An integrated model of broad business change by using systemic methodologies:
DCSYM, VENSIM

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Introduction

Petralex S.A.

- Changing its modus operandi and even more by changing its culture
- Achieving sustainable profitability
- By depicting Systemic Theory methodology, DESIGN & CONTROL SYSTEMIC METHODOLOGY (DSCYM) and VENSIM software
- An integrated model applied to enterprises, organizations, universities, institutes etc.

Applying the principles of Strategic management and executing through Strategic Planning, implements **P**etralex **B**usiness **E**xcellence (simplicity-standardization-share) and **P**etralex **C**ontinuous **E**xcellence, (ZERO waste-ONE team- 100% Engagement)

- A set of practices (behaviors, working methods, culture), which assists each employee to expel everything that doesn't add value to consumers and customers (ZERO waste)
- Aligned with Company's common priorities (ONE team)
- Committed to contribute to what consumers and customers evaluate (100% Engagement).
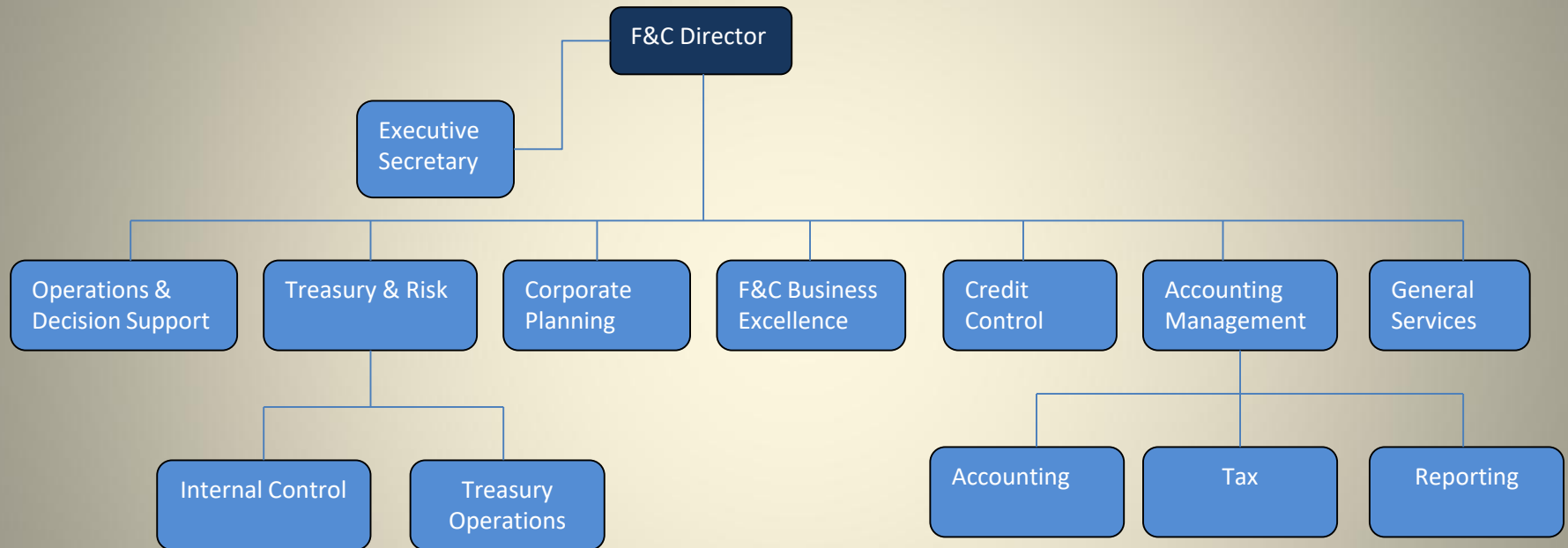
Current State (CS) of the problem (P)

a) Limited human resources for education and personnel skills development. In particular, there are available only two trainers. Training consists of tools and practices such as:

- Problem solving issues - Go See Thing Do/GEMBA
- KPIs creation, with specific and measurable measures, by sector (subsystem), which will contribute to the objectives of the section (system)
- Creation & Operation of Monthly or Weekly Business meetings, with the active participation of all employees in the sector, for monitoring & analyzing the effectiveness of KPIs
- Practical feedback between employees, regardless of hierarchy
- Standard Routines creation
- Harmonization of all the above for achieving the common objective
- Development of personnel capabilities and especial their soft skill

b) Lack of knowledge by PBE/PCE trainers for the specificities and needs of each heading of the Economic Section

c) Limited time for the implementation of the PCE (specific one-year completion schedule)

