LangChain. By the end of the programme, each apprentice has both the analytical credentials of a qualified business analyst and the technical capability to design, specify, and build agentic AI applications independently.

The three case studies in this portfolio represent work completed at month four. Seven months of further development remain.

PART ONE: THE APPROACH

Chapter 1 — The Business Analyst as AI Discovery Engine

There is a common assumption in organisations beginning their AI journey: that identifying AI opportunities is a technology problem, and therefore a job for the IT team or an external AI specialist. This assumption is wrong in a specific and consequential way.

AI opportunity identification is not primarily a question of what AI can do. It is a question of what the business actually needs — which processes are broken, which tasks are consuming expensive human time on rule-based work, which handoffs are failing, which information is being lost between stages, and which decisions are being made on incomplete data. Answering those questions requires a set of skills that AI specialists often do not have: the ability to interview people across an organisation, map what is actually happening (as distinct from what is supposed to happen), identify where value is being created and where it is leaking away, and construct a financially justified case for which interventions to prioritise in which order.

These are business analysis skills. They are the skills at the core of the ST0117 standard.

The three businesses in this portfolio are different in almost every respect: sector, size, structure, customer profile, regulatory environment, and commercial model. What they share is that a business analyst working in each of them for four months was able to look at the entire operation systematically, surface the points of friction and failure, and produce a comprehensive, financially grounded AI transformation plan.

None of the three businesses had an AI strategy before the programme began. None had mapped their core operational processes end to end. None had calculated the financial cost of their current inefficiencies or the financial return available from addressing them.

By month four, all three had all of these things.

The three organisations at a glance:

Organisation A — The Multi-Site Dental Group. A fee-for-service dental practice with five-plus dentists and three-plus hygienists. Twelve stakeholder interviews conducted. Three patient journey pipelines mapped (new patient full treatment, new patient hygiene-first, and hygiene-to-treatment escalation). Thirty-four AI opportunities identified — twenty agentic applications requiring technical build and fourteen prompt-based tools deployable immediately.

Organisation B — The Premium Cabinetry Studio. A six-person custom kitchen and bedroom cabinetry business serving a high-net-worth residential market that has shifted materially in recent years. Six stakeholder interviews conducted. A twenty-two-stage project pipeline mapped across six phases. Thirty-three AI Buddies identified across three implementation tiers.

Organisation C — The Regional Insurance Brokerage. A fifty-five-person insurance brokerage with multiple insurance lines and a specialist heritage (classic car) book. Multi-

stakeholder elicitations across operations, marketing, sales, HR, finance, and compliance. Twenty-four AI solutions identified across four complexity categories, with a full ROI portfolio demonstrating £407,975 in annual return from an optimised investment of £150,700 — a blended ROI of 156%.

Total: 91 AI opportunities across three businesses. At month four of eleven.

Chapter 2 — The Methodology

The outputs in this portfolio did not emerge from a generic AI audit template. They emerged from the application of four linked analytical disciplines, each of which is a core component of the ST0117 standard. Understanding the methodology matters for two reasons: it explains why the outputs are grounded in business reality rather than theoretical possibility, and it clarifies why the apprentice who develops this capability retains compounding value in the business long after the programme ends.

Structured Elicitation

The starting point for every case study was a series of structured one-to-one interviews with the people who actually run the business. Not a survey. Not a group workshop. Individual conversations, conducted methodically, in which each interviewee was guided through their role, their daily activities, their pain points, the workarounds they have developed, the things they wish they could do but cannot, and the things they know are broken but have accepted as inevitable.

The distinction between what people say they do and what they actually do is the most important distinction in business analysis. Standard operating procedures describe the intended process. Interviews reveal the actual one — including the spreadsheet that sits alongside the official system because the official system cannot do what is needed, the verbal handoff that replaced the documented one because no one ever used the form, and the single person whose personal skill is carrying a critical part of the operation that should long since have been systematised.

Across the three businesses, twenty-eight structured interviews were conducted — six in the cabinetry studio, twelve in the dental group, and ten-plus across the insurance brokerage. Every interview was transcribed, analysed for process description, pain point identification, and AI opportunity signals, and cross-referenced against the interviews from other roles in the same organisation.

Process Pipeline Mapping

Elicitation reveals the ingredients. Pipeline mapping assembles them into a coherent picture of the operation from end to end.

Each business's core workflow was mapped stage by stage, from the first point of customer contact through to the completion of the service and post-completion follow-up. Every stage was documented with: the roles involved, the typical inputs and outputs, the tools used, the most common failure modes, and a risk rating for the probability and cost of failure at that stage.

The three pipeline maps produced were:

- Three patient journey pipelines for the dental group, covering forty-five-plus stages
- A twenty-two-stage project pipeline for the cabinetry studio, covering six phases from lead receipt to aftercare
- Multiple operational workflow maps for the insurance brokerage covering sales, operations, marketing, finance, and compliance

The pipeline map is the foundation for AI opportunity identification. Once a process is mapped, the stages that are candidates for AI intervention become visible: wherever a rule-based decision is being made from memory, wherever data is being manually transcribed from one system to another, wherever a recurring communication is being written from scratch each time, wherever a compliance check is being done manually on a schedule, the case for an AI-powered alternative becomes discussable in concrete terms.

The AI Opportunity Classification System

Not all AI opportunities are equivalent in complexity, cost, or risk. Deploying a configured prompt template in Claude takes an afternoon. Building a fully integrated agentic AI system with API connections, a custom user interface, and real-time data processing takes months and a substantial development budget. The programme uses two complementary classification frameworks:

The Four-Category Framework (used in Case Study C):

Category	Description	Typical Build Cost
1	Off-the-shelf tool configuration	£3,000–£6,000
2	Multi-tool integration	£5,000–£10,000
3	AI Project — Claude or Notebook LLM	£2,000–£8,000
4	Agentic AI application — full build	£30,000–£80,000+

The Three-Tier Framework (used in Case Studies A and B):

Tier	Timeline	Description
Tier 1 / Section 2	0–60 days	Prompt-based tools or simple automations; immediate deployment
Tier 2 / Section 1	60–120 days	Technical build with moderate integration requirements
Tier 3	120+ days	Strategic buildouts; require prior infrastructure

The skill of the BA is knowing which category each opportunity belongs in — and why. Over-engineering a Category 1 problem wastes months of development resource. Under-resourcing a Category 4 problem produces a half-built system that creates more work than it saves.

The ROI Framework

Every AI opportunity is ultimately a commercial decision: is the expected return sufficient to justify the investment, and in what timeframe? The ROI framework provides a consistent, auditable method for answering that question.

- **Development cost** = external contractor days × day rate (£700/day used as market reference)
- **Annual saving** = time recovered × internal staff day rate (£200/day) + revenue improvement estimates
- **ROI** = (Annual saving − Development cost) ÷ Development cost × 100
- **Payback period** = (Development cost ÷ Annual saving) × 12 months
- **Build-vs-buy threshold** = (Annual saving ÷ 12) ÷ 1.3 — the maximum monthly SaaS cost at which buying a third-party platform is more financially attractive than building custom

This framework, applied across twenty-four solutions in the insurance brokerage case study, transformed the investment case: by applying build-vs-buy logic to six Category 4 solutions, recommending SaaS alternatives for two, and deferring or cancelling two others with poor financial profiles, the blended portfolio ROI improved from 9.5% to 156% — without reducing the annual return by more than 5%.

PART TWO: THE CASE STUDIES

Chapter 3 — Case Study A: The Multi-Site Dental Group

The Organisation

A fee-for-service dental group with multiple sites, five-plus dentists, and three-plus hygienists. The practice occupies a premium market position, competing on quality of care, clinical skill, and patient relationship. Twelve stakeholder interviews were conducted across clinical and administrative roles: dentists, dental assistants, hygienists, the front desk lead, scheduling and billing co-ordinators, and the office manager.

The Challenge

The headline finding from the elicitation process was unexpected in its clarity: this practice is not losing revenue — it is failing to generate revenue it has already earned the right to.

Three structural problems drive this.

First: more than half of all new patient enquiries arrive after hours and are never seen. The practice's own estimate is that over 50% of inbound leads contact the practice outside business hours. The automated messaging platform creates a technical loophole: when it sends an acknowledgement, the conversation thread is marked as answered and disappears from the team's queue. The patient receives a reply. Nobody ever reads the original message. The patient calls a competitor by the following morning.

