Breaking the Market Constraint
The Speed to Invent

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Where is your Organization's Constraint?

Do you have more demand for your goods or services than you have capacity to meet?

Do you have more capacity for the goods and services that you offer than you have market demand?

It's in the Market!

What does your market want to buy?

A Product?

A Service?

Education?

The Market wants a SOLUTION to their problems.

An Unrefusable Offer (URO) to the Market

An Unrefusable Offer (URO) is about:

Finding a way to improve your customer's (external constraint) bottom line so that you may improve your own organization's bottom line….

… a true win-win!

The objective of the market offer(s) will be to cause your market to buy more and/or pay a higher price.

There are 5 steps in constructing a URO using the TOC Thinking Processes

1. Determine the core conflict responsible for some/many of the market's significant problems.
2. Determine what changes your organization must make internally to solve the market's core conflict.
3. Construct a solution, an "offer," that your organization can provide to resolve that core conflict.
4. Develop an implementation plan that addresses the obstacles blocking the implementation of the solution.
5. Learn how to sell the unrefusable offer to the market, as well as to your own organization.

The Situation - Background:

Company XYZ finds itself with a Market Constraint. The company has capacity to sell!

- Company XYZ's Product Development Department is working on the next innovative product launch. This process however can take a long time. They need help alleviating the market constraint now.

- Company XYZ sells their products via Distributors.

Defining the Subject Matter:

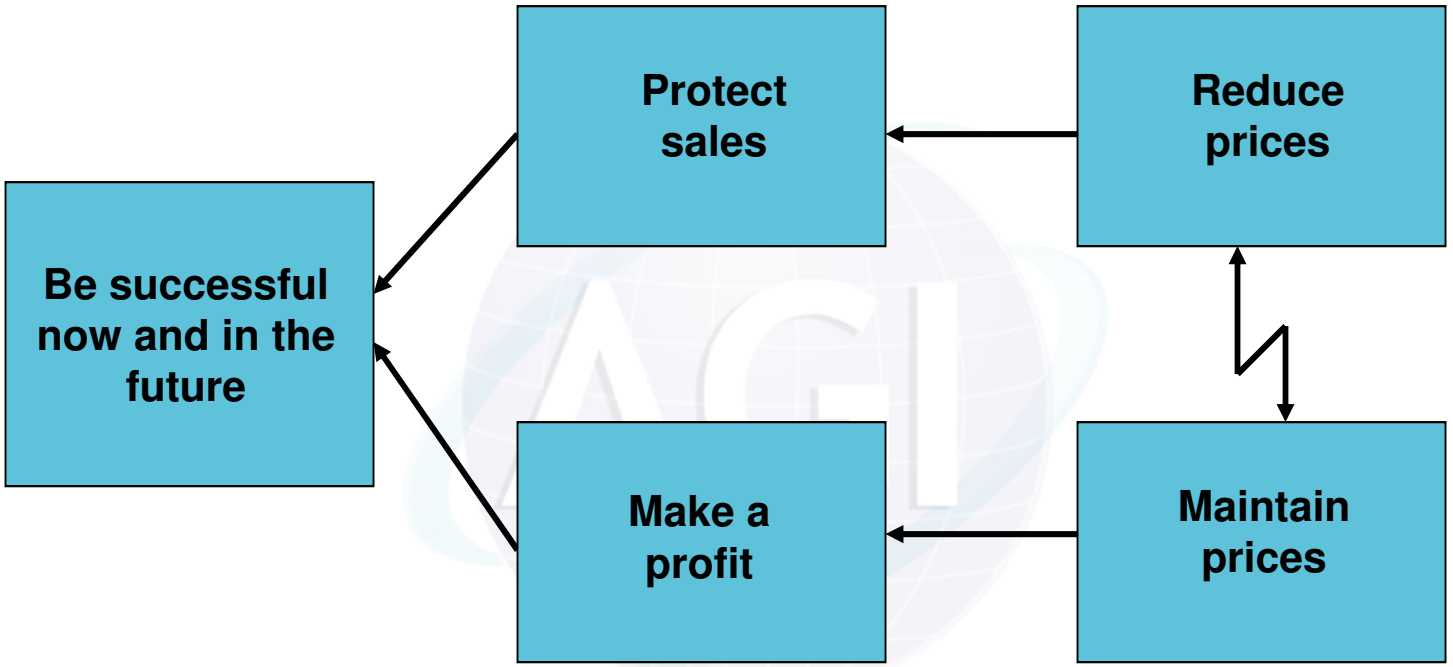
Which specific link in the area of the market are we going to address?

Undesirable Effects (UDEs) of the Distributor

- Customer lead times are unrealistic.
- My vendor (Company XYZ) lead times are too long.
- Committed delivery dates by my vendors are not accurate.
- My competitors are beating me to the market place.
- My vendor (Company XYZ) is not providing quality products that meet customer needs.
- My time to market is too long.

If we can solve these UDEs,
will the Distributor be willing to buy more from us,
or perhaps pay us a higher price?....

Core Conflict of the Distributors



Direction of a Solution:

Company XYZ will improve their processes such that they can reliably reduce their time to market without increasing price.

Desired Effects of the Distributors...