d) Limited time available by the side of PBE/PCE trainers

e) Smooth operation of the Economic Section

Defining DCSYM Methodology

$* \longrightarrow$

$* =$ System 1s

Individual 1i
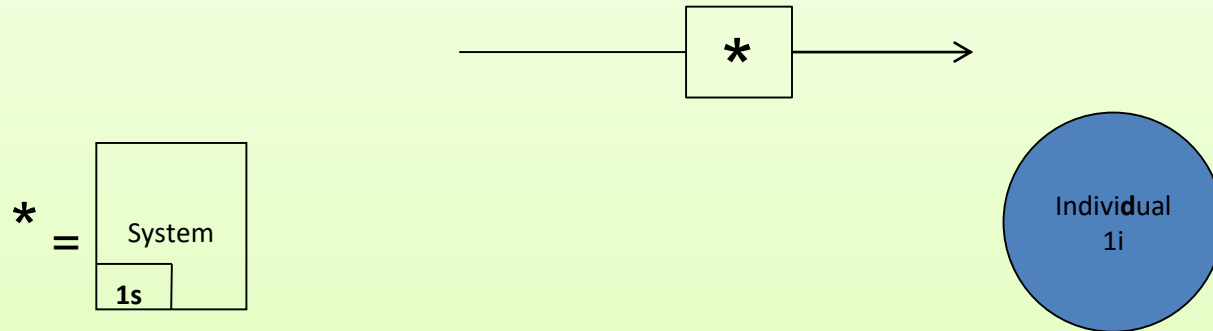
C,c → Communication
G,g → General interaction or influence
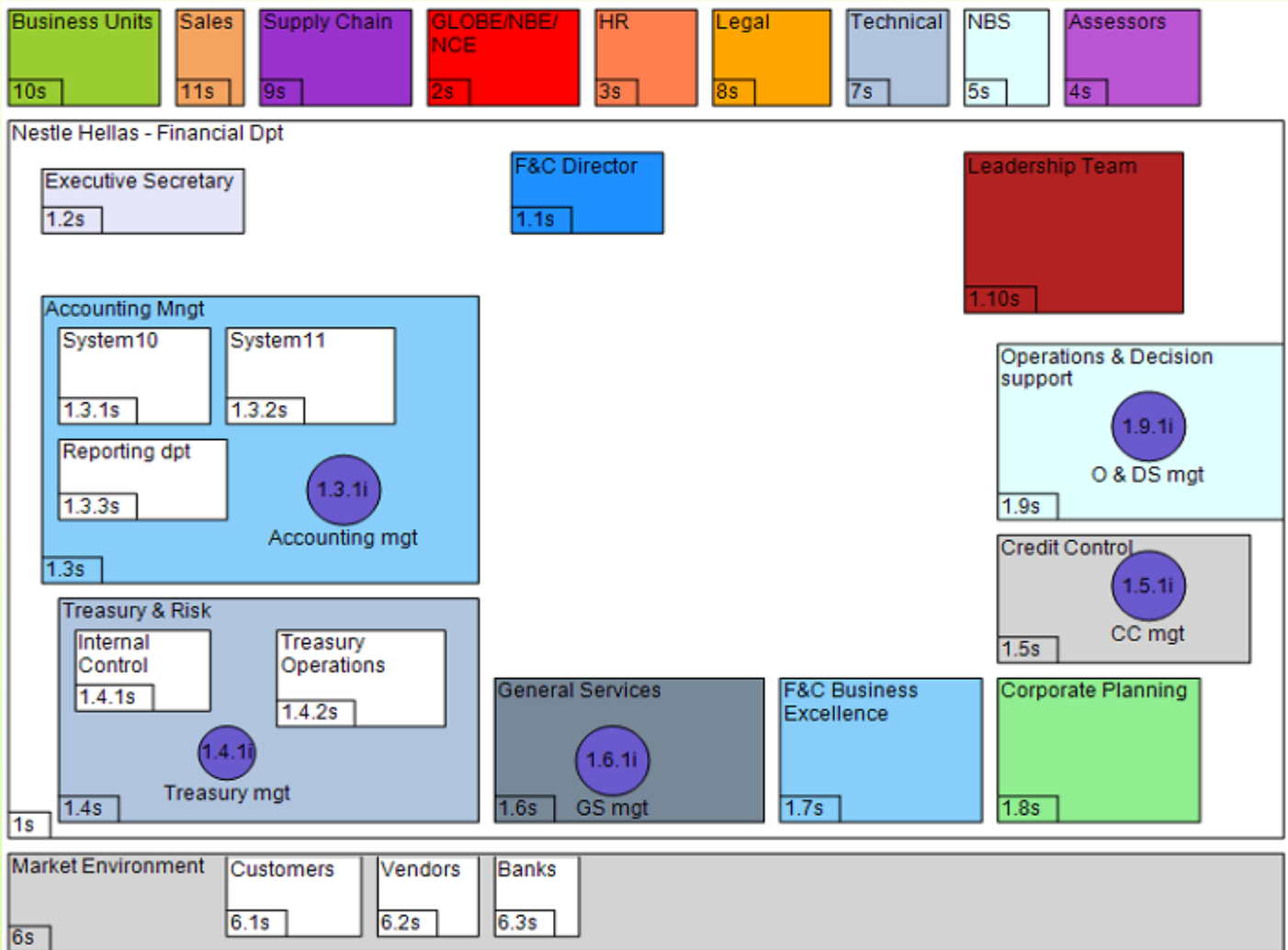**U,u** → Purposeful action
P,p → Potential Conflict
D,d → Distorted Communication
Δ,δ → Distorted Purposeful Communication

System Structure
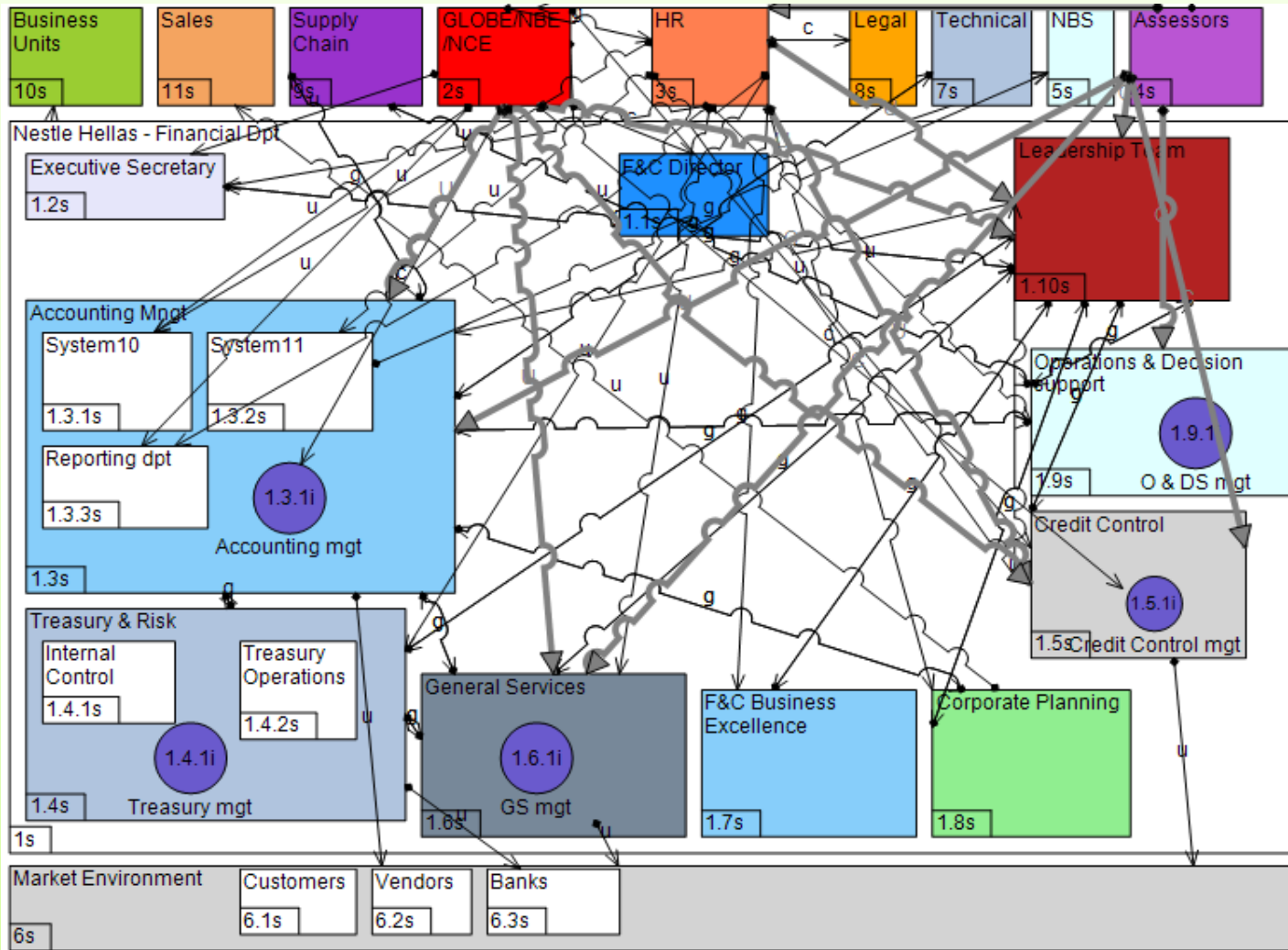# Current State (CS) using the DCSYM

Communication
Current State (CS) using the DCSYM

Control
Current State (CS) using the DCSYM

Business Units 10s
Sales 11s
Supply Chain 9s
GLOBE/NBE/NCE 2s
HR 3s
Legal 8s
Technical 7s
NBS 5s
Assessors 4s

Nestle Hellas - Financial Dpt
Executive Secretary 1.2s
F&C Director 1.1s
Leadership Team 1.10s

Accounting Mngt
System10 1.3.1s
System11 1.3.2s
Reporting dpt 1.3.3s
1.3.1i Accounting mgt
1.3s

