

Community Design Getting Started Worksheet

A guide to help you design your
self-actuating community.

Why, Who, What, How & Where

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Mallorca BioHub

Introduction

This guide will help you step through Why, Who, What, How & Where.

"When" is less critical for the design but can be included as needed..

If you need assistance, please contact us at – <https://selfdriven.services>.

We recommend using your preferred **GenAI** tool to assist with the design—attach a copy of this document to your prompts to provide context.

If you have a **multi-layered community**, then we recommend creating sub-worksheets for each of the roles ("who section") that need more details.

This getting started worksheet will be used to inform the design of the structures (represented as templates) that are required to support the community/organisation.

Core structures:

- Identity/trust
- Governance
- Operational
- Informational – private/public data
- Incentive – human/social
- Economic – tokens as representations of activity/growth etc

Community Details

Name	Mallorca BioHub // EU Biochar Cooperative
Description	A community of regenerators developing a new bioeconomy.
Summary	<p>Regeneration Rooted in Soil, Society, and Code</p> <p>“Another world is not only possible. She is on her way.” – Arundhati Roy</p> <p>A Place Waiting to Bloom</p> <p>Mallorca is alive with regenerative promise—farmers, artists, healers, entrepreneurs—all seeking to live in balance with land and life. But the movement is scattered. There’s no anchor. No common ground.</p> <p>The Beyonders Mallorca BioHub answers that call. A living campus where soil regeneration, community resilience, and climate innovation converge.</p> <p>The Fire Beneath the Soil</p> <p>At its core is biochar—carbon-rich soil made from local biomass waste. It locks away CO₂ for centuries. It holds water. It revives microbial life. It boosts food systems. It turns organic waste into economic value.</p> <p>And in Mallorca, it’s the seed of a regenerative bioeconomy.</p> <p>We’re not just selling soil. We’re building a new economic operating system for regeneration.</p> <p>A Cooperative Engine for Scalable Impact</p> <p>We’re not doing this alone. Our model is designed to scale through cooperation:</p> <p>The Microhub Cooperative Model:</p> <ul style="list-style-type: none"> • 10–12 farmers form a local biochar hub • Shared equipment, distributed profits • 60% farmer-funded, 40% soft capital

- 300 tons biochar/year per hub
- Transparent revenue and traceability
- 300% IRR potential per hub

Each hub becomes a **regenerative engine**—building soil, creating jobs, lowering fire risk, and locking carbon away for centuries.

Code That Builds Trust

To power this system, we've built a transparent, digital backbone:

The Beyonders Platform, combining:

- **Blockchain traceability:** Every batch of biochar, every CORC credit, immutably logged
- **Smart contracts:** Automate revenue splits, licensing, and carbon payments—without middlemen
- **DAO governance:** Farmers and local actors co-own and co-govern the system
- **AI integration:** Optimize diagnostics, supply logistics, and impact verification

This is **tech for trust**—radically transparent, farmer-centered, and globally scalable.

A Commons of Care

Regeneration is more than carbon and code—it's **culture**.

Our **Community Nursery** brings that to life:

- A greenhouse for food and knowledge
- A co-created space for yoga, storytelling, seed saving, and shared meals
- A venue for events, music, and remembering what it means to belong

"More than plants take root here—we grow relationships, resilience, and a future worth inheriting."

Innovation as Rebellion

Above the ground, the **Innovation Studio** becomes a launchpad for regenerative ventures, systems design, and strategic advising:

- Incubation space for regenerative startups
- On-site accommodation for visionary teams

	<ul style="list-style-type: none"> Headquarters for the Beyonders Collective and its global partners <p>This is where policy meets prototyping. Finance meets food. Where systems thinkers, soil workers, and creatives imagine what life needs next.</p> <p>The Business Case is Alive and Growing</p> <p>This isn't philanthropy. It's future-proof infrastructure:</p> <ul style="list-style-type: none"> Biochar & substrates: €1M+ annual revenue (Year 3+) Carbon credits: €375k/year (verifiable, bankable) Innovation studio: €5M+ by Year 15 <p>Strong EBITDA, scalable replication, full debt paydown by Year 10</p> <p>We start in Mallorca, but the system is modular—designed for Europe-wide roll-out through a network of traceable, cooperatively owned microhubs</p>
URL	www.beyonderscollective.com

Why

Why does this community/organisation exist?

