



*My journey of discovery to explore ...*

# Why **GOOD** People make and often repeat **BAD** decisions ...

...and developing a way to **reduce such decision mistakes**  
...or at least **learn from the experience**😊

Facilitated by Dr. Alan Barnard  
CEO, Goldratt Research Labs

# STANDING ON THE SHOULDERS OF A GIANT...

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

2016 TOCICO International Conference

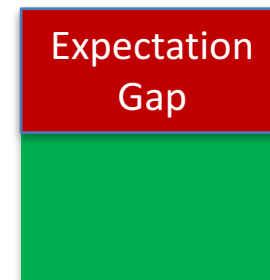
"Finally, and most importantly, I wanted to show that we can all be outstanding scientists. The secret of being a good scientist, I believe, lies not in our brain power. We have enough. We simply need to look at reality and think logically and precisely about what we see."

Dr. Eliyahu M. Goldratt, Foreword of THE GOAL, 1983



Dr. Eli Goldratt said the key ingredients to make a **breakthrough** in **any field or problem you are passionate about are:**

1. **DECIDE** on a field or problem you are passionate about....and turn it into a vision...
2. The courage to **FACE INCONSISTENCIES** between what we (expect to) see and the way things are....
3. The (courage and) wisdom to **CHALLENGE BASIC ASSUMPTIONS** related to these inconsistencies.



**Type 1 Assumptions**  
Assumptions on which we base our expectations...

**Type 2 Assumptions**  
Assumptions on which we base our actions to realize these expectations...

These three simple steps is the basis of the "**Scientific Method**" which Dr. Goldratt encouraged us to use as the foundation for **continuously improving** anything we are **passionate about - an organizations, an industry, our relationships, our lives...**



# STANDING ON THE SHOULDERS OF A GIANT...

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

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## Vision

...to inspire yourself and others.

## Courage

...to act...and not to give up.

## Wisdom

...to know what to change & what not.

**Q1: Which of these are the **most challenging** to achieve?**

...simple but not easy... vs. not simple and not easy...

**Q2: We **need all three** to succeed in life...**

**...but which of these don't we have enough of ...**

**which one is **OUR bottleneck now?****

Important Note: We often confuse "*Lack of Courage*" with "Not knowing how to resolve **Ambivalence**"

\*Ambivalence is simply the state of having mixed feelings or contradictory ideas about something or someone



# MY STORY....AND PASSION ...

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*If I want to make a meaningful breakthrough...I will have to...*

- 1. **DECIDE** on a field or problem you are passionate about....and turn it into a vision*
- 2. Have the courage to **FACE INCONSISTENCIES** between what we (expect to) see and the way things are....*
- 3. Have to develop (courage and) wisdom to **CHALLENGE BASIC ASSUMPTIONS** related to these inconsistencies.*





# MY STORY....AND PASSION ...

## Facing an important Inconsistency (Expectation Gap)

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### ANALYZING THE BAD DECISIONS THAT WASTES OUR SCARCEST RESOURCE – OUR LIMITED ATTENTION



# ACKNOWLEDGEMENTS

Standing on the shoulder's of GIANTS – wisdom to challenge assumptions...

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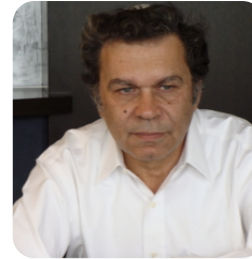
Each of these Giants contributed useful Classifications (what), Correlations (how), Causality theories (why) and/or practical problem solving and decision making methods...



**Benjamin Franklin**  
1706 - 1790



**Dr. Herbert Simon**  
1916 - 2001



**Dr. Eli Goldratt**  
1947 - 2011



**Dr. Daniel Kahneman**  
Born: 1934



**Dr. William Miller**  
Born: 1947



**Dr. Robert Kegan**  
Born: 1946



**Dr. Barry Johnson**  
Born: 1947



**Dr. Nassim Taleb**  
Born: 1960



# STANDING ON THE SHOULDERS OF GIANTS

## The Benefits and limitations of other Decision Support Tools...

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<https://youtu.be/SQg5lZAmuT8>



# STANDING ON THE SHOULDERS OF GIANTS

## The Benefits and limitations of other Decision Support Tools...

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### Pro/Con List

CHANGE	
Positives	Negatives
1.	1.
2.	2.
3.	3.

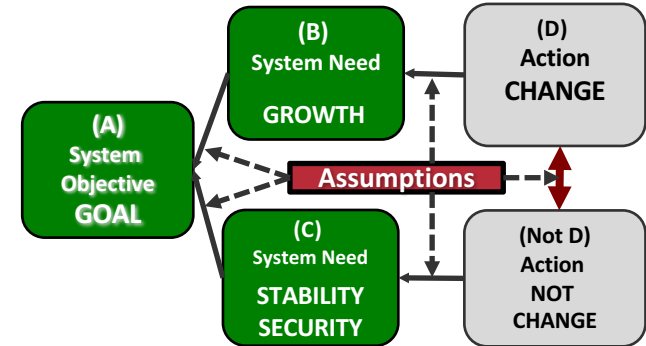


### Change Matrix

Decision	Positive	Negative
CHANGE		
NOT CHANGE		



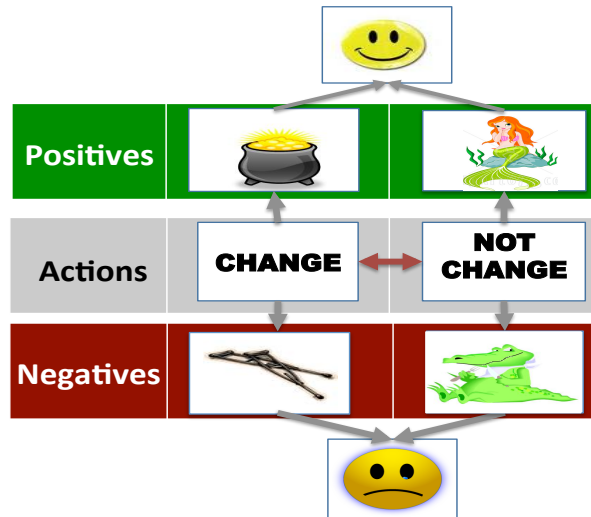
### Conflict Cloud



Many benefits, but some limitations

Many benefits, but some limitations

Many benefits, but some limitations



### Change Matrix Cloud

**Hypothesis:**

This new  
**Change Matrix Cloud** can  
 Provide a simple and practical solution  
 to help us identify and challenge  
**LIMITING / HARMFUL** assumptions



