



TOCICO 2008 Conference

TOCICO CONFERENCE 2008

TOCICO Business Strategy Certification Review Session

Prepared By: Alan Barnard, (Chairman 2003-2005, TOCICO)

Date: 4th November 2008, 13:30 to 14:15

Acknowledgements

Contributors to Business Strategy Committee

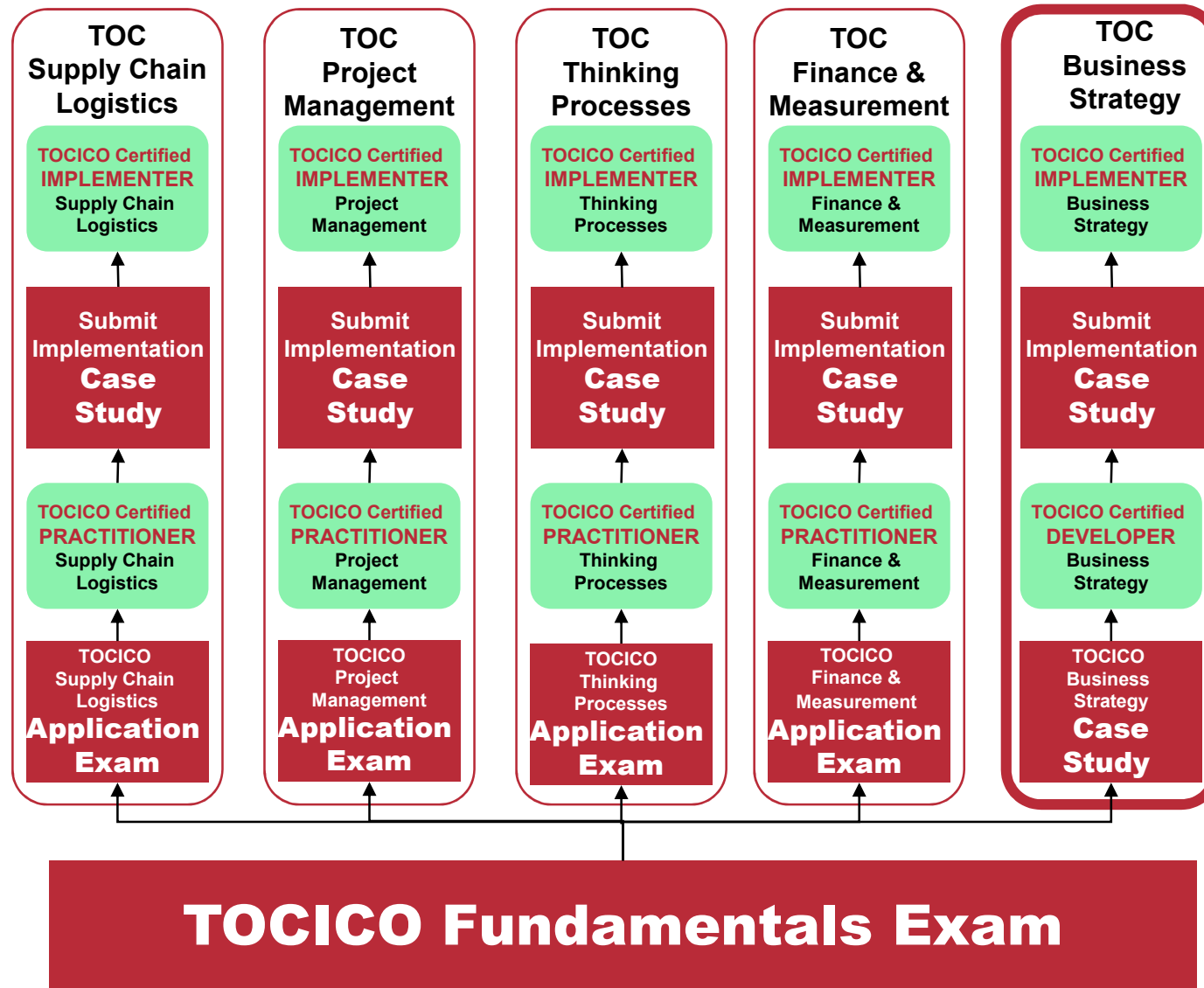
- **Dr. Eli Goldratt**
- **Rami Goldratt**
- **Eli Schragenheim**
- **Oded Cohen**
- **Alex Knight**
- **Mickey Granot**
- **Gerry Kendall**
- **Chad Smith**



Introduction

TOCICO Business Strategy Certification Process

TOCICO Business Strategy



Introduction

TOC

Business Strategy

Scope, Process & Criteria



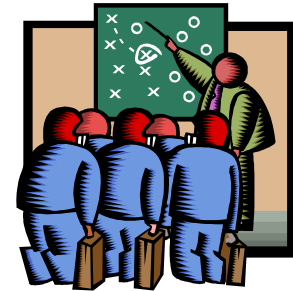
Introduction

TOCICO Business Strategy Certification Scope

TOCICO Business Strategy

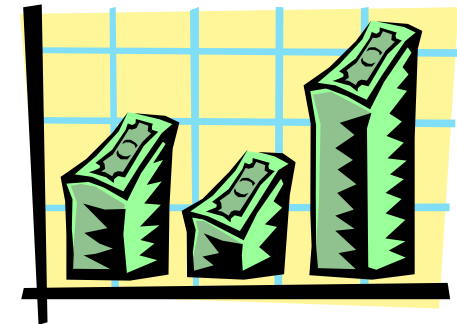
PLANNING

- Data Gathering
- Analysis
- Strategy & Tactic Tree Development
- Getting Buy-in / Contribution & Commitment



EXECUTION

- Preparation & Planning
- Implementation
- Monitoring
- Corrective Actions
(in either execution or planning)



Introduction

TOCICO Business Strategy Certification Criteria

TOCICO Business Strategy

PLANNING (Strategy Developer Level)

- Submission of Data Report & Strategy & Tactic Tree (or Equivalent) for peer review (*TOCICO to provide standard Templates*)
- Letter of Reference from CEO / MD / Owner based on quality of analysis, ability to communicate & get buy-in

EXECUTION (Strategy Implementer Level)

- Submission of Case Study which should include:
 - TOC Analysis
 - High Level Plan of which TOC Solutions should be implemented
 - Results & Why
- Peer Reference (from TOCICO certified member)
- Customer / Company Reference from CEO / MD / Owner



Is there a difference between Scientist and Strategist...

“Finally, and most importantly, I wanted to show that we can all be outstanding scientists. The secret of being a good scientist, I believe, lies not in our brain power. We have enough. We simply need to look at reality and think logically and precisely about what we see.

The key ingredient is to have the courage to face inconsistencies between what we see and deduce and the way things are done. This challenging of basic assumptions is essential to breakthroughs.

Progress in understanding requires that we challenge basic assumptions about how the world is and why it is that way. If we can better understand our world and the principals that govern it, I suspect all our lives will be better.”

Dr. Eli Goldratt, THE GOAL, 1984



Some common Inconsistencies that Business Strategy needs to address

1. For most Businesses:

- Why do Net Profit as % of Sales, not grow over time?

2. For Make-to-Order manufacturer's & projects co's :

- Why do some business have both (very) LONG LEAD TIMES and POOR RELIABILITY?

3. For Make-to-Stock manufacturer's & distributors:

- Why do some have both SHORTAGES and SURPLUSES?

Etc.



