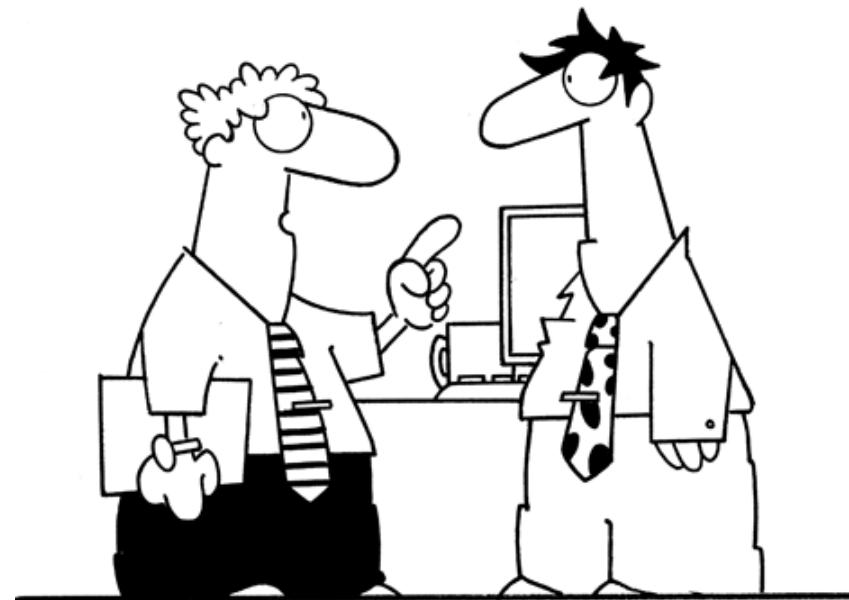


# PROBLEM ANALYSIS

Carlos Mario Zapata J.



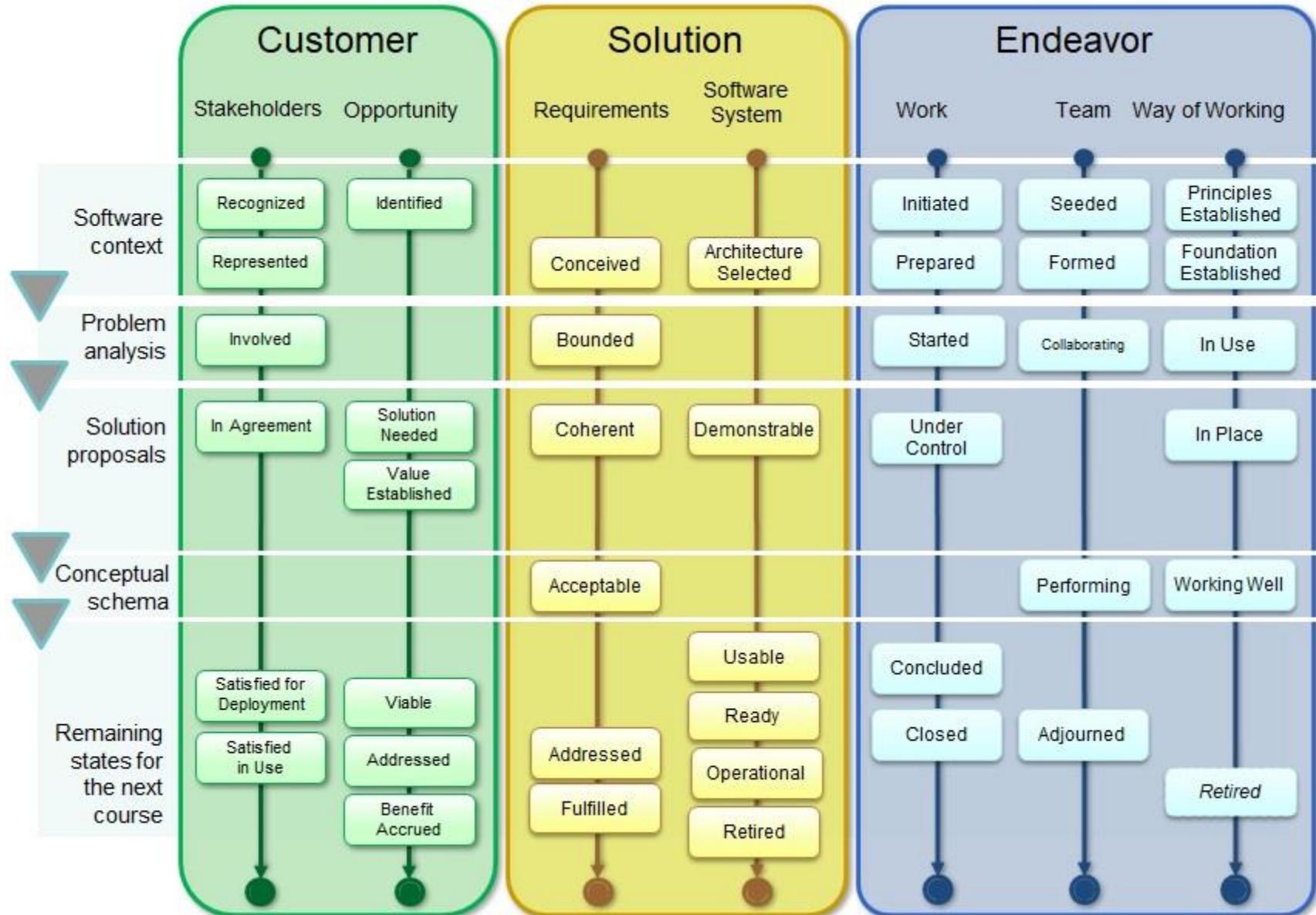
"As soon as we solve one problem, another one appears.  
So let's keep this problem going for as long as we can!"

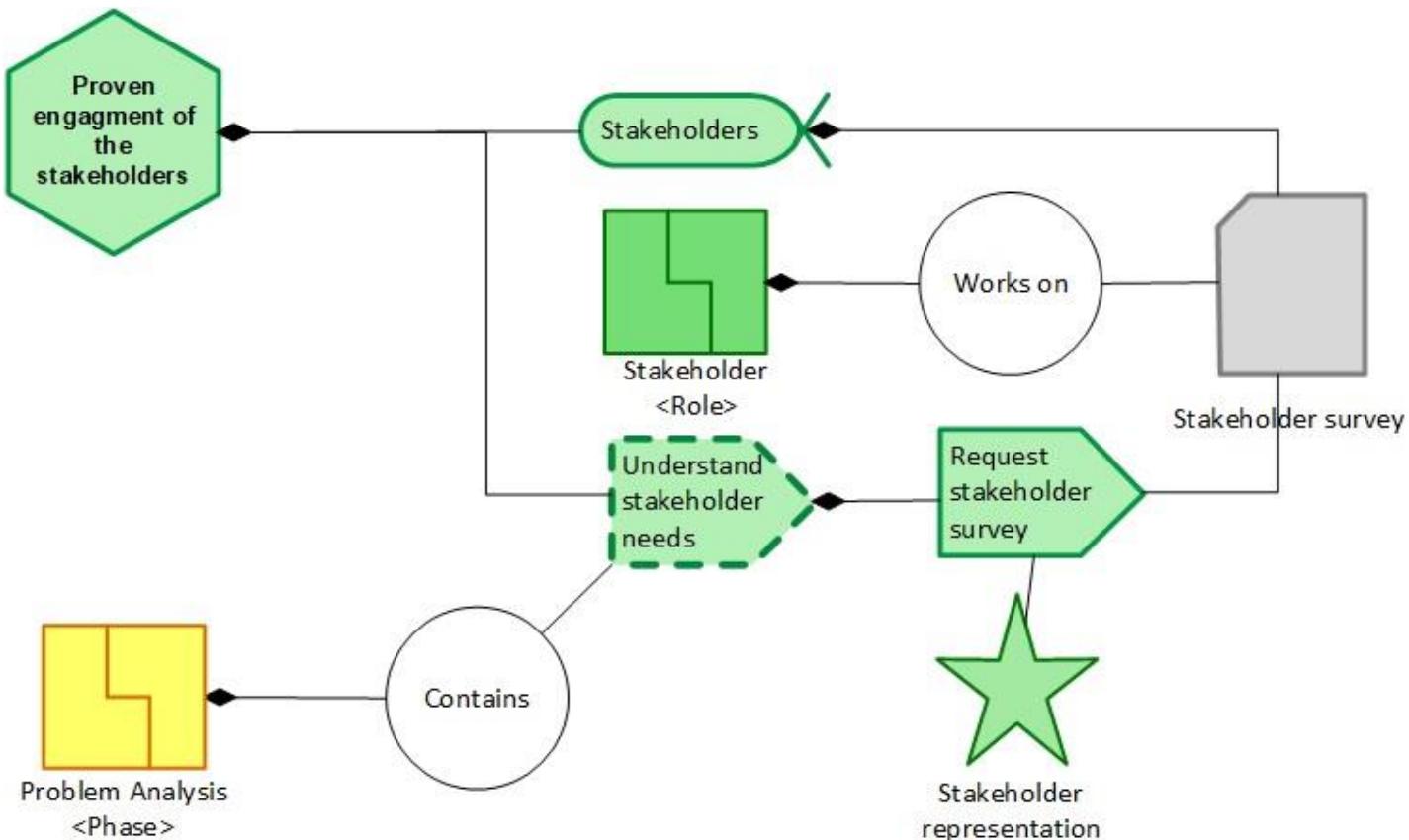


"You can be part of the problem or part of  
the solution. Frankly, being part of the  
problem is a lot more fun!"