# The 5-Step Change Matrix Cloud Process (CMCP)

5 Steps to prevent the 5 most common mistakes in decision making

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**Mistake 2b**  
**Blaming Someone**  
For causing your Problem

**Mistake 1**  
**Wrong Problem**  
Wasting attention bottleneck

**Mistake 2a**  
**Jump to Solution**  
Or Inertia due to Ambivalence

**Mistake 3**  
**Acting but Compromising**  
Asking both sides to give up something

**Mistake 4**  
**Ignoring valid Yes,buts**  
Or using them as Excuses not to Act

**Mistake 5**  
**Bad Experiment**  
So can't Learn from Experience

**Step 2b**  
**THEIR Conflict**  
- the one that caused my problem

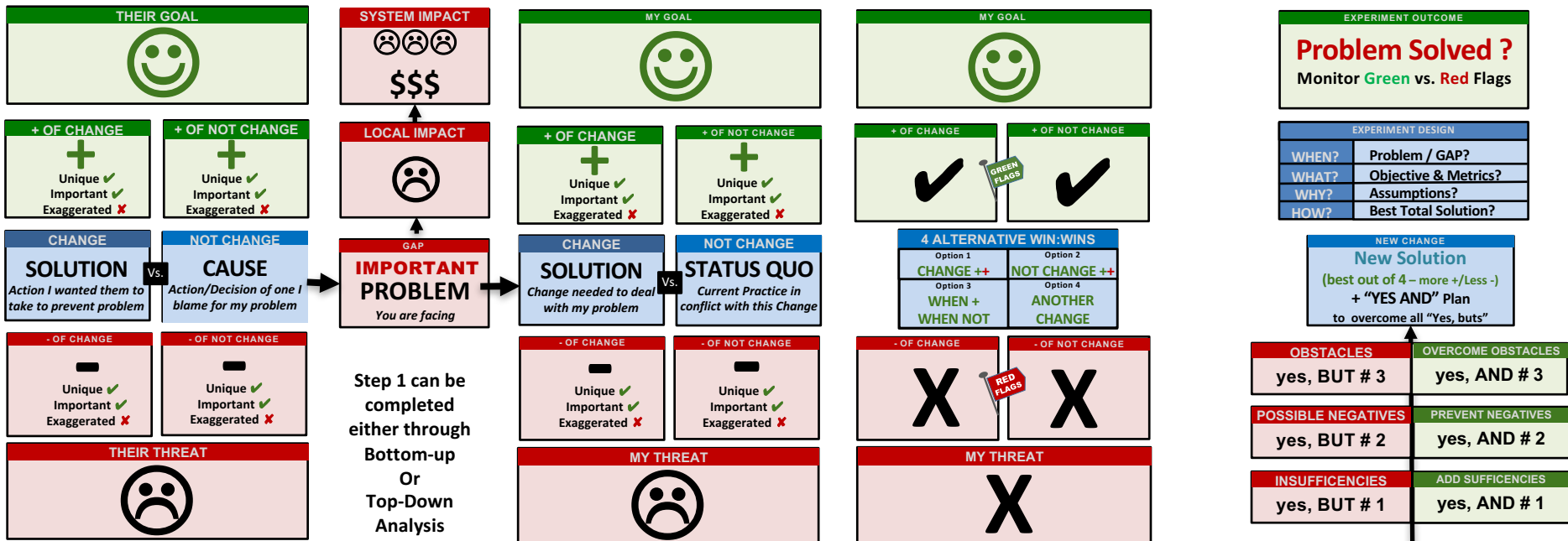
**Step 1**  
**MY Problem**  
and why its important

**Step 2**  
**MY Conflict**  
in dealing with my problem

**Step 3**  
**MY Conflict Resolution**  
By challenging assumptions preventing win:win

**Step 4**  
**My Plan**  
To overcome hurdles

**Step 5**  
**My Experiment**  
To really test new Solution



Then repeat Steps 3b,4b,5b for "Their Conflict" ...



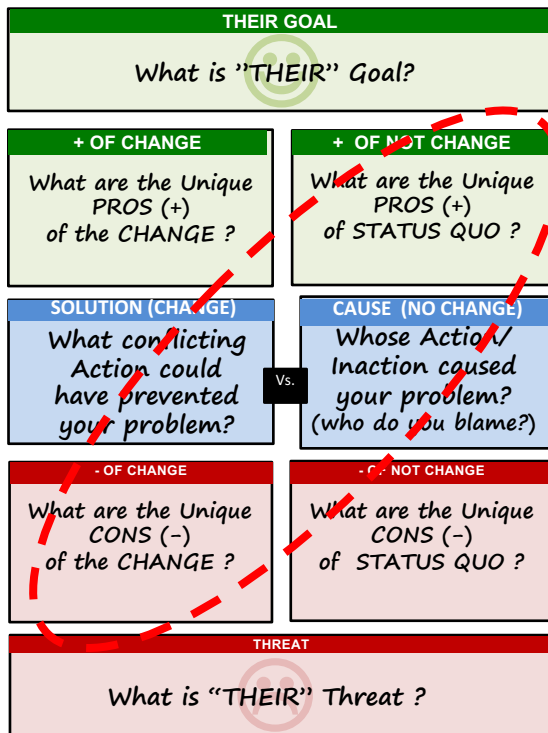
# HOW TO USE CMC TO TELL YOUR STORY...?

