



# Eli Goldratt's Legacy in the World

50<sup>th</sup> TOCPA European Online Conference

4 June, 2021

**Milan Zajc**

Slovenia, Scepter d.o.o., [www.Herbie-iot.com](http://www.Herbie-iot.com)



Unversity Ljubljana-MF,1980

Steel Plant Ravne, 10 Years:

- CEO Technical Development & Investments



> *Dev&Tech&Invest Projects cca 200 mio €*

Scepter d.o.o, 30 Years

- International Consulting projects in Industry
- Consulting improvements with TOC & IT Support, from 1992



> *100 Organizations*

Approved Engineer

Senior Consultant  
EBRD, BAS, Cegos



Founding Member



Microsoft Partner



IT



FEM

CAD/First PC's

DOS

Win/NT

ERP/MRP

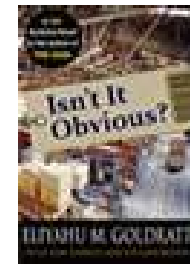
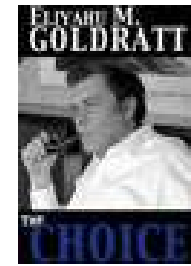
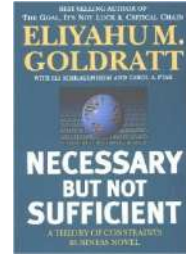
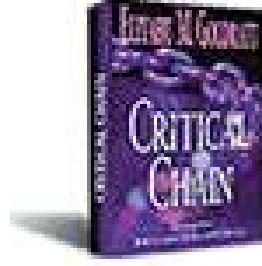
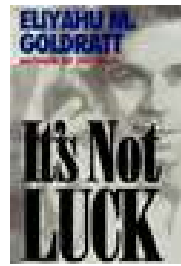
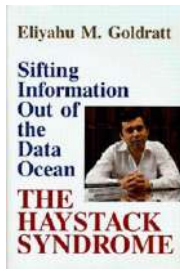
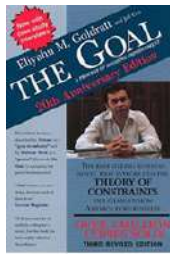
APS

