



**Supervisor: Professor N. Assimakopoulos**

**CSAP Mastering Program  
Certification Project Presentation**

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# **Redefining the Viable Systems Model: A 21st Century Conceptual Expansion of the Role of Leadership in Organizational Viability**

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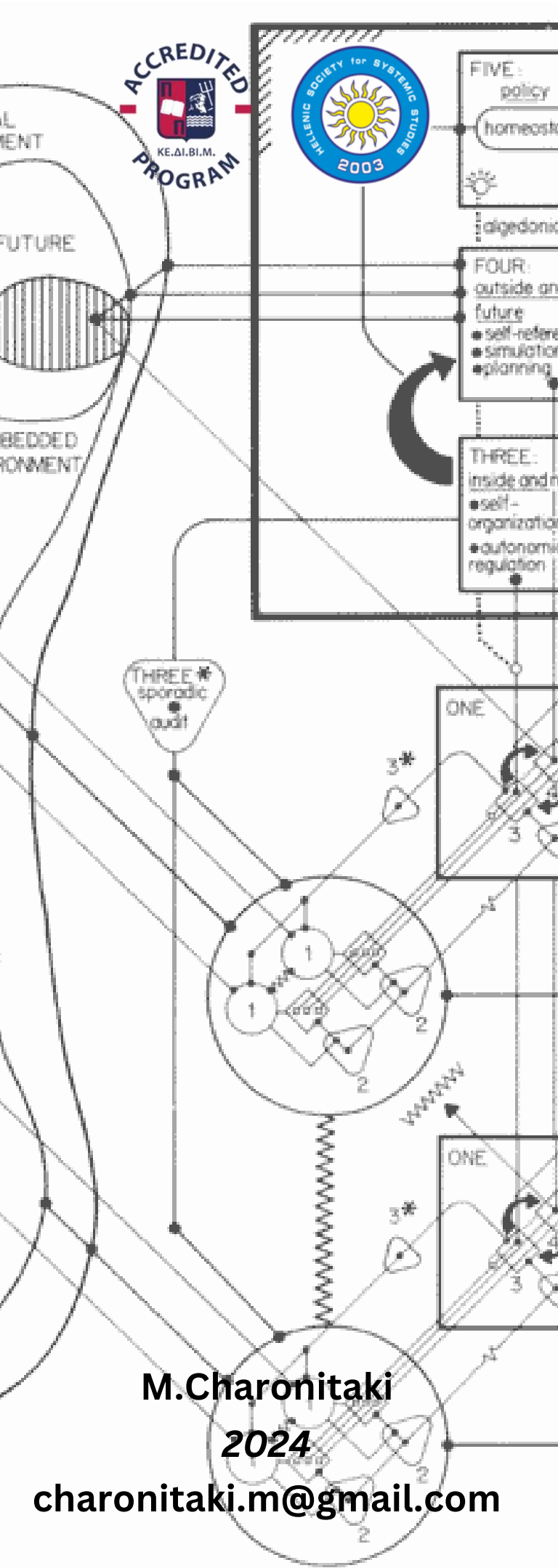
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M.Charonitaki

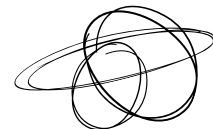
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# 1. Introduction

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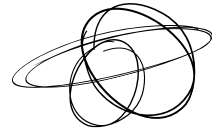
## ***Motives, Goals, Research Gap***

 The goal of every company in the 21st century is to achieve viability and survive the ever-growing competition

While complexity grows, technology advances, AI expands

Managing **humans** and understanding their **behavior** becomes necessary.

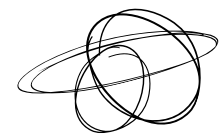
→ **Leadership & employee motivation** start playing an even bigger role in productivity, profitability and viability

 **Motive:** The VSM tool and its capabilities in diagnosing viability combined with the new needs of organizations in becoming more human-centric, **aligning** with daily operations

# 1. Introduction

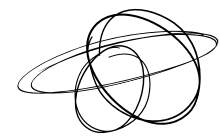
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*Motives, **Goals**, Research Gap*



## **The goal**

Specifically incorporating different leadership styles in the VSM, to later see how it can be enhanced to diagnose and allow organizations to become more viable, while focusing on human centric practices



## **The objective**

Prove that the combination of leadership, proper recruitment strategies and equal participation (through Structured Democratic Dialogue) can offer more potential for viability and success

# 1. Introduction

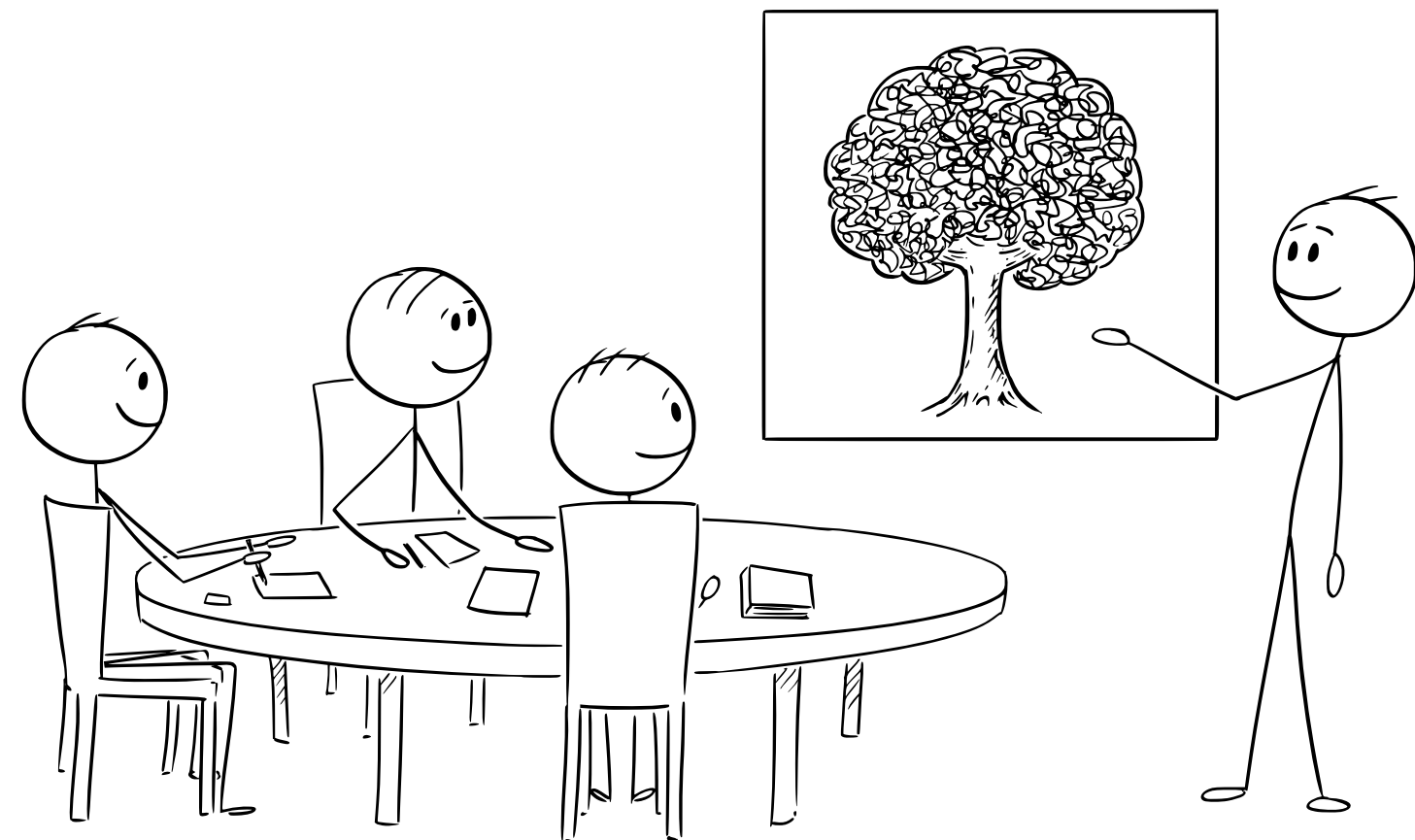
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*Motives, Goals, **Research Gap***



## The Gap

No one has yet combined the VSM with leadership specifically, allowing for the conceptual expansion of this framework

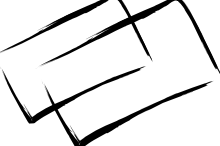
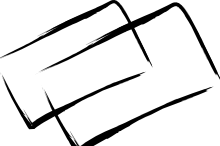
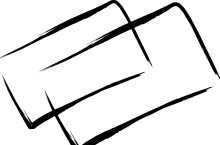
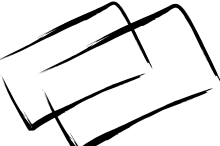


## 2. Research Scope

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*System in focus, Research Questions, Methods*

### Does leadership and human-centricity offer value in viability?

-  The study aims to explore integrating **leadership concepts** and styles into Stafford Beer's (1972) Viable Systems Model (VSM) to enhance adaptability and viability.
-  Showcase how leadership can promote **human-centricity** in alignment with **daily operations**, which will offer viability.
-  Establish the importance of proper **recruitment practices**, which promote both the **performance and motivation** of employees, but also the attraction of new candidates.
-  Understand how **Structured Democratic Dialogue** (SDD) can enhance human participation, inclusivity, decision-making and **viability**, due to dynamic innovation.

## 2. Research Scope

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*System in focus, Research Questions, Methods*

### ABC AI SOLUTIONS

- *Hypothetical company operating in the technology sector*
- *B2B AI solutions, HR platform services, AI cloud platforms, GEN AI solutions*

### Symptoms experienced

- *High Employee Turnover*
- *Customer Complaints*
- *New Employee Onboarding Issues*
- *Operational Inefficiencies*

*To properly study and diagnose a system in such a deep level to find the root cause, one either has to be hired as a consultant, already be part of the company, or somehow have access to information about the daily operations*

## 2. Research Scope

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*System in focus, **Research Questions**, Methods*

1

What is the significance of explicitly incorporating leadership into the VSM, rather than having its existence implied?

- **First Proposition:** The addition of leadership has a positive impact on the VSM methodology.

H0: No direct effect

H1: Not H0

## 2. Research Scope

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*System in focus, **Research Questions**, Methods*

**2** What is the relationship between leadership and recruitment methods in ensuring long term success in companies?

- **Second Proposition:** Systemic Leadership affects recruitment efficiency positively and therefore enhances viability

H0: No direct effect

H1: Not H0

- **Third Proposition:** Alignment of human centric practices and day-to-day activities can positively impact viability

H0: No direct effect

H1: Not H0

## 2. Research Scope

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*System in focus, **Research Questions**, Methods*



What is the importance of SDD in ameliorating employee motivation, and company reputation in companies, to enhance and optimize the process of making strategic decisions and becoming more human-centric and viable?

- **Fourth Proposition:** Higher SDD positively affects employee motivation, which in turn affects the human-centricity of the company.

H0: No direct effect

H1: Not H0

## 2. Research Scope

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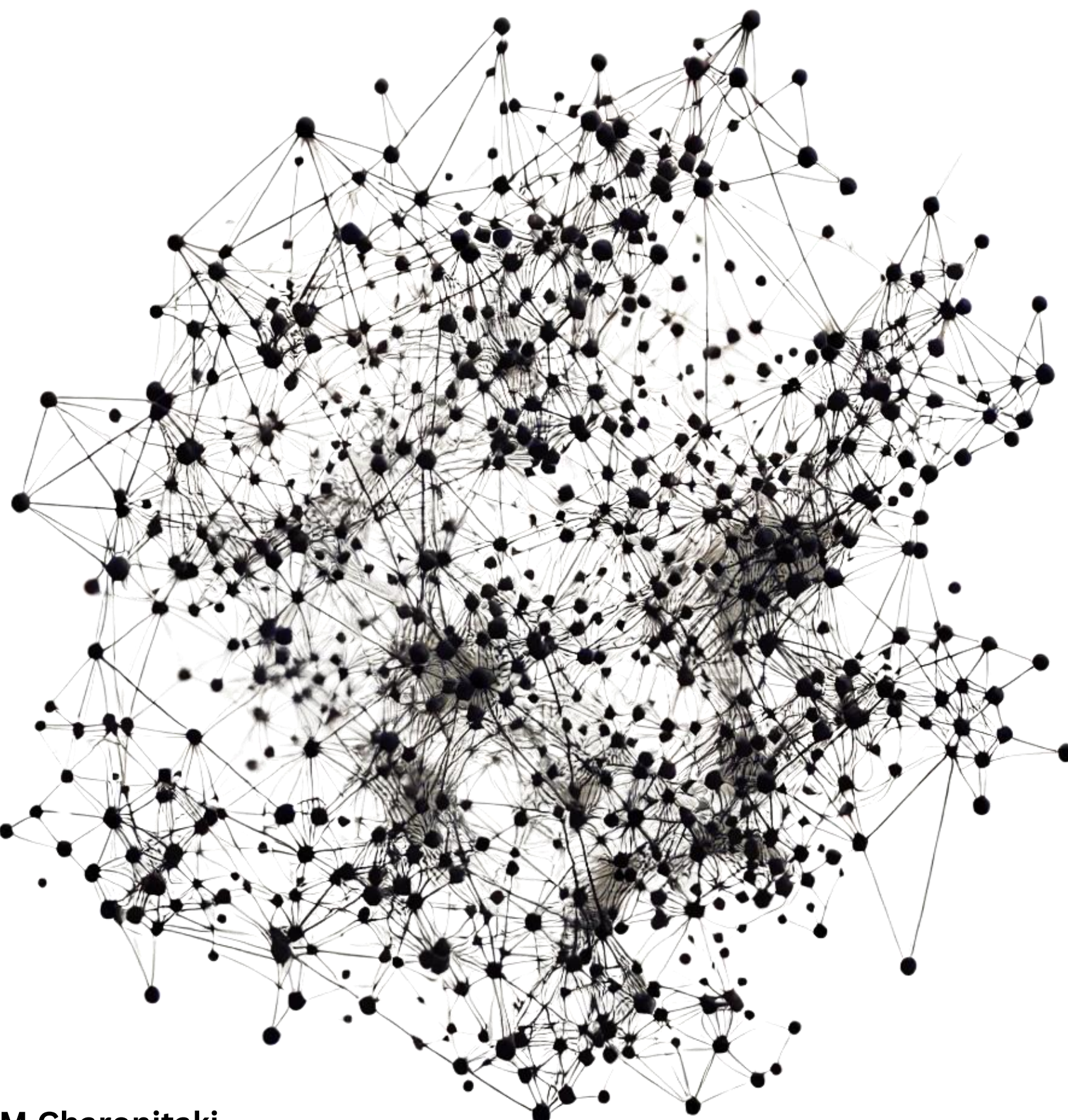
*System in focus, Research Questions, **Methods***

**Research method**: Hybrid Conceptual and Theoretical framework

**DCSYM**: Used to visualize the framework expansion and the way we may visualize leadership initiatives within the company, while solving its current problems and providing solutions, which overlook towards viability.

**Vensim**: By means of dynamic modeling, we can showcase the effect of leadership and SDD in recruitment practices, employee motivation and human centric approaches, again, overlooking towards system viability.