Introduction

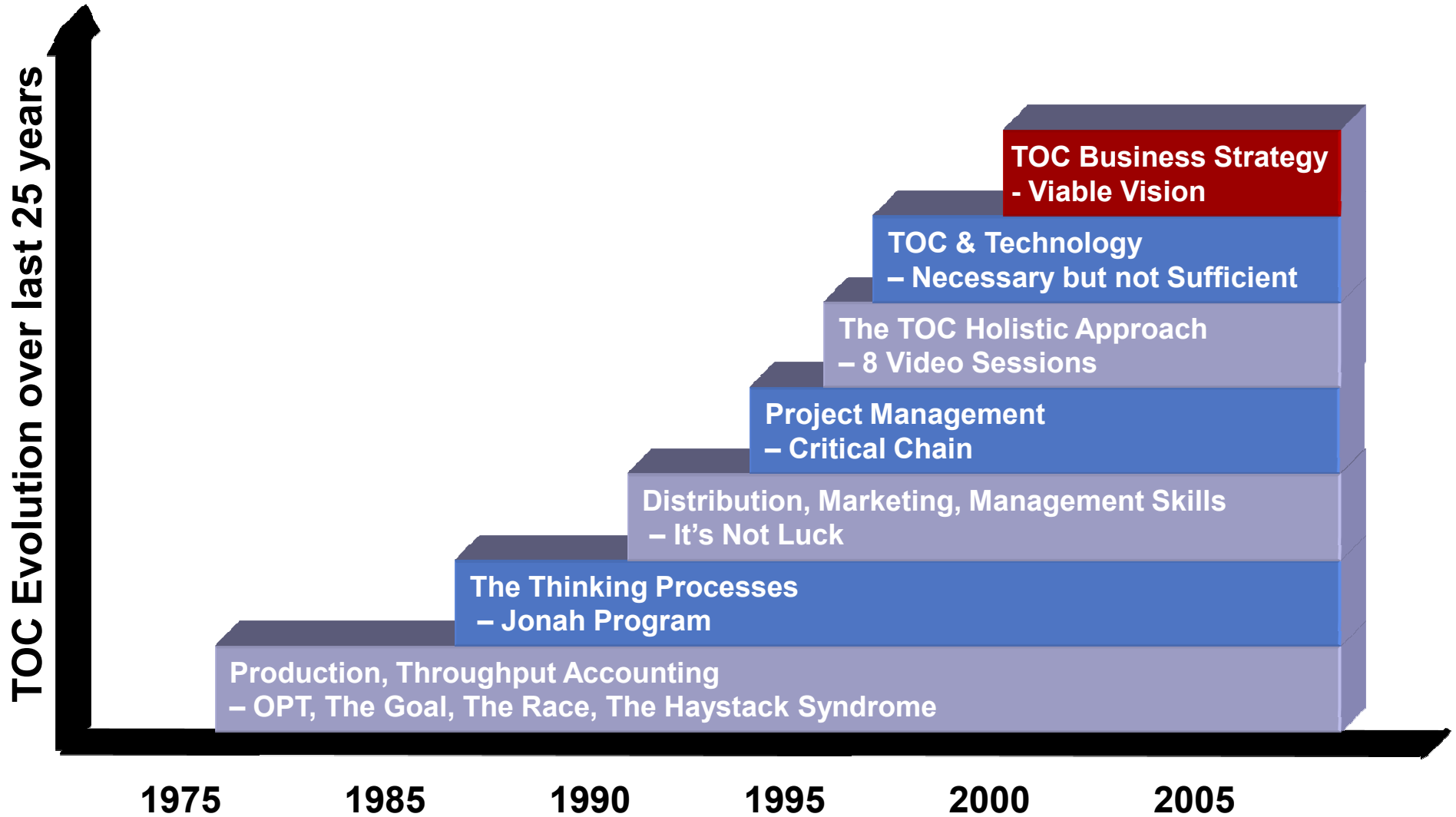
Relevant TOC BoK



Section A

TOC BoK Evolution towards Business Strategy application

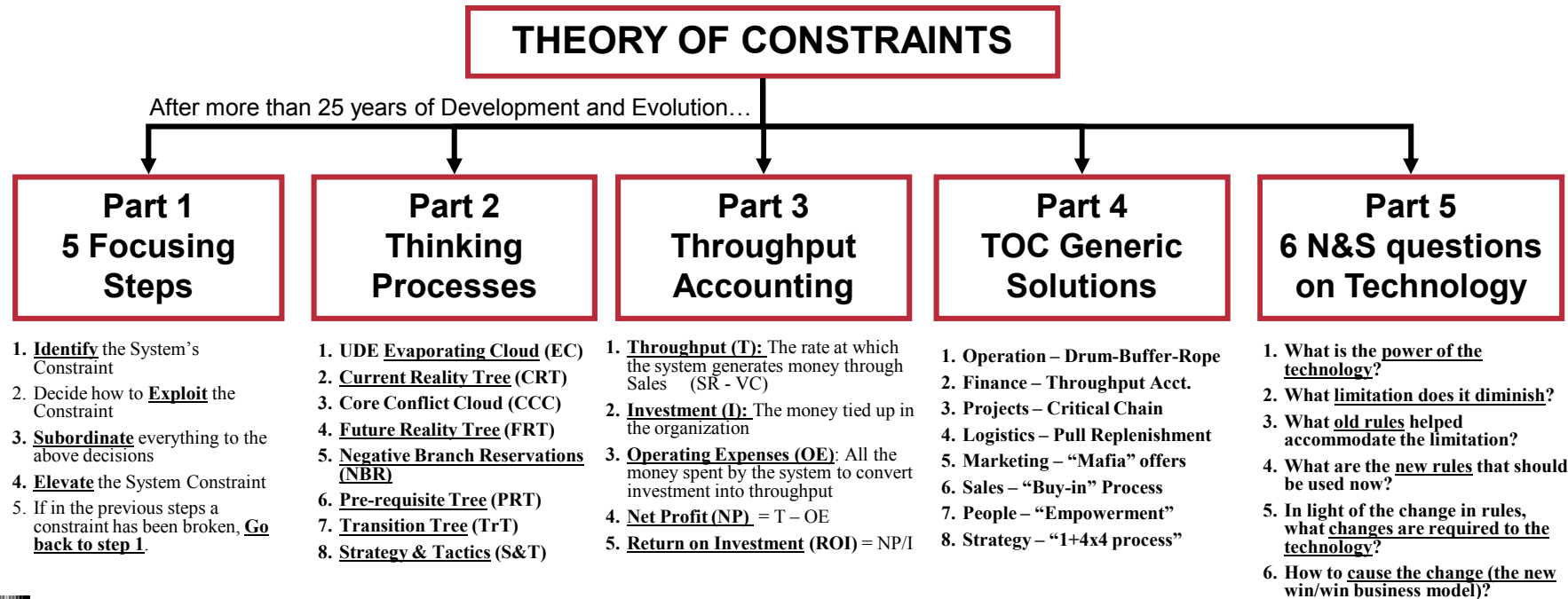
TOCICO Business Strategy



Section A

TOC Body of Knowledge Today

Theory of Constraints provides a set of Holistic processes and rules, all based on a Systems approach, that exploits the inherent simplicity within complex systems through FOCUSING on the FEW physical & logical “LEVERAGE POINT(S)” as a way to SYNCHRONIZE the parts to achieve ongoing & step change improvement in the performance of the system as a whole...

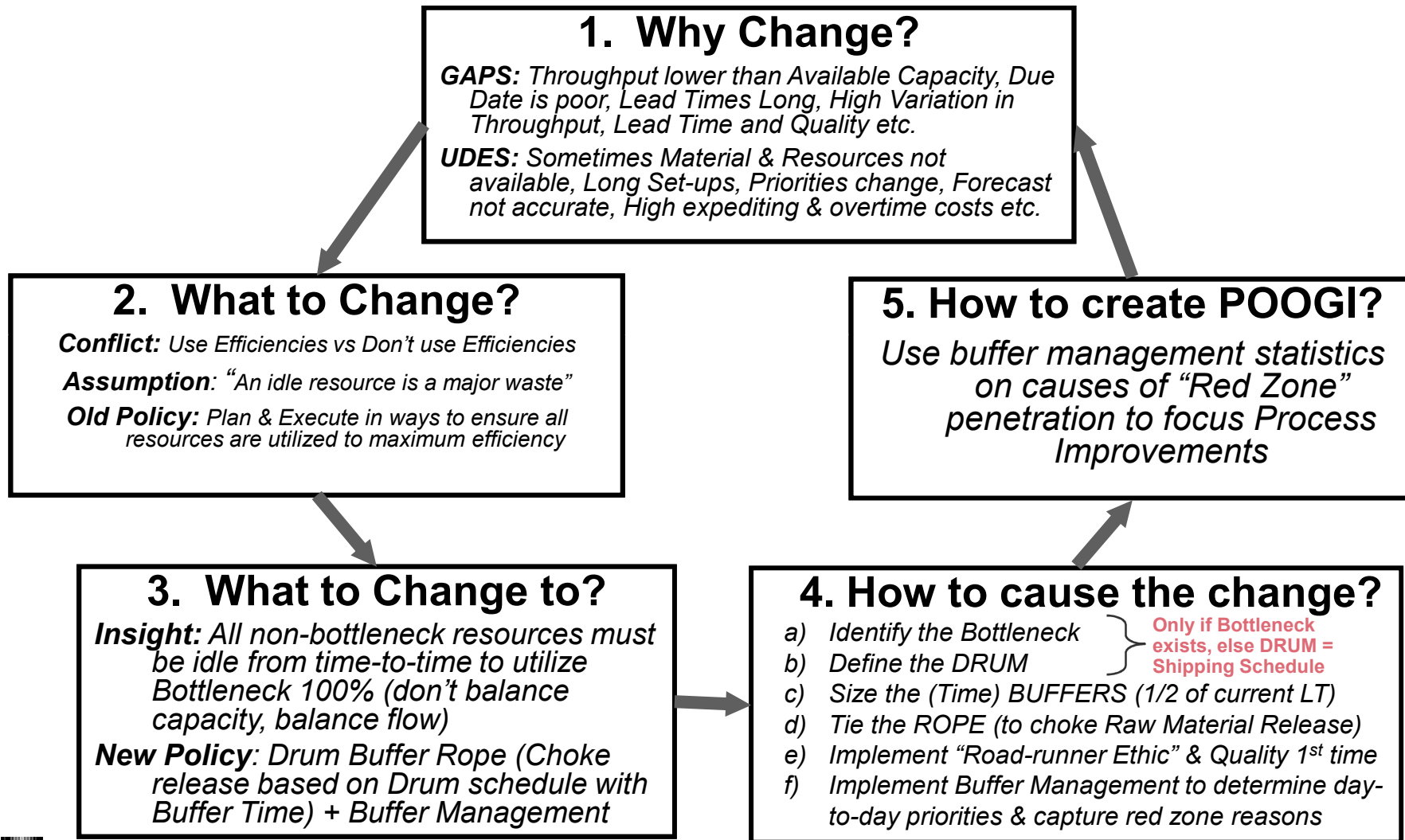


What TOC knowledge is needed?

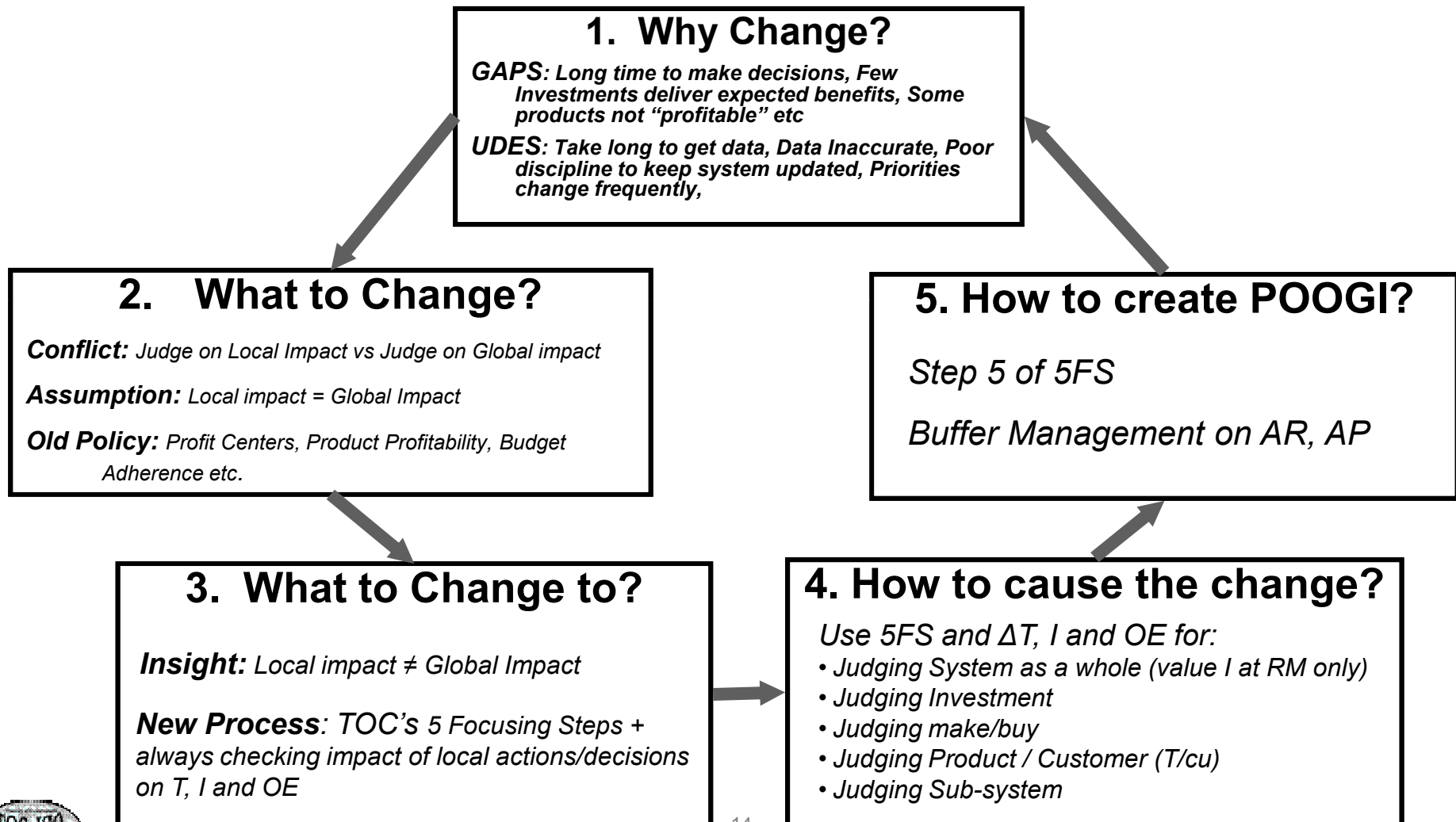
- 1. TOC Holistic / Systems Approach (Viable Vision Analysis Questions)**
- 2. 5 Focusing Steps & 6 NbnS Questions**
- 3. “Securing the Future FRT”**
- 4. TOC Thinking Processes (Specifically S&T, Cloud, NBR and PRT)**
- 5. Good working knowledge of ALL the TOC Applications (DBR, CCPM, TA, Distribution, Sales & Marketing etc) specifically those issues with strategic impact**
- 6. % Improvement GAP within EXPLOIT**
Example: V-Plant: 15-25%, A-Plant: 40-50%, T-Plant: 50-70%, I-Plant: 5-15%



