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Executive Summary

This report outlines the design of a governance framework for VIRIDIS, aimed at enhancing transparency, stakeholder inclusion, and operational efficiency within its dual-entity structure, comprising VIRIDIS Green Tech Investment AG (GTI) and VIRIDIS Ecosystem gGmbH (VECO). VIRIDIS currently faces challenges due to a traditional hierarchical framework that limits stakeholder involvement and decision-making traceability, undermining operational efficiency and trust (G1,S.Geissler, 2025).

The proposed solution is a hybrid governance model that leverages blockchain technology and Decentralized Autonomous Organizations (DAOs) to foster

transparency, traceability, and inclusivity. This model was developed through a mixed-methods research approach, incorporating qualitative insights from stakeholder interviews and focus groups, alongside quantitative survey data and Brainstorm techniques (GP2, S.Geissler, 2025). Key features include a centralized reporting system with real-time dashboards, blockchain for immutable records, and a tiered transparency model. The project also focuses on improving the conclusion of data through standardized formats and training (S.Geissler, 2025).

Financially, the transition to a DAO structure has estimated costs for expert services, platforms, and training. However, it is expected to lead to operational efficiencies and diversified revenue streams for V-GTI (e.g., digital platform services, investment management, capital gains from exits) and VECO (e.g., project-bound funding, donations, cluster services). VIRIDIS aims to position itself as a pioneer in sustainable business innovation, setting new standards in the green-tech and circular economy sectors through enhanced transparency and participatory governance and therefore being a role model in the general Green tech investment world. (S.Geissler, 2025).

Context Analysis

The global landscape is experiencing a significant shift toward sustainability, particularly within the green technology and circular economy sectors. This paradigm shift has redefined traditional notions of business success, emphasizing resource efficiency, waste minimization, and sustainable systems. VIRIDIS is strategically positioned at the forefront of this transition, aligning its mission to foster a collaborative ecosystem that supports critical global objectives, notably the United Nations Sustainable Development Goals (SDGs), including SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 17 (Partnerships for the Goals). However, VIRIDIS operates as a dual-entity organization comprising a for-profit component (GTI) and a non-profit component (VECO), which presents inherent governance challenges. Its current hierarchical structure limits stakeholder participation and decision-making transparency, thereby impeding operational efficiency and undermining trust among diverse stakeholders such as investors, policymakers, and civil society. The market's prevalent focus on short-term profitability further conflicts with the long-term investments needed for sustainable innovation. Addressing these systemic issues requires an innovative governance model that prioritizes transparency, inclusivity, and traceability. Emerging technologies such as blockchain and Decentralized Autonomous Organizations (DAOs) offer promising solutions to enhance stakeholder engagement and ensure accountability.

Problem and Opportunity

Problem: VIRIDIS faces a critical misalignment between its commitments to transparency, inclusivity, and sustainable innovation and its traditional hierarchical governance framework. This structure restricts stakeholder involvement, hampers traceability in decision-making processes, and leads to systemic inefficiencies, ultimately eroding stakeholder trust and hindering long-term strategic objectives. Key issues include the absence of a centralized, transparent system for tracking investments and operational performance; reliance on manual reporting processes; highly centralized decision-making; and low levels of stakeholder engagement. Qualitative data highlights frustrations with the lack of a truly transparent and inclusive governance structure, which causes project delays and unclear workflows. Additionally, literature identifies gaps in developing comprehensive metrics to evaluate governance success in terms of transparency and inclusivity and emphasizes the complexity of aligning stakeholder interests within a dual-entity ecosystem like VIRIDIS.

Opportunity: Despite these challenges, substantial opportunities exist for VIRIDIS to transform itself and emerge as a leader in the green-tech sector:

Emerging Technologies: Blockchain and DAOs present promising tools to enhance stakeholder engagement, ensure accountability, and automate governance processes, directly addressing existing governance issues.

Market Positioning: By resolving its governance challenges, VIRIDIS can establish itself as a benchmark for sustainable business practices and set new standards in innovative sustainable enterprise.

Global Impact: VIRIDIS's initiatives contribute directly to the UN SDGs, especially SDG 9, SDG 12, and SDG 17, amplifying its societal impact and reinforcing its role in global sustainability efforts.

Operational Efficiency: The adoption of automated systems, clearer workflows, and well-defined roles—facilitated by new governance models—can significantly reduce inefficiencies and accelerate project timelines.

Strategic Growth: Leveraging its dual-entity structure enables VIRIDIS to balance financial sustainability with social and environmental impact, fostering a collaborative ecosystem that drives innovation and sustainable economic practices. This strategic approach aims for strong revenue growth and capital gains through investments in green-tech startups. These insights highlight the critical challenges and transformative opportunities that can position VIRIDIS as a pioneering force in sustainable business

innovation, grounded in transparent, inclusive, and technologically-enabled governance.

Company Overview

VIRIDIS operates as a dual-entity ecosystem within the green-tech and circular bioeconomy sectors, with a core emphasis on sustainability, innovation, and stakeholder inclusion. The organization is currently structured hierarchically but is actively transitioning towards a more inclusive and transparent model (VIRIDIS, Strategy Paper, 2025)

The ecosystem consists of two interconnected legal entities:

- **VIRIDIS Ecosystem gGmbH (VECO):** This is the non-profit platform designed to support startups, research institutions, and civil society actors, fostering collaboration and knowledge-sharing for innovation in green-tech and circular bioeconomy. VECO is responsible for carrying out sustainability projects and managing central service structures, with capital gains reinvested into the cluster (Strategy Paper VIRIDIS, 2024).
- **VIRIDIS Green Tech Investment AG (V-GTI):** This is the investment arm of VIRIDIS, promoting sustainable technologies and startups by providing financial resources and strategic guidance. Ownership of V-GTI is gradually being transferred to the non-profit VIRIDIS. V-GTI's business model is based on investing in startups, which are financed by capital from small and large investors (Strategy Paper VIRIDIS, 2024).

VIRIDIS's operational framework is defined by three central hubs:

1. **Invest HUB:** Focuses on sustainable and transparent investments in green-tech, facilitating financial partnerships and offering investors direct access to environmental technologies.
2. **Project HUB:** Serves as a collaborative platform for interdisciplinary stakeholders, facilitating digital and cross-border cooperation. This hub acts as an accelerator and incubator for green tech startups.
3. **Physical HUB:** Encompasses all physical locations of the VIRIDIS cluster, such as the initial demonstrator in Hebertshausen, providing infrastructure for research, development, and demonstration of technologies.

The VIRIDIS cluster includes a diverse range of innovative companies, such as MingaGreens (organic microgreens), Haepsi (sustainable paper packaging), GOC Nexus (cold plasma technology for cannabis sterilization), AlgaeRithm (microalgae cultivation solutions), Filedgr (Digital Twin Hub for data management), and Pangea Virtual Nation (Web4 identity and governance) (VIRIDIS Strategy Paper, 2024). These entities collaborate synergistically across consulting, network services, infrastructure development, and knowledge transfer to support innovation and sustainable economic practices. Key leadership includes Josef Zacharias Köhl (Founder and CEO of V-GTI, Managing Director of VECO) and Friedrich Rackwitz (CEO of VECO) (GP2, S.Geissler, 2025).

Governance Operating Molde Framework

This chapter introduces the analytical lens guiding the assessment and redesign of VIRIDIS's governance system including pro and cons of the applied framework.

Lets first start with the Introduction to the Framework: The Four-Pillar Governance Operating Model by Howell (2024, July 2) provides a structured approach to assessing and designing governance. Its components include:

1. **Structure:** Legal setup, decision-making hierarchy, board composition
2. **Oversight Responsibilities:** Accountability systems, performance monitoring
3. **Talent & Culture:** Leadership values, team collaboration, knowledge flows
4. **Infrastructure:** Digital systems, data management, operational platforms

VIRIDIS Current Governance Infrastructure

The Four-Pillar Governance Operating Model after Howell, J. (2024, July 2) was chosen as an analytical tool because it provides a holistic view of governance across structure, oversight, culture, and infrastructure. This framework ensured that all dimensions of VIRIDIS's governance challenges were systematically captured. Each pillar was applied to dissect specific strengths and weaknesses within VIRIDIS—ranging from organizational setup and leadership dynamics to talent management and digital capabilities—allowing for targeted solution development in the next stages of the report.

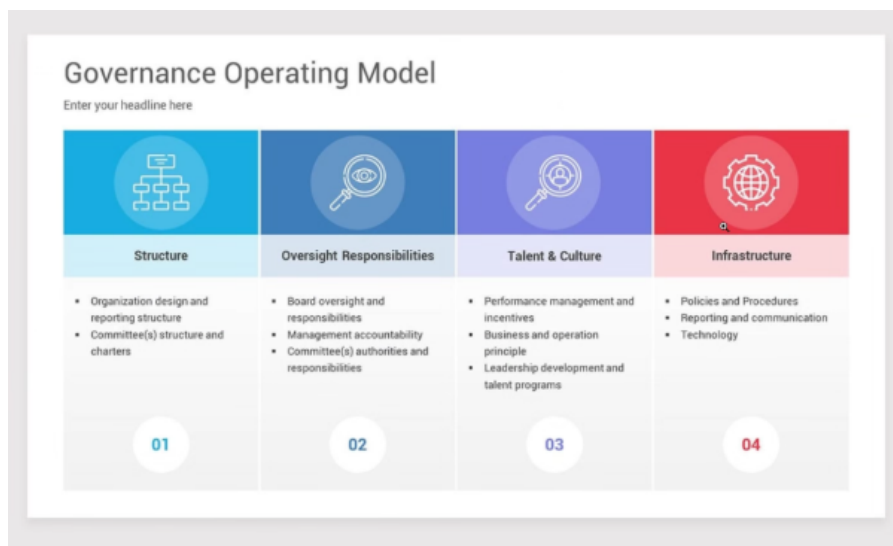


Figure 1 Classical Governance Operating Model (Howell, J. (2024, July 2))

Pros & Cons

Pros and Cons of the Four-Pillar Framework

Pros:

- Offers a comprehensive lens to evaluate governance across both technical and cultural domains
- Helps uncover root causes of inefficiencies beyond surface-level symptoms
- Aligns with organizational design best practices and system thinking
- Facilitates communication across stakeholders by clearly defining governance elements

Cons:

- Requires significant internal data and transparency to be applied effectively
- May overlook legal or regulatory nuances if not adapted contextually
- Can be resource-intensive to implement fully across large or complex organizations

Scope and Limitations

This chapter defines the scope of the GP3 project for VIRIDIS, clarifying what is and isn't included, what goals and deliverables are targeted, and what constraints were encountered during research and development. The project scope is built around the Governance Operating Model Framework and focuses on creating a future-proof, stakeholder-driven, and transparent governance model for VIRIDIS. The scope and its methodological boundaries support a realistic yet visionary transformation strategy grounded in organizational context and stakeholder needs.