Ethos, values etc

Why
To seed a regenerative community innovation BioHub for the bioregion of the Balearic Islands and EU.
To prove a model of a profitable business inherently grown through permaculture principles and reciprocity.

What

What are the key objectives of the community/organisation?

Objective	Details
Decentralized Financing Principle	Explore what structures could achieve this through De-Fi. Could explore DAO with three channels of tokens to use for different parts of the business.
Create Biochar micro-hub network	Create a shared digital + physical infrastructure so that 1,000 microhubs can efficiently sell regenerative soil products, biochar, and carbon removal – with a consistent brand, pricing integrity, and verified impact.




Who



What are the key roles of the community/organisation?

Role Type e.g. "Clinician", "Grower", "Manufacturer" ..	Details
Beyonders Collective	<ul style="list-style-type: none"> - MVP & center of excellence: Our Biohub will be the MVP for the microhub model and continue to innovate the business model. - Facilitator: Facilitator of "Biochar Microhub Protocol". We create, supply and teach each micro-hub the complete business model for creating biochar <ul style="list-style-type: none"> - Business model & protocol to make high quality char - Procurement support for toolkit (machines etc) - Training of protocol - Platform: We offer the platform that brings all stakeholders together to drive this business .

	<ul style="list-style-type: none"> - Financing: we support in obtaining the required start-up capital for each Microhub & coordination. - Coordinating stakeholders: we steer the community and coordinate all stakeholders
Beyonders Biochar APP	<p>As the BioHub grows from a single location into a network of decentralized microhubs across Europe, the need for trust, traceability, and coordination becomes critical. This is where blockchain technology and the Beyonders app come in.</p> <p>✅ 1. Traceability of Impact</p> <p>Every batch of biochar, each delivery of biomass, and every carbon removal credit is logged on-chain:</p> <ul style="list-style-type: none"> • What was produced (biochar, substrate, CORCs) • Where it was made (geotagged) • Who made it (farmer/hub ID) • How it was processed (verified method & emissions factor) <p>This immutable ledger creates transparent, verifiable carbon removal claims—essential for attracting buyers of carbon credits, regulators, and partners.</p> <p>👉 2. Smart Contracts for Financial Integrity</p> <p>The Beyonders app uses smart contracts to:</p> <ul style="list-style-type: none"> • Automatically split revenue among farmers, the BioHub, and platform stakeholders • Distribute carbon credit payouts without middlemen • Enforce licensing terms and royalties for brand use or certified substrates • Execute revenue-sharing and DAO voting transparently <p>This reduces friction, increases efficiency, and builds trust between all participants in the value chain.</p> <p>👤 3. DAO-Based Governance</p> <p>Each microhub becomes part of a Decentralized Autonomous</p>

	<p>Organization (DAO):</p> <ul style="list-style-type: none"> • Farmers and local stakeholders co-own the system • They vote on how revenue is reinvested, who joins, and what standards apply • This makes the BioHub network community-governed and resilient against corporate capture <p>→ 📱 4. User-Friendly App for Field Operations</p> <p>The Beyonders app will be used by microhub teams to:</p> <ul style="list-style-type: none"> • Track biomass sourcing and feedstock origins • Monitor pyrolysis performance and emissions • Register and verify substrate batches • Submit CORC applications • Access AI-based diagnostics and optimization tools <p>This app becomes the digital layer of the regenerative economy—supporting farmers in the field while enabling investors and customers to verify impact.</p> <p>🌍 5. Scaling Trust Across Europe</p> <p>As more microhubs join the Beyonders platform, the blockchain backbone ensures:</p> <ul style="list-style-type: none"> • Consistency in product quality and verification • Credibility in carbon markets and public programs • Efficiency in revenue and data sharing • Resilience through decentralization and co-ownership <p>This digital infrastructure is what enables the Moonshot 2040 vision: A Europe-wide decentralized network converting excess biomass into biochar, carbon credits, and soil regeneration—with 10,000+ green jobs and thousands of hectares healed.</p>
<p>Technical infrastructure partners</p>	<p>The physical and biological performance of the BioHub depends on specialized hardware and know-how in pyrolysis,</p>

