



TOCICO 2013 Webinar Series

**TOCICO Webinar
Wednesday, April 10, 2013**

Creating Breakthrough Solutions using the Change Matrix Cloud (CMC)

**Presented by:
Dr. Alan Barnard
CEO, Goldratt Research Labs**



Workshop Outline

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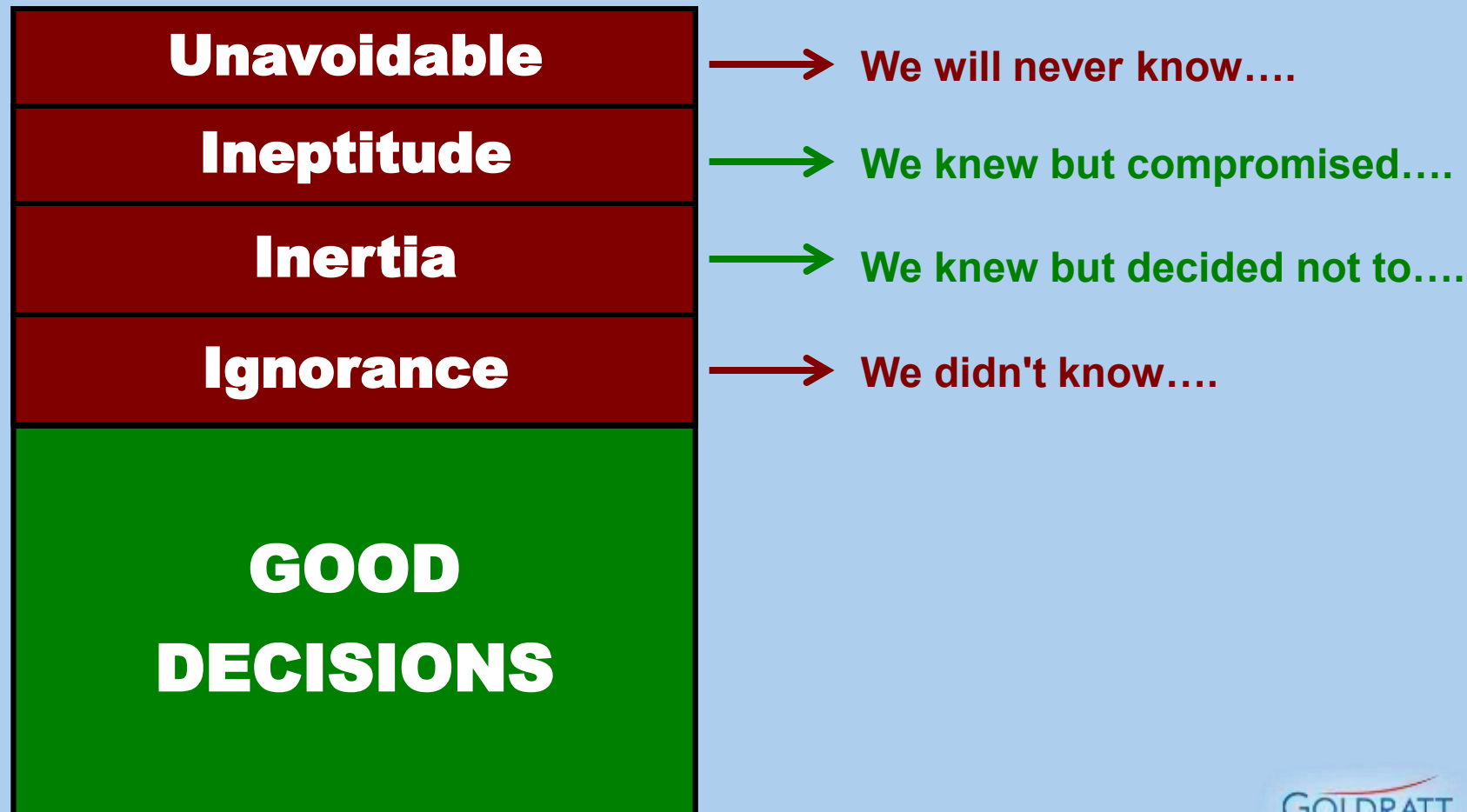
- 1. Research Problem**
- 2. Standing on the shoulders of Giants**
- 3. The Change Matrix Cloud (CMC) Process**
- 4. Examples of applying CMC**
- 5. Research Projects to test CMC**
- 6. Q&A**

THE RESEARCH PROBLEM

Despite advances in knowledge and technology, mistakes in decision making is common and significant...and wastes our scarcest resource: ATTENTION

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ANALYZING OUR DECISIONS



Examples of mistakes (Bad Habits) caused mainly by INERTIA/INEPTITUDE

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Type 1: Doing what should not be done



Type 2: Not Doing what should be done



Common mistake is treating these problems as IGNORANCE...