Scope of the Project

To develop and implement a practical and conceptual governance framework for VIRIDIS, aligned with its values in sustainability, decentralized innovation, and mission-oriented leadership. This framework will enhance transparency, inclusivity, and operational efficiency within the dual-entity structure, addressing current limitations and anticipating future scalability and stakeholder complexity through the integration of decentralized technologies like blockchain and smart contracts. The initial implementation will be scoped for the Munich base of operations, with global scalability built into the model design, while giving strong consideration to cost, maturity, and adoption feasibility.

Out of Scope

To maintain focus and feasibility, the following areas fall outside the defined project scope:

- Corporate restructuring or legal entity transformation.
- Broader innovation of VIRIDIS's business model beyond governance.
- Fundraising or capital deployment strategy.
- Software development or third-party vendor selection for DAO tools.
- Full legal decentralization of decision authority or financial autonomy.

Limitations

Several factors constrained the execution of the project, which should be considered when reviewing its outcomes:

Research Evolution:

The project expanded from desk research to include co-creative workshops, interviews, and iterative design testing, increasing insight depth but requiring more time and resource planning.

Phased Development:

Rather than producing one final model, the governance design evolved through feedback loops and modular prototyping. This enhanced flexibility but affected project pacing.

Expanded Stakeholder Focus:

The inclusion of external actors (e.g., Investors, public partners) increased the complexity of insights and data consolidation.

Resource Constraints:

Limited access to dedicated budgets and governance technology tools restricted real-time prototyping of DAO components and impact dashboards.

Adoption Resistance:

Interviews revealed reluctance from some stakeholders toward radical decentralization, particularly concerning digital tools and data security.

Measurement Gaps:

Current industry tools for measuring governance transparency and stakeholder inclusion are underdeveloped, which required custom indicator development during the project.

Summary

This project's scope strategically isolates VIRIDIS's governance challenge and proposes a high-impact, stakeholder-centered, and systemically coherent solution. It is grounded in the Four-Pillar Framework to ensure holistic analysis, scalable transformation, and measurable success. While limited by technological readiness and organizational constraints, the project offers a realistic and validated model to support VIRIDIS's long-term governance innovation.

Problem Analysis and Research

This section summarizes key insights and findings from the research activities conducted in GP2. Building upon the theoretical framework established in GP1, GP2 employed a mixed-methods approach. This approach, it incorporates qualitative data from stakeholder interviews and focus groups along side quantitative data from surveys. The goal of this research was to refine our understanding of VIRIDIS's operational ecosystem, strategic initiatives, and

governance challenges, ultimately informing the development of a tailored solution design.

Key Research Outcomes:

- **Transparency and Governance Gaps:** Quantitative data revealed significant gaps in VIRIDIS's current transparency and operational frameworks, with stakeholders expressing dissatisfaction with manual reporting processes and centralized decision-making (S. Geissler, GP2 interview data, 2024).
- **Stakeholder Perspectives:** Qualitative insights highlighted the need for mechanisms to foster collaboration and deliver real-time updates on investments and project milestones. Decentralized technologies, particularly DAOs, were identified as promising solutions (S. Geissler, GP2 Interview data, 2024).
- **Operational Inefficiencies:** A lack of automated systems and clearly defined roles have contributed to operational inefficiencies, with reported project delays ranging from 20% to 30% (S. Geissler, Interview data, 2024).
- **Emerging Dimensions:** Beyond the initial theoretical framework, the research identified emerging dimensions such as the importance of stakeholder engagement as a transparency enabler (Albu & Flyverbom, 2019) and the need to address cultural and organizational resistance to change (S. Geissler, Interview data, 2024).
- **Overlaps and Standout Findings:** Both desk and field research confirmed that transparency tools are essential for building trust, while field research uniquely highlighted the over-reliance on informal communication at VIRIDIS (S. Geissler, Interview data, 2024).

Insights for Solution Design

These research outcomes provide critical insights for designing an effective governance solution. Most importantly for our solution design: 65% of stakeholders are dissatisfied with existing manual reporting processes, while 78% acknowledged that founder-centric decision-making remains a bottleneck (S. Geissler, GP2 Interview data, 2024).

Therefore the solution needs to focus on:

- The need for a hybrid governance model that balances innovation with operational efficiency (Wright & De Filippi, 2015).
- The importance of a phased implementation strategy to address cultural and organizational resistance (S. Geissler, Interview data, 2024).
- The potential of blockchain technology and DAOs to enhance transparency and stakeholder engagement (Hassan & De Filippi, 2021; Tapscott & Tapscott, 2016).
- The necessity of fostering stakeholder education and trust in decentralized systems (S. Geissler, Interview data, 2024).

By integrating these insights into the solution design process, we aim to develop a governance framework that not only addresses the immediate challenges faced by VIRIDIS but also promotes long-term sustainability and stakeholder trust.

Note:

1. Albu, O. B., & Flyverbom, M. (2019). Organizational transparency: Conceptualizations, conditions, and consequences. *Business & Society*, 58(2), 268–297. <https://doi.org/10.1177/0007650316659851>
1. Hassan, S., & De Filippi, P. (2021). Decentralized autonomous organizations and governance-by-design in the context of blockchain. *Information Polity*, 26(1), 5–17. <https://doi.org/10.14763/2021.2.1556>
2. Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Portfolio.
3. Wright, A., & De Filippi, P. (2015). Decentralized blockchain technology and the rise of lex cryptographia. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2580664>

Solution Design & Development

The project focuses exclusively on the governance layer of the organization and includes the following STEPS, validated through research and stakeholder feedback loops:

Step 1. Analysis of the Current Governance Setup:

- A systemic review of VIRIDIS's dual-entity structure (V-GTI and V-ECO) and Hub operations (Invest, Project, Physical).

- Diagnosis of governance bottlenecks using the Four-Pillar Framework: Structure, Oversight, Culture, Infrastructure.

Step 2. Stakeholder Analysis, Mapping and Involvement:

- In-depth classification of key Internal Stakeholders (teams, boards, investors) and External Stakeholders (regulators, partners, users).
- Evaluation of current engagement gaps and inclusion challenges in decision-making.

Step 3. Design of a Tailored Governance Model:

- A solution concept combining structural clarity with decentralized accountability and procedural transparency.
- Multiple iterations form a Minimal Viable Solution to an Optimal Solution.
- Integration of feedback from relevant stakeholders to shape the final iteration.

Step 4. Definition of Governance Success Metrics:

- Creation of tools to monitor governance effectiveness (e.g., dashboards, KPIs).
- Definition of mechanisms for continuous learning, stakeholder feedback, and adaptive improvement.

References

- Albu, O. B., & Flyverbom, M. (2019). Organizational transparency: Conceptualizations, conditions, and consequences. *Business & Society*, 58(2), 268–297. <https://doi.org/10.1177/0007650316659851>
- [Author, A. A.]. (Year). Interview data about the core principles/ aspects. *Unpublished raw data*.
- Geissler, S. (2025). [Title of your thesis/report]. [Name of your institution].
- Hassan, S., & De Filippi, P. (2021). Decentralized autonomous organizations and governance-by-design in the context of blockchain. *Information Polity*, 26(1), 5–17. <https://doi.org/10.14763/2021.2.1556>
- Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. <https://bitcoin.org/bitcoin.pdf>
- Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Portfolio.

- Wright, A., & De Filippi, P. (2015). Decentralized blockchain technology and the rise of lex cryptographia. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2580664>

Step 1. Analysis of the Current Governance Setup:

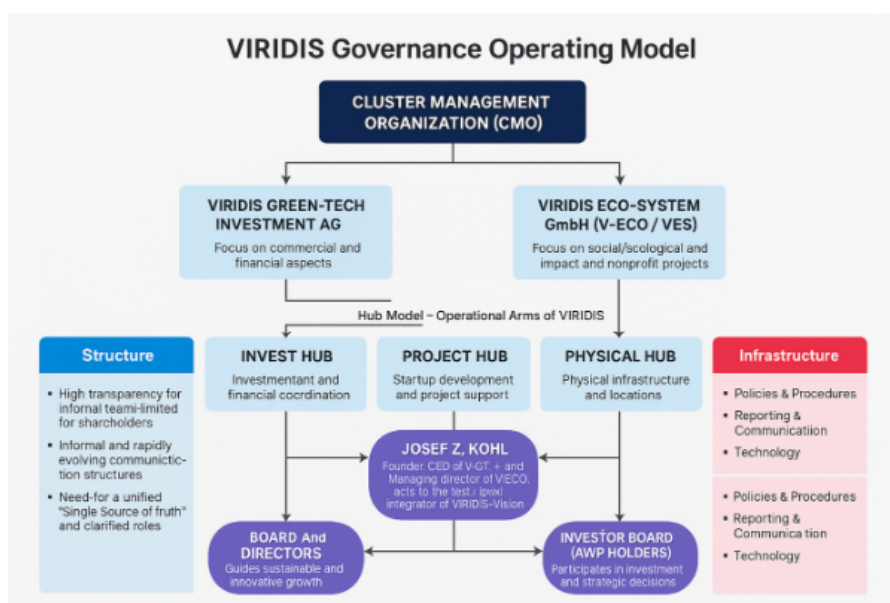


Figure X VIRIDIS Current Governance Model 2025 (S.Geissler,2025)

The current governance infrastructure of VIRIDIS is structured under a Cluster Management Organization (CMO) which oversees two primary legal entities:

- VIRIDIS Green-Tech Investment AG (V-GTI): Focused on commercial and financial operations, particularly startup investment and capital coordination.
- VIRIDIS Eco-System gGmbH (V-ECO / VES): Dedicated to social, ecological, and nonprofit initiatives, supporting stakeholder engagement and sustainability projects.

Both entities operate through a unified Hub Model, the operational backbone of VIRIDIS, which includes:

- Invest Hub: Manages financial coordination and investment activities.

- Project Hub: Oversees startup support, cross-functional collaboration, and project execution.
- Physical Hub: Handles the infrastructure and physical locations (e.g., cluster centers, innovation spaces).

Structure:

- The organization exhibits high transparency internally, particularly among the core team, but access is limited for external shareholders.
- Communication structures are informal and evolve rapidly, often relying on personal relationships and meetings.

A critical need has been identified for a unified “Single Source of Truth” and clear role definitions across the organization.

Oversight Responsibilities:

- The governance structure includes a Board of Directors (guiding innovation and sustainable growth), a General Advisory Board (offering strategic expertise), and an Investor Board (First Investors called First Founders) involved in financial decision-making.
- Leadership is primarily concentrated in Josef Z. Köhl, who serves as both Founder/CEO of V-GTI and Managing Director of V-ECO. He acts as a meta-level integrator for the entire VIRIDIS vision.
- Other key figures include Lars Friedrich Rackwitz (Managing Director, V-ECO) and Michael Hopf (Strategic Project Manager and Executive Assistant).