- The VSM is a tool to assess whether viability is even an option, not the solution



## 2. Literature Review

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*Systems Thinking, VSM, Leadership,  
Recruitment Strategies, SDD*

## 3. Literature Review

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### ***Systems Thinking, VSM, Leadership, Recruitment Strategies, SDD***

*Systems thinking is an approach that views organizations, ecosystems, and problems as interrelated, interconnected wholes rather than isolated parts (Ackoff, 1994).*

### **Benefits**

- **Holistic View:** *Enhances understanding of interconnected processes, critical for strategic decision-making and adaptability (Ackoff, 1999).*
- **Improved Problem-Solving:** *Enables managers to identify root causes and dependencies rather than just treating symptoms (Kim & Anderson, 2007).*
- **Adaptability and Resilience:** *Prepares organizations to adapt and thrive amid external changes and internal complexities (von Bertalanffy, 1950).*
- **System Dynamics:** *Recognizes feedback loops, stocks, flows, and time delays, essential for understanding behavior over time and for effective planning (Forrester, 1971).*

## 3. Literature Review

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Systems Thinking, **VSM**, Leadership, Recruitment Strategies, SDD

*The Viable System Model (VSM) is a framework created by Stafford Beer (1972a, 1984) rooted in cybernetics, aimed at understanding and structuring organizations as adaptive, self-sustaining systems. The VSM identifies the essential organizational subsystems that interact to maintain an organization's viability, meaning its ability to sustain itself and adapt effectively within complex, dynamic environments.*

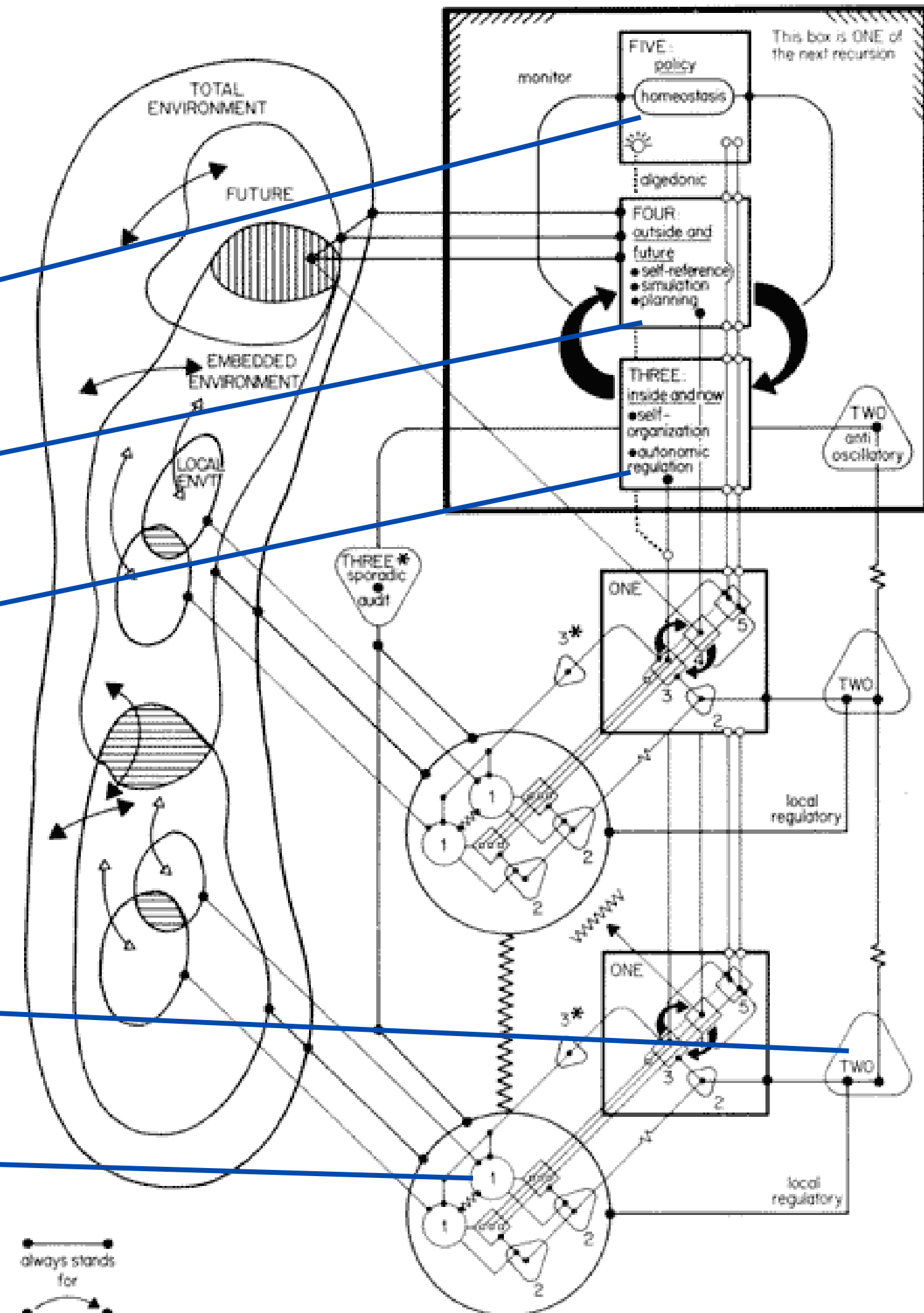
- *System 1: Operations*
- *System 2: Co-ordination*
- *System 3: Control \* Auditing*
- *System 4: Development/Intelligence*
- *System 5: Values/Culture/Policy*

**Recursion:** hierarchical, repeating pattern. Each viable system is composed of smaller, similarly viable systems that follow the same structure and principles as the overall system.

# 3. Literature Review

Systems Thinking, **VSM**, Leadership, Recruitment Strategies, SDD

- System 5
- System 4
- System 3
- System 2
- System 1



### 3. Literature Review

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*Systems Thinking, VSM, **Leadership, Recruitment Strategies**, SDD*



*Systemic Leadership: Combination of different leadership styles across an organization like **situational, transformational, transactional, visionary, or authentic***



***Why are recruitment strategies important?***

- They help ensure that hires match the organizational values and goals*
- They build resilience by bringing on in adaptable talent, enhancing system flexibility*
- Stabilize operations by lowering turnover, supporting steady daily functions*
- Boost employer brand, since fair practices attract quality candidates and improve reputation*
- Strengthen viability by supporting long-term system adaptability and growth*

## 3. Literature Review

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*Systems Thinking, VSM, Leadership, Recruitment Strategies, **SDD***



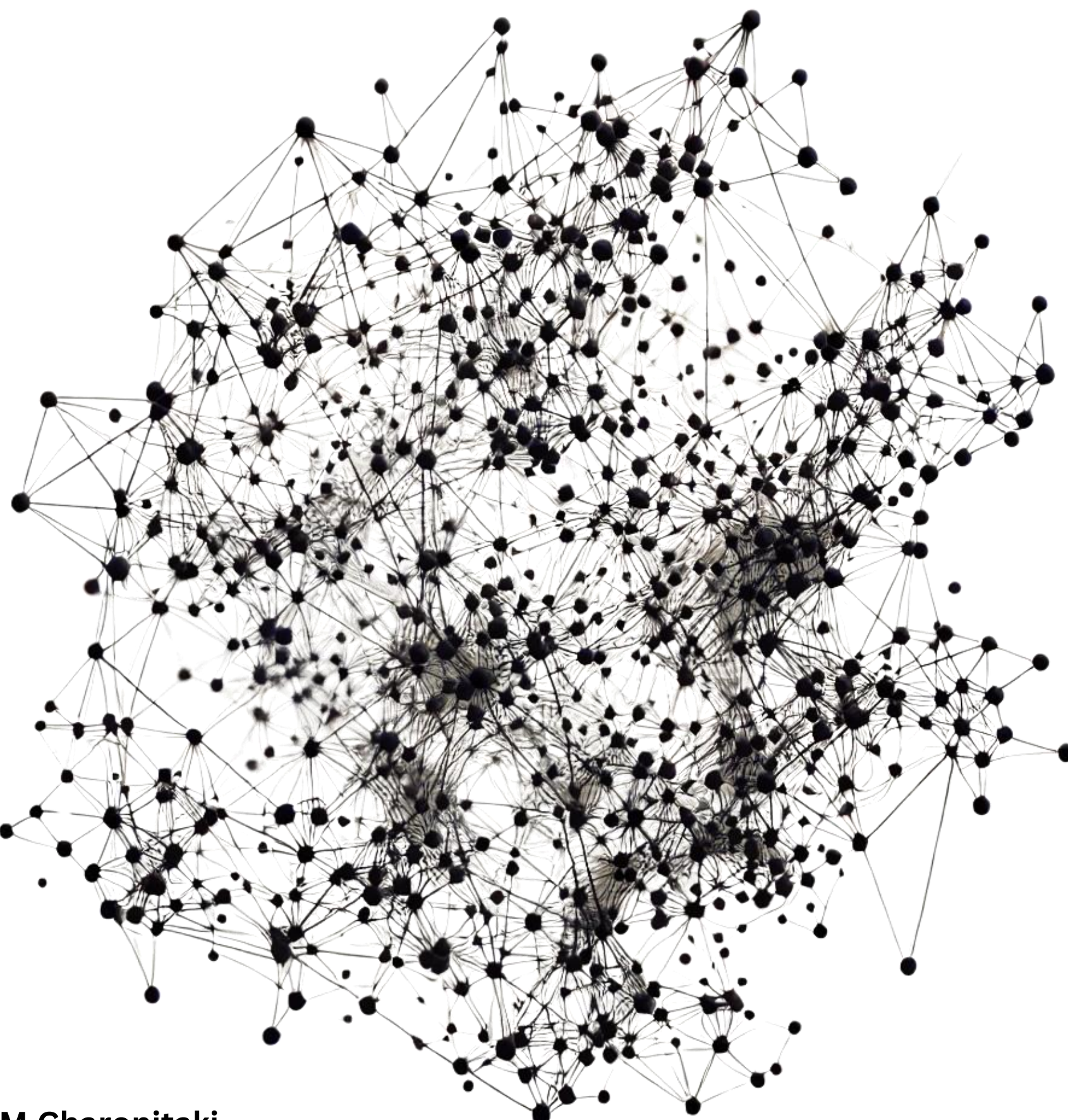
### **What is SDD**

*Structured Democratic Dialogue (SDD) is a collaborative, participatory method used to address complex, multi-stakeholder problems, helping groups of diverse individuals engage in productive dialogue and reach consensus (Christakis and Bausch, 2006; Laouris and Romm, 2021)..*



### **Why is SDD important?**

- Encourages inclusive participation, boosting motivation and job satisfaction.*
- Diverse perspectives, which lead to better decision-making and creative solutions.*
- Promotes transparency, trust, and collaboration within the team.*
- Enables the organization to adapt and respond effectively to changes or challenges, so the resilience is enhanced*
- Supports sustainable development by aligning employee goals with organizational objectives.*



## 4. Conceptual Framework

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*VSM Expansion*

## 4. Conceptual Framework

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### *VSM Expansion*

- The VSM methodology **implies** leadership within the viable system, but the concept of leadership has **evolved** significantly since its development.
- It's crucial for companies to understand and explore the latest leadership strategies and styles.
- The VSM needs to **adapt over time** to represent new challenges in the dynamic business world.

### *Variety requires variety (Ashby, 1956)*

- Incorporating different leadership levels and systems in the VSM adds **complexity and variety** to the methodology.
- The VSM is a **tool**, not a solution to problems.
- Expanding the framework to include diverse leadership styles and **human-centric** approaches allows for exploring additional capabilities while pursuing viability, competitiveness, and market innovation.

# 4. Conceptual Framework

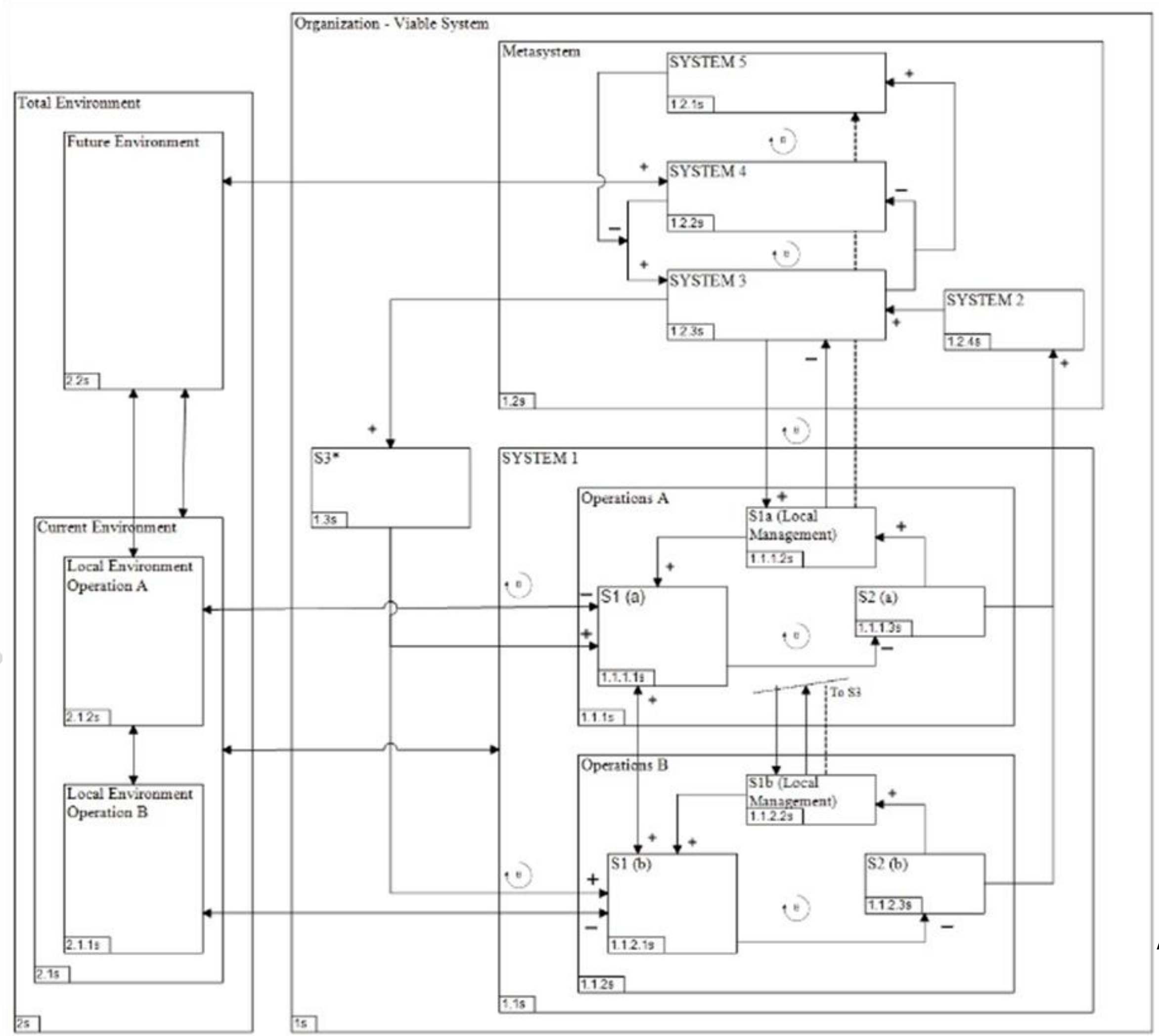
## *VSM Expansion*

<i>VSM Systems</i>	<i>VSM</i>	<i>Leadership Systems</i>	<i>Embedding Leadership</i>	<i>Benefits</i>
S1	Operations	L1	Operation management-Local Empowerment	Micromanagement avoidance, closeness with employees, immediate contact with the company vision/mission
S2	Co-ordination	L2	Facilitating conflict resolution	Healthier work environment, quicker conflict resolution, leaders can act as role models, implementation of authentic leadership can be beneficial
S3	Control	L3	Strategic Management, Agility, Transactional Leadership	Allows for quick adaptation, effective planning, and project scope adherence
S4	Development	L4	Transformational Leadership	Allows for a forward-thinking organization, with constant scenario testing or market penetration strategies
S5	Values	L5	Visionary Leadership, Organizational Culture, CSR	Adherence to corporate vision/values, ethical practices, corporate culture, and human-centric practices, through policies