Operations & Decision support 1.9s 1.9.1 O & DS mgt

Credit Control 1.5s Credit Control mgt 1.5.1i

Treasury & Risk
Internal Control 1.4.1s
Treasury Operations 1.4.2s
1.4.1i Treasury mgt
1.4s

General Services 1.6s 1.6.1i GS mgt
F&C Business Excellence 1.7s
Corporate Planning 1.8s
1s

Market Environment
Customers 6.1s
Vendors 6.2s
Banks 6.3s
6s

Internal environment
(organizational)

Under Consideration System
Petralex SA Financial dpt

External environment
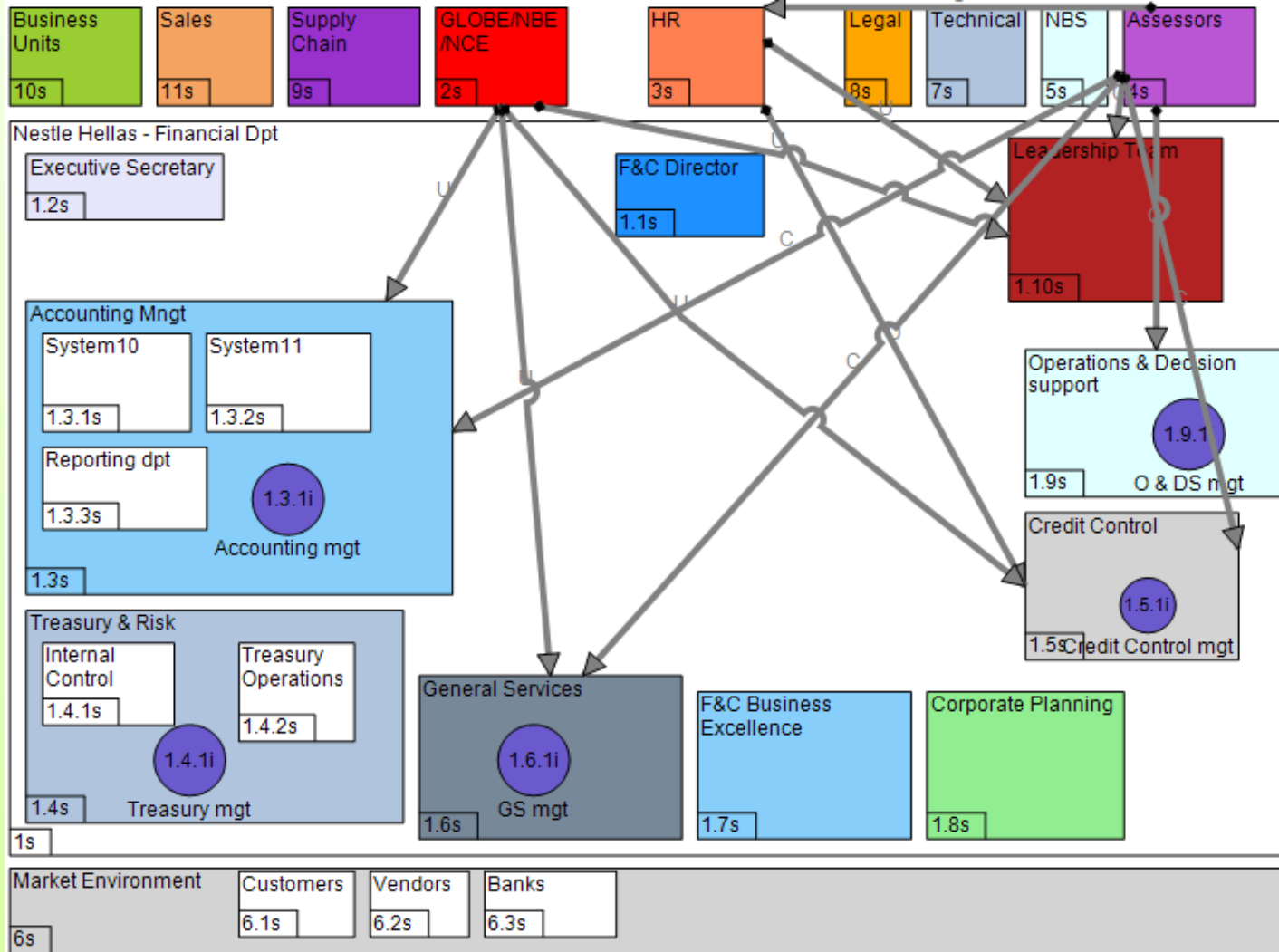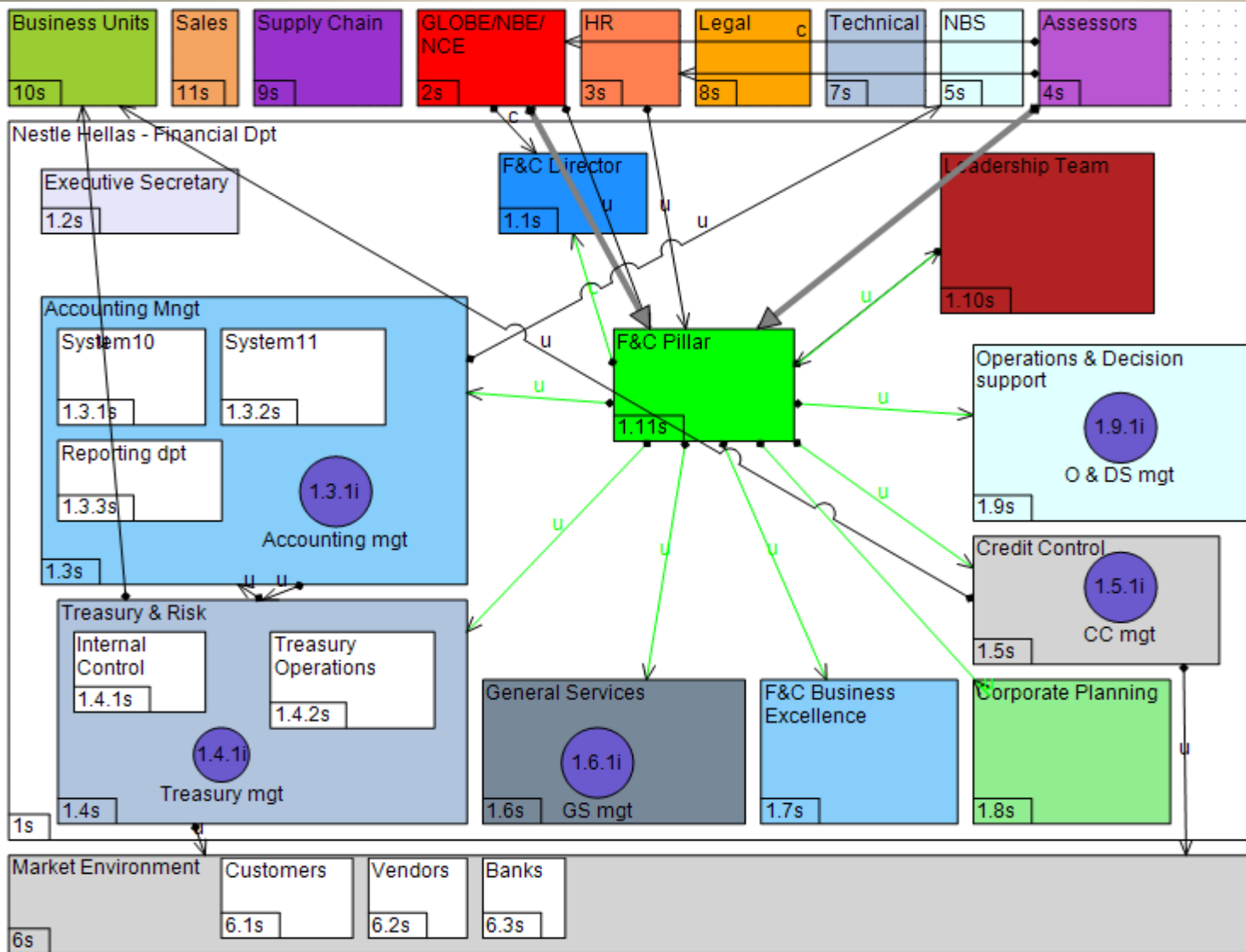
Systems Map
Current State (CS) using the DCSYM