Second: one person converts at 90%-plus; everyone else converts at a fraction of that rate. The front desk lead has an approach — warm, value-building, curiosity-driven — that converts almost every new patient enquiry she handles. When she is occupied, calls pass to three other staff members who answer questions but do not lead conversations. There is no script, no framework, no attempt to systematise what the practice's best performer already does. The knowledge lives in one person's instinct, inaccessible to the rest of the team.

Third: hundreds of thousands of dollars in outstanding treatment plans are sitting in an overloaded task list that nobody has consistent time to work through. Patients who have been clinically assessed, had treatment recommended, and then deferred their decision exist in a queue that is managed manually, inconsistently, and incompletely. A treatment plan that was never followed up is a treatment that was never completed. The revenue loss is invisible — it does not show up as a patient cancellation. It simply never becomes a raised invoice.

The Three Patient Pipelines

Three distinct patient journeys were mapped across forty-five-plus stages. The mapping confirmed that catastrophic failure points cluster at the two ends of the journey — lead capture, before the patient arrives, and treatment conversion, after the clinical work is complete — rather than in the clinical delivery stages where practices typically focus their attention.

The examination quality problem deserves specific mention. The practice owner identified inconsistent clinical examination quality as "the biggest revenue loss opportunity in the business." Treatment that is not identified cannot be proposed, presented, or accepted. A clinician who completes a partial examination — without the patient-centred questioning that links clinical findings to the patient's daily life — will consistently under-discover treatment need. This does not appear as a complaint. It appears as a patient who "didn't need much work" because nobody asked the right questions.

The 34 AI Buddies

Section 1 — 20 Agentic AI Buddies (technical build required)

Selected highest-priority Buddies by financial return:

Buddy 1 — Out-of-Hours Lead Engagement. Engages every incoming enquiry immediately, regardless of time of day. Captures name, concern, and contact details. Answers basic practice questions. Schedules a callback. Closes the loophole that currently routes 50%-plus of leads to oblivion. Target: 80%-plus out-of-hours capture rate. *Impact: Very high*.

Buddy 6 — Treatment Plan Follow-Up. Manages the outstanding treatment pipeline automatically. Generates personalised outreach — text messages and call scripts tailored to the patient's original clinical concern, the urgency of the recommended treatment, and the time elapsed since the plan was presented. Surfaces a daily priority list for the treatment co-ordinator, ordered by financial value and clinical urgency. Tracks responses and closes items automatically when appointments are booked. *Impact: Very high — the outstanding pipeline represents hundreds of thousands of dollars*.

Buddy 3 — Clinical Consultation Transcription. Listens to the clinical appointment conversation and produces a structured draft note for the clinician to review and approve in under two minutes after the appointment. Captures the patient's own words, the clinical findings discussed, and any treatment decisions made. One clinician currently spends approximately one hour per day writing notes from 75–80% memory confidence. *Impact: High — significant time saving and medico-legal risk reduction*.

Buddy 5 — Treatment Co-ordinator Briefing. Draws on the transcription produced by Buddy 3 and the patient's history to generate a structured briefing for the treatment co-ordinator before every treatment presentation: what the patient said in their own words, how the doctor framed the clinical finding, any emotional hesitation expressed, and suggested conversational approaches. The treatment co-ordinator currently receives "they need a crown" as her full briefing. *Impact: Very high — directly addresses the practice's primary treatment conversion blocker*.

Buddy 19 — Examination Quality. Provides real-time or pre-appointment prompts to the doctor, linking previous clinical findings with suggested questions and examination focus areas. Reviews entered examination data and flags apparent gaps in protocol. Builds an

examination quality baseline for coaching over time. *Impact: Very high — identified by the practice owner as the single largest revenue loss opportunity.*

Section 2 — 14 Prompt-Based AI Buddies (deployable now)

These fourteen Buddies require no technical build — they are configured prompt templates that any staff member runs via a Claude Projects interface drawing on live patient data. Selected examples:

Buddy 21 — Doctor Pre-Appointment Brief. Gives the doctor a 90-second structured briefing before every patient: reason for visit, last appointment summary, outstanding treatment plans, medical alerts, and any personal context from previous notes. Costs nothing to build. Directly supports the comprehensive examination protocol the practice owner wants to embed.

Buddy 22 — Treatment Presentation Preparation. Gives the treatment co-ordinator a personalised guide before every treatment conversation: the patient's clinical situation in plain English, the most compelling reason for treatment framed in life-impact terms, the likely objection based on prior behaviour, and a suggested opening line. Takes thirty seconds to run. Changes the conversation.

Buddy 30 — Production Gap Analysis. Pulls today's schedule data and current production position, and surfaces a plain-English summary of where the day is tracking against target and which provider-specific actions would most likely close the gap.

Impact Summary

Opportunity	Current State	Target State	Estimated Impact
Out-of-hours lead capture	0% after-hours engagement	80%+ capture	Very high — six figures annually
Outstanding treatment follow-up	Manual, inconsistent	Systematic, prioritised	Very high — hundreds of thousands
Clinical note accuracy	75–80% memory recall	Near-100% transcript	High — time + legal risk
Treatment co-ordinator briefing	Verbal — "they need a crown"	Full clinical and emotional context	Very high
Examination quality	Variable by clinician	Standardised protocol	Very high
Compliance audit	30–60 mins daily, manual	Automated overnight run	Moderate — 2.5–5 hrs/week saved

The Key Insight

When a patient cancels an appointment, that is a visible loss — it appears on the schedule. When a patient enquires after hours and receives no response, that loss is invisible — it never enters the system. When a clinician completes an examination without the questions that would have surfaced a treatment need, the treatment that was not identified does not show up anywhere.

A business analyst who maps the patient journey end to end makes the invisible visible. That is the work. The AI is the intervention. The analysis comes first.

Chapter 4 — Case Study B: The Premium Cabinetry Studio

The Organisation

A six-person custom kitchen and bedroom cabinetry studio. The team comprises the owner and sales lead, a project manager for outside sales, two designers, a lead installer, and a finance manager. Six stakeholder interviews were conducted — one per team member. A twenty-two-stage project pipeline was mapped across six phases, from lead receipt to post-completion aftercare.

The Challenge

The elicitation interviews revealed a business with every ingredient for exceptional success — and a set of operational and strategic conditions preventing those ingredients from combining effectively.

Operationally: a twenty-two-stage pipeline with eight high-risk stages and no standard operating procedures for any of them. Critical knowledge — how to qualify a prospective client, how to present a budget, which specifications to use for which supplier — lives in individual expertise and is not consistently transferred to the rest of the team. The owner's own diagnostic is precise: "I have to ask designers what they are working on right now. I shouldn't have to ask."

Strategically: the market has shifted and the business model has not shifted with it. The post-pandemic period brought a significant influx of high-net-worth residents into the area. This has created a growing pool of premium clients who represent the most commercially attractive segment in the market — but the business does not yet have the processes, supplier relationships, or systematic approach to serve this segment reliably.

Three client segments were identified through the interviews:

- **Segment 1 (The Reliable Remodel, ~$50k):** Consistent income but highly competitive, margin-constrained, and currently facing economic headwinds as this group defers discretionary spending
- **Segment 2 (The Aspiring Middle, ~$100k):** The largest segment by volume — approximately 50% of the market — but psychologically complex: clients who conceal their real budget ceiling and require skilled commercial handling to unlock it
- **Segment 3 (The Premium Client, $300k+):** Clients who are not economically constrained. Deeply loyal once trust is established. A single Segment 3 relationship — with its repeat projects and peer referrals — can sustain a significant portion of a business's revenue independently

The strategic recommendation: build the operational infrastructure required to serve Segment 2 reliably, then use that infrastructure as the foundation for a deliberate transition toward Segment 3 over three to five years.

The 22-Stage Pipeline

Mapped across six phases, with high-risk stages at each transition:

Phase 1 — Lead to Qualification (Steps 1–4): Lead capture is inconsistent; many enquiries are tracked only in email threads or individual memories. Qualification is conducted differently by each team member — only one applies a systematic approach; others follow leads into full design investment on projects that will not convert. The design retainer is not consistently raised at the right stage.

Phase 2 — Design Development (Steps 5–8): Site measurement is one of the pipeline's highest-risk activities — errors create expensive rework downstream. Design development proceeds without a settled supplier for the target segment, meaning each project starts effectively from scratch. Budget presentation creates the most damaging client surprises in the business: the $40k-expectation-meets-$109k-proposal scenario occurs repeatedly because the budget conversation happens at the end of the design process rather than the beginning.

Phase 3 — Ordering and Approval (Steps 9–12): The highest-risk single stage in the pipeline. Ordering errors — wrong dimensions, wrong finishes, missing items, supplier nomenclature mismatches — create costly rework and damaged supplier relationships.