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## Step 2b

### THEIR Conflict

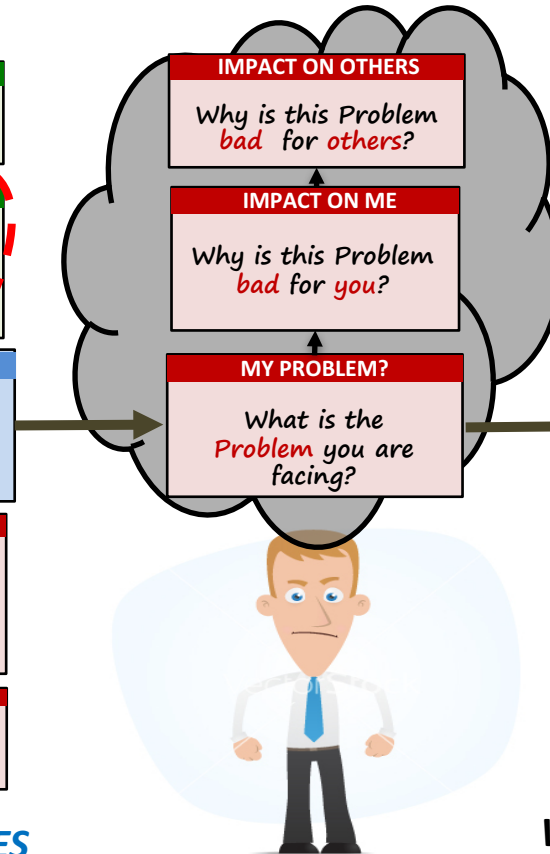
- the one I blame for causing my problem



## Step 1

### MY Problem

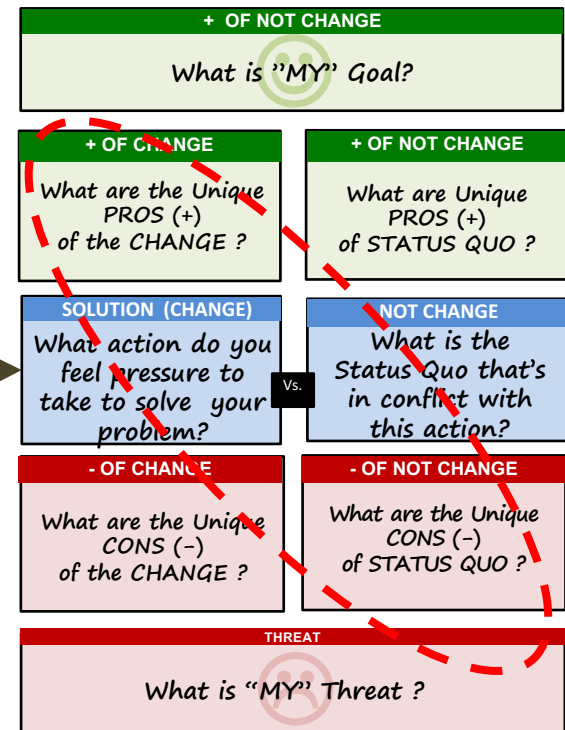
and why its important



## Step 2a

### MY Conflict

in dealing with my problem



We often **RESIST GOOD CHANGES**

because of **exaggerated FEARS of LOSS or RISK**



We sometimes **MAKE BAD CHANGES**

because of **exaggerated FRUSTRATIONS or EXPECTATIONS**



# TELLING YOUR STORY...

The Problem that hangs over PAUL like a dark cloud - his Over-spending...

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HOW TO TELL YOUR STORY?  
using the *Change Matrix* Cloud Process

Paul and his *Over-spending* Problem



Now it's **YOUR** Turn

Tell us **YOUR** Story

by simply completing the

**Change Matrix Cloud Process**

Template on the next page



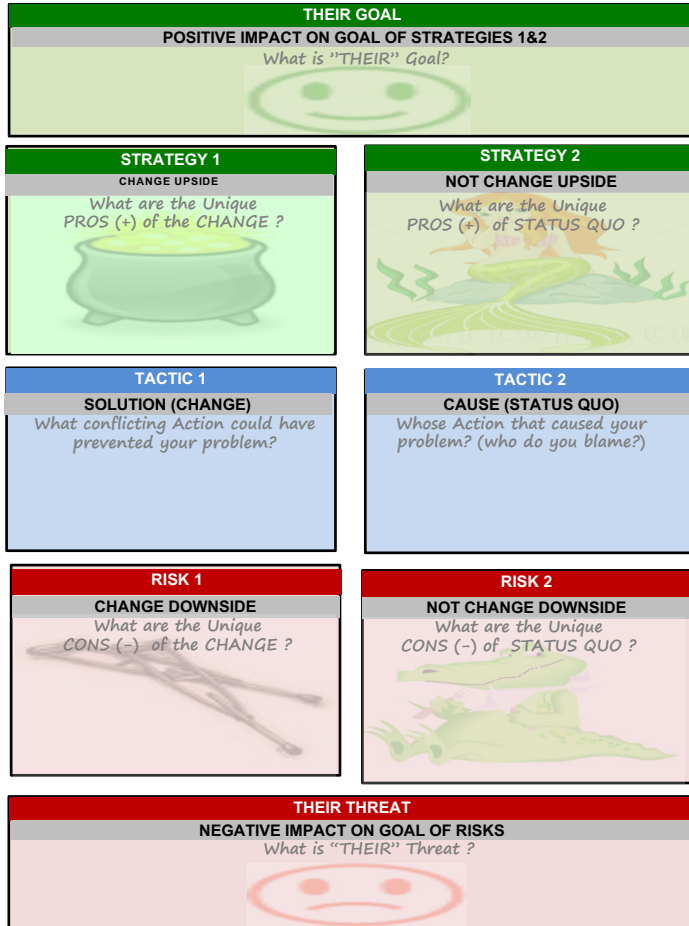
# The Change Matrix Cloud Process (CMCP)

How to tell **YOUR STORY** on a single page...

