

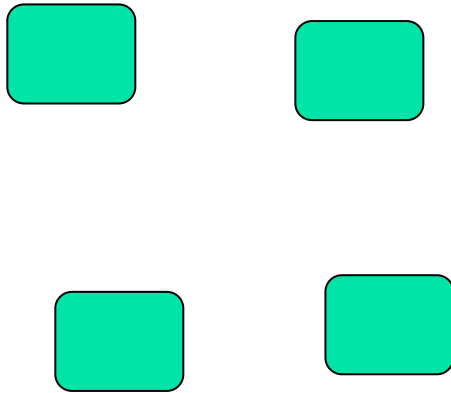
Theory Of Constraints



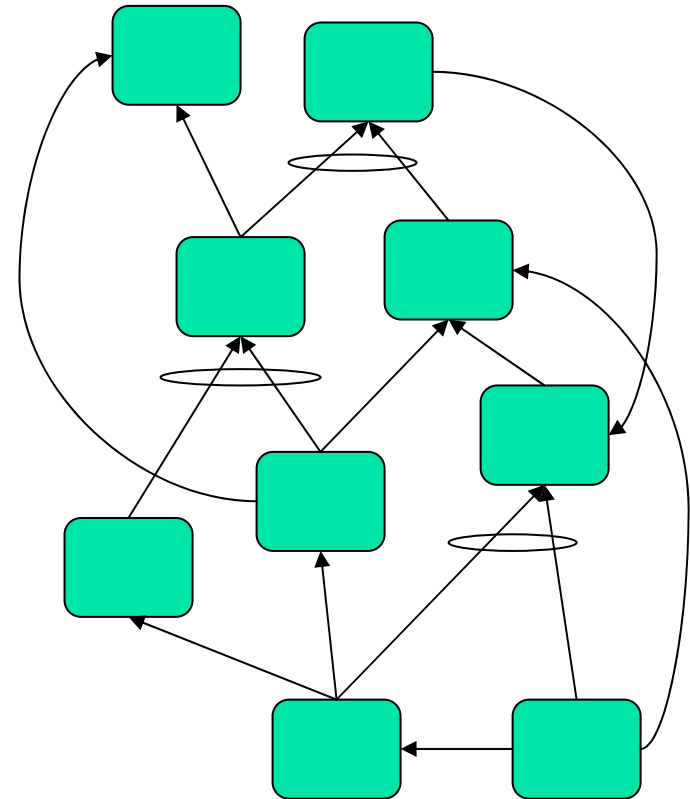
Complexity

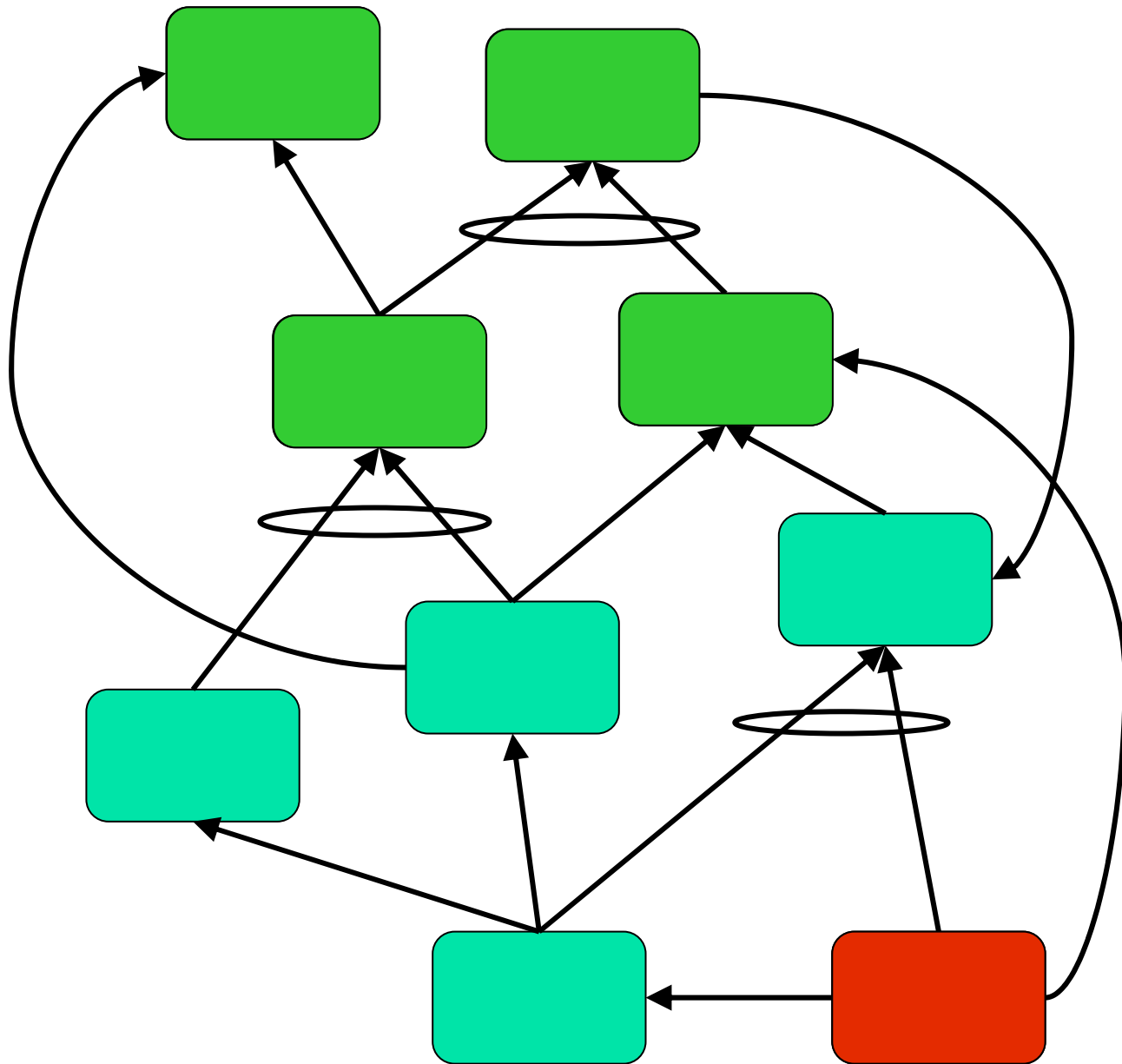
Which system is more complex?