DR GOLDRATT'S 2011 LEGACY

Overcoming Inertia– “Standing on the Shoulders of Giants” Process

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If I have seen further, it is by standing on the shoulders of giants.



1. Select an **IMPORTANT problem/objective** you care about
2. Identify the “**GIANT**” in this field
3. Identify (enormity of) **AREA NOT ADDRESSED** by the giant.
4. Get on the **GIANT’S SHOULDERS**
5. Identify the **CONCEPTUAL DIFFERENCE** between the area improved so dramatically by the giant, and the area untouched.
6. Identify the **WRONG ASSUMPTION(S)**
7. Conduct the **FULL ANALYSIS** (incl. testing your hypothesis...)

STANDING ON THE SHOULDERS OF A GIANT...

Dr. Eli Goldratt's advice on how to be "Outstanding Scientists" ...

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*"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.**"*



Dr. Goldratt said the key ingredients are to have:

(STEP 1) the courage to **FACE INCONSISTENCIES between what we (expect to) see and the way things are... and then**

(STEP 2) the wisdom to **CHALLENGE BASIC ASSUMPTIONS related to these inconsistencies.**

These two simple steps is the basis of the "Scientific Method**" which Dr. Goldratt encouraged us to use as the foundation for **continuously improving our lives and our organizations...****

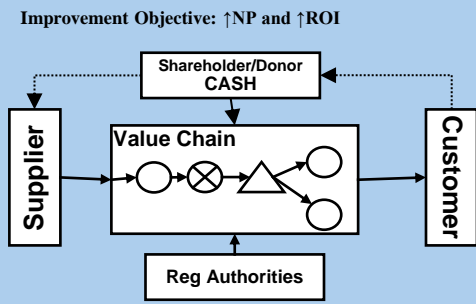
Yes, but how do we practically apply these 2 steps?

STANDING ON THE SHOULDERS OF GIANTS

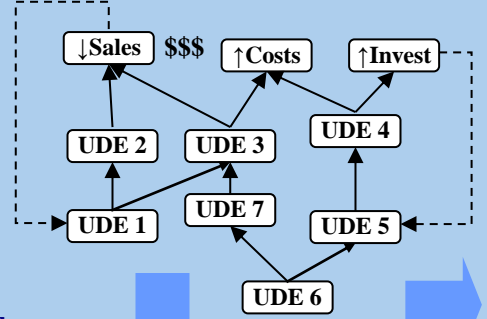
Traditional Theory of Constraints Thinking Processes

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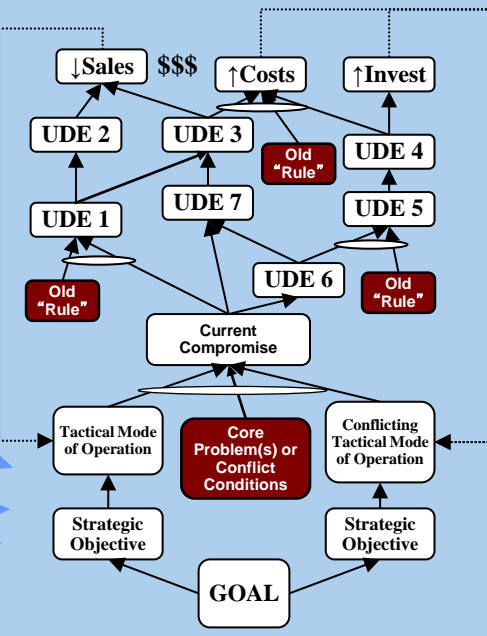
Step 0. Define System, Goal & Metrics



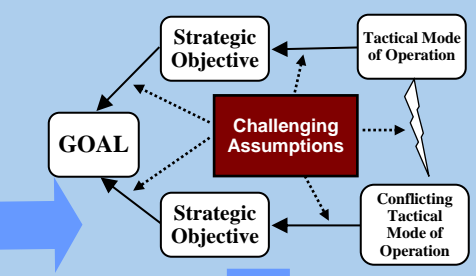
Step 2 Quantify Size of Problem and/or Opportunity to agree on Why Change?



