

## Agensium Phase 3: Implementation Tasks

### 1. Core Feature: Holdout Control Group Planner (FREE)

Objective: Build a standalone, mathematical calculator as the primary lead magnet.

#### 1.1 Statistical Logic Engine

- [ ] Task: Implement the base sample size formula ( $n$ ) using Z-scores for Alpha (Confidence: 90/95/99%) and Beta (Power: 80/90%).
- [ ] Task: Implement the Imbalance Factor logic to adjust  $N$  for non-50/50 holdout splits.
- [ ] Task: Build the financial model for Holdout Cost ( $HoldoutUsers \times (p_1 \times (Lift/100)) \times Value$ ).
- [ ] Task: Implement Global Aggregation:
  - Sum of all Segment  $N$  values.
  - Max Duration (identify the bottleneck segment).
  - Total Holdout Cost.

#### 1.2 Interactive UI/UX

- [ ] Task: Create the Multi-Segment Dashboard allowing users to add/remove up to 10 segments.
- [ ] Task: Implement real-time "Planning Insights" (e.g., Identifying which segment is the duration bottleneck).
- [ ] Task: Add "Under-powered" warning labels if  $HoldoutUsers < n$ .
- [ ] Task: Design the "Free Feature" badge for the header.

## 2. Platform Restructuring & Gating

Objective: Transform the site into an Agentic Marketplace and hide transactional components until SOC2 compliance.

#### 2.1 Auth & Payment Lockdown

- [ ] Task: Remove all Login, Sign-up, and Profile routes/buttons from the navigation.
- [ ] Task: Remove the Pricing and Billing sections from the UI.
- [ ] Task: Implement the Lead Capture Modal on the "Run Agent" buttons for all restricted tools (Master, Clean, Profile, etc.).

## 3. SEO & Tool Landing Pages

Objective: Create separate high-conversion URLs for every agentic tool.

- [ ] Task: Implement dynamic routing for `/tools/[tool-slug]` .
- [ ] Task: Build unique landing page templates for:
  - `/tools/master-data-management`
  - `/tools/synthetic-control`
  - `/tools/market-basket`
  - `/tools/customer-segmentation`
  - `/tools/holdout-planner` etc

## 4. Homepage "App Factory" Overhaul

**Objective:** Pivot messaging from "SaaS Tool" to "Custom Agentic App Builder."

### 4.1 Monetization & Developer CTAs

- [ ] Task: Implement Card A (Marketplace): "Got an idea? Publish it to the Marketplace and Get Paid."
- [ ] Task: Implement Card B (Developers): "Developer-First Integration. Use the APIs instead — click here."
- [ ] Task: Integrate the "Build My App" lead-gen form (Capture: Name, Email, Budget, Use Case).

### 4.2 Visual Refresh

- [ ] Task: Update the Logo to the new "Agensium" brand mark.
- [ ] Task: Implement the "Interactive Showcase" mode using dummy data (Hardware/Grocery datasets) for the restricted tool views.
- [ ] Task: Prepare placeholders for the "Bait" video integration in the hero section.