

The Evolution of Corporate Sustainability Ecosystems in Slovenia: A Cyber-Systemic Analysis of the IRDO CSO Network and Professional Governance Pathways

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Abstract

As corporate sustainability requirements transition from voluntary frameworks to strict regulatory imperatives within the European Union, the structural governance of sustainability ecosystems requires deep architectural scrutiny. This short paper presents a cyber-systemic analysis of the newly established IRDO (Institute for the Development of Social Responsibility) Chief Sustainability Officer (CSO) network in Slovenia. Combining a historical programmatic review (2008–2026) with a qualitative case study design based on Stafford Beer’s Viable System Model (VSM) and Nonaka and Takeuchi’s knowledge conversion theory, this study investigates how specialized role-gated networks support corporate sustainability governance and European Sustainability Reporting Standards (ESRS) compliance capacity. Responding to peer-review assessments, this version reformulates prior statistical hypotheses into exploratory propositions, provides explicit operational definitions for qualitative governance indicators, incorporates a structural verification matrix, and establishes a research agenda for longitudinal evaluation.

Keywords: Corporate Social Responsibility, Sustainability Managers, Governance, IRDO CSO Network, ESRS, CSR Europe, Cyber-Systemics.

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1 Introduction

The modern corporate landscape is undergoing a structural shift from conventional economic optimization to integrated sustainability governance. Within the European Union, legislative updates—most notably the Corporate Sustainability Reporting Directive (CSRD)—have converted sustainability reporting from a voluntary disclosure framework into a legally mandated governance requirement. This evolution demands specialized managerial roles capable of interpreting complex sustainability criteria, managing long-term risks, and coordinating systematic organizational overhauls.

In Slovenia, the transition toward integrated sustainable management has encountered distinct structural constraints, including departmental silos, a lack of standardized strategic sustainability education, and fragmented professional support frameworks. Globally, the formalization of the Chief Sustainability Officer (CSO) role has expanded since the early 2000s. To navigate this trend, several high-level global platforms have emerged, such as the World Economic Forum Chief Sustainability Officers Community (WEF, 2026), which focuses on macroeconomic shifts and planetary boundaries at an executive layer. Similarly, regional practitioner networks, such as the UAE CSO Network (CSO Network, 2026), operate as sector-wide platforms designed to address regional green transformations through joint corporate and policy initiatives.

To capture the complex, adaptive, and interconnected realities of these professional ecosystems, traditional linear organizational frameworks are insufficient. This paper establishes a cyber-systemic framework—the study of communication, control, and feedback loops in complex systems—to evaluate how governance pathways are formed, how complexity is managed, and how structural equilibrium is maintained amidst shifting socio-legal environments within the Slovenian corporate landscape.

2 Research Objective & Case Study Methodology

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2.1 Research Question and Exploratory Propositions

To avoid the implication of statistical testing within a qualitative case framework, this study avoids statistical variables and instead establishes one central research question and three exploratory propositions grounded in organizational cybernetics and knowledge network theories:

- **Research Question (RQ):** How can a specialized professional network like the newly established IRDO CSO network structurally support and accelerate corporate sustainability governance and ERSR compliance capacity in Slovenia?
- **Proposition 1 ($\backslash(P_{1})\backslash$):** Participation in specialized role-gated networks like the IRDO CSO network facilitates peer-to-peer knowledge sharing that supports organizational readiness for ERSR alignment by distributing standardized templates.
- **Proposition 2 ($\backslash(P_{2})\backslash$):** The attainment of structured, specialized credentials (Tier 2 and Tier 3) provides sustainability practitioners with the formal authority required to establish direct reporting lines to corporate executive boards.
- **Proposition 3 ($\backslash(P_{3})\backslash$):** Regular participation in professional, closed-loop supervision frameworks mitigates operational information overload, shifting corporate orientation from defensive legal compliance toward active sustainable value creation.

2.2 Case Study Research Design

This paper utilizes a qualitative case study methodology combined with an archival programmatic data analysis of the educational and promotional initiatives run by the IRDO Institute between 2008 and

2026. Adhering to the methodological principles established by Robert K. Yin, a holistic, descriptive single-case study design with embedded units of analysis is deployed. This approach is appropriate because the boundaries between the phenomenon (the evolution of sustainability governance) and the context (the Slovenian corporate landscape) are highly integrated and contemporary.