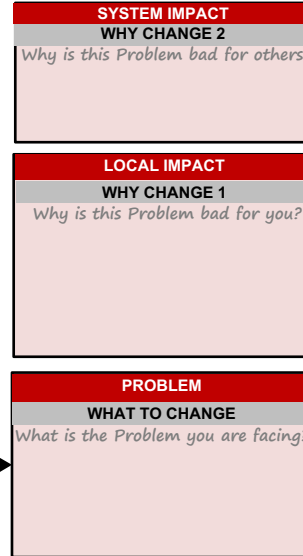
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## Step 2b THEIR Conflict

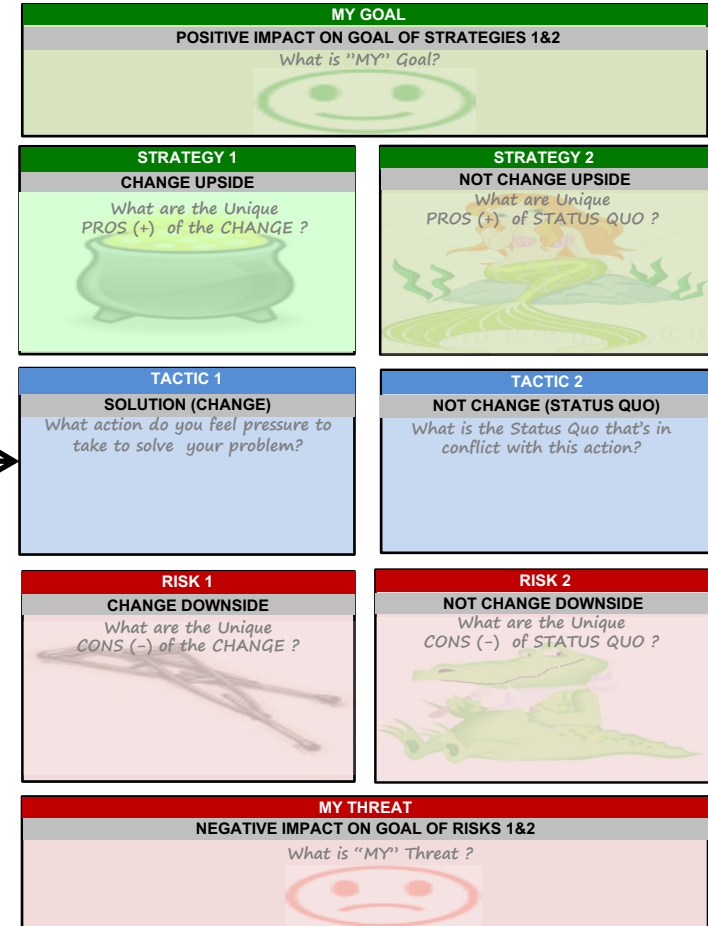
- the one I blame for causing my problem



## Step 1 MY Problem and why its important



## Step 2a MY Conflict in dealing with my problem



Now it's **YOUR** Turn

Tell us **YOUR** Story

by simply completing the

**Change Matrix Cloud Process**

Template on the next page



But how can we resolve Conflicts?

Practically, how do we make decisions when we experience **Ambivalence**...

...when we have mixed feelings and emotions about something or someone...

Introducing STEP 3, 4 and 5 of the  
**Change Matrix Cloud Process**

# STANDING ON THE SHOULDERS OF GIANTS

Designing a new Decision Support Process to more upside, less downside...

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<https://youtu.be/8Ga5o4Fhk90>



# The Change Matrix Cloud Process (CMCP)

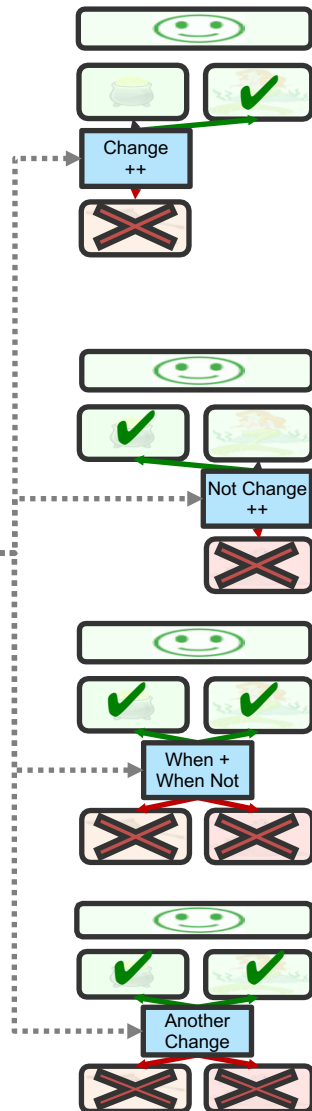
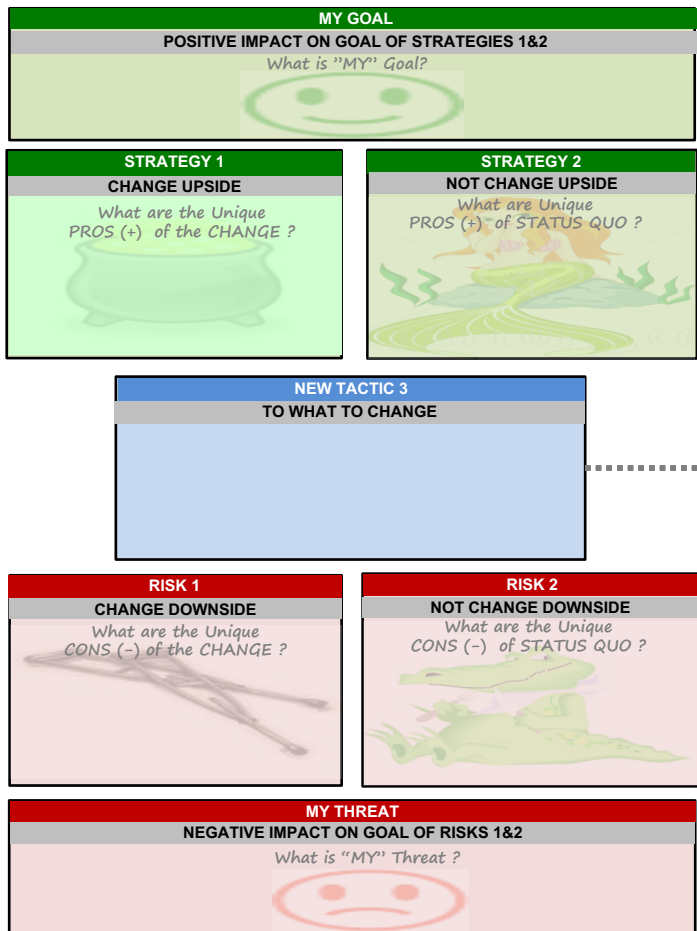
How to tell **YOUR STORY** on a single page...