- Our vendor lead times reliably exceed our needs.
- Our time to market exceeds customer expectations.
- We are able to reliably deliver on time.
- We provide improved product offerings that meet customer needs.
- Sales significantly increase.
- Our profits increase significantly.

Distributor's Future Reality

Desired Effects

- Our profits increase significantly.
- Sales significantly increase.
- We provide improved product offerings that meet customer needs.
- Our time to market exceeds customer expectations.
- We are able to reliably deliver on time.
- Our vendor lead times reliably exceed our needs.

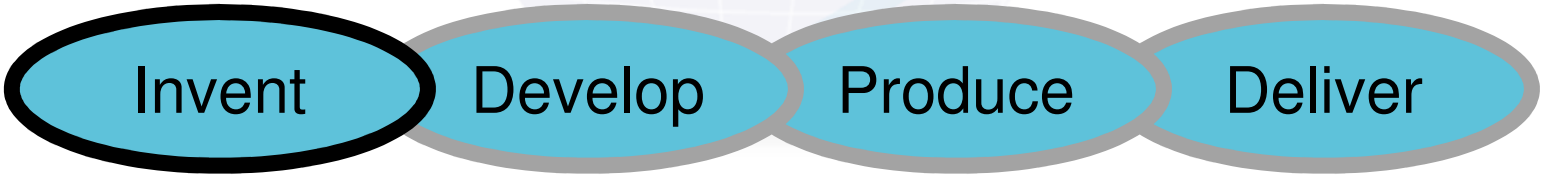
Injections

- **Company XYZ provides short, reliable lead times without increasing prices.**
- **Company XYZ creates the next technological innovation that provides a breakthrough which meets and exceeds customer expectations.**

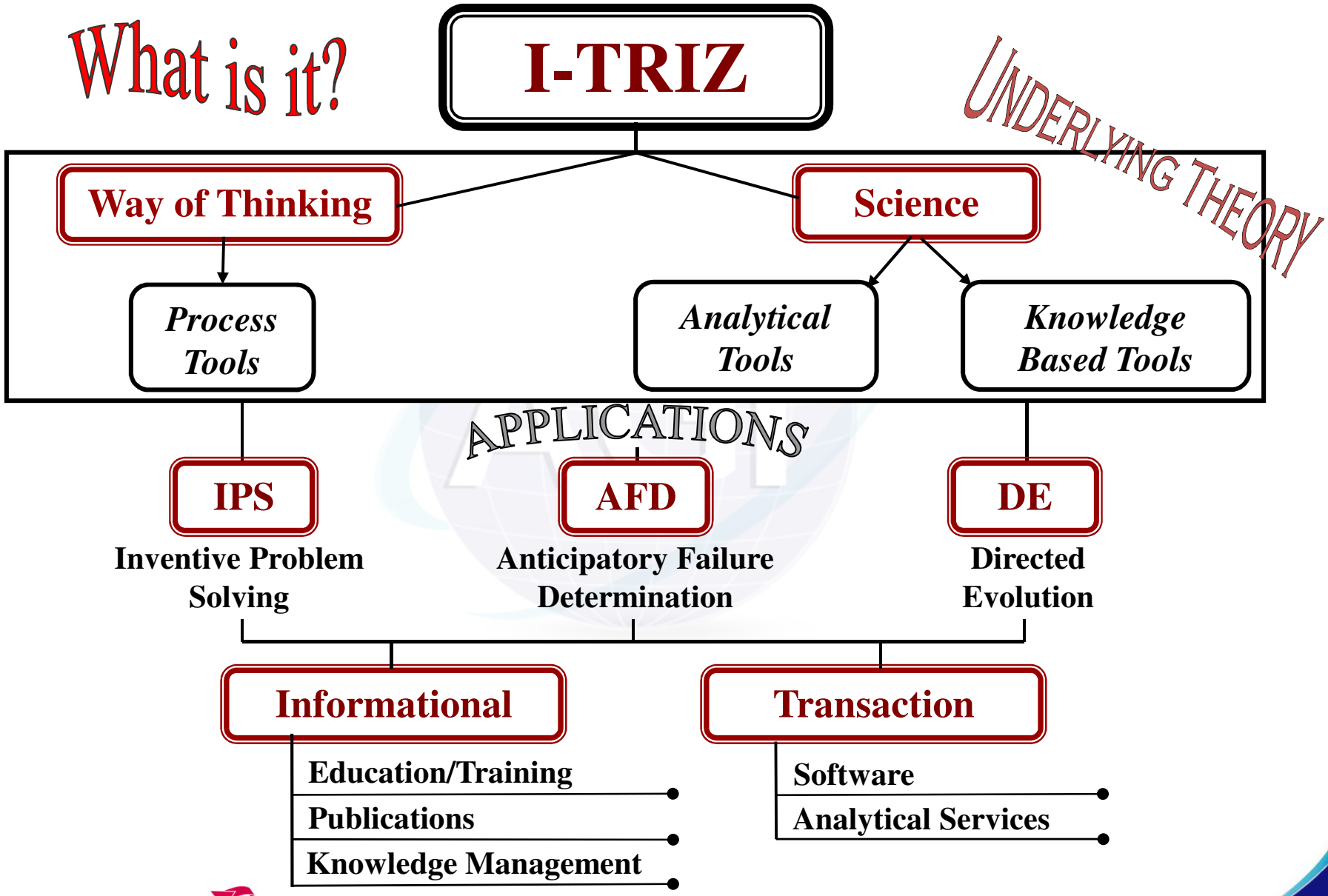
The Need for Speed and Focused Innovation

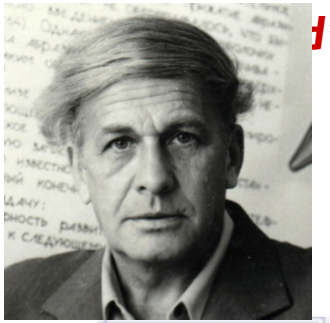
Theory of Constraints (TOC) Solutions are already providing SPEED WITH DIRECTION strategies for developing, producing and delivering.