The primary unit of analysis is the IRDO CSO Network as an integrated professional ecosystem. The embedded units of analysis include:

1. Individual institutional profiles of participating organizations (SMEs vs. Large Enterprises).
2. The formalized professional governance pathways (certifications, educational modules, and working groups).
3. The information exchange channels (conferences, monthly supervision sessions, and policy feedback mechanisms).

2.3 Sampling, Data Selection, and Comparative Criteria

The geographic focus is restricted to Slovenia, an economy navigating regulatory alignment with Western EU sustainability standards. A desk-research method was used to collect data about existing networks in Slovenia and the EU. The analysed timeline spans from the initial IRDO network launch in March 2008 up to the IRDO CSO rollout in 2026.

The parameters used to select domestic and international networks for comparison were the scale of the network (number of active entities), institutional reputation, and historical contribution to corporate social responsibility (CSR) development. The validation criteria for the cross-sectional comparative matrices are explicitly anchored on target audience definition, core operational delivery toolkits, financial entry barriers, and role-gating mechanisms.

The empirical baseline of the IRDO CSO network is rooted in a multi-tiered professional certification scheme that began in 2016, supported by recognition platforms like the HORUS Award (launched in 2009) and the ADRASTOS Youth Award (launched in 2023), which together encompass an institutional database of over 300 legal entities and individuals.

To expand this research into subsequent empirical stages, a purposive sampling strategy is established to select key informants within the network. A sample size of 15–20 in-depth qualitative elite interviews with CSOs, IRDO board members, and corporate governance specialists is targeted to achieve theoretical saturation. Data triangulation is secured through three primary categories:

1. **Primary Qualitative Data:** Semi-structured elite interviews focusing on operational realities, perceived system bottlenecks, and boardroom placement dynamics.
2. **Secondary Document Analysis:** Systemic review of IRDO annual reports, white papers, educational curricula, and policy recommendations submitted to ministries (2008–2026).
3. **Sociometric / Network Interaction Data:** Archival tracking of communication frequency and collaboration patterns during working sessions and professional symposia.

2.4 Operationalization of Qualitative Indicators

To maintain methodological transparency and address the conceptualization of the research framework, the core qualitative concepts are operationally defined as follows:

- **Compliance Velocity:** Defined as the qualitatively observed duration and perceived organizational efficiency in completing statutory reporting milestones (e.g., Double Materiality Assessments) following entry into the network.

- **Boardroom Placement:** Defined as the formal establishment of a direct, permanent reporting or advisory line between the certified sustainability practitioner and the executive board (Management Board or Supervisory Board).
- **Administrative Friction:** Defined as the perceived operational resistance, technical information overload, and professional isolation experienced by sustainability managers navigating ambiguous or shifting regulatory decrees.

3 Theoretical Framework: Cyber-Systemics and Knowledge Networks

The structural architecture of the IRDO CSO network aligns with cyber-systemic principles applied to sustainable organizations. According to classical systems theory, an organization is an open system that must continuously co-evolve with its changing environment (Mulej, Perko, & Hrast, 2020). Sustainability management is inherently complex, interconnected, and dynamic, which prevents single internal departments from executing structural changes in isolation.

In management cybernetics, organizational and environmental complexity is formally evaluated through the concept of 'variety', defined as the total number of possible distinct states a system or its environment can exhibit (Ashby, 1956). This study is structurally anchored in W. Ross Ashby's Law of Requisite Variety, which dictates that 'only variety can absorb variety'—meaning that for a regulatory governance system to maintain stability and control, its internal complexity must match or exceed the external complexity of the environment it seeks to regulate (Ashby, 1956). Under highly volatile conditions such as the rapid rollout of EU ESG mandates, an organization faces an overwhelming influx of exogenous environmental variety. To prevent structural failure and achieve equilibrium, cybernetic regulation operates via two primary mechanisms: variety attenuation, which filters, blocks, and condenses incoming data to protect internal processors from cognitive information overload, and variety amplification, which systematically multiplies the system's internal capabilities, resources, and response pathways (Ashby, 1956).