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## Step 3

### MY Conflict Resolution

To resolve conflict with more upside and less downside than Status Quo



### Option 1: CHANGE ++

Assumption	Injection	How to?
1st 'Why?': CHANGE will result in losing MERMAID when/if...	1st Plus: CHANGE will NOT result in losing MERMAID when/if	How to achieve it?
2nd 'Why?': CHANGE will result in CRUTCHES when/if	2nd Plus: CHANGE will NOT result in CRUTCHES when/if	How to achieve it?

### Option 2: NOT CHANGE ++

Assumption	Injection	How to?
1st 'Why?': NOT CHANGE cannot give us POT OF GOLD when/if...	1st Plus: NOT CHANGE can give us POT OF GOLD when/if...	How to achieve it?
1st 'Why?': NOT CHANGE cannot remove ALIGATORS when/if...	1st Plus: NOT CHANGE can remove ALIGATORS when/if...	How to achieve it?

### Option 3: WHEN + WHEN NOT

Assumption	Injection	How to?
CHANGE is in conflict with NOT CHANGE when / if ...	CHANGE is NOT in conflict with NOT CHANGE when / if ...	When [condition] then CHANGE, else when [condition] NOT CHANGE?

### Option 4: ANOTHER CHANGE

Assumption	Injection	How to?
There is not other CHANGE to achieve more + and less - because	There is another CHANGE to achieve more + and less - when...	Another Way is ...

# TELLING YOUR STORY...

Another Problem that hangs over PAUL like a dark cloud - His Obesity...

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HOW TO TELL YOUR STORY?  
using the *Change Matrix Cloud* Process

Paul and his *Over-spending* Problem



# The Change Matrix Cloud Process (CMCP)

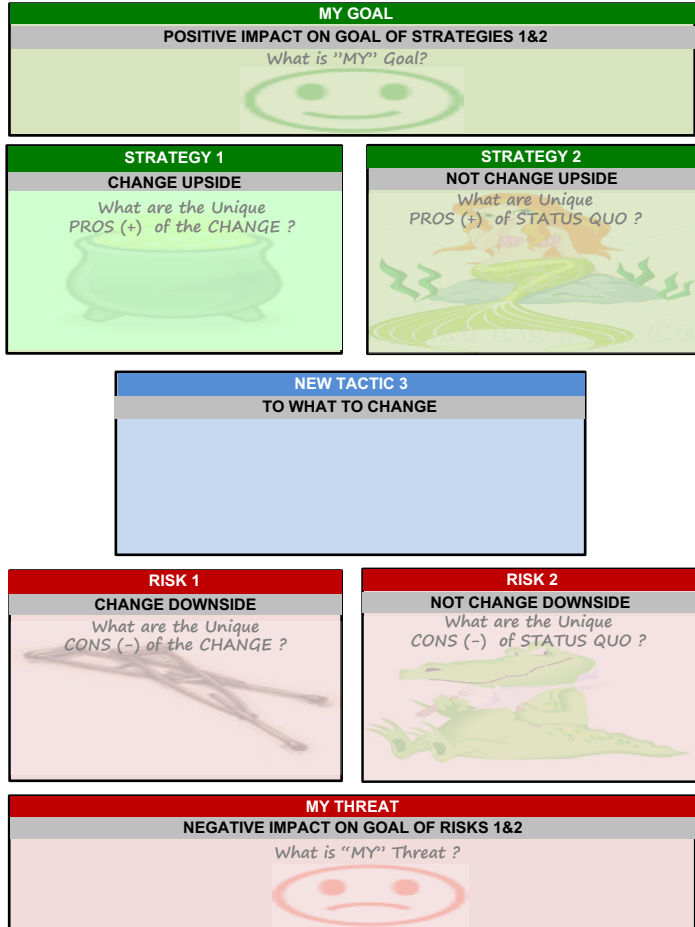
## STEP 4 – Yes, But Planning

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### Step 4

### Yes, But Planning

To use Yes, Buts to turn Half-baked idea into Fully Baked Solution



### Yes, but 1: Insufficiency

Stakeholder	Insufficiency Yes, buts	How to achieve sufficiency

### Yes, but 2: Possible Negative

Stakeholder	Possible Negative Yes, buts	How to prevent negatives

### Yes, but 3: Implementation Obstacles

Stakeholder	Obstacle Yes, buts	How to overcome obstacles



# The Change Matrix Cloud Process (CMCP)

## STEP 5 – Design MY Experience

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### Step 5

### My Experiment

To really test new Solution

Note: You might recognize this format as an S&T Node. So resolving a CMC is a way to build your own S&T

## DESIGN MY EXPERIMENT

<p><b>Necessary assumptions</b> WHEN? Why is there a need for change?</p>	<p>[From STEP 1 of CMC] My problem....why it is bad for me and for others/system</p>
<p><b>Strategy</b> WHAT FOR? What is the objective of the change?</p>	<p>[From STEP 2 of CMC] We to Achieve more of the Upsides (Gain Pot of Gold + Retain Mermaid) Less of the Downsides (Not Gain Crutches + Not Retain Alligators) And. this is how can we measure this</p>
<p><b>Viability assumptions</b> WHY? Why is the change difficult but possible?</p>	<p>Conflict Conditions/Assumptions challenged in resolving Conflict [from STEP 3 of CMC] How to achieve Sufficiency to address Insufficiency Yes Buts with Yes, And.. How to address Negative Consequences Yes, buts with Yes, Ands...</p>
<p><b>TACTICS</b> HOW TO? What is the details of the change?</p>	<p>[From Step 3 of CMC] The best way to achieve the Strategy is either Change++, Not Change++, When + When Not OR Another Changes [From Step 4 of CMC] To add Sufficiency and Prevent Possible Negatives...we also have to ADD....</p>
<p><b>Sufficiency assumptions</b> WHY NOT? Why is the level of detail not sufficient (warnings)?</p>	<p>[From Step 4 of CMC] Implementation Obstacle Warnings and the Sequenced Plan (IO map) on How to overcome these Obstacles</p>