Let's look at a methodology to improve the speed to invent.



Establishing an Innovative Framework for Success





Over 58 Years of Development

initiated and led by G. Altshuller and involving hundreds of scientists and inventors

More than 3.000.000 world- wide patents

Practical experience of thousands of scientists, inventors, engineers, managers, businessmen, etc.

Theory of Inventive Problem Solving

TRIZ

History of evolution in different areas of technology and science, social systems, business, management, art, languages, etc.

Feedback from solving with TRIZ thousands of problems

I-TRIZ Applications

Directed Evolution™

Systematic procedure for strategically evolving future generations of technological systems

Anticipatory Failure Determination

Failure Analysis

Systematic procedure for identifying the root causes of a failure or other undesired phenomenon occurring in a system, and for correcting it in a timely manner

Failure Prediction

Systematic procedure for identifying beforehand – and then preventing – all dangerous or harmful events that might possibly be associated with the system

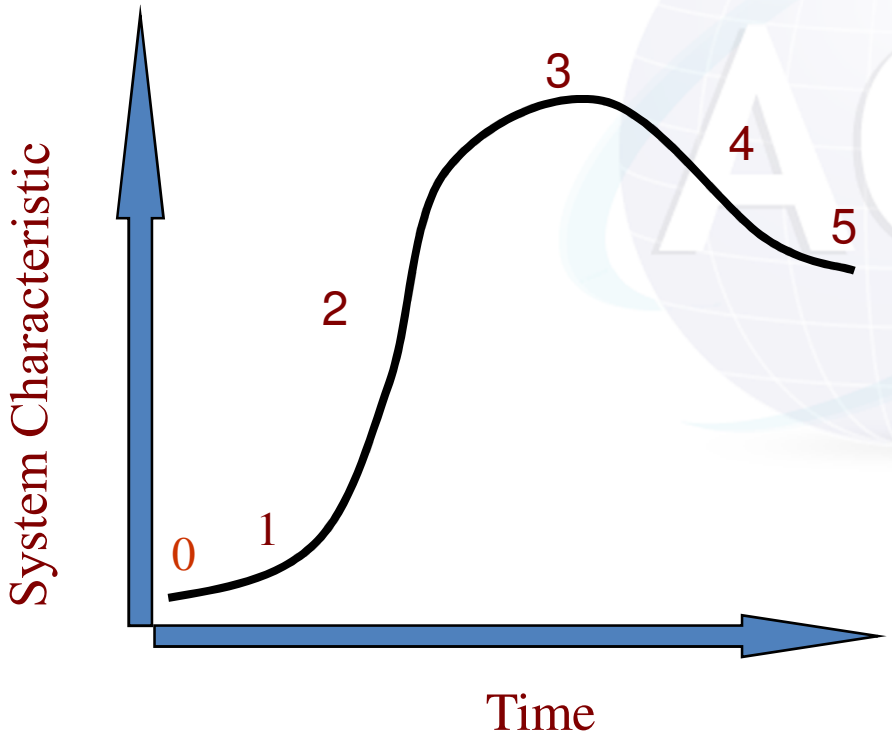
Control of Intellectual Property

Systematic procedure for increasing IP value and protection from infringement and circumvention

Inventive Problem Solving

Systematic procedure for surgical removal of tough technological problems, parameters and quality improvement, cost reduction, etc. for current product and/or technology generation

Evolutionary Positioning: S-Curve Analysis



Stage 0 - a system does not yet exist but important conditions for its emergence are developing

Stage 1 - a new system appears due to a high-level invention and begins developing slowly

Stage 2 - begins when society recognizes the value of the new system

Stage 3 - begins when the resources on which the original system is based are mostly exhausted

