

# Dynamic Report Builder Guide

## For the Replit Development Agent

Version: 1.0  
Date: 2025-09-02  
Author: Replit Coach Too  
Status: Draft

### 1. Objective

This document provides a detailed technical guide for the Replit Agent to **replace the current sustainability report creation function** with a new, powerful **Dynamic Sustainability Report Builder**. This feature will allow users to combine automatically tracked data with their unique company narrative, strategic goals, and specific initiatives in a flexible, modular format.

### 2. Part 1: Backend & Database Enhancements

To support this feature, we need to create new tables to store the qualitative, narrative-driven information.

#### 2.1. New Table: company\_story

This table will store the core narrative elements for a company.

Column Name	Data Type	Constraints	Description
id	UUID	PRIMARY KEY	Unique identifier.
company_id	UUID	FOREIGN KEY (companies.id), UNIQUE	Links to the company.
mission_statement	TEXT	NULLABLE	The company's official mission statement.
vision_statement	TEXT	NULLABLE	The company's longer-form vision statement.
strategic_pillars	JSONB	NULLABLE	An array of pillar objects, e.g., [{"name": "Planet",

			"description": "..."}].
--	--	--	-------------------------

### 2.2. New Table: initiatives

This table will store the specific projects and actions a user is taking.

Column Name	Data Type	Constraints	Description
id	UUID	PRIMARY KEY	Unique identifier for the initiative.
company_id	UUID	FOREIGN KEY (companies.id)	Links to the company.
initiative_name	VARCHAR(255)	NOT NULL	The name of the initiative (e.g., "New Water Recirculation System").
description	TEXT	NULLABLE	A detailed description of the project.
linked_kpi_goal_id	UUID	FOREIGN KEY (company_kpi_goals.id)	<b>Crucially</b> , links this initiative to a specific, measurable goal.
strategic_pillar	VARCHAR(100)	NULLABLE	The strategic pillar this initiative falls under.

### 2.3. New API Endpoints

- POST /api/company/story: Creates or updates the company's story elements.
- POST /api/initiatives: Creates a new initiative linked to a KPI goal.
- GET /api/initiatives: Fetches all initiatives for a company.
- The existing /api/reports/refine-text endpoint for the AI assistant will be used.

## 3. Part 2: Frontend Implementation

### 3.1. The 'Company Story' Module (New Data Capture)

A new, dedicated page must be created, accessible from the main navigation, titled

"Company Story" (/app/story).

- **Mission & Vision Editor:**
  - **UI:** Two simple text editor components for the mission\_statement and vision\_statement.
  - **Guidance:** Each editor will have an AI-powered prompt button ("Help me write this") that provides guidance as described in the plan.
- **Strategic Pillar Builder:**
  - **UI:** An interface that shows the default pillars ("Planet", "People", "Principles") and allows the user to edit them or add their own. For each pillar, there is a text input for a short description.

### 3.2. The Initiative Workflow (Integration with KPI Dashboard)

- **Location:** The KPI & Goal-Setting Dashboard (/app/kpis).
- **UI Change:** The KpiProgressCard component must be updated to include a new button: "+ Add Initiative".
- **'Initiative Editor' Modal:**
  - **Trigger:** Clicking the "+ Add Initiative" button opens this modal.
  - **Logic:** The modal is pre-linked to the specific KPI goal from the card it was opened from.
  - **Fields:** Initiative Name (Text Input), Description (Text Editor), Strategic Pillar (Dropdown populated from the 'Company Story' module).
  - **Action:** On save, it calls the POST /api/initiatives endpoint.

### 3.3. The 'Dynamic Report Builder' (New User Interface)

A new page (/app/reports/builder) will house the report creation tool.

- **Step 1: Template & Audience Selection**
  - **UI:** A modal that appears when the user starts a new report, asking them to select a template (e.g., "Annual Stakeholder Report," "Customer-Facing Impact Page").
- **Step 2: The Modular 'Content Block' System**
  - **UI:** A two-panel layout. The left panel is a scrollable '**Content Block' Library**. The right panel is the main **Report Canvas**.
  - **Technology:** Use a drag-and-drop library like react-beautiful-dnd.
  - **Content Block Library:** This will contain a list of all available blocks (both data-driven and narrative).
  - **Report Canvas:** The user drags blocks from the library onto the canvas to build their report. The canvas is pre-populated based on the template selected in Step 1.
- **Step 3: AI-Assisted Narrative Editor**
  - **UI:** Within each text-based block on the canvas, an "AI Assist" button will be visible.
  - **Logic:** This button opens a modal allowing the user to select an audience and refine their text using the /api/reports/refine-text endpoint.
- **Step 4: Preview & Export**
  - **UI:** "Preview" and "Export" buttons will be in the header.

- **Logic:** The "Export" button will trigger a backend process to render the final report as a PDF or a shareable webpage.