EcoScrum User Manual

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1. Introduction

EcoScrum is a web-based agile project management application enhanced with an added layer of sustainability. It helps individuals and teams plan, track, and optimize their projects using Scrum methodology while also quantifying and promoting sustainable practices. From sprint planning and task tracking to real-time eco-efficiency monitoring, EcoScrum offers both productivity and sustainability.

2. System Requirements

To ensure the best experience using EcoScrum, users should meet the following minimum requirements:

Hardware:

- Desktop or laptop computer (preferred)
- Tablet (supported with limitations)

Software:

- Updated web browser (Chrome, Firefox, Edge, or Safari)
- JavaScript enabled

Network:

- Stable internet connection

3. Accessing EcoScrum

To start using EcoScrum:

1. Visit the web application: https://eco-scrum.vercel.app
2. Create an account or log in with existing credentials.

4. Account Management

Log In

1. Visit https://eco-scrum.vercel.app/login
2. Enter any email address.
3. Type password in the password field

4. Click **"Sign In."**

5. Application Overview

Navigation Menu

1. **Dashboard**: Project overview and key sprint insights
2. **Sprint Board**: Visual board for managing sprint tasks using columns (To Do, In Progress, Done)
3. **Retrospective**: Evaluate and record team reflections post-sprint
4. **Backlog**: Centralized list of all project tasks and ideas
5. **Team**: Manage team members, roles, and collaboration settings
6. **Education**: Access sustainability-related educational content and tips

6. Core Features and Screen-by-Screen Usage Guide

6.1 Home/Login

- When the app is first opened, users land on the login page.
- Users can **Log In** with mentioned email and password
- Helpful error messages appear if login fails due to incorrect credentials.

6.2 Project and Sprint Context Controls

At the top of the EcoScrum interface, above the primary navigation menu, is a control panel that allows users to manage **project-level context** and ensure that the correct data is displayed across screens. These controls influence what appears in the Dashboard, Sprint Board, Retrospective, Backlog, and Team sections.

Project Selector

- A dropdown menu labeled with the current project name allows users to switch between existing projects.
- Projects can be created by clicking the **plus icon** next to the selector.
- The **Create New Project** modal includes:
    - **Project Name**: Required field to identify the project.
    - **Description**: Optional text area to provide context.

Sprint Selector

- A second dropdown lists available sprints within the selected project.

- Choosing a sprint updates all related views, including metrics, sprint boards, and retrospectives.

SuSAF Sync Button

- Labeled **"Sync SuSAF"**, this button connects your current project's PBIs to the **Sustainability Assessment Framework (SuSAF)**.
- Syncing ensures that PBIs are evaluated based on predefined sustainability criteria.

API Token Configuration

- Clicking the **gear icon** opens the **SuSAF API Token Settings** modal.
- Users must paste a valid **API Token** to authenticate the project with the SuSAF system.
- A confirmation message displays once the token is successfully updated.

6.3 Dashboard

The **Dashboard** serves as the starting point for users after logging into EcoScrum. It provides a high-level, data-driven overview of your project's progress, team productivity, and sustainability performance. The page is designed to help teams quickly assess current sprint health and make informed decisions based on key agile and sustainability indicators.

Project Sustainability Score

Located at the top-left, this circular gauge shows the percentage of Product Backlog Items (PBIs) that are marked as sustainability-focused. It gives a quick snapshot of how aligned your development work is with sustainable goals.

PBIs by SuSAF Dimension

To the right of the sustainability score, this panel categorizes your backlog items into five sustainability dimensions based on the SuSAF framework: Technical, Human, Environmental, Social, and Economical. This helps the team understand which aspects of sustainability are being addressed and which may need more focus.

Sprint Sustainability Trend

Centered on the page is a line graph that visualizes the sustainability scores across multiple sprints. This trend line allows teams to assess whether they are improving or regressing in terms of implementing sustainable practices in their agile workflow. Each data point corresponds to a sprint's overall sustainability impact.

Detailed Metrics Table

Beneath the trend graph, a table provides comparative metrics for the current and previous sprints. These include:

- **Sustainable PBIs**: Percentage of backlog items classified as sustainable.
- **Team Velocity**: Total story points completed, used to gauge team productivity.
- **Completion Rate**: Percentage of tasks finished within the sprint. The 'Change' column highlights performance deltas with color-coded indicators to quickly identify areas of improvement or decline.