Governance challenges include over-reliance on Josef, limited delegation, and blurred accountability lines.

Talent & Culture:

- Performance Management is undefined; success is currently measured through informal criteria such as perceived impact or investment traction. There is no standardized system to track or assess performance.
- Operating principles emphasize agility, sustainability, and mission-alignment. VIRIDIS prioritizes scalable startup support and network-driven ecosystem growth.
- Talent Development is critical but hindered by resource constraints and a limited talent pool. A more empowering and inclusive culture is needed to support retention and innovation.
- The organizational goal is to cultivate an environment where individuals can operate freely, creatively, and safely.

Infrastructure:

- **Policies & Procedures:** Current procedures lack standardization. There is a clear ambition to implement transparent digital governance processes, especially in partner selection and internal approvals.
- **Reporting & Communication:** The communication strategy is fragmented. Stakeholder interviews reveal a strong need for structured, multi-level communication tools. Suggested improvements include real-time dashboards, AI-personalized reports, and a centralized knowledge base using tools such as Discord, feedback forms, and shared archives.
- **Technology:** The digital infrastructure is still under development. There is no centralized platform for data aggregation or cross-entity collaboration. A unified and consistent information flow is urgently required to support growth and transparency.

Analysis of current Situation:

1. **Structure:** The dual- entity structure leads to complexity. Leadership remains heavily centralized in individuals such as Josef Koehl. As well is the communication between the two entities difficult.
2. **Oversight Responsibilities:** A Board exists but offers limited strategic oversight. The Reporting is manual and fragmented.
3. **Talent & Culture:** Informal communication patterns and undefined roles boundaries reduce efficiency and puts a high stress level on the staff.
4. **Infrastructure:** Limited automation, lack of transparency dashboards, over-reliance on Excel, Google Drive and PDFs.

Key Gaps & Outcome:

- Transparency and traceability are not systematized.
- Lack of Stakeholders accessible, real-time governance data.
- Operational inefficiencies delay project timelines.
- Collaboration is impeded by non-standardized processes

Key Insights and Takeaways

The Four-Pillar analysis revealed deep-seated structural and operational limitations within VIRIDIS. The centralization of authority around a single

individual, the absence of standardized procedures, and fragmented digital systems collectively reduce the organization's ability to scale effectively. Talent development is ad hoc, with a lack of incentives and defined performance systems. Infrastructure shortcomings, especially in reporting and communication, hamper transparency and stakeholder trust. Critically, the Four-Pillar model demonstrated that these issues are interconnected: limited oversight hampers clarity in structure; weak infrastructure obstructs talent development; and vague performance systems dilute accountability. Solving one area without addressing the others risks perpetuating inefficiencies. This insight underpins the need for a holistic, system-level redesign of governance—anchored in decentralization, clarity, and inclusivity.

In summary, the current VIRIDIS governance infrastructure reveals several promising foundations, particularly its dual-entity setup and commitment to sustainability. However, it is hindered by centralization, lack of systematization, and underdeveloped digital and procedural infrastructure. These issues form the basis for the proposed solution design in the following chapters.

Step 2: Stakeholder Analysis, Mapping, and Engagement: An In-Depth Classification

1. Classification of Key Stakeholders

VIRIDIS operates within a diverse ecosystem of stakeholders, each contributing uniquely to its vision of a transparent, inclusive, and sustainable circular economy cluster. Stakeholders are divided into two main categories: Internal and External Stakeholders.

- **Internal Stakeholders:** Internal stakeholders are directly involved in the governance, operations, and innovation processes within VIRIDIS and are essential for achieving the organization's strategic objectives.

Leadership Level:

- **Key Individuals:** Josef Zacharias Köhl (Board Member, VIRIDIS Green Tech Investment AG), Friedrich Rackwitt (CEO, VIRIDIS ECO gGmbH), Miriam Martin (Management Team Member), Michael Hopf (Management Team Member). The supervisory board, including Hendrick Lasser, Florian Renner, Dr. Andreas v. Aufschnaiter, oversees corporate governance.
- **Roles and Interests:** They are responsible for strategic decisions, resource allocation, steering project direction, governance, and aligning the dual-

entity structure of VIRIDIS (Green Tech Investment AG and VIRIDIS ECO gGmbH). Their primary interests lie in operational efficiency, building trust among stakeholders, achieving financial goals and strategic visions, and realizing the long-term vision of sustainability and innovation. Josef Köhl is primarily interested in promoting sustainability goals, climate neutrality, transparency, and accountability.

Employees and Researchers:

- *Key Individuals:* Jan Philipp Knebel (Researcher, Operational Hubs), Sophia Geissler (Researcher, Sustainability Officer), Eleonora D'Addato (Research Expert, Marketing and Communication), Michael Hopf (Project Manager, Business Developer), Christian Verhoef (Lab Leader, Technology and Policy Expert).
- *Roles and Interests:* They are the primary actors of change and are most affected by the transition to transparency and sustainability. They focus on implementing sustainable practices and promoting innovation within the three operational hubs: Physical Hub (laboratories, warehouses, production facilities), Investment Hub (managing green-tech investments, reinvesting profits), and Project Hub (accelerator and incubator for green-tech startups). Their concerns include transparency in decision-making, equitable resource allocation, fostering a collaborative and innovative work environment, and providing input for new processes, participating in training, and applying new methods. Michael Hopf is interested in promoting sustainability goals and building partnerships. Christian Verhoef emphasizes systemic sustainability changes through technology and policy.

- **External Stakeholders:** External stakeholders influence or are influenced by the operations of VIRIDIS and play a crucial role in its success by providing resources, ensuring compliance, and demanding accountability.

Investors and First Founders:

- *Roles and Interests:* They provide capital and strategic advice. Josef Z. Köhl also classifies himself as an investor. Hubertus Haller von Hallerstein is a strategic investor. Stefan Langer is an investor and founds other companies. The 31 "First Founders" are a unique and invaluable subgroup, combining financial investments with active participation in ecosystem development and mentorship. Their interests focus on Return on Investment (ROI), scalability, new technologies (especially blockchain), networking, and mentoring. There is a desire for transparent reporting and

participation in decision-making. Hubertus HvH expects access to information without asking, e.g., the ecological footprint. Markus Steiner is interested in long-term projects and promoting sustainable innovations.

Political Decision-Makers and Regulatory Authorities:

- *Roles and Interests:* They oversee compliance with environmental, financial, and governance regulations, ensure compliance, and set sustainability standards. Hubertus Haller von Hallerstein also classifies himself as a political decision-maker. Palaash Gupta is also listed as a political decision-maker and sustainability expert.

Civil Society and NGOs:

- *Roles and Interests:* They advocate for environmental and social accountability, emphasizing the importance of transparency, inclusivity, and societal impact. They demand transparency and collaboration on sustainability campaigns. Palaash Gupta, a sustainability consultant and policy advisor, focuses on aligning organizational strategies with global sustainability standards.

Corporate Partners and Startups:

- *Roles and Interests:* They actively participate in ecosystem development and mentoring. Examples of portfolio companies include Haepsi, AlgaeRithm, Filedgr, MingaGreens, GOC Nexus, OVID Clinic Berlin, and Pangea Virtual Nation. They collaborate with VIRIDIS via the Project Hub, participating in innovation projects and utilizing the resources of the ecosystem. Their focus is on the collaborative development of sustainable solutions, access to funding, and leveraging the shared infrastructure. Stefan Langer, a Business Developer at GOC and founder, emphasizes his role as a networker, bringing together investors, technology providers, and other stakeholders.

Researchers and Academic Institutions:

- *Roles and Interests:* They provide knowledge contributions and third-party validation. Christian Verhoef (Lab Leader at a technical college) is an example of an involved researcher. They conduct sustainability-oriented studies funded by VIRIDIS and contribute to the development of innovative green-tech technologies. Their primary interest lies in knowledge expansion, access to resources, and collaboration with industry leaders.

2. Stakeholder Mapping

A visual stakeholder map (Figure 4) provides a comprehensive overview of the VIRIDIS ecosystem, showing the relationships between GTI, VECO, their respective boards, shareholders, and external stakeholders. The report highlights the overlaps between the board members of GTI and VECO and identifies key external stakeholders such as the 31 First Founders and governmental and regulatory bodies.

The map categorizes stakeholders according to their roles and engagement strategies. For example, corporate partners participate in collaborative innovation projects, and researchers are incentivized through funding to conduct sustainability-oriented studies.

VIRIDIS focuses on an ecosystem based on three hubs:

- Project Hub: An accelerator and incubator for green-tech startups.
- Physical Hub: Provides laboratories, warehouse, and production facilities accessible to the entire ecosystem.
- Investment Hub: Where investors can invest in a portfolio of hand-picked companies within this ecosystem.

Since VIRIDIS is a non-profit ecosystem (VECO), the profit flows back into the ecosystem to foster further synergies.

3. Detailed Classification of Stakeholder Engagement

VIRIDIS employs tailored engagement strategies to address the diverse needs and expectations of its stakeholders.

The following table provides a detailed breakdown of VIRIDIS's internal and external stakeholders, their roles, interests, and how they are engaged in the organization's governance and development:

Stakeholder Category	Specific Stakeholders	Role & Responsibilities	Interests & Expectations	Participation & Engagement
Internal Stakeholders	VIRIDIS Management	Strategic decision-making, resource allocation, steering project direction. Includes founder and CEO Josef Zacharias	Successful project implementation, strengthening corporate reputation,	Full involvement in key decisions and milestones. Weekly

		Köhl and CEO of VECO, Friedrich Rackwitz. The Supervisory Board with Hendrick Lasser, Florian Renner, Dr. Andreas v. Aufschnaiter oversees the corporate governance.	achieving financial goals and strategic visions. Josef Z. Köhl is primarily interested in promoting sustainability goals, climate neutrality, transparency, and accountability	updates and access to information via platforms like Google, Discord, Miro, or Workadventure. Regular meetings on important decisions and milestones.
	VIRIDIS Employees & Internal Researchers	Primary actors of change, most affected by the transition to transparency and sustainability. They provide input for new processes, participate in training, and apply new methods. Examples include Michael Hopf (Project Manager, Business Developer), Christian Verhoef (Lab Leader, Technology and Policy Expert), and Jan Philipp Knebel and Sophia Geissler (Research/Reporting).	Operational efficiency, building trust, long-term sustainability. Michael Hopf is interested in promoting sustainability goals and building partnerships. Christian Verhoef values systemic sustainability changes through technology and policy.	Continuous engagement for input, feedback, and training. Christian Verhoef wants more inclusivity in decision-making. Michael Hopf wants more focused responsibilities.