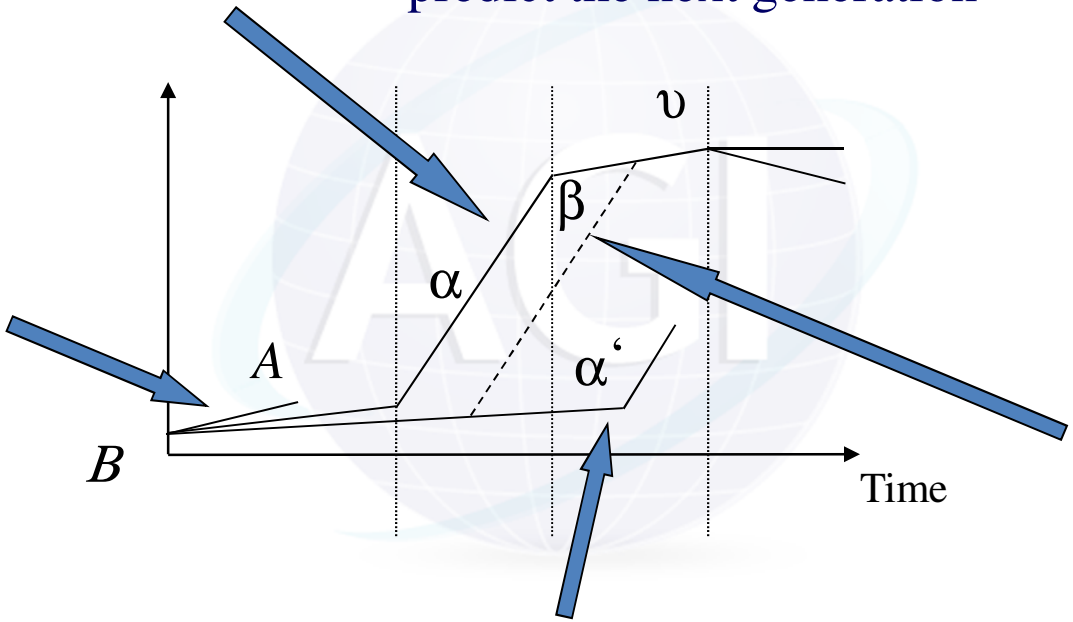
Stage 4 - begins when a new system (or the next generation of the current system) emerges to replace the existing one

Stage 5 - begins if the new system does not completely replace the existing system, which still has limited application

S-Curve Analysis

Winning System -- this system cannot be used to predict the next generation

Competing Systems

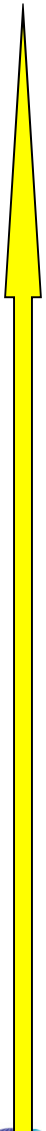


Possible Competing or Towing System Influences

New Generation -- the prediction of this is made as a result of the study of all technology

Based on Future Thinking

Managing the Strategic Challenge of Change



Levels of Change	Events	Strategy
Leading	• Create new technologies and products • Launch new markets • Raise industry standards • Redefine customer expectations • Increase pace of industry product cycles	⇒ • Force other firms to follow
Anticipating	• Globalization of markets • Creation of new customer segments • Emerging of conflicting technologies	⇒ • Line up resources (e.g. venture partners, cross-cultural employees, currency trading skills) early • Develop corresponding marketing channels • Create technical options
Reacting	• Competitor's product moves • New government policies • Unexpected customer demands	⇒ • Release better products • Create services that exploit change • Repackage existing products

Goldratt Institute℠ Continuous System Improvement

IDEATION

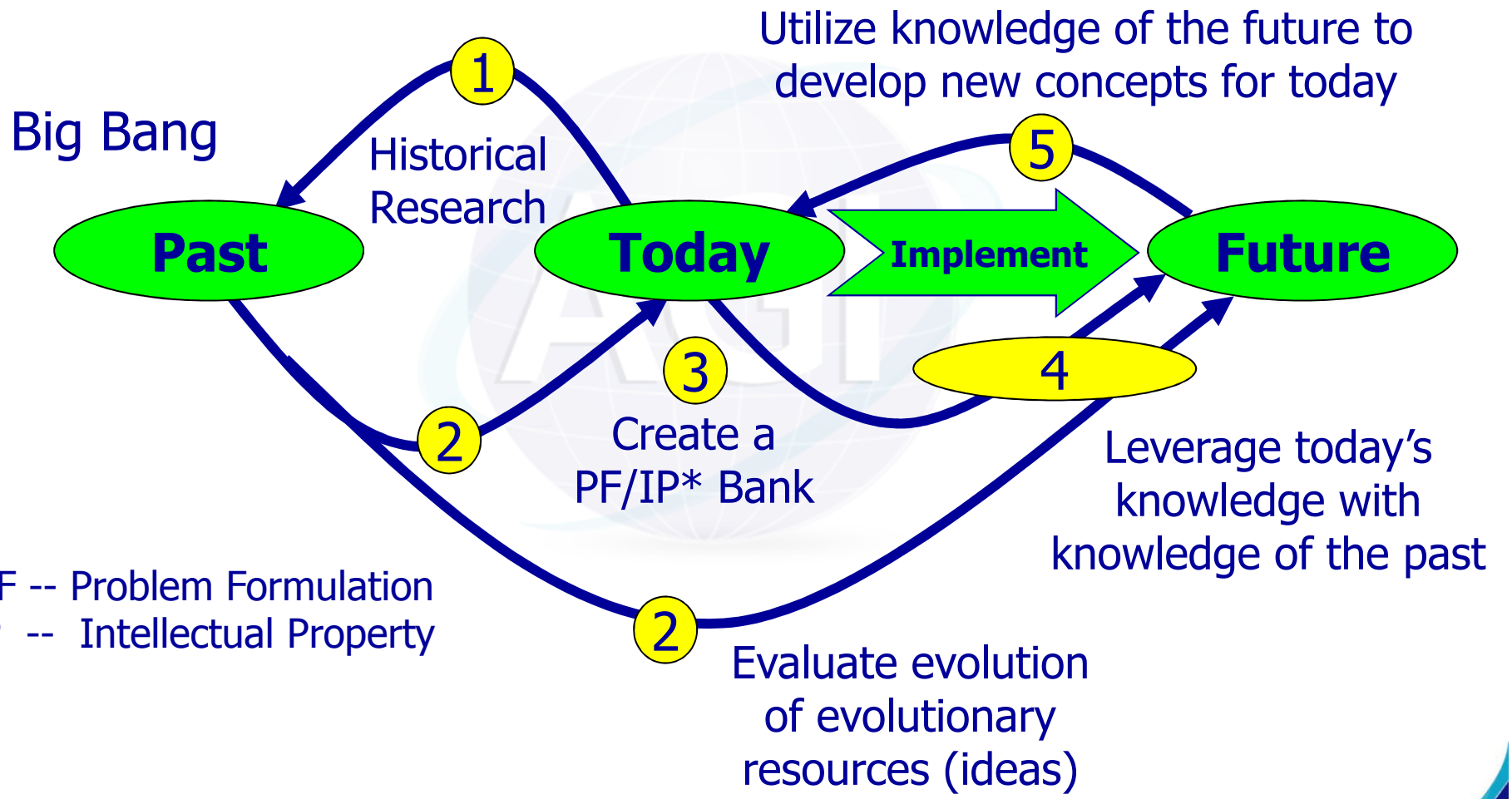
Directed Evolution:
Building Sustained Competitive Advantage