TOC SW

Herbie

O365/PBI

Herbie.IoT



### The privilege to Learned from the Giants



*TPS*

*JIT*

*6-Sigma*

*OPT*

*Kaizen*

*TQM*

*VSM*

*Lean*

*TOC*

*TLS*

*Demand Driven*



Mr. Nakamura, Sony

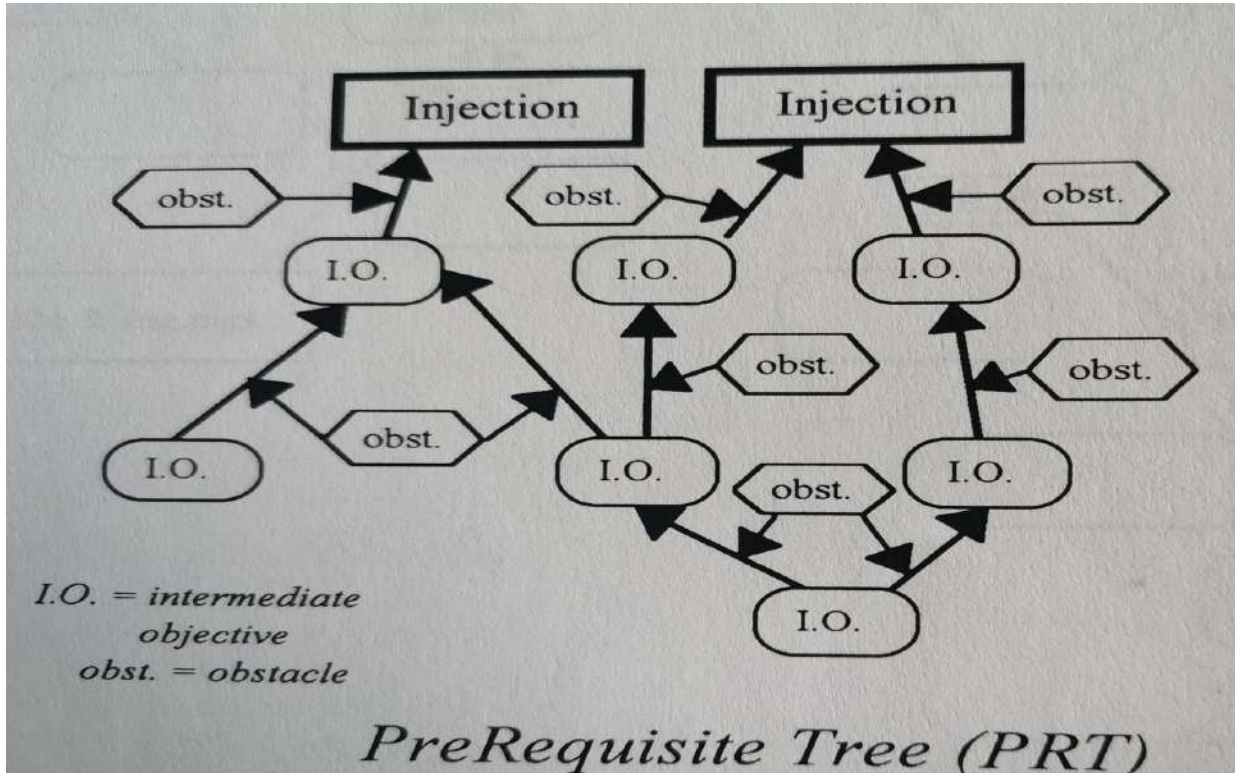


Mr. Ohnishi, Toyota,

**Common Sense, Your Time is Coming**

# First meeting with Eli, 1994

Talking about the old Pre-requisite tree



Source: AGI, Johan Course, 1994

After some time Injection map and PrT looks

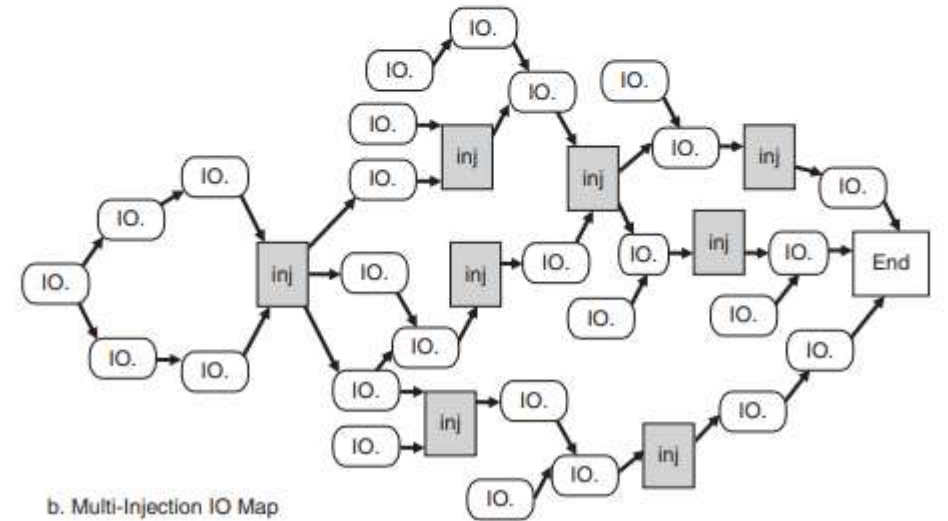
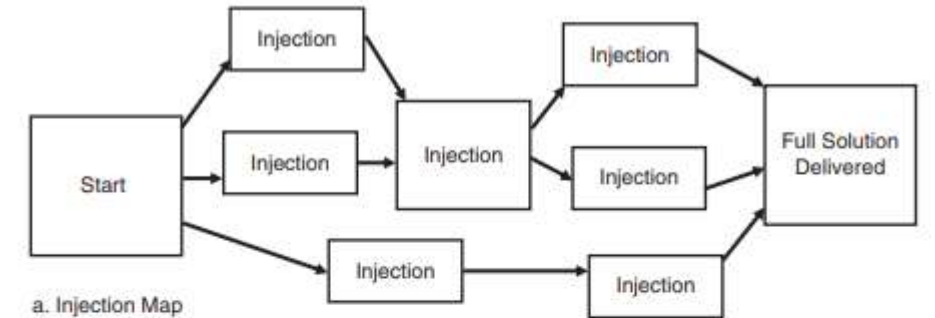


FIGURE 24-21 Example of an Injection Map and Multi-Injection IO Map.

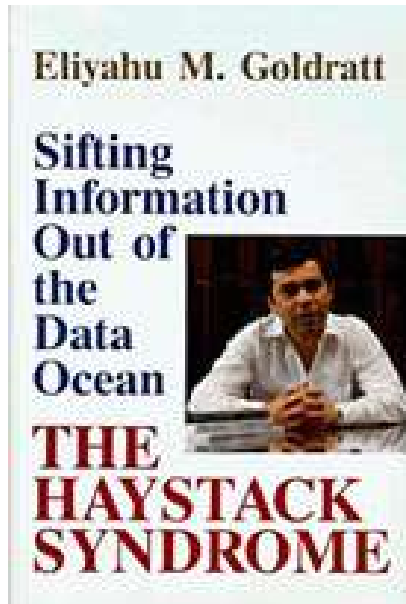
Source: Theory of Constraints Handbook, 2010

# First common project with Oded 1994 in Slovenia

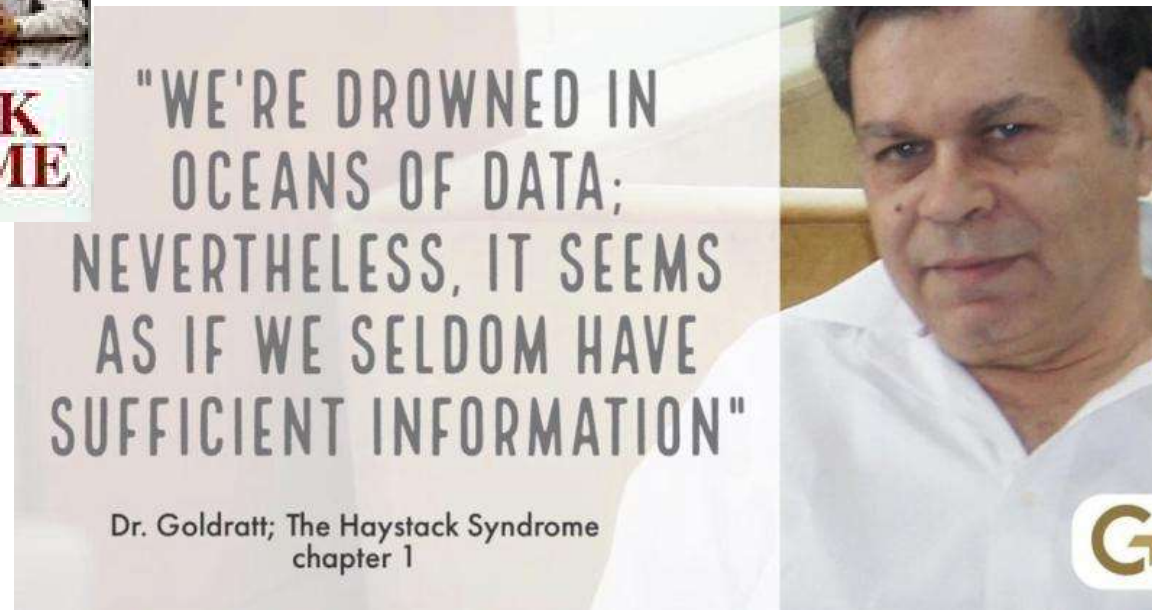


With Management Board of  
the Company Iskra Mehanizmi

# The Book that changed my TOC journey



If the solution is a new SW for planning, then what is the problem?