Phase 4 — Logistics and Pre-Installation (Steps 13–16): Lead-time tracking is manual. Pre-installation site checks are not consistently performed. The lead installer is explicit: "Every floor is out of level, every ceiling is out of level. Knowing this before installation day — and planning accordingly — is the difference between a clean project and a costly delay."

Phase 5 — Installation and Completion (Steps 17–21): When preparation is thorough, the installation team delivers exceptional work. When it is not, consequences cascade: return visits, remediation costs, delayed sign-offs, and disputed final invoices. Final invoices are sometimes raised before all items are resolved.

Phase 6 — Aftercare (Step 22): Two team members maintain exceptional client relationships — sustained over decades by personal habit. This is not a business process. The commercial value of a systematised aftercare programme — particularly for Segment 3 clients who are always renovating and socialise in circles where everyone is spending — is not being captured.

The 33 AI Buddies

Tier 1 — Eight Quick Wins (0–60 days)

Buddy 01 — Lead Capture and CRM Entry. Every lead from every channel automatically captured, logged, assigned, and acknowledged. Flags any lead with no follow-up within twenty-four hours. Eliminates the silent lost lead.

Buddy 02 — Qualification Call Preparation. Converts the owner's thirty-year qualification instinct — budget framing, scope questions, readiness signals — into a standard framework that every designer can follow. After the call, recommends next action: proceed, decline, or escalate.

Buddy 09 — Order Review and Validation. Before any order is submitted, cross-checks every line item against the design drawings: dimensions, finishes, quantities, supplier nomenclature, cross-supplier compatibility. Flags any discrepancy. The most consequential single AI intervention in the pipeline — ordering errors are the highest-cost recurring failure in the business.

Buddy 14 — Pre-Installation Readiness Checker. A structured digital checklist sent before every installation: floors and ceilings checked, plumbing and electrical rough-ins confirmed, other contractor work completed, storage arranged. Any failed item halts the installation date until resolved.

Buddy 31 — Aftercare and Referral Activation. A systematic post-completion sequence triggered automatically from the project management system: a completion thank-you, a thirty-day satisfaction check-in, and a twelve-month anniversary note with a referral invitation. Ed's Christmas card philosophy, applied to every client, every year, without manual effort.

Tier 2 — Eight Medium-Term Initiatives (60–120 days)

Buddy 07 — Budget Estimator and Early-Warning System. As a design develops, produces a running estimate based on the emerging specification. Alerts the designer when the design is tracking above the client's stated budget — before the proposal is complete. Prevents the $40k-expects-$109k scenario at source.

Buddy 17 — Punch List and Walkthrough Tracker. A structured digital walkthrough tool for the installation lead and designer after every project. Records every outstanding item with a photograph, assigns responsibility, and sets a resolution deadline. Prevents the final invoice being raised until all items are resolved or formally accepted by the client.

Buddy 21 — Pipeline Visibility Monitor. Monitors the project management system continuously across all active projects. Flags overdue stages and unresolved approvals. Produces a daily exceptions report. Converts a 4.5-hour weekly status meeting into a fifteen-minute exceptions review.

Buddy 24 — Client Inspiration Translator. Accepts a Pinterest image or verbal description and returns a plain-language breakdown of what is in the image, which supplier tier could deliver something in that direction, and an approximate price range — in language the designer can share directly with the client.

Tier 3 — Strategic Buildouts (120+ days)

Buddy 06 — Catalogue Translation. Accepts a design specification in plain language and translates it into the correct ordering nomenclature for the primary supplier, cross-referencing dimensions and finish options against the live catalogue. Addresses the core designer pain point: "I'm chasing knowledge every time, on everything."

Buddy 33 — Multi-Room Project Co-ordinator. For projects involving more than three spaces or more than two suppliers, creates a master co-ordination structure tracking design status, order status, supplier lead times, delivery dates, installation sequence, and punch list by room. Makes complex Segment 3 projects manageable without dependence on one person's organisational capacity.

The Key Insight

This business has a team with the skills, experience, and passion to be genuinely exceptional. What it lacks is the operational infrastructure to let those skills express themselves consistently. The AI Buddies are not replacements for human expertise — they are the scaffolding that makes expertise transferable, consistent, and scalable. The BA's distinctive contribution was not identifying what the technology could do. It was standing outside the process, mapping it end to end, and surfacing exactly where the operational friction was concentrated and what kind of intervention would address it at the right level.

Chapter 5 — Case Study C: The Regional Insurance Brokerage

The Organisation

A regional insurance brokerage with approximately fifty-five staff and multiple insurance lines: personal lines, commercial, motor trade, and a specialist heritage (classic car) book. The brokerage operates in an FCA-regulated environment and serves both individual and business customers through a team of fifteen-plus call advisors. Stakeholder elicitations were conducted across six functions: operations, sales, marketing, HR, finance, and compliance. Twenty-four AI solutions were identified across three categories.

The Challenge

The elicitation interviews surfaced a business under pressure from five interlocking structural problems — none of which are unusual for a brokerage of this size and profile, but each of which is silently suppressing performance in a distinct part of the operation.

A single seasonal revenue window. The heritage insurance line creates a concentrated revenue opportunity each spring. Missing it — through slow lead response, under-resourced marketing, or conversion inefficiency — means a disproportionate impact on the full year's numbers. The business has no AI-assisted lead engagement. Everything depends on advisor availability during business hours.

Manual processes throughout every function. Excel-based tracking, double data entry across multiple insurer portals, paper-based insurance breakdown forms, and manual weekly reporting all sit inside the same organisation. Every one of these is a rule-based task. None of them requires a human. All of them are consuming one.

Critical knowledge with no backup. One senior staff member carries deep product knowledge across multiple lines that exists nowhere else in the business. His departure — already planned — creates a knowledge gap that cannot be filled by hiring alone. The content of his expertise has never been systematically captured.

Call quality monitored in 3–4% of conversations. The brokerage's primary revenue engine is phone-based advisory selling. Current quality assurance covers only a fraction of calls — far below the threshold at which meaningful coaching, performance management, or FCA compliance monitoring is possible. The 96% of conversations that go unmonitored are generating outcomes — good and bad — that nobody can see.

Cross-sell opportunities missed on almost every call. Fifteen-plus advisors speak to existing customers throughout the day. The data to identify cross-sell potential — what products each customer holds, what they are likely to need next, what a conversation is signalling — exists in the CRM. It is not being surfaced in real time. The revenue that existing relationships have already earned the right to generate is being left on the table.

The Operational Landscape

Unlike the dental practice (which operates through three discrete patient pipelines) or the cabinetry studio (with a twenty-two stage project pipeline), the insurance brokerage's AI opportunity sits across six parallel operational functions. Each function has its own workflow, its own pain points, and its own AI opportunity set. The BA work mapped all six.

Function	Current State	AI Opportunity
Sales & Advisors	Manual call handling, no real-time prompting, 3–4% QA coverage	AI-assisted qualification, cross-sell prompts, 100% call monitoring
Marketing	Manual content production, single seasonal push, no always-on engagement	Automated newsletters, chatbot lead engagement, social analytics
HR & Training	Paper-based induction, informal L&D, no skills visibility	Digital onboarding, AI training buddy, skills matrix
Finance	Manual reporting, monthly P&L built from scratch, no scenario modelling	Automated reporting, AI-powered forecasting
Compliance	Audit reports prepared manually, regulation tracking informal	Automated compliance reports, regulatory horizon scanning
Operations	Email overflow managed manually, portal logins fragmented	Email allocation, single sign-on, digital dashboard

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24 AI Solutions Across Three Categories

Category 1 — Quick Wins: Single-Tool Deployments (4 solutions)

These four solutions require no AI development. They are configuration and integration tasks — deployable within the existing MS365 environment, requiring days rather than months. Each addresses a specific operational friction point that is currently consuming management or advisor time on work that a tool should be doing automatically.

1.1 Power BI Dashboard. Consolidates operational performance data — advisor activity, pipeline position, conversion rates, and revenue-by-line — into a single live management view. Replaces the manual weekly reporting cycle that currently requires significant preparation time and still produces a view that is already out of date by the time it is read.

1.2 Digital Onboarding Platform. Replaces paper-based new starter induction with a structured digital process. Forms are completed before day one. Compliance documents

are signed and stored automatically. The HR team's time at onboarding moves from administration to relationship.

1.3 Advisor Tracking vs Budget (Power BI). Gives individual advisors and their line managers real-time visibility of performance against target — by advisor, by line, and by period. Replaces the current position where advisors find out how they are tracking against budget at the end of the month.