1s Financial Dpt	**1.1s** Financial Dpt.F&C Director		
	1.2s Financial Dpt.Executive Secretary		
	1.3s Financial Dpt.Accounting Mngt	**1.3.1s** Accounting Mngt.System10	
		1.3.1i Accounting Mngt.Accounting mgt	
		1.3.2s Accounting Mngt.System11	
		1.3.3s Accounting Mngt.Reporting dpt	
	1.4s Financial Dpt.Treasury & Risk	**1.4.1s** Treasury & Risk.Internal Control	
		1.4.1i Treasury & Risk.Treasury mgt	
		1.4.2s Treasury & Risk.Treasury Operations	
	1.5s Financial Dpt.Credit Control	**1.5.1i** Credit Control.CC mgt	
	1.6s Financial Dpt.General Services	**1.6.1i** General Services.GS mgt	
	1.7s Financial Dpt.F&C Business Excellence		
	1.8s Financial Dpt.Corporate Planning		
	1.9s Financial Dpt.Operations & Decision support	**1.9.1i** Operations & Decision support.O & DS mgt	
	1.10s Financial Dpt.Leadership Team		
2s GLOBE/NBE/NCE			
3s HR			
4s Assessors			
5s NBS			
6s Market Environment	**6.1s** Market Environment.Customers		
	6.2s Market Environment.Vendors		
	6.3s Market Environment.Banks		
7s Technical			
8s Legal			
9s Supply Chain			
10s Business Units			
11s Sales			

Relations Map
Current State (CS) using the DCSYM

	1s	1.1s	1.2s	1.3s	1.3.1	1.3.1	1.3.2	1.3.3	1.4s	1.4.1	1.4.1	1.4.2	1.5s	1.5.1	1.6s	1.6.1	1.7s	1.8s	1.9s	1.9.1	1.10s	2s	3s	4s	5s	6s	6.1s	6.2s	6.3s	7s	8s	9s	10s	11s
1s																																		
1.1s																																		
1.2s																							g											
1.3s								g							g			g	g				g		u				g			g	u	
1.3.1s																									g									
1.3.1i																																		
1.3.2s																													g					
1.3.3s																																		
1.4s			g												g						g								u					
1.4.1s																																		
1.4.1i																																		
1.4.2s																																		
1.5s																					g					u								
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1.6s			g						g												g													
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1.7s																					g													
1.8s			g																		g													u
1.9s			g																		g											g		
1.9.1i																																		
1.10s		g	g					g					g		g		g	g	g															
2s		c	u	U	u	c		u					u, U	c	u, U						U		g											
3s		u		u					u			u	U		u				u		u, U										c			
4s			c										c		c				c		c	c	U		c									
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10s																																		
11s																																		

Recommended Improvements (RI)

- Specialized personnel

- Competent personnel

- Creation of a pillar, parted volunteers, from different sections of the financial dpt

- Motivated personnel, already persuaded for the necessity of the change

- Ambassadors of the change

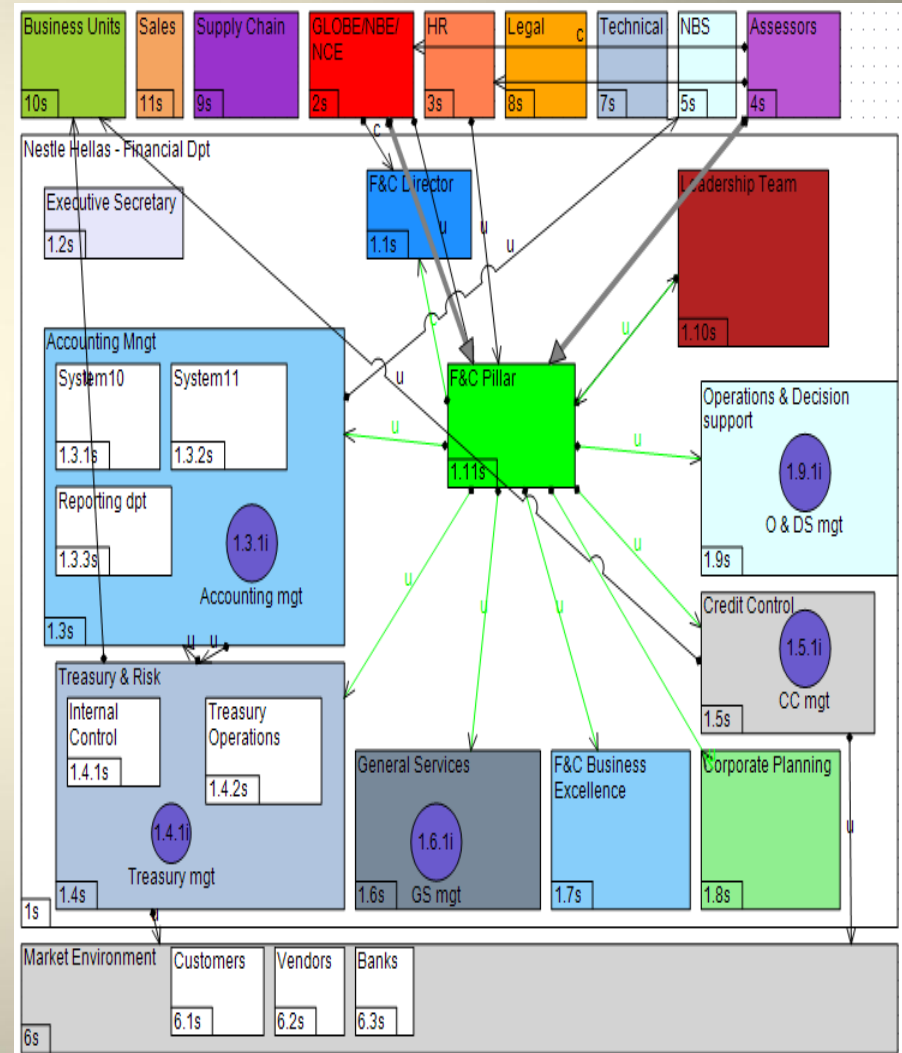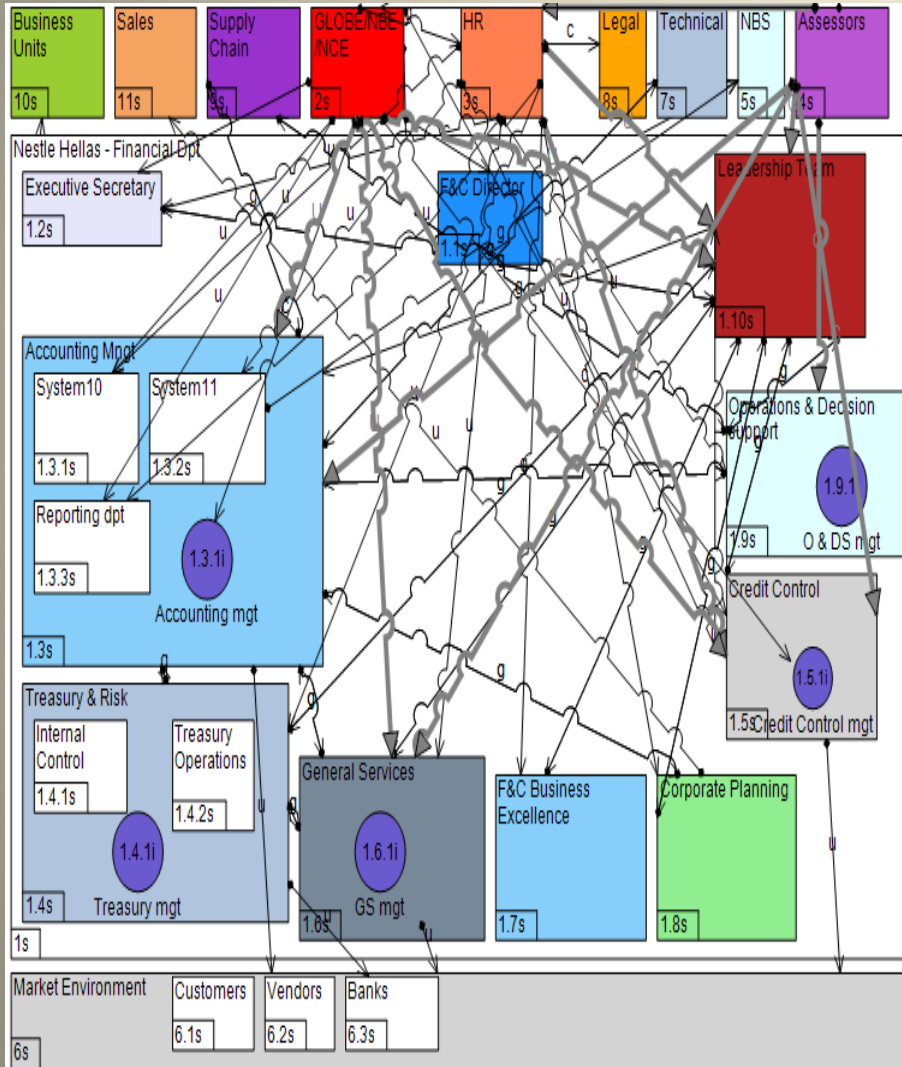# Designing R.I. with the use of DCSYM

