ChatGPT

Storyboard Guide for Cuttlefish AI Widget: A Visual, Inclusive Civic Guide

Project Name: Cuttlefish AI Widget **Audience:** Developer Team (Lead: The Elephant) **Purpose:** Create a multimodal, approachable assistant that supports diverse user groups, especially those with low literacy, non-English backgrounds, or who prefer visual interaction.

Scene 1: Welcome & Introduction

Visual: A friendly, softly animated cuttlefish appears in the bottom corner of the screen, waving a tentacle. **Text/Voice Bubble:** "Hi there! I'm Cuttle, your guide. Want help exploring your new neighborhood plan?" **Functionality:** Touch/click to begin or speak to activate voice mode.

Scene 2: Mode Selection (User-Centric)

Visual: Three floating icons appear: - Text Mode (with headphones icon for TTS) - Visual Story Mode (animated scenes, no reading) - 🗣️ Voice Mode (microphone icon) **Voice Prompt:** "Choose how you want to learn! Tap one."

Scene 3: Project Overview (Visual Narrative)

Visual: A vibrant illustrated neighborhood appears with houses, green spaces, tunnels. **Animation:** The cuttlefish swims across the scene, highlighting parts of the plan. **Voiceover:** "This is your community in 2030! These homes are carbon-negative. This garden filters stormwater." **Text (optional):** Subtitles shown with simple language.

Scene 4: Interact with Community Features

Visual: Icons or hotspots on the map let users tap to explore features (e.g. geothermal well, AI center, marketplace). **Animation:** Each icon triggers a mini-scene (e.g. water running through pipes, solar panels powering homes). **Voiceover/Text:** Descriptions are friendly, vivid, non-technical.

Scene 5: Ask a Question

Visual: User taps a question mark icon or speaks a question aloud. **Functionality:** Widget listens and either answers directly or opens a visual explainer. **Example:** User asks, "What's a DAO?" → Cuttlefish shows a scene of neighbors voting with tokens.

Scene 6: Participate in a Vote or Feedback

Visual: A pop-up showing a vote (e.g. "Where should the new park go?") with three visual choices. **Voiceover:** "What do you think? Tap your favorite." **Functionality:** Submits selection, then shows community results.

Scene 7: Sign-Off and Next Steps

Visual: Cuttlefish waves goodbye and morphs into a calm, pulsing icon in the corner. **Text/Voice:** "Thanks for exploring! I'm always here when you need me."

Accessibility Features

- Multilingual voice and text toggle
- Adjustable pace of narration
- Icon-based navigation for users with low literacy
- Offline compatibility for bandwidth-limited regions

Notes for Dev Implementation (Elephant)

- Design using React and Tailwind
- Use Framer Motion for soft, organic animations
- Voice interface via Whisper or Web Speech API
- Visuals should be SVG or Lottie for lightweight performance
- All text should have voiceover + icon counterparts

End of Storyboard

ChatGPT

Cuttlefish Labs: Intentions and Goals for ADA-Based DAO Governance and Funding

Overview Cuttlefish Labs is building a resilient, decentralized infrastructure for managing sovereign digital and real-world asset portfolios. Our goal is to create interoperable DAO frameworks that can fund, govern, and grow sustainable mega-infrastructure, housing, and clean energy projects across global regions. Cardano (ADA) offers a foundational platform for this strategy, due to its native treasury mechanisms, governance tooling, and multi-asset support.

Why ADA? Cardano is uniquely positioned to serve as the financial substrate of a decentralized, trust-minimized governance layer. Key reasons for choosing ADA include:

- **On-chain governance maturity**: Cardano has implemented DRep voting and budget proposals, which align with our need for transparent community governance.
- **Treasury strength**: With over $1.2B equivalent in its on-chain treasury, ADA offers a robust starting point for multi-asset deployment.
- **Multi-asset ledger**: ADA supports native tokens without smart contracts, simplifying integrations for stablecoins and sovereign tokenized assets.
- **Bitcoin interoperability roadmap**: Cardano's plans for BTC-DeFi and Babel fees open a pathway for inter-chain funding and settlement.

DAO Structure and Oversight Cuttlefish Labs is designing a cybernetic DAO framework for treasury oversight and asset deployment. Our target structure includes:

1. **Elected Board of Delegates**: Oversight body representing stakers, developers, regional partners, and infrastructure experts.
2. **Competing Fund Administrators**: Web3-native asset managers submit proposals to manage sub-portfolios based on risk, region, or mission (e.g., geothermal, modular housing).
3. **Quadratic and Preference Voting**: Community and regional stakeholders vote anonymously on budget allocations, priorities, and oversight renewals.
4. **Smart Contract Budget Disbursement**: Inspired by Sunday Labs and TXPipe contracts, disbursements will be milestone-based with multi-signature guardrails.

