

Bridge CRM — MVP++ (AI-Native HE CRM)

Positioning (One-liner)

An HE-native CRM that **replaces HubSpot** for admissions and comms **and** ships with **built-in AI copilots** (LangChain + pgvector) on Day 1. Wedge now, **Student Record (SIS-lite)** next, then full **HE OS + LLM moat**.

Goals (4–6 weeks solo build)

- Replace ~80% of HubSpot workflows for WaterBear
- Ship **3 AI capabilities**: Comms Copilot, Conversation Summaries, Semantic Search
- Deliver **Lead Triage (light)** for daily prioritisation
- Sub-3s responses for AI endpoints; audit logs for prompts/outputs

MVP Core (kept from MVP)

- Contacts w/ HE fields (course, campus, cycle)
- Pipeline: Lead → Interview → Offer → Enrolled
- Interview Scheduler (booking, reminders)
- Offer Management (conditional/unconditional basics)
- Basic reporting (cycle-aware shell, mock/real data)

New in MVP++ (AI features)

1. **AI Email & Comms Copilot**
2. Draft interview invites, reminders, offer letters from course/policy templates
3. Human-in-the-loop edit → send (or copy to clipboard)
4. **Conversation/Note Summaries**
5. TL;DR + next actions for long email threads or call notes; save to timeline
6. **Semantic Search over HE docs**
7. Upload policies/course docs → RAG answers with citations (pgvector)
8. **Smart Lead Triage (light)**
9. Rules + LLM signal pass → ranked list with reasons (intent, urgency, source)

Tech Stack (explicit)

Frontend: Vite + React + TypeScript \ **Router**: React Router v6 (no Next.js) \ **Styling**: Tailwind + shadcn/ui \ **Entry**: `src/main.tsx` mounts `<BrowserRouter><App />` \ **Backend**: FastAPI (Python) \ **AI Layer**: LangChain (RAG, summarise, compose) \ **Vector Store**: Supabase Postgres + `pgvector` \ **Automations (optional)**: n8n for scheduled sends/reminders

Routing conventions (guardrails)

- Use React Router only; no `src/app` or `next/*` imports
- `App.tsx` defines `<Route element={<DashboardLayout />}>` with children and `<Outlet />`
- Navigation config: `src/config/navigation.ts` (plain data; hrefs match `App.tsx`)

API Surface (first cut)

```
POST /ai/compose/interview-invite
POST /ai/compose/interview-reminder
POST /ai/compose/offer-letter
POST /ai/summarize/thread
POST /ai/search/knowledge          # RAG answers + citations
POST /ai/triage/leads             # [{leadId, score, reasons[]}]
```

Minimal Data Model Additions

- documents(id, title, body_text, source, created_at)
- document_embeddings(document_id, embedding vector(1536))
- ai_events(id, user_id, action, payload_json, latency_ms, created_at)

Privacy & Guardrails

- Redact PII in prompts (name/email → placeholders)
- Store embeddings of **internal docs**, not sensitive student data
- Configurable provider + region; per-request audit logs

UI Wiring

- **/crm/enquiries**: “AI Triage” → ranked list panel w/ reasons; bulk action buttons
- **/crm/interviews**: “Generate Invite/Reminder” dialog → editable draft → Send/Copy
- **/crm/offers**: “Compose Offer Letter” dialog → checklist block (visa/ID/finance)
- **Global**: Command palette “Ask Bridge” → semantic search modal (answers + citations)

Build Plan (2 sprints)

Sprint 1 (Weeks 1–2)

- FastAPI skeleton, Supabase client, pgvector schema + loader
- Chains: RAG search + summarisation
- React modals + shadcn/ui primitives wired; demo docs uploaded

Sprint 2 (Weeks 3–4)

- Comms composer chains (invite, reminder, offer) with prompt templates
- Lead triage (rules + lightweight LLM pass)
- Telemetry (ai_events), redaction, error toasts; polish and demo data

Stretch (Weeks 5–6)

- Outlook/Google calendar write-through OR n8n-driven emails
- No-show heuristic flag; simple risk badges in Interview list

Success Criteria (demo)

- Generate invite from a card in <3s; editable; copy to clipboard
- Summarise a 10-message thread to TL;DR + next actions (<3s)
- “What’s our deferral policy for Sheffield BA Prod?” → cites correct doc
- Triage → top-20 leads with short reasons; actions visible

Pricing & ACV (why MVP++ is investable)

- **Starter:** £8–12k (specialist colleges) → CRM + AI copilot + summaries + RAG
- **Pro:** £20–30k (adds SIS-lite, offer composer, stronger automations)
- **Enterprise:** £50–100k (full OS, compliance, advanced AI packs, SLA) \ **Investor line:** *“Customers pay £50–60k for generic suites. We deliver HE-specific workflows + AI at 1/3 the cost, with clear upsell path.”*

Demo Script (5 minutes)

1. Enquiries → **AI Triage** → pick top lead; one-click invite generated
2. Interview thread → **Summarise** → confirm next actions; schedule
3. Offers → **Compose conditional offer** → checklist output
4. **Ask Bridge:** deferral policy question → answer + citations

Risks & Mitigations

- **Latency:** cache RAG chunks; small context windows; streaming UI
- **Hallucinations:** strict retrieval; structured prompts; citations mandatory
- **Scope creep:** lock features above; defer WhatsApp/Discord and heavy ML

Outcome: A credible, investor-ready demo that proves the wedge (HubSpot replacement) **and** showcases the AI DNA you’ll scale into the Student Record and HE-LLM roadmap.