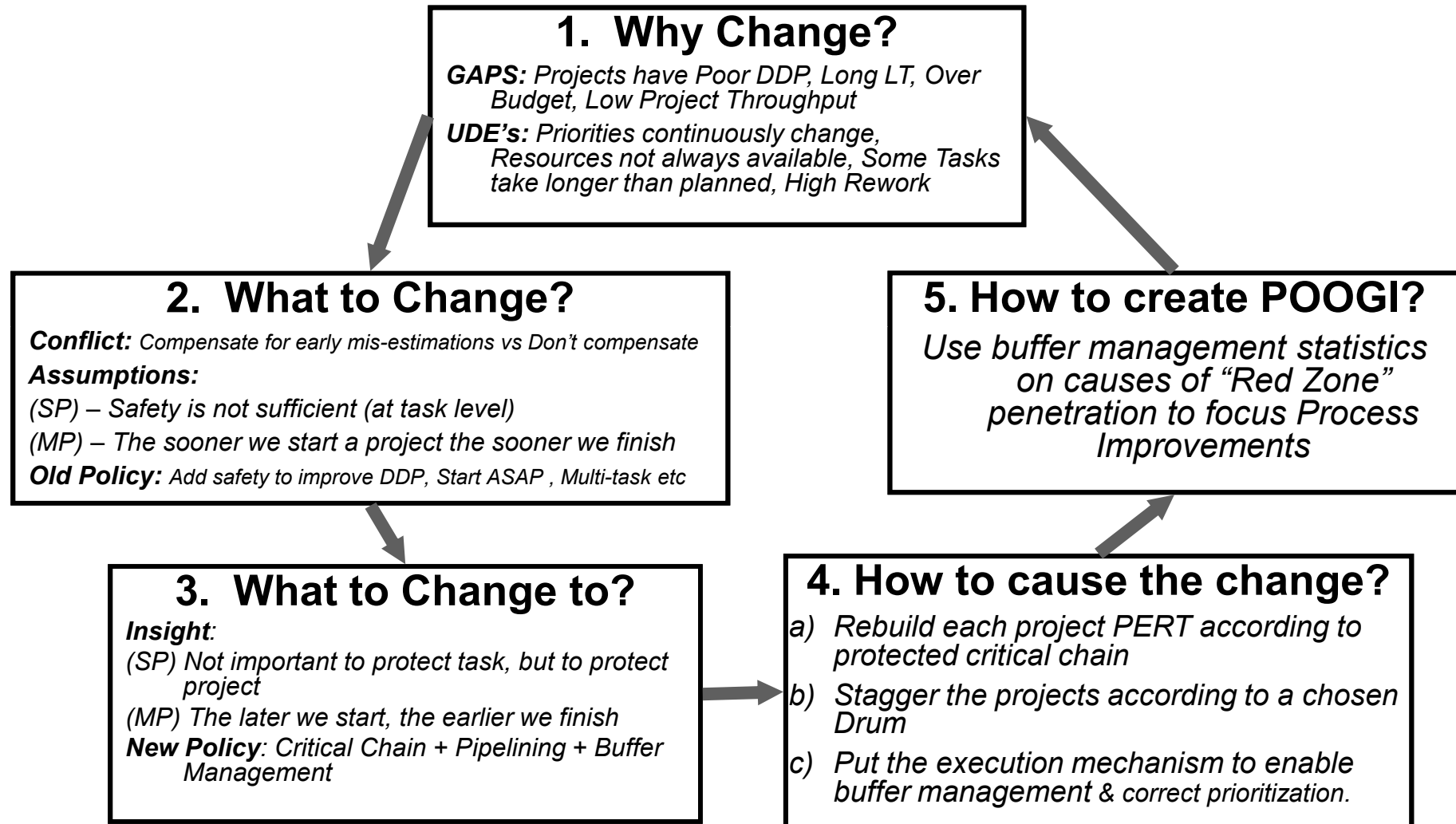
Summary of TOC Analysis & Solution for Managing Operations



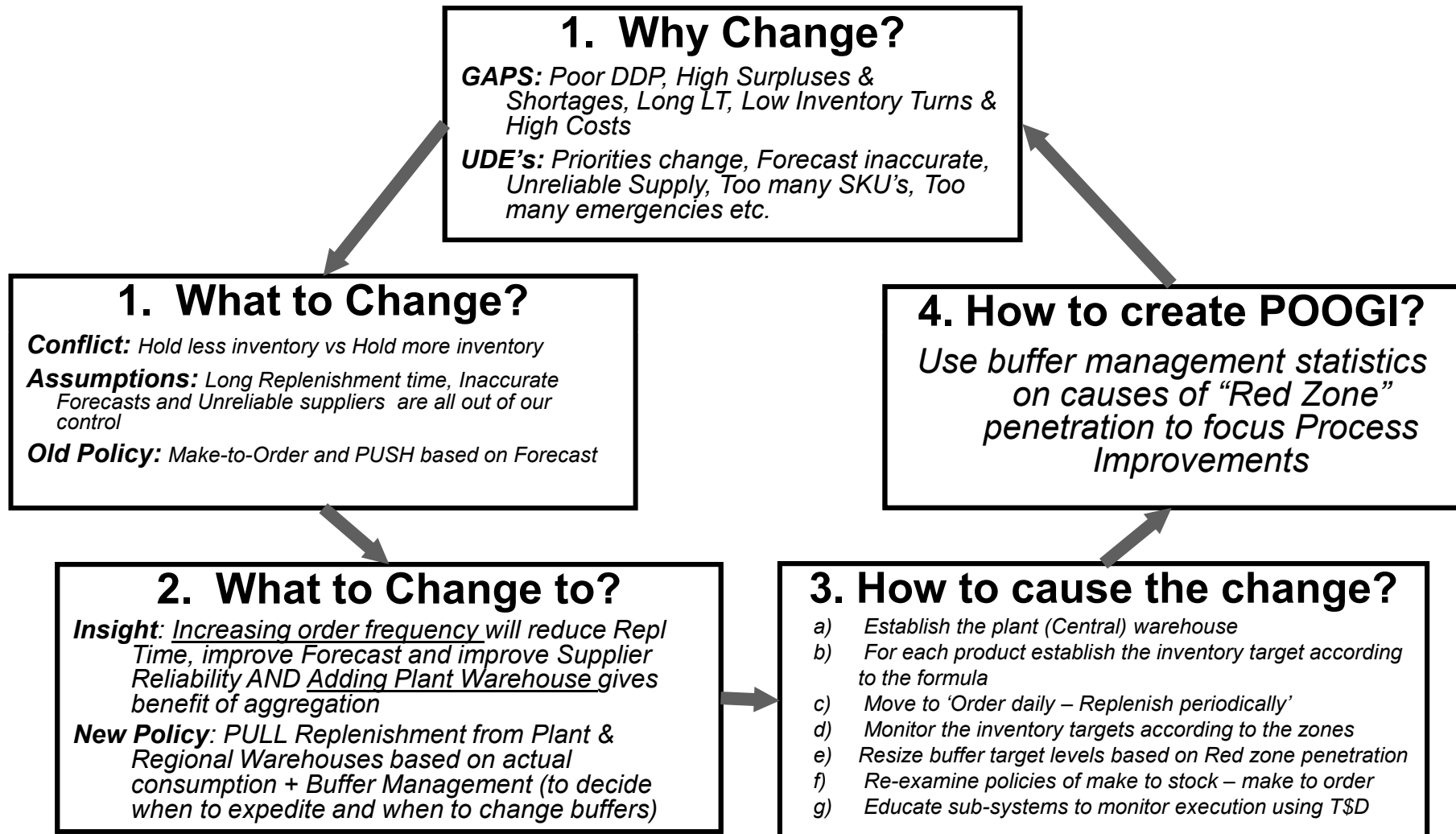
Summary of TOC Analysis & Solution for Managing Finance & Measurements



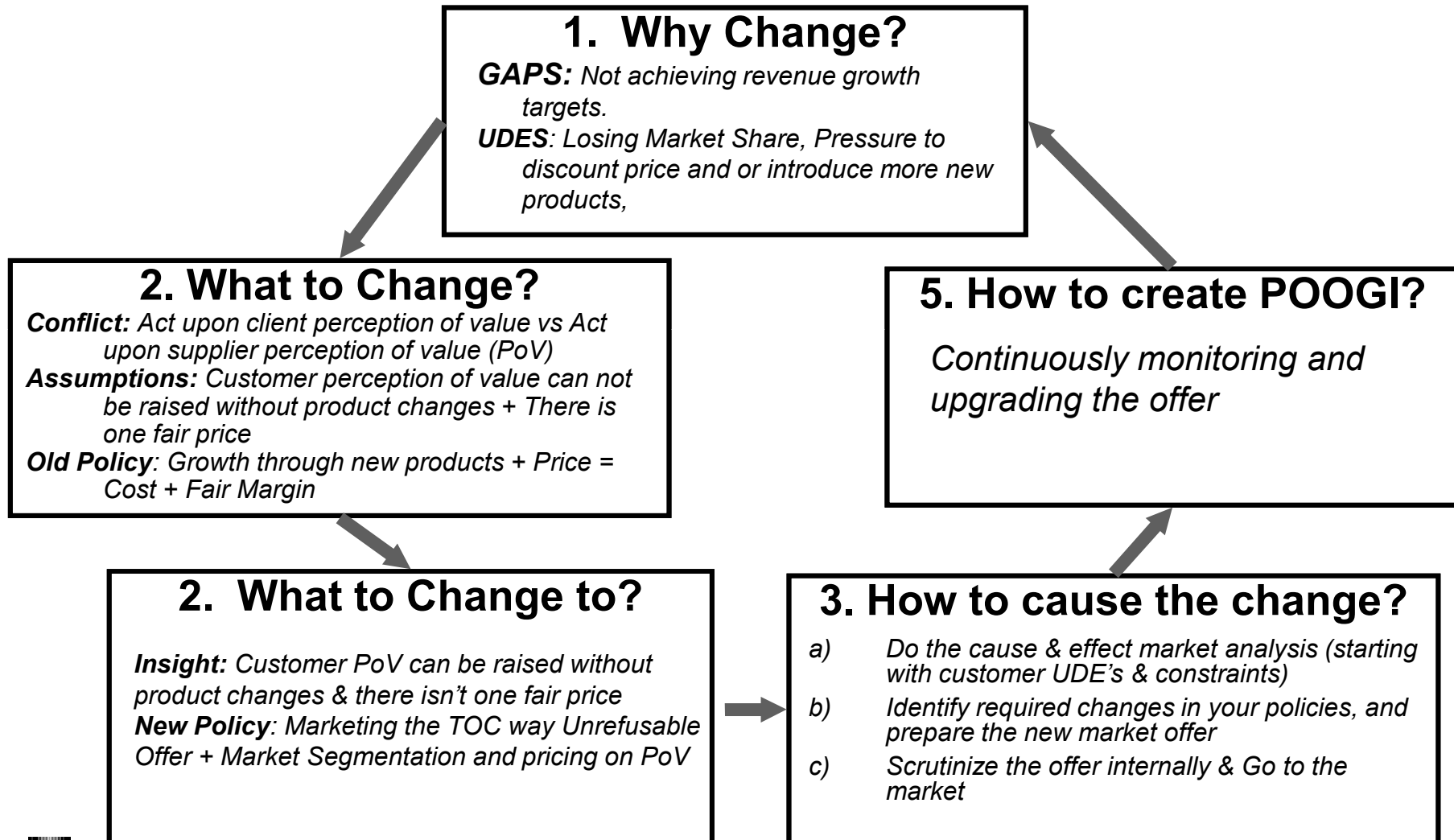
Summary of TOC Analysis & Solution for Managing Projects