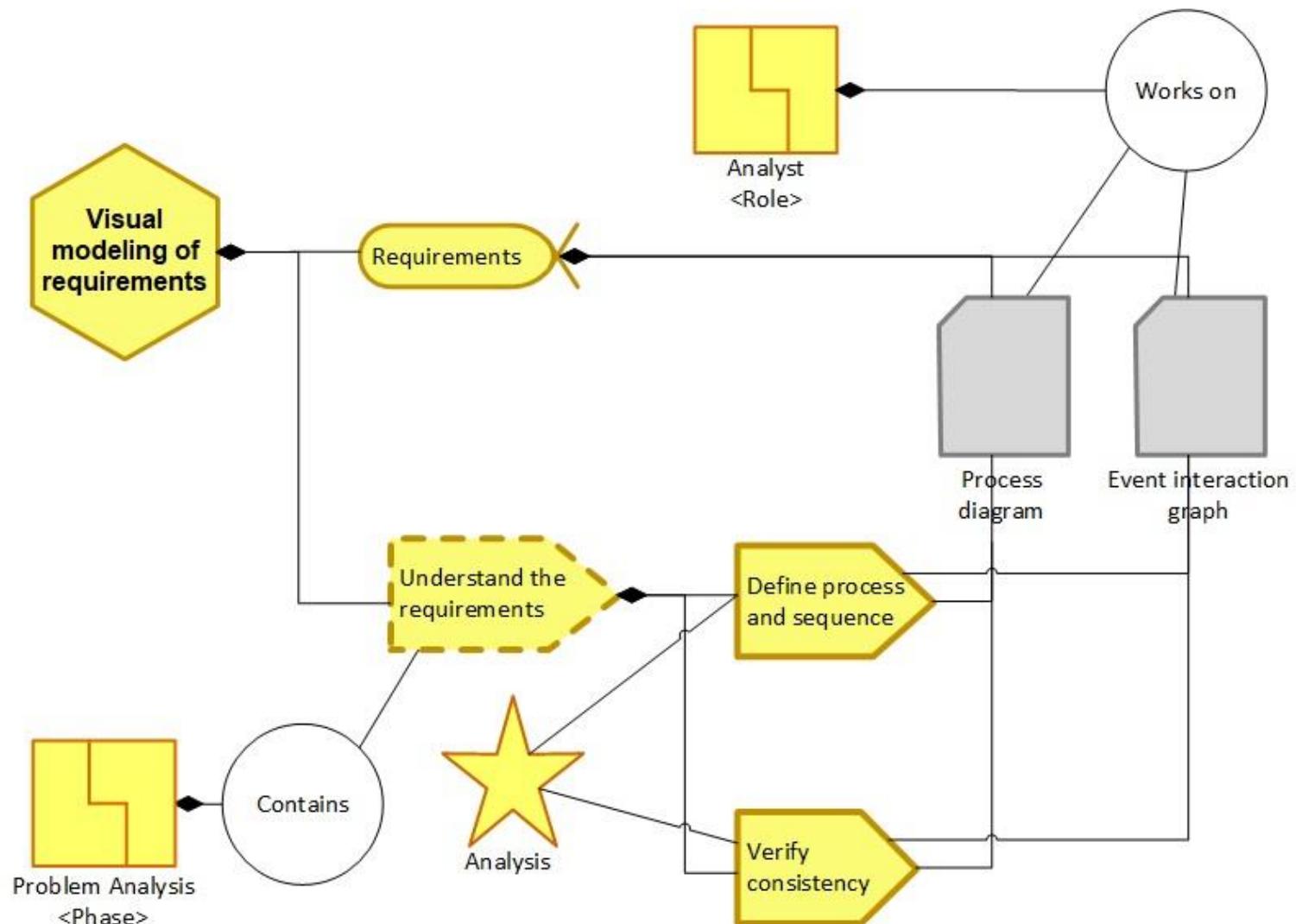
# UNC-METHOD IN THE ESSENCE





# STAKEHOLDER SURVEY

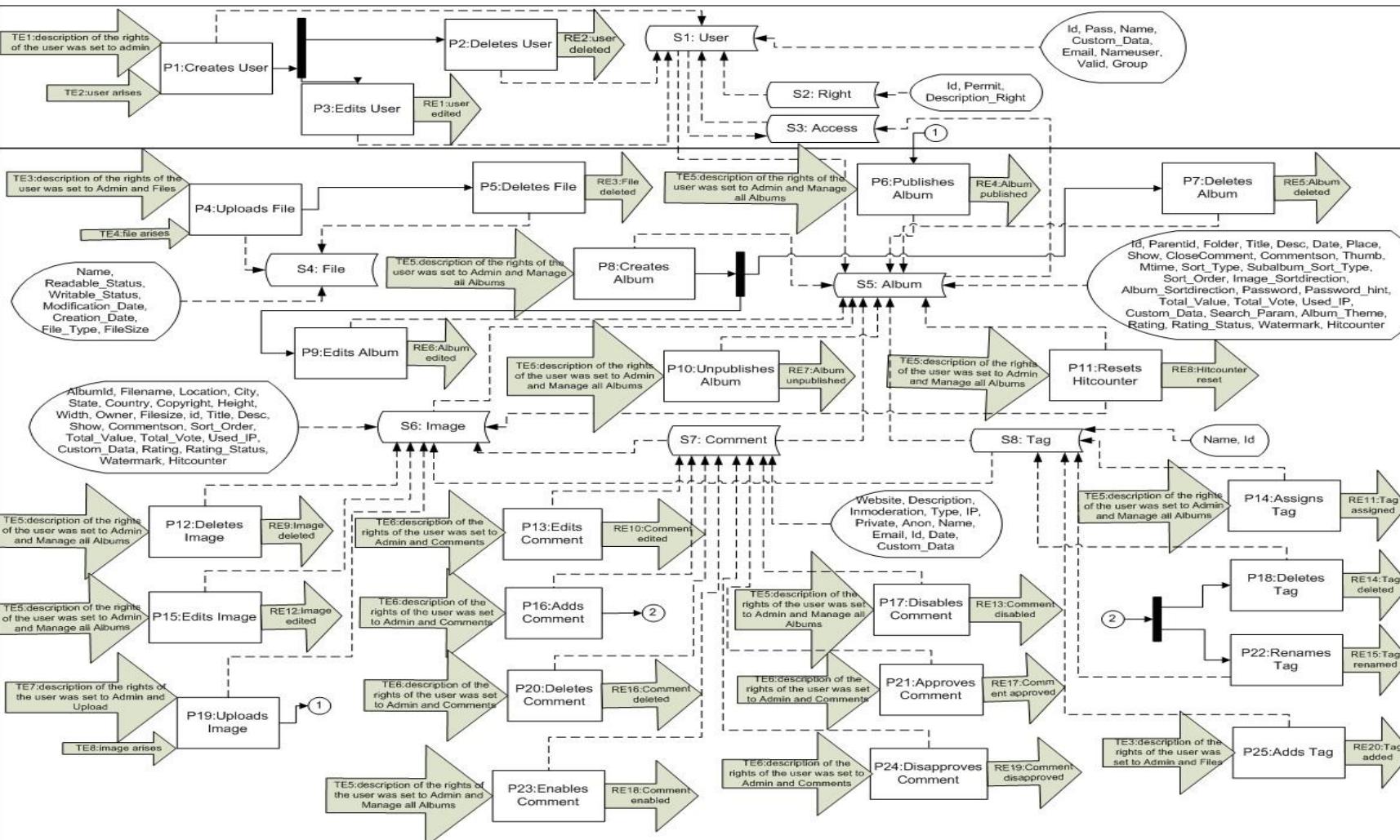
PROJECT NAME					
STAKEHOLDER NAME					
DATE					
CRITERIA	STRONGLY AGREE	AGREE	NEITHER	DISAGREE	STRONGLY DISAGREE
THE INFORMATION IS COMPLETE ACCORDING TO OUR MEETINGS	X				
THE WORK PRODUCTS I COULD REVIEW ARE CLEAR		X			
THE PROBLEM IS CLEARLY IDENTIFIED	X				
GOALS ARE RELATED TO THE ORGANIZATION	X				
THE SEQUENCE OF THE PROCESS IS ARTICULATED	X				
THE OVERAL QUALITY OF THE DELIVERABLES IS ADEQUATE		X			
SUGGESTIONS					
SIGNATURE					