Step 3. Identify Root Causes or What to Change?

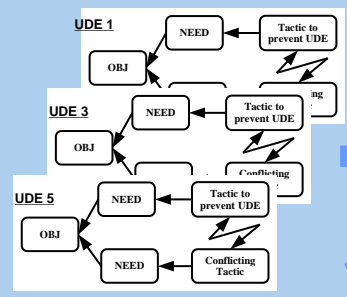


Step 4. Identifying new Direction / Rules or What to Change?



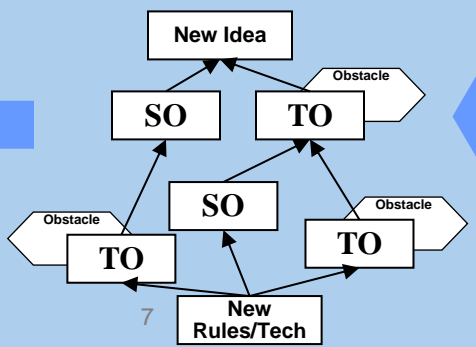
Step 1 Identify Stakeholder "Complaints" (the Problem and or Opportunity)

AREA	UDE	IMPACT	DE
Sales	UDE1	Reduced Sales	DE1
Finance	UDE2	Increased Costs	DE2
Logistics	UDE3	Increased Inventory & reduced cash	DE3
R&D	UDE4	Increased Time to Market	DE4
Marketing	UDE5	Reduced Sales	DE5

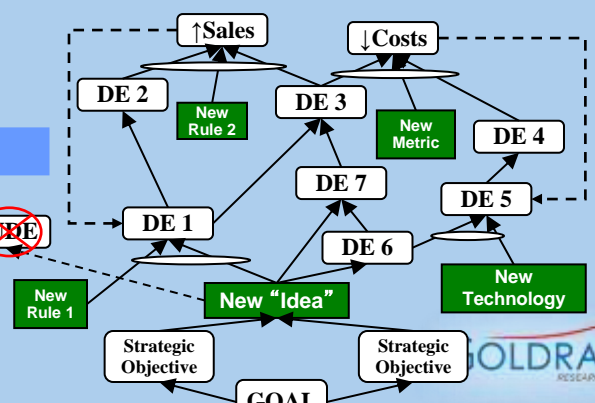


AREA	UDE	OLD RULE	DE	NEW RULE
Sales	UDE1	Old Rule 1	DE1	New Rule 1
Finance	UDE2	Old Technology	DE2	New Technology
Logistics	UDE3	Old Paradigm	DE3	New Idea
R&D	UDE4	Old Rule 2	DE4	New Metric
Marketing	UDE5	Old Rule 1	DE5	New Rule 1

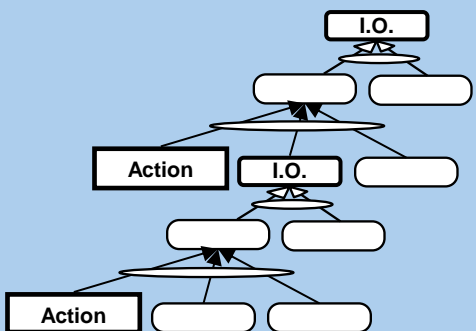
Step 6. Identify Prerequisites to implementing to answer How to Cause the Change?



Step 5. Determine detailed changes required to answer What to Change to?



Step 7. Create a Transition Tree and put metrics in place to answer How to achieve POOGI




STANDING ON THE SHOULDERS OF GIANTS

Finding the inherent simplicity to follow 2 steps...

