

Smart City Sustainability Assistant – Customer Journey Map

Policy Assistant

1. Policy Assistant

Step: Upload policy document

- The user uploads a long policy PDF.
- They interact via a web interface using the Streamlit app, from their office or home.
- Positive: The upload is simple and fast.
- Negative: The document is long and hard to read.
- Opportunity: Use AI to extract and summarize text.
- Goal: Help me understand this faster.

Step: View extracted text

- They see raw text extracted from the document.
- Interact with the displayed content in the browser.
- Positive: They can verify actual content.
- Negative: The structure might be messy.
- Opportunity: Highlight key sections automatically.
- Goal: Help me find relevant information easily.

Step: Click summarize

- They request an AI summary of the document.
- Interact via a button linked to the FLAN-T5 model.
- Positive: Saves time by shortening content.
- Negative: May miss detailed insights.
- Opportunity: Allow adjusting summary length/detail.

- Goal: Help me get meaningful summaries quickly.

Citizen Tools

Step: Describe issue

- A citizen reports an environmental concern.
- They use a text input box from home or while out.
- Positive: They feel heard.
- Negative: Not sure if the report will be acted on.
- Opportunity: Send confirmation or escalation status.
- Goal: Help me report problems easily.

Step: Ask question or use voice input

- They ask a sustainability-related question via text or voice.
- The system uses speech recognition.
- Positive: Voice feels natural.
- Negative: Sometimes voice input fails.
- Opportunity: Add retry or feedback options.
- Goal: Help me get answers fast.

Step: Request eco tips

- The user wants practical eco-friendly suggestions.
- They click a button to generate tips using AI.
- Positive: Tips are actionable.
- Negative: Might seem generic.
- Opportunity: Personalize based on location or habits.
- Goal: Help me live more sustainably.

Step: Translate answer

- The user chooses to view the answer in their local language.
- The app uses Google Translate to convert the answer.
- Positive: More accessible.
- Negative: Some translations may be inaccurate.
- Opportunity: Add local dialects or allow user corrections.
- Goal: Help me understand in my language.

City Analytics:

Step: Upload KPI CSV

- The city officer uploads a data file for sustainability tracking.
- They interact with a CSV uploader in Streamlit.
- Positive: Uploading is fast.
- Negative: File must match a specific format.
- Opportunity: Provide a sample CSV template.
- Goal: Help me get my data in easily.

Step: View chart

- The app visualizes data trends over time.
- A line graph is auto-generated.
- Positive: Trends are clearly shown.
- Negative: Outliers are hard to interpret.
- Opportunity: Add explanations for dips or spikes.
- Goal: Help me interpret the data correctly.

Step: Forecast next value

- The officer uses AI to predict future metrics.
- Forecast is generated using linear regression.

- Positive: Helps in proactive planning.
- Negative: Users may not trust the "black box".
- Opportunity: Show confidence or explain AI logic.
- Goal: Help me plan better with predictions.

Step: Detect anomalies

- The app highlights unusual data points.
- Uses Isolation Forest for anomaly detection.
- Positive: Spots issues early.
- Negative: Some may be false positives.
- Opportunity: Let users adjust sensitivity.
- Goal: Help me catch issues early.