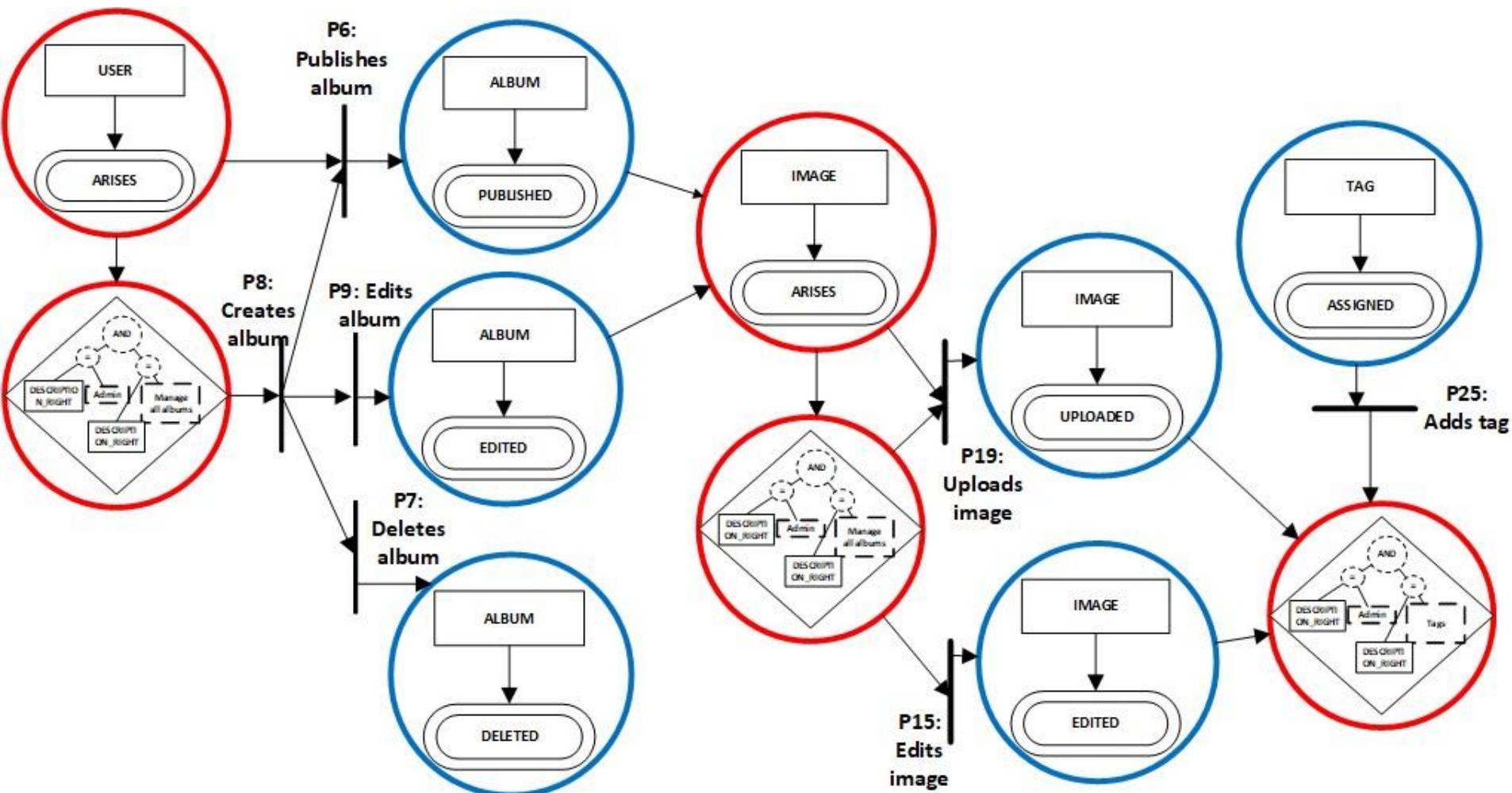
# PROCESS DIAGRAM

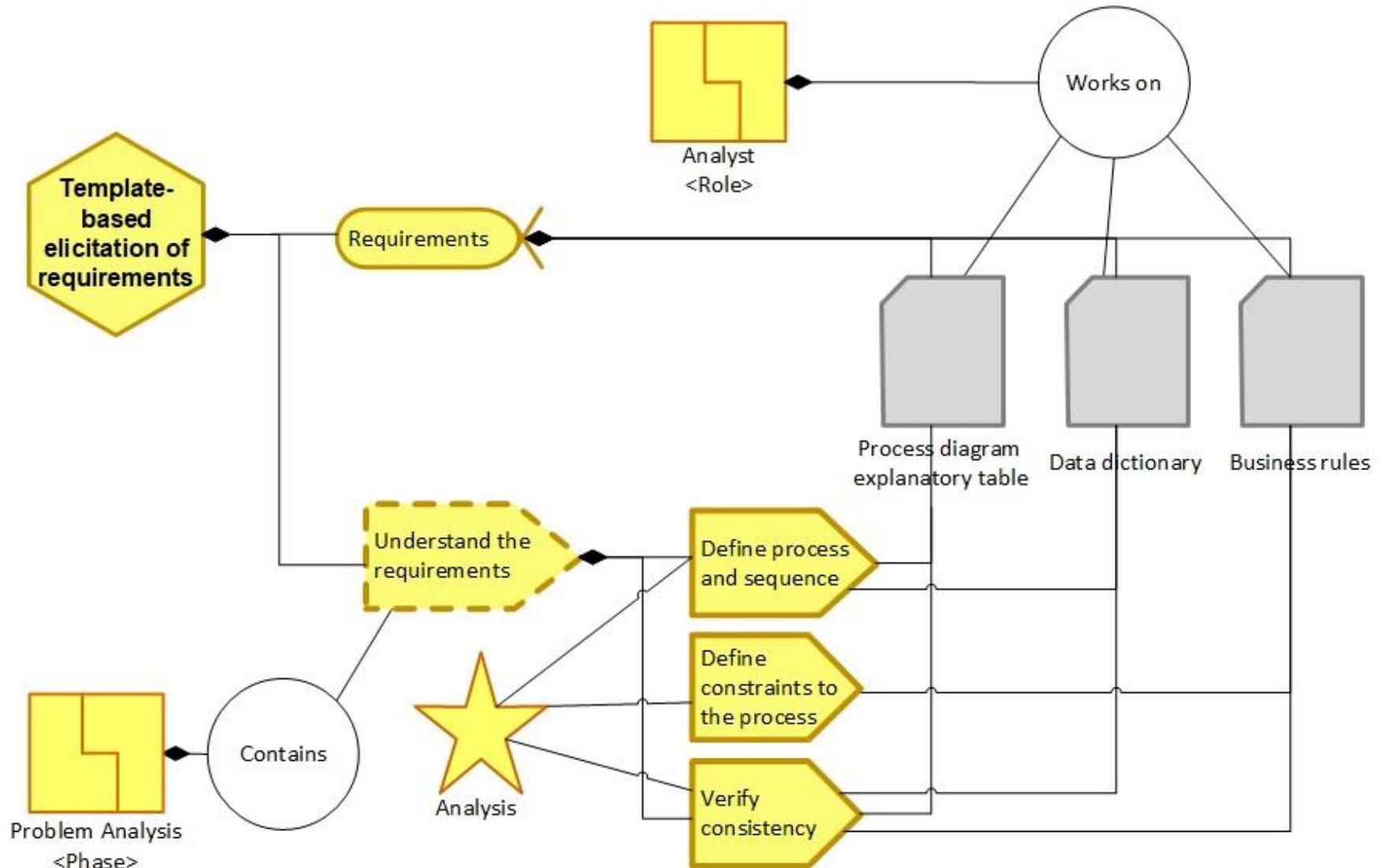
ZenPhoto™

A0: Administrator



# EVENT INTERACTION GRAPH





# PROCESS DIAGRAM EXPLANATORY TABLE

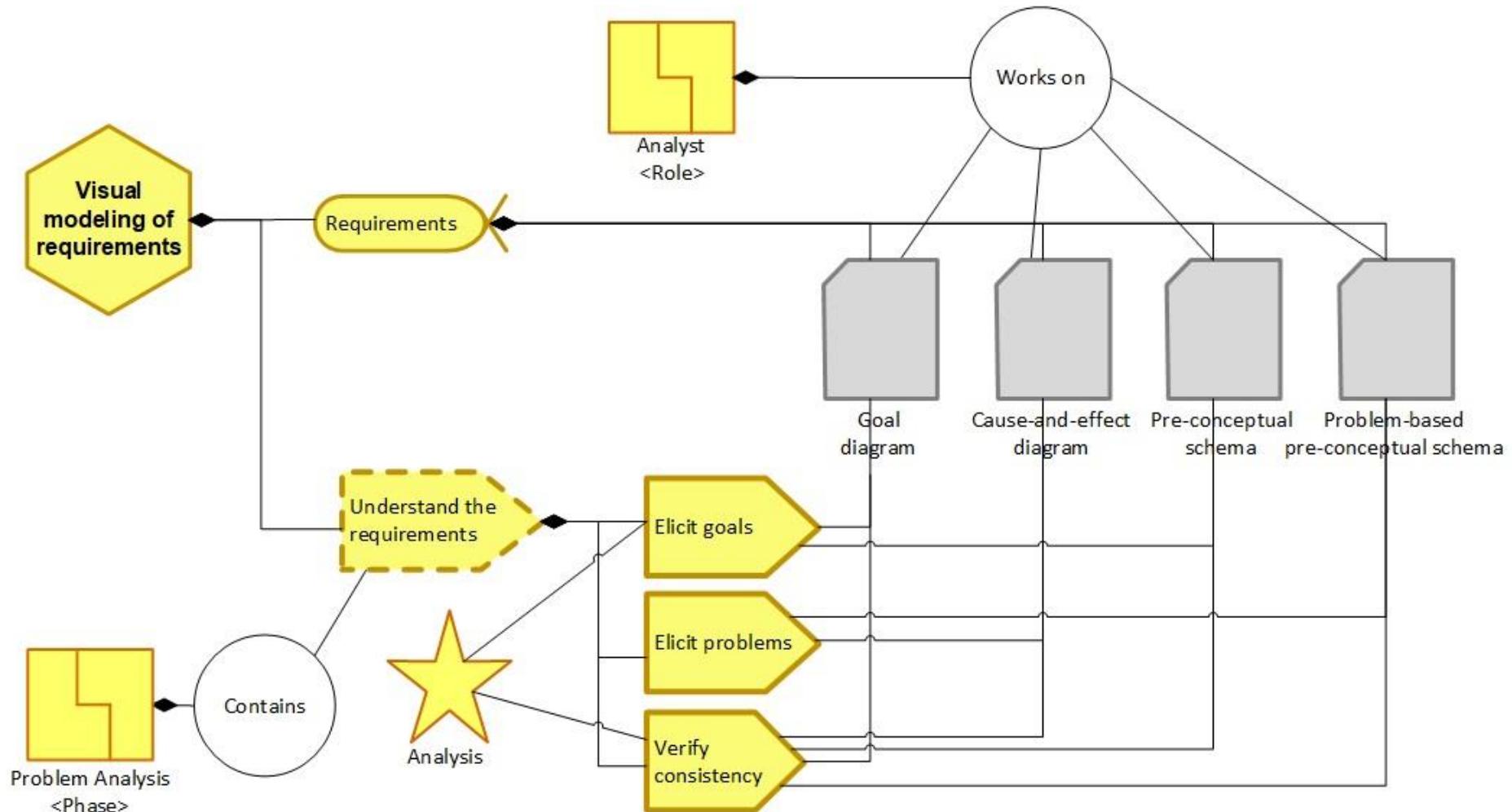
Name	Goal	Duration / Frequency	How? / Where?	Problems	Business rules	Events
P1:Creates User	G1: Increasing the Users; G4: Fostering the permits; G6: Assuring the accesses have albums; R3: Making the users be created	5 minutes; 20 times a month	For each user, the personal information is registered. This process takes place in the ZenPhoto™ headquarters.	C5: Some accesses have no unique user C6: Rights are hardly granted	BR006 Admin	TE1: description of the rights of the user was set to admin; TE2: user arises
P2:Deletes User	G4: Fostering the permits; R4:Allowing the users be managed	2 minutes; once a month	Users have sometimes the need to quit ZenPhoto™. In such a case, the user is deleted. This process takes place in the ZenPhoto™ headquarters.	C5: Some accesses have no unique user C6: Rights are hardly granted	BR006 Admin	RE2:User deleted
P3:Edits User	G4: Fostering the permits; G6: Assuring the accesses have albums; R4:Allowing the users be managed	7 minutes; 10 times a month	This process takes place in the ZenPhoto™ headquarters whenever the user information needs some adjustment	C5: Some accesses have no unique user C6: Rights are hardly granted	BR006 Admin	RE1:User edited