Strategic Capital Deployment Cuttlefish Labs intends to lock ADA and Bitcoin into yield-generating vehicles, creating a multi-asset reserve for:

- Seeding stablecoin liquidity (USDM, USDA, iUSD)
- Funding modular real estate via DAO-REITs
- Backing renewable infrastructure: geothermal, solar, waste-to-energy
- Supporting multi-chain DeFi capital bridges

This reserve will act as a public-good sovereign wealth fund, similar to Norway or Alaska’s funds, but entirely Web3-native.

Multi-Asset Treasury Roadmap Anticipating Cardano's evolution, Cuttlefish Labs intends to:

- Accept rewards from partner chains (e.g., Midnight's $KNIGHT token)
- Integrate real-world asset yield flows into treasury inflows
- Allow third-party tokens and stablecoins to be held as reserves or liquidity pools

Over time, we aim to help design infrastructure for:

- ADA-denominated sovereign lending markets
- DAO-level stablecoins backed by infrastructure debt and equity
- Voting systems tied to impact KPIs and credit yields

Alignment with Cardano Ecosystem Goals We share Charles Hoskinson’s vision of Cardano as a digital nation with a sovereign treasury. Cuttlefish Labs will serve as one of its sovereign ministries—specializing in global real asset financing, AI-infrastructure acceleration, and programmable governance.

We are ready to collaborate with:

- Cardano DeFi applications (Indigo, FluidTokens, etc.)
- Catalyst and DRep communities
- Core developers and governance architects
- OTC and institutional liquidity partners

Conclusion Cuttlefish Labs is not only committed to using ADA as a core financial asset, but to expanding its role as a governance and impact currency for the next generation of global infrastructure. Our DAO systems are designed to plug into Cardano’s governance backbone and extend it into programmable sovereign asset management for a more sustainable and equitable world.

ChatGPT

Cuttlefish Labs Investment Deck

Slide 1: Title Slide *Title:* **Cuttlefish Labs: Building the AI Infrastructure Intelligence Stack**
Subtitle: From Earth 2.0 to National Resilience
Presented by: David Elze – Founder, Earth 2.0, Frame&InFill, Hanselze Design
[GreenIslandVentures.com / dvdelze@gmail.com]

Slide 2: Vision The Future of Infrastructure Will Be Planned, Operated, and Funded by AI
Cuttlefish Labs is creating the agentic platform to model, deploy, and finance infrastructure with AI agents, Unreal Engine-based simulation, and Web3-native coordination tools.

Slide 3: Why Now - Massive global demand for resilient energy, defense, housing, and logistics - LLMs and multimodal agents are now capable of real-world orchestration - U.S. needs AI-native industrial planning platforms to compete globally - Web3 tooling enables community-based, sovereign financing mechanisms

---

Slide 4: Flagship Projects – Foundational to Cuttlefish Labs

1. Tributary AI Campus – Birmingham, AL - 420,460 sq ft innovation hub with clean power, modular data infrastructure, and crypto-backed sovereign tools - Will house simulation labs, agent coordination infrastructure, and vertical partnerships (DOE, CoreWeave, Hyperion, etc.)

2. TPL AI Data Cluster – Permian Basin, TX - Co-locating AI compute with geothermal and natural gas energy assets on Texas Pacific Land Corp holdings - Clean energy-powered sovereign infrastructure: modular, secure, and optimized for LLM and agent workloads

---

Slide 5: Product Stack Overview - **Simulation Layer:** Digital twins (BIM + GIS) in Unreal Engine - **Agent Layer:** Permitting, design, policy, labor, and funding agents - **Deployment Stack:** DAO governance, NFT-based capital formation, public dashboards - **Interop Layer:** API hooks to DOE, state agencies, token systems, and infra partners

---

Slide 6: Strategic Advantage - Led by designer-architect with a systems background (Hanselze Design, Frame&InFill) - First-mover on AI + Infra + Web3 integration - Dual-use applications across civilian, sovereign, and defense markets

---

Slide 7: Competitive Landscape - Palantir: Analytics, not generative planning - Sidewalk Labs: Closed model, no crypto layer - CityDAO / Blockable: Narrow in scope (housing only) - **Cuttlefish Labs:** Modular, extensible, sovereign-grade infra stack for the AI era

---

Slide 8: Funding Ask Seed Round: $10–15M
Use of funds: - Launch Tributary AI Campus - Begin TPL Data Cluster deployment - Expand team (Unreal Engine, Solidity, LLM systems) - Deploy Earth 2.0 pilots with state and federal partners

---

Slide 9: Strategic Fit – a16z Relevant practice areas: - *American Dynamism*: Infrastructure, defense, onshore production - *AI Infrastructure*: Agent orchestration, real-world simulation - *Crypto/Web3*: Token governance, DAO tools, NFT investment models

---

Slide 10: Closing – Let's Build the Future Cuttlefish Labs is not a single app or analytic tool—it's the AI infrastructure operating system for the next 100 years of American and global development.

