Project Beacon: Strategic Proposal for Predictive HCP Launch Excellence

1. Executive Summary

Project Beacon is a strategic, AI-driven initiative architected to ensure launch excellence for Maritide, a portfolio-defining asset positioned within a global obesity market projected to exceed $1 trillion. In a landscape where Maritide's revenue potential is comparable to the company's entire current portfolio, traditional commercial strategies are insufficient.

The core vision of Project Beacon is the deployment of a predictive AI system that identifies "true early adopters"—healthcare professionals (HCPs) likely to prescribe within the first 90 days of launch—long before the product reaches the market. By utilizing a "Learning from Analogues" methodology, the system simulates historical market conditions from Wegovy, Zepbound, and the Wegovy Oral Pill launches to decode the behavioral DNA of early adoption. This proposal establishes 2026 as a "Transition Year," using the Orforglipron launch as a lighthouse project to refine the predictive engine before Maritide's launch in 2027/28. Our target success metric is an initial 60% predictive accuracy, scaling to 80% through continuous learning velocity.

2. Strategic Context: The Challenge of a Crowded Market

The anti-obesity medication (AOM) market is rapidly evolving from a nascent category to a hyper-saturated environment. Moving beyond "high-prescriber" targeting, Project Beacon focuses on "surgical targeting." We must distinguish between physicians who are simply high-volume writers and those who possess the clinical conviction to adopt novel mechanisms or form factors early in the launch cycle.

The architecture is specifically designed to filter out "noise" created by external market factors that can distort adoption signals.

Market Distortions and Commercial Barriers

• **Drug Shortages:** Supply constraints that force artificial substitution behavior or impact perceived brand loyalty.

• **Payer Coverage Dynamics:** Rapidly shifting reimbursement landscapes and high abandonment friction in adjudicated claims.

• **Telehealth Proliferation:** The rise of virtual providers who often bypass traditional clinical inertia, particularly in the cash-pay segment.

• **Form-Factor Evolution:** The 2026 shift toward oral formulations (Orforglipron) which introduces new dimensions of patient preference and "Pill-Friendly" prescriber profiles.

• **Data Lag Reality:** The inherent 4–12 week delay between a script being

written and its appearance in adjudicated claims data, which the model must account for through probabilistic inference.

3. The Solution: AI-Driven Early Adopter Modelling

Project Beacon utilizes "Simulation-Style" analytics. We effectively "rewind the clock" to historical launch points—training models on data available *at that moment*—to predict the subsequent 90 days of adoption. These predictions are then validated against actual realized scripts to refine the algorithm.

Three-Model Framework

Model Type	Historical Analogue	Core Behavioural Insight	Data Signal Weighting
Category-Creation	Wegovy (Injectable)	Identifies innovation-forward HCPs with high clinical conviction and appetite for new-to-market risk.	**Xponent:** Speed of adoption / Willingness.
Switching Dynamics	Zepbound	Captures "Switchers"—HCPs who migrate stable patients based on comparative efficacy and duration.	**LAAD:** Patient journey / Switching patterns.
Form-Factor Disruption	Wegovy Oral Pill (Dec 2025)	Identifies HCPs sensitive to "Injection Fatigue" and patient lifestyle/administration preferences.	**Optum/ LAAD:** Clinical context + Mode preference.

Learning Velocity

The system is architected as a living engine, not a one-time analysis. The "Learning Velocity" philosophy acknowledges that while initial predictions are foundational, the model's value increases as real-world Orforglipron data arrives in 2026. The engine is designed to continuously recalibrate, moving from "academic perfection" to "revenue acceleration" by improving accuracy from 60% to 80% through iterative retraining.

4. Data Strategy: The Power of Triangulation

High-confidence prediction requires the triangulation of three distinct data ecosystems to bridge the gap between physician willingness and patient clinical readiness.