1.4 Website Portal Single Login. Consolidates the multiple portal logins that advisors currently manage across insurer systems. A single authenticated entry point reduces friction, reduces error, and removes a source of daily frustration that is entirely avoidable.

Category 3 — Claude AI Prompts and NotebookLLM Projects (18 solutions)

These eighteen solutions require no custom software development. They are structured AI prompt templates and NotebookLLM project configurations — deployable by any staff member through Claude or a configured NotebookLLM interface, and in several cases connectable to live CRM data via an MCP integration. They range from tools that save individual staff members thirty minutes a day to tools that address systemic quality and commercial performance gaps across the whole advisor team.

They are grouped here by function.

Customer and Marketing

3.1 NotebookLLM Newsletter Generator. Automatically curates industry news, regulatory updates, and product developments across the brokerage's specialist lines — personal, commercial, motor trade, and heritage — and generates draft newsletters for each audience. Replaces a manual monthly content production process that currently consumes significant marketing time on research and writing.

3.5 NotebookLLM Industry Horizon Scanner. Continuously monitors sector-specific sources and surfaces emerging trends, competitor activity, and market shifts relevant to the brokerage's lines. Gives the management team an always-current intelligence brief without any manual monitoring effort.

3.6 NotebookLLM Regulation Horizon Scanner. Tracks FCA publications, regulatory consultations, and compliance updates across all relevant lines. Surfaces changes that require action before they become urgent. Currently this monitoring is done informally and inconsistently.

3.7 Trade Professional Proposal Generator. For motor trade and commercial lines, generates tailored proposal documents from a structured client input. Reduces the time

from client qualification to proposal submission, and ensures proposals are complete, consistent, and brand-appropriate every time.

Advisor Performance and Sales

3.11 Intelligent Conversation Summariser. After every customer call, produces a structured summary: what was discussed, what was agreed, what follow-up is required. Replaces manual note-taking and reduces the risk of actions being missed or mis-recorded in the CRM.

3.12 Email Box Sorter and Allocator. Reads incoming emails, identifies the subject matter and urgency, and routes each to the appropriate team or advisor. Reduces the time that senior staff spend triaging inbound correspondence and ensures nothing falls through the cracks during high-volume periods.

3.13 AI QA Monitoring System. Reviews call recordings against a defined quality framework and produces a structured assessment for each conversation: what was handled well, where the commercial opportunity was missed, what compliance requirements were met or not met. Moves the brokerage from monitoring 3–4% of calls to monitoring every conversation — without adding any headcount to the compliance function.

3.14 AI Call Emotional Intelligence Assessor. Reads emotional signals in customer conversations — hesitation, frustration, interest, urgency — and surfaces them to the advisor in real time or as a post-call coaching note. Helps advisors identify the moment when a customer is ready to commit, and the moment when the conversation is at risk of being lost.

3.15 AI Cross-Sell Analyser and Lead Generator. Draws on the customer's existing policy portfolio, purchase history, and the content of the current conversation to surface cross-sell prompts for the advisor during a live call. Every conversation becomes a structured commercial conversation, not just a service interaction.

3.16 AI-Powered Knowledge Base for Advisors. Gives advisors instant access to accurate answers on product terms, underwriting rules, and insurer requirements — across all lines. Replaces the current dependency on one senior expert whose knowledge exists nowhere else and who is leaving the business.

Training and People Development

3.2 Shortlist CV Analyser and Interview Assistant. Screens incoming applications against a defined role profile and produces a structured shortlist with a rationale for each candidate. Reduces the time that managers spend on initial screening and ensures consistent criteria are applied across all applicants.

3.8 AI Employee Induction Assistant. Guides new starters through their first weeks with structured daily prompts, knowledge checks, and role-specific content. Supports the

digital onboarding platform (1.2) with an ongoing learning companion that requires no trainer time to deliver.

3.9 AI Skills Matrix and L&D Assistant. Maintains a live view of skills coverage across the advisor team — what each person can do, where the gaps are, and what training is recommended. Gives the L&D function something it has never had: a data-driven view of team capability rather than an annual review snapshot.

3.17 AI Role Play Training Buddy. Simulates customer calls with a defined profile — budget, product type, objection style, and difficulty level — and provides structured feedback to the advisor afterwards. Gives advisors a low-stakes environment to develop commercial skills between formal training sessions.

3.18 AI Training Assistant (Underwriting). A conversational AI tool configured with the brokerage's underwriting rules, product parameters, and insurer requirements. Allows advisors and new starters to ask underwriting questions and receive accurate, contextual answers without waiting for a senior colleague to be available.

Finance and Compliance

3.3 P&L Finance Monthly Report Generator. Produces a structured monthly P&L report from the brokerage's financial data, replacing a manual report-assembly process. The finance manager's time moves from building the report to analysing it.

3.4 AI-Powered Forecasting and Scenario Modelling. Builds forward-looking revenue and cost scenarios based on current pipeline, seasonal patterns, and policy renewal data. Gives the senior team a structured view of what the next quarter is likely to look like — and what levers are available to change it.

3.10 Compliance Audit Reports. Generates structured compliance audit reports from call data, CRM records, and document logs. Replaces a manual audit preparation process and ensures that every audit is based on complete, current data rather than a manually assembled sample.

Category 4 — Custom AI Applications (2 solutions)

These two solutions require technical development. They sit at the top of the complexity spectrum — full agentic AI applications with system integration, custom logic, and a user-facing interface. Both address the brokerage's most significant commercial gap: the period between a prospect's first expression of interest and their first conversation with an advisor.

I. Awareness to Lead Chatbot. An AI-powered engagement tool deployed across the brokerage's digital touchpoints. When a prospective customer visits the website, responds to a marketing campaign, or submits an enquiry outside business hours, the Chatbot

engages them immediately — capturing their name, contact details, and the product they are interested in; answering basic questions about the relevant insurance line; and either booking them into the advisor's diary or flagging them for a callback the next morning with a full context summary. The current position — no engagement outside business hours, and no structured engagement process during them — is costing the brokerage a significant proportion of its digital marketing spend every month.

II. Lead to Advisor Call Chatbot. Once a lead has been captured and qualified, this application manages the handoff to the advisor: preparing a structured brief from the prospect's expressed interests and any information captured during the Awareness stage; surfacing relevant product recommendations and likely objections; and presenting the advisor with a personalised call preparation guide before the conversation begins. Turns the cold call into a warm, informed conversation — and gives every advisor the same quality of pre-call preparation that currently only the most experienced members of the team produce for themselves.

The AI Solutions at a Glance

#	Solution	Category	Function	Primary Benefit
1.1	Power BI Dashboard	Cat 1	Operations/Management	Real-time performance visibility
1.2	Digital Onboarding Platform	Cat 1	HR	Paperless, compliant onboarding
1.3	Advisor Tracking vs Budget	Cat 1	Sales/Management	Live performance-vs-target view
1.4	Website Portal Single Login	Cat 1	Operations	Consolidated system access
3.1	Newsletter Generator	Cat 3	Marketing	Automated multi-line content
3.2	CV Analyser / Interview Assistant	Cat 3	HR	Consistent, fast candidate screening
3.3	P&L Report Generator	Cat 3	Finance	Automated monthly reporting
3.4	Forecasting & Scenario Modelling	Cat 3	Finance	Forward-looking revenue planning

#	Solution	Category	Function	Primary Benefit
3.5	Industry Horizon Scanner	Cat 3	Strategy/Marketing	Always-current market intelligence
3.6	Regulation Horizon Scanner	Cat 3	Compliance	Proactive regulatory monitoring
3.7	Trade Professional Proposal Generator	Cat 3	Sales	Faster, consistent proposal production
3.8	AI Employee Induction Assistant	Cat 3	HR/Training	Self-paced structured onboarding
3.9	AI Skills Matrix & L&D Assistant	Cat 3	HR/Training	Data-driven capability management
3.10	Compliance Audit Reports	Cat 3	Compliance	Automated, complete audit preparation
3.11	Intelligent Conversation Summariser	Cat 3	Sales/Operations	Structured call notes, no manual effort
3.12	Email Box Sorter Allocator	Cat 3	Operations	Intelligent email triage and routing
3.13	AI QA Monitoring System	Cat 3	Compliance/Quality	100% call coverage from 3–4%
3.14	AI Call Emotional Intelligence Assessor	Cat 3	Sales/Coaching	Real-time and post-call advisor coaching
3.15	AI Cross-Sell Analyser & Lead Generator	Cat 3	Sales	Revenue from every existing relationship
3.16	AI-Powered Knowledge Base for Advisors	Cat 3	Sales/Operations	Expert knowledge, always available
3.17	AI Role Play Training Buddy	Cat 3	Training	Low-stakes commercial skills practice

#	Solution	Category	Function	Primary Benefit
3.18	AI Training Assistant (Underwriting)	Cat 3	Training	Instant underwriting guidance
4.1	Awareness to Lead Chatbot	Cat 4	Sales/Marketing	24/7 lead capture and qualification
4.2	Lead to Advisor Call Chatbot	Cat 4	Sales	Warm, briefed advisor conversations

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The Key Insight

The insurance brokerage case study demonstrates something that the dental and cabinetry case studies also show, but more visibly here because of the breadth of functions involved: AI opportunity is not concentrated in one part of a business. It is distributed across every function that contains rule-based work, manual reporting, inconsistent knowledge access, or unmonitored performance.