By developing a comprehensive set of logically sequenced scenarios that enables the planning and on-going development of technological and business systems.

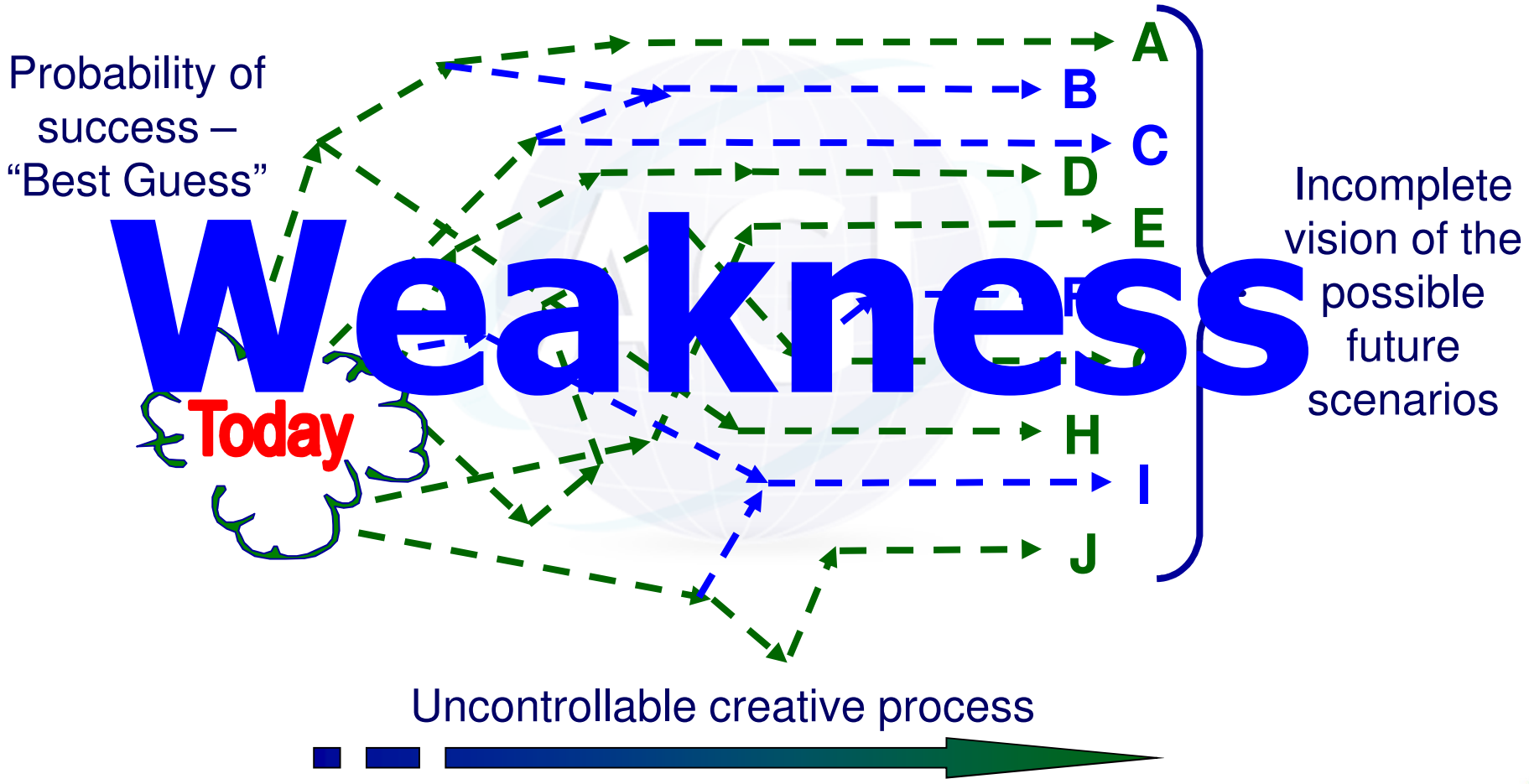
Strength