Comparison of C.S. of P. and R.I.

VENSIM

•Best possible relationship

number of pillar members

number of working hours each work

•Pre evaluation in the middle of the program period and more specifically by the end of the First Semester

•Objective criteria. The first one is on the practical implementation of the changes and the second one is about personnel's skills development.

•Its necessity simulate and predict the way in which this distribution is to be achieved, even if additional working hours are added, due to a pre-evaluation low score, aiming on the effectively implementation of PCE on time.

VARIABLES - PILLAR

The variables which have the greatest impact on our model are the following:

- The number of members of the pillar

- The estimated total number of hours for successful implementation of the PCE

- The required number of working hours per week

- The pre-evaluation at the middle of the one-year time limit, i.e. at the end of the six-month period.

The number of hours depends on the implementation plan followed by the pillar. It is dynamic and based on the fulfillment of the evaluation criteria, while activities are monitored per department and on weekly basis and each pillar member has distinct role and responsibilities.

Fico Pillar GA & FI Roles and Responsibilities

Legend: ● Responsible ● Backup 1 ● Backup 2

Area	Criteria	Roles & Responsibilities	Eleftherios	Nikolaos	Papageorgakis	Petros	Chrysa	Panagiotis	George	Expectations from Responsible
Method	1	Plan & update HIGH LEVEL NCE Implementation Plan	Responsible	Backup 1	Backup 2					Monthly follow up of plan, maintain monthly KPI, take corrective actions check next month
Method	2	Plan & Update ACC Implementation Plan		Backup 1		Backup 2			Responsible	Monthly follow up of plan, maintain monthly KPI, take corrective actions check next month
Method	3	Plan & Update CrCon Implementation Plan	Backup 2				Backup 1	Responsible		Monthly follow up of plan, maintain monthly KPI, take corrective actions check next month
Method	4	Plan & Update C&OC Implementation Plan			Responsible		Backup 2	Backup 1		Monthly follow up of plan, maintain monthly KPI, take corrective actions check next month
Method	5	Plan & Update GS Implementation Plan				Backup 2	Backup 1	Responsible		Monthly follow up of plan, maintain monthly KPI, take corrective actions check next month
Method	6	Monitoring of Competence building strategy & Training needs	Responsible			Backup 1				Regularly follow up long term strategy for development of Pillar & take corrective actions
Training & Coaching	7	Operation Master plan	Backup 1	Responsible	Backup 2					OMP Expert, train & coach all baby OMPs
Training & Coaching	8	Performance measures	Backup 1	Backup 2	Responsible					Measure expert, knpow all measure trees, able to train & coach measures in all departments
Training & Coaching	9	Operational Reviews	Responsible	Backup 2					Backup 1	OR Expert, train & coach Ors in all departments (Regular visits)
Training & Coaching	10	Basic Problem Solving - GSTDs			Backup 2	Responsible				GSTD Expert, deliver trainings & contact person for Questions
Training & Coaching	11	Standard Routines				Backup 1	Responsible	Backup 2		Standards Expert, deliver trainings & contact person for Questions
Training & Coaching	12	Monitoring of Developmnent Plan		Backup 1	Backup 2			Responsible		Reminder to members to regularly update development plan
Pillar Measures	13	Update GSTDs Tracker		Backup 1			Responsible		Backup 2	Follow up on-time & flawless execution of DMAICs / GSTDs in all Departments
Pillar Measures	14	Update SR Tracker					Responsible	Backup 2	Backup 1	Weekly follow up, maintenance monthly KPI / take corrective actions
Pillar Measures	15	Update Common Pillar Mandatory Measures & Pillar Board		Responsible	Backup 1				Backup 2	Weekly follow up, maintenance monthly KPI / take corrective actions
Assessme	16	Coordinate Self Assessments	Responsible		Backup 1			Backup 2		Quarterly follow up, notify & prioritize all pillar activities in view of formal assessments
Manage Pillar Review	17	Monitor & update Competency Matrix & Development Plan				Backup 2	Backup 1		Responsible	Reminder to members to regularly update competency matrix based on results
Manage Pillar Review	18	Monitor Action Plan			Responsible		Backup 1		Backup 2	Follow up on-time & flawless execution of action plan
Sum of Responsibilities per Member			1	3	4	2	2	3	3	18
			3	2	4	2	3	1	3	18
			4	2	3	3	3	1	2	18
Total			8	7	11	7	8	5	8	

PILLAR - VSM

It should be noted that the pillar

•   Acts autonomously and has independence of movement within an operational framework.