Let's build it together.

ChatGPT

Confidential Investment Memo: Cuttlefish Labs

Title: *Cuttlefish Labs: Building the AI Infrastructure Intelligence Stack for America and the World*

Date: June 2025

I. Executive Summary

Cuttlefish Labs is developing a full-stack AI infrastructure intelligence platform designed to radically improve how energy, defense, transportation, housing, and city systems are planned, deployed, and operated. Our thesis: the AI agent layer will not stop at knowledge work or code—it will be the organizing intelligence behind the next 100 years of development, planning, and national resilience.

We are building an integrated suite of agentic tools and infrastructure simulation environments (powered by BIM and Unreal Engine), enabling countries and developers to deploy infrastructure that is AI-planned, AI-operated, and AI-funded. Cuttlefish Labs is what Palantir would be if it were started in 2025 with open-source modularity, composability, and built-in financialization.

II. Market Opportunity

The convergence of five forces opens an enormous new market:

- **AI-native planning**: LLMs and multimodal agents capable of real-world simulations
- **Infrastructure stimulus and urgency**: In the U.S. and globally, infrastructure is aging and insufficient
- **Sovereign resilience**: Governments are seeking to secure local energy, data, and defense independence
- **Decentralized finance & tokenization**: Green bonds, DAOs, and NFTs can fund the physical world
- **Climate mandates**: Rapid transitions require new materials, logistics, and simulation layers

Estimated TAM across energy, defense, planning software, and urban systems: **$10T+** globally, with AI-first deployment platforms capturing outsized value.

III. Product and Technical Stack

Cuttlefish is building a modular, composable system with four key layers:

1. **Simulation & Modeling Layer**

2. 3D digital twin environments built in Unreal Engine

3. Integration with BIM and GIS data to simulate zoning, flows, energy use, etc.

4. **Agent Intelligence Layer**

5. Modular AI agents designed to coordinate permitting, funding, design review, labor planning, and public policy impact

6. Specialized models trained on code, contracts, zoning law, and energy systems

7. **Deployment and Funding Layer**

8. DAO-powered governance for infrastructure projects

9. NFT-based financing structures for physical and digital infrastructure

10. On-chain treasury tools and reporting for LPs, governments, and public investors

11. **Partnership and Interop Layer**

12. Built for co-development with private partners (CoreWeave, DOE, Hyperion, McCLARIN)

13. Tailored deployment for public-private megaprojects (e.g., Earth 2.0, Over/Under Architecture)

IV. Competitive Landscape

- **Palantir**: Optimized for analytics, not generative AI or planning automation
- **Sidewalk Labs** (defunct): Too top-down, lacked modularity and open protocols
- **Blockable, CityDAO**: Focused on housing, not general-purpose infrastructure intelligence
- **Cuttlefish Labs**: Only player building from the ground up for composable AI-based planning, simulation, and financialization

---

V. Founding Team

- **David Elze** (Founder): Architectural strategist and systems designer with a background at Hanselze Design and Frame&InFill. David's portfolio includes experimental housing, modular urban systems, and ecological design methodologies that integrate digital fabrication and climate-conscious architecture. Through Hanselze Design, he pioneered applications of parametric design and "slow architecture," a foundation for today's AI-led simulation and planning tools. David is the founder of Earth 2.0 and creator of the Over/Under Architecture framework, with deep cross-sector relationships across DOE, DOD, and crypto ecosystems.
- Supported by a stealth engineering team working across Unreal Engine, Solidity, and AI model ops

---

VI. Strategic Fit with a16z

Relevant verticals:

- *American Dynamism*: Infrastructure, defense, manufacturing
- *Enterprise + AI Infrastructure*: Planning agents, data coordination, modeling
- *Crypto + Web3*: Tokenized governance, NFT fundraising, crypto-native deployments

Ask:

- Lead Seed / Series A ($10–15M)
- Partner on U.S. deployment of Earth 2.0 pilot (AI cities)
- Strategic support scaling Cuttlefish's agent layer across government and sovereigns

---

VII. Conclusion

Cuttlefish Labs is not a software tool or defense app—it is the missing AI layer that will coordinate America's next century of physical development. From resilient cities to data centers, clean energy to battlefield logistics, the AI that builds and runs infrastructure will be a foundational layer.