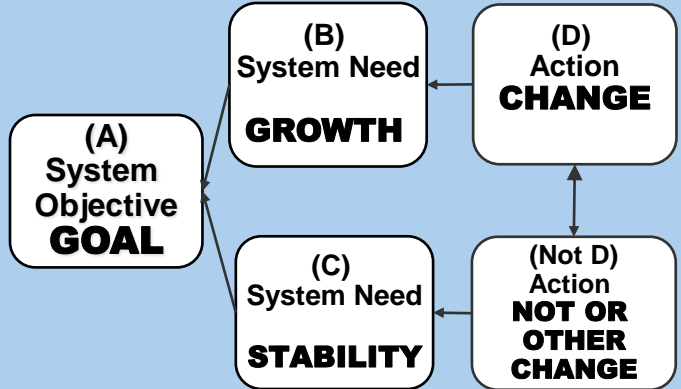
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Change Matrix

Decision	Positive	Negative
CHANGE		
NOT CHANGE		

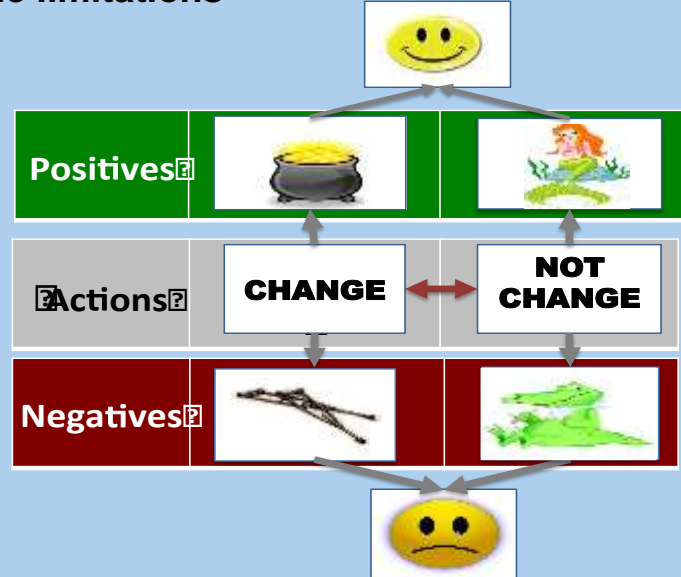
Many benefits, but some limitations

Conflict Cloud



Many benefits, but some limitations

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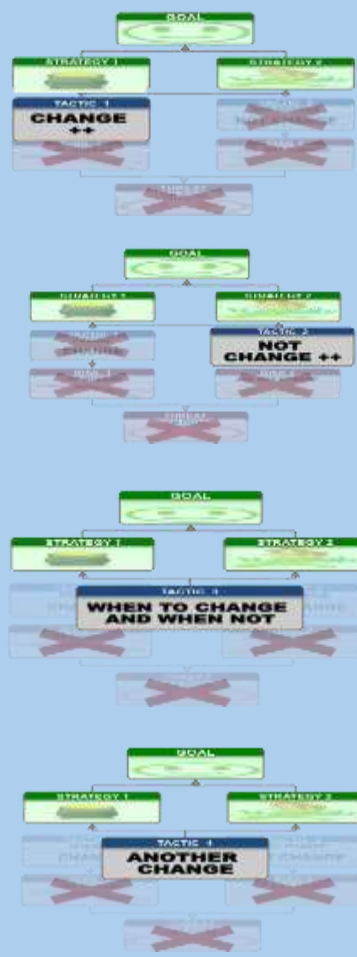
