HISL Website — Mermaid Wireframe Pack

Copy‑paste‑ready Mermaid diagrams for the website build  
Date: September 20, 2025  
Usage: Copy the Mermaid code blocks (between ```mermaid ... ```) directly into your MD/MDX or documentation.

# 1) Sitemap / Information Architecture (IA)

```mermaid  
flowchart TD  
 %% HISL Sitemap / IA  
 %% Rule: All pages fetched via GET /api/v1/site/page?slug (block-structured)  
 %% Contracts: /v1/site/page, /v1/site/menu, /v1/site/search, /v1/site/seo, /v1/site/forms/\*  
 A[HISL Root "/"] --> H[Home "/"]  
 A --> AB[About "/about"]  
 AB --> ABM[Founder "/about/michael"]  
 AB --> ABI[Platform "/about/integai"]  
 AB --> ABP[Poem "/poem"]  
  
 A --> GL[Globe Demo "/globe"]  
 A --> NW[News & Trends "/news"]  
  
 A --> AG[Agents "/agents"]  
 AG --> AGDIR[Agents Directory "/agents"]  
 A --> SE[Sector Hubs "/sectors"]  
 SE --> S1[Construction "/sectors/construction"]  
 SE --> S2[Environmental "/sectors/environmental"]  
 SE --> S3[Conservation / SPAB "/sectors/conservation"]  
 SE --> S4[Pharma — CROx "/sectors/pharma-crox"]  
 SE --> S5[Public Procurement "/sectors/procurement"]  
 SE --> S6[Agriculture "/sectors/agriculture"]  
 SE --> S7[Trader/Economics "/sectors/trader-economics"]  
 SE --> S8[Healthcare / Pet Care "/sectors/healthcare"]  
 SE --> S9[Insurance "/sectors/insurance"]  
 SE --> S10[Custom Builds "/sectors/custom"]  
  
 A --> CT[Contact "/contact"]  
 A --> RF[RFP "/rfp"]  
 A --> NL[Newsletter "/newsletter"]  
 A --> CR[Careers "/careers"]  
  
 A --> LG[Legal "/legal"]  
 LG --> L1[Privacy "/legal/privacy"]  
 LG --> L2[Terms "/legal/terms"]  
  
 %% Search entry points  
 A --> SRCH[Site Search "?q="]  
  
 %% Global nav/menu payloads  
 M[(GET /v1/site/menu)] -->|primary[], footer[]| H  
 M --> AB  
 M --> SE  
 M --> AG  
 M --> CT  
```

# 2) Home page wireframe (sections with IDs, components, props)

```mermaid  
flowchart TB  
 subgraph HOME[Page: "/" — Home]  
 direction TB  
 HD[sectionId: nav\_primary\_v1  
 component: GlobalHeader  
 props: {logo, menu.primary[], ctas[]}]  
  
 HR[sectionId: hero\_cosmic\_v1  
 component: HeroCosmic  
 props: {title, subtitle, primaryCta, secondaryCta, backdrop:"starfield|webgl", lqip:true}]  
  
 PB[sectionId: perf\_badges\_v1  
 component: PerfBadges  
 props: {ttftTargetMs:800, p50TokPerS:40, mode:"offline-first"}]  
  
 APIS[sectionId: api\_contracts\_v1  
 component: ApiContractsStrip  
 props: {endpoints:["/v1/site/page","/v1/site/seo","/v1/site/forms/{id}"], note:"immutable contracts"}]  
  
 AMX[sectionId: agents\_matrix\_v1  
 component: AgentsMatrix  
 props: {sectors:["Construction","Environmental","Conservation","Pharma (CROx)","Procurement","Agriculture","Trader/Economics","Healthcare/Pet","Insurance","Custom"], cta:"Explore agents"}]  
  
 GT[sectionId: globe\_teaser\_v1  
 component: FeatureTile  
 props: {title:"Where your prompts go", link:"/globe", thumb:"globe.webp", caption:"R3F globe + energy badge"}]  
  
 NT[sectionId: news\_teaser\_v1  
 component: FeatureTile  
 props: {title:"Live News & Trends", link:"/news", thumb:"trends.webp", caption:"Realtime stream"}]  
  
 ETH[sectionId: ethics\_sovereignty\_v1  
 component: SplitFeature  
 props: {title:"Sovereign by design", bullets:["Offline-first","Agentic graph (9-core)","Immutable artifacts"], link:"/about/integai"}]  
  
 CTA[sectionId: cta\_contact\_v1  
 component: BigCTA  
 props: {title:"Build with IntegAI", primary:"Talk to us", to:"/contact"}]  
  
 FT[sectionId: footer\_v1  
 component: GlobalFooter  
 props: {menu.footer[], socials[], legalLinks[]}]  
 end  
  
 HD --> HR --> PB --> APIS --> AMX --> GT --> NT --> ETH --> CTA --> FT  
```