The BA's role is not to prioritise by technology sophistication. It is to prioritise by business impact. The four Category 1 solutions — simple tool configurations requiring days of setup — address operational friction that has been tolerated for years because nobody made the time to fix it. The eighteen Category 3 solutions require no development budget and no external resource; they require prompt engineering, configuration, and the business context to make them specific rather than generic. Only the two Category 4 solutions require custom development — and both of them address the single most commercially significant gap in the business: the period between a prospect's first contact and their first advisor conversation.

A business analyst who cannot distinguish between a Category 1 problem and a Category 4 problem wastes the organisation's time and money on both. Getting that distinction right — and building the case for each at the appropriate level of investment and urgency — is the skill this programme develops.

PART THREE: SYNTHESIS AND IMPLICATIONS

Chapter 6 — What Three Industries Have in Common

Three businesses. Three different sectors, sizes, customer profiles, regulatory environments, and commercial models. And the same five problems, in different forms, in every one of them.

The Five Universal Problems

Problem 1: Lost leads at the first touchpoint. The dental group was losing over half its inbound enquiries after hours. The cabinetry studio had no standard process for capturing leads across all channels. The insurance brokerage's Heritage season created a concentrated window in which lead generation was the binding constraint on annual revenue. In each case, revenue that the business had already invested in generating through marketing and reputation was leaking away at the very first stage of the pipeline.

The commercial cost of first-touchpoint failure is typically the highest in the portfolio. The cost of recovering a lead that has already shown intent is low. The cost of regenerating

intent from a cold prospect is high. Every business in this portfolio was paying the second cost because they were failing to manage the first.

Problem 2: Knowledge that lives in one person's head. The dental group's conversion rate depended on whether the front desk lead was available. The cabinetry studio's commercial instinct was the property of two senior team members. The insurance brokerage faced the imminent departure of a product expert whose knowledge would leave with him. In all three cases, performance on critical tasks was a function of who happened to be available — not of what the business had systematised.

Problem 3: Manual data entry at every decision point. The dental group's insurance breakdown form had forty to fifty data points to transcribe manually. Clinical notes were written from memory, often a day after the appointment. The cabinetry studio's weekly project review consumed 4.5 hours of management time that the pipeline management system should have reported automatically. The insurance brokerage's double-entry problem spanned fourteen insurer portals. Significant professional time was being consumed by rule-based transcription work that no professional should be doing in 2026.

Problem 4: The handoff problem. Value is lost at every transition between people, roles, and systems. The dental treatment co-ordinator received "they need a crown" as her complete briefing. The cabinetry studio's designers had no standard way to brief the installation team. The insurance brokerage's Heritage-to-Norton lead handoff lived in a shared spreadsheet and a checkbox. In each case, the person receiving the handoff was working with insufficient context, making decisions less well than they needed to, and bearing the cost of failures the person who handed off the work would never see.

Problem 5: Invisible revenue. Revenue that is not generated is invisible in a way that revenue that is lost is not. A patient enquiry that was never answered does not appear in any report. A treatment that was never identified because the examination was incomplete does not show up as a declined proposal. A cross-sell opportunity never raised during a call does not appear as a missed sale. In all three businesses, the amount of revenue never generated substantially exceeded the amount of revenue lost after initial generation.

A business analyst who maps the pipeline end to end makes the invisible visible.

The AI Complexity Spectrum

The 91 opportunities across three businesses span the full range from a five-minute prompt template to a six-month agentic build. The distribution is instructive:

- Approximately 30% are immediately deployable: prompt templates, simple automations, off-the-shelf configuration
- Approximately 50% require moderate technical build: API integrations, workflow automations, custom dashboards
- Approximately 20% are strategic buildouts: full agentic applications with complex integration requirements

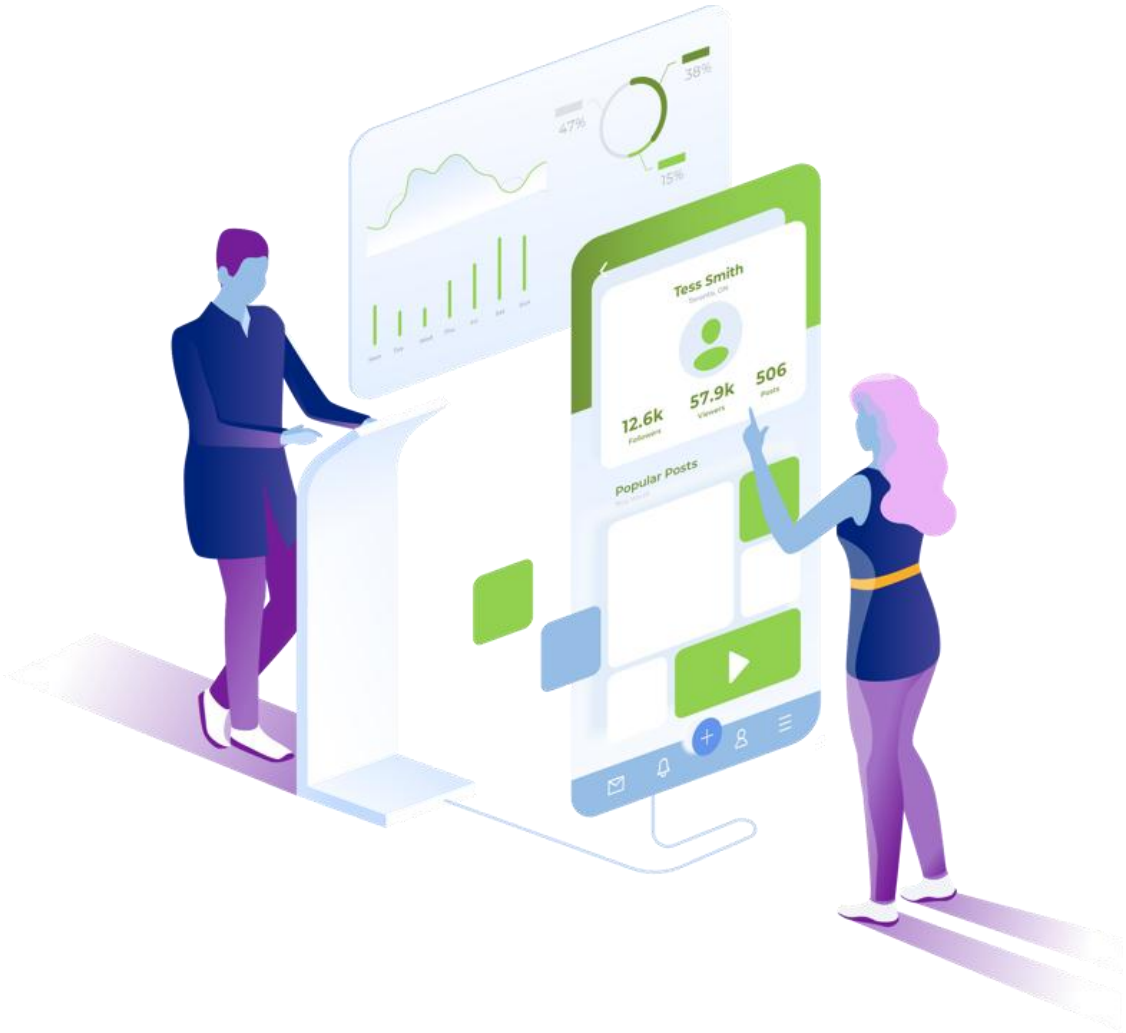
This distribution matters for implementation planning. An organisation that starts with the 30% of immediately deployable solutions — while the infrastructure for medium-complexity solutions is being built — begins generating returns immediately and builds organisational confidence in AI at the same time.