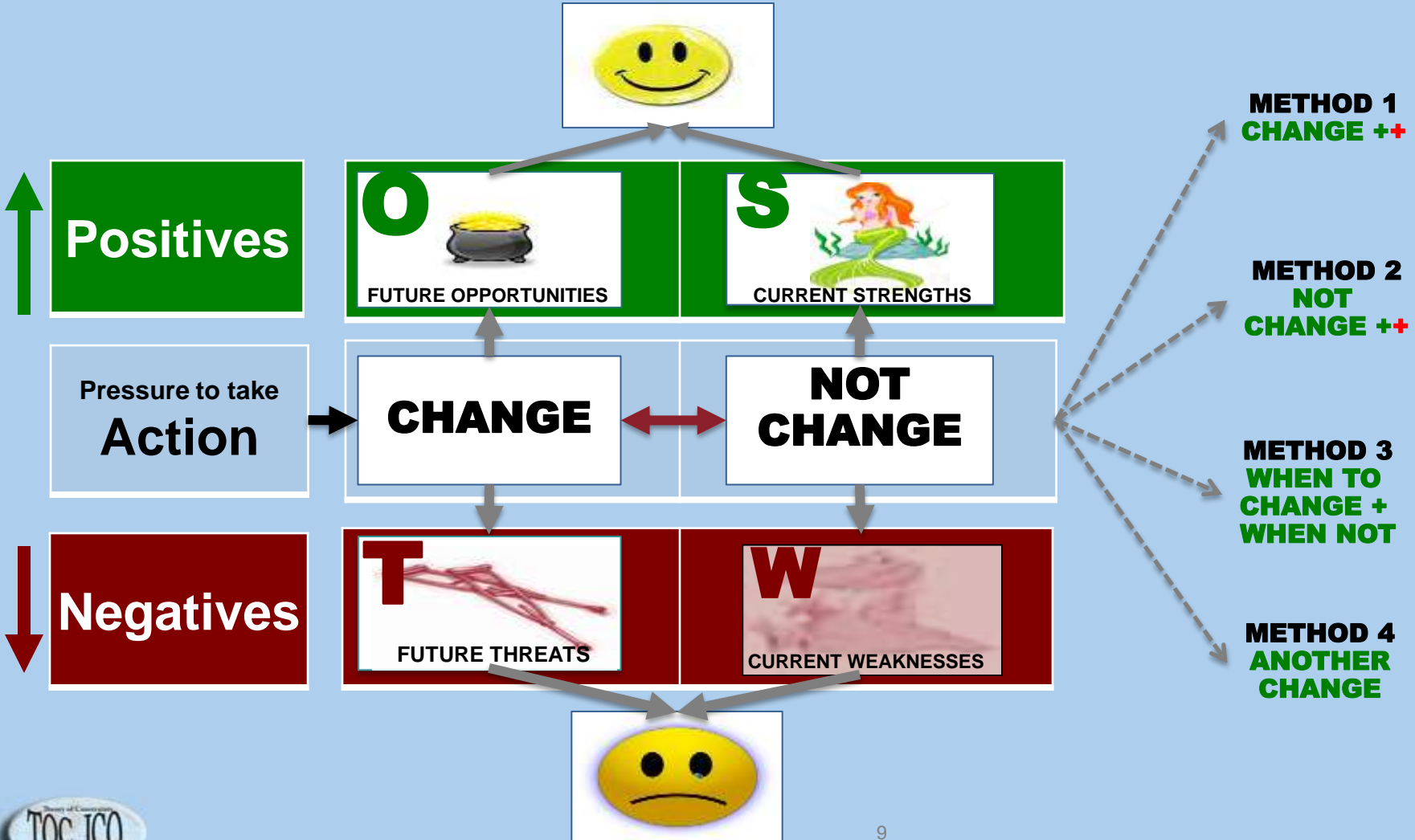
Change Matrix Cloud

Hypothesis: New **Change Matrix Cloud** provides practical solution to address **limitations** of Change Matrix and Cloud while maintaining **benefits** of both methods



How do we use the CHANGE MATRIX CLOUD to RESOLVE CONFLICTS by CHALLENGING ASSUMPTIONS