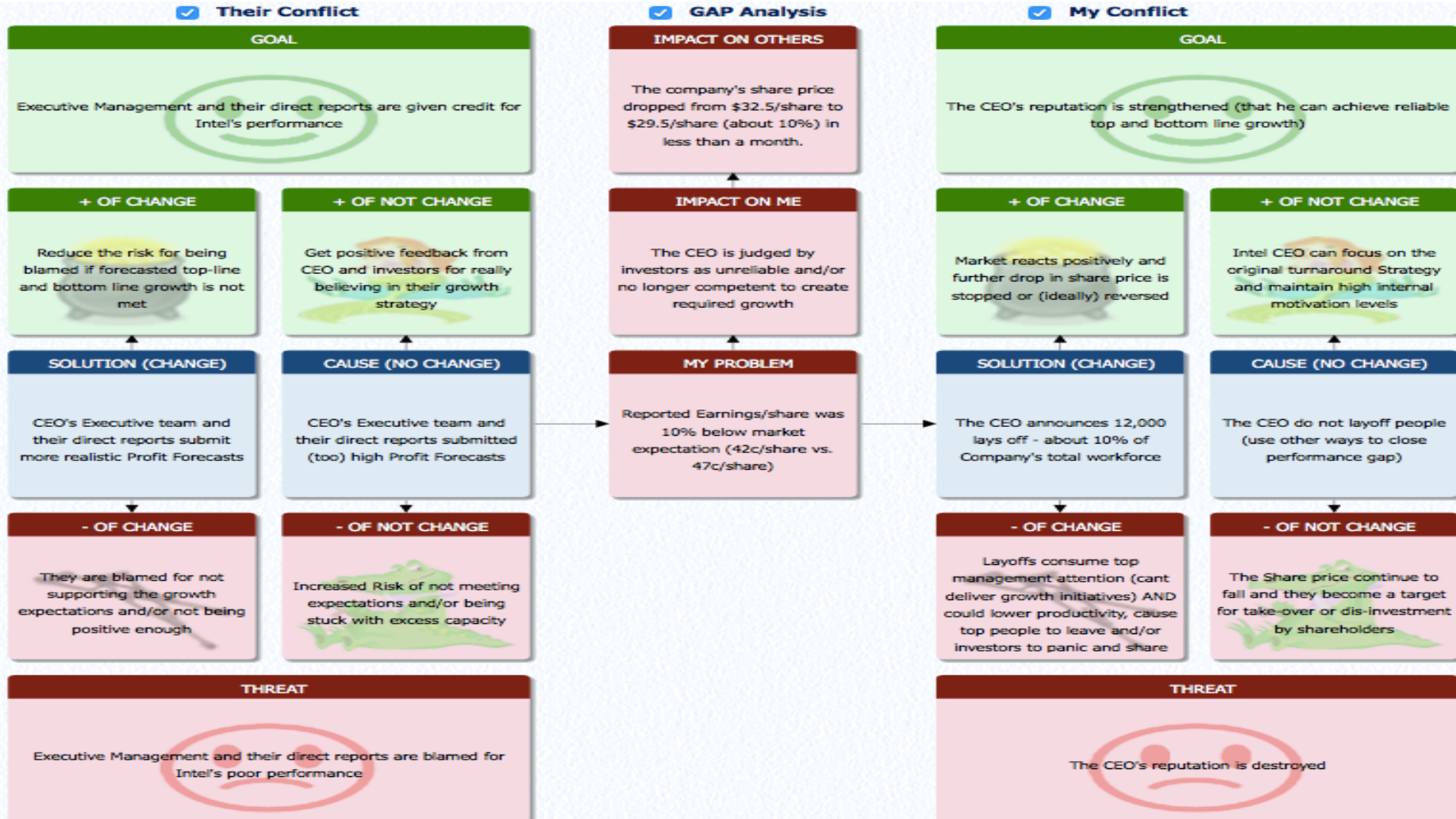


# CMC Examples presented from HARMONY

## Understanding the “Lay-off Announcement” Conflict for CEO

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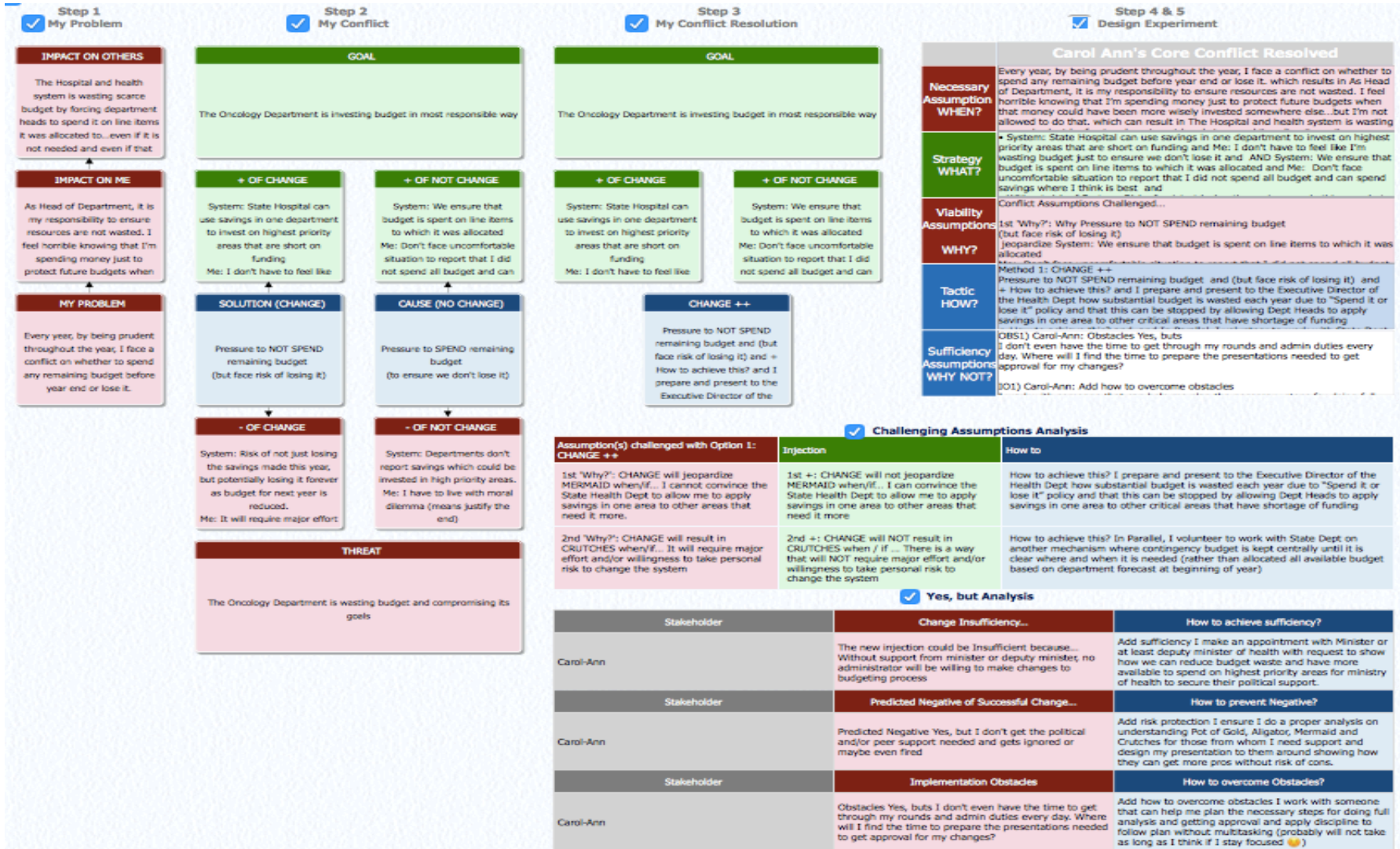
### Examples presented from HARMONY – A CEO’s Conflict



# CMC Examples presented from HARMONY

## Resolving the "Spend-it-or-Lose-it" Conflict for Hospital Administrator

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# Dr. Alan Barnard Interview with George Ross

## The Importance of having a Process to Learn from YOUR Experience

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# SUMMARY – A new Development on TOC TP

## 5 Steps CMCP to prevent the 5 most common mistakes in decision making

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**Mistake 2b**  