P4:Uploads File	G3: Fostering the files; G4: Fostering the permits; R1: Allowing the file edition	3 minutes; 500 times a week	A file is one of the contents managed by ZenPhoto™. This process takes place in the user office and it is very important for the entire problem area.	C1: Files are restrictedly uploaded	BR002 Admin and files; BR006 Admin	TE3: Description of the rights of the user was set to Admin and Files

# DATA DICTIONARY

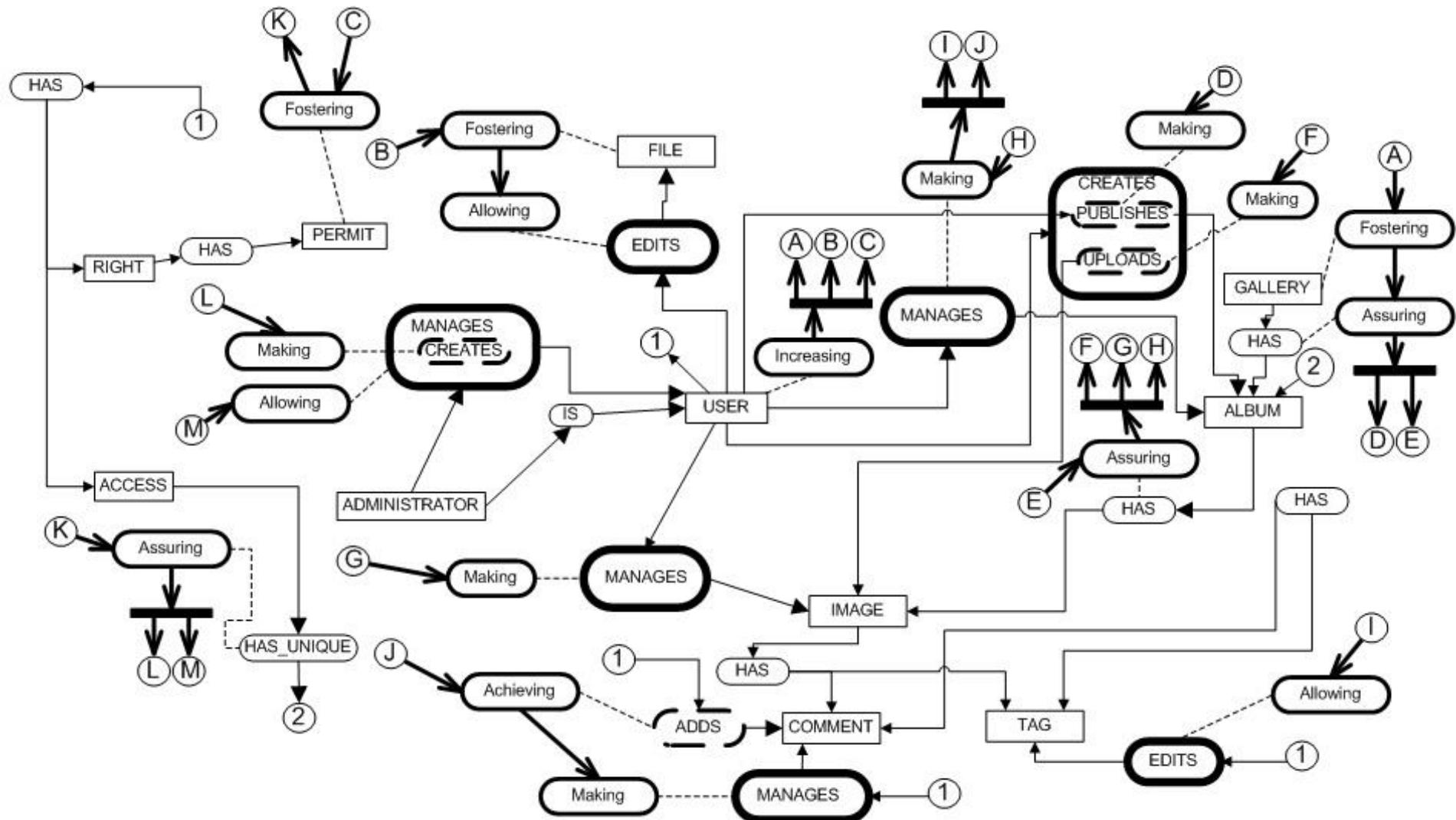
Name	Alias	Type	Processes involved	Features
A0: Administrator	Manager	External agent	P1: Creates user, P2: Deletes user, P3: Edits user	Id, pass, name, custom_data, email, nameuser, valid, group
A1: User		External agent and I/O storage	P4: Uploads file, P5: Deletes file, P6: Publishes album, P7: Deletes album, P8: Creates album, P9: Edits album, P10: Unpublishes album, P11: Resets hitcounter, P12: Deletes image, P13: Edits comment, P14: Assigns tag, P15: Edits image, P16: Uploads image, P17: Disables comments, P18: Deletes tag, P19: Uploads image, P20: Deletes comment, P21: Approves comment, P22: Renames tag, P23: Enables comment, P24: Disapproves comment, P25: Adds tag	Id, pass, name, custom_data, email, nameuser, valid, group
S2: Right		I/O storage	P1: Creates user, P2: Deletes user, P3: Edits user	Id, permit, description_right
S3: Access		I/O storage	P1: Creates user, P2: Deletes user, P3: Edits user	
S4: File		I/O storage	P4: Uploads file, P5: Deletes file	Name, readable_status, writable_status, modification_date, creation_date, file_type, filesize