**How many times you was read the Haystack Syndrome?**

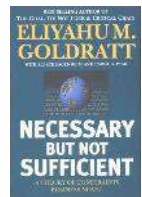
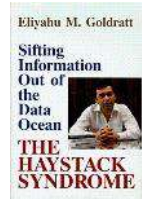
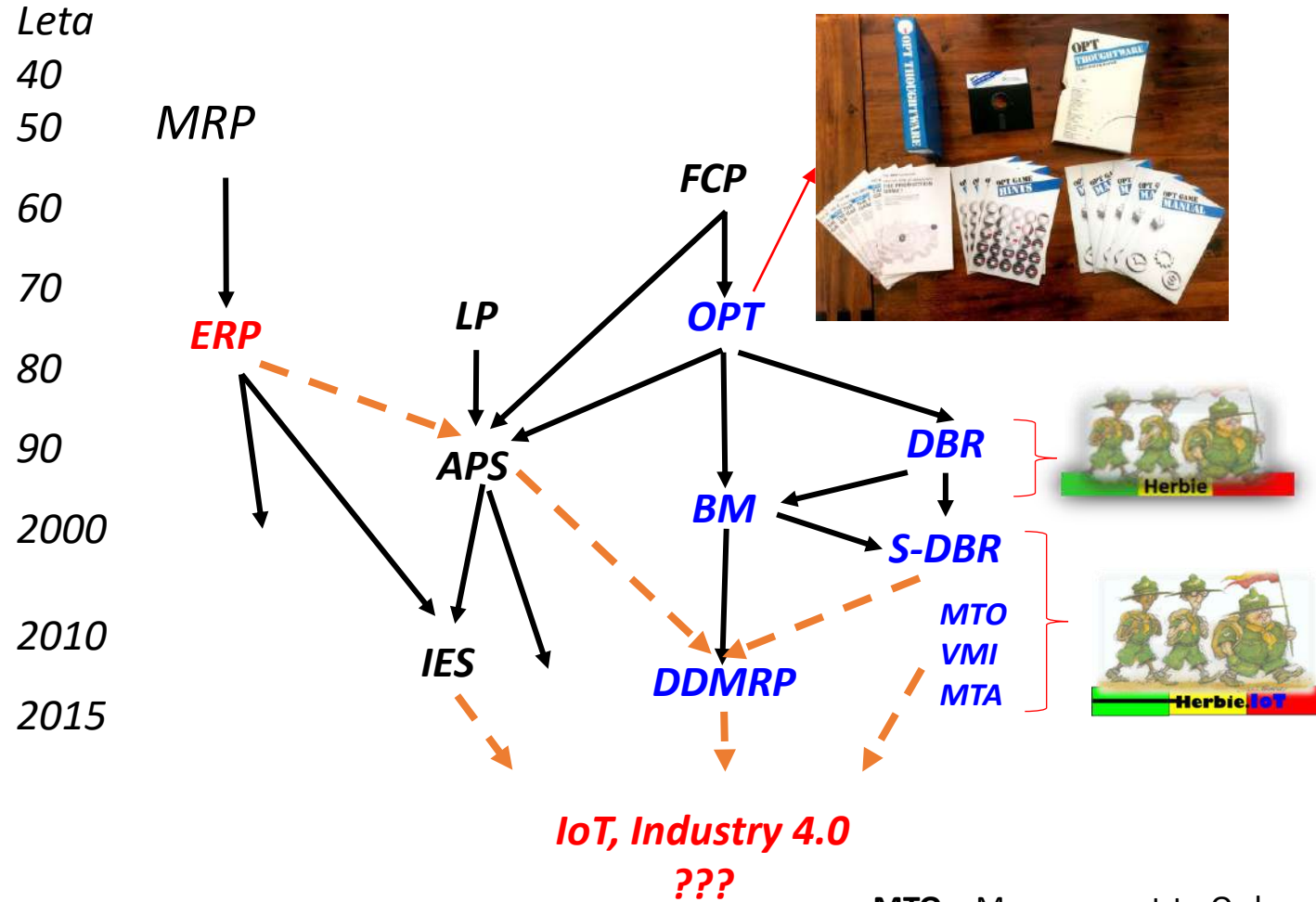
# I have luck to learned from Eli





# Many manufacturers find their ERP (and MRP) are fails, what now...?

- MRP - Manufacturing Resource Planning.
- FCP – Finite Capacity Planning
- ERP - Enterprise Resource Planning;
- LP - Linear programming;
- OPT - Optimized Production Technology;
- APS - Advanced Production Scheduling;
- IEs - Integrated Enterprise Scheduling;
- IBP - Integrated Business Planning;
- DBR - Drum-Buffer-Rope;
- BM - Buffer Management;
- S-DBR – Simplified DBR;
- DDMRP - Demand Driving MRP;



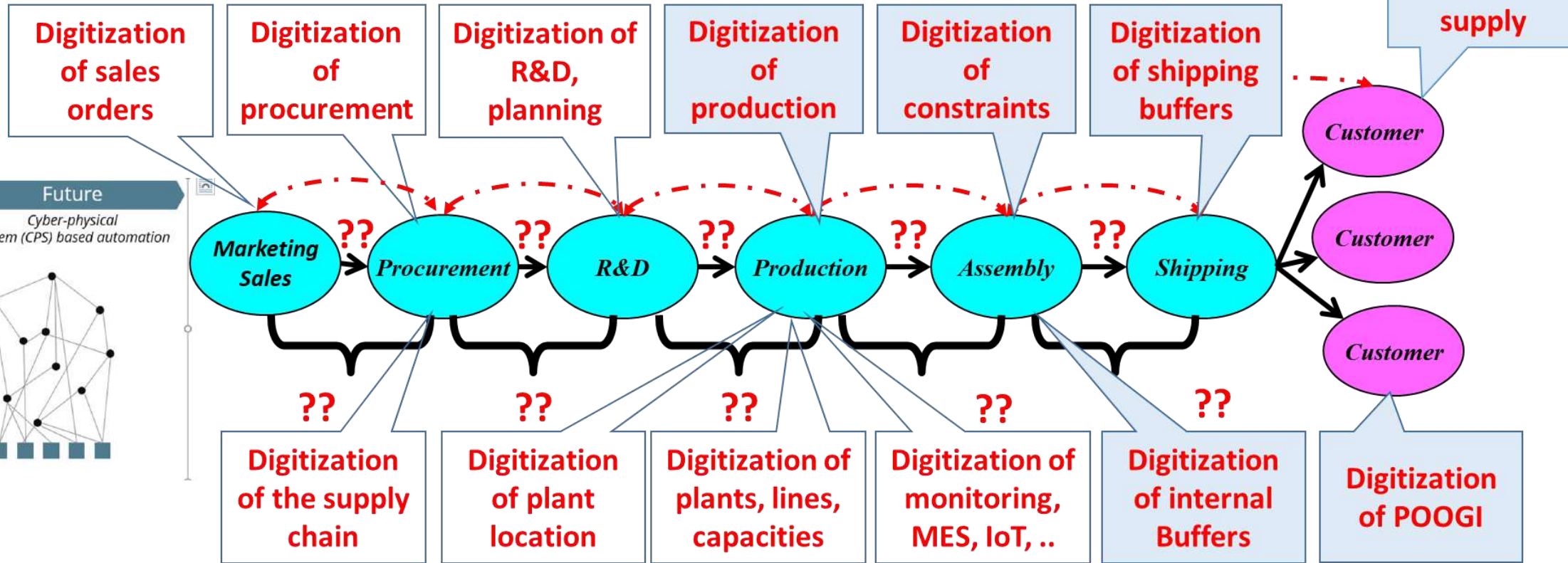
- SW with TOC
- |                                    |                                |
|------------------------------------|--------------------------------|
| Operations:                        | Projects:                      |
| <a href="#">Symphony/Onebeat</a>   | <a href="#">Concerto</a>       |
| <a href="#">DDMRP</a>              | <a href="#">ProChain</a>       |
| <a href="#">IDEA LLC</a>           | <a href="#">Exepron</a>        |
| <a href="#">CDS</a>                | <a href="#">CMS RoadRunner</a> |
| <a href="#">CMS RoadRunner</a>     | <a href="#">A-Dato</a>         |
| <a href="#">NeoGrid</a>            | <a href="#">Aurora</a>         |
| <a href="#">Goodstream</a>         |                                |
| <a href="#">Stock-M</a>            |                                |
| <a href="#">Mainway</a>            |                                |
| <a href="#">Galaxy APS</a>         |                                |
| <a href="#">Demand Driven Tech</a> |                                |
| <a href="#">ThroughPut.Inc</a>     |                                |

MTO – Management to Order;  
 VMI-Vendor Manged Inventory;  
 MTA-Management to Availability

# The direction of digitization



What to include in digitization?