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Stafford Beer expanded these core tenets into organizational cybernetics through the formulation of the Viable System Model (VSM), defining a viable system as any entity organized in a manner capable of independent existence and adaptive co-evolution within a fluid environment (Beer, 1985). Central to this architectural durability is the concept of a homeostat: a dynamic, self-regulating connection where intersecting communication channels and feedback loops continuously balance internal operations against environmental disturbances to keep essential variables within safe operational thresholds (Ashby, 1956; Beer, 1985). Furthermore, VSM introduces the core theorem of systemic recursion, demonstrating that viable complex social structures are organized fractally (Beer, 1985). Every autonomous operational sub-unit (System 1) embedded within a larger viable whole contains and reproduces the identical structural logic—possessing its own dedicated sub-systems for operations, coordination, control, intelligence, and policy—at every consecutive nested layer of the overarching ecosystem (Beer, 1985).

Knowledge networks offer a systemic solution to this fragmentation by enabling continuous multi-directional feedback loops (Nonaka & Takeuchi, 1995). Within the IRDO CSO framework, the sustainability manager acts as an internal system processor. As visualized through cyber-systemic modelling, the CSO serves a cybernetic control function, routing external regulatory inputs into internal corporate processes, while maintaining communication channels upward to boards, downward to operations, and outward to stakeholders.

3.1 Operationalizing the Cyber-Systemic Model

To systematically evaluate the network, the cyber-systemic perspective is operationalized through four core components:



1. **Core Actors:** Consist of individual Sustainability Managers (CSOs), certified ESRS Experts, IRDO institutional trainers, and external compliance auditors.
2. **Information Flows:** Exogenous regulatory signals—specifically evolving EU Directives (CSRD/ESRS)—enter the system as regulatory inputs, while internal technical data, compliance templates, and operational practices flow horizontally between network members.
3. **Feedback Loops:** The IRDO Sustainable Supervision framework operates as a closed-loop feedback mechanism. It captures operational challenges from the field, processes them through collective peer review, and outputs standardized recommendations, stabilizing the network against external disruptions.
4. **Governance Functions:** The network executes variety attenuation (filtering complex EU regulations into manageable training modules) and variety amplification (enhancing the internal capacity of individual managers to meet legal disclosure mandates).

This study leverages Stafford Beer's Viable System Model (VSM) to diagnose the structural health of this ecosystem across five sub-systems: **System 1 (Operations)** represents individual CSO activities within firms; **System 2 (Coordination)** handles anti-oscillatory standard-setting by IRDO to prevent friction; **System 3 (Delivery)** manages internal resource allocation and training; **System 4 (Intelligence)** scans upcoming EU regulatory transformations; and **System 5 (Policy)** maintains the overarching ethical standards and collective identity of the professional community.

4 Empirical Development and Comparative Analysis (2008–2026)

Within the Slovenian market, the corporate ecosystem has traditionally engaged with sustainability through broad, multi-stakeholder coalitions. To evaluate the position of the specialized IRDO CSO network launched in 2026, it must be compared with pre-existing national frameworks:

1. **CER – Partnership for a Sustainable Economy (CER Partnerstvo za trajnostno gospodarstvo):** Drives sustainable business solutions, cleantech innovation, and corporate board collaboration (CER, 2026). Its primary focus is macro-economic green advocacy and multi-company integration.
2. **Network for Social Responsibility of Slovenia (Mreža za družbeno odgovornost Slovenije - MDOS):** Managed by the Ekvilib Institute, this platform promotes CSR principles within corporate operations, focusing on social sustainability, employee well-being, and organizational assessments via formal certifications (Ekvilib Institute, 2026).
3. **Green Network of Slovenia (Zeleno omrežje Slovenije):** Coordinated by Fit media, this platform connects over 400 businesses and municipalities, focusing on environmental communication, ecodesign, circular economy practices, and environmental regulation training (Fit media, 2026).

The IRDO CSO network distinguishes itself by operating specifically as a role-focused, practitioner-led, certified knowledge network (IRDO, 2026a). It represents a structural evolution of the IRDO institutional member network, which has united corporate and individual members since March 2008 (IRDO, 2026c). While the original 2008 network laid broad informational foundations through publications like the IRDO Mozaik journal, the 2026 CSO network introduces a technical, role-gated platform requiring proof of dedicated professional capacity or equivalent function in sustainability management.

The professional IRDO certification pathway consists of three distinct evolutionary tiers:

- **Tier 1: Certified Manager for Corporate Social Responsibility and Sustainable Development:** Focuses on core competencies, foundational international standards, and initial organizational tooling (launched in 2016; over 360 professionals completed by early 2026) (IRDO, 2026b).
- **Tier 2: Certified Strategist for CSR and Sustainable Development:** Trains professionals to integrate sustainability directly into governance structures and corporate core strategy (launched in 2021).
- **Tier 3: Certified ESRS Expert for Sustainability Reporting:** Focuses on the technical execution, auditing compliance, and double-materiality assessments required by European Sustainability Reporting Standards (launched in 2024).