We're building it.

Contact: David Elze\ dvdelze@gmail.com\ GreenIslandVentures.com / Earth 2.0 / Cuttlefish Labs

Cuttlefish Labs | Earth 2.0 Infrastructure Intelligence Stack

INTRODUCTION

Cuttlefish Labs is a next-generation infrastructure intelligence company building the software and coordination tools for Earth 2.0-a regenerative and decentralized platform for physical development. Our mission is to create AI-native planning tools, tokenized asset protocols, and real-world deployments that enable community-owned infrastructure to scale with resilience, speed, and transparency.

EARTH 2.0 DAO-REIT MODEL

Earth 2.0 introduces a tokenized real estate investment trust (DAO-REIT) structure to catalyze capital for regenerative infrastructure. By fractionalizing ownership of housing, clean energy, and civic spaces, Earth 2.0 enables broader participation in wealth creation while supporting long-term stewardship. Pilot projects like the 160-acre Ohio Agri-REIT and the Tributary AI Campus in Alabama showcase the potential for blending smart contracts with rewilded ecosystems, affordable housing, and green technology.

CUTTLEFISH AI

Cuttlefish AI is our modular platform for infrastructure modeling, permitting automation, and governance simulation. Agents such as CuttlePlan, CuttleGov, and CuttleChain support stakeholders in designing, evaluating, and executing development strategies using digital twins, geospatial data, and parametric logic. The platform's DAO integration enables real-time voting, scenario testing, and financial simulation for participatory planning.

OVER/UNDER ARCHITECTURE

Over/Under is a civic infrastructure model that reimagines public space through layered design-placing utilities, transit, parks, and mixed-use buildings above and below the surface in

efficient, modular systems. Over/Under projects integrate AI planning, tokenized finance, and resilient materials like basalt-reinforced composites. Initial deployments target mobility corridors, intermodal hubs, and decentralized service infrastructure.

TRIBUTARY AI CAMPUS

The Tributary Campus is a flagship deployment of the Earth 2.0 stack, integrating AI data clusters, modular rebar-reinforced construction, tokenized land governance, and solar-powered microgrids. Located in Birmingham, AL, the site will host VaultedVisions (a tokenized museum), solar AI data centers, and the first operational prototype of the infrastructure DAO. The project will generate revenue via GPU leasing, NFT-based asset sales, and DAO-aligned land use.

VAULTEDVISIONS

VaultedVisions is a tokenized museum and cultural asset platform that blends real-world collectibles, historical archives, and fine art with AR/VR immersive experiences and NFT-based governance. Based in the Tributary Campus, the project functions as both a cultural venue and decentralized financial model-allowing global stakeholders to vote on exhibitions, artist residencies, and revenue strategies.

LIGNUM & BASALT COMPOSITES

Cuttlefish Labs supports material innovation through LIGNUM-a platform for modular bio-composite systems using fireproof, basalt-reinforced structures. These systems can be used for rapid-build housing, infrastructure envelopes, and adaptive architecture. Basalt fiber composites offer a lightweight, corrosion-resistant alternative to steel rebar, critical for scaling sustainable construction in flood-prone or seismic zones.

GLOBAL STRATEGY: SIDS, NAMIBIA, AND BEYOND

GreenIsland Ventures and Earth 2.0 are proposing deployments in Small Island Developing States

(SIDS) and climate-vulnerable nations like Namibia. Projects include AI-optimized coastal infrastructure, decentralized solar-powered compute clusters, and DAO-aligned land use plans. These efforts aim to bring infrastructure sovereignty, climate adaptation, and digital economic participation to under-resourced regions.

TOKENIZATION & RWA MODELS

All Earth 2.0 and Cuttlefish deployments leverage tokenized real-world assets (RWA). Farmland, geothermal wells, solar arrays, and even public spaces are mapped, valued, and fractionalized via NFTs or ERC-20 tokens. Governance tokens allow communities to direct capital, while DeFi integrations support staking, collateralization, and regenerative capital flows. Regulatory strategies include alignment with SEC safe harbor provisions and global sandbox frameworks.

INFRASTRUCTURE DAO ARCHITECTURE

The Infrastructure DAO governs all assets, decisions, and deployments through a hybrid protocol of smart contracts, multi-sig governance, and AI-assisted deliberation. Revenue from compute, real estate, and tokenized carbon credits flows through the DAO for reinvestment, dividends, or reserve backing. Partner protocols may include Aragon, Gnosis Safe, and Centrifuge.