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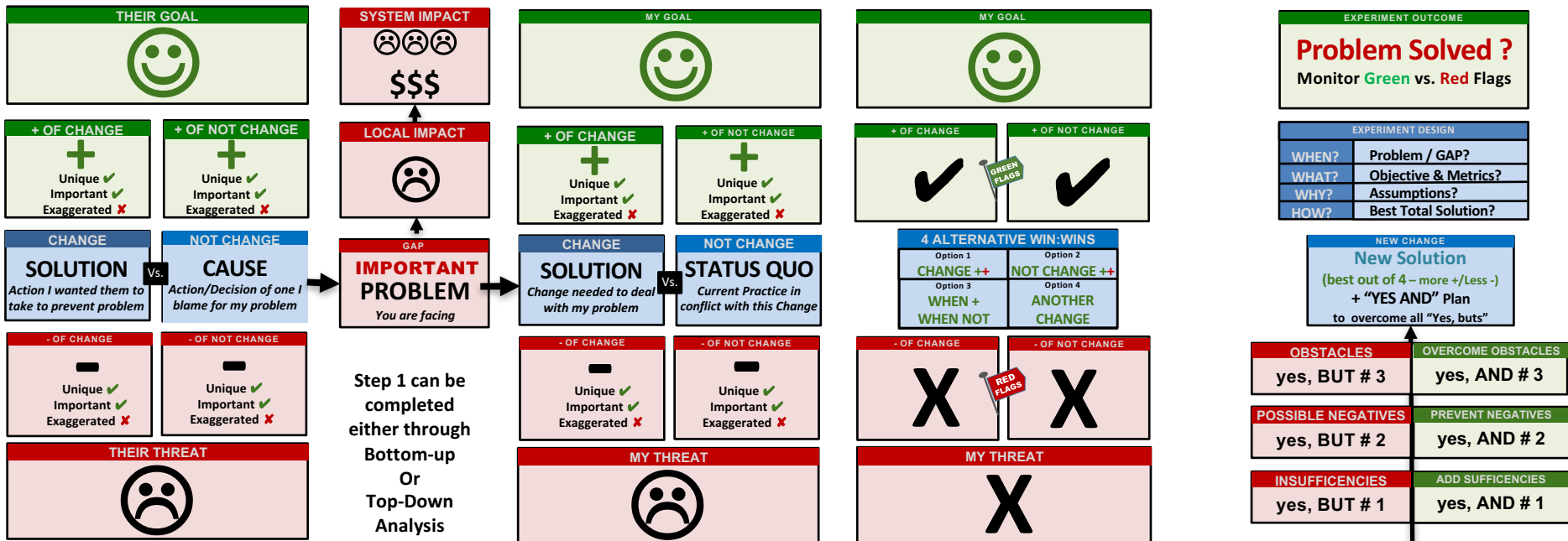
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To really test new Solution



Then repeat Steps 3b,4b,5b for “Their Conflict” ...



# About Dr. Alan Barnard

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Dr. Alan Barnard is one of the leading experts in the world in Theory of Constraints (TOC) frequently worked with Dr. Eli Goldratt, creator of Theory of Constraints on large and complex projects around the world. He is the CEO of Goldratt Research Labs (Singapore and usa), African Phosphates (RSA) and The Odyssey Institute (USA). Alan is also a board member of TOCICO and the Dr. Eliyahu M. Goldratt Foundation.