# 4. Conceptual Framework

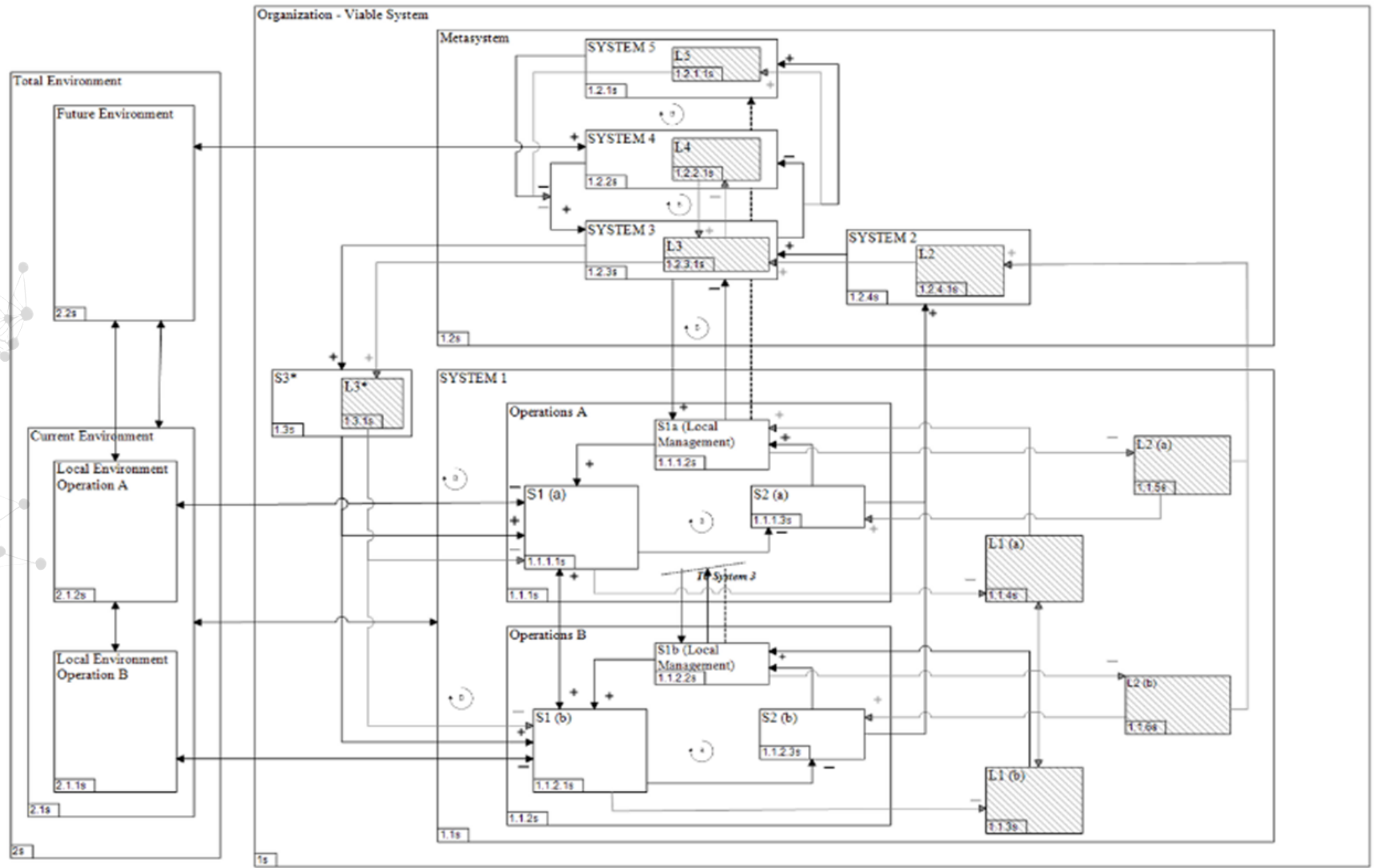
VSM Expansion

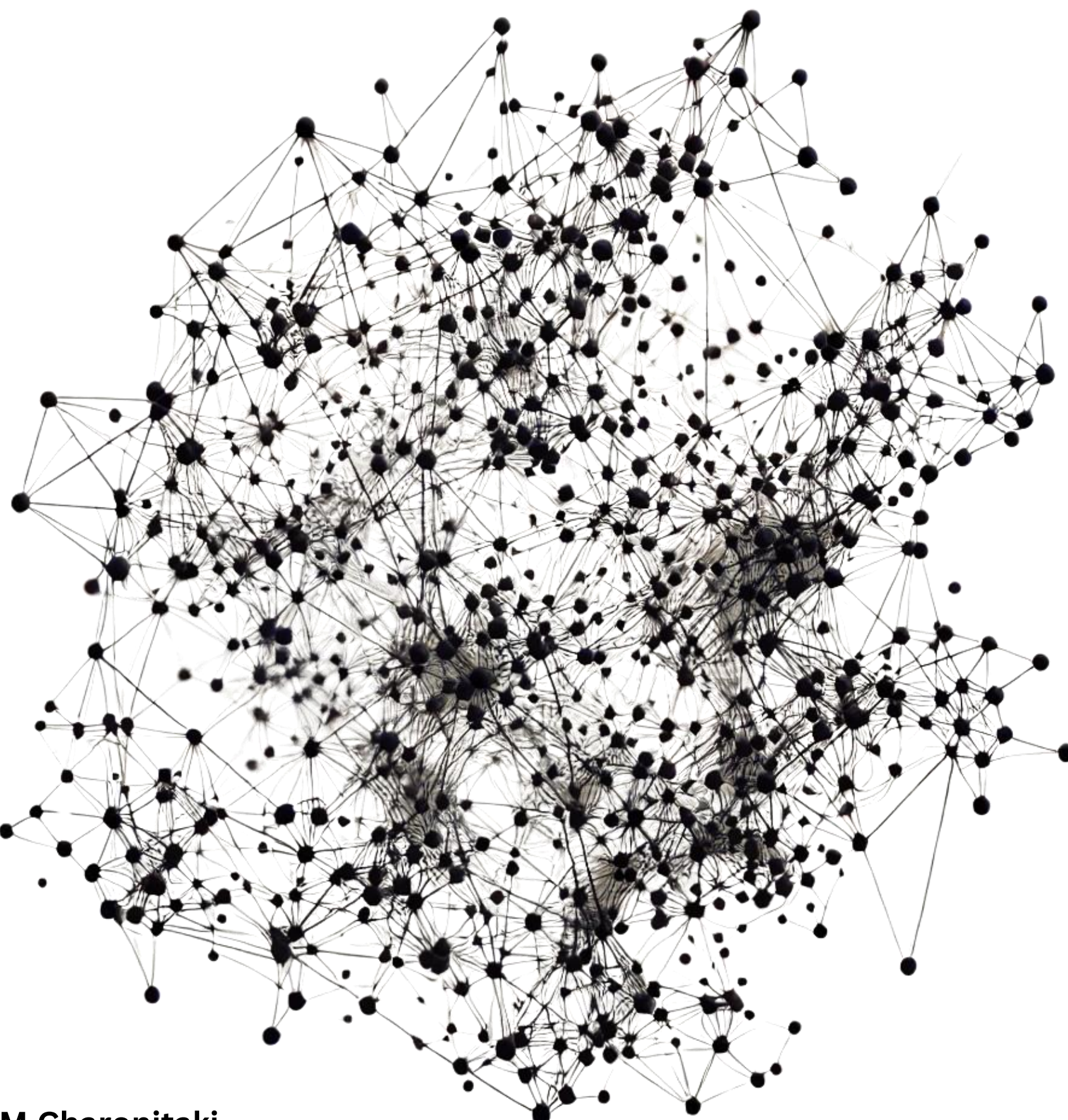


Adapted from Varsos and Assimakopoulos (2018)

# 4. Conceptual Framework

VSM Expansion





## 5. DCSYM

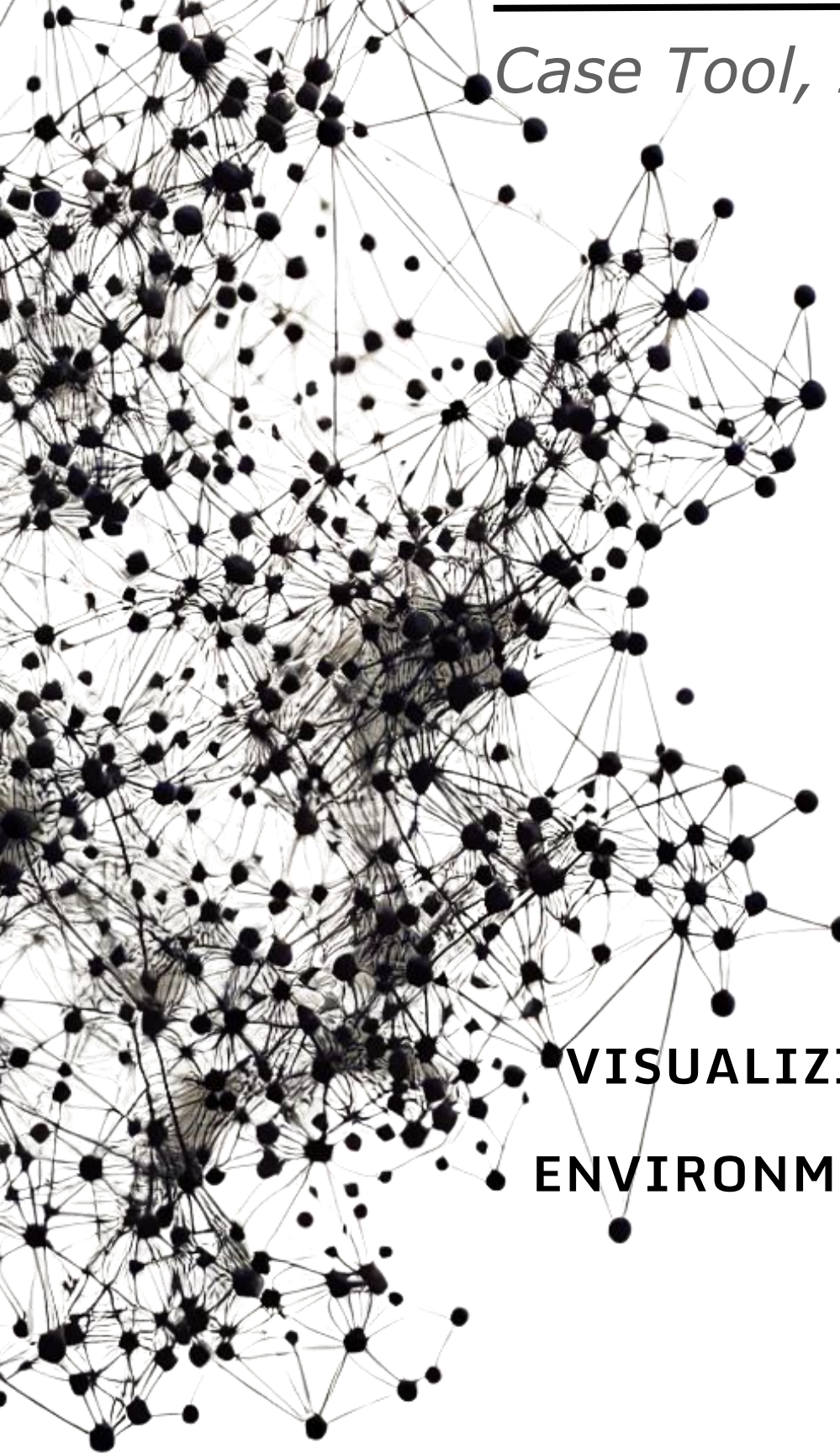
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*Case Tool, Implementation, Proposed Solutions*



# 5. DCSYM

*Case Tool, Implementation, Proposed Solutions*



VISUALIZING THE ENVIRONMENT

DYNAMIC PROPOSAL OF CHANGES

ANTHROPOCENTRIC FOCUS - PROCESS CENTRIC CHARACTER

VISUALIZING COMMUNICATIONS AND CONTROL

UNDERSTANDING THE ROOT OF THE PROBLEM

DCSYM CASE TOOL BENEFITS

## 5. DCSYM

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### *Case Tool, Implementation, Proposed Solutions*



#### ***Purpose:***

This study introduces a hypothetical case, "ABC AI Solutions," to explore how expanding the Viable Systems Model (VSM) with systemic leadership can improve organizational performance and viability.



#### ***Focus on Leadership***

By modeling specific issues due to ineffective leadership, the study illustrates how leadership can enhance communication, decision-making, and a human-centered approach in an organization.



#### ***Modeling Approach***

Using DCSYM, the study maps organizational structure, control, and communication quality across departments to diagnose issues and demonstrate the benefits of leadership on operations and employee engagement.

## 5. DCSYM

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### *Case Tool, Implementation, Proposed Solutions*



#### ***Company Profile***

"ABC AI Solutions" operates in AI solutions for B2B clients, focusing on HR services, cloud communications, and generative AI tools.



#### ***Symptoms of Leadership Gaps***

- High turnover and customer complaints due to unmet requirements, delivery delays, and poor client support.
- New employees report inadequate onboarding, lack of vision clarity, and insufficient career development.



#### ***Goal***

To uncover root causes of these problems and assess how systemic leadership can leverage high-impact areas to improve viability and stability.