•   Informs the Management of the company in an objective and transparent way on the progress

•   Becomes "consultant" of company's Management, due to the gained experience

•   Beer's **V**iable **S**ystem **M**odel simulation. Levels 2 (Coordination-pillar) and 3 (Supervision - Control), where Level 4 (Intelligence) falls within the European administration, and Level 5 (Identity) is the central (global) administration.

Before proceeding to VENSIM model, we need to take a deeper look on Pillar's activities and results, so to be in position to understand clearly its operation and its utility.

PILLAR – Monitored activities

Each pillar member acts as a Project manager. A plan is designed based on the changes which should take place, one for each dpt and it looks like a GANT diagram.

Green shows completed actions, orange shows delayed & incomplete actions, and blue shows planned actions.

PILLAR – KPIs

All previous shown pillar actions are measured as KPIs (**K**ey **P**erformance **I**ndicators).

PILLAR – Soft skills

Similar to the previous, pillars members soft skills development, is reflected as below
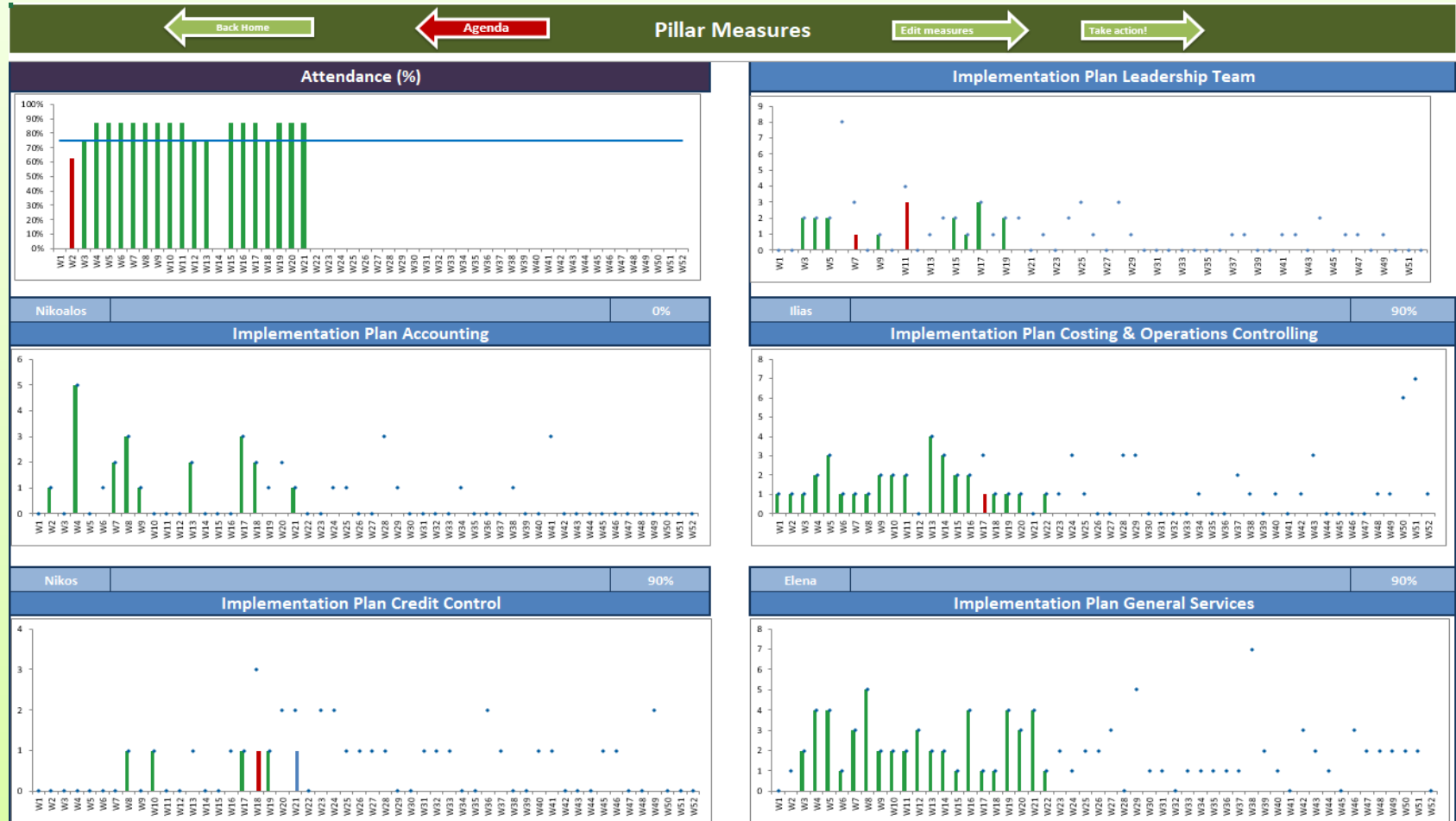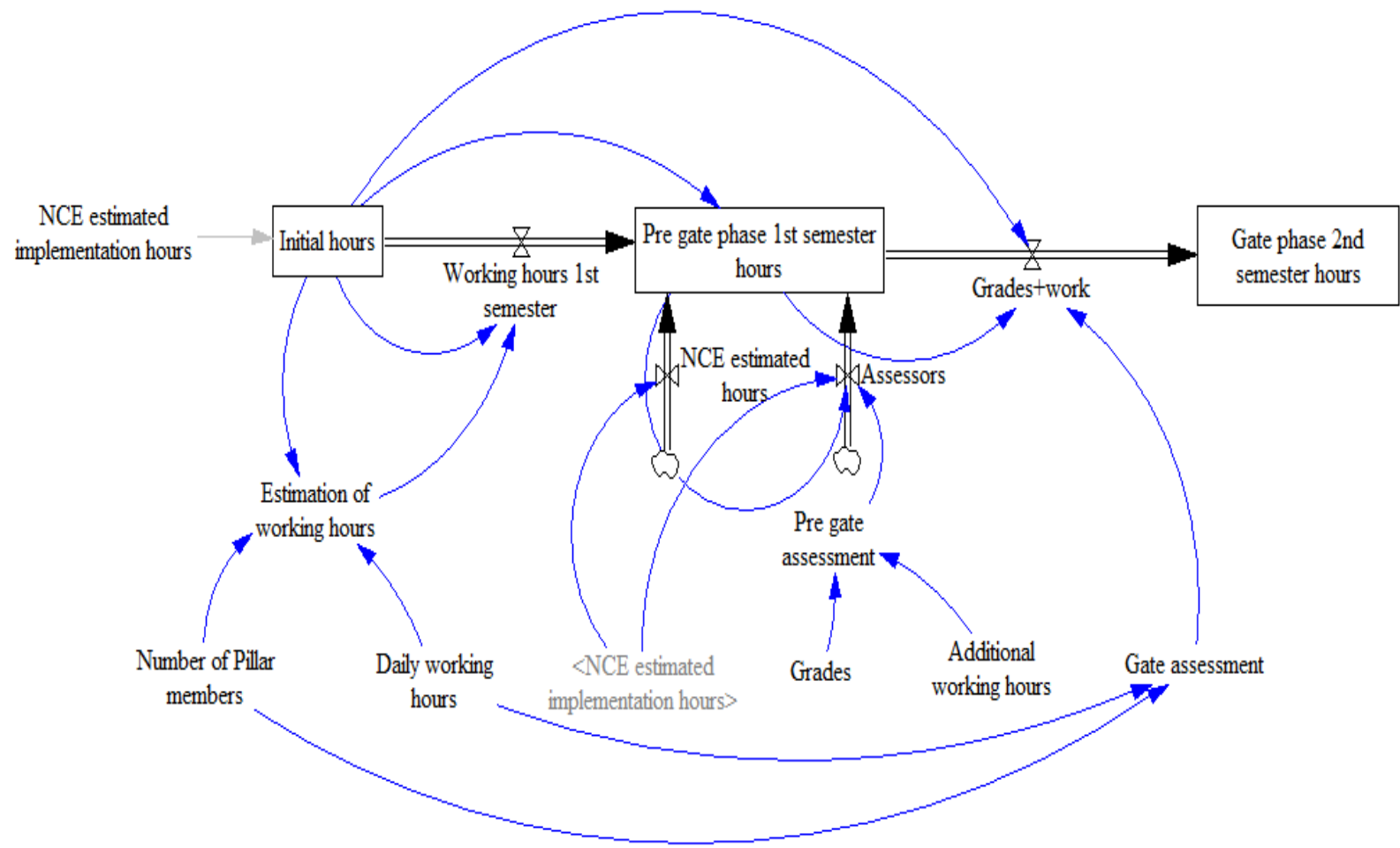
PILLAR – SWOT