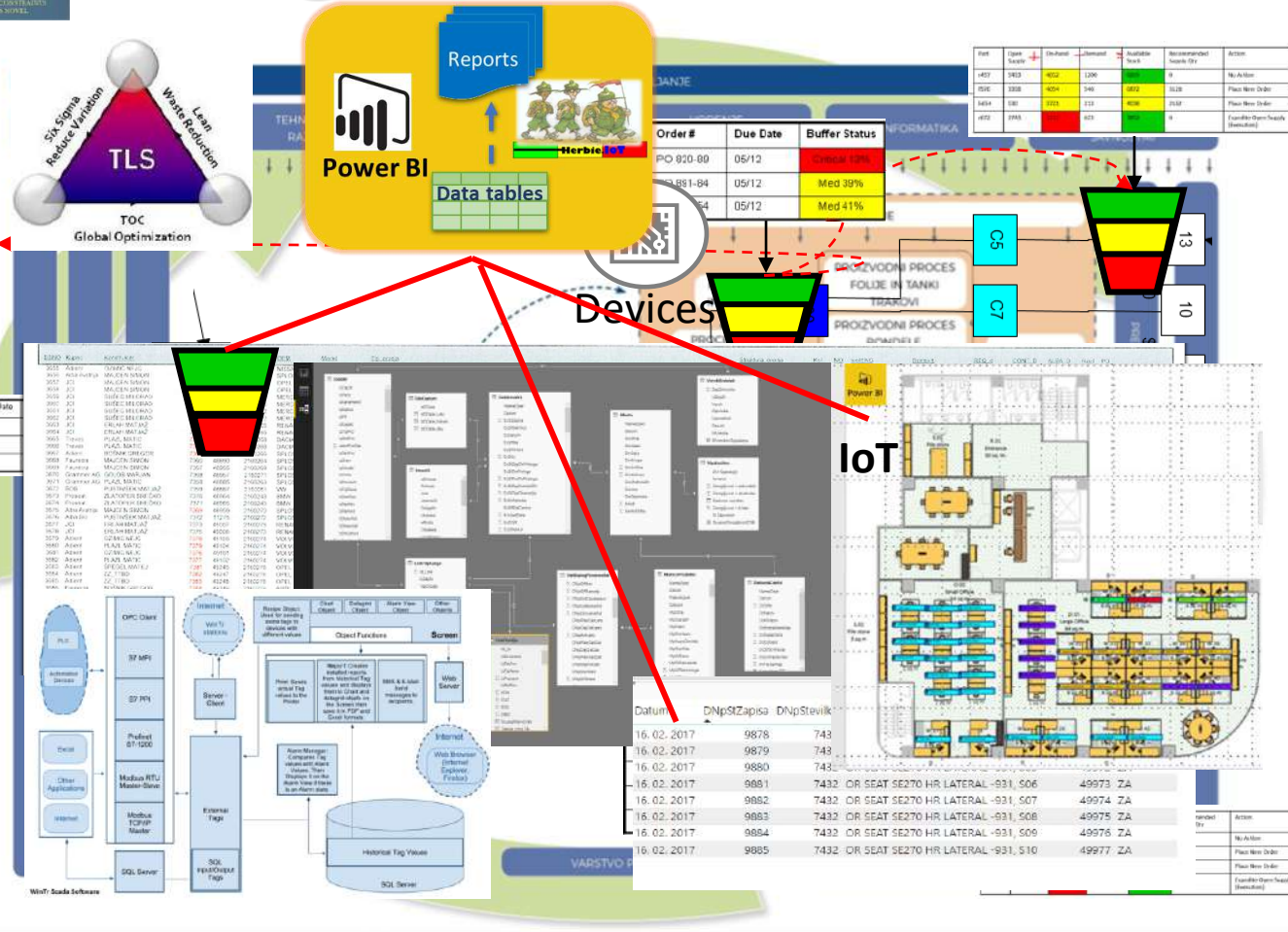
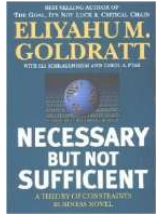


Questions?

How can we specifically implement this in the organizations:

- Principles from the book "Goals" and TOC ?
- Ideas from the book "NbnS"?
- Digitization of order flow in direction I 4.0?

# The direction of digitization of the orders flow



Introduction of new principles adapted to the actual state of process flow (Flow rate, Constraint management, Buffer management) - **MF**

Connection with BI only to those data that are necessary for the new principle of planning and monitoring (Herbie.IoT) - **IF**

Inherent Simplicity

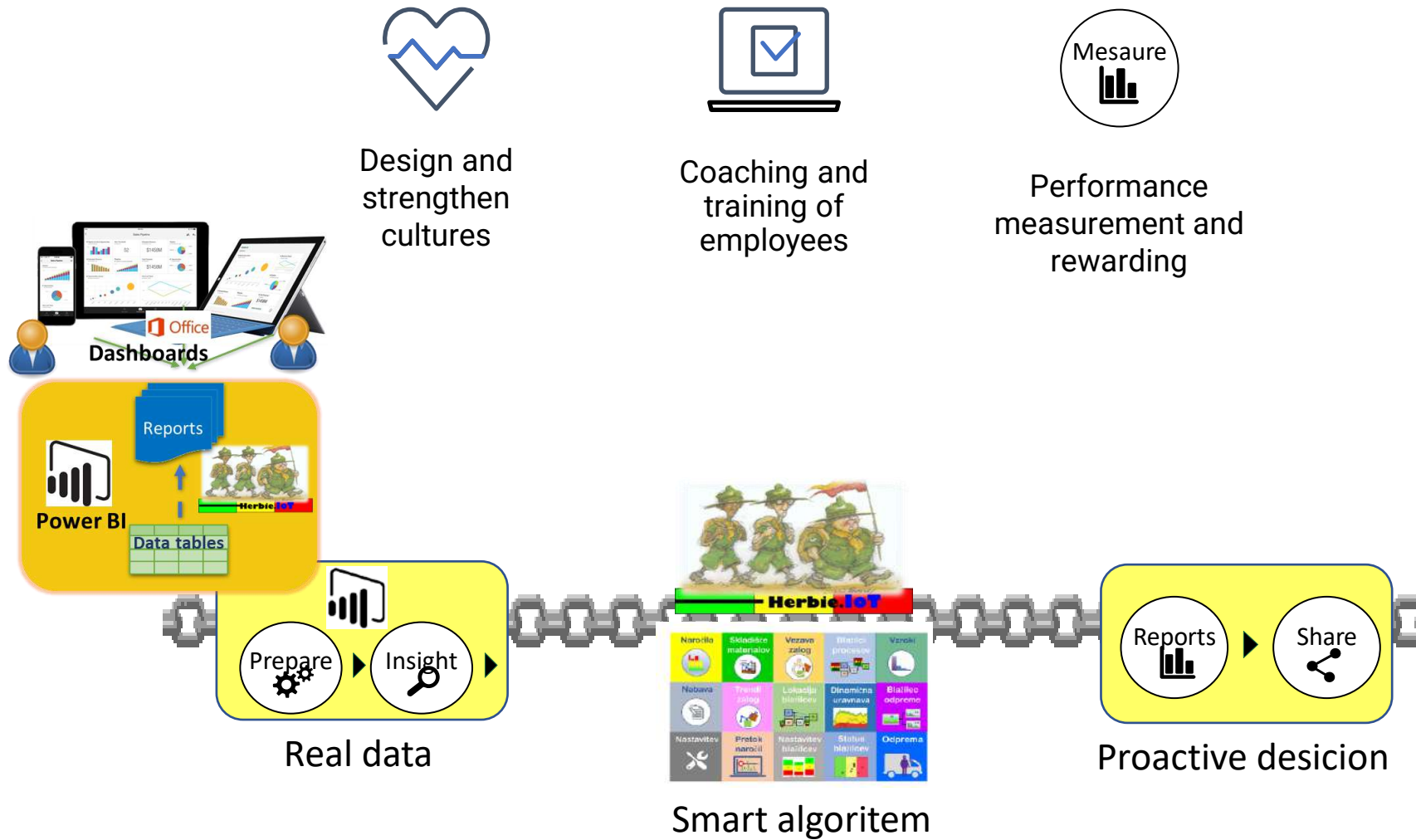
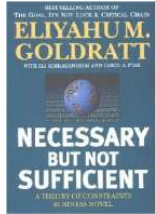
Buffer Management