# 3) Globe demo page (prompt arcs + energy badge)

```mermaid  
flowchart TB  
 subgraph GLOBE[Page: "/globe" — Sovereign AI Demo]  
 direction TB  
 GHD[sectionId: nav\_primary\_v1 | GlobalHeader]  
 GHR[sectionId: hero\_globe\_v1  
 component: HeroGlobe  
 props: {title, subtitle, autoplay:true, respectReducedMotion:true}]  
  
 GP[sectionId: prompt\_console\_v1  
 component: PromptConsole  
 props: {placeholder:"Ask anything…", modelOptions:["Gemma fast-path","Mistral-7B fallback"], maxTokens:1024, showLatency:true}]  
  
 GA[sectionId: arcs\_visual\_v1  
 component: PromptArcMap  
 props: {mode:"offline-first", dataCenters:["Lenovo-host","Edge cache"], arcs:"prompt->planner->retriever->judge->executor", toggle:"Where your prompts go"}]  
  
 GE[sectionId: energy\_badge\_v1  
 component: EnergyBadge  
 props: {baseWh:0.3, per100TokWh:0.1, co2FactorKgPerKWh:0.233, showEstimates:true}]  
  
 GR[sectionId: result\_panel\_v1  
 component: ResultPanel  
 props: {diffView:true, provenance:true}]  
  
 GFAQ[sectionId: demo\_disclaimer\_v1  
 component: InlineNote  
 props: {text:"Demo runs locally/offline by default; online adapters gated by policy."}]  
  
 GFT[sectionId: footer\_v1 | GlobalFooter]  
 end  
  
 GHD --> GHR --> GP --> GA --> GE --> GR --> GFAQ --> GFT  
```

# 4) News & Trends page (live feed)

```mermaid  
flowchart TB  
 subgraph NEWS[Page: "/news" — Live Trends Window]  
 direction TB  
 NHD[sectionId: nav\_primary\_v1 | GlobalHeader]  
  
 NHR[sectionId: hero\_news\_v1  
 component: HeroMinimal  
 props: {title:"Live News & Trends", subtitle:"Signal over noise", searchbar:true}]  
  
 NSF[sectionId: stream\_filters\_v1  
 component: StreamFilters  
 props: {topics:["AI","Construction","Pharma","Sustainability"], sources:["X/Grok","Docs"], autoRefresh:true}]  
  
 NLV[sectionId: live\_stream\_v1  
 component: NewsStream  
 props: {provider:"Grok", itemsPerPage:20, hydrateOnVisible:true, disclaimer:"Live content may be unvetted"}]  
  
 NANA[sectionId: annotation\_bar\_v1  
 component: AnnotationBar  
 props: {actions:["Pin","Save","Send to /agents","Open in new tab"]}]  
  
 NFT[sectionId: footer\_v1 | GlobalFooter]  
 end  
  
 NHD --> NHR --> NSF --> NLV --> NANA --> NFT  
```