The Change Management Dimension

Two observations appear consistently across all three businesses. First: AI that asks people to change their behaviour encounters resistance; AI that does something for them encounters adoption. The most successful Buddies in every catalogue are ones where the staff member's workload decreases without requiring a change to how they currently operate — the AI slots in behind their existing process, not instead of it.

Second: the framing matters. "An AI says you could have done this better" lands differently from "your colleague says it." The BA's role includes designing for adoption, not just for capability.

Chapter 7 — What This Means for Your Organisation



The three case studies are from different sectors. But the functional pattern they reveal is universal. Whatever your industry, the same departments face the same structural problems — and a BA apprentice trained this way addresses them in the same way: by mapping what is actually happening, identifying where AI creates value, and building the analytical case for action.

For the IT Team: From Order-Takers to Co-Architects

The traditional model — business departments raise requests, IT builds what is asked for — breaks down the moment AI enters the picture. The cabinetry studio's 33-Buddy catalogue was not written by a technologist. It was written by a BA who had interviewed every member of the operational team and mapped a twenty-two-stage pipeline in detail. The insurance brokerage's build-vs-buy analysis was not a procurement exercise — it was a financially grounded recommendation about when to build and when to subscribe, based on a precise understanding of what the business actually needed.

What the BA apprentice brings to the IT team is a shared language with the business. The IT team no longer has to reverse-engineer what the operations director actually meant. Requirements are specific, process context is documented, success criteria are defined. IT and the business work from the same map — and the solutions they build together are ones people actually use.

The apprentice also builds AI applications personally during the programme. Not as a developer — as a BA who understands what is technically achievable. That combination gives the IT team a colleague who can evaluate a proposed solution technically as well as analytically.

For the Marketing Team: From Content Creation to AI-Powered Campaigns

The insurance brokerage case study provides the clearest evidence. In month four, three marketing interventions had been designed and financially evaluated: a marketing analytics dashboard consolidating data from four social platforms — replacing two hours of weekly manual extraction; a NotebookLLM newsletter system generating five separate brand newsletters monthly at a fraction of the time currently required; and a WhatsApp engagement chatbot turning a campaign-driven contact strategy into an always-on conversation, 24/7, personalised by customer segment, drawing on a content library that was previously reaching customers only if they visited the website.

The marketing team's challenge in most organisations is not creativity — it is time and data. Manual reporting, fragmented platforms, content that exists but is not being distributed effectively. A BA who understands both the marketing workflow and the AI tools available to automate it frees the marketing team to do what only humans can: build relationships, exercise creative judgement, and set strategy. The AI handles distribution, measurement, content curation, and follow-up.

For the Finance Team: From Reporting to Real-Time Intelligence

The dental group spent significant management time each week manually assembling performance statistics. The insurance brokerage was producing monthly P&L reports through a process that could be partially automated in three days of build time. The Power BI dashboards identified in the operations and marketing contexts of the brokerage were, at their core, finance-intelligence tools: making numbers available in real time rather than assembling them retrospectively.

A BA trained on this programme understands the finance team's core pain points: manual data consolidation, report preparation that consumes hours better spent on analysis, and variance investigation that starts too late because the reporting cycle is too slow. The interventions identified across the three case studies do not replace the finance team's judgement. They replace the mechanical work that currently prevents the finance team from doing its actual job: providing strategic financial intelligence, not assembling last week's numbers.

For the Operations Team: From Managing Chaos to Managing Exceptions

The clearest operational evidence is the cabinetry studio's pipeline: eight high-risk stages in twenty-two, pre-installation checks not happening, ordering errors creating expensive rework, final invoices raised against incomplete projects.

None of these problems required sophisticated technology to fix. They required a BA to map the process, identify where risk was concentrated, and design a targeted intervention at each failure point. For the operations team, the result is a move from managing daily chaos to managing exceptions. The system handles the routine; people handle the judgement calls.

Commercial Outcomes: Six Business Impacts

Increasing new customer acquisition. Every case study identified significant lead leakage at the first touchpoint. AI-assisted lead capture, qualification, and follow-up addresses this — and the ROI at the top of the funnel is typically the highest in the portfolio, because the marginal cost of recovering an already-interested lead is low relative to its lifetime value.

Increasing lifetime value of existing customers. The dental practice's outstanding treatment pipeline, the insurance brokerage's cross-sell system, the cabinetry studio's aftercare programme — all address the same pattern. LTV increases when the organisation stops treating customer relationships as transactional and starts managing them systematically.

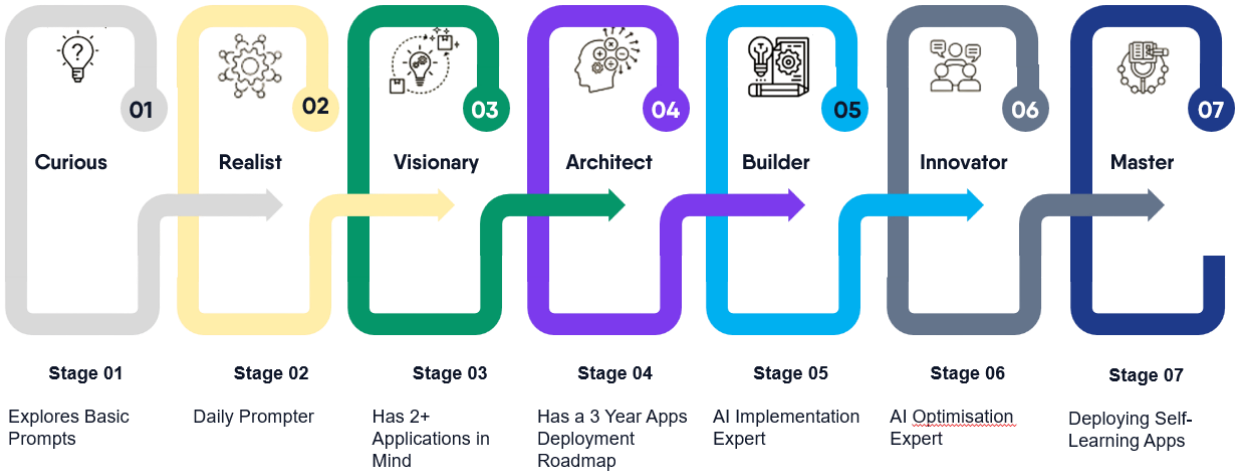
Reducing customer acquisition costs. The build-vs-buy analysis in the brokerage case study saved an estimated £222,000 in development cost. As operational capacity is freed from administrative overhead, the same team works more effectively and cost per acquisition falls.

Reducing operating costs. Manual data entry replaced by automated capture. Paper checklists replaced by digital workflows. Hours of weekly reporting replaced by live dashboards. These are not marginal efficiencies — they are hours of expensive professional time redirected to work that actually requires a human.

Improving quality and compliance. Clinical note accuracy from 75–80% to near-100%. Call quality coverage from 3–4% to 100%. Ordering error rate from untracked to systematically validated. These quality improvements carry direct financial consequences — in reduced rework, reduced legal risk, and improved customer retention.

Increasing cross-departmental co-ordination. The handoff problem appears in every case study. The BA's intervention in each case is a shared process, shared data, and a shared view of where each item stands. IT and the business take joint ownership not as a governance principle, but as the natural consequence of having done the analysis together from the same map.

Chapter 8 — From Curious to Architect in Four Months



The Seven Stages of AI Maturity

Stage	Title	Defining Behaviours	Ethics Marker
01	Curious	Explores basic prompts, cuts and pastes AI outputs	Unaware of AI ethics
02	Realist	Daily prompter, recognises potential, uses AI-assisted tools	Notices output biases
03	Visionary	Has 2+ applications in mind, thinks in business use cases	Aware of hallucinations
04	Architect	Has a deployment roadmap, designs implementation strategy	Conducts bias audits
05	Builder	AI implementation expert, monitors performance	Ensures compliance standards
06	Innovator	Optimises performance, fine-tunes to maximise ROI	Embeds ethics in roadmap
07	Master	Deploys self-learning apps, creates learning systems	Ethical by design

Most business professionals currently sit at Stage 1 or Stage 2. They have experimented with AI tools. They notice when outputs are obviously wrong. What they cannot yet do is translate that general awareness into a specific, financially grounded, operationally rigorous plan for what their organisation should build — and in what order.

Where the Three Apprentices Started

All three entered the programme at Stage 1–2. Curious, willing, but at the beginning of the maturity curve — basic prompting, informal tool use, general awareness of potential

without structured application capability. This is not unusual. It is where the majority of the working population sits today, including many senior professionals.

Where They Are at Month Four

The evidence across the three case studies establishes Stage 4 (Architect) performance and early Stage 5 (Builder) indicators.