Having the result (the score) of the pre evaluation, Pillar makes use of SWOT analysis tool, which guides to make the right Strategic Decisions.

SWOT

	Helpful To achieving the objective	Harmful To achieving the objective
Internal Origin Attributes of the Organization	**Strengths** • High level functional knowledge & experience • Trust, togetherness & strong relationships among pylon members, acting as one team • Pylon has demonstrated very good resilience vs external challenges & changes • Clear evidence of pylon commitment towards PCE journey during acceleration period	**Weakness** • Not enough time to focus on qualitative implementation of all elements, mainly due to acceleration and a lot of parallel activities & changes • Not all team members convinced of the "value" of the PCE practices • Feedback & coaching practices not exercised enough; high quality Development plan for each team member not in place • Lack of identifying quick wins or communicating them effectively • Measures need to be optimized to reflect proper cascading, balance (leading vs lagging, quantity & driving behaviors • Low cross fertilization of Pylon members to each
External Origin Attributes of the environment	**Opportunities** • Celebrating success of team members & exposing them more to the Pylon team • Further develop our people to become the leaders of tomorrow • Further leverage PCE ways of working to effectively respond to upcoming changes/projects & parallel structures (i.e. E2Es) • Enhance cross-functional / cross-departmental collaboration to manage effectively common issues by leveraging the application of practices (i.e. standards)	**Threats** • Parallel projects, changes & everyday challenges jeopardizes PCE implementation & resource allocation • Instability of external environment challenges team members in terms on long term planning & on sustaining their motivation