# 5) About pages & Poem

```mermaid  
flowchart TB  
 subgraph ABOUTI[Page: "/about/integai" — Platform Bio]  
 direction TB  
 AIH[GlobalHeader]  
 AI1[sectionId: intro\_platform\_v1 | component: SplitFeature  
 props:{title:"Sovereign, offline-first orchestration", bullets:["9-core agent graph","Chroma+Neo4j RAG","Immutable .integpkg"], cta:"See API contracts"}]  
 AI2[sectionId: perf\_targets\_v1 | component: PerfBadges  
 props:{ttftTargetMs:800, p50TokPerS:40}]  
 AI3[sectionId: api\_contracts\_v1 | ApiContractsStrip]  
 AIF[GlobalFooter]  
 end  
  
 subgraph ABOUTM[Page: "/about/michael" — Founder]  
 direction TB  
 MH[GlobalHeader]  
 M1[sectionId: founder\_story\_v1 | component: BioLongform  
 props:{portrait, mdx:"/content/about/michael.mdx"}]  
 MF[GlobalFooter]  
 end  
  
 subgraph POEM[Page: "/poem" — The Craftsman's Creed]  
 direction TB  
 PH[GlobalHeader]  
 P1[sectionId: poem\_body\_v1 | component: PoemBlock  
 props:{mdx:"/content/poem.mdx", typography:"display"}]  
 PF[GlobalFooter]  
 end  
```

# 6) Agents directory + Sector hubs (incl. CROx deep‑dive)

```mermaid  
flowchart TB  
 subgraph AGENTS[Page: "/agents" — Directory]  
 direction TB  
 AH[GlobalHeader]  
 AX[sectionId: agents\_grid\_v1  
 component: AgentCards  
 props:{agents:[  
 {name:"EHS Agent", sector:"Construction"},  
 {name:"Project PM Agent", sector:"Construction"},  
 {name:"BIM/Design Agent", sector:"Construction"},  
 {name:"ESG Agent", sector:"Environmental"},  
 {name:"Sustainability Metrics Agent", sector:"Environmental"},  
 {name:"Heritage Preservation Agent", sector:"Conservation"},  
 {name:"Planning Approvals Agent", sector:"Conservation"},  
 {name:"CROx", sector:"Pharma"},  
 {name:"Procurement Agent", sector:"Public Procurement"},  
 {name:"Anti-Corruption Oversight Agent", sector:"Public Procurement"},  
 {name:"Crop Monitoring Agent", sector:"Agriculture"},  
 {name:"Agri-Supply Agent", sector:"Agriculture"},  
 {name:"Market Signals Agent", sector:"Trader/Economics"},  
 {name:"Risk & Portfolio Agent", sector:"Trader/Economics"},  
 {name:"Clinical Workflow Agent", sector:"Healthcare"},  
 {name:"Pet Care Agent", sector:"Healthcare"},  
 {name:"Ops Agent", sector:"Insurance"},  
 {name:"Fraud Detection Agent", sector:"Insurance"},  
 {name:"Wizard Agent", sector:"Custom"},  
 {name:"Child Agents", sector:"Custom"}]}}  
 AF[GlobalFooter]  
 end  
  
 subgraph CROX[Page: "/sectors/pharma-crox" — CROx Landing]  
 direction TB  
 CH[GlobalHeader]  
 C1[sectionId: crox\_hero\_v1 | component: HeroSplit  
 props:{title:"CROx — Clinical R&D Orchestrator", subtitle:"Protocol → Patients → KPIs → Audit", cta:"Request demo"}]  
 C2[sectionId: crox\_features\_v1 | component: FeatureColumns  
 props:{items:["Protocol Copilot","Recruitment & Retention Intelligence","Ops Unifier","Regulatory & CSR Drafting","Patient Monitoring Hub","KPI Dashboard"]}]  
 C3[sectionId: crox\_kpis\_v1 | component: KPIGrid  
 props:{metrics:["Amendment rate↓","Recruitment velocity↑","Dropout rate↓","CSR drafting cycle↓","ROI↑"]}]  
 C4[sectionId: crox\_auditability\_v1 | component: ProofBlocks  
 props:{bullets:["Traceable citations",".integpkg artifacts","HITL gates via Judge"], link:"/about/integai"}]  
 CF[GlobalFooter]  
 end  
```