# BUSINESS RULES

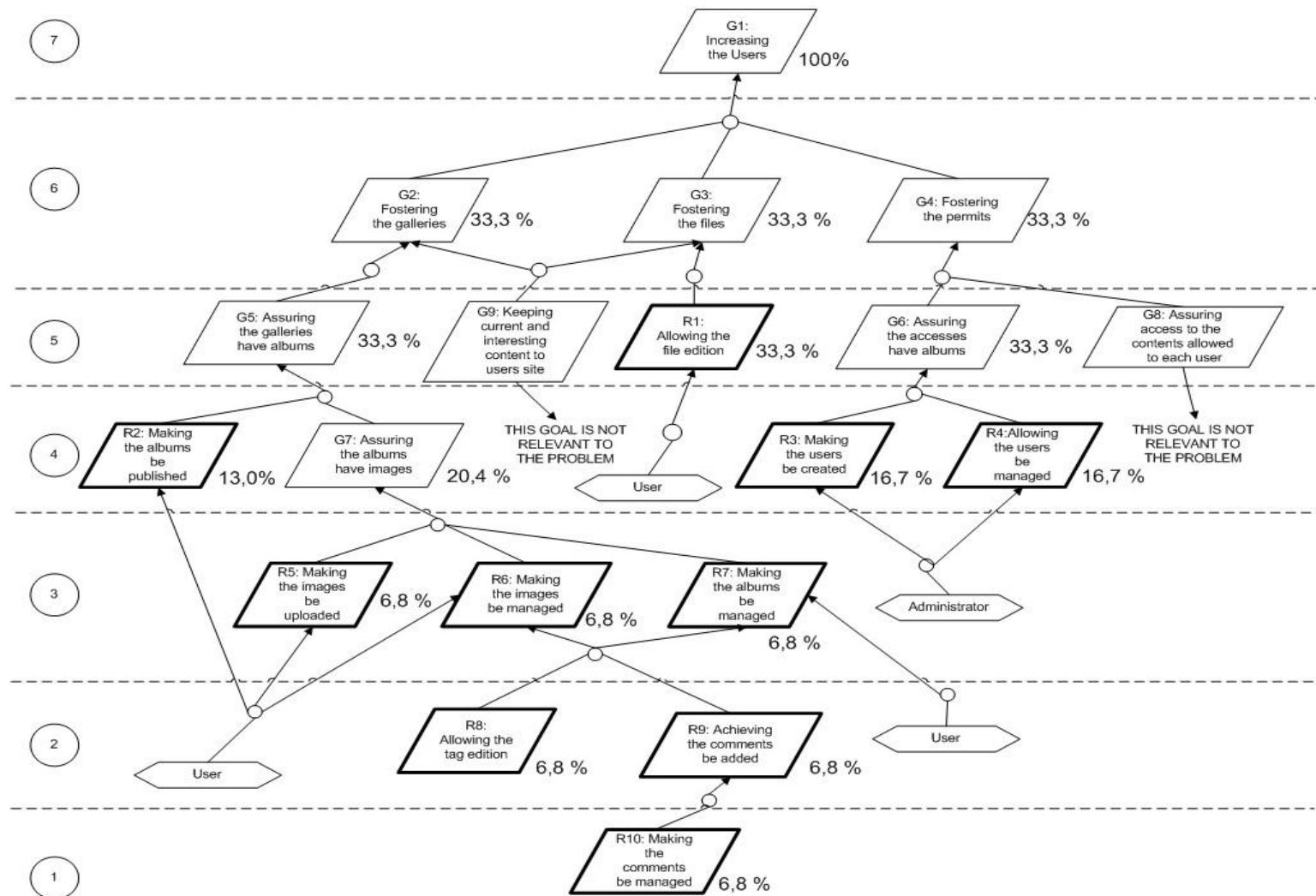
Code	Name	Description	Formulae	Source	Related business rules
BR001	Admin and Manage all albums	The user can manage and publish albums, can delete the hitCounter, manage images, assign tags, enable and disable comments only if his rights are "Admin" and "Manage all albums"	User.Right.Description_right = "Admin" & User.Right.Description_right = "Manage all albums"	ZenPhoto™ procedure manual	<b>BR006</b>
BR002	Admin and Files	The user can edit files only if his/her rights are "Admin" and "Files"	User.Right.Description_right = "Admin" & User.Right.Description_right = "Files"	ZenPhoto™ procedure manual	<b>BR006</b>
BR003	Admin and Tags	The user can edit tags only if his/her rights are "Admin" and "Tags"	User.Right.Description_right = "Admin" & User.Right.Description_right = "Tags"	ZenPhoto™ procedure manual	<b>BR006</b>