	<p>composting, and soil science.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> • Supply and maintain pyrolysis and compost equipment • Provide training on machine operation and safety • Advise on substrate formulation and soil testing • Optimize processing flows and environmental performance
Farmer	<p>Farmers are the engine of the cooperative model. They supply biomass, use biochar on their land, and help scale the model through local trust, land access, and proof of impact.</p> <p> 1. Foundational Members of the Microhub</p> <p>Each microhub is composed of 10–12 farmers who:</p> <ul style="list-style-type: none"> • Join as equity partners in the local cooperative • Bring access to woody biomass or agricultural waste • Help define local priorities, products, and practices <p>Farmers are not passive participants—they co-own the physical and digital infrastructure that powers the hub.</p> <p> 2. Feedstock Providers</p> <p>Farmers supply biomass inputs (e.g., prunings, crop residues, wood chips) to the biochar system. This transforms:</p> <ul style="list-style-type: none"> • A waste burden → into a revenue opportunity • Risky fuel loads (fire-prone landscapes) → into carbon-rich soil inputs <p>They benefit from:</p> <ul style="list-style-type: none"> • Free or discounted soil products for on-farm use • Reduced input costs through biochar-compost blends • Improved soil health, yield, and water efficiency <p> 3. Revenue Shareholders</p>

	<p>Through their cooperative share and the Beyonders smart contract system, farmers receive:</p> <ul style="list-style-type: none"> • A share of profits from: <ul style="list-style-type: none"> ◦ Biochar and substrate sales ◦ Carbon credit revenue (CORCs) ◦ Any co-branded soil product sold via the platform • In-kind returns via regenerative inputs for their own farms <p>The model is designed to produce 300%+ IRR for well-performing hubs by Year 5–6.</p> <p> 4. Governance & Decision-Making</p> <ul style="list-style-type: none"> • Vote on how profits are reinvested • Approve or veto new members or scaling decisions • Participate in a DAO governance system with clear voting rights <p>This empowers farmers to:</p> <ul style="list-style-type: none"> • Shape the system they are part of • Ensure transparency and accountability • Build resilient, place-based governance <p> 5. Champions of Scalable Regeneration</p> <p>As on-the-ground implementers, farmers:</p> <ul style="list-style-type: none"> • Model regenerative land management using biochar and substrates • Help train others through peer learning and field days • Anchor trust and traction in the local bioregion <p>They become ambassadors of the Beyonders brand, helping to scale hubs across Europe, backed by real-world success stories.</p>
R&D partners	<p>They ensure the credibility and innovation edge of the project—essential for policy influence, grant eligibility, and product optimization.</p>

	<p>Key Tasks:</p> <ul style="list-style-type: none"> • Collaborate on soil and climate research • Validate carbon sequestration and agronomic benefits • Publish data that can influence policy or certifications • Train local teams on regenerative science
Financial stakeholders	<p>They provide the capital needed to build and scale—whether as equity, loans, or grants. Different types of funding are matched to different project phases and risk profiles.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> • Provide catalytic capital (€550k) and loans (€2.0M+) • Offer prepayment for CORCs or substrate off-take • Support patient, impact-aligned financing models • Help structure ROI pathways with flexibility
Community & Cultural partners	<p>Regeneration is about belonging and imagination, not just carbon and yield. Community partners embed the BioHub in local culture and make it emotionally resonant.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> • Host and co-design workshops, events, and rituals • Co-lead school and youth engagement programs • Contribute to the “spirit” of the nursery and studio • Help co-steward the land and community spaces
Market stakeholders	<p>Revenue is what makes regeneration scalable. These buyers anchor the project financially and socially.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> • Purchase soil products (farmers, vineyards, landscapers) • Purchase carbon credits (corporates, platforms) • Source food and wellness experiences from the Community Nursery