# 7) Forms & outcomes (Contact, RFP, Newsletter, Careers)

```mermaid  
flowchart TB  
 subgraph FORMS[Forms & Confirmation Pages]  
 direction TB  
 FC[Page: "/contact"]  
 FR[Page: "/rfp"]  
 FN[Page: "/newsletter"]  
 FY[Page: "/careers"]  
  
 FC -->|POST /v1/site/forms/contact| COK[Contact → ok screen "/contact/sent"]  
 FR -->|POST /v1/site/forms/rfp| ROK[RFP → ok screen "/rfp/sent"]  
 FN -->|POST /v1/site/forms/newsletter| NOK[Newsletter → ok "/newsletter/sent"]  
 FY -->|POST /v1/site/forms/careers| YOK[Careers → ok "/careers/sent"]  
  
 note1{{All POSTs require Idempotency-Key; return {ok,idempotencyKey,triage,route}}}  
 end  
```

# 8) Data & API contracts (ER diagram for /v1 payloads)

```mermaid  
erDiagram  
 PAGE ||--o{ SECTION : "sections[]"  
 PAGE {  
 string slug PK  
 string title  
 json hero  
 json metadata  
 string lastUpdated  
 }  
 SECTION {  
 string id PK "sectionId (e.g., hero\_cosmic\_v1)"  
 string component "rendering component"  
 json props "typed by component"  
 int order  
 }  
  
 MENU {  
 string id PK  
 json primary[]  
 json footer[]  
 }  
  
 SEO {  
 string slug PK  
 string title  
 string description  
 json keywords[]  
 json og  
 json schemaOrg  
 json redirects[] "canonical + 301 map"  
 }  
  
 SEARCH\_RESULT {  
 string type "page|doc|asset"  
 string title  
 string url  
 string excerpt  
 float score  
 }  
  
 FORM\_SUBMISSION {  
 string id PK  
 string formId "contact|rfp|newsletter|careers"  
 json payload  
 string idempotencyKey  
 json triage "{tag,severity}"  
 json route "{owner,channel}"  
 datetime createdAt  
 }  
  
 PAGE ||--|| SEO : "seo for slug"  
 MENU ||--o{ PAGE : "drives primary/footer nav"  
```

# 9) End‑to‑end request flow (sequence)

```mermaid  
sequenceDiagram  
 participant U as Browser (HISL)  
 participant W as Website /app (Next.js 15.5)  
 participant N as NGINX /api proxy  
 participant G as IntegAI Gateway  
 participant C as Cache (L1/L2)  
 participant R as RAG (Chroma+Neo4j)  
 participant L as LLM (Gemma→Mistral)  
 participant P as Publisher (.integpkg/MinIO)  
  
 U->>W: GET / (navigate)  
 W->>N: GET /api/v1/site/page?slug=home  
 N->>G: proxy  
 G->>C: check L1/L2 cache  
 alt cache hit  
 C-->>G: page JSON  
 else miss  
 G->>R: assemble sections via local RAG  
 G->>L: generate blocks (if needed, fast-path Gemma)  
 L-->>G: draft blocks  
 G-->>C: write cache  
 end  
 G-->>W: {title, sections[], metadata, lastUpdated}  
  
 Note over W: Render by component mapping; hydrate only necessary islands.  
  
 U->>W: POST /contact (Idempotency-Key)  
 W->>N: POST /api/v1/site/forms/contact  
 N->>G: proxy  
 G->>P: persist normalized JSON (.integpkg or DB)  
 G-->>W: {ok, idempotencyKey, triage, route}  
```

# 10) Implementation tips (quick wins)

* Section registry: enforce component + required props at build time; reject unknown fields to prevent drift after wireframe lock.
* Cache warmer: nightly prebuild top slugs; hydrate hero pages’ RAG contexts to avoid first‑hit slowness.
* Motion perf: lazy‑init WebGL after LCP; respect prefers-reduced-motion; throttle when tab hidden.
* CROx content: keep KPI blocks data‑bound so real trial metrics can drop in later with traceable citations/artifacts.

# What I enhanced

* Added perf badges + API contracts strip to the Home page to make the IntegAI takeover explicit and trustworthy.
* Formalized Globe arcs + energy badge sections so engineering can wire in the energy/CO₂ math cleanly.
* Elevated Agents → Sector hubs with a focused CROx landing and KPI grid to show proof, not just promise.
* Locked forms POST flow with idempotency and success routes for parity and a painless cutover.