External Stakeholders	Investors (including "First Founders")	Providing capital and strategic advice. Josef Z. Köhl also classifies himself as an investor. Hubertus Haller von Hallerstein is a strategic investor. Stefan Langer is an investor and founds other companies. The 31 "First Founders" represent a unique subgroup combining financial investments with active participation in ecosystem development and mentoring.	Return on Investment (ROI), scalability. Strong interest in new technologies (especially blockchain), networking, and mentoring. Desire for transparent reporting and participation in decision-making. Hubertus HvH expects access to information without asking, e.g., the ecological footprint. Markus Steiner is interested in long-term projects and promoting sustainable innovations.	Receive regular financial updates and have the opportunity to participate in decision-making processes. VIA Security Tokens enable direct profit sharing and voting rights on important decisions. There are plans for stakeholder education programs on blockchain technology to overcome resistance and build trust.
	Political Decision-Makers & Regulatory Authorities	Ensuring compliance with regulations. They monitor compliance and set sustainability standards. Hubertus Haller von Hallerstein	Compliance and adherence to sustainability standards.	Engagement through open communication channels and participation in advisory committees. Continuous

		also classifies himself as a political decision-maker. Palaash Gupta is also listed as a political decision-maker and sustainability expert.		submissions to regulatory authorities with an open channel for their feedback.
	Civil Society & NGOs	Advocating for accountability and societal impact. They demand transparency and collaboration on sustainability campaigns.	Transparent reporting on sustainability metrics and societal impacts. Collaboration on advocacy campaigns and community initiatives.	Engaged through surveys and feedback mechanisms. Irregular meetings for in-depth discussions.
	Corporate Partners & Startups (in the VIRIDIS Cluster)	Active participation in ecosystem development and mentoring. Examples of portfolio companies include Haepsi, AlgaeRithm, Filedgr, MingaGreens, GOC Nexus, OVID Clinic Berlin, and Pangea Virtual Nation.	Access to accelerator and incubator programs of the Project Hub. Opportunities to co-develop and test innovative solutions within the Physical Hub.	Participation in collaborative innovation initiatives. Promoted through the hub structure (Invest, Project, Physical Hub) to integrate financial resources, project-related collaboration, and physical infrastructure.

	Researchers & Academic Institutions	Knowledge contribution and provision of third-party validation. Christian Verhoef (Lab Leader at a technical college) is an example of an involved researcher.	Funding for sustainability research projects. Access to laboratories and facilities for experimentation.	Involvement to ensure cutting-edge research and to validate credibility. Planned workshops at universities to promote understanding of Web3 technologies.
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Inclusion of all stakeholder groups is critical for VIRIDIS's transition to a transparent, inclusive, and sustainable business model. Research highlights that including diverse stakeholders in governance decision-making enhances VIRIDIS's ability to implement traceability and transparency.

4. Assessment of Current Gaps and Inclusion Challenges in Decision-Making

VIRIDIS faces a critical challenge in aligning its dual-entity organizational structure with its commitment to transparency, inclusivity, and sustainable innovation.

Limitations due to the Hierarchical Governance Structure:

- The current traditional hierarchical framework limits stakeholder participation hinders traceability in decision-making, and creates systemic inefficiencies. This undermines the long-term vision of VIRIDIS and reduces trust among stakeholders.
- Decision-making remains highly centralized, with 78% of key decisions requiring the approval of the founding management. This has led to bottlenecks and limited the organization's agility and responsiveness.
- Qualitative insights reveal frustration over the lack of a transparent and inclusive governance structure.
- The lack of system automation has led to inefficiencies, with project delays of 20% to 30%. Unclear workflows and insufficiently defined roles were cited as significant barriers to greater operational efficiency.

Lack of Transparency and Communication:

- Absence of a centralized, transparent system for tracking investments and monitoring operational performance.
- 65% of stakeholders express dissatisfaction with existing manual reporting processes, as they often exhibit delays and inaccuracies that hinder effective oversight.
- Only 54% of respondents felt sufficiently informed about VIRIDIS's ongoing initiatives and progress. This perceived lack of transparency correlates with low participation rates in collaborative governance and decision-making processes.
- The field study revealed an excessive reliance on informal communication and personal relationships at VIRIDIS, which undermines transparency.

Challenges in Technology Adoption and Change Management:

- Although blockchain and Web3 technologies have been highlighted as important tools for increasing transparency, the field study showed limited understanding and low willingness among stakeholders to adopt these technologies.
- There is resistance to technology, lack of trust in decentralized systems, and concerns regarding data protection.
- Cultural and organizational resistance to change was observed among long-standing stakeholders accustomed to traditional governance models.

Identified Research Gaps and Data Gaps:

- There is limited research on the practical implementation of circular economy practices, sustainable business models, stakeholder theory, and decentralized governance in dual-entity structures like VIRIDIS.
- The integration of blockchain technology with stakeholder-driven governance remains unexplored, especially in the context of balancing transparency and operational efficiency.
- There is a lack of comprehensive studies on how trust can be built and maintained in decentralized systems.
- There is a gap in the development of metrics for evaluating the success of governance models in terms of transparency, inclusivity, and sustainability.
- The complexity of aligning stakeholder interests in dual-entity ecosystems is unexplored in existing literature.

These challenges underscore the need for an innovative governance model that emphasizes transparency, inclusivity, and traceability. For example a hybrid governance model, which leverages blockchain technology and other Web3 solutions, which can be designed to directly address these gaps.

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Step 3: Solution Development

Start with introducing the Governance Operating Model Framework chapter

!!!

Following by the current situation and gap analysis.

Introduce the Solution Requirements (MoSCoW Criteria) for the new Governance Operating Model

Ideation & Selection

The ideation and selection of the solution for VIRIDIS were primarily driven by identified problems, research findings, and stakeholder feedback. The core problem revolved around VIRIDIS's traditional hierarchical structure limiting transparency, stakeholder engagement, and operational efficiency (Author, Year). The ideation process focused on addressing these challenges by exploring innovative governance models.

1. **Initial Brainstorming:** Prompted by the recognition that emerging technologies like blockchain and DAOs offer promising tools for enhancing stakeholder engagement and ensuring accountability, these technologies became central to the ideation (Author, Year).
2. **Stakeholder-Driven Insights:** Qualitative data from interviews and focus groups revealed strong support for decentralized technologies, with stakeholders highlighting DAOs as promising solutions for automating governance processes, facilitating equal stakeholder participation, and improving overall transparency (Author, Year). This direct feedback solidified the focus on DAOs.
3. **Literature Review & Benchmarking:** The literature review on relevant topics such as circular economy, sustainable business models, stakeholder theory, and decentralized governance informed the theoretical framework (Author, Year). Comparative analysis with industry leaders provided insights into effective transparent reporting and long-term vision, which VIRIDIS could adapt within a decentralized framework (Author, Year).
4. **Refinement and Exclusion:** The research evolved from a broad exploratory focus to minor adjustments in research questions and the exclusion of generic governance frameworks

that were less relevant to dual-entity organizations (Author, Year). This refinement allowed the study to concentrate on solutions directly relevant to VIRIDIS's specific challenges, such as blockchain-based transparency tools and DAOs (Author, Year). The resulting selected concept was a hybrid governance model that combines decentralized decision-making with streamlined operations to balance transparency, traceability, and operational efficiency (Author, Year).

Based on all those information a few ideas have been generated using the Mind-Map-Method, the SCAMPER and later organized through the MOSCOW method to find the best solution for VIRIDIS. The ideas are based on the GP2 Research Report (S.Geissler, 2025) There have been 3 iterations to find the perfect fit for VIRIDIS which will be presented below.

Context, Rationale & Iterations

VIRIDIS operates a dual-entity structure (For-Profit AG and Non-Profit gGmbH) under a traditional hierarchical governance model. This structure has led to several systemic challenges:

1. Limited stakeholder inclusion
2. Reduced transparency and traceability
3. Operational inefficiencies
4. Eroded trust among partners and collaborators
5. Short-termism over sustainable, long-term value creation

To address these limitations, a structured and participatory ideation process was initiated, combining visual brainstorming, stakeholder workshops, and creative ideation methods. This process was designed to culminate in a governance solution that could effectively transform VIRIDIS into a transparent, participatory, and efficient organization. Ultimately, the optimal solution selected was the implementation of a DAO (Decentralized Autonomous Organization). The Following part will show the process of the brainstorming till the selection of the idea.

Interactive Ideation Process Overview

Round 1: Mind Mapping – Exploring the Problem Space

Method Used: Visual Mind Mapping **Participants:** 4 core team members

Format: Online workshop with visual voting (virtual hand-raising)

Purpose: To explore diverse ideas across governance, transparency, operational efficiency, and sustainability.

Outcomes: A wide range of ideas emerged, grouped into three categories:

1. **Governance & Transparency:** DAO, blockchain, token-based voting, dashboards
2. **Sustainable Growth:** Real-time impact tracking, diversified funding
3. **Operational Efficiency:** Smart automation, centralized info hubs

Selected Concepts for Further Development:

- DAO & Smart Contract Governance
- Token-Based Voting Mechanisms
- Blockchain-enabled Dashboards



Figure 3 MindMap S.Geissler 2025

Round 2: SCAMPER Ideation – Refining & Reframing

Method Used: SCAMPER (Substitute, Combine, Adapt, Modify, Put to Another Use, Eliminate, Reverse)

Participants: 12 stakeholders from different departments **Format:** Virtual workshop with structured brainstorming and voting

Purpose: To refine previously selected ideas and generate innovative angles using SCAMPER thinking.