1. WHY CHANGE? → 2. WHAT TO CHANGE ? → 3. TO WHAT TO CHANGE ?



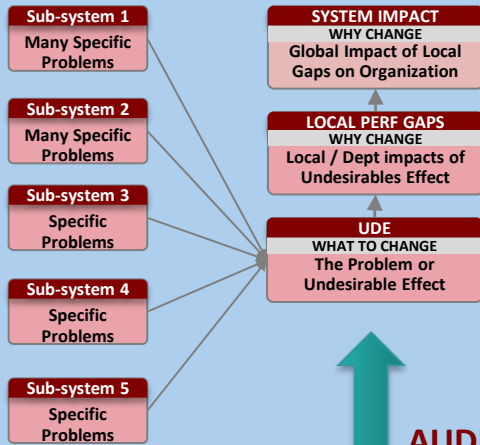
TO WHAT TO CHANGE

Simplified TOC Thinking Process Analysis roadmap

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STEP 1 – WHY CHANGE

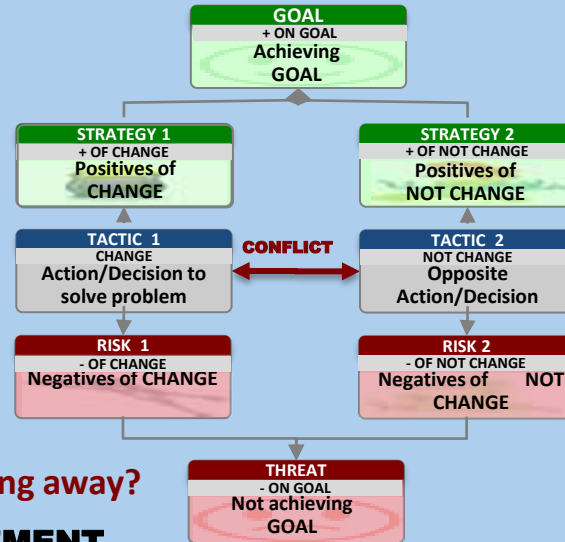
Converging Many Specific Issues to Few Generic Issues and their Local & System Impact



AUDIT/ MEASURE
Are the Issues going away?

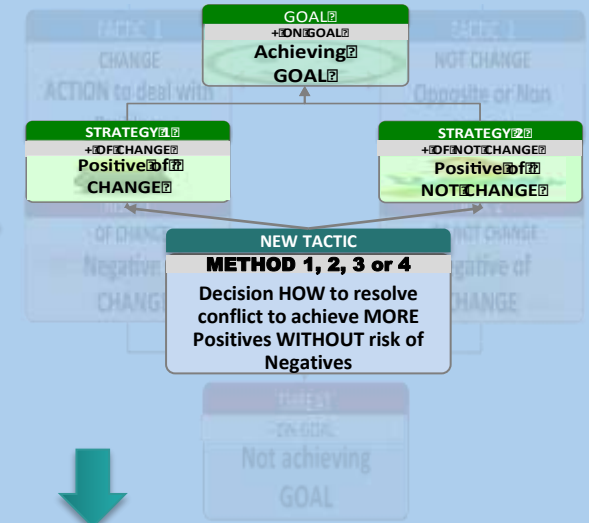
STEP 2 – WHAT TO CHANGE

Defining Planning and Execution Conflicts that block resolution of Generic Issues



STEP 3 – TO WHAT TO CHANGE

Using 4 WIN:WIN methods to resolve Planning & Execution decision conflicts



STEP 4 – HOW TO CAUSE THE CHANGE

Everyone contribute by raising YES, BUTS... to improve New solution and how to overcome these (Adding Start/Stop)

Stakeholder?	Their Win?	Yes, but?	Start/Stop?
		Potential Insufficiency...	
		Potential Negatives...	
		Implementation Obstacles...	

STEP 5 – COMMUNICATE + IMPLEMENT

Convert full analysis into Best Practice & implement to test assumptions

	Title of Best Practice (S&T Node)
Necessary Assumption WHEN?	Why Change – The Undesirable Effect(s) and related negative local and Global impact of these
Strategy WHAT FOR?	The objective you want to achieve = More of the positives (Strategy 1 + 2) and none or fewer of negatives (Risks 1 + 2)
Parallel Assumptions WHY?	The assumptions challenged in resolving the conflict which includes: <ul style="list-style-type: none"> Conditions under which it is possible to achieve all the positives without risk of Negatives “Yes, buts” raised by stakeholders and how these can be prevented/overcome that assisted in deciding on best Tactic
Tactic HOW TO?	New Tactic to Resolve conflict & address all “yes,buts..”

LET'S LOOK AT A FEW EXAMPLES

- 1. Why 50% of patients don't take medicine as prescribed...even though they know how bad it is for them...**
- 2. Why we keep Multi-taskingeven if we know how bad it is for us...**

Research Projects where we've tested the Change Matrix Cloud process

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Odyssey



SUMMARY OF LESSONS LEARNED

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WHEN TO USE THE CMC PROCESS?

- When you face an important decision that is consequential and you realize you need to invest time to think it through....
- When you anticipate or experience resistance to change
- When we found ourselves / others procrastinating on a decision – i.e. waiting longer will not give any benefit...
- When we realize the major **CAUSE** of a persistent problem is **INERTIA** or **INEPTITUDE** – i.e. not **LACK OF KNOWLEDGE** but rather an **UNRESOLVED CONFLICT**...