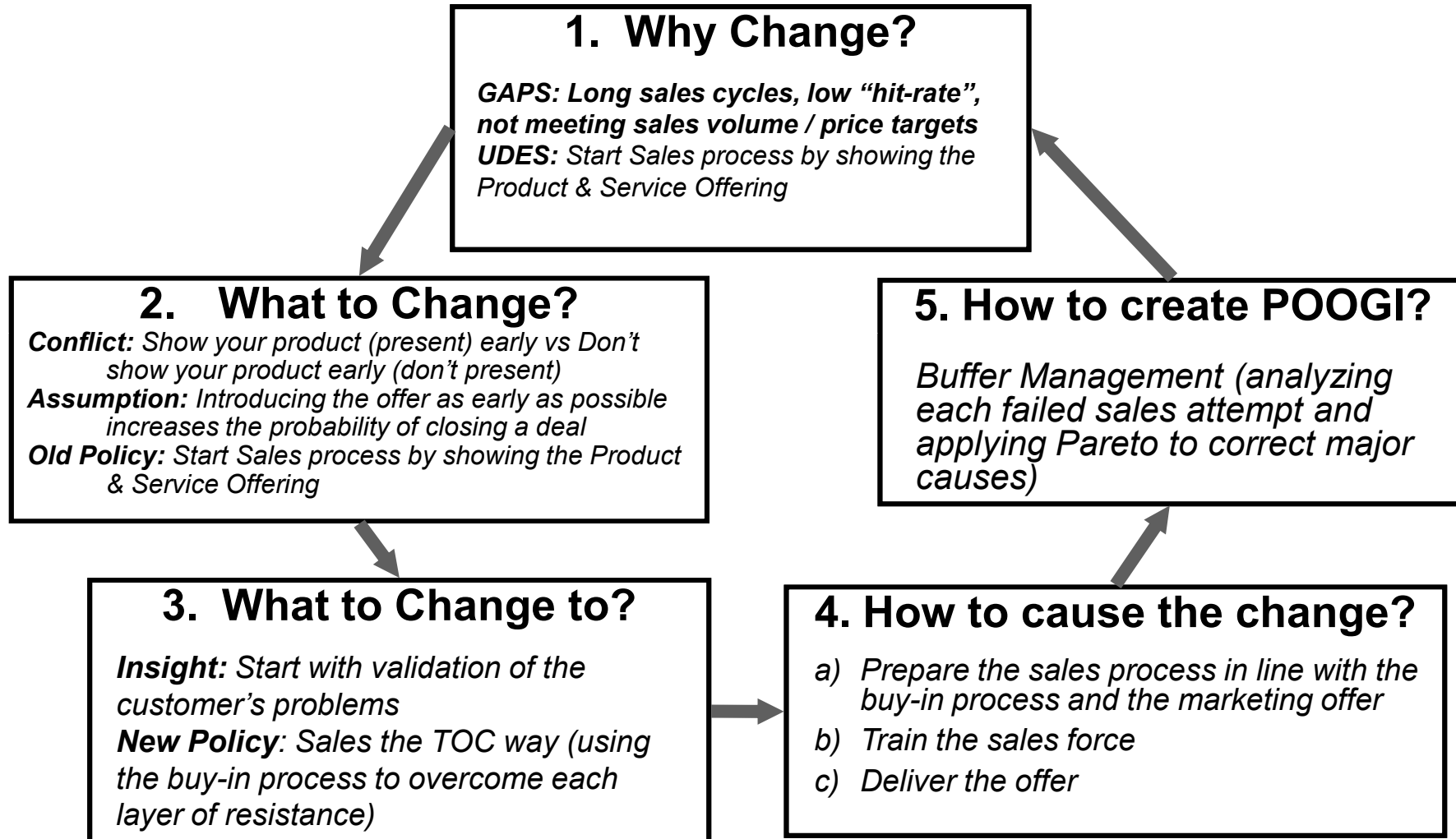
Summary of TOC Analysis & Solution for Managing Distribution/Supply Chains



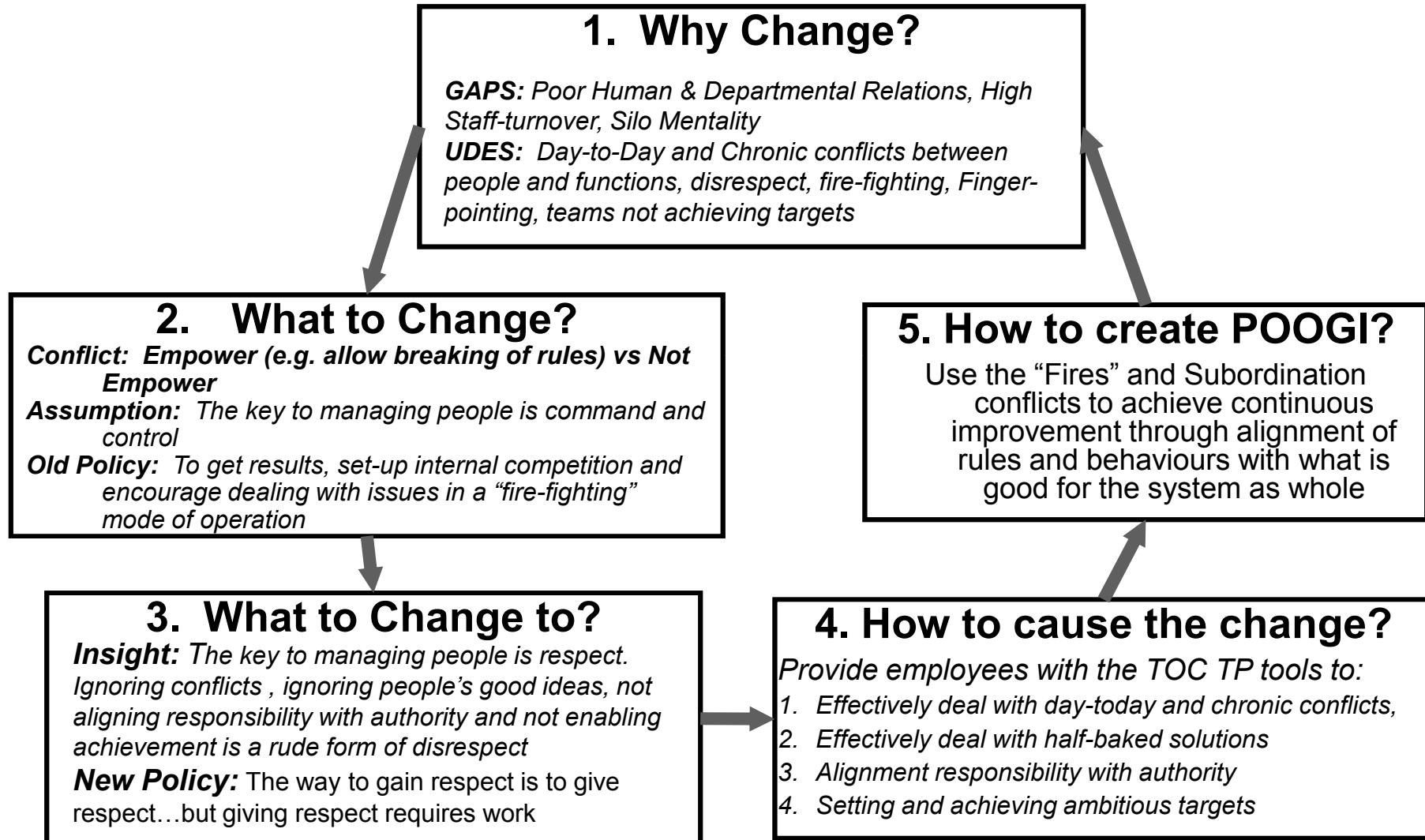
Summary of TOC Analysis & Solution for Managing Marketing



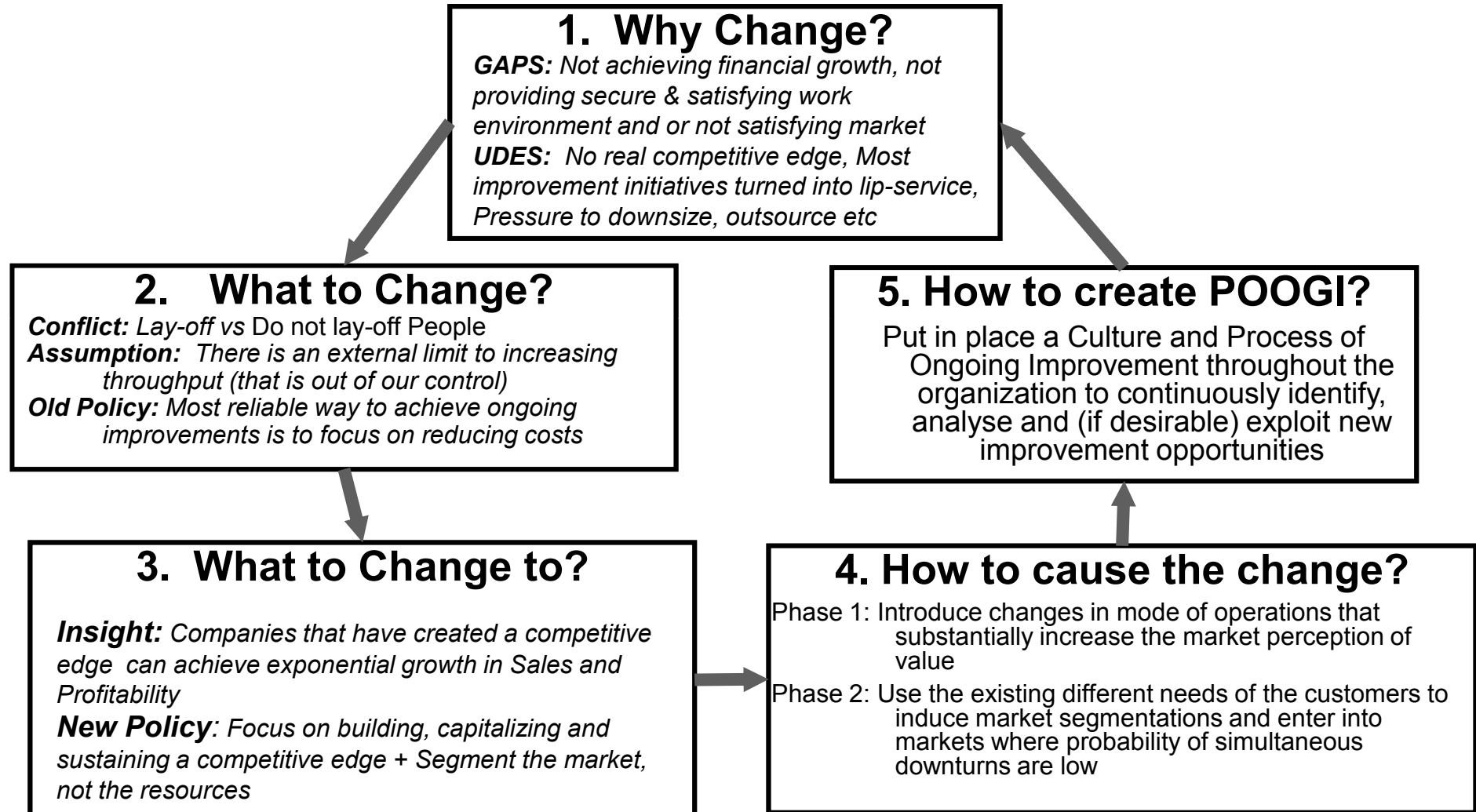
Summary of TOC Analysis & Solution for Managing Sales



Summary of TOC Analysis & Solution for Managing People



Summary of TOC Analysis & Solution for Strategy



TOC Business Strategy Planning & Execution Process

- 1. Setting a new (very ambitious) Goal**
 - 2. Data Gathering**
 - 3. Analysis & Development of S&T**
 - 4. S&T Validation meeting with Executives**
 - 5. S&T Validation meeting with Senior Managers**
 - 6. Implementation Planning & committment**
-
- 7. Preparation for Implementation**
 - 8. Start of Implementation**
 - 9. Continuous monitoring and review**
 - 10. Evaluate Results**