4.1 The Operational Model of IRDO Sustainable Supervision

The institutionalization of the Monthly Sustainable Supervision (trajnostna supervizija) framework functions as a cybernetic feedback loop designed to mitigate practitioner isolation. The supervision framework functions through a three-stage iterative protocol:

1. **The Regulatory Intake Phase:** Highlighting newly published EU and national decrees, reporting templates, or audit corrections under expert guidance.
2. **The Peer-to-Peer Cross-Examination:** Confidential review of operational corporate challenges, such as mapping upstream supply chain emissions (Scope 3) or managing double-materiality discrepancies.
3. **The Collective Optimization Synthesis:** Co-creation of standardized reporting practices, collected into aggregated recommendations distributed back through the network.

This framework operationalizes Nonaka and Takeuchi's (1995) knowledge conversion theory, converting the tacit, individual experiences of local sustainability managers into explicit, shared structural knowledge across the network.

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To contextualize the market positions and strategic utility of these frameworks, Table 1 details the comparative metrics of major domestic networks, while Table 2 maps out key global platforms available for international collaboration.

Table 1: Strategic and Operational Comparison of Slovenian Sustainability Networks

Network Name	Coordinating Institution	Primary Target Audience	Core Operational Focus & Toolkits	Fee Structure & Gating	Official Website
IRDO CSO – Slovenian Network of Sustainability Managers	IRDO Institute	Individual Chief Sustainability Officers (CSOs), certified practitioners, and internal sustainability teams.	Practitioner-led knowledge exchange, monthly Sustainable Supervision, and technical alignment with ESRS architecture.	Quality-gated (requires proof of certification/role). €250/year (Net); Free for certified IRDO institutional alumni (est. 2008).	Visit IRDO CSO

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CER – Partnership for a Sustainable Economy	CER Platform	Corporate boards, C-suite executives, and cleantech companies.	Macro-economic green advocacy, cleantech deployment, corporate networking, and sustainable lobbying.	Corporate membership tiers based on company size and impact.	Visit CER Slovenia
Network for Social Responsibility of Slovenia	Ekvilib Institute	HR managers, compliance officers, and companies prioritizing social pillars.	Social sustainability assessment, implementation of Family-Friendly Enterprise and Socially Responsible Employer certifications.	Corporate/organizational membership based on multi-stakeholder participation.	Visit Ekvilib MDOS
Green Network of Slovenia	Fit media d.o.o.	PR managers, environmental coordinators, municipalities, and schools.	Environmental communication, ecodesign packaging initiatives, and waste management legislation tracking via the Green Slovenia Academy.	Fixed annual fee (€360/year) covering communication channels and a physical magazine subscription.	Visit Fit media ZOS

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Source: own (Selection based on active national presence; data verified through official institutional publications as of 2026)

Table 2: Overview of Key Global and European Networks for Chief Sustainability Officers (CSOs)

Network Name	Coordinating Institution / Platform	Primary Focus & Professional Scope	Collaboration Pathways for IRDO CSO Members	Official Website
The European CSO Network	CSR Europe	Aligning European corporate strategies with EU Green Deal regulations, CSRD compliance, and ESRS implementation within international supply chains.	Direct pipeline for cross-border alignment and localized policy feedback loops.	Visit CSR Europe
Chief Sustainability Officers Community	World Economic Forum (WEF)	Macroeconomic shifts, climate risk and planetary monitoring at multinational executive layer.	Structural resilience, regarding geopolitical and macroeconomic forecasts.	Visit WEF Initiatives

CSO Network	Futures	Independent Practitioner Forum	Operational decentralized networks, and digital standard	deep ESG independent benchmarking.	dives, peer subscription-based operational standard tracking.	Professional interaction and digital community	Visit CSO Futures
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Source: own (Selection based on alignment with corporate sustainability executive roles; verified through platform terms as of 2026)

5 Comparative Analysis of Membership Structures and Operational Tools

5.1 Membership Criteria and Financial Accessibility

Global C-suite platforms, such as the World Economic Forum (WEF) CSO Community, are heavily gated and operate on an invitation-only basis reserved for multinational corporations, focusing primarily on macro-geopolitical trends rather than operational metrics (WEF, 2026). On the other hand, networks like CSR Europe base their annual fee structures proportionally on organizational size and total annual corporate turnover, creating accessibility barriers for small-to-medium enterprises (SMEs). Similarly, independent digital communities like CSO Futures standardize individual professional access at around £500 annually (CSO Futures, 2026).

