



# IN2IT

## Inventive Thinking Greenberg Sara



# Inventive Thinking



Thinking  
Methods

Thinking  
Maps

Creative  
Imagination

Systems  
Thinking

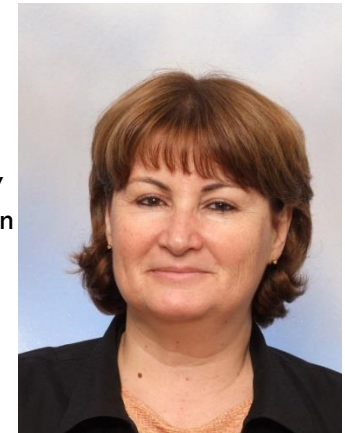
Inventive  
Thinking

and More ...

## Let me introduce myself

### Professional experience:

- Lecturer at Sapir College. I teach Marketing Strategies, Marketing of Hitech products, Technological System Analysis, Systems Thinking and Innovation.
- Founder and creator of the "Development of Thinking Skills course" – a multidisciplinary platform for teaching thinking skills in academia, supported by TEMPUS (Trans-European Mobility Program for University Studies).
- Teaching experience : Inventive Thinking (TRIZ) and Systematic Innovation, at HIT Holon Institute of technology, SCE Shamon College of Engineering and IDC Herzlyia.



# Inventive Thinking



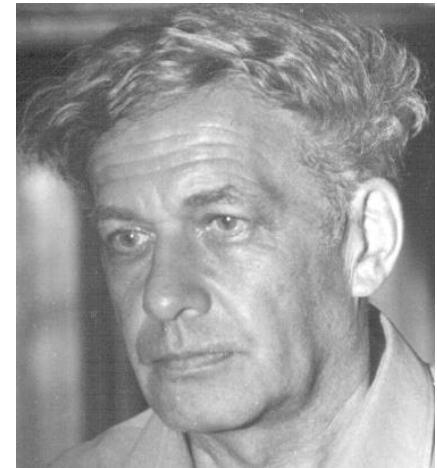
What is TRIZ?

## TRIZ

The theory of inventive problem solving, abbreviated TRIZ for the Russian term ‘**Teoriya Resheniya Izobreatatelskikh Zadatch**’ and pronounced ‘treez’ was developed by Genrikh Altshuller in the early 50<sup>th</sup>.

It is designed to support engineers and natural scientists solving inventive problems by using the knowledge of former inventors.

- TRIZ was developed by revealing similarities and common patterns between technological and design problems and their solutions which resulted in patents.
- Utilizing the knowledge encapsulated in TRIZ makes it possible for anyone to be an innovator.



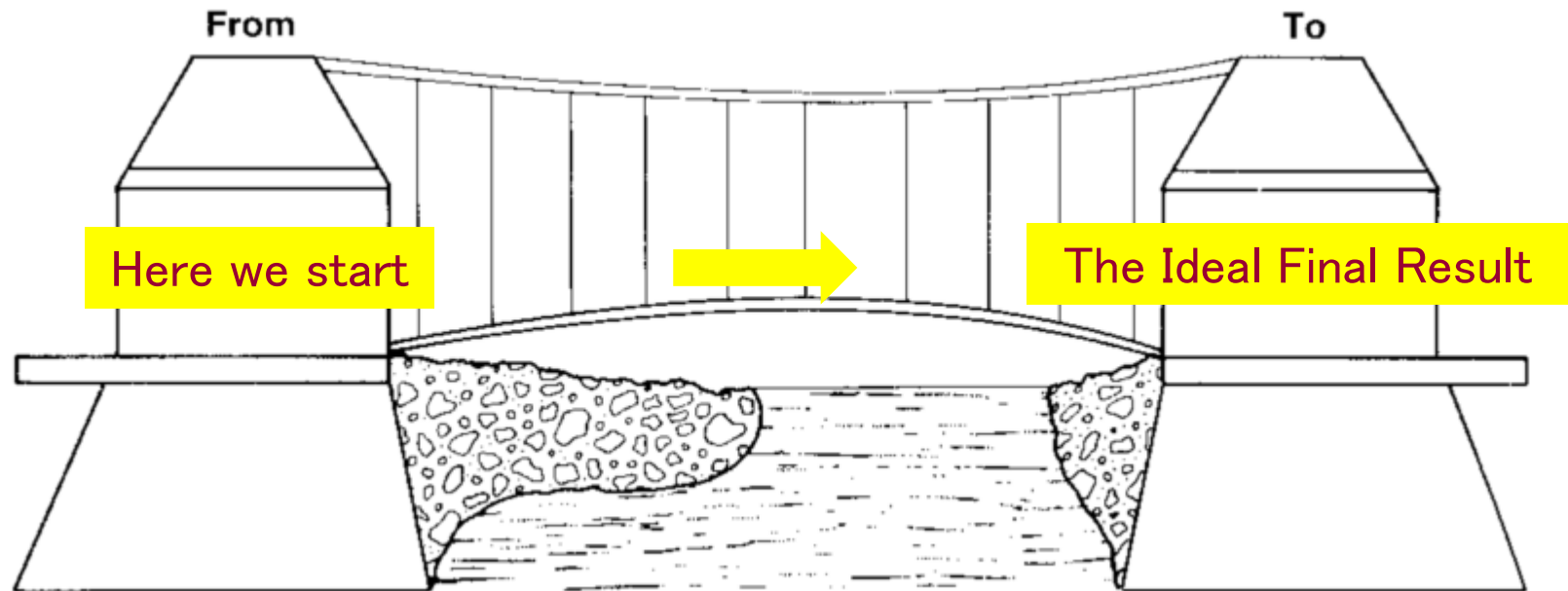
Source: Moehrle, M. G., 2005 “What is TRIZ? From conceptual basics to a Framework for Research”. Creativity and innovation management 14: 3–13.