Section A

TOC

Business Strategy Analysis & Planning



TOC Business Strategy Levels of Complexity

Level	Description of Viable Vision Levels	Criteria
I	Logistical applications will solve the problem	It's obvious that the problem is not external AND in the foreseeable future the constraint will not be external <i>Typical indicators of such cases are companies with: patents, control over scarce raw material and or a powerful brand that enables control over large markets</i>
II	Logistical & Mafia Offer applications will solve the problem	The constraint is in the market or after standard improvements will move to the market. A decisive Mafia Offer is based on a meaningful improvement in logistics and/or one of the standard models; AND there is no decisive threat in the foreseeable future; AND implementing the Mafia Offer will require cooperation with only one link (up or down the supply chain).
III	Deep understanding of the industry required	The implementation of the Mafia Offer will require the co-operation of more than one link of the supply chain; OR There is no single, decisive Mafia Offer - there is a need to integrate a collection of Mafia Offers; OR There is a decisive threat in the seeable future
IV	Unknown solution required	The constraint is in the market AND there is no apparent Mafia offer; OR There is a decisive threat in the near future AND no apparent answer



TOC Business Strategy

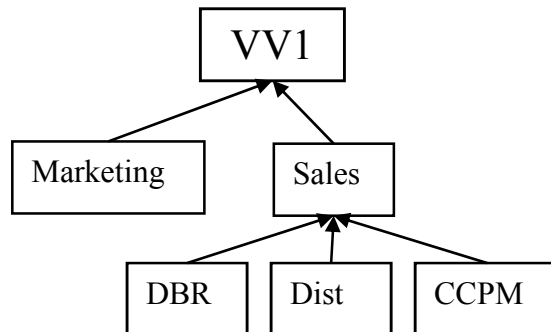
Types of Strategies

Within each of the VV levels of Complexity, we can identify two different types of Viable Visions, based on the required contribution of the various TOC Applications:

Business Strategy - Type 1

Creating Win/Win through improved Logistics

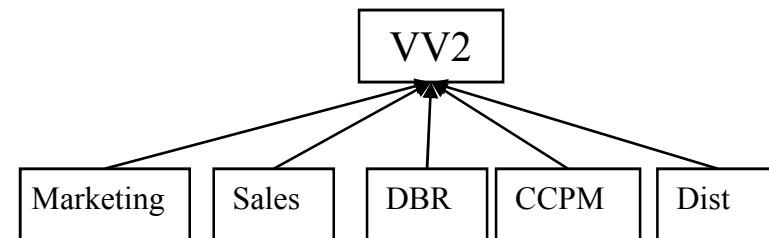
Sales can only make new offer once required Logistical performance have been achieved. I.e. the Logistical TOC Applications are necessary conditions for the offer.



Business Strategy - Type 2

Creating Win/win through reducing risk

Sales can already make the offer. But we need TOC logistical applications to ensure Supply Chain can reliably deliver the expected increase in demand from new offers



Note

We need to understand these two logical explanations because they determine how the implementation must occur



Section A

TOC Business Strategy Data Gathering & Analysis

1. How much do sales have to increase to reach the VV target?
2. Is the existing Market(s) large enough to achieve the required Sales Revenue?
3. How can this increase in Sales be accomplished (what competitive adv will enable Co. to increase Sales Price and or Volume)?
4. How much additional Operating Expenses and Investment will be req'd to support this level of sales?
5. Can the company support the necessary change required to achieve and maintain the growth targets?

Given answers to the above five questions, we can determine if a company is a good VV candidate – and so should you!



Section A

TOC Business Strategy Data Gathering & Analysis

Q1: How much do sales have to increase to reach the VV target?

COMPANY XYZ		VIABLE VISION 4 YEAR GROWTH MODEL					
[\$ Million]	Current	Year 1	Year 2	Year 3	Year 4	VV Δ%	
Growth		100%	250%	450%	700%		
Sales Revenue	\$100.00	\$200.00	\$350.00	\$550.00	\$800.00	700%	
VC %	80%	80%	80%	80%	80%	0%	
Totally Variable Cost	\$80.00	\$160.00	\$280.00	\$440.00	\$640.00	700%	
Throughput	\$20.00	\$40.00	\$70.00	\$110.00	\$160.00	700%	
Operating Expenses	\$15.00	\$20.00	\$35.00	\$50.00	\$60.00	300%	
NPBIT	\$5.00	\$20.00	\$35.00	\$60.00	\$100.00	1900%	
PE	5				8		
Co. Value	\$25				\$800	3100%	
Value Created					\$775		

Variable Cost as a % of Sales is the key parameter to answer Q1



Section A

TOC Business Strategy Data Gathering & Analysis

TOCICO Business Strategy

Q1: How much do sales have to increase to reach the VV target?

COMPANY XYZ		VIABLE VISION 4 YEAR GROWTH MODEL					
[\$ Million]	Current	Year 1	Year 2	Year 3	Year 4	VV Δ%	
Growth		25%	50%	75%	125%		
Sales Revenue	\$100.00	\$125.00	\$150.00	\$175.00	\$225.00	125%	
VC %	20%	20%	20%	20%	20%	0%	
Totally Variable Cost	\$20.00	\$25.00	\$30.00	\$35.00	\$45.00	125%	
Throughput	\$80.00	\$100.00	\$120.00	\$140.00	\$180.00	125%	
Operating Expenses	\$75.00	\$55.00	\$55.00	\$60.00	\$80.00	7%	
NPBIT	\$5.00	\$45.00	\$65.00	\$80.00	\$100.00	1900%	
PE	5				8		
Co. Value	\$25				\$800	3100%	
Value Created					\$775		



Variable Cost as a % of Sales is the key parameter to answer Q1

Section A

TOC Business Strategy Data Gathering & Analysis

Q1: How much do sales have to increase to reach the VV target?

VIABLE VISION 4 YEAR GROWTH ESTIMATE				
	2005/06	% Change in Qty	% Change in Price	20010/11
Sales	\$100.00	125%	0%	\$225.00
VC %	20%			20%
Var Cost	\$20.00	125%	0%	\$45.00
Throughput	\$80.00	125%		\$180.00
Operating Expenses	\$75.00	7%		\$80.00
Net Profit (BIT)	\$5.00	1900%		\$100.00
	5%			44%
Tons pa	500,000			1,125,000
ΔInvestment				
PE	4			6
VALUE [Millions]	\$20			\$600

Price vs. Volume as Leverage Points to increase Profits



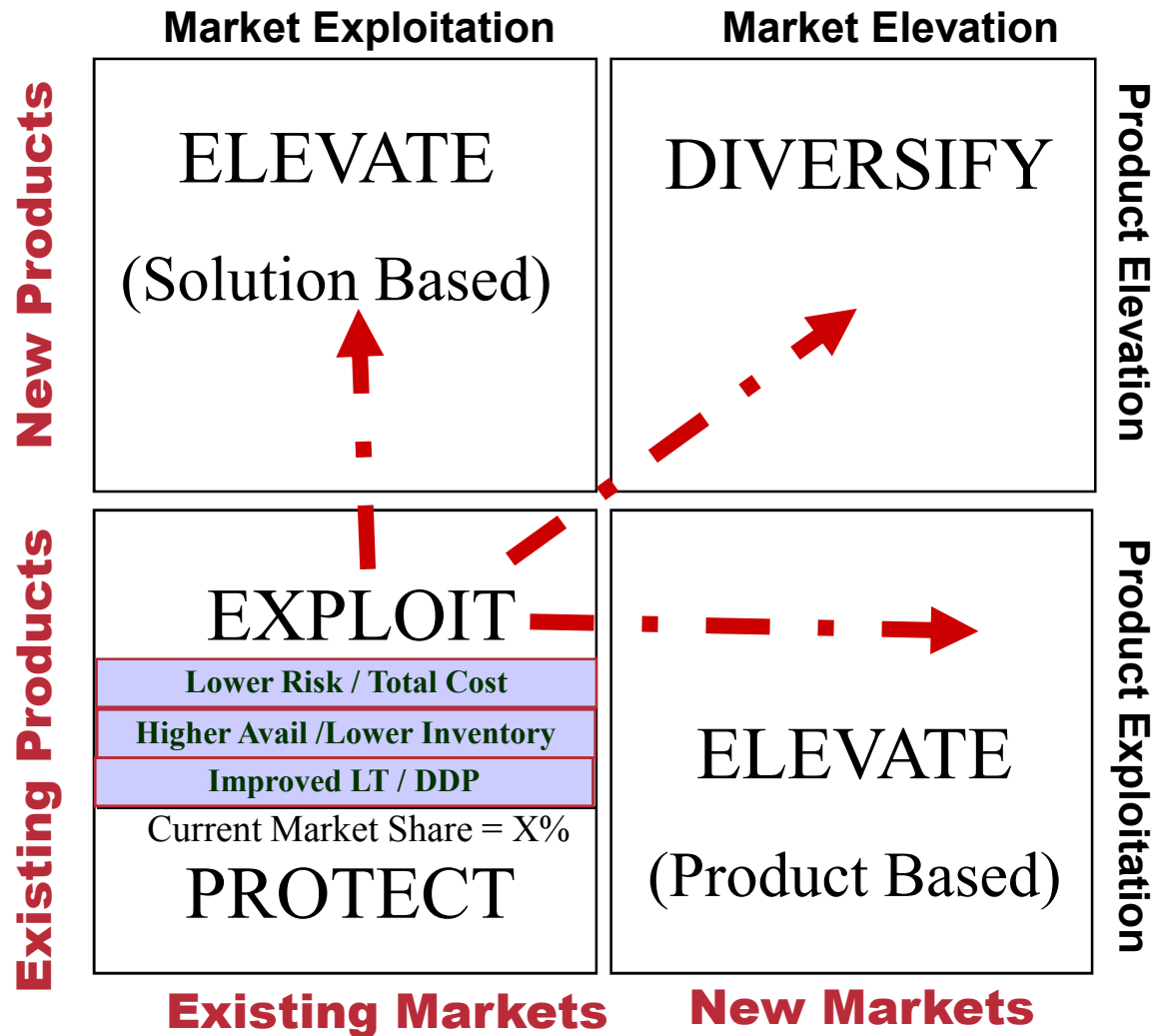
Section A

TOC Business Strategy Data Gathering & Analysis

Q2: Is the existing Market(s) large enough?

Q3. How can this increase in Sales be accomplished?

Exploit before Elevate...



Q3: How can this increase in Sales be accomplished?

Identifying Customer's Significant Need

NO.	Market Type	Customer Problem	Supplier Conflict
1	Make-to-Order Manufacturer	Long Supply Lead Times, Poor DDP & Damage	↓ Lead Time Vs ↑ DDP
2	Distribution (Buy-to-Sell)	Shortages & Surpluses, Low Stock-turns and Low Margin	↑ Availability vs ↓ Inventory
3	Make-to-Stock (Buy-to-use) Manufacturer	Shortages & Surpluses, High Inventory and Damage	↑ Availability vs ↓ Inventory
4	Projects (e.g. Construction)	Long Project Lead Time, Poor DDP, Over Budget and Under-Scope	Meet Budget vs Meet LT & Scope
5	Retailer / Wholesaler	High level of shortages and surpluses combine with low stock turns	Increase Availability vs. Reducing Inventory (higher stock turns) and larger Range
6	Equipment / Technology Provider	Poor or Uncertain ROI. High Risk of Technology	Reduce Price/Risk vs Reduce Benefits or Offer Payments
7	Maintenance & Repair	High Price of Spares, Long Lead Times	Reduce Price vs Consignment



Q3: How can this increase in Sales be accomplished?