Stage 4: "Has a 3-Year Apps Deployment Roadmap"

All three apprentices produced exactly this. The insurance brokerage portfolio is structured as three implementation phases with explicit timelines. The dental practice catalogue has implementation complexity ratings and a dependency sequence — some Buddies cannot be built until prior Buddies are operational. The cabinetry studio's Tier 1/2/3 structure with 0–60, 60–120, and 120-plus day timelines is a staged deployment plan with strategic rationale at each tier.

Stage 4: "Designs Implementation Strategy"

Visible in the decision-making frameworks embedded in each document. The insurance brokerage's Monthly SaaS Investment threshold is a strategic decision tool, not a list of recommendations. The dental catalogue's two-section architecture — agentic versus prompt-based — is an implementation strategy: deploy what can be deployed now, build the infrastructure for the complex solutions in parallel. The cabinetry studio's tiered sequencing ensures Quick Win momentum while Tier 2 and 3 infrastructure is being built.

Stage 4: "Conducts Bias Audits"

HIPAA-compliant design is specified as a non-negotiable requirement in the dental transcription Buddy. FCA compliance review is a mandatory pre-deployment gate for every Category 4 insurance solution. The cabinetry analysis explicitly flags change management risk — noting that AI feedback lands differently from colleague feedback — as a design consideration. These are not compliance checklists appended to a report. They are ethical AI practice, developed through doing, embedded in the work itself.

Stage 5: "AI Implementation Expert"

By month four, each apprentice has personally built three progressively complex AI applications ranging from simple to multi-agent prompts.

The Two Routes

There is an alternative to the apprenticeship route. A business that needs AI opportunity assessment, process pipeline analysis, and a prioritised implementation roadmap can commission it from a management consultancy. The output will be comparable.

The question is not whether the outputs are equivalent. It is what the two routes cost and what they leave behind.

The **consultancy route** produces documents. When the engagement ends, all the understanding of the business — the stakeholder relationships, the institutional knowledge about which processes are broken and why, the capability to run this analysis again next year — leaves with the consultant. In year two, the business pays again.

The **apprenticeship route** produces the same documents and retains the person who produced them — now operating at Stage 5–6, with permanent context embedded in their working knowledge, already capable of planning and executing the next iteration without external support.

What the Framework Predicts for the Remaining Seven Months

By programme end, each apprentice will have built multiple complex-multi prompt agents. They will have 33 portfolio templates evidencing all 71 KSBs across 11 modules. They will have passed their EPA and be operating at Stage 5–6 of the maturity framework.

The businesses that employed them will not be starting from scratch when the programme ends. They will have an internal AI-capable BA who knows the processes, has the stakeholder relationships, understands which catalogue solutions are deployed and performing, and can plan the next iteration at no additional cost.

Stage 4 in four months. Stage 5+ within two to three years of continued practice. Not a document. A person. In the business. Getting better.

Chapter 9 — The Investment Case: Five Dimensions of Financial Return

There are businesses that spend £100,000–£250,000 on external consultants to produce an AI transformation strategy, a further £250,000–£400,000 having that strategy's priority applications built out, and then £30,000–£50,000 every year in ongoing consultancy fees to maintain and iterate on what was built. The documents and the applications remain. The knowledge, the context, and the capability to do it again — at lower cost, better informed — does not.

The three businesses in these case studies took a different route. The financial case for that route operates across five distinct dimensions. Each one stands alone. Together, they constitute one of the strongest ROI arguments in workforce development.

Dimension 1: The Strategy and Roadmap Work

External route: £100,000–£250,000. Internal route: no additional cost.

Producing a credible AI transformation strategy — one that covers stakeholder elicitation across every business function, end-to-end process pipeline mapping, AI opportunity identification across 20–30-plus solutions, complexity and feasibility assessment, phased implementation planning, and a coherent prioritisation rationale — requires senior analytical expertise and genuine time inside the business. The kind of engagement that

produces the quality of output evidenced in these three case studies does not come cheaply, and it does not come quickly.

The apprenticeship route produces the same output. The cost difference: the levy, which is already paid.

Dimension 2: The Build-Out Cost

External route: £250,000–£400,000 for 30-plus priority solutions. Internal route: dramatically reduced.

The strategy is the specification for what needs to be built. Each AI opportunity in the catalogues has a build requirement attached to it. Across a typical portfolio of 30-plus solutions — spanning no-code quick wins, AI prompt and NotebookLLM projects, and custom agentic applications — the blended average external development cost per solution ranges from a few thousand pounds for a configured tool to £30,000–£60,000 for a full custom AI application.

The apprenticeship route reduces this cost in two ways. First, the apprentice builds AI applications personally during the programme, including prompt-based solutions deployable immediately and increasingly complex applications through to month eleven — all at no external build cost. Second, an internal BA who can write a well-scoped, category-classified specification delivers it to external developers without the ambiguity that generates expensive iterations. That alone typically reduces external build cost by 20–30% across a portfolio.

Dimension 3: The Business Impact of Deployed AI

New customer acquisition: 20–40% increase. Customer lifetime value: 10–30% increase. Operating cost reduction: 10–20%. Quality improvement: 30–60%.

These are not projections from a vendor brochure. They are grounded in the specific findings across the three case studies.

New customer acquisition (20–40% increase)

Every case study identified significant lead leakage at the first touchpoint — before any human contact was made. The dental group was losing more than half its inbound enquiries after hours. The cabinetry studio had no standard process for capturing leads across all channels. The insurance brokerage's Heritage season created a concentrated window in which lead generation capability was the binding constraint on annual revenue. AI-assisted lead capture, qualification, and conversion addresses this directly. The improvement in new customer acquisition compounds with the quality of conversion:

better-briefed advisors, better-prepared designers, and better-structured consultation processes each contribute to a higher close rate on the leads that do arrive.

Customer lifetime value (10–30% increase)

The dental practice's outstanding treatment pipeline — patients assessed, plans presented, decisions deferred — represents a recoverable revenue pool that systematic AI-assisted follow-up addresses directly. The insurance brokerage's cross-sell identification system surfaces opportunities that exist within every existing customer relationship but are currently missed in the majority of calls. The cabinetry studio's aftercare and referral programme activates the commercial value of a satisfied Segment 3 client who will renovate again and refer peers at the same spending level. Across all three businesses, LTV increases when customer relationships are managed systematically rather than reactively.

Operating cost reduction (10–20%)

Across the three businesses: manual data entry replaced by automated capture; paper-based checklists replaced by digital workflows; weekly status meetings replaced by automated exception reports; compliance checks done manually every day replaced by automated overnight runs. These are not marginal efficiencies. They are hours of expensive professional time, recovered and redirected to work that actually requires human judgement.

Quality improvement (30–60%)

Clinical note accuracy moving from 75–80% memory-based recall to near-100% transcript capture. Call quality coverage expanding from 3–4% of conversations to 100%. Order error rates falling to near-zero with systematic pre-submission validation. Pre-installation failure rates collapsing from untracked to flagged and resolved before the installation team arrives. Quality improvements of this magnitude carry direct financial consequences — in reduced rework, reduced legal and compliance risk, and improved customer retention.

Dimension 4: Build Capability, Not Dependency

The consultancy model has a structural problem that no quality of output can resolve: it builds capability in the consultant, not in the business.

When a consultancy produces an AI strategy and builds out its priority applications, the learning resides in the consultancy. The business receives the documents and the applications. When the strategy needs refreshing — because the market has shifted, because new AI tools have emerged, because the priority solutions need a second wave of development — the business returns to the consultancy. And pays again: £100,000–£250,000 for a revised strategy, £30,000–£50,000 every year for ongoing maintenance and iteration.

The internal capability route is structurally different. The apprentice who produced the outputs in these case studies will still be in the business next year, operating at a higher stage of the AI maturity framework. They will not need to rebuild context. They will not need to re-interview the stakeholders. They will know which solutions were implemented successfully and why, which encountered resistance, and what the next iteration should look like. The ongoing consultancy cost — £30,000–£50,000 per year — disappears entirely.

Dimension 5: The Net Cost

For levy employers: £0. For non-levy employers: £900.

The levy — paid by every employer with a payroll above £3 million — sits in a digital account accessible only for apprenticeship training. Using it for an ST0117 AI-integrated programme does not cost the employer anything above what they are already paying. For non-levy employers with a payroll under £3 million, the government meets 95% of the training cost. The employer's contribution is £900 over eleven months.

