Sustainability Simulator MVP Proposal

This document outlines the proposed logic, mathematical framework, UI structure, and timeline for the Sustainability Decision Simulator MVP. The tool will allow users to choose a business sector, adjust sustainability variables, and receive a calculated sustainability score with visual outputs.

Mathematical Model

The simulator converts managerial sustainability decisions into quantitative results using sector-weighted scoring. Each user slider input (0–100) is normalized to 0–1 and multiplied by sector-specific coefficients from the provided Excel. Formula: Sustainability Score = Σ (Input_i * Weight_sector,i) * 100 Where: • Input_i = user slider value (0–100 normalized to 0–1) • Weight_sector,i = weight coefficient for selected sector

Sector	Energy Saving	Resource Saving	Waste Reduction	Reputation Uplift	Productivity Gain	Turnover Reduction
Manufacturing	0.09	0.065	0.08	0.03	0.025	0.06
Services	0.045	0.035	0.03	0.055	0.04	0.07
Retail	0.065	0.05	0.04	0.04	0.025	0.05
Agri-food	0.105	0.075	0.07	0.02	0.015	0.04
Construction	0.075	0.055	0.095	0.03	0.025	0.055

UI Sketch Structure

Left Panel (Inputs): • Dropdown: Select Sector • Sliders: Energy Saving, Resource Saving, Waste Reduction, Reputation Uplift, Productivity Gain, Turnover Reduction Right Panel (Outputs): • Display Sector • Economic / Environmental / Strategic Components (future) • Overall Sustainability Score (0–100) • Radar + Bar Chart Visualization • Reset Button

Timeline

Total Time: 4 Weeks Week 1: Model understanding, formula mapping, UI mockup Week 2: Frontend UI + sliders + sector selector Week 3: Scoring engine + charts + live interactions Week 4: Deployment + testing + delivery + documentation

I will develop, deploy, and deliver the platform fully functional, including logic implementation, frontend, backend, hosting, and deployment.