# 5. DCSYM

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*Case Tool, Implementation, Proposed Solutions*

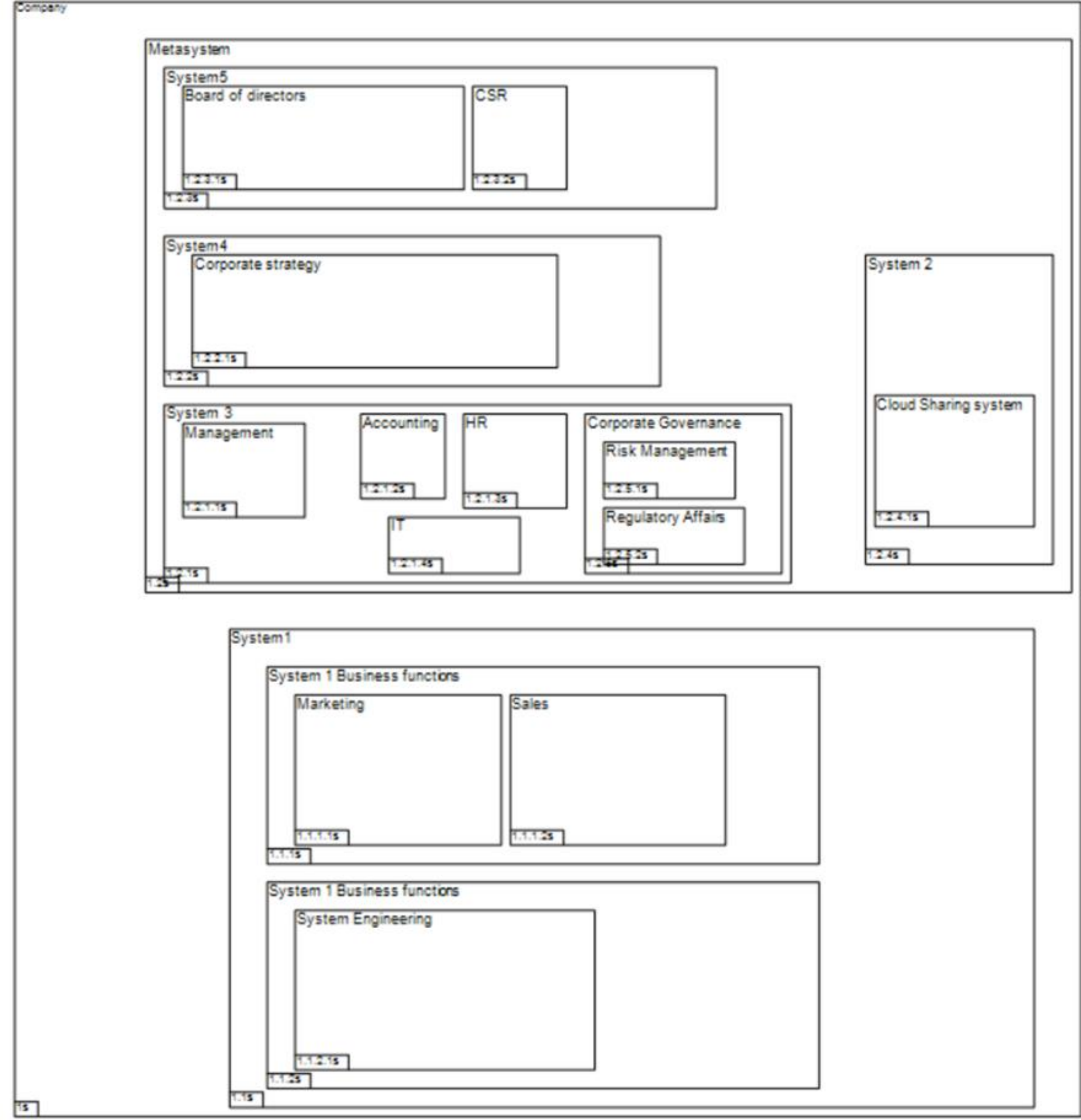
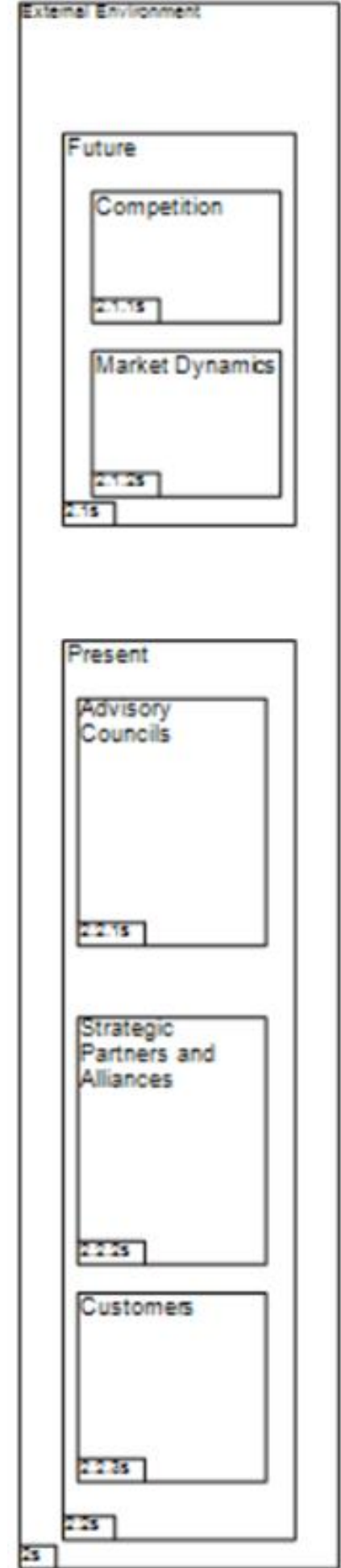
A complex network diagram consisting of numerous black nodes connected by thin black lines, forming a dense, interconnected web that tapers off towards the right.

***Current  
Situation***



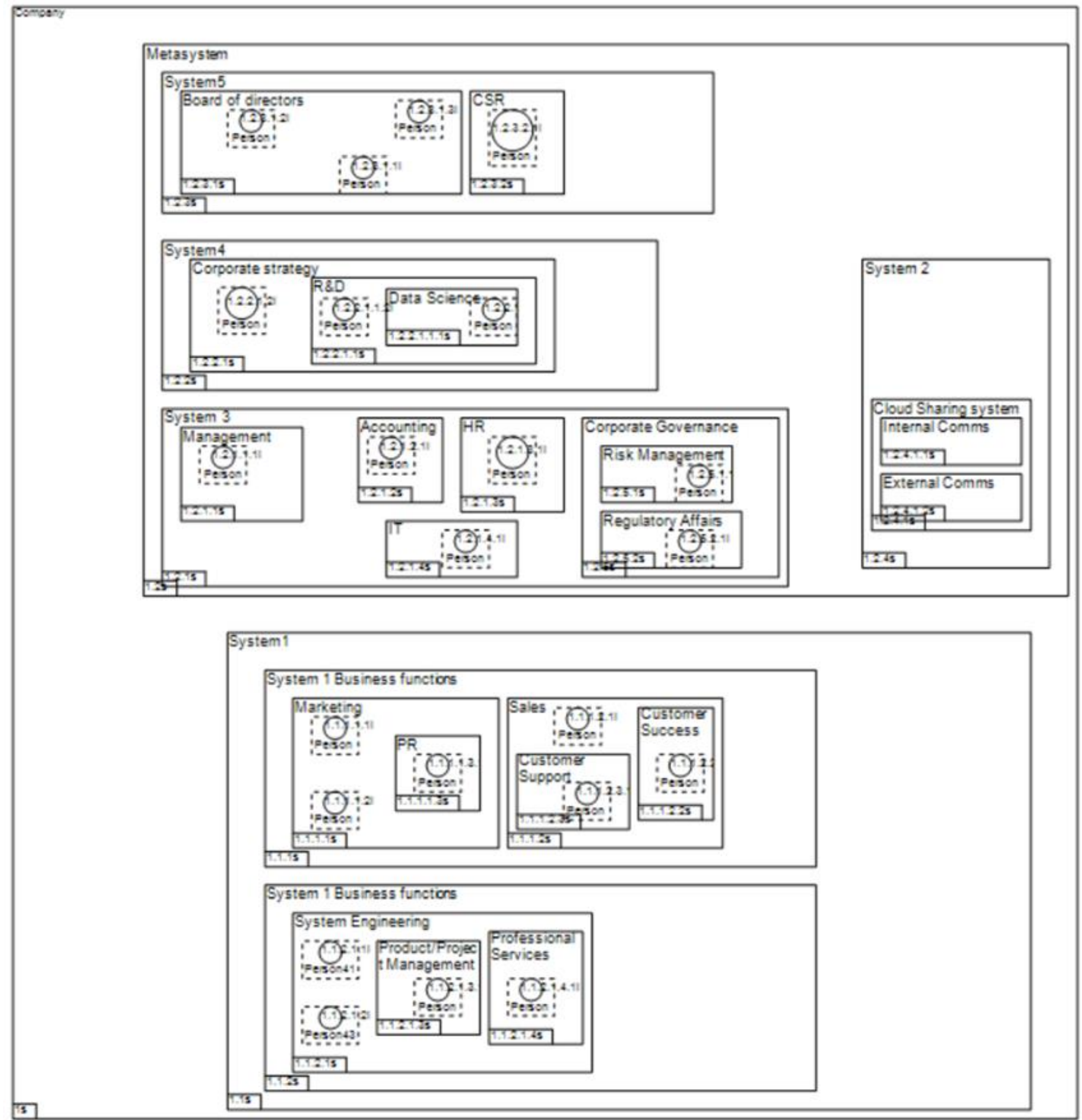
# 5. DCSYM

Case Tool, Implementation, Proposed Solutions



# 5. DCSYM

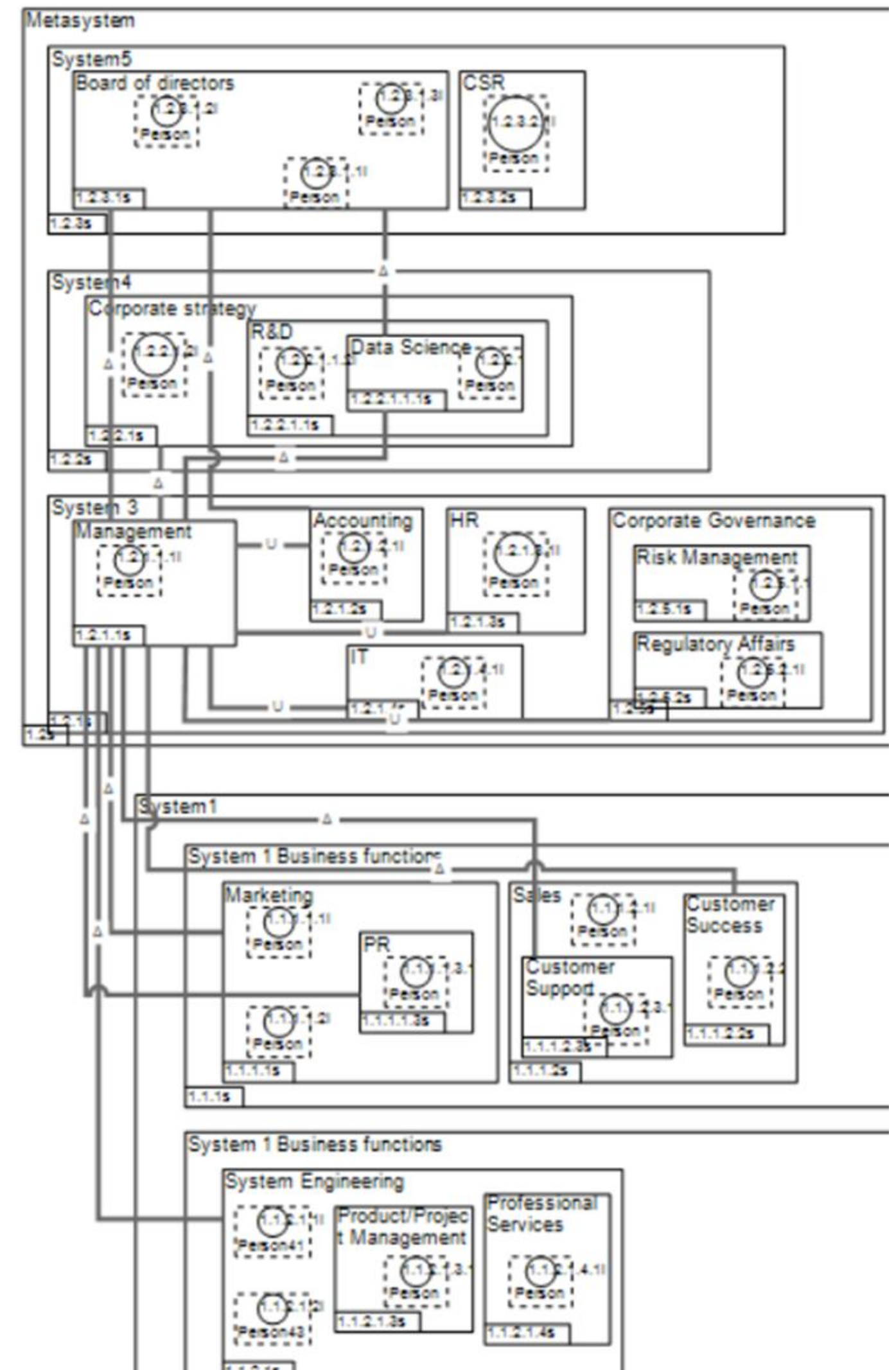
Case Tool, Implementation,  
Proposed Solutions



**Control:** Promotes Micromanagement. Micromanagement stifles innovation, motivation, and trust in individual skills (Delgado, Strauss and Ortega, 2015). This attitude may lead to reduced confidence and the perception that the task is a duty rather than a chance for growth.