Fokus & Mesure



DF

# The direction of digitization of the orders flow



**With digitalization of existing order flow (BI Analysis), we can identify real constraints**

# Herbie.ioT



## MTO

Plan prodaje 	Plan (PL) montaže 	Plan sproščanja 	Vzroki 
Analiza & Kaj-če?  PRO	Plan & Izvedba  PRO	Status blažilcev 	BM Ukrepi 
Nastavitev 	Pretok naročil 	Odprema 	Merila PRO 



## VMI

Naročila 	Skladišče materialov 	Vezava zalog 	Blažilci procesov 	Vzroki 
Nabava 	Trendi zalog 	Lokacija blažilcev 	Dinamična uravnava 	Blažilec odpreme 
Nastavitev 	Pretok naročil 	Nastavitev blažilcev 	Status blažilcev 	Odprema 

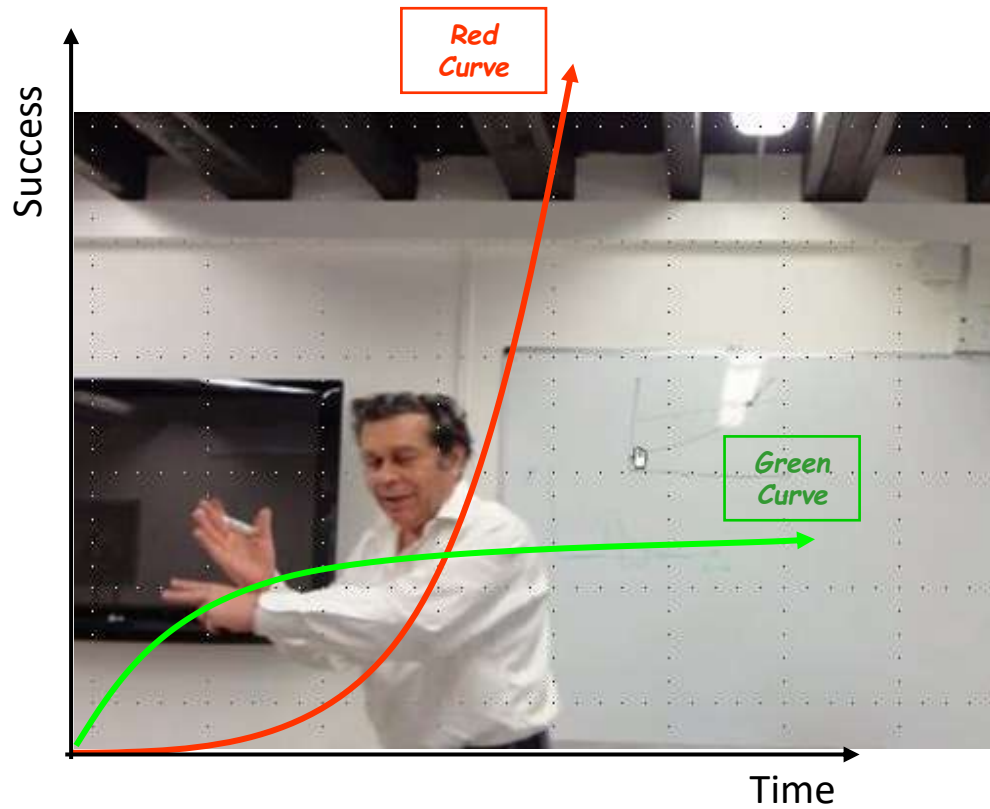


All this direction in SW can be scrutinized, but about this not today..

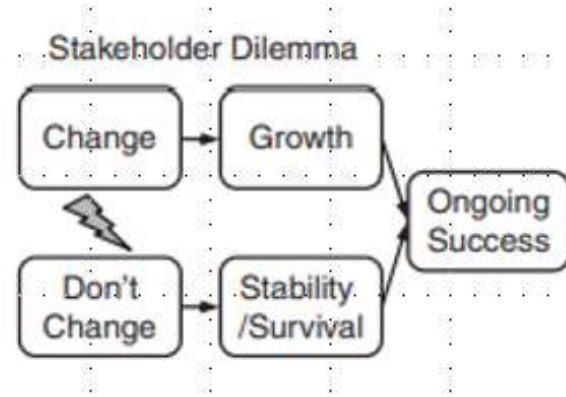


# Red-Green Curve

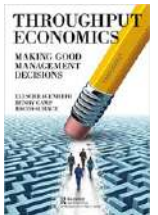
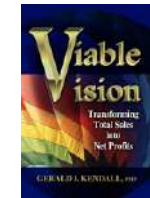
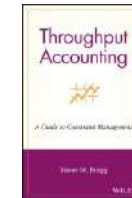
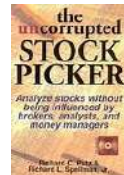
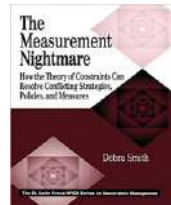
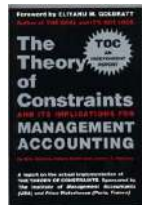
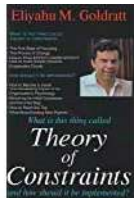
Throughput accounting has a way to increase net profit through increased productivity



Eli. Goldratt



Yes, But, how to Measure Success?