Opportunities to establish a Competitive Edge

NO.	VIABLE VISION TEMPLATE	VISION (Customer WIN)	VIABILITY (Supplier Win)
1	Reliable Rapid Response Offer	Guaranteed Std Lead Times & Rapid Response + Penalties	Premium Prices (1x,2x,4x) + Relevant TOC Solutions
2	Distribution Offer	Guaranteed Availability, Higher Stock Turns & Increased Range	Supply Contracts, Higher Volume & Premium Prices + Relevant TOC Solutions
3	Vendor Management Inventory Offer	Guarantee Availability + Lower Inventory, less Hassle	Exclusivity & Price Premium + Relevant TOC Solutions
4	Project DDP Penalty & Bonus Offer	Guaranteed Due Date Performance + Penalties	More Projects + Bonuses + Relevant TOC Solutions
5	Retailer/Wholesaler Profitable Availability Offer	Affordable Availability	Lower Lost Sales and higher turns (Profitable Availability) + Relevant TOC Solution
6	Pay-per-Click (Xerox) Offer	Full Benefit (of Technology) with Lower Risk (pay-as-u-use)	Higher Volume & or Prices + Relevant TOC Solutions
7	Availability Insurance Offer	Cost Effective Availability Insurance for high value "parts"	Exclusivity & Price Premium + Relevant TOC Solutions



Q4: How much additional Capacity, OE and Investment is required to satisfy growth conditions

1. Is there Capacity Constraint(s)?
2. What can be achieved through better EXPLOIT and then through focused ELEVATE initiatives
3. How much will OpEx & Investment go up by if T increases by 25%, 50%, 100 and 200%

Phase 1 Exploit

Phase 2 Elevate

	2007/8	% Change in Qty	% Change in Price	2011 (Exploit)	% Change in Qty	% Change in Price	2011 (Elevate)
	ZAR			ZAR			ZAR
Sales	R 100	25%	5%	R 131	200%	15%	R 345
VC % of SR	50%			48%			43%
Var Cost	R 50	25%	0%	R 63	200%	0%	R 150
Thruput	R 50			R 69			R 195
Op Exp	R 45	9%		R 49	111%		R 95
NP(BIT)	R 5	295%		R 20	1900%		R 100
NP % of SR	5%			15%			29%



Q5: Can the company & its suppliers support the necessary changes to achieve the desired growth ?

Supplier Capacity?

Cash?

IT Systems?

Management Succession?



Section A

TOC Business Strategy Tool – The S&T Tree

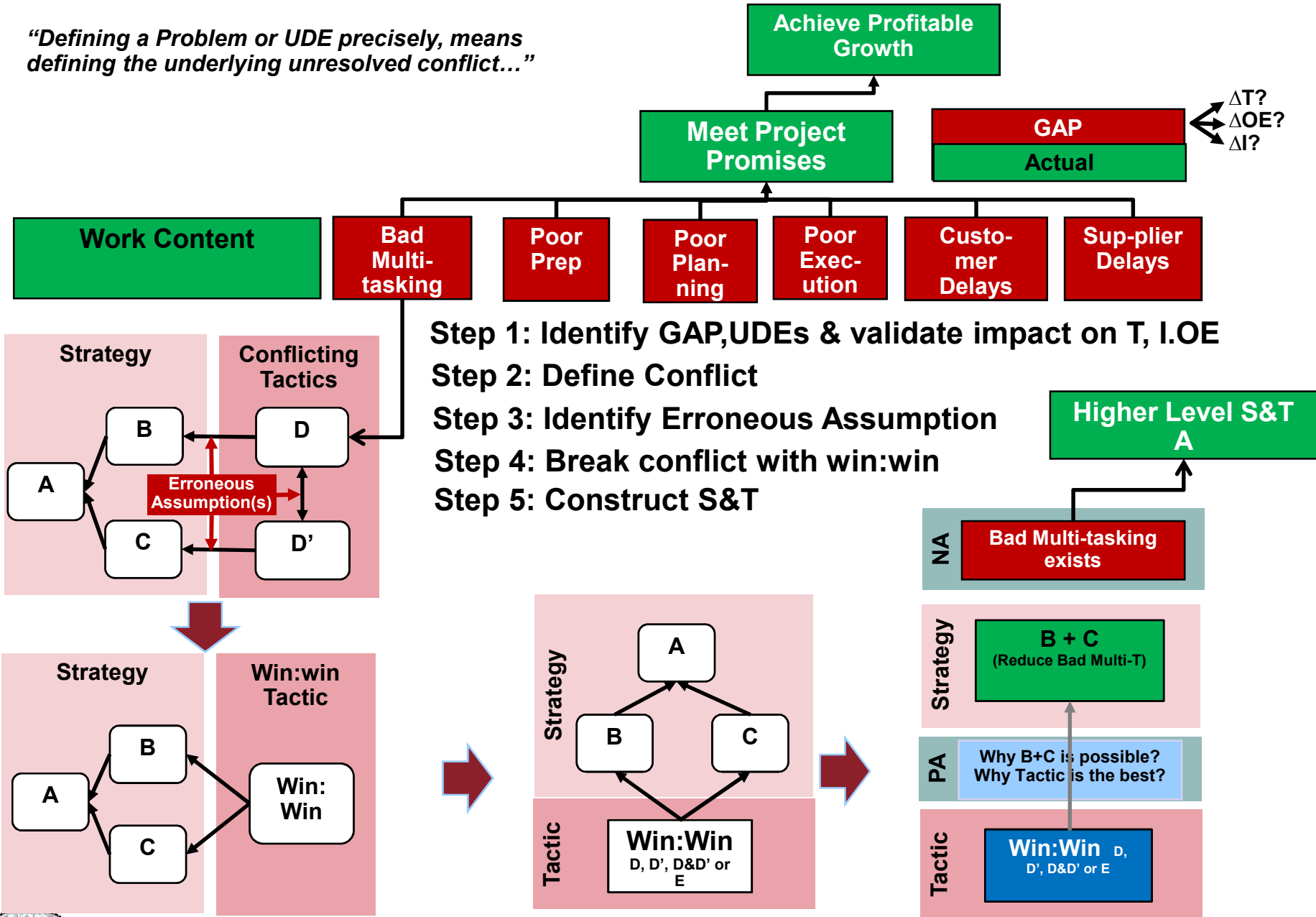
TOCICO Business Strategy

Insights on Constructing and Communicating TOC Strategic and Tactic Trees



S&T Construction Process Roadmap using TOC TP

“Defining a Problem or UDE precisely, means defining the underlying unresolved conflict...”



Goldratt's Insights on Strategy & Tactic(s)

The Conventional View

- **Strategy** is at the highest level of an initiative or organisation and define the direction that dictates all activities
- **Tactics** are lower down in an initiative or organisation and define the activities that are needed to implement the strategy

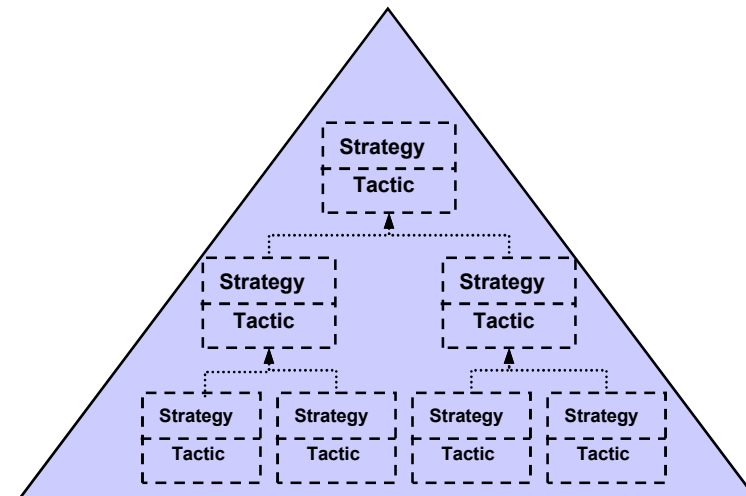


But...

1. Where does "Strategy" end?
2. Where do "Tactics" begin?
3. Is there really a "1:Many" relationship between Strategy & Tactic(s)?

The TOC View

- **Strategy** is simply the answer to the question: "What/For what purpose? (a *desired effect*)"
- **Tactic** is the answer to the question: "How to (a *chosen mode of operation*) to achieve the Strategy/Desired Effect"



Therefore...

1. Strategy & Tactic entities always exist together and
2. S&T entities exist at each level



Structure of the TOC S&T Tree

“Any logical tree is only as valid as its assumptions”

NECESSARY ASSUMPTION

- What is the GAP AND OR
- What makes it DIFFICULT to close the GAPthat creates the NEED

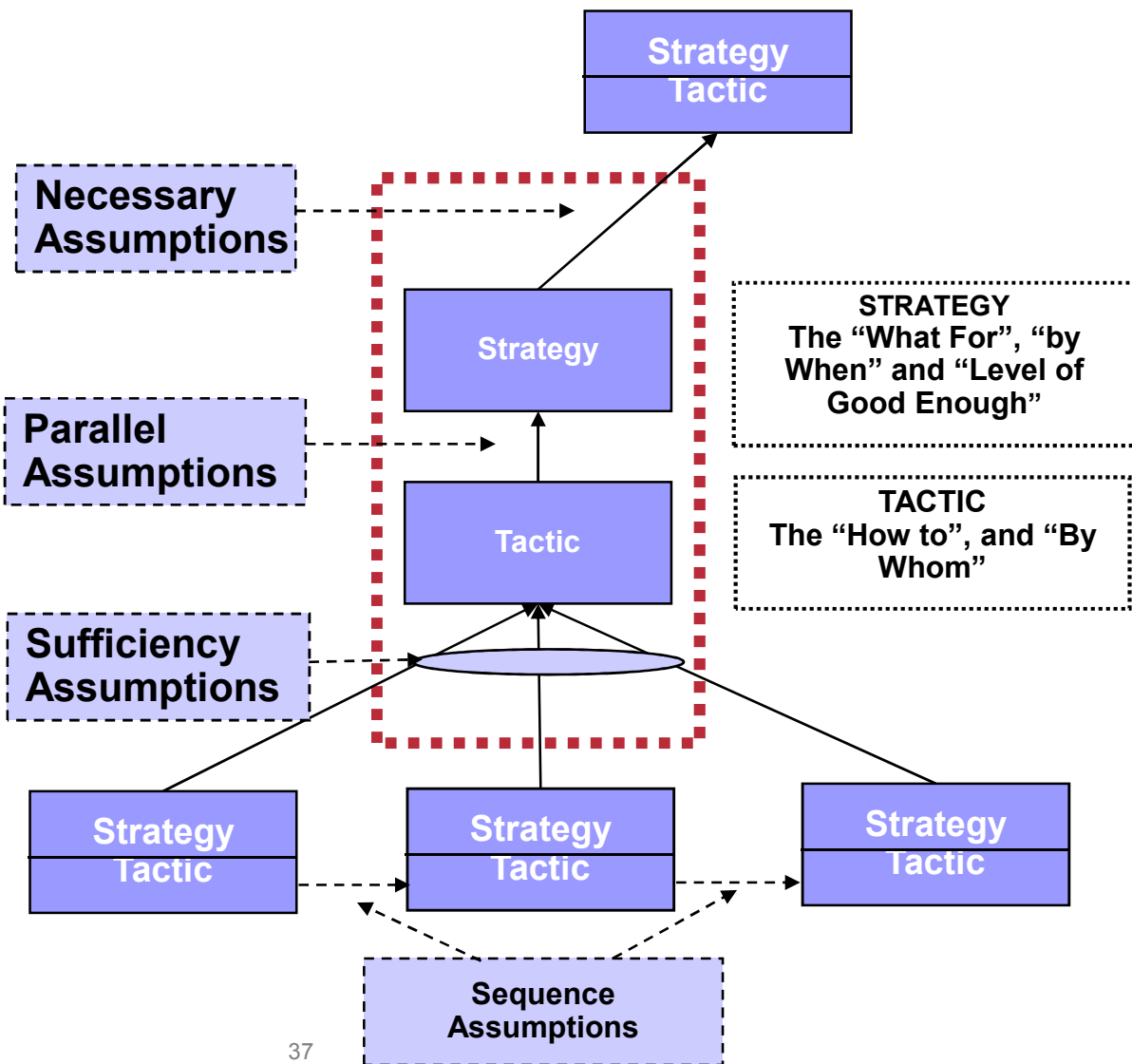
PARALLEL ASSUMPTIONS

- Why do we claim the Strategy is (even) possible?
- What (specifically) will make it difficult to achieve

PS: These two must allow us to eliminate the alternative Tactics

SUFFICIENCY ASSUMPTION

A “Warning” in the form of a commonly accepted “Governing **LAW**” or **DEFINITION** that is likely to be ignored (without the reminder) and if ignored, will likely result in “insufficiency” of the level below...