**Nonexistent co-ordination**

**Lack of trust in System 1 and system 4 employees**

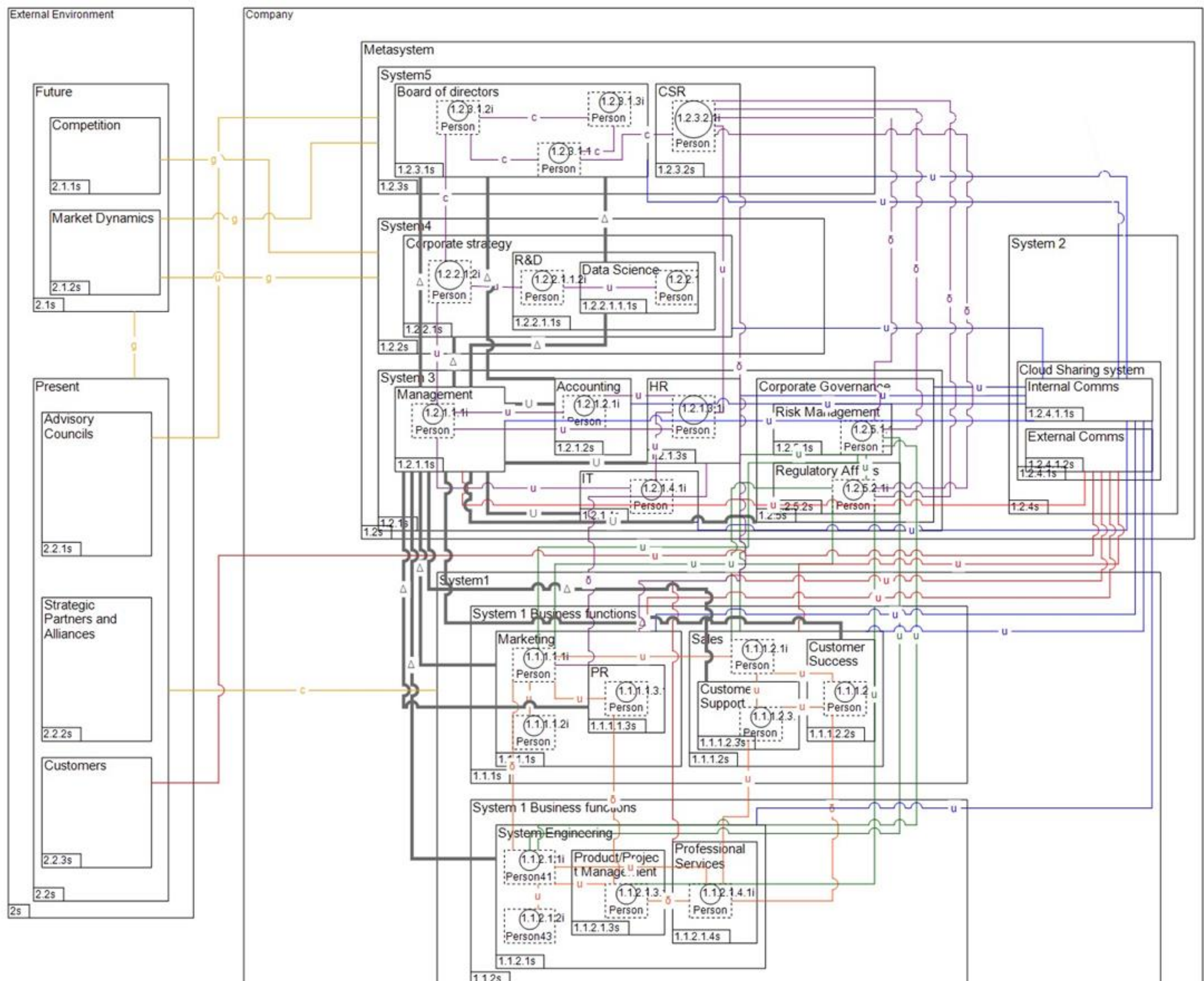




# 5. DCSYM

Case Tool, Implementation, Proposed Solutions

Whole company visualization (CS)





## 5. DCSYM

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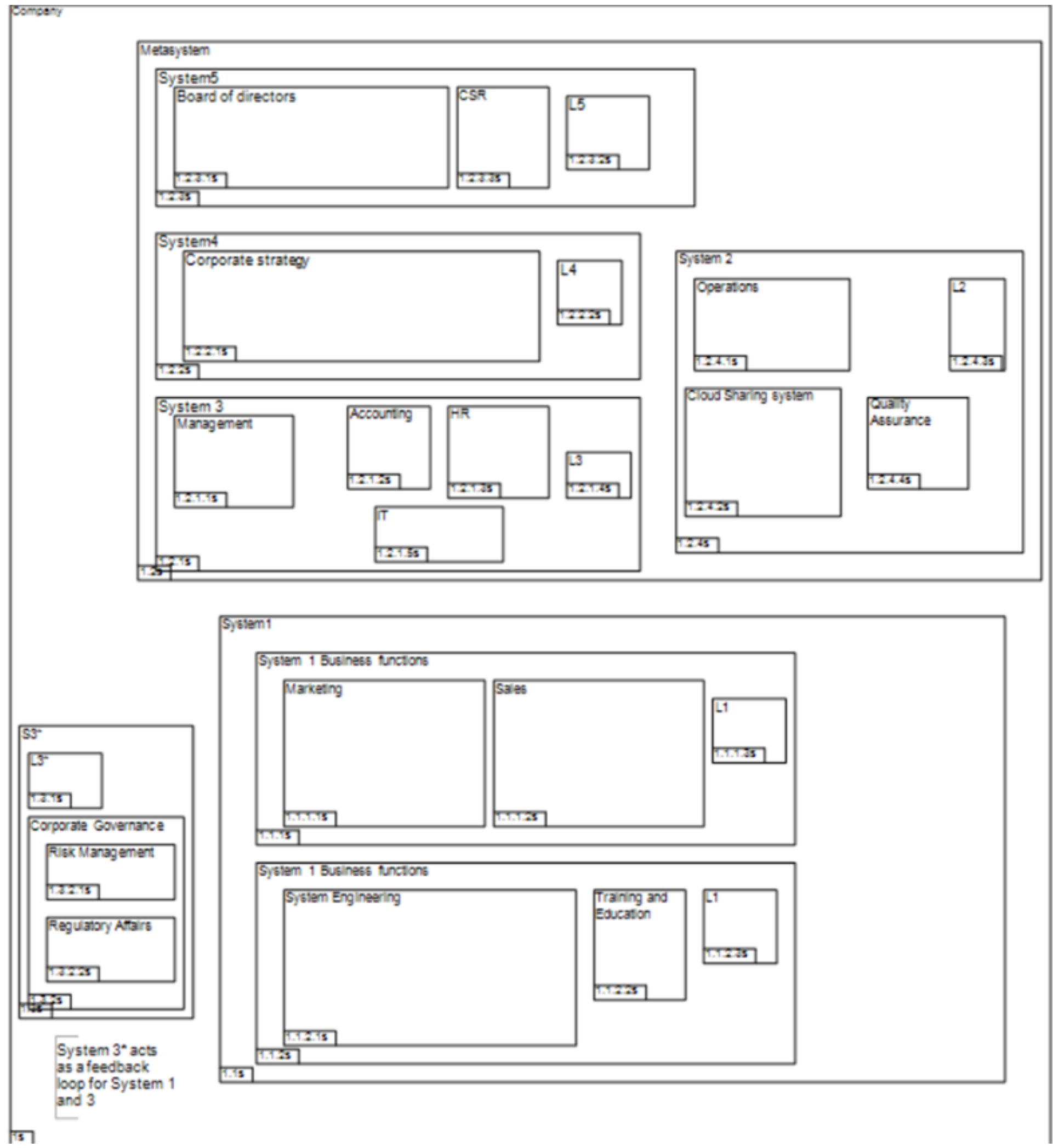
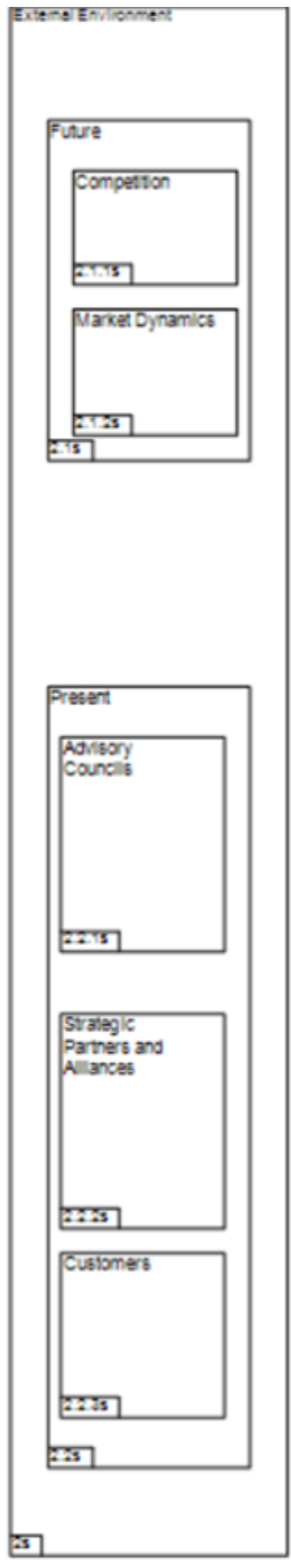
*Case Tool, Implementation, Proposed Solutions*

A complex network diagram consisting of numerous black nodes connected by thin black lines, forming a dense, interconnected web that tapers off towards the right.

***Proposed  
Solutions***

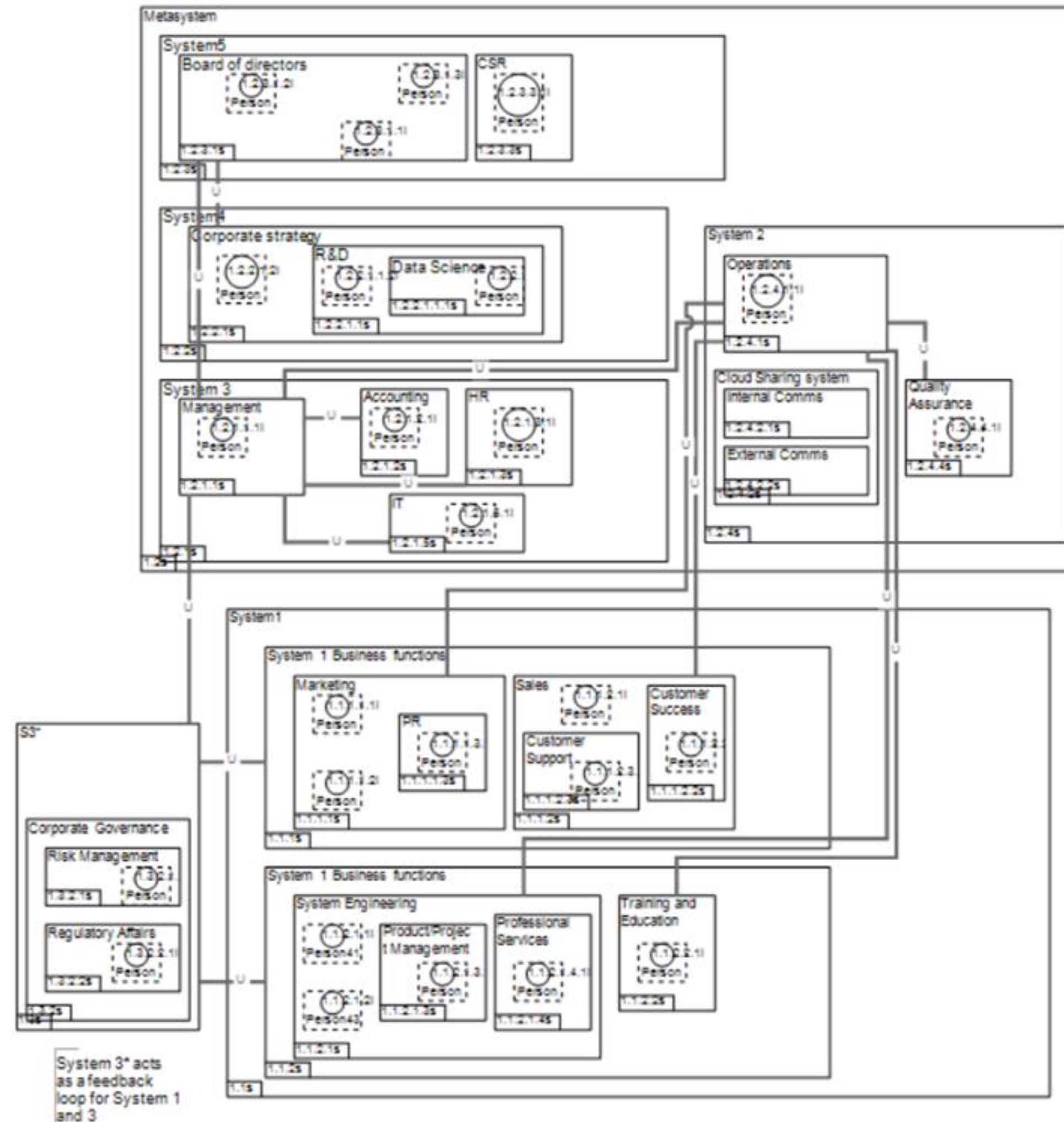
# 5. DCSYM

Case Tool, Implementation,  
Proposed Solutions



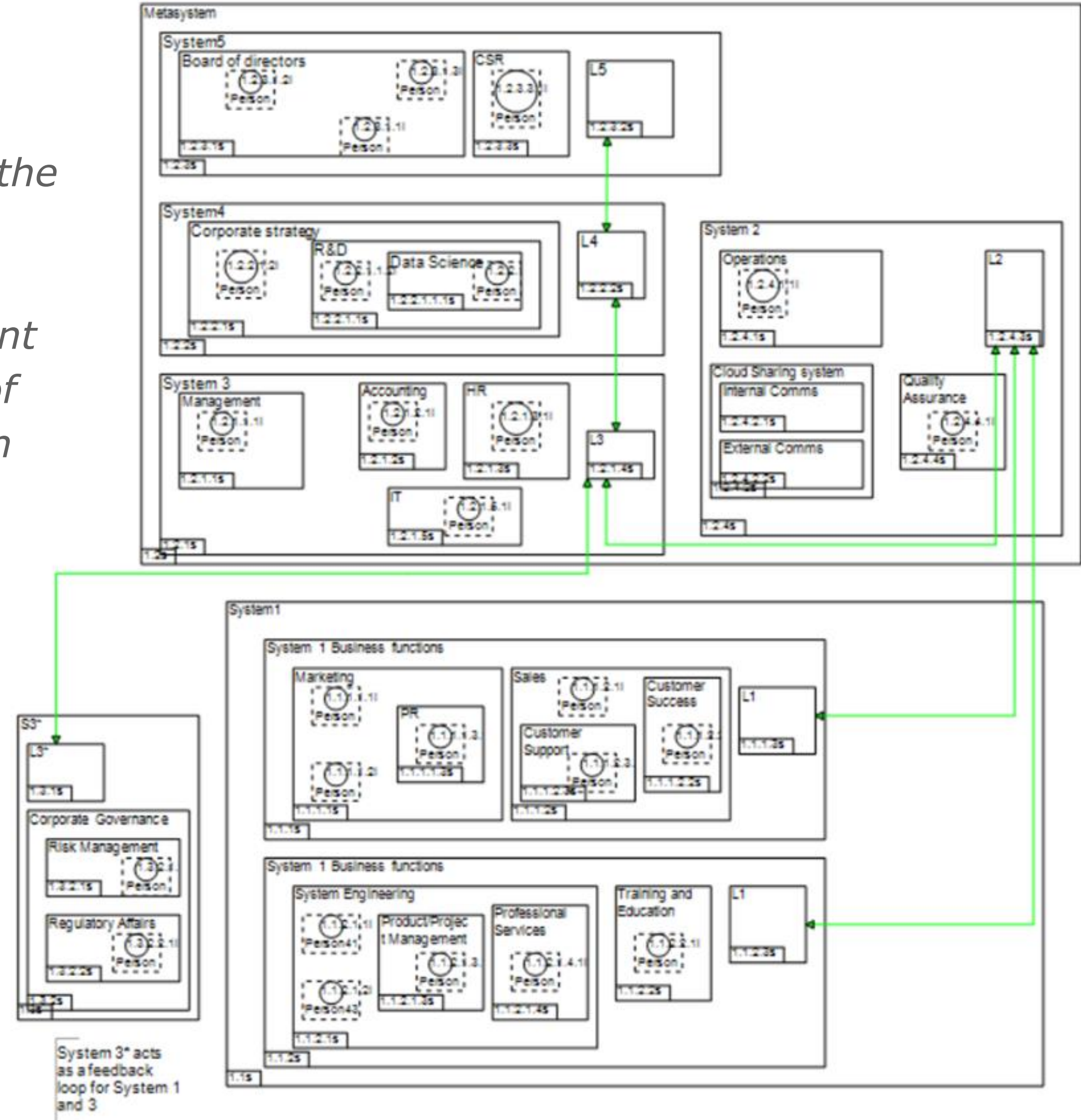
## Control:

- *Micromanagement is eliminated*
- *Operations function in System 2 helps distribute control across the company*
- *System 3\* is in charge of auditing*
- *System 4 (Corporate strategy and R&D) is free and trusted to innovate*