	<ul style="list-style-type: none"> Co-market products through value-aligned channels
Government and institutional partners	<p>They unlock permissions, infrastructure, and policy frameworks that make regional and European scale possible.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> Provide permitting, land-use approvals, and policy alignment Co-invest in infrastructure (e.g., roads, water, solar) Offer subsidies or match grants (e.g., LIFE, Horizon Europe) <p>Recognize carbon credits and soil amendments in ag policy</p>
Digital Platform & Blockchain Developers	<p>Provide the digital backbone of the cooperative model—ensuring trust, automation, and scalability across hubs and borders.</p> <p>Key Tasks:</p> <ul style="list-style-type: none"> Develop and maintain the Beyonders App Register and verify biomass, biochar, and CORC data Create smart contracts for payments and licensing Enable DAO governance and voting Monitor real-time impact data and reporting

How

What are the key activities/processes of each of the key roles?

e.g. "Clinician": "Access the latest medical device instruction manuals"

Role From the "Who" Section	Key Activities / Processes Bullet point list of what they contribute to the community, the activity that they need to get done, the information they need (input) and they generate (output).
Beyonders Collective	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Center of excellence and innovation for the BioHub and Microhub model • Protocol developer and educator for microhub operations • Platform host and ecosystem orchestrator <p>Key Activities:</p> <ul style="list-style-type: none"> • Develop and distribute the Biochar Microhub Protocol • Train microhubs on biochar production and business practices • Coordinate stakeholder engagement and platform governance <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Biomass supply data • Microhub operational data • Investment requirements • Stakeholder feedback <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Protocol toolkit • Training materials • Performance metrics • Investor reports • Operational dashboards

Beyonders Biochar APP	<p>Using blockchain for traceability and smart contracts, and AI for diagnostics, optimization, and decision support, the Beyonders platform unlocks a new level of trust, efficiency, and impact for decentralized biochar hubs.</p> <table border="0"> <tr> <td data-bbox="459 499 644 577">Immutable Traceability</td><td data-bbox="778 499 1436 667">Every batch of biochar, every ton of biomass, and every CO₂ credit is logged with geotag, timestamp, and source data — creating verifiable carbon removal claims.</td></tr> <tr> <td data-bbox="459 745 699 824">Smart Contract Automation</td><td data-bbox="778 745 1410 913">Licensing fees, carbon credit payouts, and DAO votes are executed transparently and without middlemen — reducing cost and fraud.</td></tr> <tr> <td data-bbox="459 992 735 1070">Tokenized Carbon & Soil Products</td><td data-bbox="778 992 1414 1160">Biochar, CORCs, and even compost blends can be sold as digital assets — increasing liquidity, enabling global sales, and attracting climate finance.</td></tr> <tr> <td data-bbox="459 1238 647 1317">DAO-Based Governance</td><td data-bbox="778 1238 1385 1406">Farmers co-own and co-govern the system. They vote on revenue allocation, reinvestment, and membership via a blockchain-secured governance app.</td></tr> <tr> <td data-bbox="459 1485 735 1563">Reputation & Compliance Layer</td><td data-bbox="778 1485 1404 1653">Each microhub builds a reputation based on data quality, product integrity, and community participation — reinforcing trust at scale.</td></tr> </table>	Immutable Traceability	Every batch of biochar, every ton of biomass, and every CO ₂ credit is logged with geotag, timestamp, and source data — creating verifiable carbon removal claims.	Smart Contract Automation	Licensing fees, carbon credit payouts, and DAO votes are executed transparently and without middlemen — reducing cost and fraud.	Tokenized Carbon & Soil Products	Biochar, CORCs, and even compost blends can be sold as digital assets — increasing liquidity, enabling global sales, and attracting climate finance.	DAO-Based Governance	Farmers co-own and co-govern the system. They vote on revenue allocation, reinvestment, and membership via a blockchain-secured governance app.	Reputation & Compliance Layer	Each microhub builds a reputation based on data quality, product integrity, and community participation — reinforcing trust at scale.
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Technical infrastructure partners	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Provide and maintain core equipment • Optimize biochar and compost systems • Ensure safety and quality 										