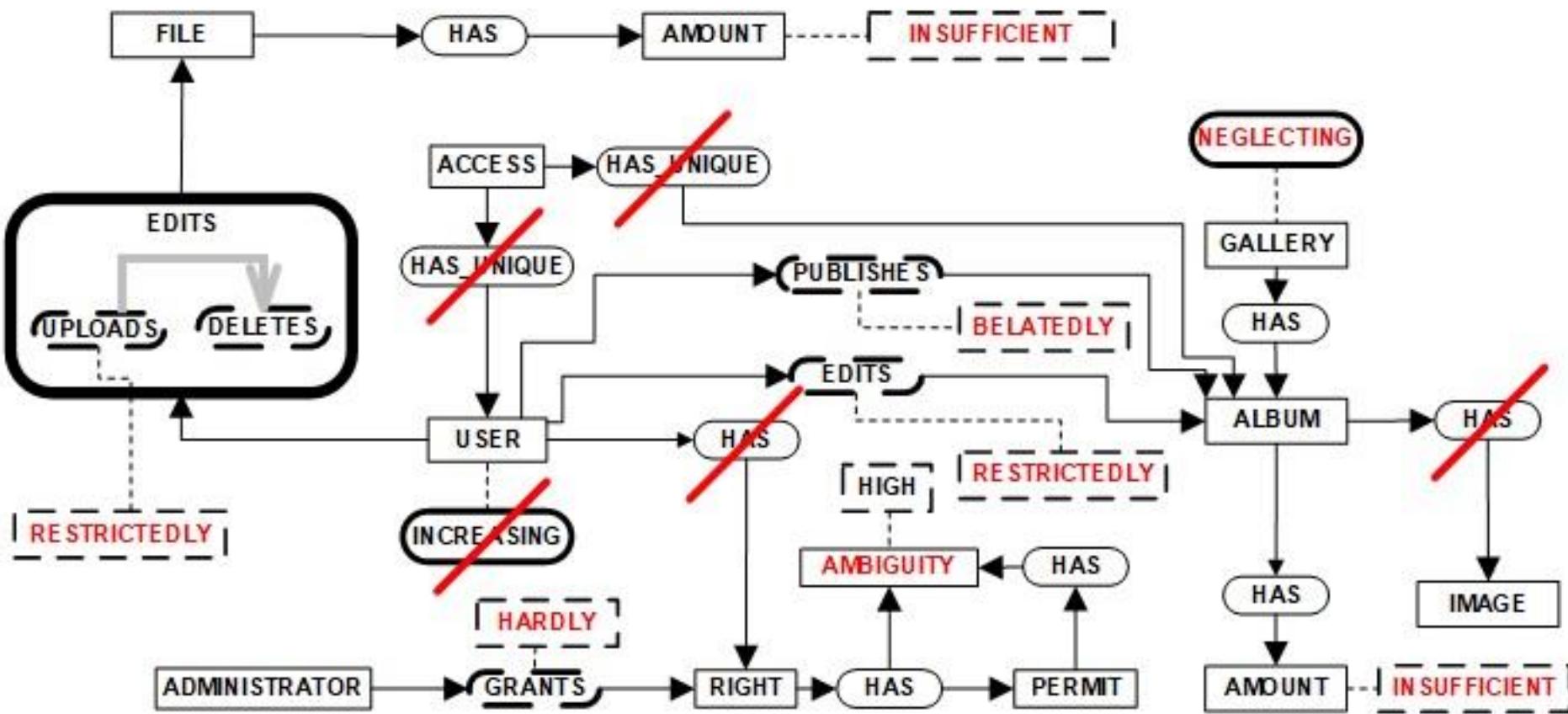
# PRE-CONCEPTUAL SCHEMA WITH ACHIEVEMENT SETS