The summary:

Dimension	External Route	Internal Route
Strategy and roadmap	£100,000–£250,000	£0 additional cost
Build-out of 30+ priority solutions	£250,000–£400,000	Built progressively; external costs reduced 20–30% by tighter specification
New customer acquisition	20–40% increase	Available to both routes
Customer lifetime value	10–30% increase	Available to both routes
Operating cost reduction	10–20%	Available to both routes
Quality improvement	30–60%	Available to both routes
Ongoing maintenance and iteration	£30,000–£50,000 per year	Internal, no additional cost
Programme cost (non-levy employer)	—	**£900/ Apprentice**
Year-one cost avoidance (strategy + build)	—	**£350,000–£650,000**

The return appears exceptional because the alternative is genuinely expensive and the analytical output is genuinely equivalent. The three businesses in this portfolio did not

spend £250,000 on consultants. They spent eleven months building something better: an internal person who could see what their business needed, specify it rigorously, and then build the first wave of it themselves — with full context, full commitment, and no exit date.

That is what the investment actually buys.

Appendices

Appendix A — The AI Classification Frameworks

The Four-Category Framework

Category	Title	Description	Typical Build Cost
1	Off-the-shelf	Single tool configuration, no custom code	£3,000–£6,000
2	Multi-tool integration	Two or more existing tools connected	£5,000–£10,000
3	AI Project	Custom prompt engineering, Claude or Notebook LLM	£2,000–£8,000
4	Agentic AI	Full build: system integrations, multi-user, high frequency	£30,000–£80,000+

For Category 4 solutions, the **build-vs-buy threshold** = (Annual saving ÷ 12) ÷ 1.3. If a suitable SaaS platform exists below this monthly cost, buying is more financially attractive than building.

The Three-Tier Framework

Tier	Timeline	Complexity	Description
Tier 1 / Section 2	0–60 days	Low	Prompt templates, simple automations, off-the-shelf configuration
Tier 2 / Section 1	60–120 days	Medium	API integrations, workflow automations, custom dashboards
Tier 3	120+ days	Medium–High	Strategic buildouts requiring prior infrastructure

Category 1–2 solutions typically fall in Tier 1. Category 3 in Tier 1–2. Category 4 in Tier 2–3.

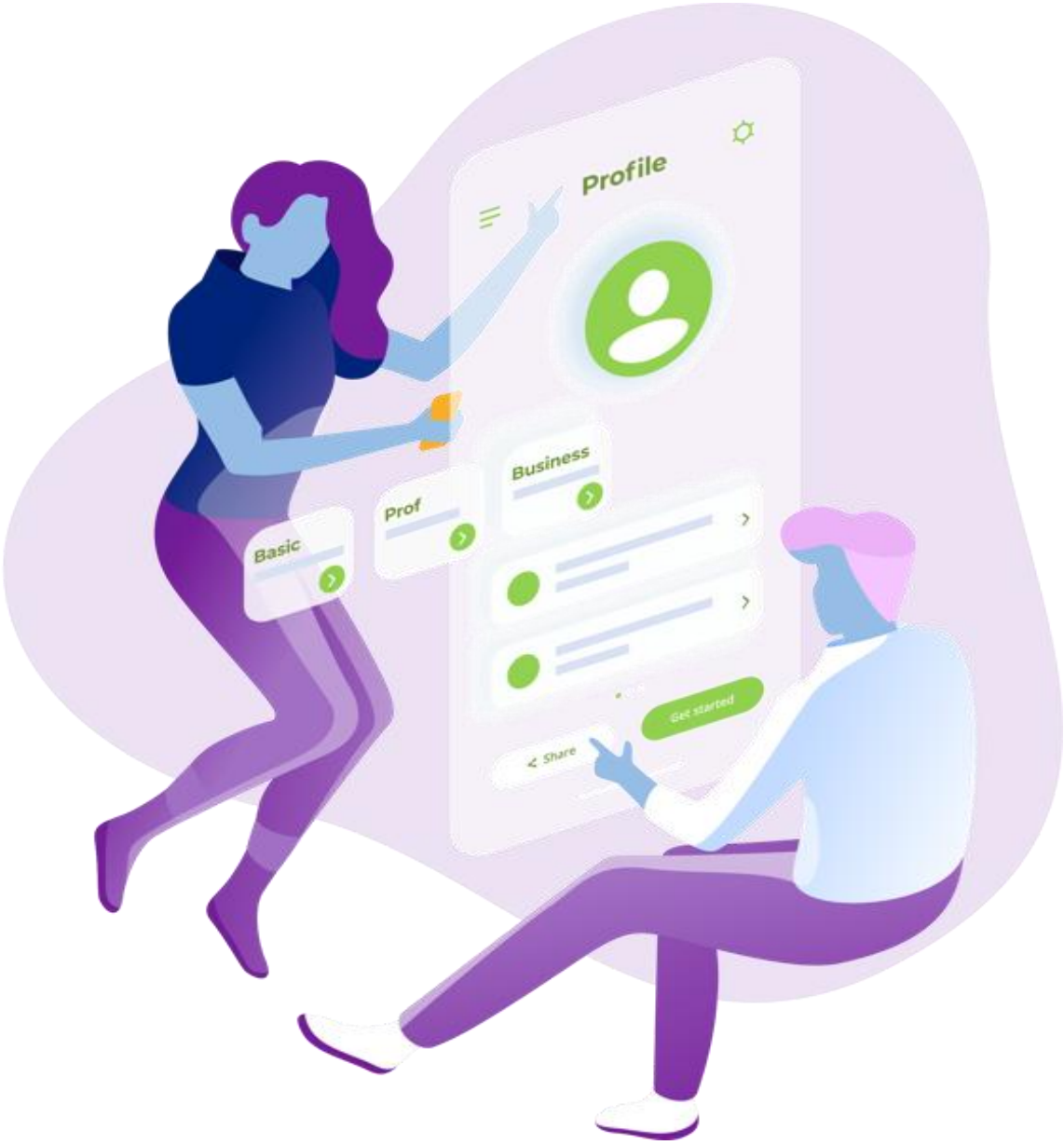
Appendix B — Portfolio Summary Statistics

	Dental Group	Cabinetry Studio	Insurance Brokerage	Total
Stakeholder interviews	12	6	10+	28+
Pipeline stages mapped	45+	22	Multiple	70+
AI opportunities — immediate	14 prompt-based	8 Tier 1	6 Cat 1–3	28
AI opportunities — medium build	12 agentic	8 Tier 2	12 Cat 4 priority	32
AI opportunities — strategic	8 agentic	4+ Tier 3	6 Cat 4 deferred	18+
Total AI opportunities	**34**	**33**	**24**	**91**
Programme month	**4 of 11**	**4 of 11**	**4 of 11**	—

Appendix C — The ST0117 Standard: KSB Evidence Across the Three Case Studies

KSB Area	Evidence in Case Studies
Business analysis planning and monitoring	Structured elicitation plans, interview frameworks, pipeline mapping methodology
Stakeholder analysis and management	28+ interviews across diverse roles; stakeholder influence and interest mapping
Investigation and analysis	Process pipeline maps; gap analysis; root cause identification across 91 opportunities
Requirements engineering	91 AI opportunity specifications with complexity, effort, and ROI analysis
Business case and benefits realisation	Full ROI portfolio; payback period analysis; build-vs-buy threshold framework
Strategic context and environment	Market segmentation analysis; competitive landscape; regulatory environment review
AI application development	Three applications built by month four; full professional tech stack demonstrated
Ethics and responsible AI	HIPAA, FCA, and GDPR considerations embedded throughout all three case studies
Change management	Adoption design principles applied across all three business contexts

Take the Next Step



The work in this document was produced by apprentices at month four of eleven. There are seven months still ahead.

If what you have read prompts a question — about the programme, about your levy position, about what an AI-integrated BA apprenticeship would produce in your sector — the right next step is a discovery conversation.

For training providers seeking to deliver the ST0117 AI-integrated programme or explore partnership arrangements: contact us to discuss delivery models and commercial terms.

For employers looking to enrol one or more apprentices or understand your levy eligibility: book a thirty-minute discovery call. No obligation. No jargon. A straight conversation about what is possible.

For individuals interested in the apprenticeship route — whether you are currently working in business analysis or looking to transition into it: we can walk you through the programme structure, the time commitment, and what the journey from Stage 1–2 to Stage 5–6 actually looks like in practice.

Master Agentic AI Academy

ST0117 Level 4 Business Analyst Apprenticeship Programme with AI Integration

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All businesses in this document have been anonymised. No company names, individual names, financial identifiers, or locating details appear. The AI opportunity catalogues, process pipeline maps, ROI analyses, and implementation roadmaps are genuine outputs produced during the first four months of the programme.