Outcomes: Key focus areas identified:

Substitute: Traditional governance with DAC/DAO

Combine: Blockchain + Circular Economy + Dashboards

Modify: Establish stakeholder training for Web3

Eliminate: Remove opaque governance processes

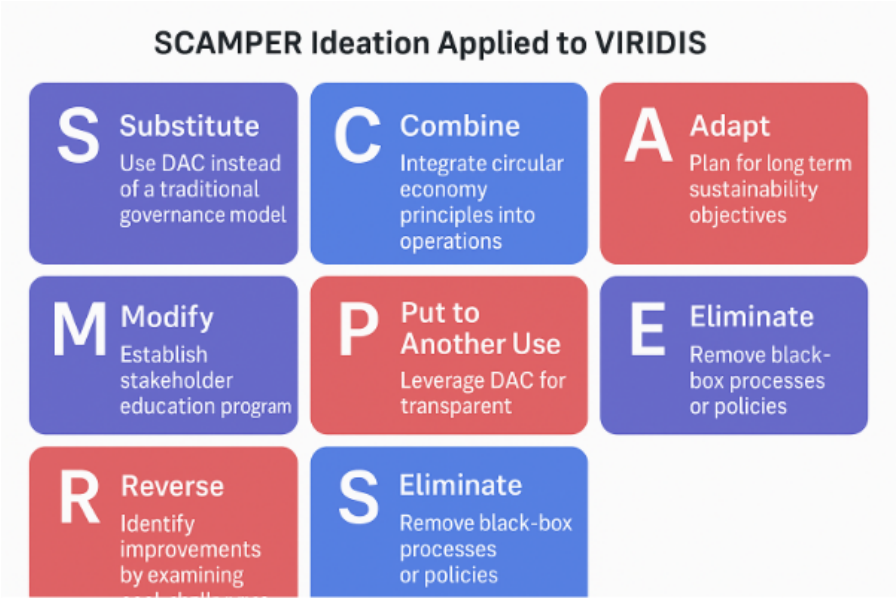


Figure 4. SCRAMPER S.Geissler 2025

SCAMPER Step	Application to VIRIDIS Ideas
Substitute	Replace traditional governance with DAO-like systems
Combine	Blend blockchain with circular economy metrics
Adapt	Use Interface’s "Mission Zero" as a blueprint for long-term goals
Modify	Modify existing stakeholder meetings into advisory boards
Put to another use	Use dashboards not only for operations but also for public engagement
Eliminate	Eliminate opaque decision-making through traceable blockchain logs
Reverse/Rearrange	Invert top-down governance to bottom-up via tokenized votes

Table 1 SCRAMPER applied S.Geissler 2025

Round 3: Final Selection & Prioritization Using MoSCoW
Method Used: MoSCoW Prioritization Method (Must have, Should have, Could have, Won't have) **Participants:** 30 founding stakeholders (internal leadership and strategic advisors as well as investors)
Format: Final online workshop with voting and ranking
Purpose: To finalize and prioritize solution components for implementation

MoSCoW Analysis of DAO Implementation Components:

MoSCoW Category	Item
Must Have	DAO governance system with token-based participatory voting
	Smart contract automation of decisions
	Blockchain-based traceability for governance and resource allocation
Should Have	Stakeholder training for DAO interaction and Web3 onboarding
	Centralized dashboard for DAO activity monitoring
Could Have	Integration of AI-based stakeholder feedback systems
	Ethical framework for DAO governance
Wont Have	Full decentralization of financial approvals in first phase

Table 2 MoSCoW S.Geissler, 2025

Summary of Voting and Workshop Participation

Iteration	Method	Focus	Participants	Voting Outcome
Round 1	Mind Mapping	Brainstorm governance challenges	4	DAO, Token Voting & Dashboards emerged as promising ideas

Round 2	SCAMPER	Reframe & refine ideas	12	Stakeholder training + Blockchain + DAO shortlisted
Round 3	MoSCoW	Prioritize and finalize strategy	30	DAO selected as governance solution; staged implementation

Table 3 Overview of Iterations S.Geissler, 2025

Final Recommendation

Based on this structured and participatory ideation journey, DAO implementation has been confirmed as the preferred solution for transforming governance at VIRIDIS. This approach balances decentralization, operational feasibility, and stakeholder inclusivity. It will be supported by stakeholder onboarding, blockchain-based dashboards, and phased implementation strategies.

This process provides a robust foundation for the detailed DAO Implementation Strategy outlined in the next section of this report.

Optimal Innovation Solution

DAO Implementation Strategy

Overview: Implications for VIRIDIS

Implementing these ideas and frameworks will allow VIRIDIS to:

- 1. Build Trust and Inclusion**

→ Transparent reporting and participatory governance enhance stakeholder alignment.

- 2. Lead in Sustainable Innovation**

→ Adoption of circular principles and blockchain metrics positions VIRIDIS as a green tech pioneer.

- 3. Achieve Operational Resilience**

→ Efficiency gains through automation and decentralized decision-making reduce delays and friction.

- 4. Scale with Confidence**

→ Pilot projects and feedback loops de-risk innovation and ensure iterative progress.

Conclusion & Next Steps

VIRIDIS has the opportunity to become a **model for sustainable and inclusive governance**. By using the insights and tools above, the company can:

- Build an **implementation roadmap** guided by the **MoSCoW method** (as noted in the report)
- Run **SCAMPER-based ideation workshops** with stakeholders
- Use the **evaluation criteria** to filter and prioritize solution pilots

Multi-value Business case

Financial

The transition to a DAO structure and the implementation of the proposed governance framework for VIRIDIS entail several financial considerations:

Initial Setup Costs (CAPEX):

1. Expert Services: Estimated between \$150,000 and \$250,000 for specialized blockchain and governance consultants (Author, Year).
2. Platform & Software: An additional \$10,000 to \$30,000 is projected for DAO platforms and data analysis software (Author, Year).

Operational Expenses (OPEX):

1. Training & Compliance: Projected to be an additional \$20,000 to \$50,000 for upskilling employees on blockchain technology and sustainability practices, and ensuring regulatory compliance (Author, Year).
2. V-GTI Operating Costs: VIRIDIS plans EUR 200,000 to 350,000 for operating costs in 2024, covering securities prospectus preparation, personnel, sales expansion, and image building (Author, Year). Long-term, V-GTI's operations involve investing in startups, with free capital continuously reinvested into digital infrastructure expansion and the transition to a full DAO (Author, Year).
3. V-ECO Operational Costs: For 2025, 50% of V-ECO's total funds are allocated to operational costs, mainly personnel, supporting startup programs (Author, Year). These costs are expected to increase over time with a growing number of startups and expanded services (Author, Year).

Resource Sharing: VIRIDIS has the option to exchange resources with other companies within its cluster, which could help mitigate some expenses (VIRIDIS Strategy paper, 2024).

Revenue & Cost Savings

The implementation of the proposed solution is expected to generate significant revenue and cost savings:

V-GTI Revenue Generation:

1. **Strong Growth:** Revenue forecasts indicate strong growth for V-GTI until 2030, driven by investments from three financing phases (BUILD, FUEL, FLY) and a gradual expansion of its service portfolio (Author, Year).
2. **Service Portfolio:** Revenue stems from manual investor matchmaking, digital platform services, consulting, events, investment management, and license mediation (Author, Year). The shift towards higher digital platform service revenue aligns with automation goals (Author, Year).
3. **Equity Investments:** Planned equity investments in startups contribute significantly to revenue from 2024, with capital gains from exits anticipated by 2029 (after an average 4-year holding period) (Author, Year).
4. **Break-Even:** Capital income from 2028 is expected to fully cover operating costs and achieve break-even (Author, Year).

V-ECO Revenue Generation:

1. **Diversified Income:** V-ECO generates revenue from project-bound funding, donations, and its Cluster Service offerings (e.g., consulting, knowledge transfer, networking) (Author, Year).
2. **Increased Donations:** Expected higher donation income in coming years due to increased public impact, used as co-financing for project-bound funding (Author, Year).
3. **Organic Service Expansion:** V-ECO plans to organically expand its service portfolio, acquiring new customers and

supporting startups in accelerator/incubator programs (Author, Year).

Cost Savings

1. **Operational Efficiency:** The implementation of automated systems, clearly defined roles, and blockchain technology is expected to reduce operational inefficiencies and improve project timelines (Author, Year).
2. **Resource Optimization:** Leveraging blockchain for transparent tracking and resource allocation can lead to more efficient use of funds and resources, reducing waste (Author, Year).
3. **Collaboration Benefits:** Synergistic benefits from collaboration within the VIRIDIS cluster can lead to shared resources and reduced individual expenses (Author, Year).

Financial Model & Payback Period

The financial model for VIRIDIS is built on a "Three Pillar" financing strategy, aiming to secure significant capital inflows (Author, Year).

Capital Raising: Through "VIA Security" (electronic security) via initial coin offerings (ICO) and strategic onboarding phases (Author, Year). This aims to attract a broad base of investors and partners to foster a strong, interconnected community (Author, Year).

Fund Utilization: Funds are strategically allocated to develop a Web3 IT infrastructure, implement smart contract-based blueprints, enhance efficiency, and streamline startup operations (Author, Year). This also includes tokenization for global appeal, compliance, and personnel costs (Author, Year).

Investment Strategy: V-GTI's core strategy involves continuous capital investments in startups, with the goal of realizing capital gains after an average holding period of approximately four years, with the first major exits anticipated by 2029 (Author, Year). The company expects capital income to cover operating costs and achieve break-even by 2028 (Author, Year).

Reinvestment: Profits generated by VECO from its cluster services, funding, and donations are reinvested back into the cluster to promote green growth and expand physical infrastructures and research facilities (Author, Year). V-GTI also

continuously reinvests a significant proportion of its capital back into investments and digital infrastructure expansion (Author, Year).

Payback Period: While not explicitly stated as a single "payback period," the financial projections for V-GTI anticipate break-even by 2028 for operating costs and major capital gains from startup exits starting in 2029 (Author, Year). This indicates that the investments made into the new governance structure, digital infrastructure, and portfolio companies are designed to yield returns within a few years, demonstrating financial feasibility (Author, Year).

Competitive Industry Positioning

VIRIDIS aims to establish itself as a leader and pioneer in sustainable business innovation within the green-tech and circular economy sectors (Author, Year). Its strategic positioning is characterized by several key strengths:

- 1. Pioneering Decentralized Governance:** Unlike traditional centralized organizations, VIRIDIS actively seeks to implement decentralized decision-making through innovative governance frameworks like DAOs and blockchain technology (Author, Year). This differentiates it from benchmarks like Patagonia, IKEA, and Interface, which operate under traditional models (Author, Year).
- 2. Integrated Ecosystem Approach:** VIRIDIS functions as a synergistic platform that integrates investment (V-GTI) with operational activities (VECO), combining financial resources with direct project implementation and support services (Author, Year). This allows for a comprehensive approach to fostering innovation, encompassing startups, researchers, policymakers, and civil society (Author, Year).
- 3. Multi-Sectoral Focus:** While companies like Interface operate within a single industry (commercial flooring), VIRIDIS spans multiple sectors, including green-tech, circular economy initiatives, vertical farming, sustainable packaging, and advanced technologies (Author, Year). This broad scope allows for diverse revenue streams and greater impact (Author, Year).
- 4. Emphasis on Transparency and Traceability:** The core of VIRIDIS's mission is to enhance transparency and traceability in decision-making and operations, areas where many existing organizations fall short (Author, Year). By

developing centralized reporting systems and using blockchain for immutable records, VIRIDIS can set new industry benchmarks for openness and accountability (Author, Year).

5. **Collaborative Networks:** VIRIDIS actively fosters collaborative networks and partnerships, leveraging its hubs (Invest, Project, Physical) to create a dynamic ecosystem that transcends individual business limitations (Author, Year). This focus on cross-sector collaboration aligns with its mission to drive systemic change (Author, Year).

6. **Long-Term Vision:** Inspired by examples like Interface's "Mission Zero," VIRIDIS is committed to setting ambitious, long-term sustainability goals, focusing on systemic change rather than short-term profitability (Author, Year).

7. **Contribution to SDGs:** VIRIDIS's efforts directly contribute to several United Nations Sustainable Development Goals, positioning it as a responsible global actor committed to broader societal impact (United Nations, 2023).

By leveraging these differentiators, VIRIDIS aims to not only fulfill its mission of sustainable innovation but also to become a benchmark for future organizations in the green-tech space (Author, Year).