In comparison, the IRDO CSO network introduces a localized membership tier, setting an accessible fee of €250 (net) per year (IRDO, 2026a). The network eliminates financial barriers for individual practitioners who have already completed their capacity building by offering free network participation to any certified IRDO alumnus who maintains an active institutional membership within the main IRDO platform established in 2008 (IRDO, 2026c). However, quality control is maintained because admission is conditional; members must provide official proof of specialized professional training or verify that they hold an active, dedicated sustainability management role within their organization.

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5.2 Technical and Operational Tools for Sustainability Managers

The value of international networks is tied to the proprietary technical methodologies they offer to help managers transition from compliance to active value creation.

- **WBCSD and SBTN Toolkits:** The World Business Council for Sustainable Development (WBCSD) provides technical systems, such as the Circular Transition Indicators (CTI) seven-step practitioner process, climate scenario analysis catalogues, and the Science Based Targets Network (SBTN) methodology for setting near-term and net-zero corporate targets to ensure alignment with a 1.5°C global warming boundary.
- **CSR Europe Platforms:** CSR Europe provides specialized cross-border value chain platforms, including the Drive+ and Automotive Value Chain tracking tools, alongside the Tax Responsibility and Transparency Index.

The IRDO CSO network acts as a national pipeline for these methodologies. Instead of forcing individual Slovenian sustainability managers to independently interpret complex international manuals, IRDO incorporates these tools directly into its Tier 3 ESRS Expert training and monthly Sustainable Supervision sessions. This allows local managers to evaluate double-materiality data collection, adjust global climate scenarios to regional marketplace expectations, and share practical compliance shortcuts with peers. This structure is designed to mitigate the risk of administrative overload or professional isolation.

6 Core Pillars and Strategic Impact of the IRDO CSO Network

The IRDO CSO network structures its operational model around four core strategic pillars, aligning its stated mission with the European Union's political priorities for 2024–2029, which emphasize economic competitiveness alongside social equity and environmental protection (European Commission, 2025; IRDO, 2026a):

1. **Professional Competency Development and Policy Monitoring:** The network standardizes professional definitions and performance benchmarks for sustainability managers. It monitors the consequences of EU sustainability policies and regulations regarding transparency, corporate governance, and due diligence (IRDO, 2026a).
2. **Cross-Sector Knowledge Exchange and Peer Learning:** Through structured peer-to-peer mentoring—consisting of three annual virtual thematic meetings and one annual live event—the network brings together managers from diverse industries to share technical solutions (IRDO, 2026a).
3. **Breaking Corporate Silos and Driving Innovation:** IRDO CSO explicitly addresses the strategic role of Chief Sustainability Officers (CSOs). The platform encourages internal corporate dialogue, helping managers discuss their roles and strategies to improve cooperation between dedicated sustainability teams and other core business departments (IRDO, 2026a).
4. **Enhancing National Sustainability Infrastructure:** By collaborating with national and European policymaking bodies, the network acts as a dialogue platform (IRDO, 2026a). It coordinates expert contributions to policy design in Slovenia and the EU, establishing unified approaches within corporate value chains.

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7 Proposed Development Pathway: Vision 2030 Roadmap

To contextualize the long-term trajectory of the network, the leadership has outlined a proposed development pathway toward 2030. This roadmap represents an institutional plan rather than an empirical research result:

- **Phase 1: Standardization and Compliance (2026–2027):** Maximizing the absorption of Tier 3 ESRS certification across Slovenian SMEs (with a focus on the VSME/VS standards) and establishing unified double-materiality templates to secure corporate non-financial audits.
- **Phase 2: Supply Chain Harmonization (2028–2029):** Utilizing the network's connection to CSR Europe to establish coordinated compliance frameworks across regional value chains, preventing smaller local tier suppliers from being excluded by larger European enterprises.
- **Phase 3: Deep Socio-Technical Innovation (2030):** Full integration of data-driven AI systems into environmental and social monitoring, pivoting corporate goals from risk mitigation to circular business models and cross-generational corporate sustainability infrastructure.