Leadership Levels across the organization

Implementation of different styles, but maintenance of the leadership **mindset** in every system

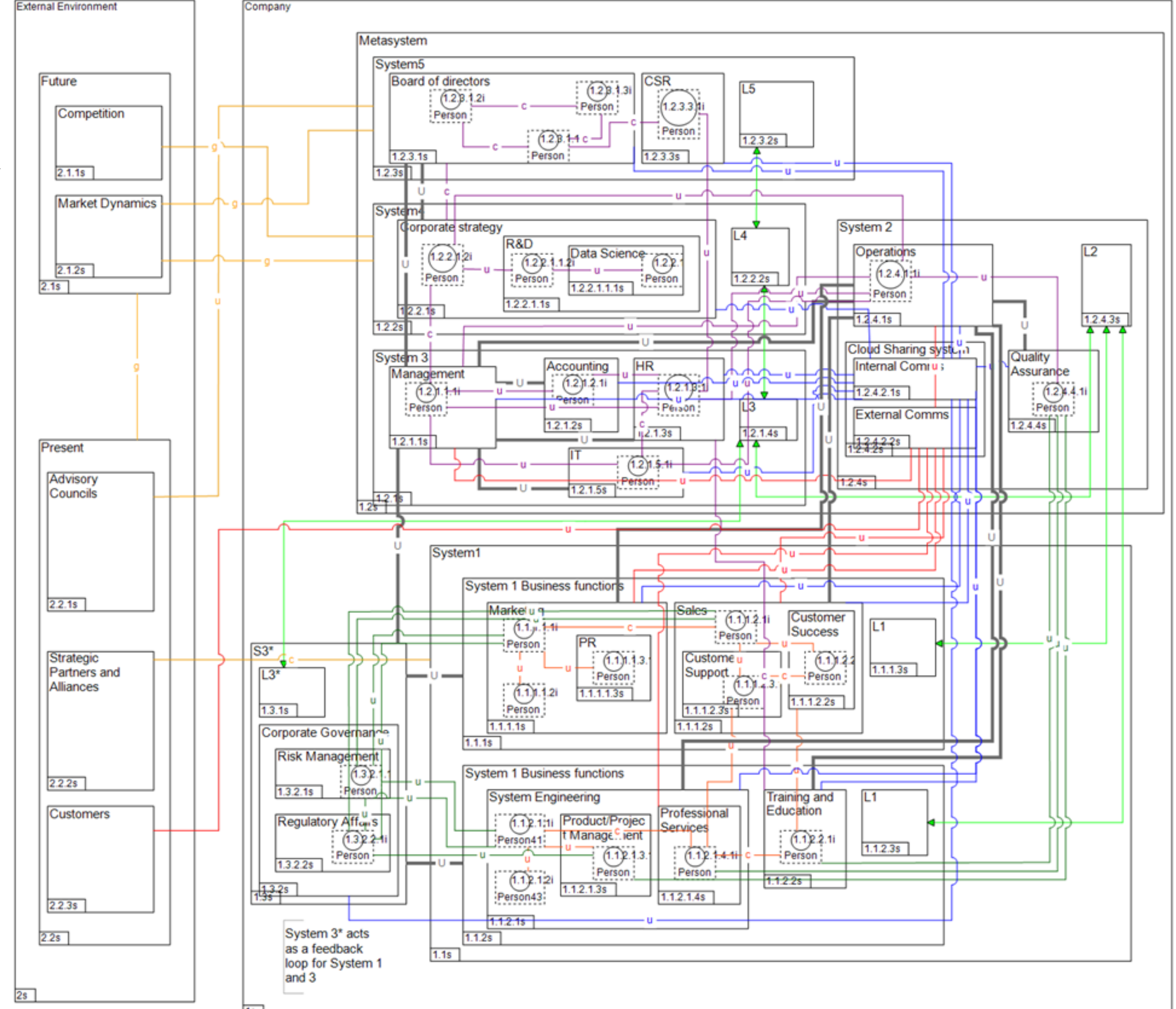




# 5. DCSYM

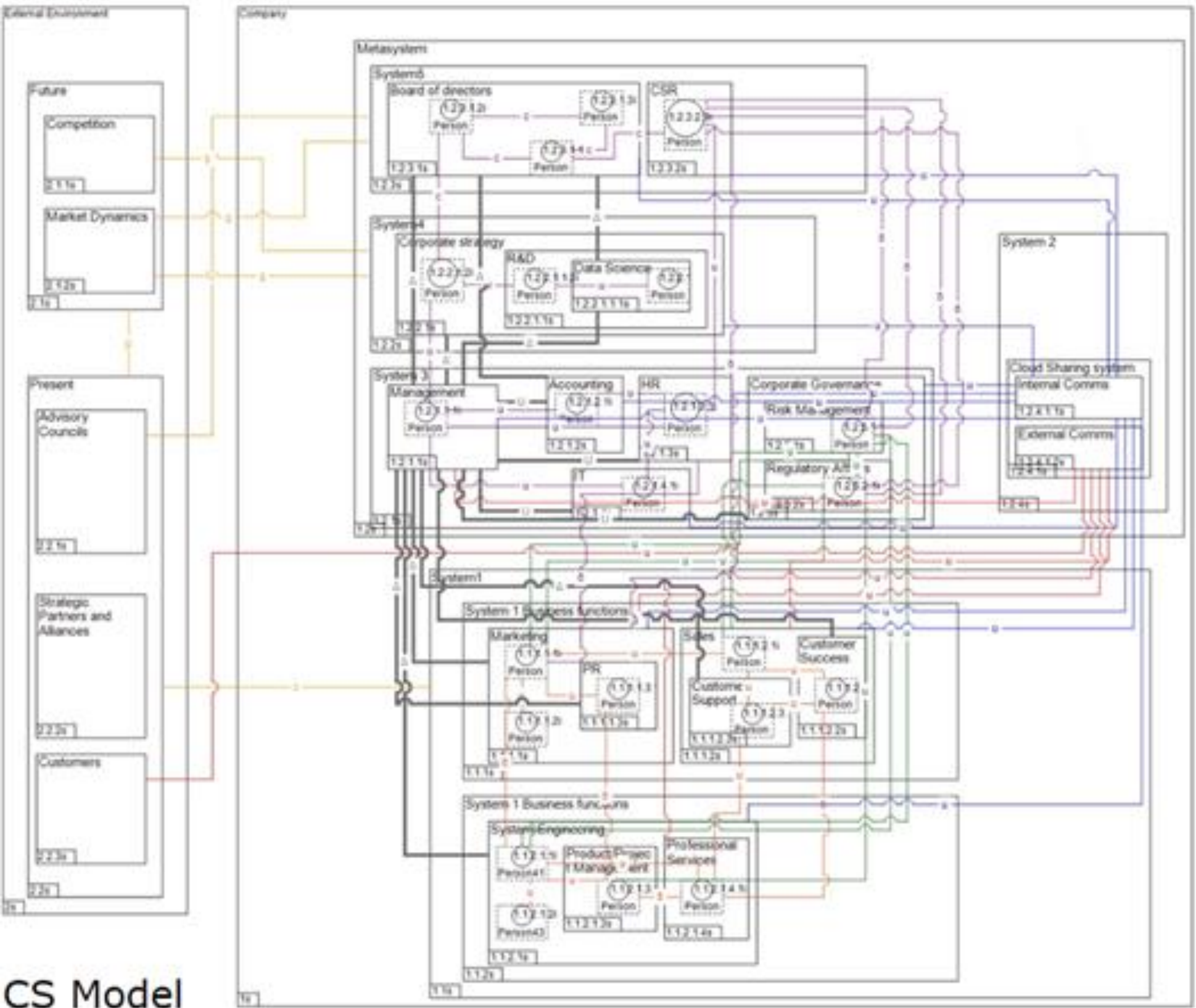
Case Tool, Implementation, Proposed Solutions

Whole company visualization (PS)

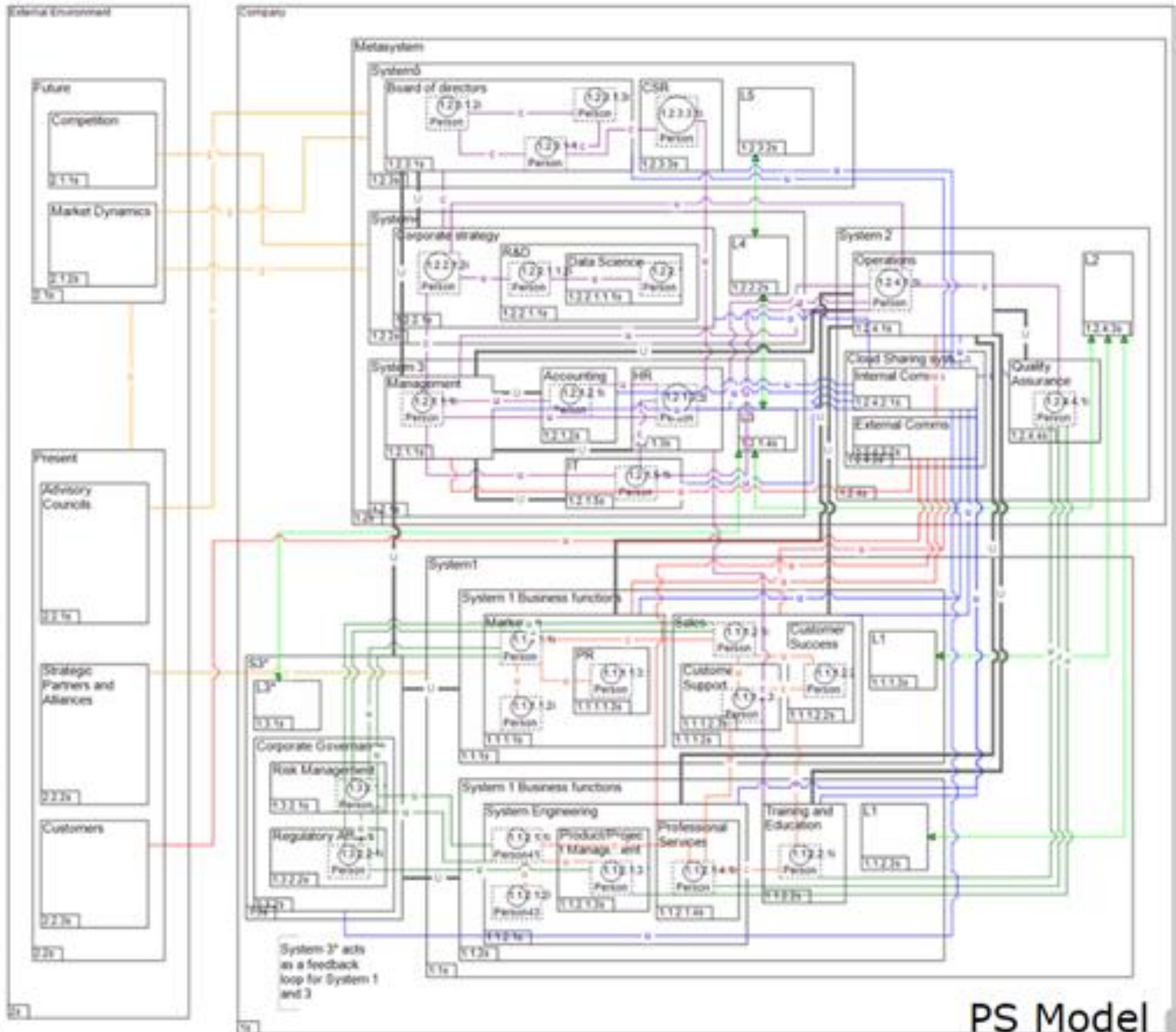


# 5. DCSYM

Case Tool, Implementation, Proposed Solutions



CS Model



PS Model

## 5. DCSYM

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*Case Tool, Implementation, Proposed Solutions*

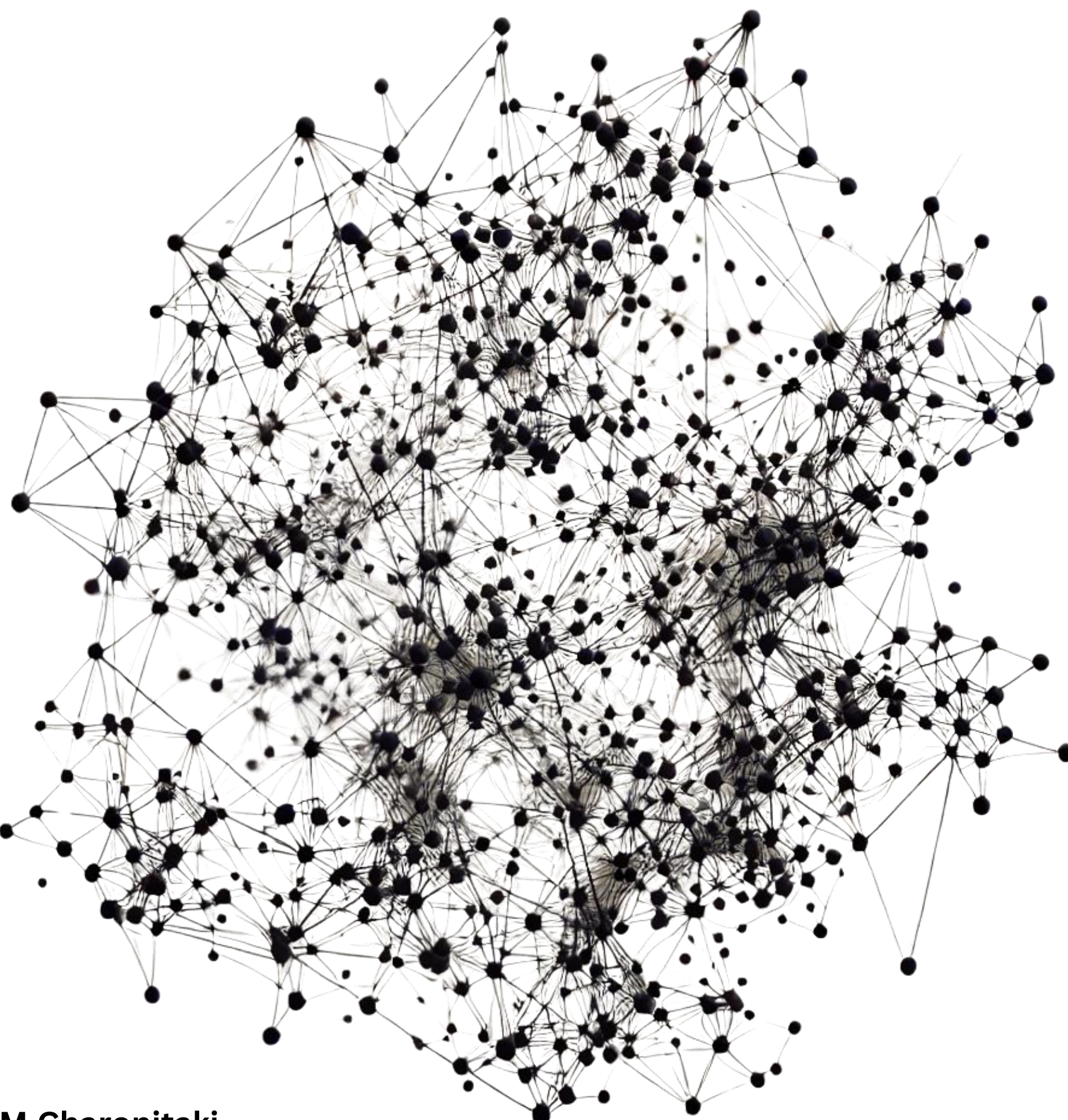
### Findings on Leadership's Role in VSM

#### ***Core Finding***

Incorporating leadership explicitly into the VSM aligns the model with modern business demands, by promoting a human-centered approach essential for viability in competitive markets. Additionally, it must align with operations needs too.