System "A"



System "B"





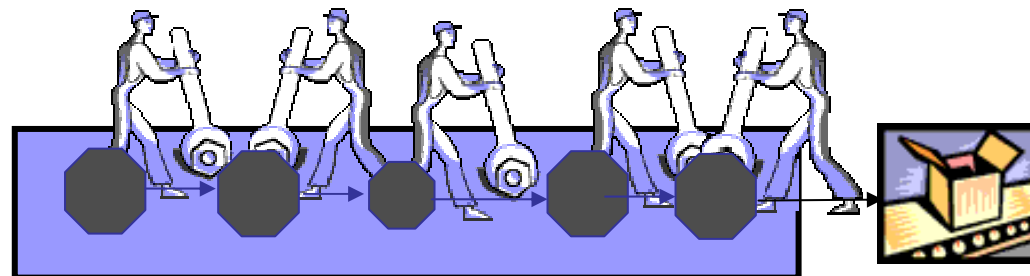
Two different ways to approach complex systems

THE TRADITIONAL WAY

“A cent plus a cent plus a cent plus a cent... makes a fortune...”

Common Practice

Global Optimum = \sum Local Optima



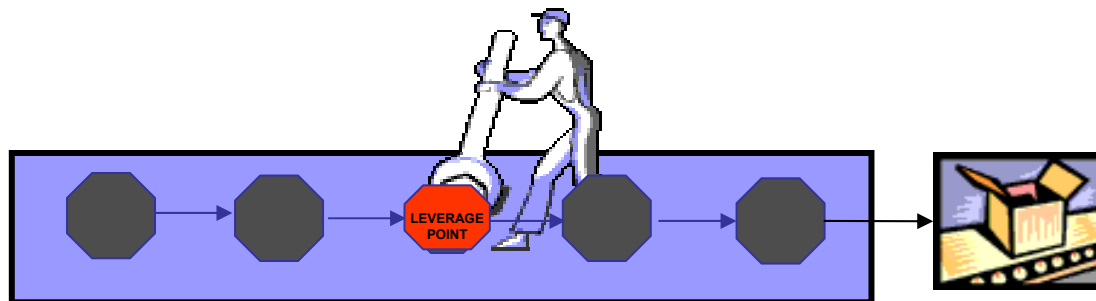
Two different ways to approach complex systems