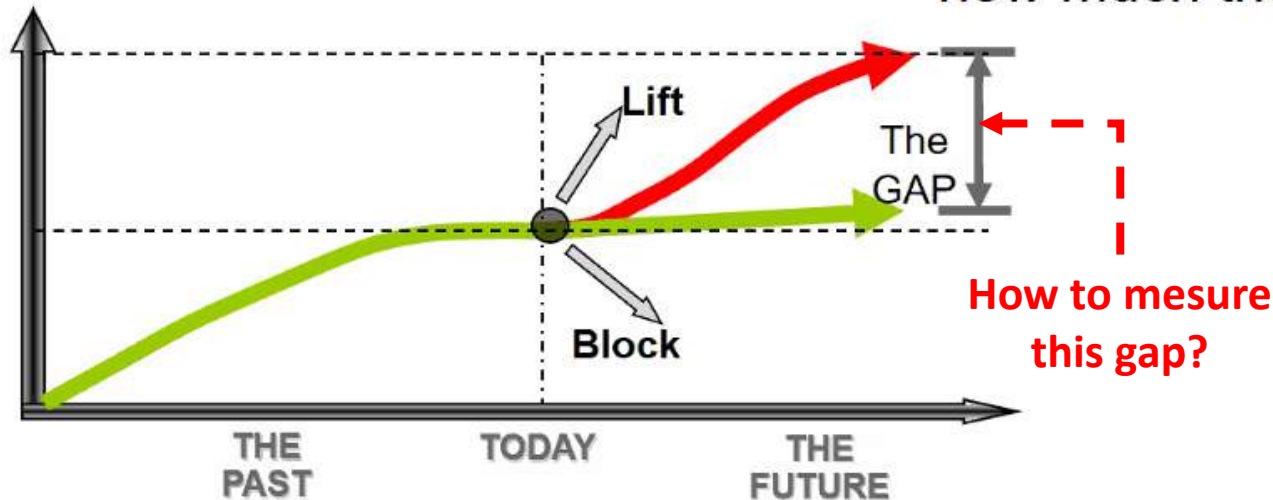
# TOCPA and the Constraint

Over the years the definition of “Constraint” has been evolving.

We – in Goldratt Schools and thereafter in TOCPA has elected to use the following definition:

## CONSTRAINTS –

factors or elements that determine how much the system can accomplish



Eli help me how to..



**G goldratt**  
CONSULTING

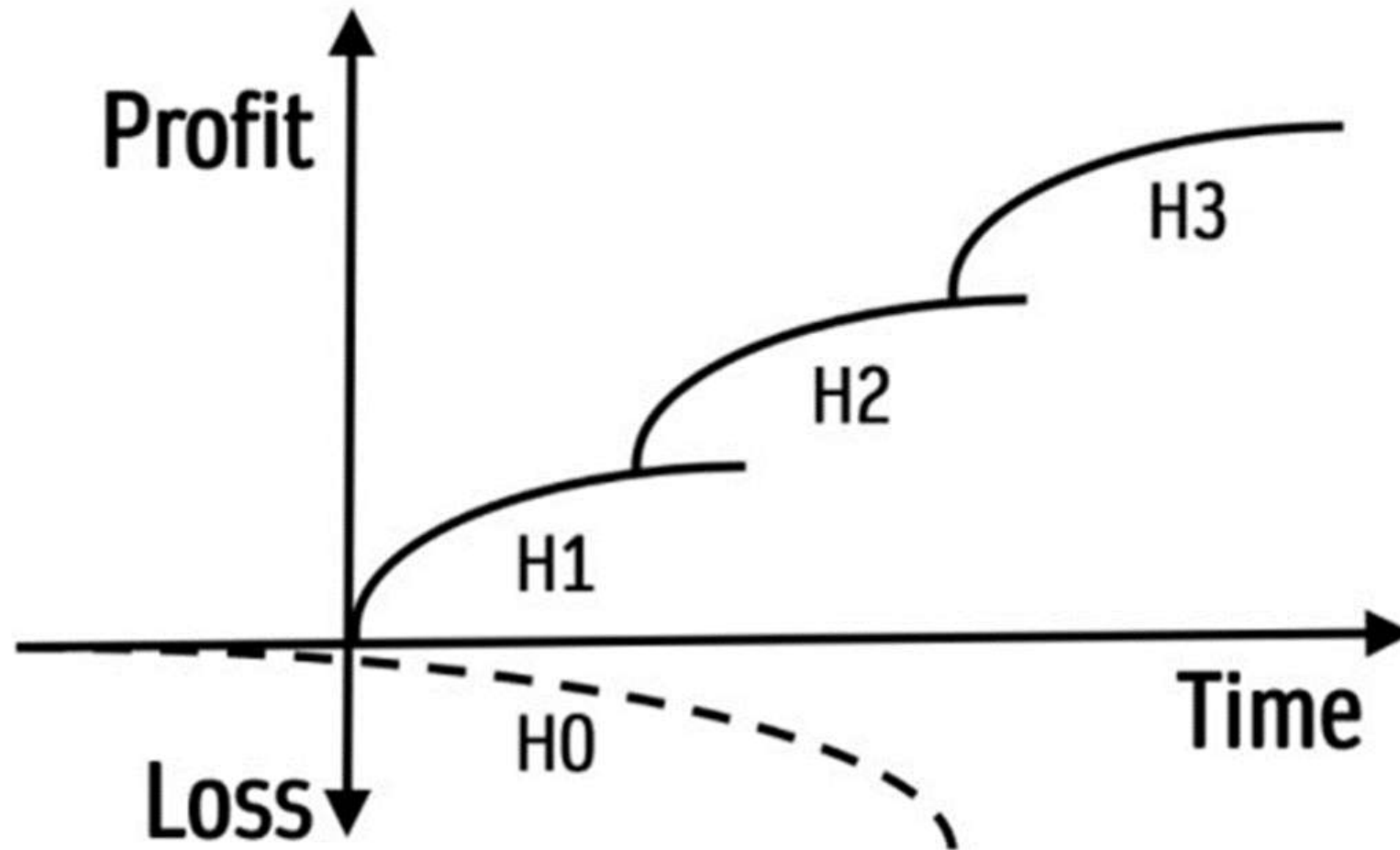
*"Punish people for their improvements and the process of ongoing improvement comes to a grinding halt."*

Dr. Eli Goldratt; My Saga to Improve Production; Production the TOC Way

"Tell me how you're going to measure me, and I'll tell you how I'm going to behave and work"?  
E. Goldratt