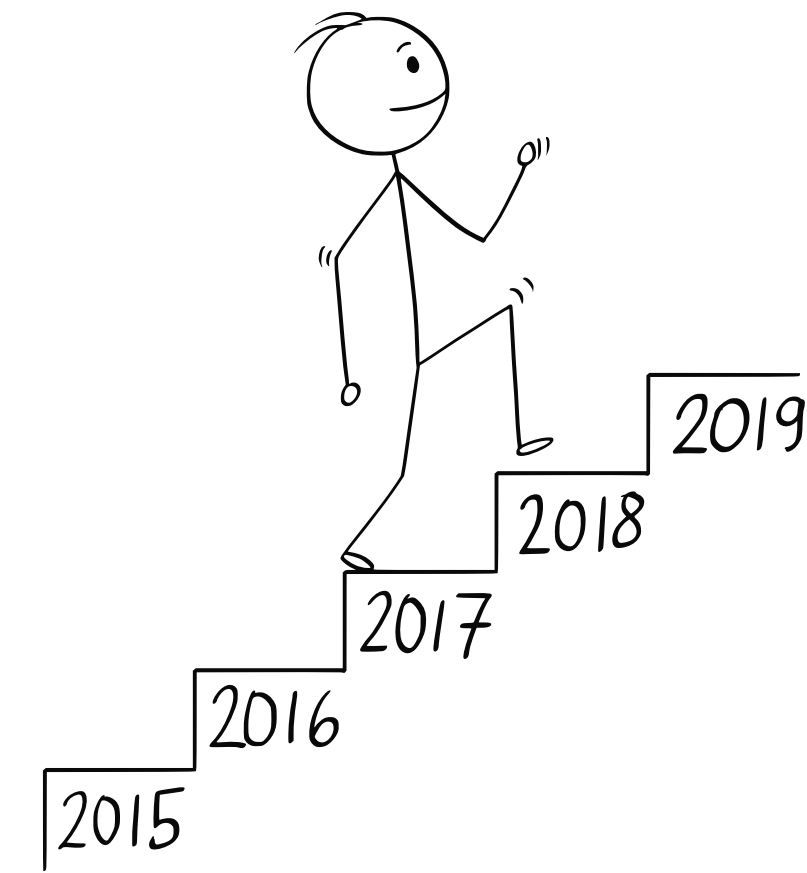
***Research Question 1: Examined the benefit of integrating leadership into VSM.***

- Conclusion: Strong positive impact on both human-centric operations and process optimization, confirming a beneficial correlation between leadership and VSM.
- Hypothesis Result: Rejected the null hypothesis (H0), supporting the idea that systemic leadership enhances VSM's relevance and adaptability.



## 6. Dynamic Modeling

*Model Development and Scenario Testing*

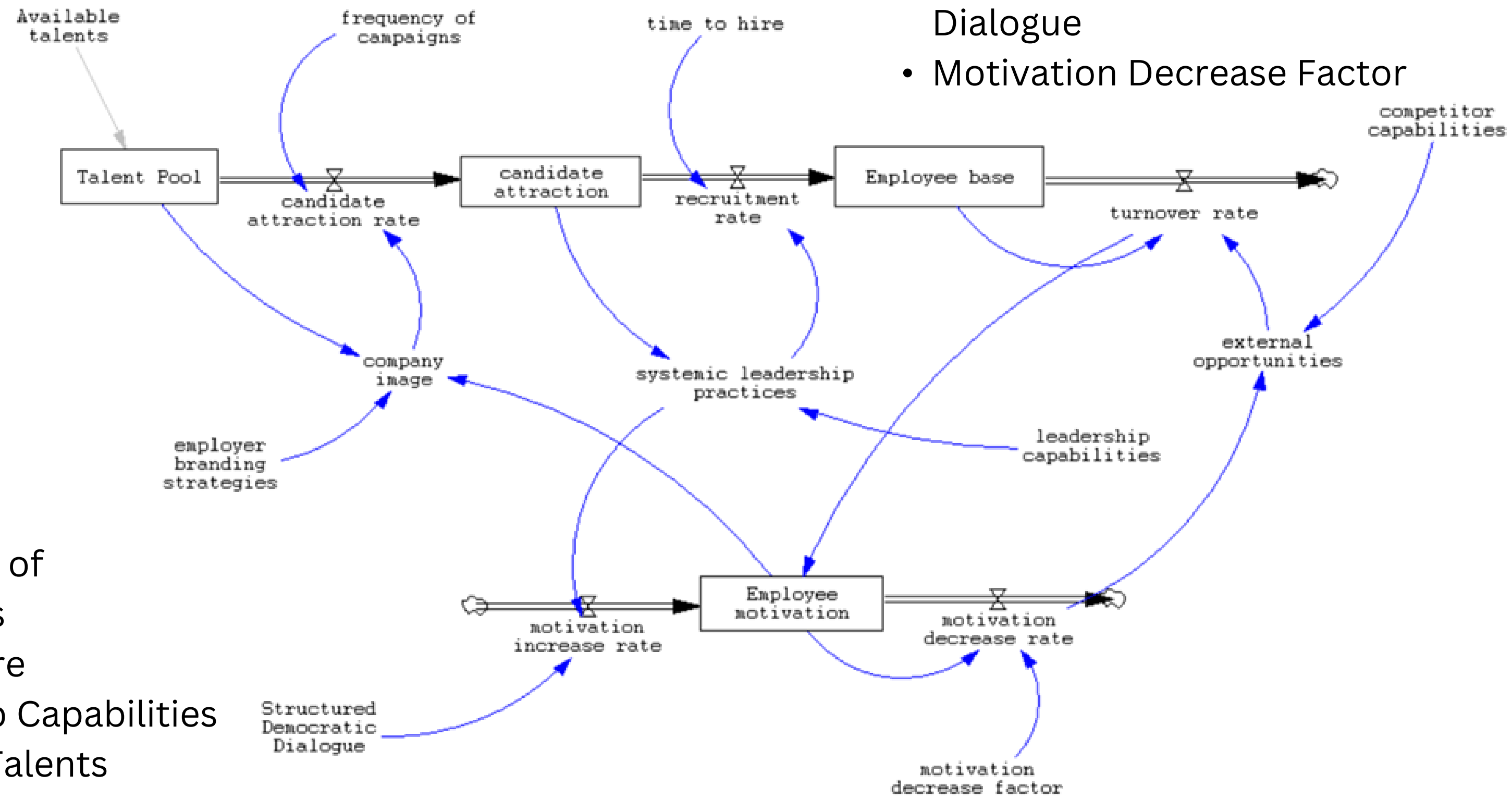


# 6. Dynamic Modeling

*Model Development and Scenario Testing*

## Parameters and final model

- Competitor Capabilities
- Employer Branding Strategies
- Structured Democratic Dialogue
- Motivation Decrease Factor



- Frequency of Campaigns
- Time to Hire
- Leadership Capabilities
- Available Talents

# 6. Dynamic Modeling

Model Development and Scenario Testing

## Dynamic Simulation

This chapter presents a dynamic simulation model to explore four scenarios, each demonstrating different outcomes based on variations in leadership, recruitment, and adaptability within a hypothetical organization.

# 6. Dynamic Modeling

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## *Model Development and Scenario Testing*

### *Scenarios Examined:*

**1. Human-Centric Practices with Unreliable Recruitment:** Limited human-centric practices are in place, but a lack of reliability in candidate selection creates fear and uncertainty, hindering stability.

**2. Enhanced Leadership and SDD, but Ignoring Competition:** Improvements in leadership, SDD, and recruiting help employer branding, yet the model disregards competitive market factors, affecting viability.

**3. Balanced Leadership, SDD, and Market Awareness:** Strong leadership and employee satisfaction work in tandem with SDD, effective daily operations, and awareness of market needs. This scenario emphasizes adaptability and continuous change as key to sustained viability.

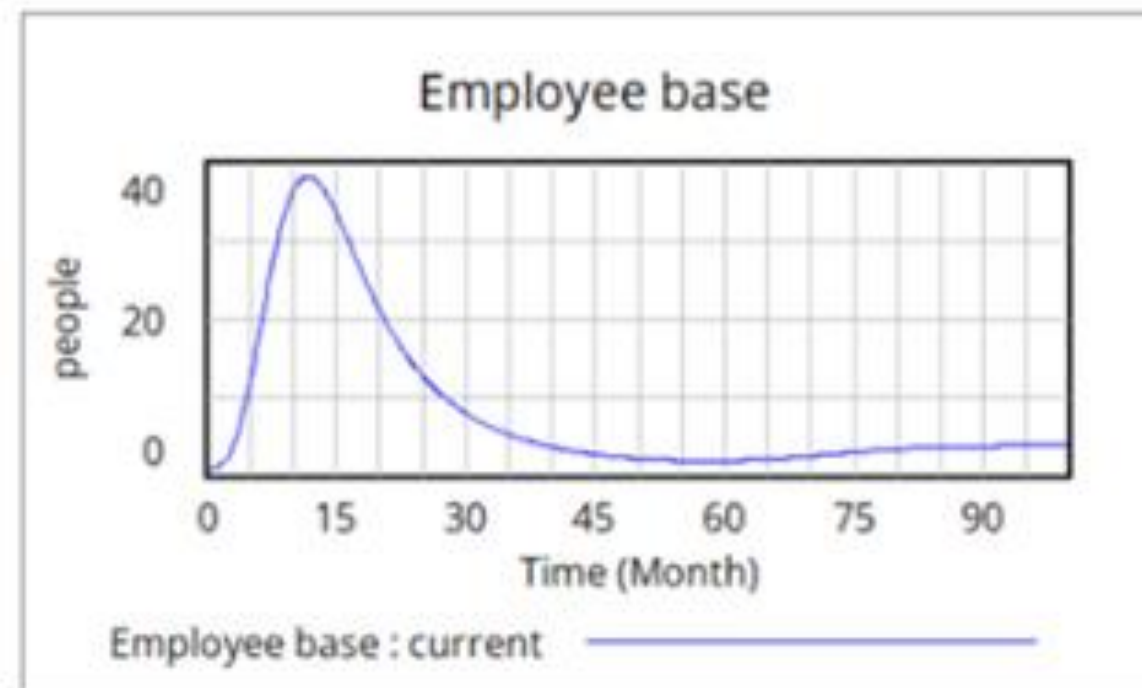
**4. Systemic Leadership Alone:** Relying solely on systemic leadership shows that while leadership is crucial, it cannot sustain viability alone without human-centric practices and adaptable strategies.

# 6. Dynamic Modeling

## Model Development and Scenario Testing

### Dynamic Modelling - Scenario 1: Uncertainty and Fear

Parameters	Scenario 1
Available Talents	450
Frequency of campaigns	2
Time to hire	5
Employer Branding Strategies	0.03
Leadership capabilities	0.33
Structured democratic dialogue	0.11
Motivation decrease factor	0.15
Competitor capabilities	0.15

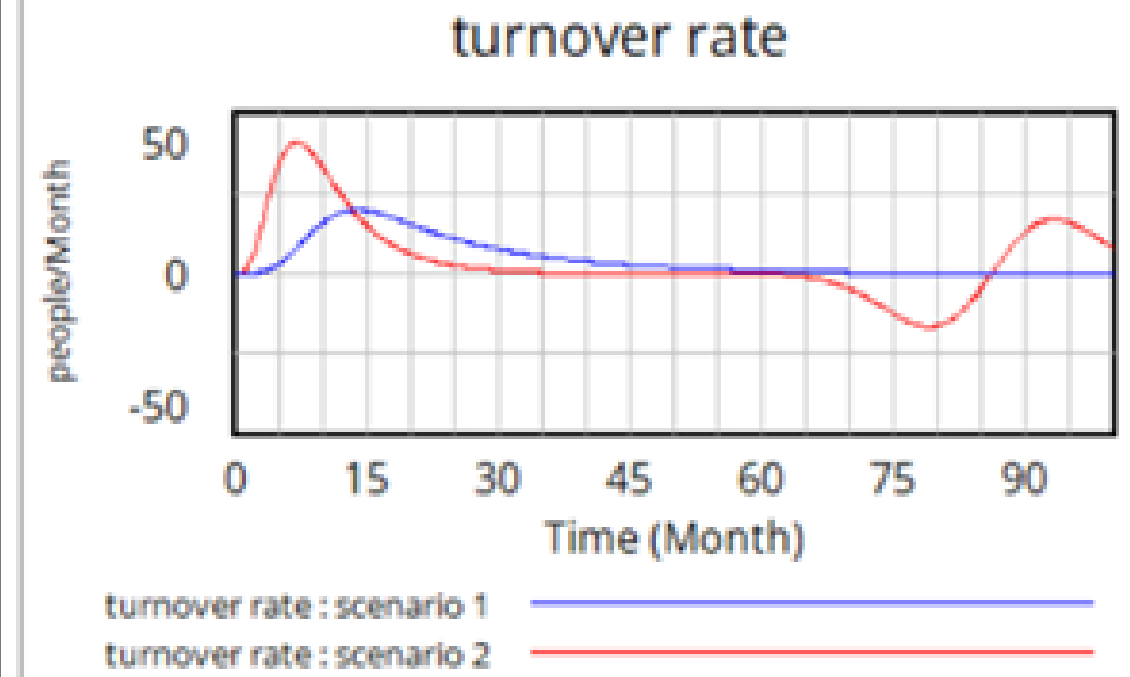
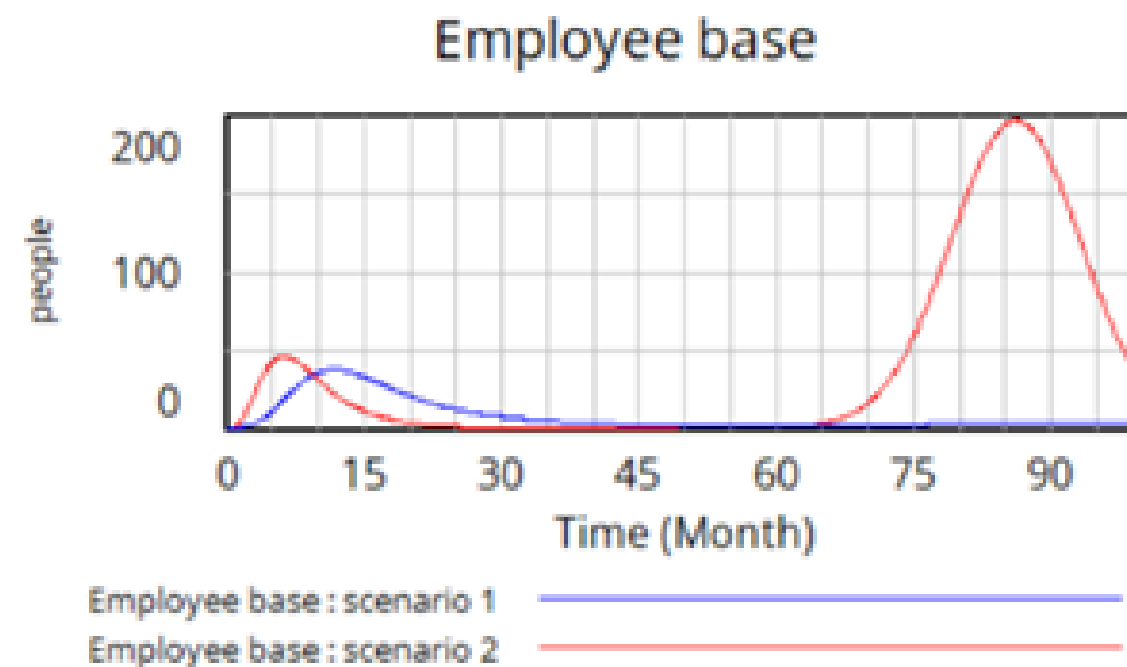