THE SYSTEMIC WAY

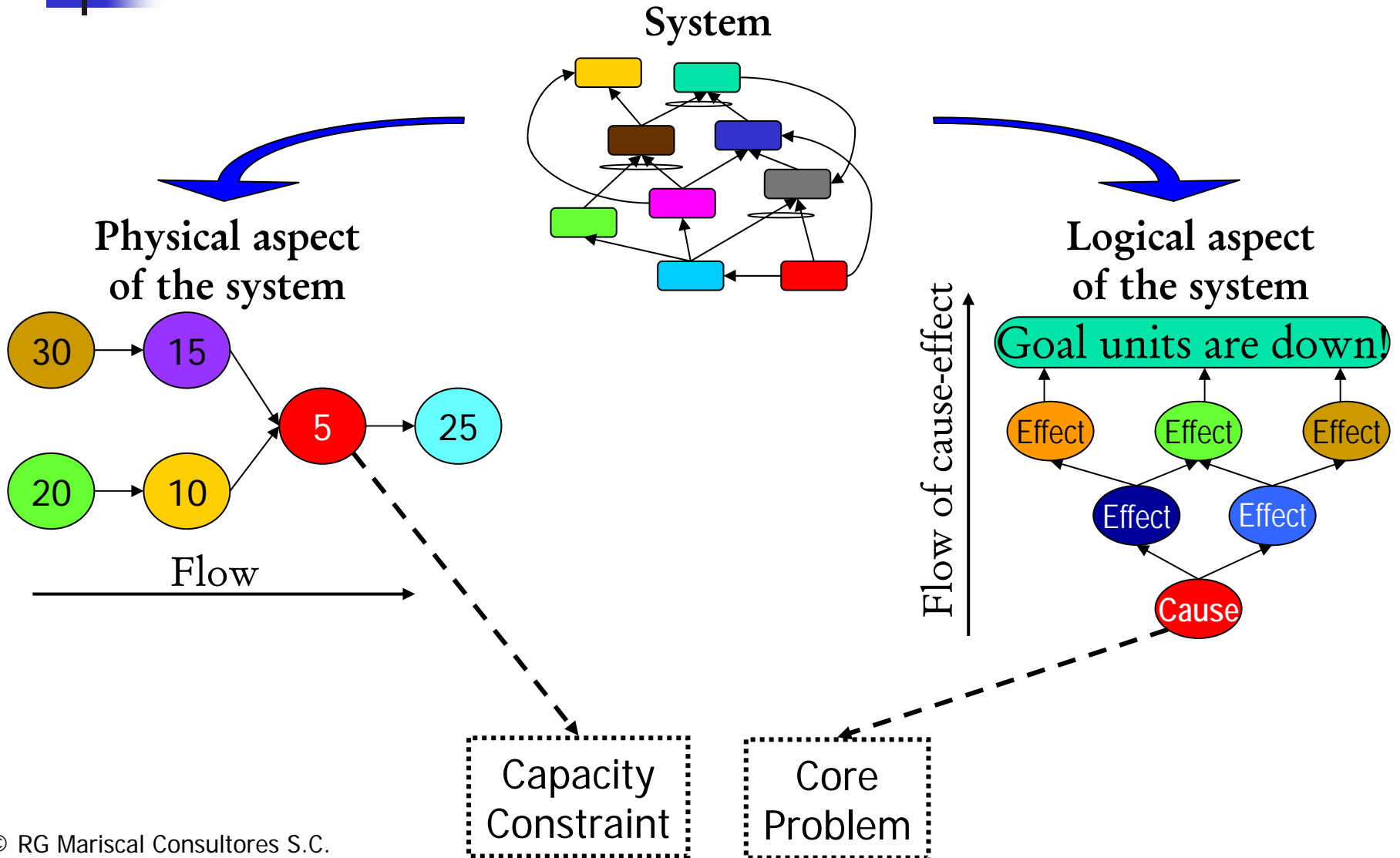
“If I can find a leverage point and a lever long enough... I can move the EARTH...”