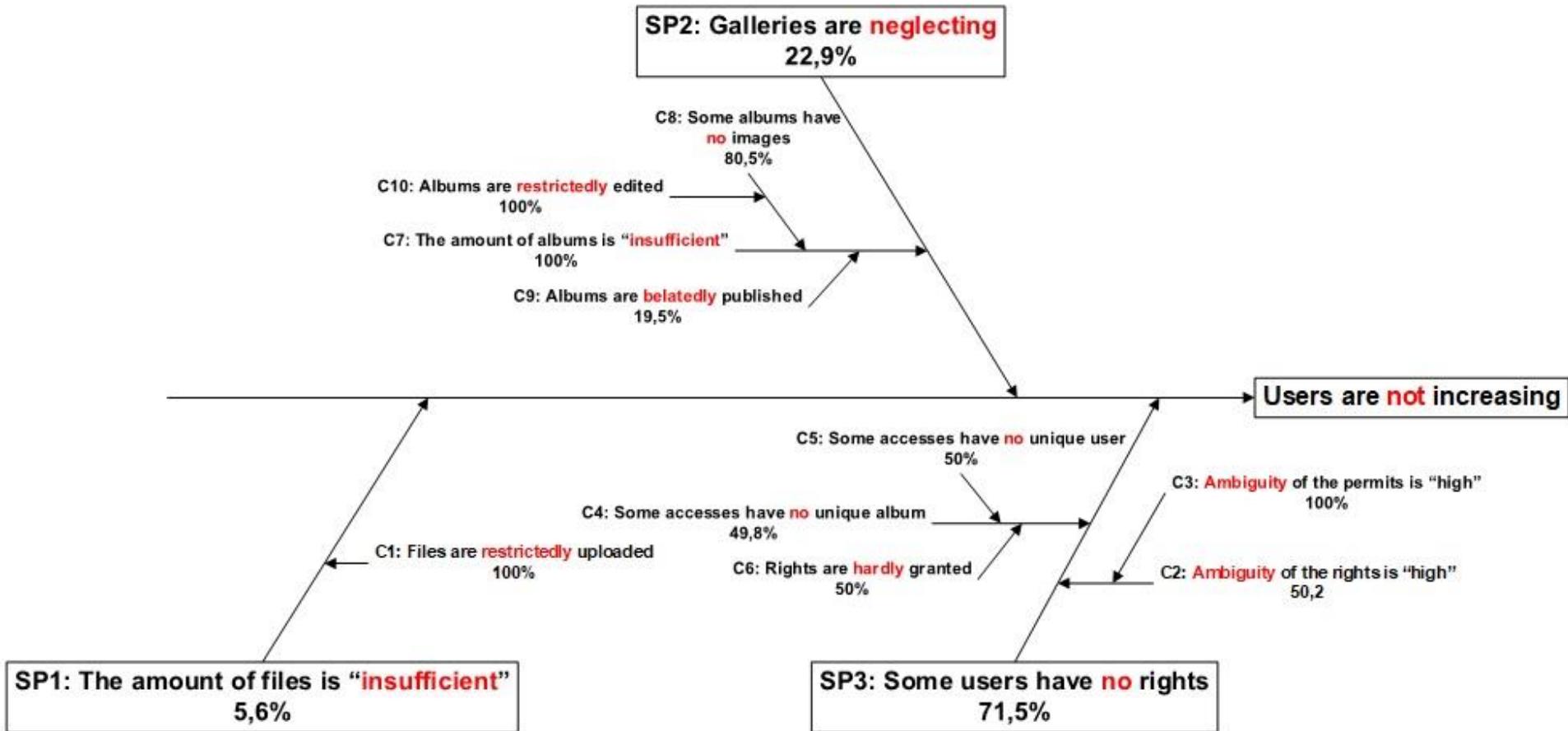
# GOAL DIAGRAM

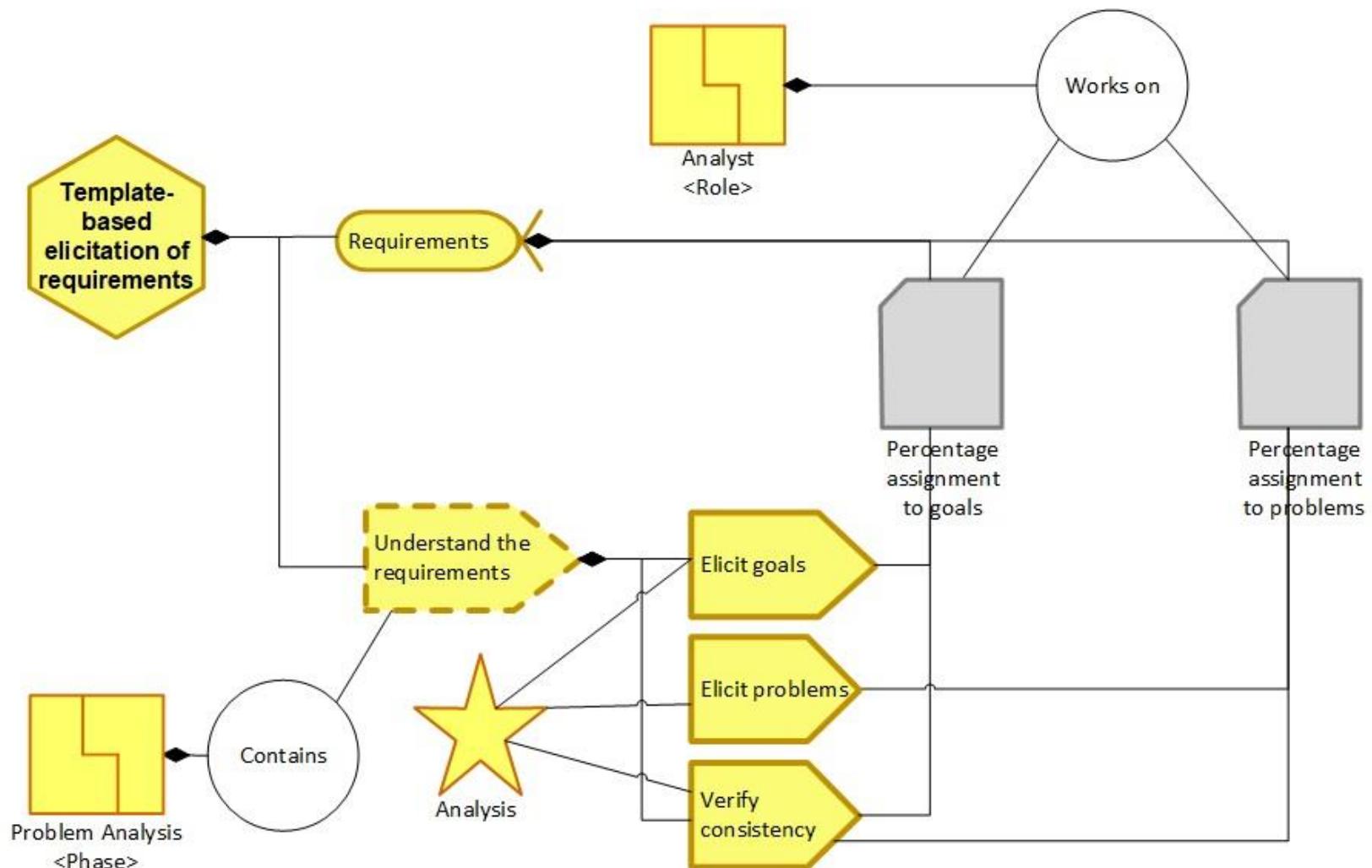


# PROBLEM-BASED PRE-CONCEPTUAL SCHEMA



# CAUSE-AND-EFFECT DIAGRAM





# PERCENTAGE ASSIGNMENT TO GOALS

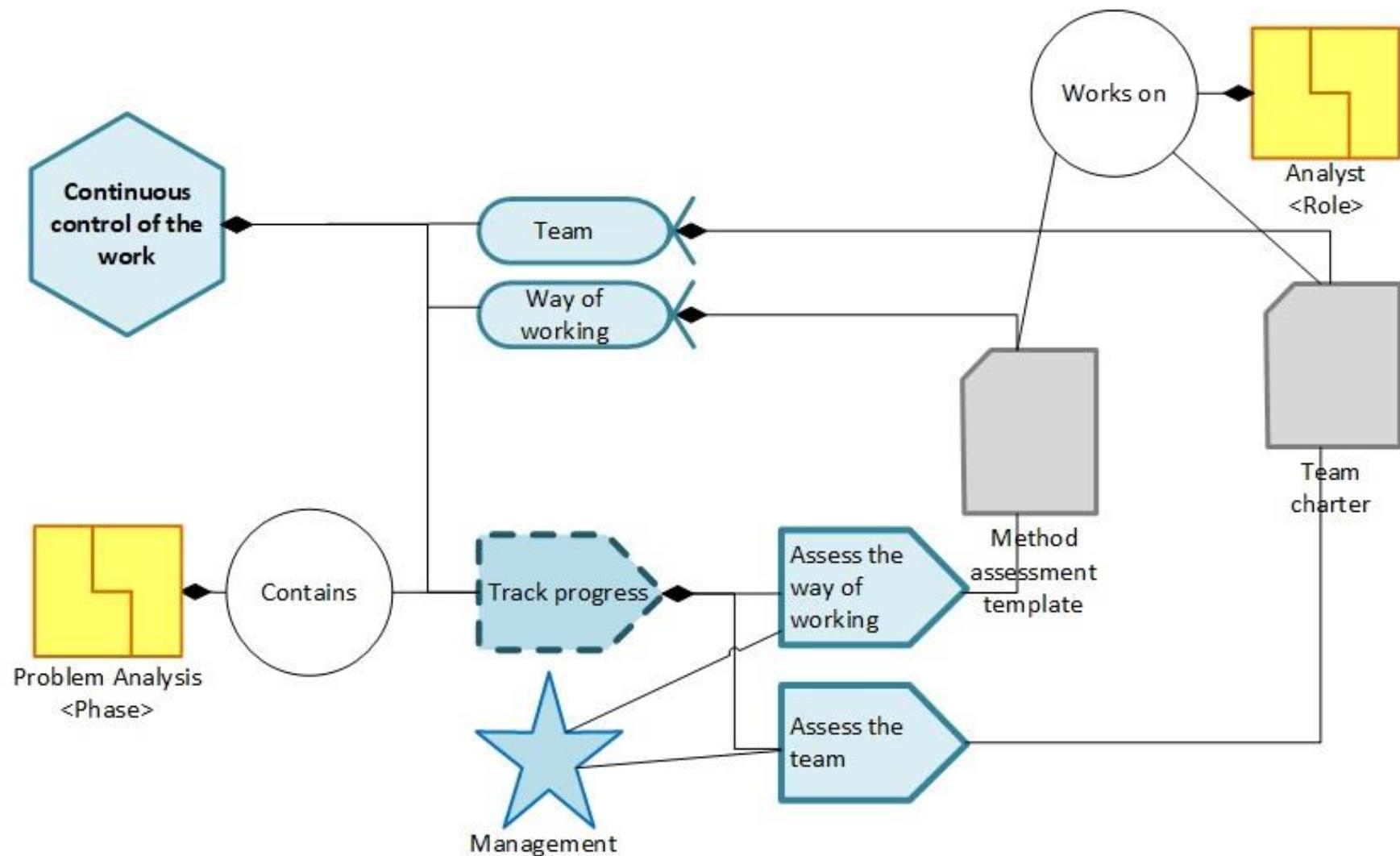
Father	KAOS element	Achievement			Verb			Element			
		Level	%	verb	Verb type	weight	Verb %	Element type	Weight	Element %	Weighted %
ROOT	G1 Increasing the users	7	100,0	INCREASE	IMPROVEMENT	2	100,0	GOAL	2	100,0	100,0
			100,0			2	100,0		2	100,0	100,0
G1	G2. Fostering the galleries	6	33,3	FOSTER	IMPROVEMENT	2	33,3	GOAL	2	33,3	33,3
G1	G3. Fostering the files	6	33,3	FOSTER	IMPROVEMENT	2	33,3	GOAL	2	33,3	33,3
G1	G4. Fostering the permits	6	33,3	FOSTER	IMPROVEMENT	2	33,3	GOAL	2	33,3	33,3
			100,0			6	100,0		6	100,0	100,0
G2	G5. Assuring the galleries have albums	5	33,3	ASSURE	MAINTENANCE	2	33,3	GOAL	2	33,3	33,3
			33,3			2	33,3		2	33,3	33,3
G3	R1. Allowing the file edition	5	33,3	ALLOW	ACHIEVEMENT	1	33,3	REQUIREMENT	1	33,3	33,3
			33,3			1	33,3		1	33,3	33,3
G4	G6. Assuring the accesses have albums	5	33,3	ASSURE	MAINTENANCE	2	33,3	GOAL	2	33,3	33,3
			33,3			2	33,3		2	33,3	33,3
G5	R2. Making the albums be published	4	16,7	MAKE	ACHIEVEMENT	1	11,1	REQUIREMENT	1	11,1	13,0
G5	G7. Assuring the albums have images	4	16,7	ASSURE	MAINTENANCE	2	22,2	GOAL	2	22,2	20,4
			33,3			3	33,3		3	33,3	33,3
G6	R3. Making the users be created	4	16,7	MAKE	ACHIEVEMENT	1	16,7	REQUIREMENT	1	16,7	16,7
G6	R4. Allowing the users be managed	4	16,7	ALLOW	ACHIEVEMENT	1	16,7	REQUIREMENT	1	16,7	16,7
			33,3			2	33,3		1	33,3	16,7
G7	R5. Making the images be uploaded	3	6,8	MAKE	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	6,8
G7	R6. Making the images be managed	3	6,8	MAKE	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	6,8
G7	R7. Making the albums be managed	3	6,8	MAKE	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	0,0
			20,4			3	20,4		3	20,4	20,4
R6, R7	R8. Allowing the tag edition	2	6,8	ALLOW	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	6,8
			6,8			1	6,8		1	6,8	6,8
R6, R7	R9. Achieving the comments be added	2	6,8	ACHIEVE	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	0,0
			6,8			1	6,8		1	6,8	6,8
R9	R10. Making the comments be managed	1	6,8	MAKE	ACHIEVEMENT	1	6,8	REQUIREMENT	1	6,8	6,8
			6,8			1	6,8		1	6,8	100,0

# PERCENTAGE ASSIGNMENT TO PROBLEMS

	<b>C1</b>	<b>C3</b>	<b>C5</b>	<b>C6</b>	<b>C9</b>	<b>C10</b>
P1			G1, G4, G6, R3	G1, G4, G6, R3		
P2			G4, R4	G4, R4		
P3			G4, G6, R4	G4, G6, R4		
P4	G3, G4, R1					
P5						
P6					G2, G5, R2	
P7						G4, R7
P8						G2, G5, R7
P9						G2, G5, R7
P10						G4, R7
P11		G4, R7, R6				
P12						G4, R6
P13			G4, R10, R7, R6			
P14			G4, R8, R7, R6			