VISION

Cuttlefish Labs is building the operating system for regenerative development. We are combining AI, blockchain, materials science, and civic planning into a unified platform that can meet the infrastructure demands of the 21st century. From Appalachia to Abu Dhabi, our model offers a path toward abundance, resilience, and participatory prosperity.

CALL TO ACTION

Join us in building the infrastructure intelligence stack of the future. Whether you are an investor, engineer, public official, or artist-Cuttlefish Labs is ready to collaborate. Together, we can design,

fund, and deploy the next generation of civilization systems.

Contact: david@cuttlefishlabs.io | www.cuttlefishlabs.io

Cuttlefish Labs: GENIUS Act Compliance & Integration Framework

Author : Cuttlefish Labs **Date :** June 10, 2025

Executive Summary

The GENIUS Act of 2025 introduces the first federal regulatory framework for payment stablecoins, emphasizing reserve mandates, transparency, and AML compliance. Cuttlefish Labs outlines a proactive compliance strategy while furthering decentralized innovation.

1. GENIUS Act Overview

Key components:
- Reserve Requirements: 1:1 backing in liquid assets
- Transparency: Monthly disclosures and annual audits
- Consumer Protection: Ban on misleading claims
- Regulatory Oversight: Federal or state registration based on size
- AML Compliance: Robust programs with seizure/freeze capabilities

1. Cuttlefish Labs Compliance Strategy

2.1. Reserve Management: Maintain 1:1 reserves via financial institution partners
2.2. Transparency: Monthly disclosures and audits with third-party verification
2.3. Consumer Protection: Compliance reviews for public content
2.4. Regulatory Registration: Federal or state registration guidance with legal counsel
2.5. AML Compliance: Staff training and operational integration

1. Integration with Cuttlefish Labs Initiatives

3.1. GreenIsland Ventures: Use stablecoins for sustainable development in SIDS
3.2. Earth 2.0: Integrate stablecoins into global digital twin transactions
3.3. DAO Projects: Adhere to reserve and AML rules for decentralized finance

1. Monitoring and Continuous Improvement

Stay updated on regulatory changes, perform regular audits, and maintain open stakeholder communications.

Conclusion

Cuttlefish Labs commits to full compliance with the GENIUS Act to ensure trust, legal integrity, and innovation across its platforms.

Guiding and Establishing National Innovation for U.S. Stablecoins of 2025 (GENIUS Act)

Author : 119th Congress, 1st Session **Date :** February 4, 2025

Bill Introduction

S. 394 was introduced by Senator Hagerty along with Senators Scott, Gillibrand, and Lummis. The bill was referred to the Committee on Banking, Housing, and Urban Affairs.

Short Title

This Act may be cited as the “Guiding and Establishing National Innovation for U.S. Stablecoins of 2025” or the “GENIUS Act of 2025”.

Key Definitions

Includes terms such as Bank Secrecy Act, Board, Comptroller, Corporation, Digital Asset, Distributed Ledger, Federal qualified nonbank payment stablecoin issuer, Payment Stablecoin, and more.

Issuer Limitations and Requirements

Only permitted entities can issue payment stablecoins. They must maintain 1:1 reserves, have monthly certifications, and ensure operational transparency and safety.

Federal and State Regulatory Framework

Stablecoin issuers can opt for state or federal regulation based on market capitalization. Transition rules and certification procedures are defined.

Application and Approval Processes

Details the application review by primary regulators, including evaluation criteria, denial protocols, and rights to appeal and reapply.

Supervision and Enforcement

Outlines supervision of subsidiaries and nonbank entities by respective regulators, including provisions for enforcement actions and penalties.

Customer Protection Provisions

Mandates segregation and protection of customer assets and defines custodial responsibilities for stablecoin and private key holders.

Insolvency and Priority Claims

Specifies that holders of stablecoins have first priority in insolvency proceedings over all other creditors.

Interoperability Standards

Federal regulators, in coordination with standard-setting bodies, will develop interoperability standards for stablecoins.

Study on Collateralized Stablecoins

Mandates a Treasury-led study on endogenously collateralized stablecoins, assessing their structure, governance, and consumer impact.

Reporting Requirements

Calls for regular updates from regulators to Congress on rulemaking, applications, and industry risks.

Clarification on Security Classification

Clarifies that payment stablecoins are not securities under various financial regulations including the Securities Act and Investment Company Act.

International Reciprocity

Directs the Federal Reserve to establish reciprocal agreements with jurisdictions having similar stablecoin regulations.

Effective Date

The Act becomes effective 18 months post-enactment or 120 days after regulations are finalized, with provisions for safe harbor.