MODEL PRESENTATION

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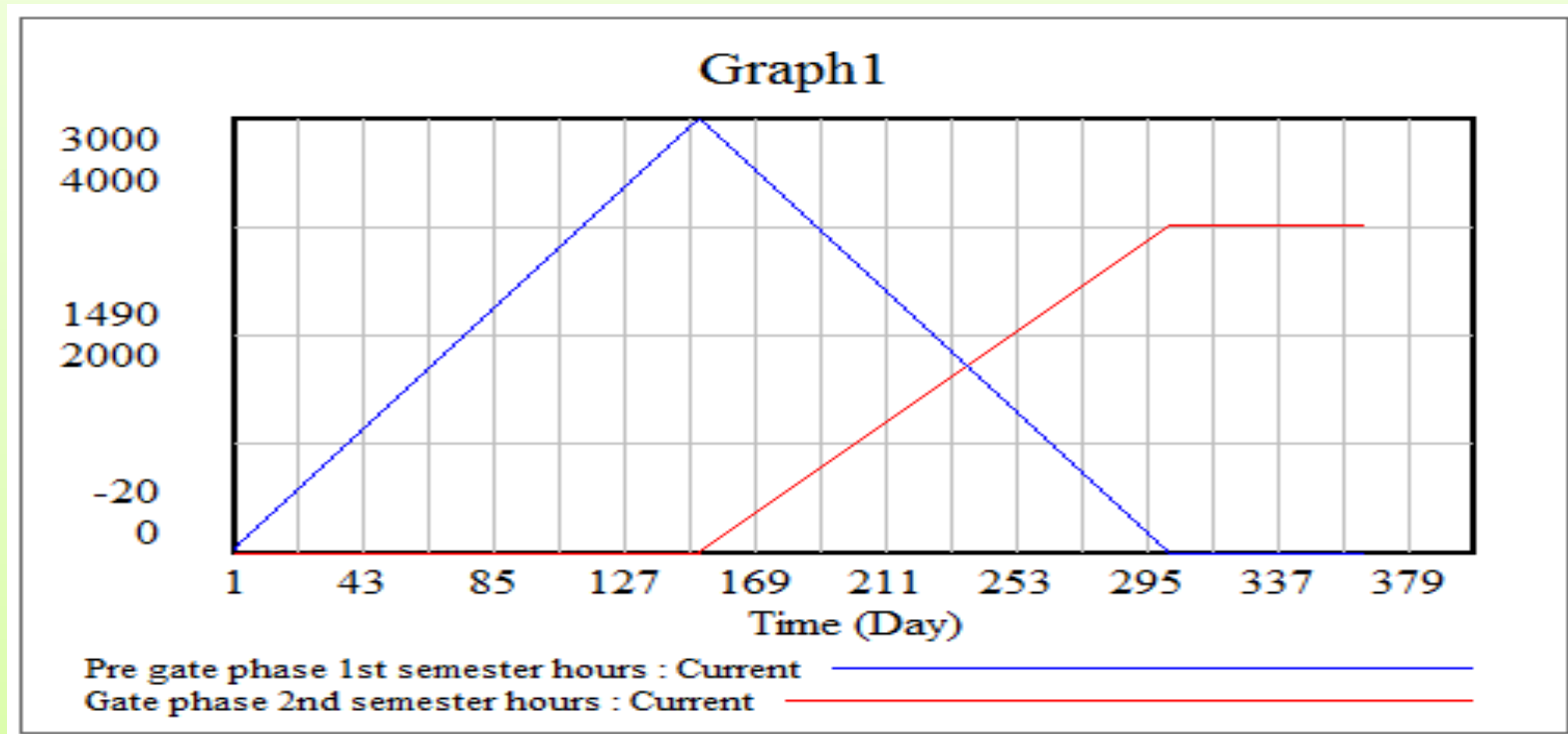
PCE estimated implementation hours: 3000
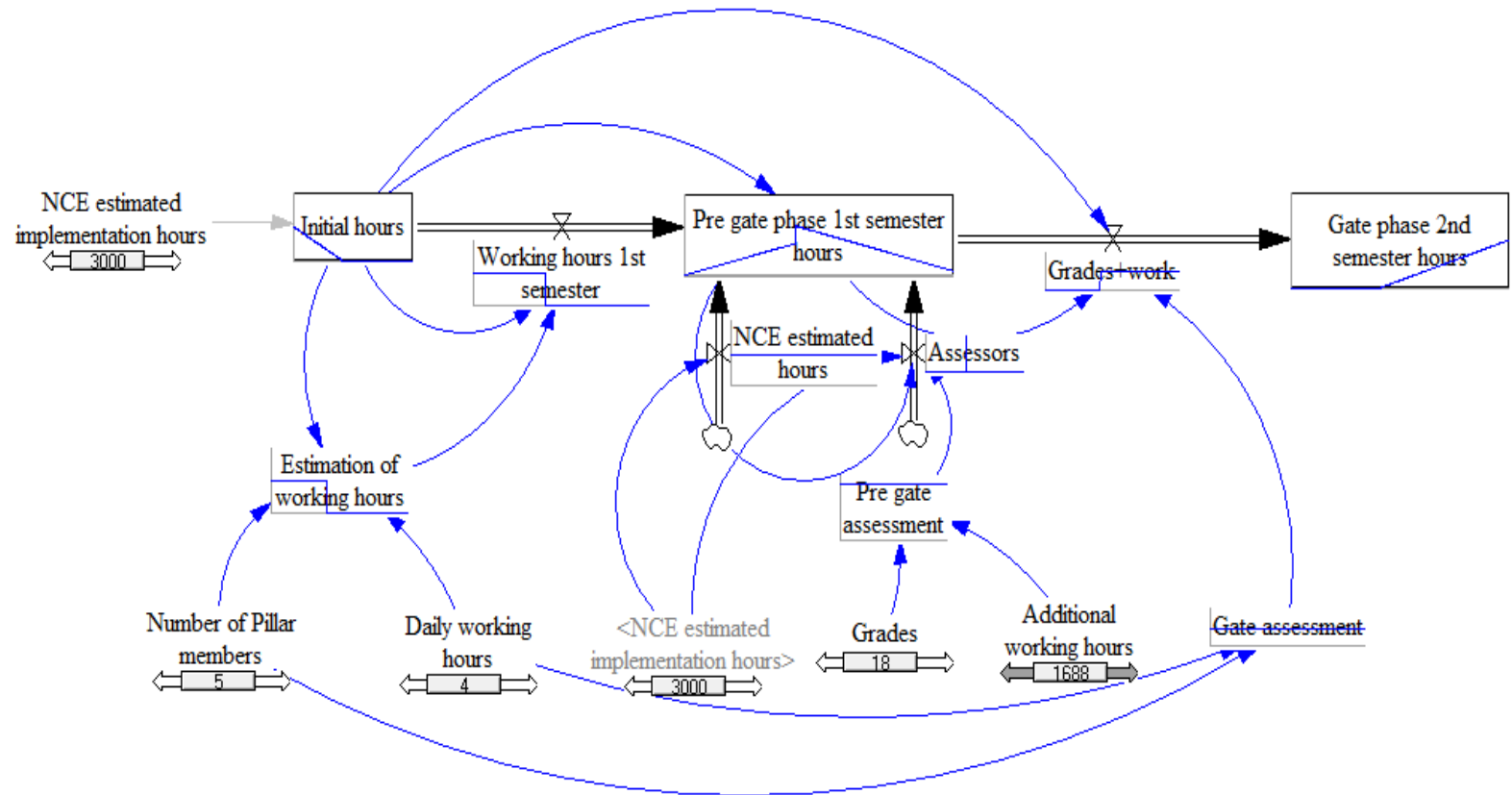Number of Pillar members: 5
Daily working hours: 4
Grades: 20
Additional working hours: 0
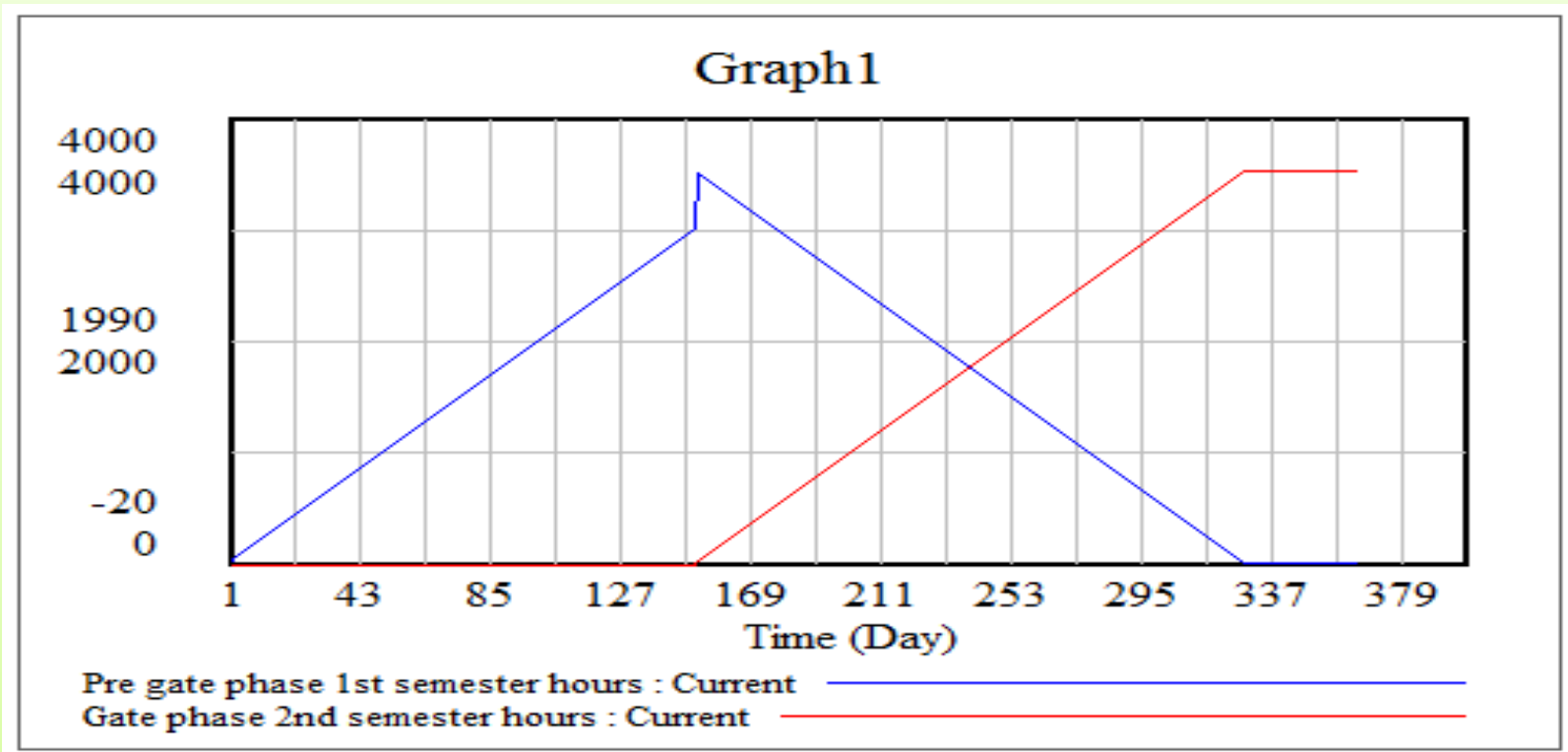

Graph 1

MODEL PRESENTATION

MODEL PRESENTATION

PCE estimated implementation hours: 3000
Number of Pillar members: 5
Daily working hours: 4
Grades: 15
Additional working hours: 525

Graph 1

THANK YOU!