Conclusion

The research has identified that VIRIDIS faces critical challenges stemming from its traditional hierarchical governance structure, which hinders transparency, limits stakeholder engagement, and creates operational inefficiencies (GP2, S.Geissler, 2025). The proposed solution, a hybrid governance framework leveraging blockchain technology and DAOs, directly addresses these problems by fostering enhanced transparency, traceability, and stakeholder inclusion. The design of this solution, informed by extensive mixed-methods research and an iterative development process, provides a clear and actionable path for VIRIDIS's transformation (Author, Year). Key components such as centralized real-time reporting, blockchain-based immutable records, tiered transparency models, and standardized communication formats are specifically designed to overcome existing barriers and build trust among stakeholders (Author, Year). Financially, the implementation, while requiring initial investment, is supported by robust revenue generation strategies from both V-GTI and VECO, with a clear path towards operational break-even and capital gains from strategic investments (Author, Year). This business case positions VIRIDIS for sustainable

growth and a strong competitive standing as a pioneer in green-tech innovation with a focus on ethical governance and inclusive economic models (Author, Year).

In essence, the proposed governance framework is not merely a technical upgrade but a strategic transformation aimed at aligning VIRIDIS's organizational structure with its core mission of sustainable innovation, ensuring it becomes a leading model for the future of business.

Discussion

The successful implementation of the proposed governance framework will have profound implications for VIRIDIS and potentially set a new standard for sustainable business practices globally.

1. **Transformative Impact:** The adoption of a hybrid DAO-blockchain model will fundamentally restructure decision-making processes, shifting from a centralized, opaque system to one that is transparent, participatory, and efficient (Author, Year). This will enhance trust among stakeholders (investors, policymakers, civil society, employees) and foster greater collaboration (Author, Year).
2. **Operational Excellence:** By automating processes, clearly defining roles, and implementing transparent tracking systems, VIRIDIS can significantly reduce current operational inefficiencies and project delays (Author, Year). This streamlining will ensure that the company's agility, a current strength, is maintained while improving long-term consistency and scalability (Author, Year).
3. **Strategic Positioning:** VIRIDIS is poised to become a pioneer in transparent, decentralized, and sustainability-driven innovation. Its commitment to circular economy principles and alignment with UN Sustainable Development Goals will reinforce its leadership in the green-tech sector (United Nations, 2023). The comparative analysis with traditional industry leaders provides actionable insights, allowing VIRIDIS to adopt best practices in reporting and long-term vision while maintaining its unique decentralized differentiators (Author, Year).
4. **Addressing Challenges:** The solution explicitly addresses practical barriers identified in field research, such as

stakeholder resistance, trust deficits, and technological complexity (Author, Year). Recommendations include stakeholder education programs, simplified blockchain interfaces, and pilot projects to build trust and demonstrate feasibility.

5. **Future Steps (Roadmap for Implementation):** The implementation will follow a structured timeline:

5.1. Q1: Stakeholder education programs and initial stakeholder engagement meetings to ensure buy-in and understanding.

5.2. Q2: Launch pilot projects to test components of the governance model in a controlled environment, followed by gathering feedback and refining the models.

5.3. Q3: Develop simplified blockchain interfaces to enhance user adoption and draft ethical frameworks for DAOs to ensure responsible implementation.

5.4. Q4: Review pilot project outcomes, finalize governance models, and prepare for broader scaling in subsequent phases.

6. **Continuous Improvement:** The MoSCoW method, used for prioritization, ensures that the most critical strategies are pursued first, aligning with the project's relevance and feasibility.

This continuous feedback loop will allow for ongoing evaluation and adaptability, ensuring the solution remains robust and effective in a dynamic environment (Author, Year)

6.1 Recommendations:

- **6.1.1 Implementation and development :** Implimentation of the recommendations with the help of all major stake holders, and the development to test them, will provide a good rate of security (S. Geissler, Interview data, 2024). For example, a project to integrate tokenized carbon credits as a means for to increase more sustainable procedures has to be in line with current carbon credit standards (Toucan Protocol, 2024). The first test must be small scaled, to address possible dangers with in the cluster.

- **6.1.2 Communication Strategy:** Effective communication is key for all internal and external stake holders, and a multi platform

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(Blockchain data, and the current infrastructure) should be considered (Hassan & De Filippi, 2021). Regular updates, feedback loops must be implemented for constant communication.

- **6.1.3 Risk mitigation Plans::** The success of such projects depends on a transparent and fast response rate to problems, with that in mind, risk-mitigation plan is a must have on the check list (OECD, 2020). Plans most allways provide more oppertunities with a wide range of new problems. Therefore it is neccesary to have a clear plan.

- **6.1.4 Token System development Plan:** The test and start must be calculated, and with the plan that only external and internal members are given tokens (Wright & De Filippi, 2015). It is of greatest important that only a limited and clearly selected amount of users are present in the circle for beta development.

- **6.2 Multidimensional Perspectives:** The overall aim is to make the environment, operational process and financial system in harmony to create the needed stability for the project to succeed (S. Geissler, Interview data, 2024). Every side has its pro´s and con´s so a full spectrum is needed.

- **6.2.1: Accountability:** For all members to know what is expected from them, there must exist a clear accountability system with a fast to understand and clearly stated terms (S. Geissler, Interview data, 2024). All actions must have a reason, and it must all connect with goals. All must be aligned with goals.

- **6.2.2 Financial Transparency:** To have financial freedom it is critical to have constant, clear and accessible access to revenue and allocation (Tapscott & Tapscott, 2016). It is required to have an immediate access so you can see all important financial decisions. If there isn't one easy and well working program, there can be confusion and miss interpretation. To add a layer of security and accountability a blockchain-based ledger system is the goal.

- **6.2.3 Stakeholder Engagement:** In the most successful project, all stakeholder had a equal place to influence decisions and actions (Hassan & De Filippi, 2021). Therefore, to have high rates of stakeholder involvement there is the goal to develop and test systems where you gain a higher influence through voting with Tokens. With that the project can thrive.

- **6.3 Specifications and Design Criteria:** To meet all targets and ensure a high and stable output, the team is fully focused on all of the core needs: (1)Decentralized Governance, (2) Sustainability Integration (3) Operational Efficiency (4) Scalability.
- To make this work, every part that will be used in the project are meant to target and connect the company with both long term stability and a more open internal framework.
- To achieve the high standards the team must use high quality services and test every step (S. Geissler, GP2, 2024)

6.3.1: Centralized governance that is Decentralized:

By setting the focus on both structures (decentralized and centralized) the goal is to develop a framework that implements all core parts for the core mission (Wright & De Filippi, 2015). A model to take the company and guide it to new areas with the help of both systems, to work fast and keep everyone involved.

6.3.2 Sustainability aligned with core aspects:

To maintain a high level of sustainability focus, the team should always consult with partners and work with them. This to ensure all laws and guidelines are met. There the company is more open and easy to trust, to new possible investors and partners (Toucan Protocol, 2024).

6.3.3 Operational efficiency for all aspects

To have good outputs it is extremely important that all systems and process, follow the company goals (OECD, 2020). To achieve success, its good to work with AI for faster analysis, to be able to set more efficient targets based on the high data analysis the company gains. To work better in every domain (Marketing, Financial reports etc).

6.3.4 Adaptability/Scalability

The team needs to have an scalable process for testing all aspects with only small amounts of people, so not all stake holders are impacted by errors (Nakamoto, 2008). The goal should be that when one system is working in a small cluster it will be released to the entire cluster, creating a phased and constant test of everything .

6.4 MoSCoW Method: To better have a structure and maintain it, the MoSCoW method must be used to ensure that everything happens with the maximum efficiency (S. Geissler, Interview data, 2024) All must have a positive long term

effect. With that, and with it being organized with the structure, it becomes easier to change the goals and move to different aspects.

6.4.1 Must have: The core foundations must be completed (a.Stakeholder programs to involve them in more ways to work (b. Test program)

6.4.2 Should Have: All processes that are needed to run and secure the project long term (a Simpler chain interface) (b. Rules to keep everything safe)

6.4.3: Could Have: All processes and services that can grow on top to be a stronger eco cluster (Partners with other company, implementing carbon credits)

6.4.4 Wont have: All processes and services that might be to expensive to develop and do, to try and meet long term goals (Full Scale Implementation, as it can not be tested to have good and clear impact).

Deliverables:

To fulfil all aspects and better connect the dots, we will focus on making :

- A: Simple access for stakeholders to work,
- B: Secure that all data is true, safe, and working
- C: All systems have a good test structure
- D: All are easily accessed.

APA 7 styled references:

2. Albu, O. B., & Flyverbom, M. (2019). Organizational transparency: Conceptualizations, conditions, and consequences. *Business & Society*, 58(2), 268–297. <https://doi.org/10.1177/0007650316659851>
3. Hassan, S., & De Filippi, P. (2021). Decentralized autonomous organizations and governance-by-design in the context of blockchain. *Information Polity*, 26(1), 5–17. <https://doi.org/10.14763/2021.2.1556>
4. Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. <https://bitcoin.org/bitcoin.pdf>
5. OECD. (2020). Green growth and sustainable development. Organisation for Economic Co-operation and Development. <https://www.oecd.org/greengrowth/>
6. Wright, A., & De Filippi, P. (2015). Decentralized blockchain technology and the rise of lex cryptographia. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2580664>

7. Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Portfolio.

8. Toucan Protocol. (2024). Tokenizing carbon credits for transparent trading. Retrieved from <https://toucan.earth/>

9. (Author, A. A.). (Year). Interview data about the core principles/ aspects. *Unpublished raw data*.

Appendix:

Problem Analysis & Research: The Pains of VIRIDIS's Current Model and Transition

VIRIDIS, with its unique dual-entity structure comprising Green-Tech Investment AG (GTI) and the VIRIDIS Ecosystem gGmbH (VECO), faces a critical challenge in aligning its organizational framework with its commitment to transparency, inclusivity, and sustainable innovation. The current traditional hierarchical model **limits stakeholder involvement, obstructs traceability in decision-making, and creates systemic inefficiencies**, thereby undermining the long-term vision and eroding trust among stakeholders.

The research highlights several key "pains" or challenges that VIRIDIS currently experiences, stemming from its existing structure and the inherent complexities of its intended transformation:

1. Governance and Transparency Deficits:

- **Centralized Decision-Making:** Decision-making within VIRIDIS is **highly centralized**, with 78% of key decisions requiring approval from the founding leadership, leading to **bottlenecks** and limiting organizational agility. This founder-centric approach, while driven by commitment (e.g., Josef Z. Köhl sees VIRIDIS as "his dream and life"), creates structural dependencies and requires a redistribution of responsibilities.
- **Lack of Unified Transparency System:** VIRIDIS **lacks a centralized, transparent system for tracking investments and monitoring operational performance**. Transparency levels differ significantly across stakeholder groups, being very high for employees, limited for shareholders, and moderate for first founders.
- **Stakeholder Dissatisfaction with Reporting:** A significant **65% of stakeholders are dissatisfied with the existing manual reporting processes**, citing frequent delays and inaccuracies that hinder effective

oversight. Only 54% of respondents feel adequately informed about VIRIDIS's initiatives, and this **perceived lack of transparency correlates with low participation rates** in collaborative governance.