8 Discussion, Limitations, and Research Agenda

8.1 Systemic Dynamics and Emerging Challenges

Looking past 2026, the network must address emerging systemic challenges. The integration of Digital Transformation and Artificial Intelligence (AI) in data collection for ESRS reporting represents a double-edged sword, offering optimization potential while introducing complex data governance and ethical issues (Hrast & Perko, 2026). Furthermore, as companies move deeper into mandatory reporting

compliance, the IRDO CSO network will need to shift its emphasis from basic regulatory alignment to advanced, radical eco-innovation and intergenerational business model updates.

8.2 Qualitative Evaluation Framework

Because this study represents an early-stage descriptive case analysis rather than a completed quantitative evaluation, the relationships between network participation and organizational outcomes are framed as preliminary pilot observations. To guide future empirical verification, Table 3 presents the structural research matrix designed to evaluate the three exploratory propositions.

Table 3: Explanatory Proposition Mapping and Empirical Verification Matrix

Exploratory Proposition	Operationally Defined Indicators	Primary Qualitative Data Source	Analytical Procedure / Method	Status / Expected Contribution
Proposition 1 (\P_{1}): Peer template sharing accelerates ESRS readiness.	• Compliance Velocity • Template adoption rate	• Semi-structured elite interviews • Supervision session transcripts	• Systematic qualitative coding • Content analysis	Preliminary Pilot Observation: Initial cohorts report reduction in time required to format Double Materiality Assessments.
Proposition 2 (\P_{2}): Higher credentials improve board-level authority.	• Boardroom Placement • Formal governance mandate	• Alumni career tracking • Institutional exit interviews	• Descriptive career path mapping • Role analysis	Preliminary Pilot Observation: A majority of Tier 2 and Tier 3 alumni report establishing clear advisory or direct reporting lines to executive boards.
Proposition 3 (\P_{3}): Professional supervision lowers administrative blockages.	• Administrative Friction • Operational isolation metrics	• Monthly Sustainable Supervision logs • Focus group feedback	• Cybernetic feedback analysis • VSM structural audit	Preliminary Pilot Observation: Participants report lower information anxiety and professional isolation, shifting focus toward circular projects.

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8.3 Research Limitations

While this study provides early insights into the operational design of the IRDO CSO network, several structural limitations must be acknowledged:

1. **Short Temporal Horizon and Novelty of the Platform:** Because the specialized IRDO CSO practitioner network was formally launched in 2026, long-term empirical data regarding cumulative corporate performance, multi-year audit outcomes, and lasting organizational transitions are not yet available. The current findings represent an early-stage baseline rather than a longitudinal assessment.

2. **Reliance on Self-Reported Qualitative Pilot Data:** The preliminary observation of the research propositions relies on qualitative feedback, exit interviews, and pilot survey data collected from the initial cohorts of the 360+ certified alumni. Self-reported data from sustainability managers can introduce subjectivity or social desirability bias regarding their perceived boardroom influence or compliance velocity.
3. **Regional Market Specificity:** The empirical focus is strictly confined to the Slovenian corporate ecosystem, which is characterized by a high density of small and medium-sized enterprises (SMEs) operating as tier-suppliers within larger European value chains. Therefore, the network dynamics, financial accessibility models, and operational constraints identified here may not automatically generalize to larger economies or multinational corporate hubs with different resource capacities.
4. **Shifting Regulatory Baselines:** The European Sustainability Reporting Standards (ESRS) and related Corporate Sustainability Due Diligence (CSDD) mandates are continuously undergoing institutional revisions, clarifications, and shifting audit guidelines at the EU level. This volatile regulatory environment means that the technical tools and compliance shortcuts standardized by the network today may require rapid recalculation, altering the baseline measurements of compliance velocity over time.

8.4 Future Research Directions

To overcome the current limitations of this study and execute a systematic evaluation of the cyber-systemic impact of professional practitioner frameworks, the following four avenues constitute the formal longitudinal research agenda:

- **Longitudinal Impact Tracking (2026–2030):** Conducting multi-year tracing of the 360+ certified IRDO alumni to measure the long-term survival rate, strategic efficacy, and career trajectories of sustainability managers within Slovenian corporate structures.
- **Quantitative Correlation of Audit Outcomes:** Pairing network participation data with actual corporate audit results under the CSRD to statistically verify whether active involvement in platforms like the IRDO CSO network correlates with fewer non-compliance flags and lower costs in external non-financial auditing.
- **Comparative Cross-Border Analysis:** Executing joint comparative studies between the IRDO CSO network in Slovenia and other emerging regional CSO networks within the European Union (e.g., in neighbouring Croatia, Austria, or Italy) to isolate country-specific economic variables from broader European regulatory effects.
- **Technological Integration (AI & Blockchain Governance):** Exploring how the upcoming integration of Artificial Intelligence and decentralized ledgers (Blockchain) for automated ESRS data collection impacts the role of the CSO, specifically evaluating if automation diminishes or enhances the need for peer-to-peer knowledge networks.