Archimedes

Global Optimum \neq \sum Local Optima

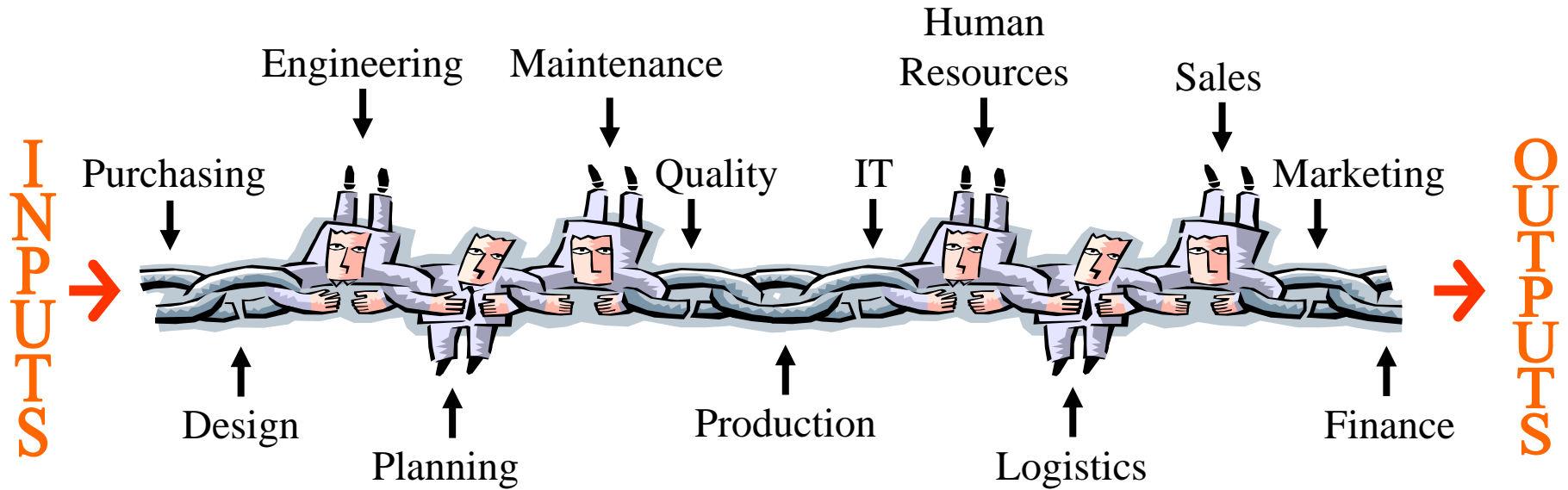


Inherent Simplicity



Chain Analogy

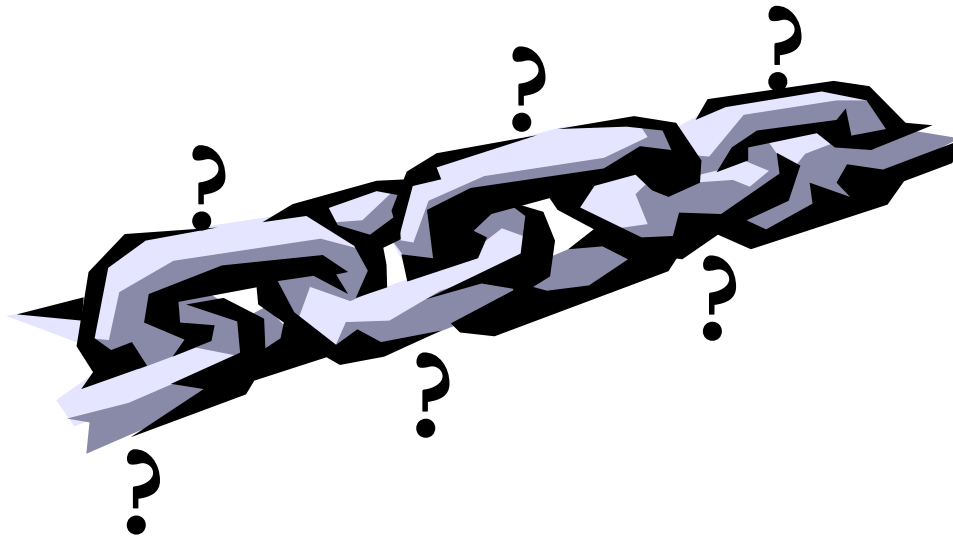
Capitalizing on the Inherent Simplicity



TOC five focusing steps

1. **IDENTIFY** the system's constraint(s).

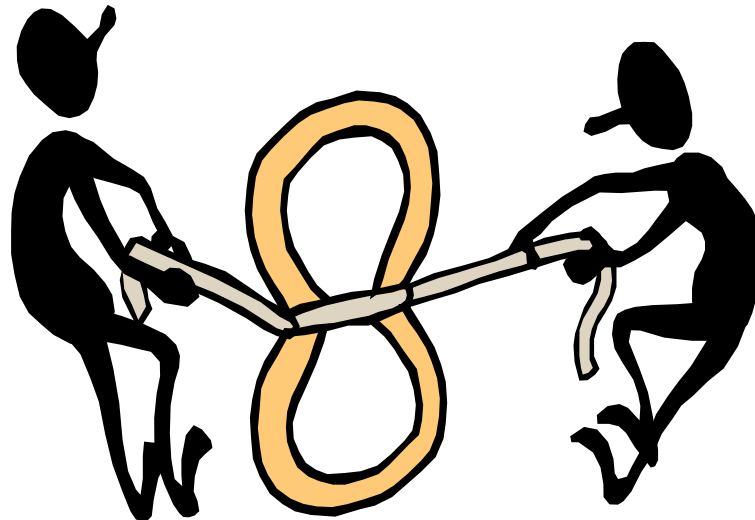
What limits the system to reach higher performance