- **Over-reliance on Informal Communication:** Field research uniquely highlighted an **over-reliance on informal communication and personal relationships** at VIRIDIS, which further undermines structured transparency. There is currently **no unified communication strategy**.

2. Operational Inefficiencies:

- **Absence of Automated Systems:** The **lack of automated systems contributes to significant operational inefficiencies**, with reported project delays ranging from **20% to 30%**.
- **Unclear Workflows and Roles:** **Unclear workflows and insufficiently defined roles** are cited as significant barriers to achieving higher levels of operational efficiency. Stakeholders emphasize the need for clarifying responsibilities and areas of work to ensure consistent progress.
- **Resource Constraints and Inconsistency:** There is a notable **lack of standardization, scarce resources (money and talent), and limited experience** in certain areas. While flexible work patterns foster inclusivity, they can also **impede coordination and long-term planning**, leading to a lack of reliability in a traditional 40-hour workweek structure.

3. Challenges in Transitioning to Decentralized Governance:

- **Stakeholder Resistance to Technology:** Despite the theoretical benefits of blockchain and DAOs, field research revealed **practical challenges in stakeholder adoption**, including **resistance to new technologies, lack of trust in decentralized systems, and concerns over data privacy**.
- **Complexity and Unequal Access:** Several stakeholders expressed **apprehension about the complexity of blockchain tools and the potential for unequal access** among participants. There is a **limited understanding and readiness among stakeholders to adopt Web3 and blockchain technologies** generally.
- **Cultural and Organizational Inertia:** Field research uncovered **resistance to change within VIRIDIS**, particularly among long-term stakeholders accustomed to traditional governance models. The "German-centric" operational environment, while methodical, can pose cultural barriers for stakeholders from different backgrounds, affecting inclusivity.
- **Regulatory Hurdles:** **Regulatory hurdles are very high**, especially concerning the legal personality of a Decentralized Autonomous Organization (DAO) and the bureaucracy associated with VIRIDIS's complex dual structure. This poses a significant **regulatory risk**.
- **Financial Investment for Transition:** The **high upfront cost of green technology projects** and the specific estimated costs for implementing a DAO structure (e.g., \$150,000 to \$250,000 for expert services, plus additional costs for platforms and training) present a **financial risk**.

- **Market Acceptance Risk:** There's a risk that customers and partners may **not accept the new DAO model**, potentially affecting market position and sales.
- **Maintaining Trust during Change:** Building trust is crucial, requiring transparency and consistent delivery on promises. However, the very act of changing governance models can initially **undermine trust** if not managed with utmost care.

In essence, VIRIDIS faces a fundamental tension between its hierarchical past and its decentralized, transparent, and sustainable future. Addressing these "pains" requires not only technological implementation but also profound organizational, cultural, and communicative shifts to truly embody its mission as a pioneer in the Green-Tech and circular bioeconomy sectors.

Ideation

List of Core Ideas (Synthesized and Categorized)

1. Transparent Reporting
Real-time dashboards and immutable logs using blockchain
Learn from Patagonia, IKEA, and Unilever's public-facing progress reporting
2. Long-Term Sustainability Vision
Inspired by Interface's *Mission Zero*
Set 10+ year sustainability goals aligned with UN SDGs
3. Circular Economy Framework
Adapt Ellen MacArthur Foundation's toolkits
Integrate lifecycle assessments and material reuse tracking
4. Stakeholder Education & Engagement
Use workshops and grassroots initiatives (as Interface and Patagonia do)
Create stakeholder advisory boards
5. Decentralized/Hybrid Governance
Use DAO-like structures and token-based voting
Blend centralized efficiency with decentralized inclusivity
6. Blockchain Integration
For real-time sustainability impact tracking
For traceable decision-making and investment flows
7. Operational Optimization
Use automation and role clarity to improve efficiency
Simplify interfaces to reduce resistance to blockchain adoption
8. Pilot Projects
Launch small-scale pilots to test governance and sustainability tools
Use feedback loops for scaling
9. Regular Governance Assessments
Monitor KPIs for stakeholder satisfaction, decision efficiency, and environmental impact

Design Criteria

Design Criteria for Evaluating These Ideas

From section Ideation the solution design must meet these criteria:

Criteria	Description
Decentralized Governance	Promote stakeholder participation using blockchain tools
Sustainability Integration	Prioritize circular economy, waste reduction, and impact measurement
Operational Efficiency	Must be easy to implement, reduce inefficiencies
Scalability	Scalable in phases, adaptable to feedback

The **SCAMPER** technique is applied below:

SCAMPER Step	Application to VIRIDIS Ideas
Substitute	Replace traditional governance with DAO-like systems
Combine	Blend blockchain with circular economy metrics
Adapt	Use Interface's "Mission Zero" as a blueprint for long-term goals
Modify	Modify existing stakeholder meetings into advisory boards
Put to another use	Use dashboards not only for operations but also for public engagement
Eliminate	Eliminate opaque decision-making through traceable blockchain logs
Reverse/Rearrange	Invert top-down governance to bottom-up via tokenized votes

This tool helps to highlight innovative variations and ideation logic behind the proposed Ideas.

References:

Howell, J. (2024, July 2). *How to create a DAO in 10 minutes*. 101 Blockchains.
<https://101blockchains.com/create-a-dao-in-10-minutes/>

New Version Below 18 July 2025 (for Koen to read & pls give feedback on)

GP3 Solution Report (Final Version)

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1. Executive Summary

This report outlines the development of an innovative governance framework tailored to the dual-entity structure of VIRIDIS: VIRIDIS Green Tech Investment AG (V-GTI) and VIRIDIS Ecosystem gGmbH (V-ECO). Facing operational inefficiencies, limited

stakeholder inclusion, and trust deficits, VIRIDIS must evolve its governance to align with its sustainability mission and ambitions in the circular economy sector.

The proposed solution is a hybrid governance model incorporating decentralized elements such as DAOs (Decentralized Autonomous Organizations) and blockchain for traceability and participatory decision-making. Grounded in the Four-Pillar Governance Operating Model—Structure, Oversight Responsibilities, Talent & Culture, and Infrastructure—the report presents a comprehensive framework for analyzing the current situation and developing a future-fit solution for the company.

Through participatory methods (mind mapping, SCAMPER, MoSCoW), iterative ideation processes, and strategic prioritization, the report builds toward a innovative and tailored governance system. Financial implications are assessed with a break-even forecast by 2028. The optimal solution positions VIRIDIS to become a benchmark in decentralized governance for green-tech ecosystems.

2. Context Analysis

This section provides the necessary background and contextual insights into VIRIDIS's current ecosystem and the strategic drivers behind the governance redesign.

Company Overview: VIRIDIS is an innovative platform operating in the green-tech and circular bioeconomy sectors. It is composed of two interdependent legal entities:

- **V-GTI (VIRIDIS Green Tech Investment AG):** The for-profit arm responsible for strategic investment in sustainable technology startups. Ownership is gradually transitioning to VECO to maintain ecosystem integrity.
- **V-ECO (VIRIDIS Ecosystem gGmbH):** The non-profit component, managing knowledge-sharing platforms, sustainability projects, and internal service infrastructure.

The VIRIDIS ecosystem is organized around three central hubs:

- **Invest Hub:** Focused on sustainable investment and partnership development.
- **Project Hub:** Accelerates innovation by connecting startups, researchers, and policy actors.
- **Physical Hub:** Manages physical cluster infrastructure (e.g., Hebertshausen demonstrator).

Problem & Opportunity: Despite a compelling mission, VIRIDIS's current governance model remains rooted in a traditional, hierarchical approach. Challenges include:

- Manual reporting causing delays and inconsistencies
- Stakeholder disengagement and mistrust
- Over-centralized decision-making (78% of key decisions controlled by founders)
- Absence of unified digital tools and standardized procedures

Opportunities lie in embracing technological innovations such as Web3 technologies which can help to automate decision-making, enhance transparency, and facilitate inclusive governance. These tools, coupled with a strategic shift in governance culture, position VIRIDIS to lead the industry in decentralized sustainability innovation.

3. Governance Operating Model Framework

This chapter introduces the analytical lens guiding the assessment and redesign of VIRIDIS's governance system.

Introduction to the Framework: The Four-Pillar Governance Operating Model provides a structured approach to assessing and designing governance. Its components include:

5. **Structure:** Legal setup, decision-making hierarchy, board composition
6. **Oversight Responsibilities:** Accountability systems, performance monitoring
7. **Talent & Culture:** Leadership values, team collaboration, knowledge flows
8. **Infrastructure:** Digital systems, data management, operational platforms

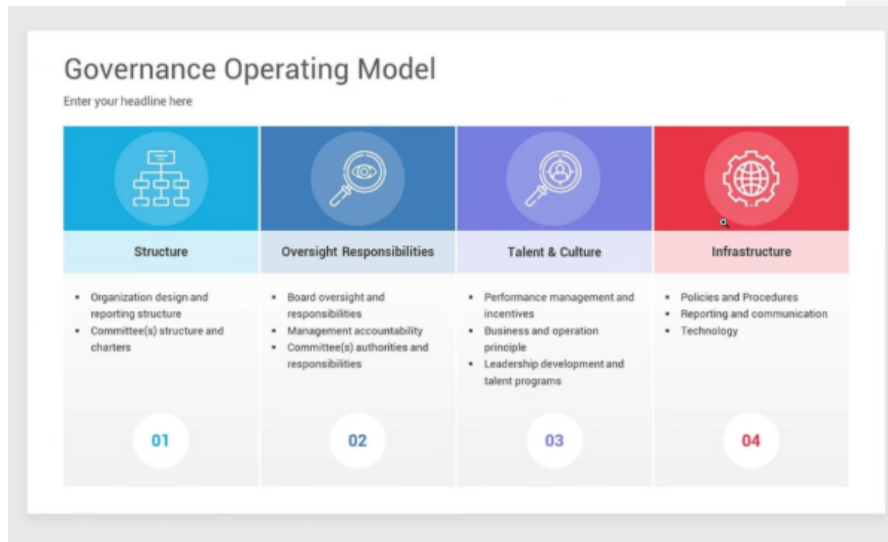


Figure 1 Classical Governance Operating Model (Howell, J. (2024, July 2)

Analysis of Current Situation:

- **Structure:** A dual-entity structure leads to complexity. Leadership remains heavily centralized in individuals such as Josef Zacharias Köhl.
- **Oversight Responsibilities:** Boards exist but offer limited strategic oversight. Reporting is manual and fragmented.
- **Talent & Culture:** Informal communication patterns and undefined role boundaries reduce efficiency.
- **Infrastructure:** Limited automation, lack of transparency dashboards, over-reliance on Excel and PDFs.