**We miss Eli much more than we are willing to admit in the TOC community!**

# Strategic Horizons

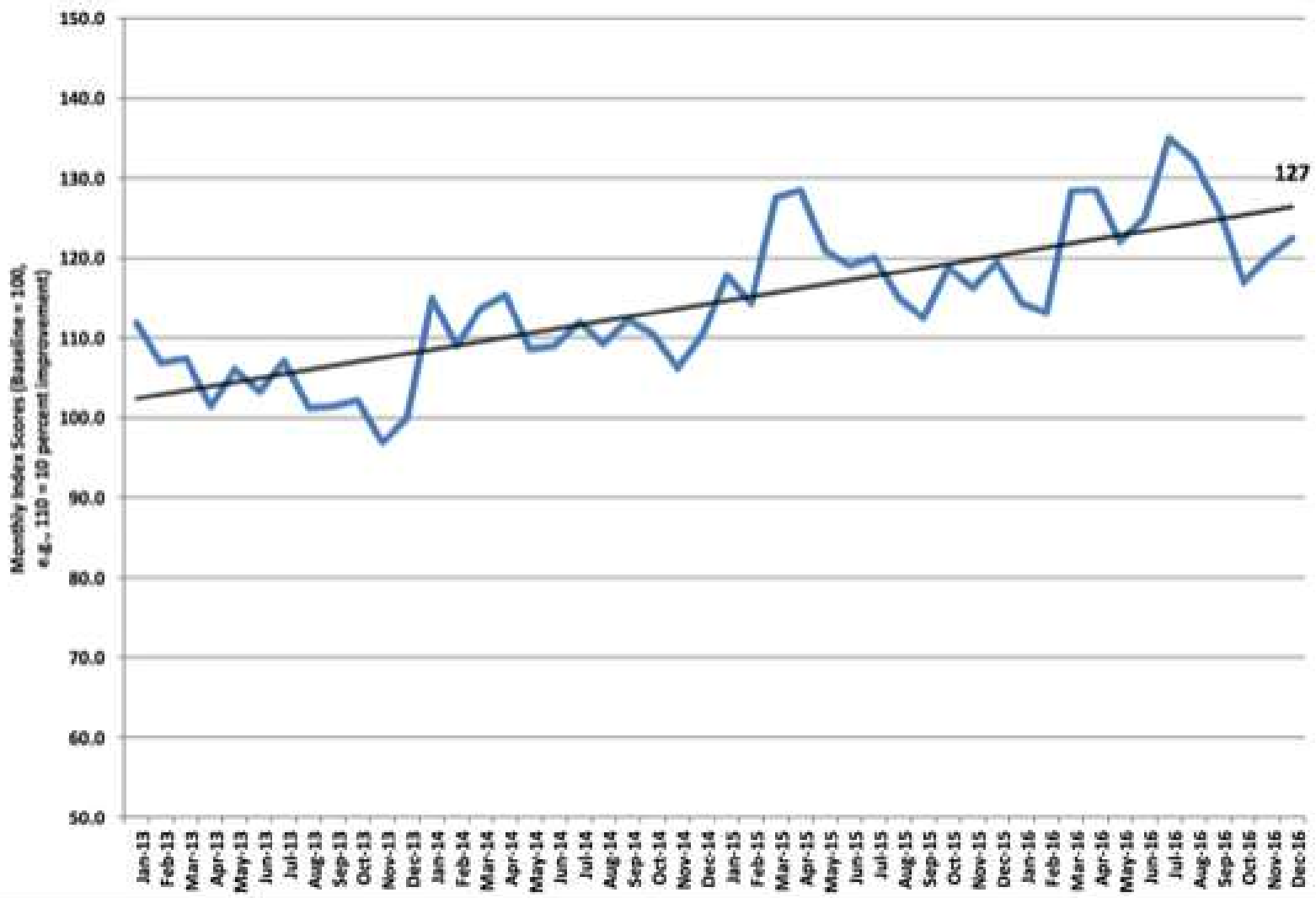


John Ricketts, *Exceeding the Goal*, "Horizons Model," 2020, p.40.

# Success Curve in non profit organization



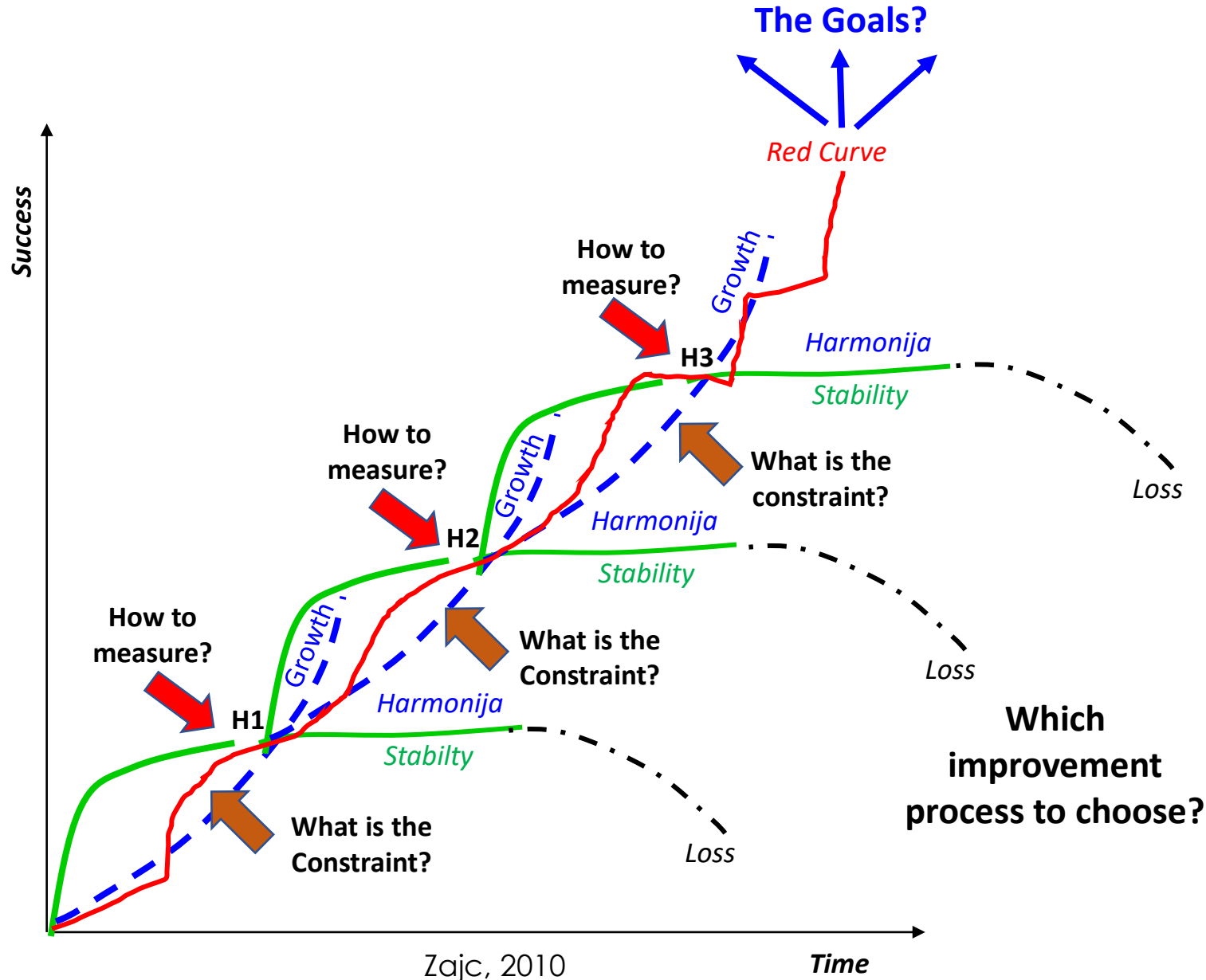
Utah Statewide SUCCESS Framework Results



Source: The States With the Best and Worst Economies – Page 2 – 24/7 Wall St.