TOC five focusing steps

2. ***EXPLOIT** the system's constraint(s).*

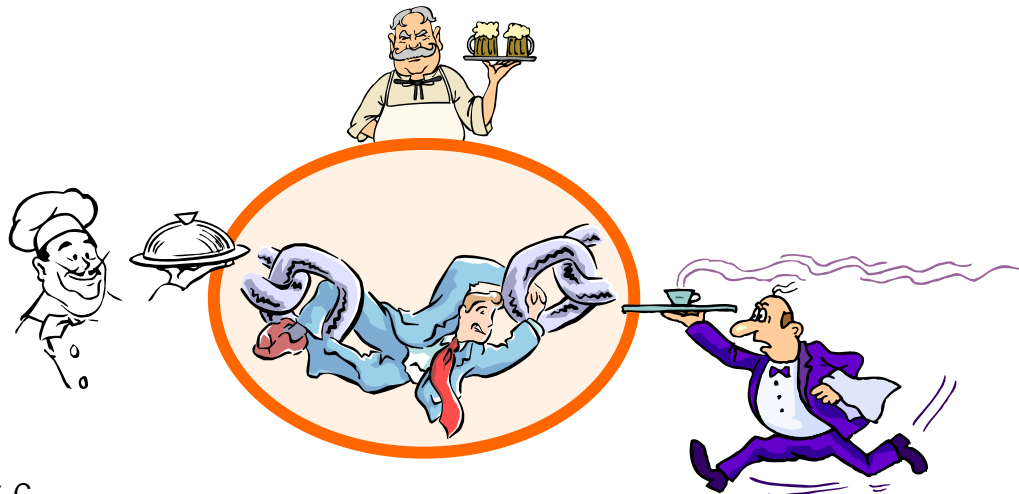
Squeeze it, get the most out of it.



TOC five focusing steps

3. ***SUBORDINATE*** everything else to the decision in step 2.

Do whatever be needed to exploit the constraint. But don't do more!!



TOC five focusing steps

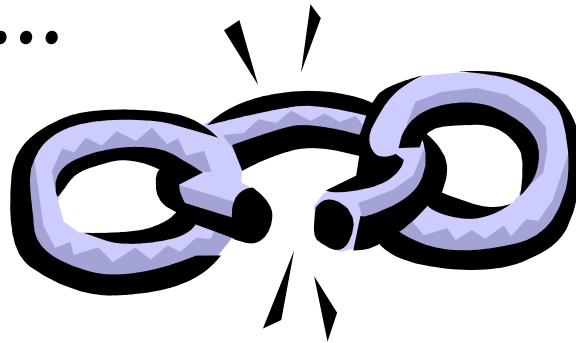
4. ***ELEVATE** the system's constraint(s).*

*Check also if it actually went where we expected
it to go.*



TOC five focusing steps

5. *If a constraint has been broken* **GO BACK** *to step #1, but...*



Beware of Inertia!



TOC five focusing steps

1. ***IDENTIFY** the system's constraint(s).*
2. *Decide how to **EXPLOIT** the system's constraint(s).*
3. ***SUBORDINATE** everything else to the above decision.*
4. ***ELEVATE** the system's constraint(s).*
5. *If in the previous steps a constraint has been broken **Go back** to step #1, but do not allow **Inertia** to become a system's constraint.*