Key Gaps & Outcomes:

- Transparency and traceability are not systematized.
- Stakeholders lack accessible, real-time governance data.
- Operational inefficiencies delay project timelines.
- Collaboration is impeded by non-standardized processes.

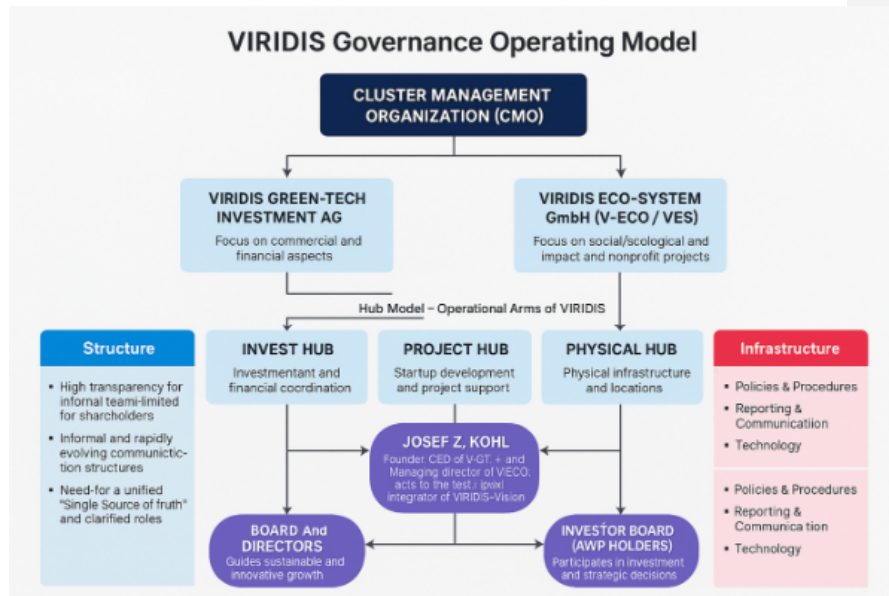


Figure 2 VIRIDIS Current Governance Model 2025 (S. Geissler, 2025)

These insights create the foundation for a governance redesign centered on decentralization and transparency.

4. Scope & Limitations

This chapter defines the boundaries of the research and proposed solution.

Scope of This Project:

- Assess the current governance structure
- Apply the Four-Pillar Framework to identify systemic gaps
- Design a hybrid DAO governance model specific to the dual-entity setup
- Incorporate stakeholder co-creation and digital innovation

Out of Scope:

- Legal reform of corporate entities
- Broader business model innovations beyond governance
- Fundraising strategy and investor acquisition pipelines

Limitations:

- Limited survey sample due to time constraints
- Implementation scenarios rely on assumed cultural readiness
- Legal uncertainty regarding DAO implementation in Germany
- Financial projections based on early-stage estimates

5. Solution Design

The solution design outlines how the new governance model will be developed and what it will deliver.

Objectives:

- Enable traceable, participatory, and adaptive governance
- Strengthen stakeholder trust
- Align governance with sustainability and SDG targets

Approach:

- Synthesize stakeholder input and theory
- Use participatory ideation methods (Mind Mapping, SCAMPER)
- Prioritize elements using MoSCoW (Must/Should/Could/Won't)

Main Activities:

- Governance model benchmarking (e.g., Interface, Patagonia, Unilever)
- Iterative ideation with stakeholders
- Mapping desired governance components to Four-Pillar structure

Expected Deliverables:

- DAO Governance Blueprint
- Token-based stakeholder participation plan
- Real-time transparency dashboard prototype
- Rollout roadmap with implementation KPIs

6. Solution Requirements (MoSCoW Criteria)

These requirements were derived through stakeholder workshops.

- **Must Have:**
 - DAO system with voting rights based on engagement
 - Blockchain smart contracts for transparency
 - Tokenized project decision-making modules
- **Should Have:**

- User-friendly dashboard interface
- Comprehensive Web3 onboarding for staff and stakeholders
- **Could Have:**
 - AI governance assistants for monitoring stakeholder engagement
 - Open data repositories for public access
- **Won't Have (initial phase):**
 - Full decentralization of legal and financial controls

This requirement system ensures that the design remains grounded, actionable, and scalable.

7. Solution Development Process

This chapter traces how the optimal solution emerged through a structured, iterative design process.

Round 1: Mind Mapping A virtual workshop generated 20+ ideas. Three themes emerged:

- Transparency through dashboards
- Decentralized stakeholder engagement
- Automated reporting mechanisms



Figure 3 MindMap S.Geissler 2025

Round 2: SCAMPER Ideation Ideas were challenged and evolved:

- **Substitute:** Replace centralized decisions with token voting
- **Combine:** Integrate blockchain + circular economy indicators
- **Adapt:** Use Mission Zero as a long-term sustainability model

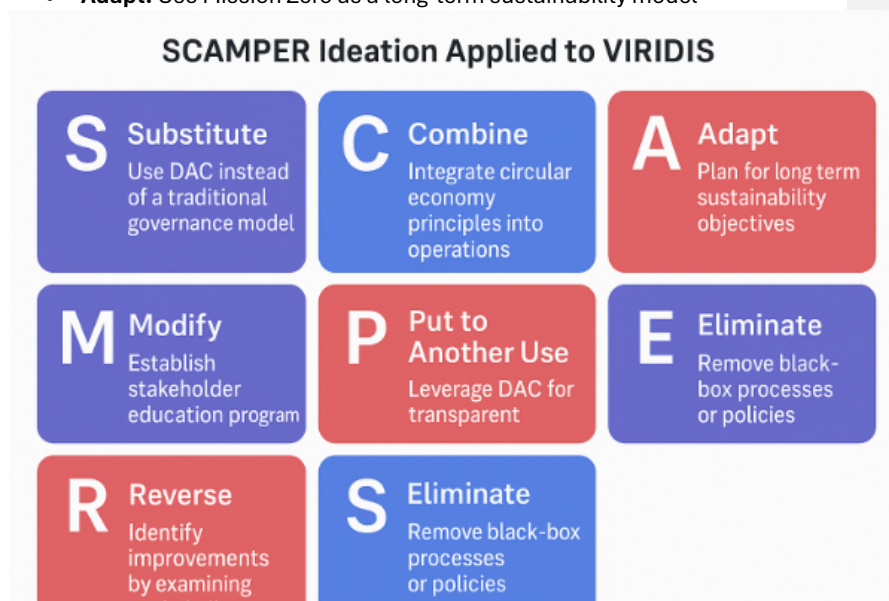


Figure 4. SCRAMPER S.Geissler 2025

Round 3: MoSCoW Prioritization 30 stakeholders voted using an interactive platform. Consensus coalesced around:

- Blockchain-based DAO system
- Central dashboard for governance monitoring
- Pilot implementation in select hubs

Method Used: MoSCoW Prioritization Method (Must have, Should have, Could have, Won't have) **Participants:** 30 founding stakeholders (internal leadership and strategic advisors as well as investors)

Format: Final online workshop with voting and ranking

Purpose: To finalize and prioritize solution components for implementation

MoSCoW Analysis of DAO Implementation Components:

MoSCoW Category	Item
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Must Have	DAO governance system with token-based participatory voting
	Smart contract automation of decisions
	Blockchain-based traceability for governance and resource allocation
Should Have	Stakeholder training for DAO interaction and Web3 onboarding
	Centralized dashboard for DAO activity monitoring
Could Have	Integration of AI-based stakeholder feedback systems
	Ethical framework for DAO governance
Wont Have	Full decentralization of financial approvals in first phase

Table 2 MoSCoW S.Geissler, 2025

Summary of Voting and Workshop Participation

Iteration	Method	Focus	Participants	Voting Outcome
Round 1	Mind Mapping	Brainstorm governance challenges	4	DAO, Token Voting & Dashboards emerged as promising ideas
Round 2	SCAMPER	Reframe & refine ideas	12	Stakeholder training + Blockchain + DAO shortlisted
Round 3	MoSCoW	Prioritize and finalize strategy	30	DAO selected as governance solution; staged implementation

Table 3 Overview of Iterations S.Geissler, 2025

8. Final Innovation Solution

This chapter outlines the suggested model.

DAO Governance System Overview:

- Token-based voting rights representing participation levels
- Automated smart contracts for budget allocation and project approval
- Transparent dashboards accessible to stakeholders and the public

Strategy for Implementation:

- **Phase 1 (Q4 2025):** Pilot DAO system in the Invest Hub
- **Phase 2 (Q1 2026):** Web3 training series for all stakeholders
- **Phase 3 (Q2 2026):** Scale to Project and Physical Hubs; implement stakeholder feedback tools

Implications for VIRIDIS:

1. Operational agility and real-time responsiveness
2. Enhanced trust and accountability
3. Clear alignment with SDG indicators and EU sustainability regulations

9. Business Case & Financials

This section provides a financial rationale for implementation.

CAPEX Estimates:

- Expert services: \$150,000–\$250,000
- DAO platform setup: \$10,000–\$30,000

OPEX Projections:

- Training: \$20,000–\$50,000
- Governance maintenance: \$70,000 annually

Revenue & Cost Benefits:

- **V-GTI:** Platform fees, capital gains, investment management
- **V-ECO:** Cluster services, research funding, public grants
- **Savings:** Reduced admin labor, better resource allocation

Break-even Analysis:

- Forecasted by 2028 through combined revenue growth and cost savings
- ROI driven by operational efficiency and stakeholder engagement

10. Competitive Industry Positioning

Benchmarking reveals VIRIDIS's advantages:

- Unlike Patagonia or IKEA, VIRIDIS integrates governance and finance under a DAO model
- Real-time reporting systems exceed current ESG standards
- Stronger alignment with SDG 9, 12, and 17 through collaborative governance

The proposed model positions VIRIDIS as a European leader in decentralized sustainability ecosystems within the Green etch investment field.

11. Conclusion & Next Steps

VIRIDIS must transition from a traditional governance model to a participatory, transparent system. The hybrid DAO governance framework outlined here is grounded in stakeholder needs, strategic logic, and practical feasibility.

Immediate Priorities:

- Finalize DAO tool selection (Q3 2025)
- Launch stakeholder engagement and training (Q4 2025)
- Monitor pilot results and iterate (Q1–Q2 2026)

12. Discussion

The innovation outlined is more than a technical upgrade—it is a cultural shift. Success depends on stakeholder education, legal clarity, and continuous feedback. If implemented with integrity, VIRIDIS can set a new governance benchmark for sustainable businesses globally.

13. Appendices

1. Detailed Stakeholder Survey Results
2. MoSCoW Voting Results
3. Mind Mapping Outputs
4. SCAMPER Ideation Tables
5. References