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 also the author of 2 chapters in the McGraw Hill published Theory of Constraints Handbook. He is also the architect of HARMONY ([www.harmonytoc.com](http://www.harmonytoc.com))

Alan is a past-President of TOCICO (2003 to 2005) and serve on the judging panels of the Logistics Achiever Awards and Technology Top 100. He has worked with global companies such as ABB, BHP Billiton, Cisco, SAP, Random House Publishing, Microsoft, African Explosives, TATA in the Private sector. Alan has also worked with UN DP, UN WFP and for example Utah State Government in the public sector on applying for example Theory of Constraints to City Councils and Government Agencies in in the Public Sector to help them identify and unlock inherent potential to achieve more with the same resources in less time.



# Standing On The Shoulders of Giants

## Summary of TOC 5 Question Analysis

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### 1. Why Change?

Our bottleneck is our limited “attention” which we waste when make and repeat bad decisions - we do what we should not and not do what we should.

But why do we repeat these decision mistakes which compromise our happiness, harmony & productivity...?

### 5. How to create POOGI?

Adopt a “Learn from experiment” method to continuously improve current methods for helping individuals better understand why we resist good changes and/or over-react and make bad changes and the assumptions behind these decision errors

### 2. What to Change?

Our poor understanding of the most common mistakes that cause us to make and often repeat bad decisions – **ignorance** (I did not know), **inertia** (I knew but did not act), different types of **ineptitude** (I acted but compromised)

### 4. How to cause the change?

The Learning from Experiment (LFE) Process

- Step 1: Identify Problem and why its important
- Step 2: Define Conflicts that block resolution of Problem
- Step 3: Explore 4 Viable Ways to resolve conflicts...
- Step 4: Create Plan to overcome valid yes, buts...
- Step 5: Design experiment to test new insights

### 3. What to Change to?

Create a 5 Step process designed specifically to prevent the 5 most common types of decision mistakes.

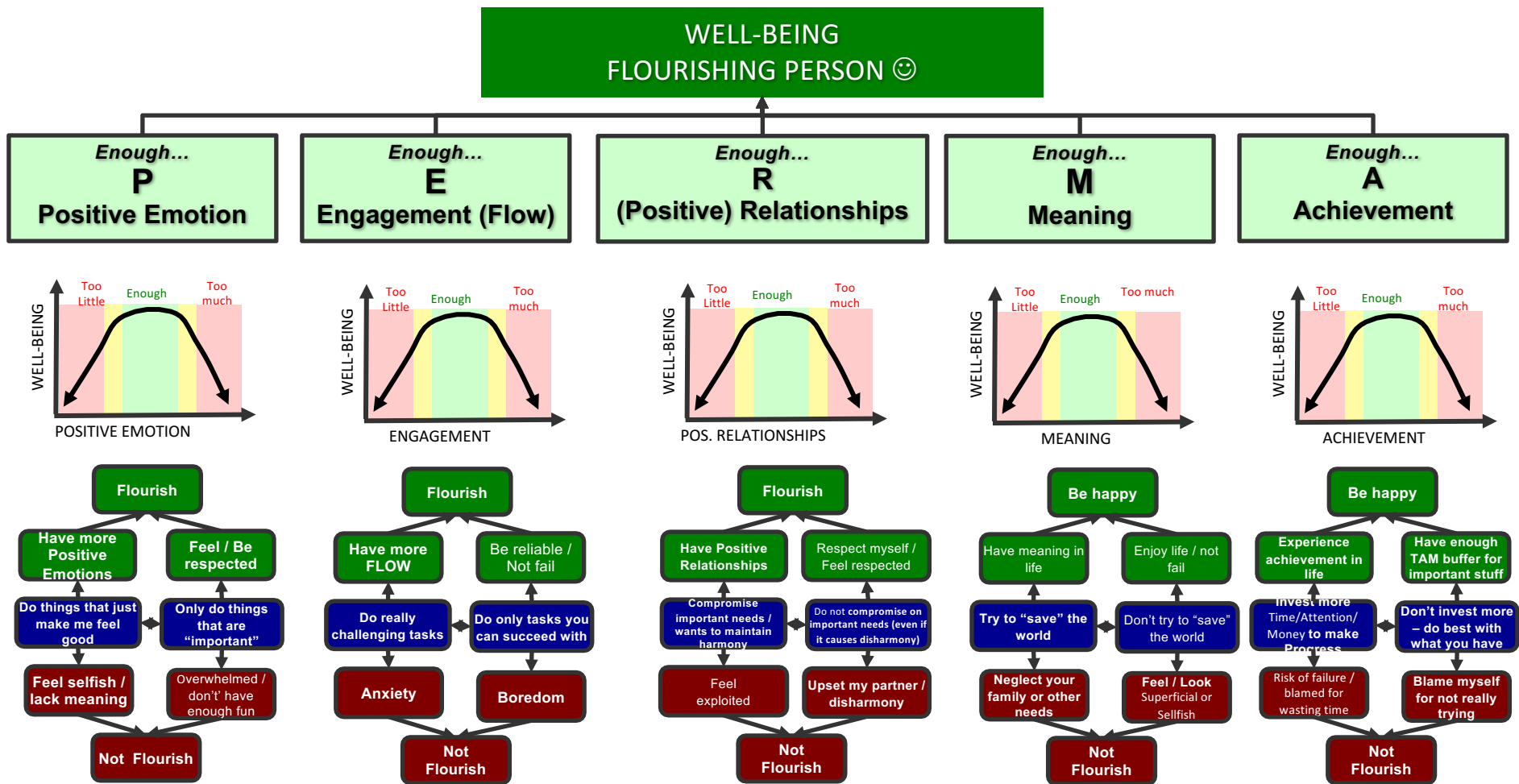
- 1) working on wrong problem,
- 2) jumping to solution or blaming,
- 3) compromising,
- 4) not having a plan to address valid yes-buts and
- 5) not doing “honest experiments”.



# INSIGHTS FROM ODYSSEY ALUMNI RESEARCH

## Positive Psychology's PERMA & Core Conflict Correlations

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# TOC FUNDAMENTALS

## Limiting vs. TOC's Enabling assumptions..

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Adaptation by Dr. Alan Barnard  
from Dr. Efrat Goldratt's Notes  
THE CHOICE, 2010, Dr. Eli Goldratt