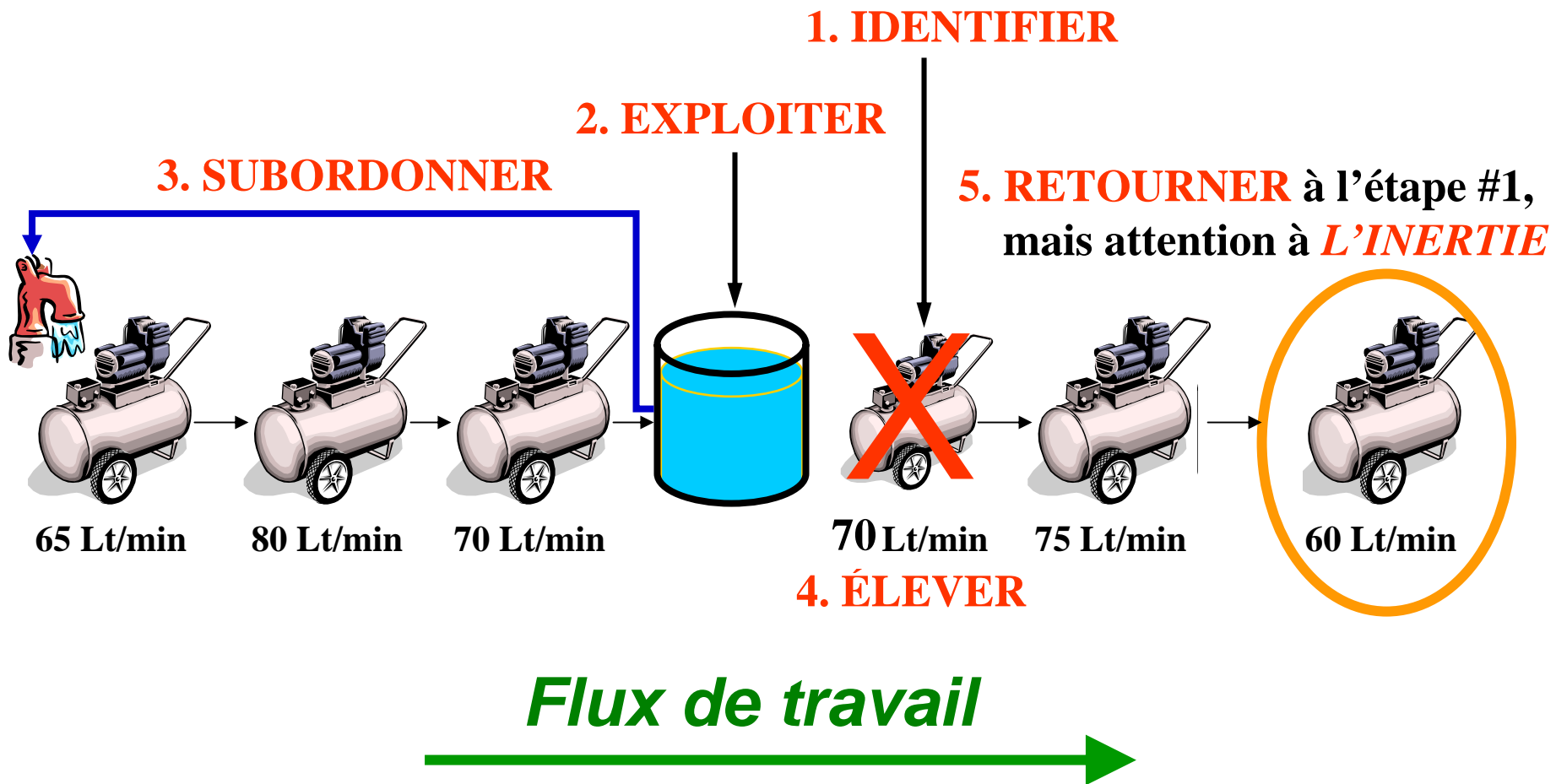


TOC Solutions

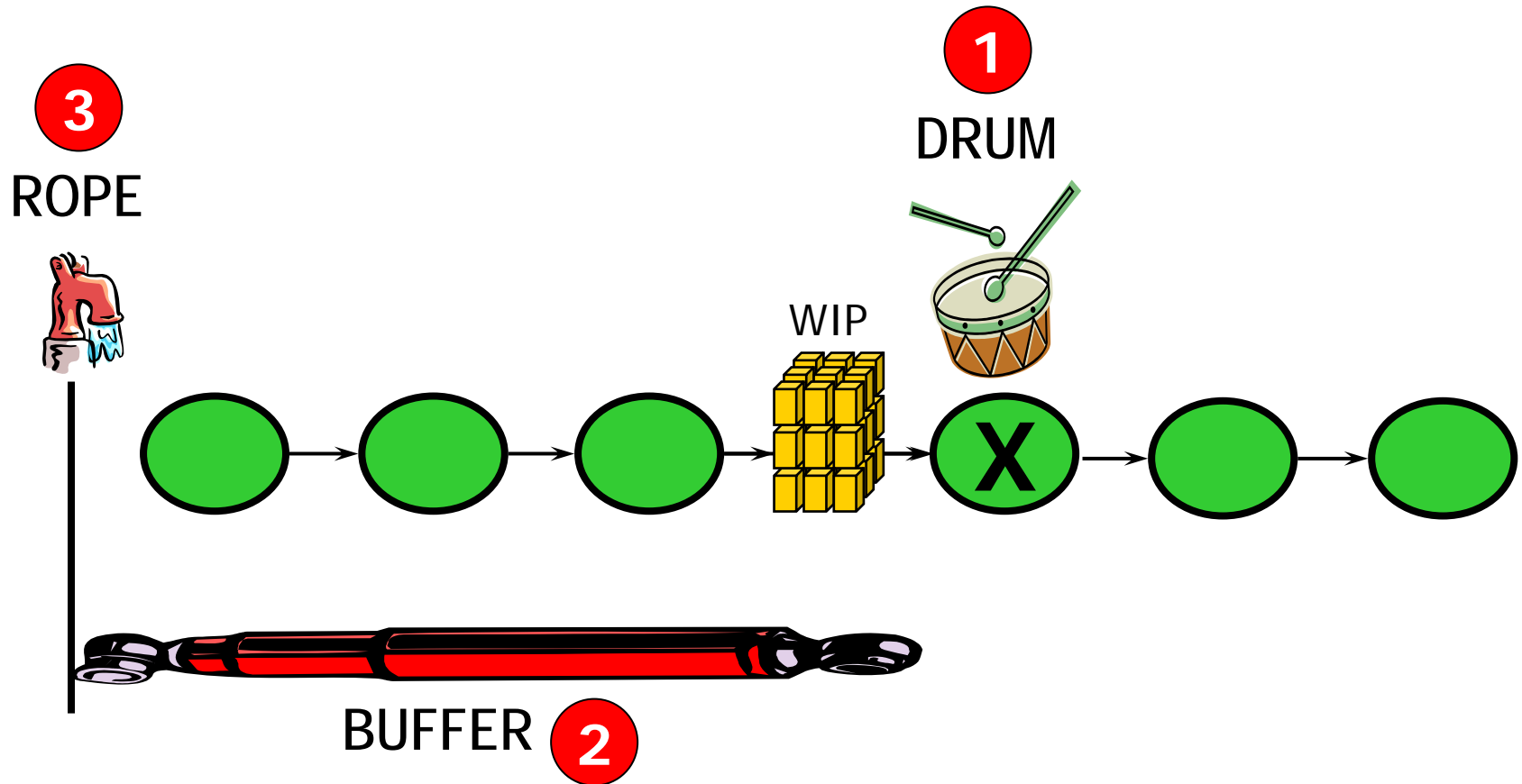
- Operations Drum Buffer Rope
- Project Mgmt Critical Chain
- Distribution Replenishment
- Finance Throughput Accounting
- HR Day to day thinking
tools
- Strategy The thinking processes &
the
viable vision process