Sprint Navigation Cards

At the bottom are three horizontally aligned interactive panels:

1. **Current Sprint Progress**: Displays the percentage completion of the current sprint. It includes a note if no sprint goal is set. A button leads directly to the Sprint Board for more granular task management.
2. **Sustainability Score**: Summarizes sustainability performance based on previous retrospective data and currently tracked effects. Clicking 'View Retrospective' brings users to a screen for sprint reflection and eco-metric analysis.
3. **Product Backlog Overview**: Shows a breakdown of total backlog items, indicating how many are sustainable vs. regular. Users can click through to the Backlog screen to manage or reprioritize items.

Together, these widgets and summaries empower users to stay aligned with both agile and sustainable goals at a glance.

6.4 Sprint Board

The **Sprint Board** in EcoScrum offers a visual workspace where teams can manage the flow of work within a sprint using a traditional **Kanban layout**. It is divided into three clearly defined columns: **To Do**, **In Progress**, and **Done**. Each column helps represent the current status of individual tasks (PBIs – Product Backlog Items) throughout the sprint lifecycle.

Column Layout and Interaction

- **To Do**: This column lists tasks that are planned but not yet started. Each card shows the task title, priority label (e.g., Low, Medium), and an optional **Sustainable** tag if the task contributes to the sustainability goal.
- **In Progress**: Contains tasks currently being worked on. Task cards may also include the assigned developer's avatar, descriptive text (e.g., technology to be used), and sustainability indicators.
- **Done**: A destination for completed tasks. Moving tasks here helps update metrics like team velocity and completion rate.

Tasks are **draggable**, allowing users to update task statuses in real-time simply by moving them across the board. This visual feedback loop supports daily Scrum meetings, planning, and coordination.

Sprint Status Panel

Above the board, a **Sprint Sustainability Status** area appears with a field for the sprint's sustainability goal. This field reflects the objective set during sprint creation (e.g., "Reduce server energy consumption by 15%").

Sprint Controls

- **New Sprint** button allows users to initiate a new sprint.
- **Complete Sprint** button is used to conclude the sprint, after which data is transferred to the Retrospective view.

Sprint Creation Modal

When creating a new sprint, users are required to fill out the following:

- **Sprint Name**: Example – "Sprint #25 – Q2 2025"
- **Sustainability Goal**: A concrete, measurable eco-goal for the sprint (e.g., "Reduce API calls by 30% to save server energy").
- **Start and End Dates**: Timeline for the sprint lifecycle.

Clicking **Create Sprint** initializes the board, with the goal displayed at the top for contextual awareness throughout the sprint.

Task Creation Modal

When adding a task to the board or backlog, users see a detailed input form with the following fields:

- **PBI Title** and **Description**: Required for identifying and detailing the work.
- **Priority**: Selectable from options such as Low, Medium, or High.
- **Assigned Person**: Assign the task to a team member.
- **Sustainability Checkbox**: If ticked, additional sustainability fields become active:
    - **Sustainability Context**: Freeform explanation of why the task is sustainable.
    - **SuSAF Category**: Dropdown with dimensions like Environmental, Technical, etc.
    - **Sustainability Effects**: Connect the task to any predefined sustainability effects available in the project.
    - **Sustainability Points**: Numeric value for evaluating the ecological value of the task.
- **Story Points**: Traditional effort estimation in Scrum.
- **Definition of Done**: Clear conditions required for task completion.

6.5 Retrospective

The **Retrospective** screen in EcoScrum is designed to facilitate structured post-sprint reflection, with a specific emphasis on sustainability performance. This section encourages teams to evaluate not only what was accomplished but also how efficiently and sustainably the work was done.

Sustainability Review Metrics

At the top, a metric summary bar presents:

- **Overall Progress**: Percentage of story points completed during the sprint.
- **Current Sprint Sustainability Score**: A calculated value based on sustainable tasks and effects addressed.
- **Previous Sprint Score**: Used for comparing progress or regression.
- **Effects Tackled**: The number of sustainability impacts addressed through completed PBIs.