# Inventive Thinking



## A Bridge for Thinking



# Inventive Thinking & Ideal Final Result



One of the  
Ideation  
tools via  
TRIZ is : IFR

The Ideal Final Result (IFR): is a description of our invention desired outcome(s).

Our best possible result for describing a problem situation without solving it yet (!)

IFR is one of the basics terms in TRIZ, is considered to be the starting point for a problem solving methodology process.



# Inventive Thinking



Your  
invention  
goal(s)

Now we can start the Ideation process:

Step 1: Describe what is your entrepreneurship and invention Goal(s)\*?

\*The Goal is statement that explains what are the invention benefits for the users.

(It is important information that defines a specific and accurate objective.)

Step 2: List of all the expected benefits and main function of your new invention.

(in a later stage of your work, try to drill down to the necessary system components and resources needed.)



# Inventive Thinking



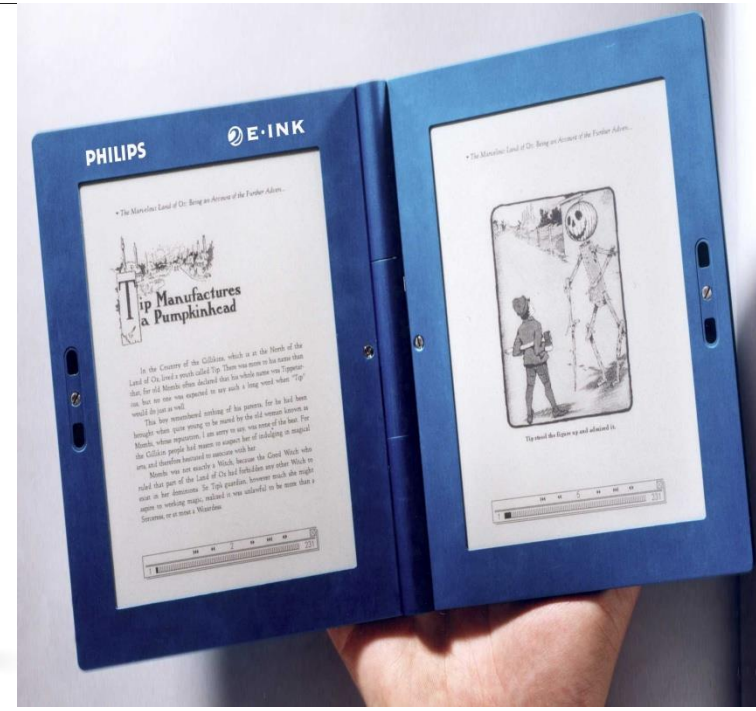
## Tweel



# Inventive Thinking



## Books with no ink or paper





# Inventive Thinking



## IFR – Ideal final result

### Rule one:

It is not recommended to guess beforehand whether it is possible to reach an Ideal Final Result or not.

### Rule Two:

Do not think about how and by what means, an ideal final result will be achieved.

Source: Altshuller G., (c2007) "The innovation algorithm: TRIZ, systematic innovation and technical creativity". Worcester, Mass. technical Innovation Center. p.125-126



# Inventive Thinking



New inventions

## New inventions!



We can look at many more inventions: the squeezable bottles, suitcases, high-speed car air bag, multicopter drone, the autonomous car and I am sure you add many more to this list...



# Inventive Thinking



Inventive  
thinking

Enjoy your  
entrepreneurship project  
and have a great success  
with your invention.