SUMMARY OF LESSONS LEARNED

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WHAT CAN BLOCK US FOR USING THE CMC PROCESS...or TO KEEP USING IT?

Our normal excuses include:

- *We didn't know...*
- *We are different ...*
- *They will never agree ...*
- *We just don't have the time...*

Any other reason not to give this a try? 😊

Q&A

ABOUT THE PRESENTERS

Dr Alan Barnard (PhD)

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Dr. Alan Barnard is considered one of the leading experts in the world in Theory of Constraints (TOC) frequently working with Dr. Eli Goldratt, creator of Theory of Constraints on large and complex projects around the world.

Alan is CEO of Goldratt Research Labs (USA), Director of Goldratt Group Africa (RSA), Chairman of Realization Africa (RSA), Aphos (RSA) and The Odyssey Institute (USA).

In 2009, Alan was awarded a PhD in Management of Technology & Innovation, from the Da Vinci Institute in 2009 with a thesis titled *“How to identify and unlock inherent potential within organizations (private & public) and individuals?”*.



Alan is a past-President of SAPICS (2000 to 2002) and past-President of TOCICO (2003 to 2005).

He has worked with global companies such as ABB, BHP, Cisco, SAP, Random House Publishing, Tata in the Private sector and also with UN DP, UN WFP and InWent in the public sector on applying for example Theory of Constraints to City Councils in Developing Countries in the Public Sector to help them identify and unlock inherent potential to achieve more with the same resources in less time.

He is currently involved in initiatives to help apply TOC to significantly increase yields in a win:win:win way in agricultural (Africa) and accelerate construction (Japan) and developments of new enabling technologies in high-tech and health sectors (USA and India).

TOC FUNDAMENTALS

Limiting vs. TOC's Enabling assumptions..

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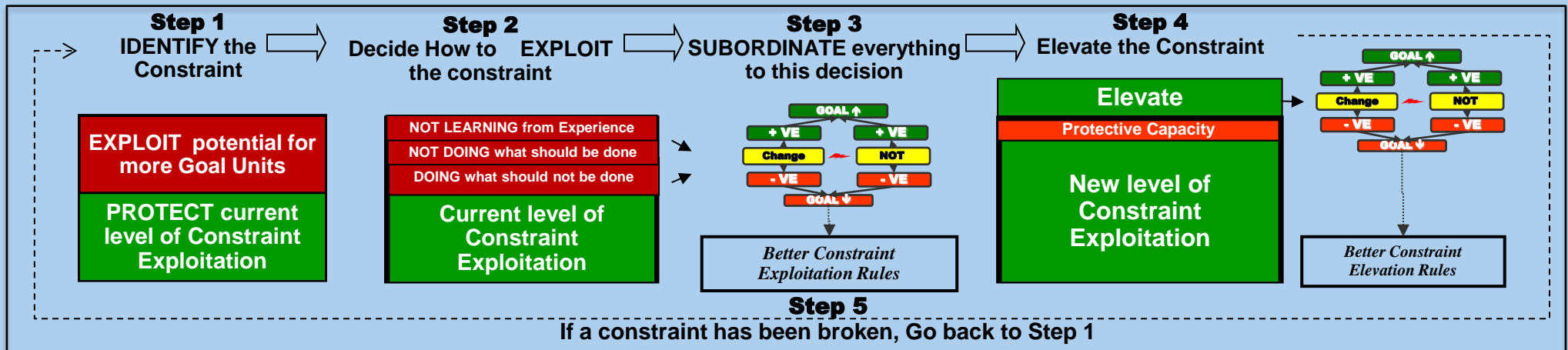
TOC FUNDAMENTALS

Applying TOC's 5 Focusing Steps to Management Attention

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“TOC = FOCUS”

FOCUS means not just knowing what to do and just doing it...
 ...but as importantly knowing what **NOT** to do and just not doing it...



Take a few minutes to reflect how well YOU are exploiting your scarcest resource – *your limited attention....*

**YOUR Examples of
 “Doing what should not be done”**

- 1.
- 2.
- 3.
- 4.

STOP

**YOUR Examples of
 “Not Doing what should be done”**

- 1.
- 2.
- 3.
- 4.

START

Simple but not easy...why?