Directed Evolution

High-level overview

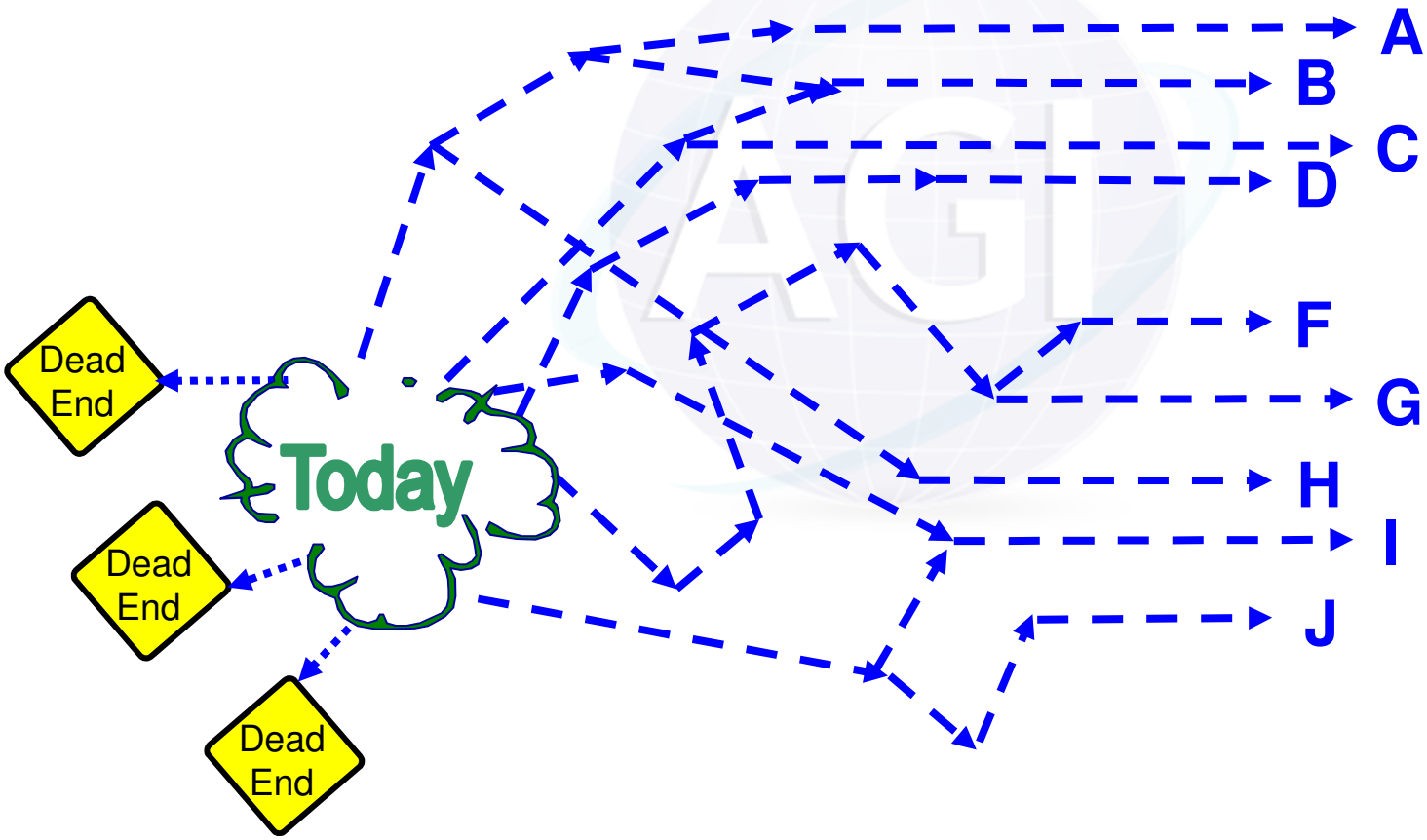


Unknown Future



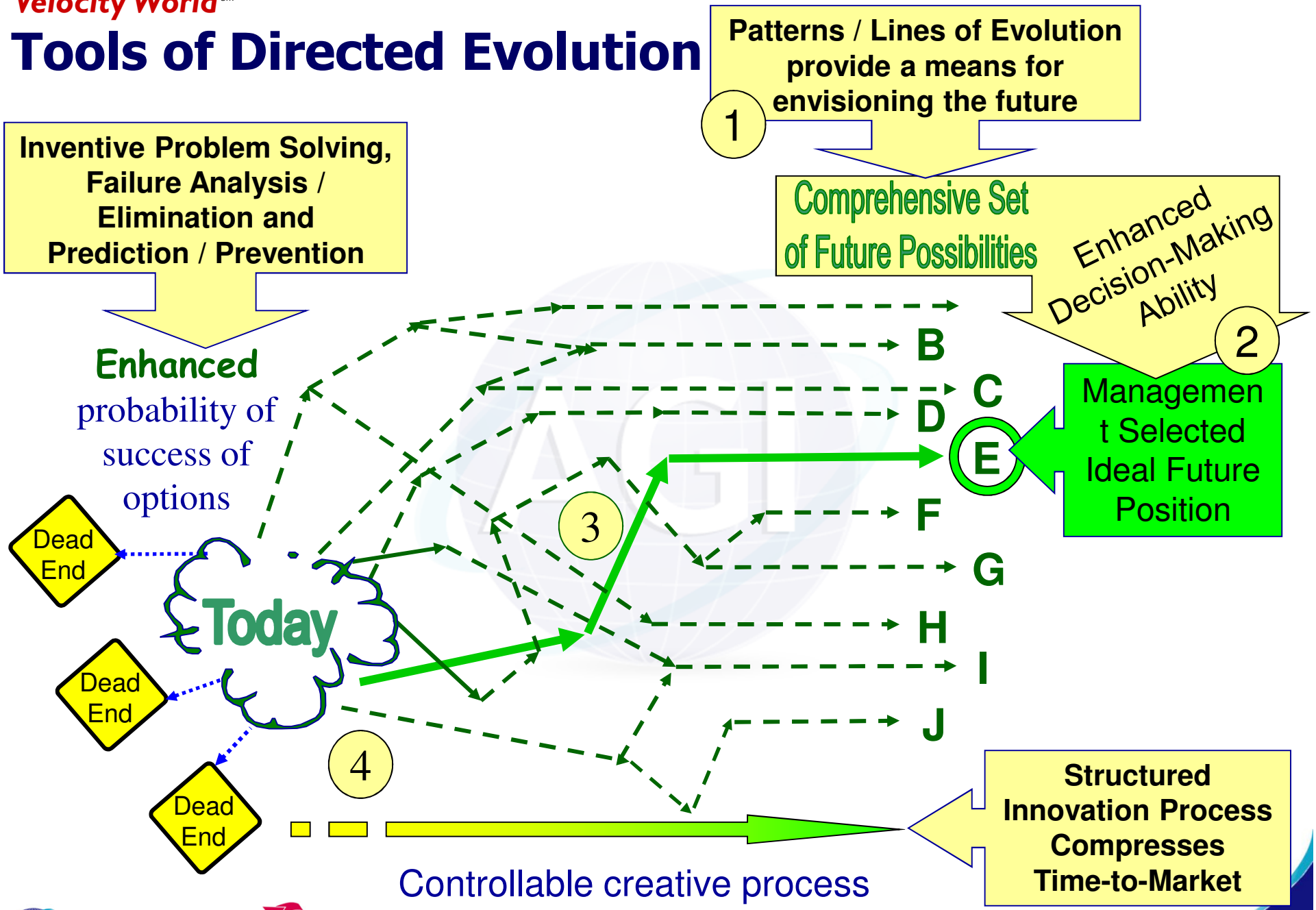
Competitor Direction and Misdirected Efforts of Your Company