1. **IQVIA LAAD:** The source of truth for patient-level journeys. We utilize LAAD to map switch patterns, adjudicated claims, and abandonment friction. Crucially, LAAD serves as the bridge to connect clinical patient phenotypes to specific HCPs.

2. **IQVIA Xponent:** Used to build the "Behavioral DNA" of 400,000 physicians. It provides HCP-level prescribing volume trends and historical speed-of-adoption metrics for previous GLP-1 waves.

3. **Optum EHR:** Provides deep clinical context (BMI, labs, comorbidities). Because obesity is notoriously under-coded, we use **probabilistic models** to infer missing diagnoses. Furthermore, we extract unstructured notes to identify "Injection Fatigue" or a "desire for pills." **Technical Note:** As there is no direct MPI-level HCP linkage in Optum, these patient insights are phenotyped and then triangulated to HCPs via the IQVIA LAAD linkage.

The Action Moment Logic: Adoption occurs only at the intersection of HCP behavioral willingness, a concentration of clinically ready patients in the panel (e.g., BMI ≥30 or metabolic deterioration), and the absence of payer/logistical blockers.

5. Implementation Roadmap

The methodology follows a 3-Phase ML-driven approach to connect patient demand to prescriber supply.

• **Phase 1: Patient Discovery & Probabilistic Inference:** Quantifying the addressable universe and using AI to infer obesity status where clinical coding is absent.

• **Phase 2: HCP Behavioural Segmentation:** Utilizing **unsupervised clustering** to segment 400,000 physicians into an "HCP Typology" based on their historical prescribing DNA and adoption timing.

• **Phase 3: Opportunity Prediction:** Producing ranked target lists for Maritide with "Why Now" rationales, specifically identifying HCPs whose patients would benefit from Maritide's unique 4-weekly (monthly) dosing profile.

9-Week Pilot Timeline

• **Weeks 1-3: Data Aggregation & Inference:** Cleaning IQVIA/Optum data; applying probabilistic models to obesity coding gaps.

• **Weeks 4-6: Model Training (Orforglipron Lighthouse):** Building the early-adopter signatures using historical analogues.

• **Weeks 7-8: Maritide Mapping:** Translating learned behaviors to the Maritide profile, identifying segments sensitive to "Injection Fatigue" vs. "Pill-Friendly" needs.

• **Week 9: Dashboard Delivery:** Deployment of interactive "Heat Maps" and ranked target lists for commercial activation.

6. Expected Value and Commercial Pull-Through

The ultimate objective is revenue acceleration through targeted engagement of specific HCP Personas.

• **The Early Catalysts (Tier 1):** Fast adopters of new technology. Action:

Priority for speaker programs and early trial data.

• **The Switchers (Tier 2):** High volume of injector users with low patient continuity. Action: "Convenience + Efficacy" messaging for Maritide's monthly dosing.

• **The High-Volume Discontinuers:** A critical segment of HCPs whose patients are stopping Wegovy/Zepbound due to supply issues or side effects. These are prime candidates for Maritide's differentiated profile.

• **The Skeptics (Tier 3):** Low GLP-1 adopters. Action: Foundational education on ease of use.

Broader Commercial Outcomes

The model identifies geographical "heat maps" to optimize field force deployment, particularly in suburban areas with high out-of-pocket demand. Additionally, the system proactively identifies Key Opinion Leaders (KOLs) who can serve as champions for the Maritide portfolio.

7. Governance and Next Steps

To initiate Project Beacon, the following immediate actions are required:

1. **Secure TPA Access:** Finalize Third-Party Agreements for Optum, IQVIA LAAD, and Xponent.

2. **C4 Alignment:** Establish a formal data-sharing and validation protocol with the internal Amgen C4 (Center for Research) teams regarding Optum EHR usage.

3. **Market Definition Workshop:** Schedule a collaborative session to align on the "Early Adopter" definition (90-day window) and key modeling hypotheses.

4. **Modeling Initiation:** Commence Phase 1 clustering and probabilistic inference using currently available data assets to establish the baseline HCP Typology