Dependency & Fluctuations

The twin killers



The DBR Method





Case Study

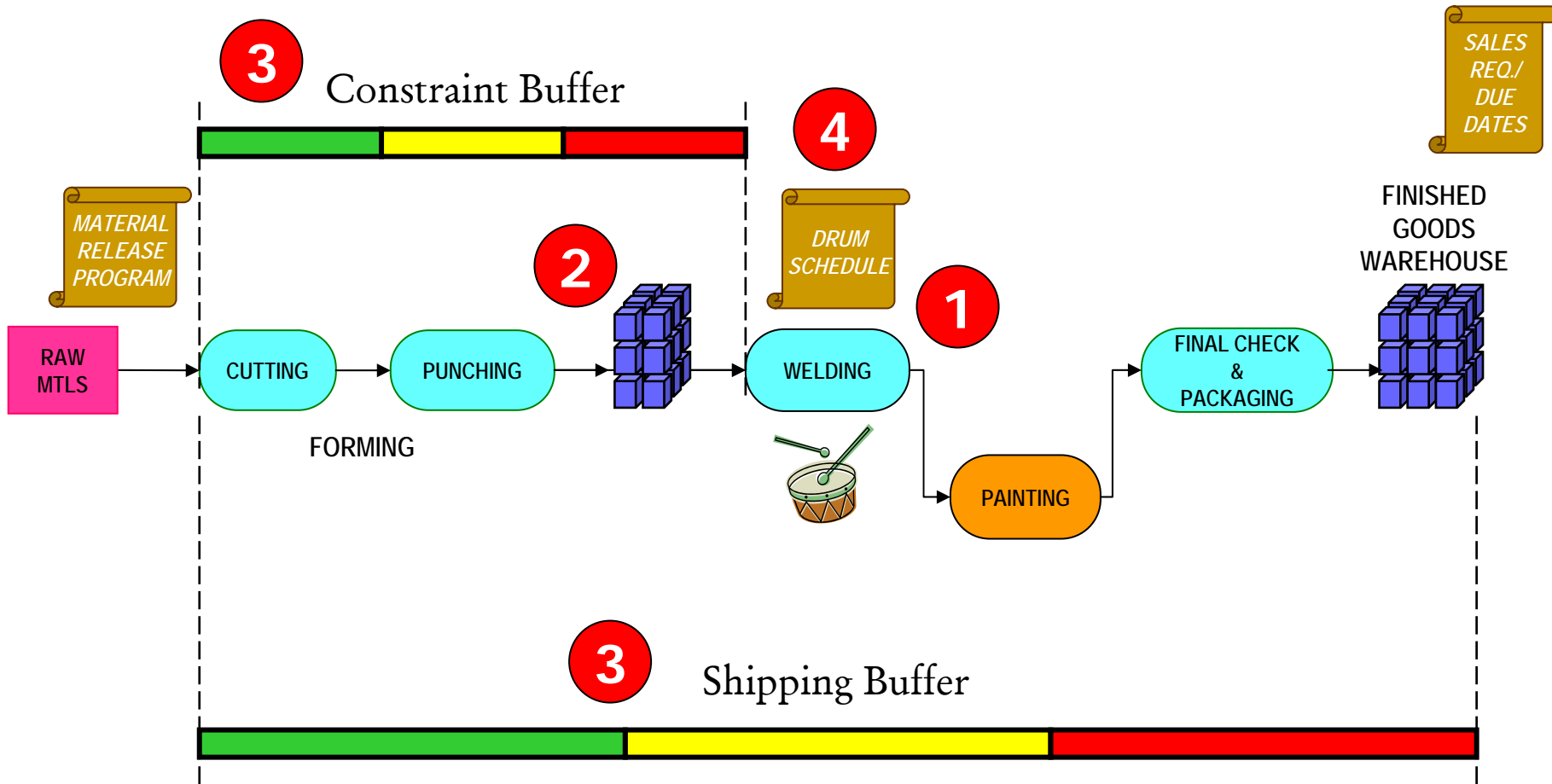
A Mexican Metal Stamping
Company
(OEM's Supplier)