Threats

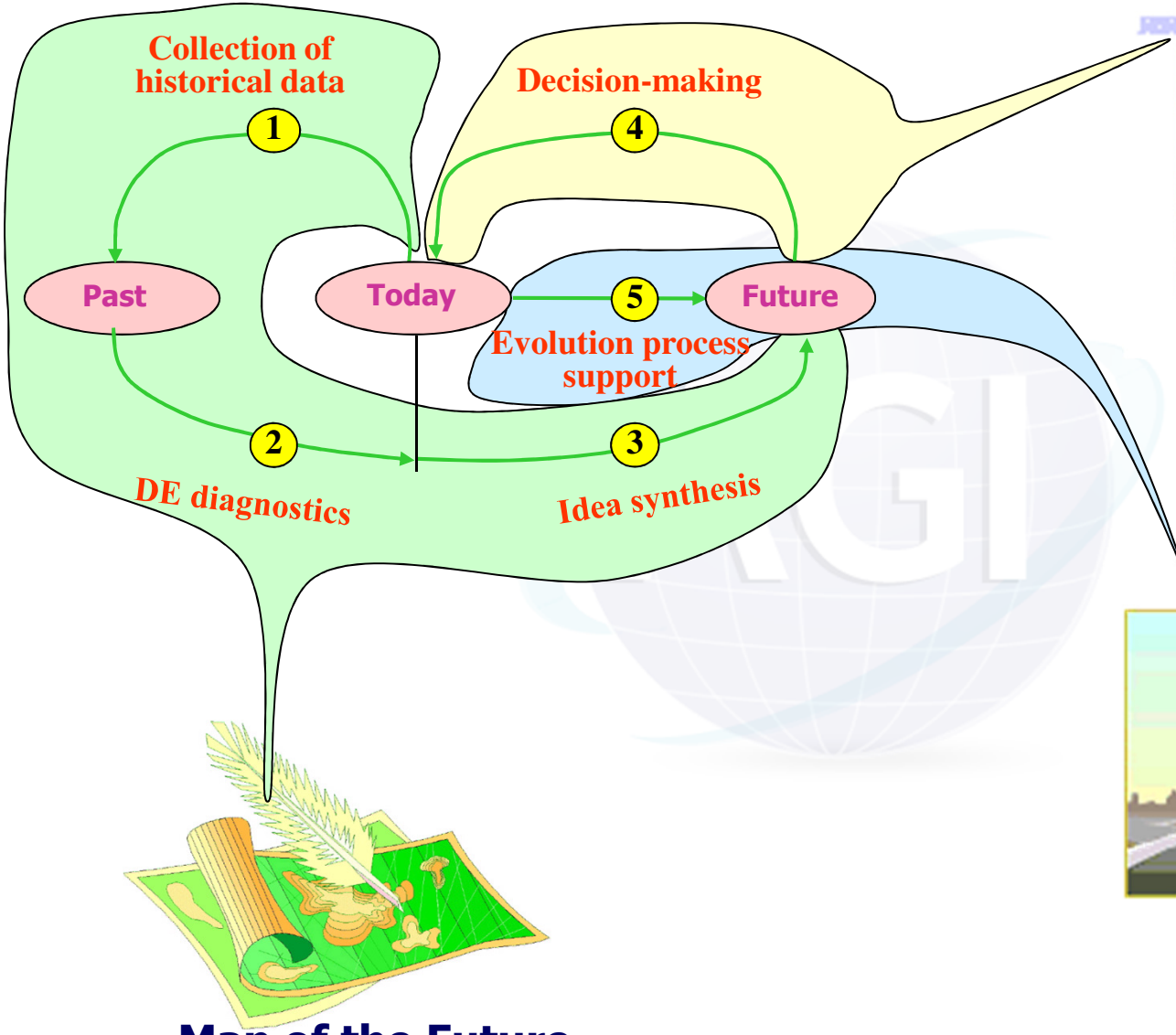


Many paths; challenges and competitive threats as you move into the future.

Tools of Directed Evolution