Example of S&T Node within a S&T Tree

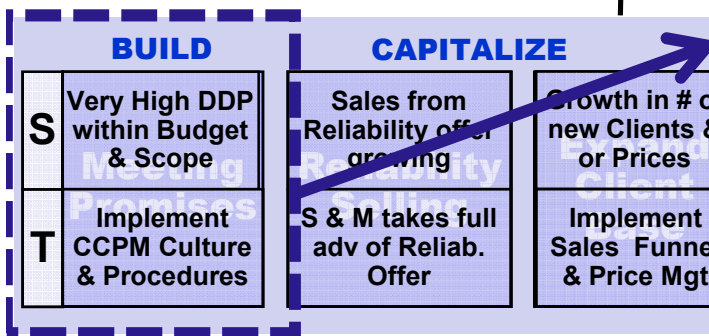
S	Achieve Profitable Growth of 20% pa within 4yrs or less
T	The company builds a decisive Comp. Edge in big enough market (s) and capitalize on it w/o exhausting resources & taking big risks

BASE GROWTH

ENHANCED GROWTH

S	Satisfy Market Need for Reliability	S	Satisfy Market Need for Early Delivery
T	Deliver OTIF and Offer	T	More Projects delivered on Time, on Budget within Scope

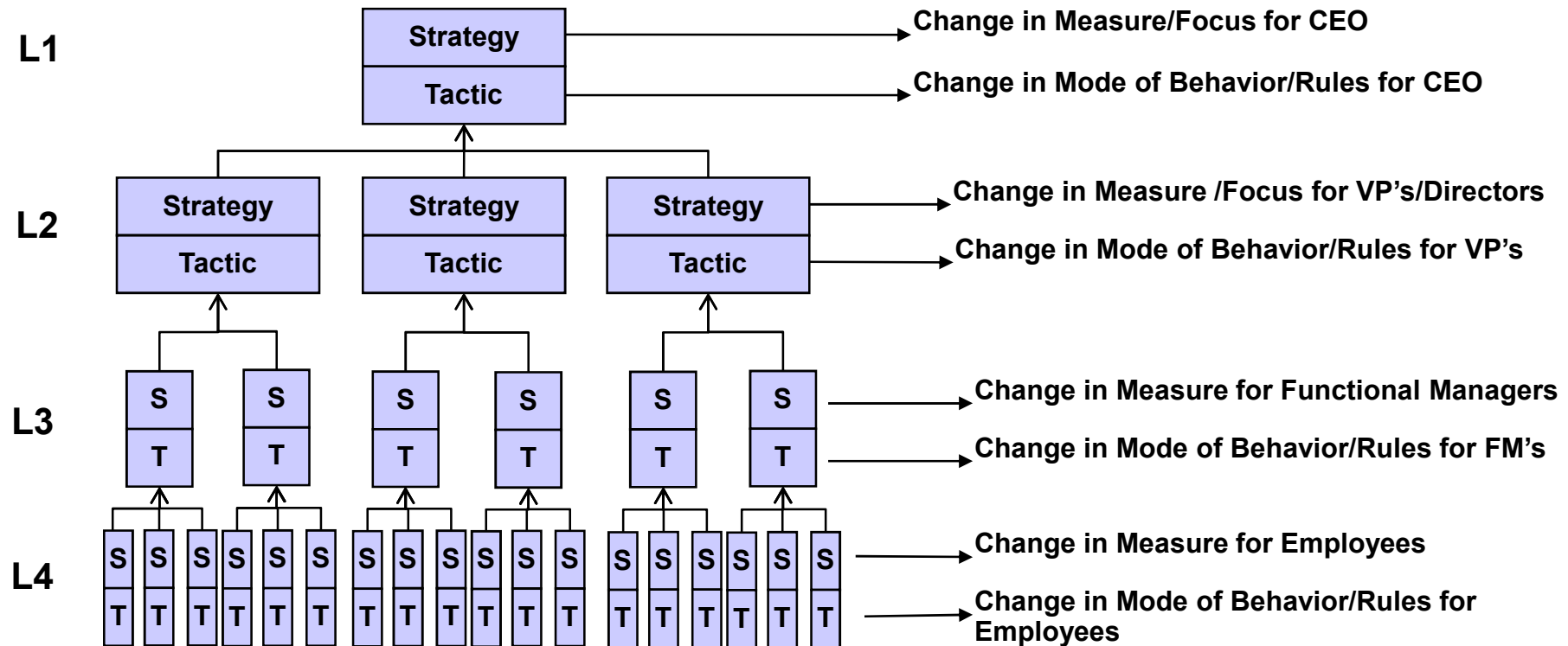
3.1	More Projects delivered on Time, on Budget within Scope
Necessary Assumption	Not meeting due dates, budget or scope promises, especially when: 1. Current and Future contracts depends on proven capability to meet existing promises and or 2. Hefty penalties are involved... may bring the company to its knees
Strategy	The Company has very high due-date performance with increased Throughput of Projects without compromising on the Scope and or Budget targets. <i>In the multi-project arena, very high due-date performance is defined as delivering well over 95% on (or before) the original promised due-dates, while in cases of late delivery the delay is much smaller than the prevailing delays in the industry.</i>
Parallel Assumptions	<ul style="list-style-type: none"> > Most compromises on Scope or budget stem from the pressure to meet the promised due date. > Critical Chain Project Management (CCPM) brings most multi-project & multi-program environments to high due-date performance without compromising content (quality) or budget.
Tactic	The Company implements CCPM culture and procedures.
Sufficiency Assumption	To ensure an outstanding start of a major initiative it is vital that the first substantial actions will result in immediate substantial benefits.





TOC Insights on Strategy & Tactic(s)

The S&T not only defines the Necessary & Sufficient conditions that must be put in place to achieve a Viable Vision target & Harmony, but also define the specific changes (contribution) in Focus, Measurements, Processes & Policies and Behaviours required at each level & in each function of the organization.

TOCICO Business Strategy



VIABLE VISION =  **+**  **+** 

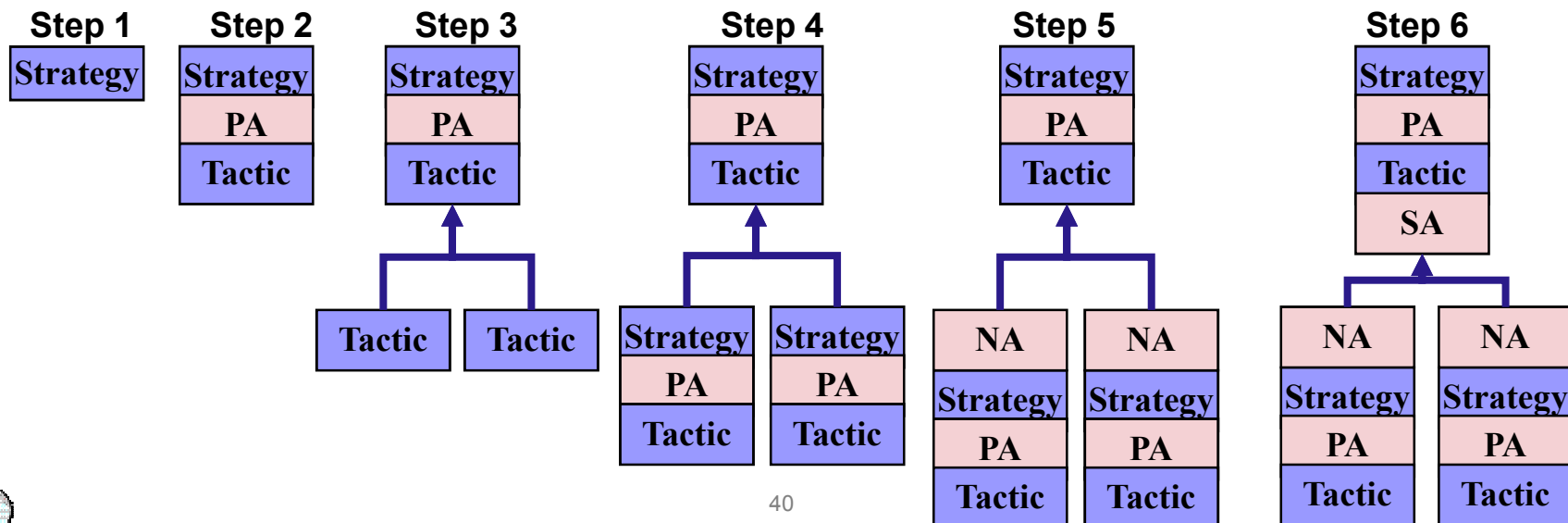
The S&T is the "Sheet of Music"



Constructing an S&T tree

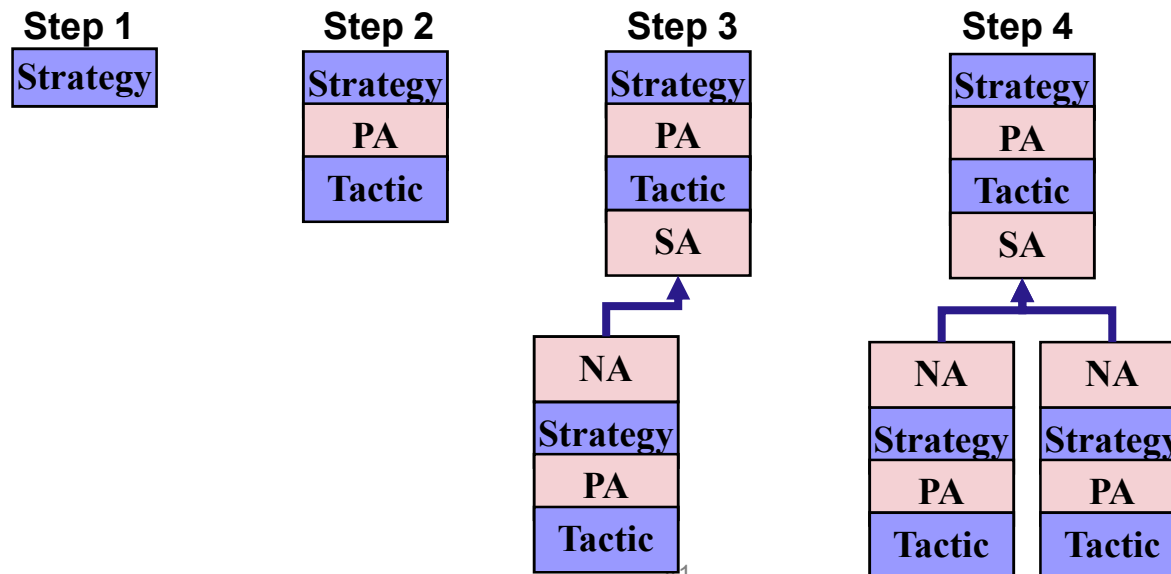
Guideline

1. Start with a high level objective (not necessary the highest) – the strategy or “what for”
2. Complete the tactic (how to) of the step and then the related parallel assumption (how you would explain why the strategy is possible and why the tactic is the best or even the only way to really achieve the strategy)
3. Dive down using the tactic (what actions are needed to achieve the higher level strategy considering the higher level tactic)
4. Complete the strategy for each tactic and its related parallel assumptions
5. Complete necessary assumption between each lower level step and its parent
6. Complete sufficient assumption between the parent and the group of lower level steps (the “warning” that will help define “sufficiency” in the steps below)