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9 Stated Contributions & Conclusion

9.1 Theoretical and Practical Contributions

By integrating a cyber-systemic case study methodology with a historical program analysis, this research offers two distinct contributions:

1. **Theoretical:** It demonstrates the conceptual scalability of Stafford Beer's Viable System Model (VSM) from single corporate entities to multi-organizational, national-level professional knowledge networks, illuminating how cybernetic attenuation and amplification operate in regional socio-technical systems.
2. **Practical:** It yields an objective diagnostic framework for Slovenian policymakers, institutional leaders, and ESG practitioners to analyse operational silos, minimize administrative compliance friction, and evaluate structural European sustainability framework alignment.

9.2 Conclusion

The "IRDO CSO – Slovenian Network of Sustainability Managers" represents a structural link in Slovenia's ongoing transition toward a sustainable, socially responsible society. Built upon a framework that dates to the establishment of the original IRDO institutional member platform in March 2008, this specialized CSO expansion bridges professional capacity building with a cyber-systemic peer network. It provides a localized framework for analysing corporate accountability, supporting ESRS reporting compliance, and exploring sustainable governance models.

The growth of the IRDO certification infrastructure up to 2026 demonstrates that individual corporate training can be evaluated alongside an ongoing, formalized professional ecosystem. While early pilot feedback suggests favourable tendencies regarding compliance velocity and boardroom placement, confirming these impacts requires the execution of the longitudinal research agenda outlined herein. Ultimately, the cyber-systemic structure of the IRDO CSO ecosystem provides an important regional case study for small European economies looking to balance complex transnational regulations with high-agility local networks.

References

- Ashby, W. R. (1956). *An introduction to cybernetics*. Chapman & Hall.
- Beer, S. (1985). *Diagnosing the system for organizations*. John Wiley & Sons.
- CER – Partnership for a Sustainable Economy. (2026). *The largest sustainable business network in Slovenia*. CER-SLO.
- CSO Futures. (2026). *CSO Futures sustainability leaders community application and benefits*. CSO Futures.
- CSO Network. (2026). *Chief Sustainability Officers Network UAE*. CSO Network UAE.
- CSR Europe. (2025). *Better regulation for stronger implementation: The CSO perspective*. CSR Europe European Chief Sustainability Officer Network.
- Ekvilib Institute. (2026). *Corporate social responsibility and the Network for Social Responsibility of Slovenia*. Ekvilib.
- European Commission. (2025). *General report on the activities of the European Union 2024*. European Union Publications Office.
- Fit media. (2026). *Green Network of Slovenia (Zeleno omrežje Slovenije): Knowledge and practice of the green transition*. Fitmedia.
- Hrast, A., & Perko, I. (Eds.). (2026). *Innovative, sustainable & socially responsible society 2026: Sustainability management in organisations. Proceedings of the 21st IRDO International Conference*. IRDO Institute for the Development of Social Responsibility.

IRDO – Institute for the Development of Social Responsibility. (2026a). IRDO CSO – Slovenska mreža managerjev za trajnostnost, pridružite se nam! IRDO.

IRDO – Institute for the Development of Social Responsibility. (2026b). V letu 2026 pridobite CERTIFIKAT Vodja za družbeno odgovornost in trajnostni razvoj podjetja (1. stopnja). IRDO.

IRDO – Institute for the Development of Social Responsibility. (2026c). Članstvo: V inštitutu IRDO od leta 2008 združujemo približno 100 članov ter več partnerskih organizacij. IRDO.

Mulej, M., Perko, I., & Hrast, A. (2020). Cyber-systemic aspects of corporate social responsibility and sustainability management. Systems Research and Behavioral Science, 37(4), 612–625.

Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.

The CSO Collective. (2026). The global platform for Chief Sustainability Officers: Advancing leadership and impact. CSO Collective.

World Economic Forum (WEF). (2026). Chief Sustainability Officers Community governance outlook. Geneva.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). Sage Publications.