# Success Curve

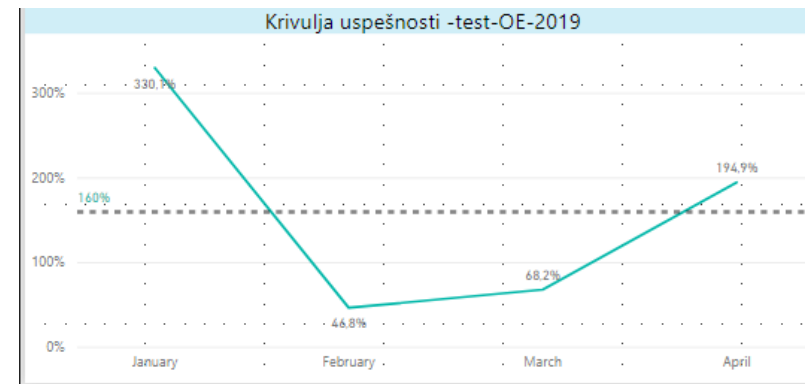
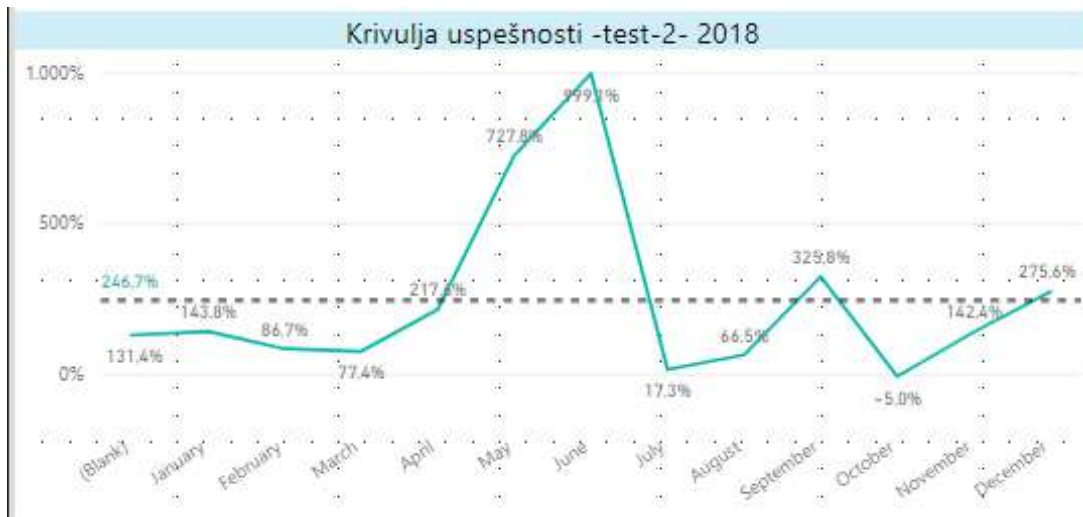
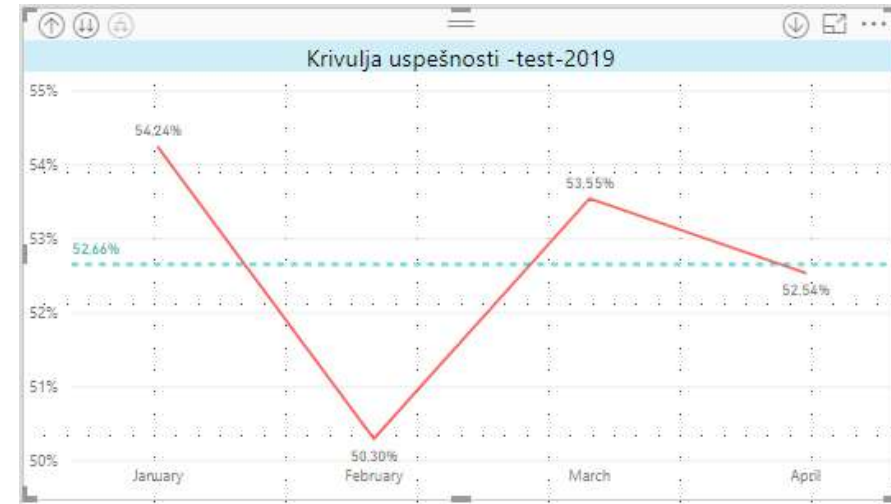


POOGI requires constant synchronization of efforts to achieve the desired performance

- What we wants:
- Money?
  - Quality?
  - Reliability?
  - Inentory turn?
  - NP?

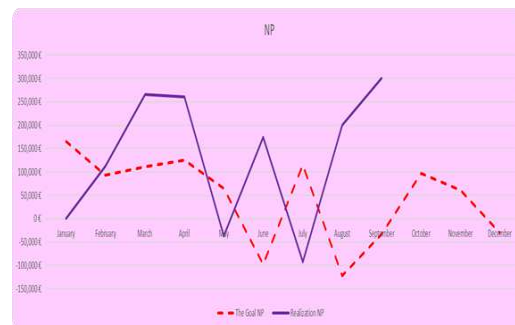
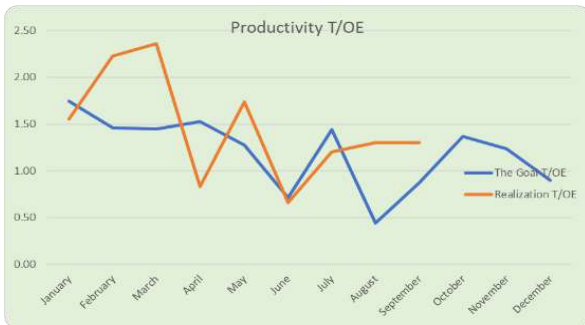


# Success Curve-Testing





# Success Curve





## Measure



## Bonus



All this direction in SW can be scrutinized, but about this not today..



# Success curve





# Success Curve or OME



This Curve can help organization to measure how Management removing the biggest constraint „Management Attention“,  
For that that Curve can be named „OME-Overall Management Efficiency"

# What is the legacy of Eli Goldratt to me?

Before TOC I was spend a lot of time to learn how to think  
With TOC I can now learn with thinking



If we Wants that TOC become a main way of managing the organizations, we need to resolve the fourth obstacle: **„Every situation can be substantially improved, even the sky is not the limit“.**

**Thanks Eli**

# Questions



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