Communication of a S&T tree Guideline

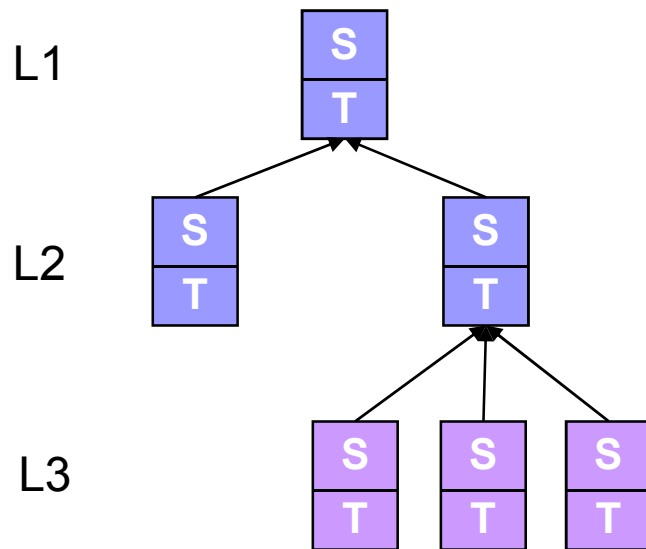
1. Start reading the highest level objective - the Strategy or “what for?”
2. Say something like “*Since any logical tree is only as valid as its assumptions we need to validate each of the assumptions to check if they can be considered ‘Facts of life’*” - then read Parallel Assumptions (PAs) and then “Tactic” or “How to” as a “logical conclusion” of these.
3. Then read the Sufficiency Assumption (SA) as a “warning or reminder” and continue with the Necessary Assumption (NA), Strategy, Pas and Tactic of the first lower level S&T entity (most left). Then read the 2nd, 3rd etc S&T blocks in the sequence defined from left to right.
4. Continue in this way until the whole tree is complete (reading from left to right), checking with the “audience” whether each assumption can be considered “a fact of life” and whether each Strategy & Tactic are logical conclusions of these assumptions



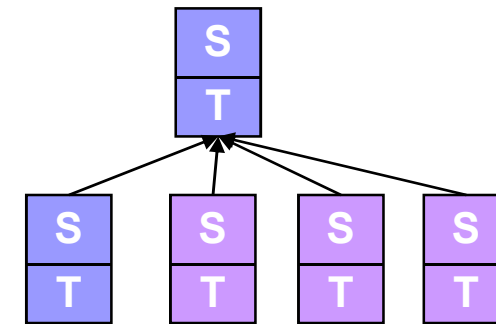
Deciding on what level a S&T step fits

Logically....

This structure is the same as....



This structure



Guideline:

1. A level should contain S&T steps with about the same level of detail. If not, use summary S&T steps to move more detailed S&T steps lower down
2. Each S&T Parent, should not contain more than 2 to 5 child S&T steps. If more than 5, use summary steps and add another level.

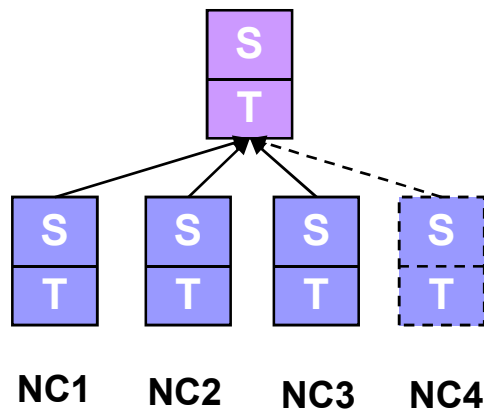


Checking Necessity & Sufficiency

How can we check the sufficiency of a level?

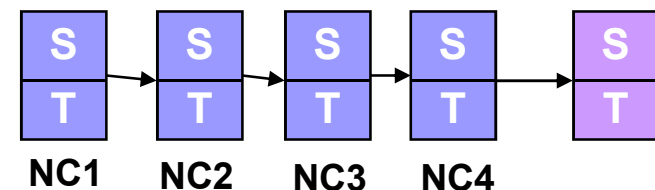
Logically....

This structure logical flow can be the same as....



How can I check if we have not missed NC4 or we missed a NC0?

This physical flow structure



Thinking of the “Process Steps” needed to produce the “Goal Units” of the higher level can help check if we missed any S&T entities

Warning: Sometimes, the NC's could be totally independent (no process/sequence dependency)



Section B

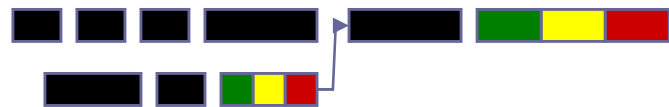
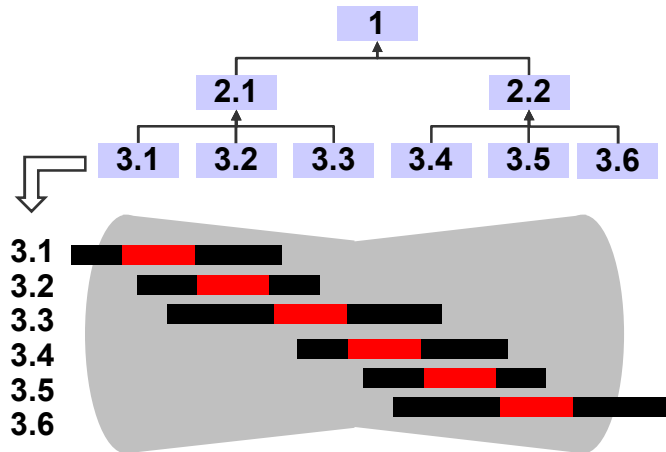
TOC

Business Strategy Execution & Control

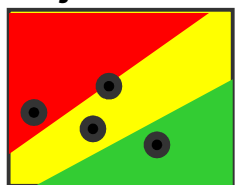


Section B

TOCICO Business Strategy Execution



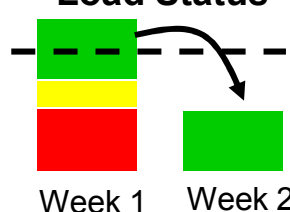
Portfolio & Project Status



Task Priority



Resource Load Status



PIPELINING OF S&T PROJECTS
(based on Capacity Constraint)

S&T PROJECTS CCPM PLANNING & BUFFERING
(to protect project - not each task)

BUFFER MANAGEMENT
(to determine task priorities and focus buffer recovery efforts)

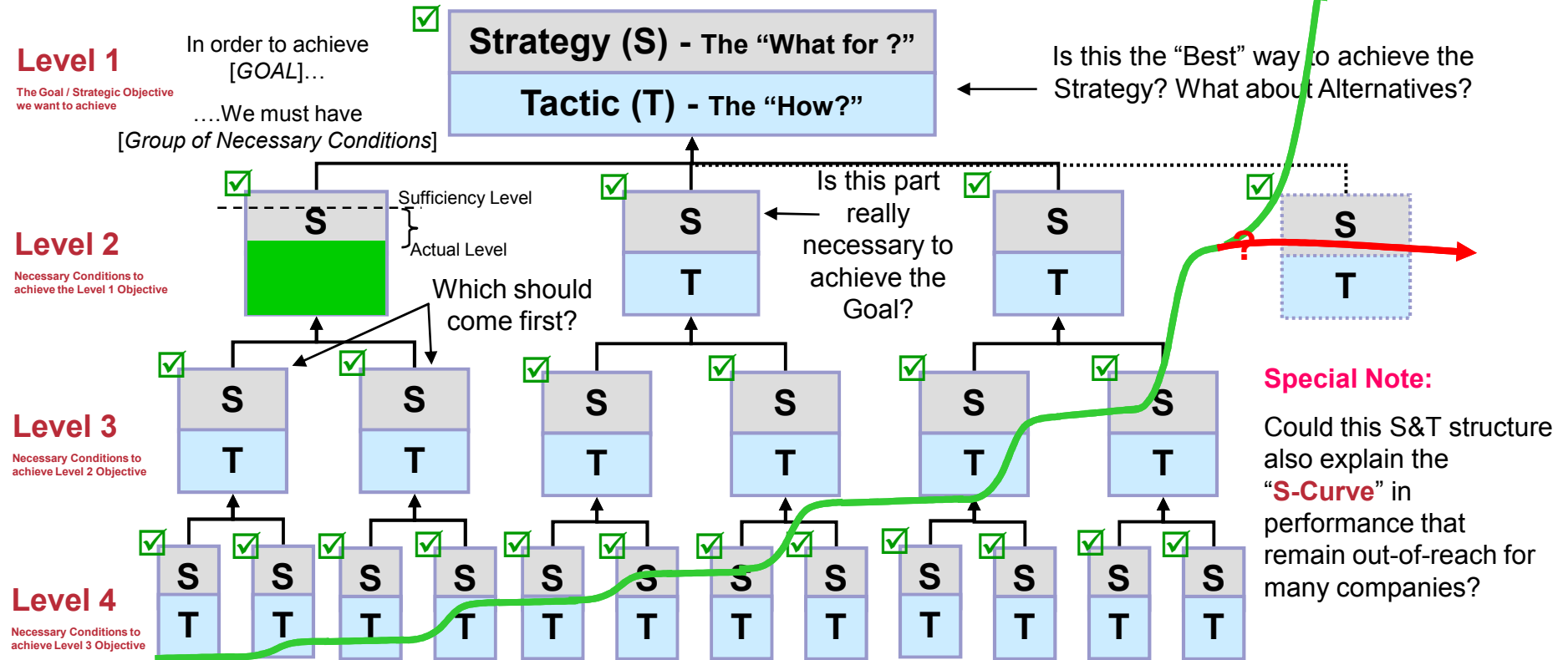
New Planning Rules

New Execution Rules



STRATEGY & TACTICS

How to verify Necessity, Sufficiency & Sequence?



Strategy & Tactics – Inherent Assumptions we can challenge in this S&T Structure

1. Assumption of **Group Sufficiency** – **"MISSING LINK"** (Ex: Missing Necessary Condition, not win/win/win etc)
2. Assumption of **Part Sufficiency** – **"WEAK(EST) LINK"** (Ex: Process Bottleneck, Partial or Half-baked solutions etc)
3. Assumption of **Necessity** – **"UNNECESSARY LINK"** (Ex: Conflicting Policies, Measurements etc)..."
4. Assumption of **"Best" Alternative** – **"LESS EFFECTIVE OR EFFICIENT LINK"** (Ex: Not Best Practice etc)
5. Assumption of **Sequence** – **"OUT-OF-SEQUENCE LINK"** (Ex: Not Considering process or resource dependency)



Next Steps in Business Strategy Certification...

- **Publishing TOCICO Business Strategy Submission Data Gathering Templates (End 2008)**
- **Launch of Business Strategy Certification (2nd Quarter 2009)**



- **Questions?**