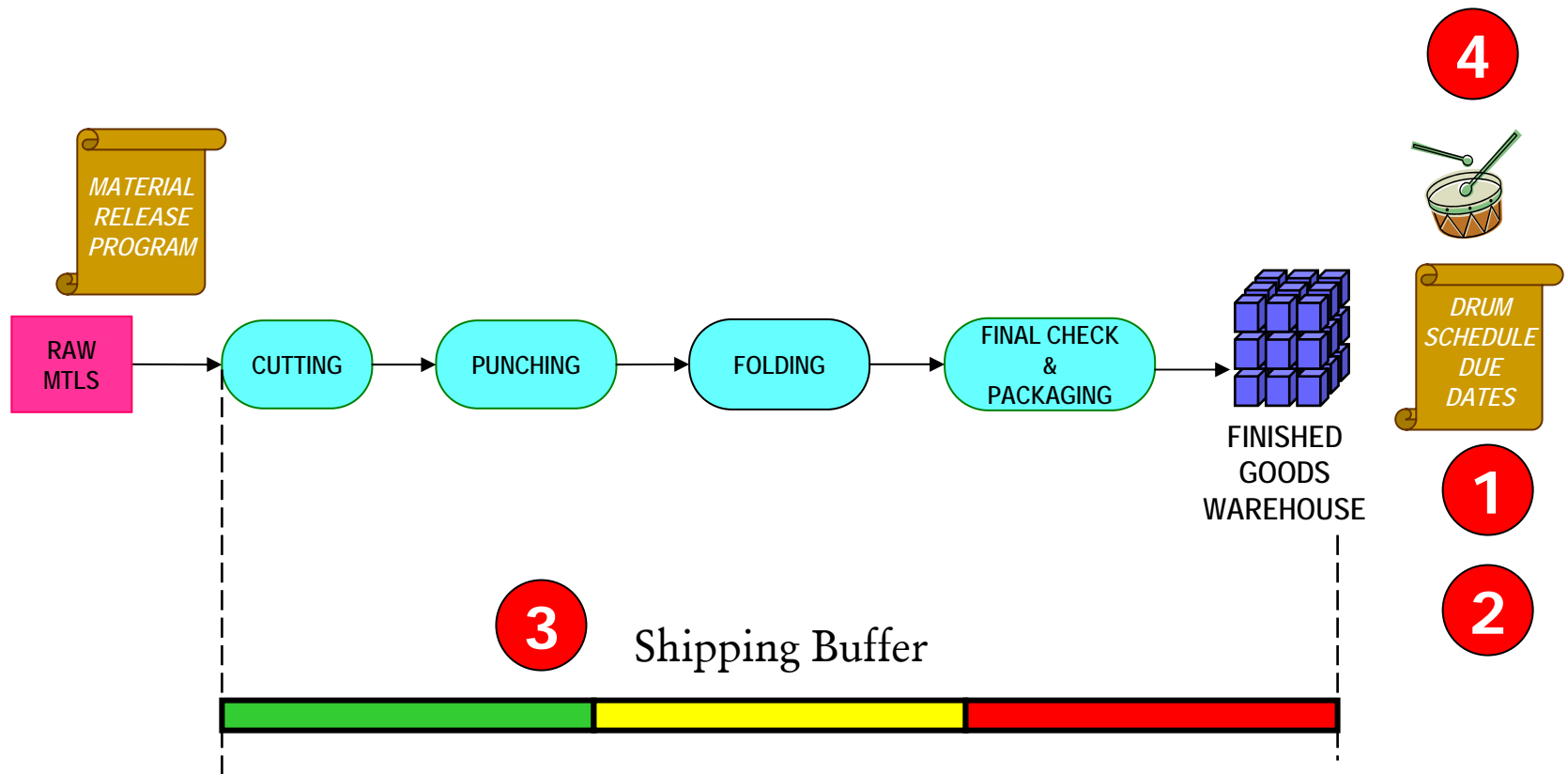
General implementation plan

- Deliver a DBR workshop to train a team and at the same time make this team implement it in one production line as a pilot test.
- Evaluate the impact and the results on this pilot test. (results were far beyond the expectations)
- Proceed to analyse the whole operation and set up the model for the TOC production solution
- Do a full DBR implementation.

Case Study



Now the market is the constraint



MERCI BEAUCOUP!