	<p>Key Activities:</p> <ul style="list-style-type: none"> • Install and calibrate reactors • Train operators • Troubleshoot and improve systems <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Equipment specs • Site layout • Production goals • Local regulations <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Operating manuals • Maintenance logs • System performance data
Farmer	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Supply biomass for biochar • Demonstrate regenerative land practices • Participate in cooperative governance <p>Key Activities:</p> <ul style="list-style-type: none"> • Collect and deliver biomass • Apply substrates on-farm • Participate in DAO votes and training <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Feedstock eligibility and logistics • Biochar use guidelines • Profit-sharing structure • App training <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Biomass records • Soil productivity feedback

	<ul style="list-style-type: none"> • Governance decisions • Substrate demand forecasts
R&D partners	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Validate ecological and agronomic impact • Support policy recognition • Improve formulations <p>Key Activities:</p> <ul style="list-style-type: none"> • Run field trials • Analyze carbon sequestration data • Publish whitepapers <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Soil samples • Biochar properties • Field conditions • Experimental designs <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Research reports • Policy briefs • Best practice guides
Financial stakeholders	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Provide startup and growth capital • Enable infrastructure deployment • De-risk cooperative scaling <p>Key Activities:</p> <ul style="list-style-type: none"> • Evaluate proposals • Disburse funds • Monitor financial KPIs • Structure repayment and ROI

	<p>Input Information Needed:</p> <ul style="list-style-type: none"> • Financial projections • Impact metrics • Governance structure • Capital stack breakdown <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Capital deployment • Loan terms • Impact reports • Risk-adjusted returns
Community & Cultural partners	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Embed the BioHub in local culture • Foster belonging and meaning • Strengthen social cohesion <p>Key Activities:</p> <ul style="list-style-type: none"> • Host events • Lead educational programs • Support youth engagement <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Community needs • Calendar of events • Nursery themes • Partner contacts <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Engagement reports • Participation metrics • Narratives and testimonials
Market stakeholders	<p>Contributions to Community:</p>

	<ul style="list-style-type: none"> • Anchor revenue streams • Signal value of regenerative products • Expand customer base <p>Key Activities:</p> <ul style="list-style-type: none"> • Buy biochar, substrates, or CORCs • Provide feedback • Co-brand regenerative goods <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Product specs • Pricing terms • Volume availability • Logistics <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Sales revenue • Customer reviews • Use cases and endorsements
Government and institutional partners	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Enable land access and permitting • Co-invest in infrastructure • Create enabling policy frameworks <p>Key Activities:</p> <ul style="list-style-type: none"> • Approve land and energy permits • Issue grants or co-funding • Support certification pathways <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Compliance documentation • Project impact data • Grant applications <p>Output Information Generated:</p>

	<ul style="list-style-type: none"> • Permits • Policy guidance • Funding contracts
Digital Platform & Blockchain Developers	<p>Contributions to Community:</p> <ul style="list-style-type: none"> • Provide traceability and automation • Build trust through transparent data • Facilitate DAO governance <p>Key Activities:</p> <ul style="list-style-type: none"> • Build and maintain the Beyonders app • Develop smart contracts • Integrate blockchain protocols <p>Input Information Needed:</p> <ul style="list-style-type: none"> • Field data • Transaction flows • User permissions • Compliance requirements <p>Output Information Generated:</p> <ul style="list-style-type: none"> • Real-time dashboards • CORC logs • DAO proposals • Transaction history

Where

Where is the community and activity occurring?

Geo-locations / Logical locations
Bunyola, Mallorca, Balearics, Spain
Europe / rural areas / farmer communities

Other Notes

Note
<p>This brief is now focused on the Biochar business element of our plan. Not sure if we should also include the community nursery and innovation studio, as I believe it will make it more complex.</p>