Sprint Goal Assessment

Teams are asked: **"Has this goal been met?"** and can respond with:

- **Yes** (Completely met)
- **No** (Completely ignored)
- **Partially** (somewhat is met)

Inefficiency Reporting

A dedicated text area prompts users to describe any observed inefficiencies—be they technical processes, tools, or code—that may have unnecessarily consumed energy or increased digital waste.

Improvement Suggestions

Another field invites suggestions for improvement, especially changes that can reduce future environmental impact or enhance workflow efficiency.

Team Notes

An open text field where team members can leave any additional observations, team sentiments, or retrospective thoughts.

Submit Reflection

The **Submit Reflection** button captures all feedback and saves it to the retrospective log. This data can inform trends over time and help improve both sprint planning and sustainability strategy.

6.6 Backlog

The **Product Backlog** screen in EcoScrum provides a centralized and structured view of all tasks and ideas relevant to the project. It is a key area for planning and managing PBIs (Product Backlog Items) before they are assigned to a sprint.

Tabular Overview

Each PBI is listed in a tabular format with the following columns:

- **Title**: Name of the backlog item.
- **Priority**: Importance level of the task (e.g., Low, Medium, High).

- **Sustainable**: Checkbox indicator showing whether the task contributes to sustainability goals.
- **Story Points**: Scrum-based effort estimation.
- **Sustainability Score**: A computed value based on its associated sustainability properties.
- **Status**: Current stage (e.g., To Do).

Filter Options

At the top of the backlog are filters that allow users to refine their view based on:

- **Sustainability**: Filter tasks that are sustainable or not.
- **Priority**: Filter by urgency/importance.
- **SuSAF Category**: Narrow down tasks based on sustainability dimensions (Environmental, Social, etc.).
- **Status**: See tasks based on workflow progress (To Do, In Progress, Done).

Backlog Management

User can create a backlog by clicking the **"+ Add New PBI"** button to open the detailed backlog creation form.

6.7 Team

The **Team** screen allows users to manage collaboration within EcoScrum by inviting and organizing team members according to their roles. This section ensures each user has the correct level of access and visibility into project activities.

Team Overview

- Initially, the screen displays a message if there are no team members.
- A large card labeled **"Invite Team Member"** prompts project owners to start building the team.

Invite Process

Clicking either the card or the green **"Invite Team Member"** button in the top-right corner opens a modal window for sending invites.

Invite Team Member Modal Includes:

- **Email Address**: Enter the EcoScrum email of the person being invited.

- **Role Dropdown**: Choose a role from a predefined list such as Developer, Product Owner, Scrum Master, etc.
- Click **Invite** to send the invitation or **Cancel** to discard.

Roles and Permissions

Each invited user is assigned a role that governs their permissions, including:

- Viewing or editing tasks
- Managing sprints
- Accessing sustainability metrics and retrospectives

6.8 Education

The **Education** page in EcoScrum serves as a dedicated hub for users to explore sustainability-focused learning materials and deepen their understanding of applying eco-conscious practices within agile software development.

Sustainability Education Hub

The main content area displays an embedded interface known as the **Sustainability Education Hub**, which includes:

- A bold welcome section with messaging that promotes education as a key pillar of sustainable development.
- A clean and engaging layout inspired by environmental themes (e.g., a green key on a keyboard with a leaf symbol), reinforcing the app's mission visually.

Learning Resources

Users can access a variety of structured materials such as:

- **Courses**: Self-paced or interactive modules covering sustainability in tech and agile frameworks.
- **Framework and Guidelines**: Documentation explaining the SuSAF framework and how to categorize and design sustainable PBIs.
- **Interactive Chatbot**: A virtual assistant to guide users through sustainability concepts, answer questions, and recommend content.

Community Engagement

- A **Join a Community** button encourages peer learning and collaboration among users committed to sustainable development.

7. Best Practices

- Use remote-friendly task assignments to improve your eco-score.
- Set eco-goals at the start of each sprint to guide sustainable behavior.
- Review Eco Metrics at the end of every sprint to improve team practices.
- Reuse project templates to reduce planning overhead.

8. Getting Help

- Report bugs or request features via GitHub Issues: https://github.com/EricRode/EcoScrum/issues
- Check GitHub Discussions for community help
- Contact maintainers via email if provided in the repository

9. Version & License

- Current Version: v1.0.0
- License: MIT License