# 6. Dynamic Modeling

## Model Development and Scenario Testing

### Dynamic Modeling - Scenario 2: Improved SDD & Leadership

Parameters	Scenario 2
Available Talents	450
Frequency of campaigns	3
Time to hire	2
Employer Branding Strategies	0.043
Leadership capabilities	0.6
Structured democratic dialogue	0.6
Motivation decrease factor	0.162
Competitor capabilities	0.127



# 6. Dynamic Modeling

## Model Development and Scenario Testing

### Dynamic Modeling - Scenario 3: Need for Balance

Parameters	Scenario 3
Available Talents	450
Frequency of campaigns	4
Time to hire	3.5
Employer Branding Strategies	0.74
Leadership capabilities	0.5
Structured democratic dialogue	0.653
Motivation decrease factor	0.036
Competitor capabilities	0.022

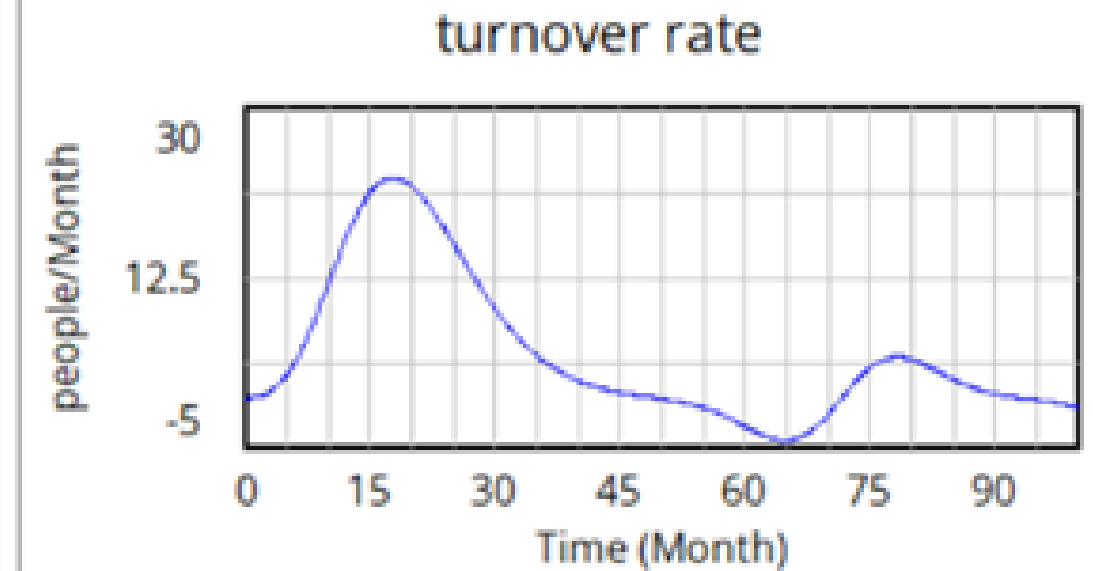


# 6. Dynamic Modeling

## Model Development and Scenario Testing

### Dynamic Modelling - Scenario 4: Effect of just Systemic Leadership

Parameters	Scenario 4
Available Talents	450
Frequency of campaigns	4
Time to hire	3.5
Employer Branding Strategies	0.028
Leadership capabilities	0.9
Structured democratic dialogue	0.015
Motivation decrease factor	0.152
Competitor capabilities	0.162



## 6. Dynamic Modeling

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### *Model Development and Scenario Testing*

*The dynamic model provided insights into the role of leadership, recruitment, and Structured Dialogic Design (SDD) in achieving organizational viability. The analysis confirmed that human-centricity and leadership are critical but must be balanced with adaptability and operational alignment.*

### **Leadership and Recruitment for Long-Term Success**

- **Proposition:** *Systemic leadership positively influences recruitment, enhancing viability.*
- **Conclusion:** *The fourth scenario demonstrated that leadership alone is insufficient for viability; other factors must align. Thus, we accept the null hypothesis ( $H_0$ ), showing leadership's limited impact without broader organizational alignment.*
- **Proposition:** *Human-centric practices aligned with daily operations positively impact viability.*
- **Conclusion:** *The first scenario, showing fear and uncertainty despite human-centric practices, indicates that alignment with operational effectiveness is crucial. We accept  $H_1$ , confirming that human-centricity must support, and be supported by, operational balance.*

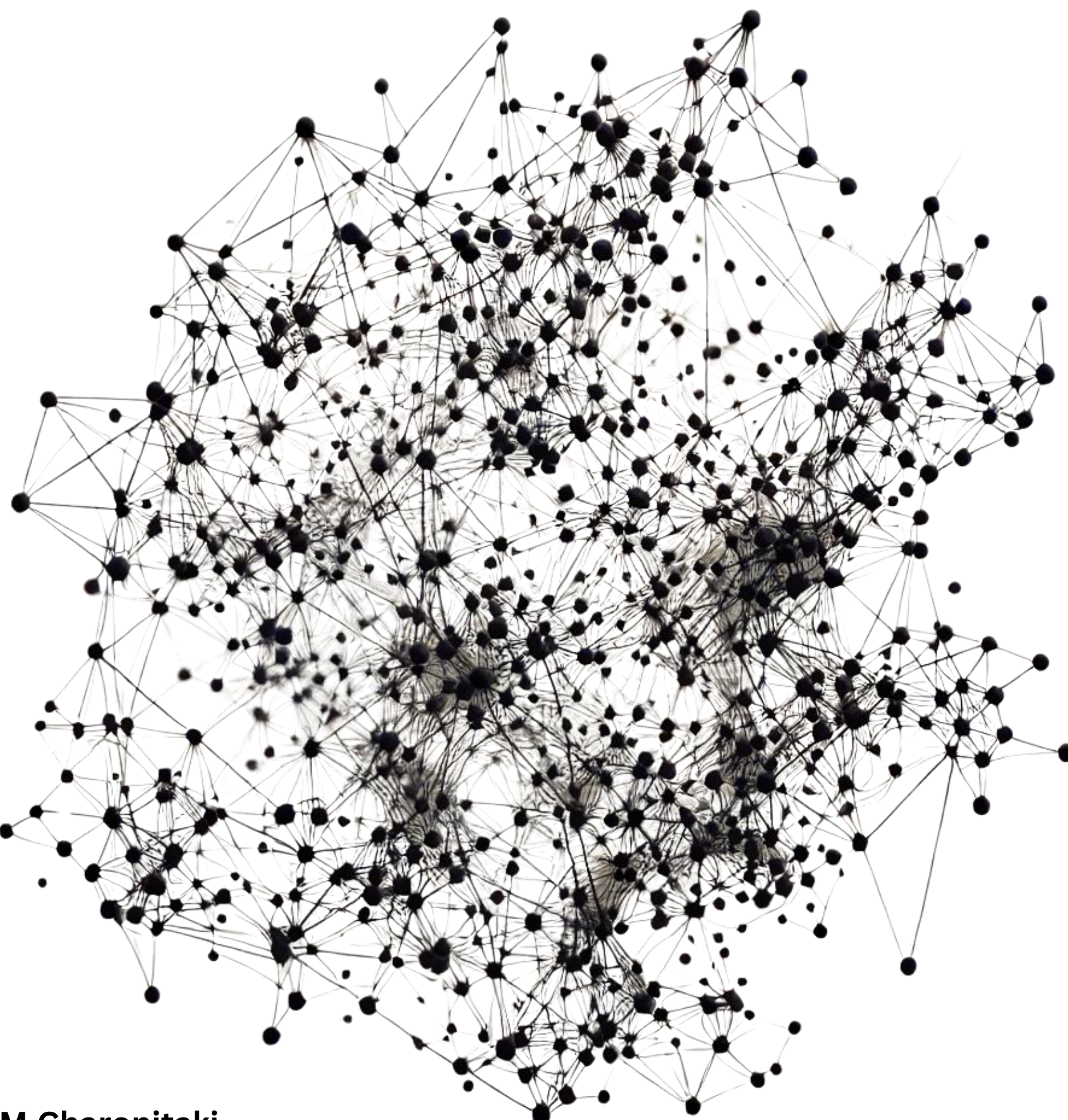
# 6. Dynamic Modeling

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## *Model Development and Scenario Testing*

### ***Role of SDD in Enhancing Employee Motivation and Human-Centricity***

- ***Proposition:*** Higher SDD levels increase employee motivation, fostering human-centricity.
- ***Conclusion:*** The findings show SDD's positive impact on motivation and leadership integration, promoting a human-centric approach. We accept H1, as SDD is shown to contribute directly to improved motivation and system viability.



## 7. Results and Discussion

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*Results, Limitations, Learnings*

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## **Results**

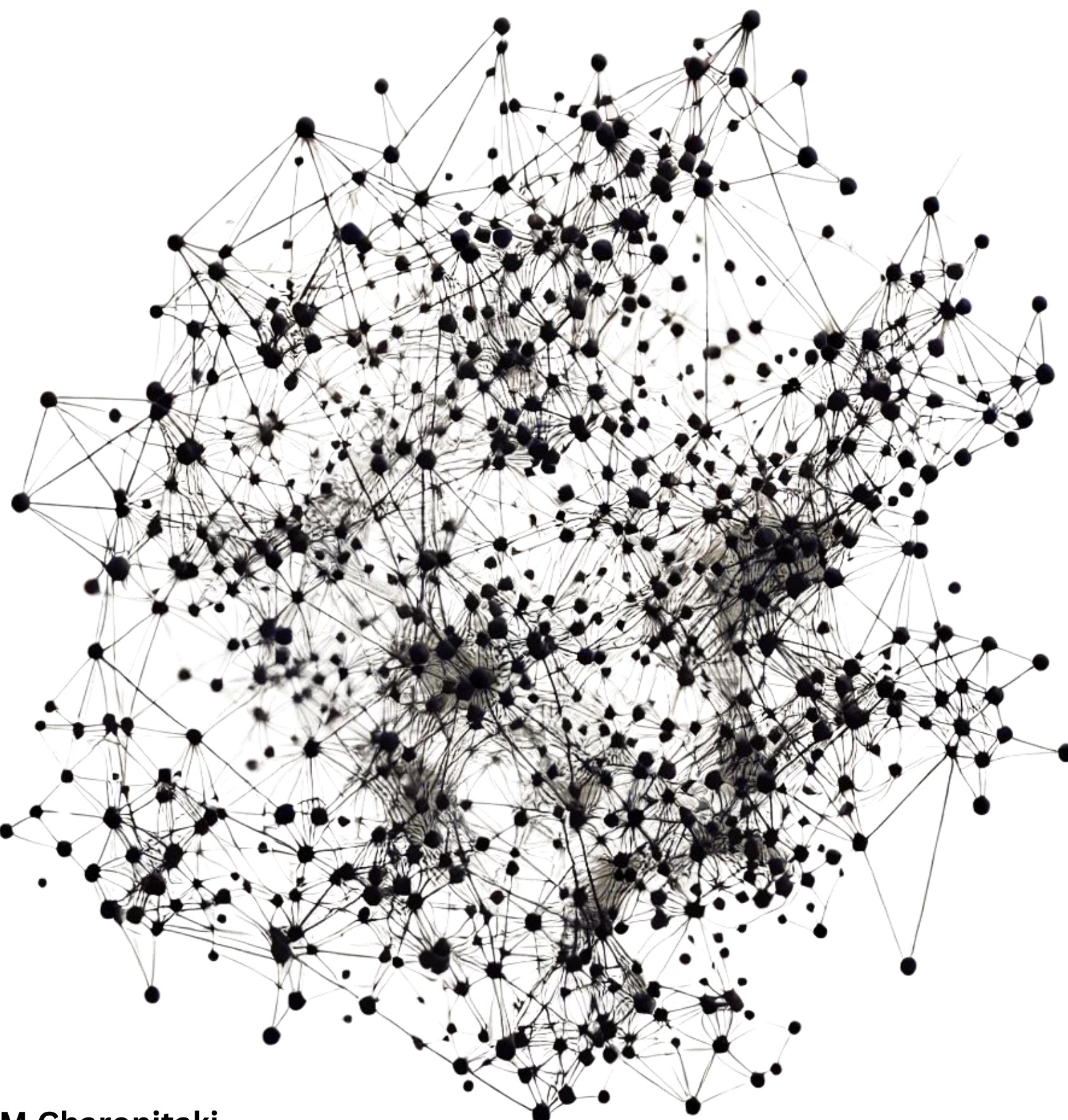
*Leadership, proper recruitment strategies and SDD make an important impact in the potential a company has to become viable, as long as it keeps adapting to constant changes*

## **Limitations**

*Time limitations, lack of access in real company data or opportunities to implement the dynamic modelling with real company elements.*

## **Learnings**

*A balance between human centric practices and operational processes is necessary for a system to get closer to becoming viable.*



## 8. Conclusions & Future Research

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*Final Thoughts and Ideas*

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### *Final Thoughts and Ideas*

- *A viable system requires balanced enhancement across leadership, recruitment, employer branding, and employee motivation.*
- *High employee motivation and trust are critical for reducing turnover and building a resilient workforce.*
- *Continuous adaptation to market conditions, competition, and workforce needs is necessary to maintain long-term success and viability.*
- *Strong leadership and inclusive decision-making (SDD) improve both employee satisfaction and recruitment effectiveness, fostering a more stable and aligned workforce.*
- *Effective employer branding attracts talent and strengthens internal alignment, contributing to lower turnover and increased organizational trust.*
- *A dynamic, integrated approach that adjusts to internal and external changes is key to sustaining a viable and resilient system.*

## 8. Conclusions & Future Research

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*Final Thoughts and **I**deas*

### *Future Research and ideas*

- **SDD focus groups:** *Triggering questions about the implementation of proper recruitment strategies and their effect on employee trust and motivation*
- *Exploration of expanded VSM tool and Vensim model on a real company, with real data, instead of a realistic but hypothetical company.*



**Supervisor: Professor N. Assimakopoulos**

# CSAP Mastering Program Certification Project Presentation

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**Thank you for your attention  
Time for questions!**

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