# PERCENTAGE ASSIGNMENT TO PROBLEMS

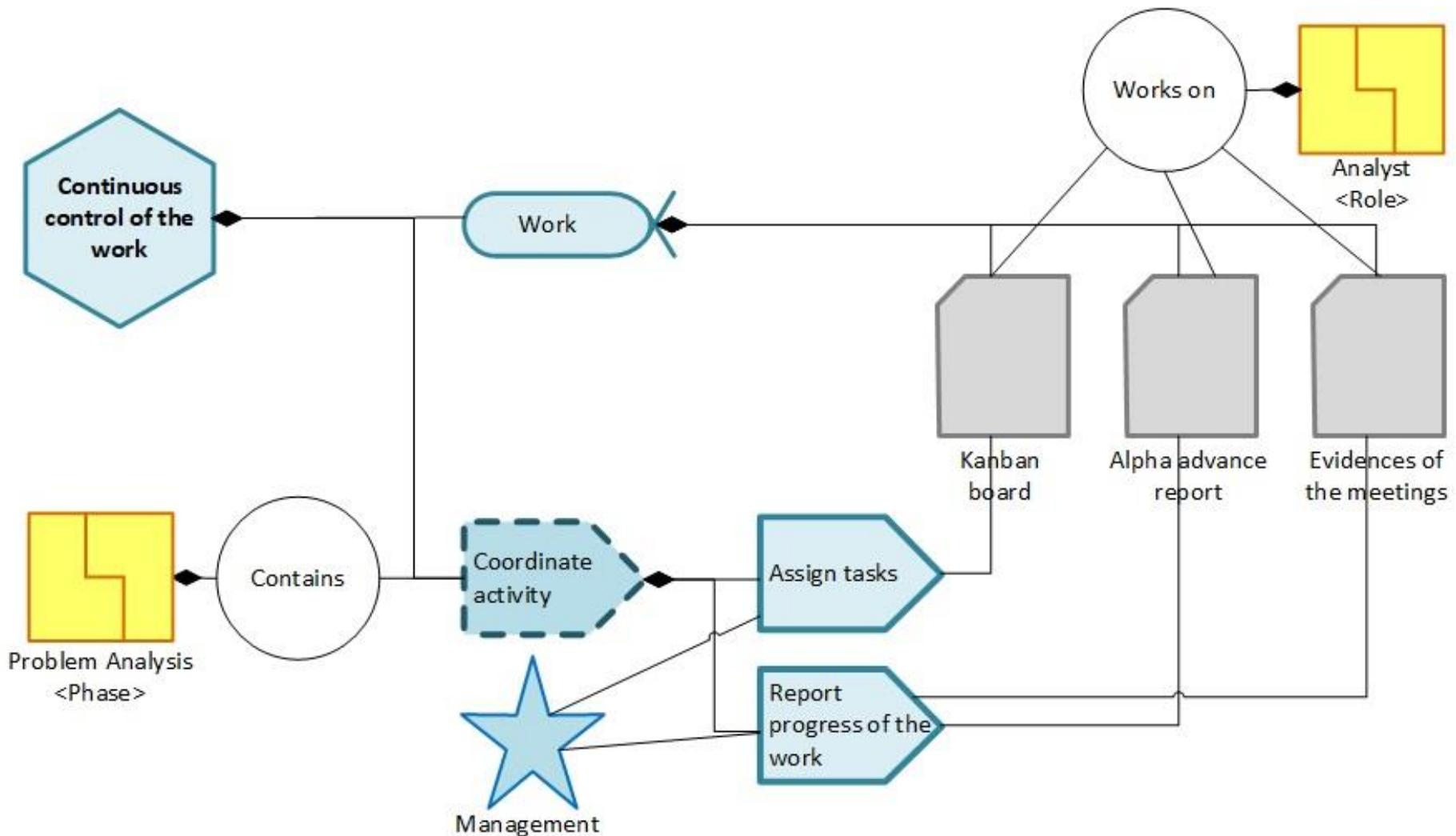
	C1	C3	C5	C6	C9	C10
P1			183,3	183,3		
P2			50	50		
P3			83,3	83,3		
P4	99,9					
P5						
P6					79,6	
P7						40,1
P8						73,4
P9						73,4
P10						40,1
P11		46,9				
P12						40,1



# TEAM CHARTER

<b>Team name</b>		<b>Date</b>	
<b>Team leader</b>		<b>Sponsor</b>	
<b>Team purpose</b>			
<b>Mission</b>			
<b>Objectives</b>			
<b>Scope</b>			
<b>Team members</b>			
<b>Name</b>	<b>Role</b>	<b>Responsibilities</b>	

# METHOD ASSESSMENT TEMPLATE



# KANBAN BOARD

GOAL	TO DO	DOING	DONE
<p><b>Way of Working</b></p> <p><b>Foundation Established</b></p> <ul style="list-style-type: none"> <li>• Key practices and tools ready</li> <li>• Gaps that exist between practices and tools analyzed and understood</li> <li>• Capability gaps analyzed and understood</li> <li>• Selected practices, and tools integrated</li> </ul> <p>2 / 6</p> <p><b>Requirements</b></p> <p><b>Conceived</b></p> <ul style="list-style-type: none"> <li>• The need for a new system is clear</li> <li>• Users are identified</li> <li>• Initial sponsors are identified</li> </ul> <p>1 / 6</p>	<p><b>Constructing the pre-conceptual schema</b> Responsible: Ann Murray</p> <p><b>Elaborating the Document traceability table</b> Responsible: Sarah Miller</p>	<p><b>Explaining the Software context</b> Responsible: Carlos Zapata</p>	<p><b>Recruiting team members</b> Responsible: John Smith</p> <p><b>Defining roles of the team members</b> Responsible: John Smith</p> <p><b>Team</b></p> <p><b>Seeded</b></p> <ul style="list-style-type: none"> <li>• Team's mission is clear</li> <li>• Team knows how to grow to achieve mission</li> <li>• Required competencies are identified</li> <li>• Team size is determined</li> </ul> <p>1 / 5</p>

# ALPHA ADVANCE REPORT

## ALPHA ADVANCE REPORT

STATE	SUMMARY OF THE ACHIEVEMENT	TASK	DATE/DURATION	CONTENTS/OBSERVATIONS
 <b>Team</b> <div style="background-color: #e0f2ff; padding: 5px; border-radius: 5px;"> <b>Seeded</b>  <ul style="list-style-type: none"> <li>▪ Team's mission is clear</li> <li>▪ Team knows how to grow to achieve mission</li> <li>▪ Required competencies are identified</li> <li>▪ Team size is determined</li> </ul> </div> <div style="background-color: #e0f2ff; padding: 5px; border-radius: 5px; margin-top: 10px;">     1 / 5   </div>	<p>We select our team members from a list of candidates provided by our project manager. Then, we assign responsibilities by studying their curricula vitae.</p>	Recruiting team members Responsible: John Smith	02/23/2021 6 hours	Team: John Smith, Ann Murray, Sarah Miller, George Vincent
		Defining roles of the team members Responsible: John Smith	02/24/2021 8 hours	John Smith: Developer/Tester Ann Murray: Analyst Sarah Miller: Analyst/Architect George Vincnt: Developer/Tester
 <b>Requirements</b> <div style="background-color: #ffffcc; padding: 5px; border-radius: 5px;"> <b>Conceived</b>  <ul style="list-style-type: none"> <li>▪ The need for a new system is clear</li> <li>▪ Users are identified</li> <li>▪ Initial sponsors are identified</li> </ul> </div> <div style="background-color: #ffffcc; padding: 5px; border-radius: 5px; margin-top: 10px;">     1 / 6   </div>	<p>We design some work products in order to clarify the requirements. The final work product we completed is the pre-conceptual schema, since it includes all the information we gather from the stakeholder.</p>	Constructing the pre-conceptual schema Responsible: Ann Murray	03/15/2021 8 hours	Elements of the preliminary version of the pre-conceptual schema: 100 concepts 25 structural relationships 23 dynamic relationships 5 events 3 conditionals 18 achievement relationships 9 implications

# DELIVERABLE 2: Problem analysis

- Process diagram
- Event interaction graph
- Process diagram explanatory table
- Data dictionary
- Business rules
- Pre-conceptual schema with achievement sets
- Goal diagram
- Problem-based pre-conceptual schema
- Cause-and-effect diagram
- Percentage assignment to goals
- Percentage assignment to problems
- Stakeholder survey, team charter, and method assessment template
- Kanban board
- Alpha advance report
- Evidences of the meetings (minutes of the meetings, photos, chat, etc.)