Analogy for Directed Evolution

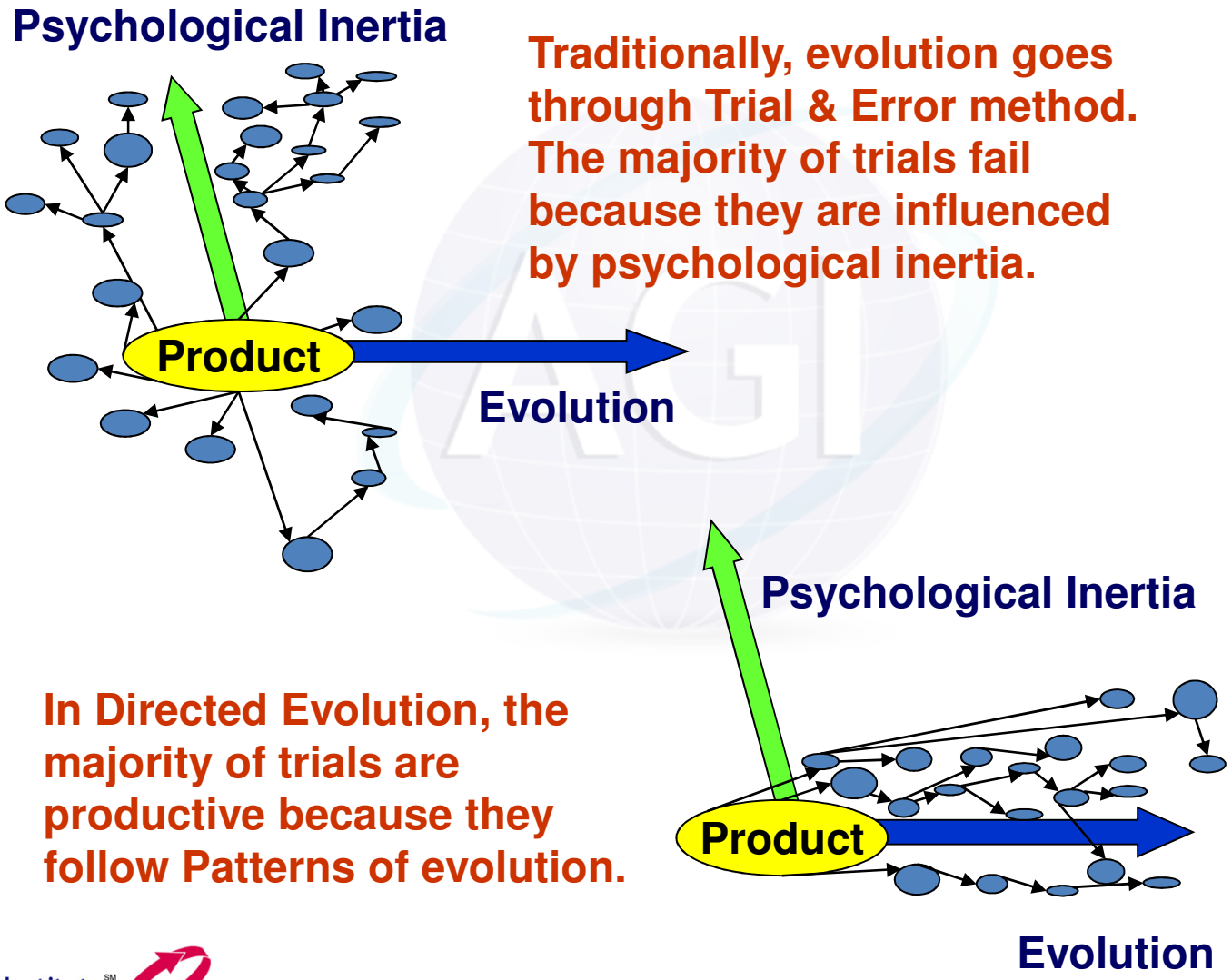


Route into the Future

Map of the Future

Driving into the Future

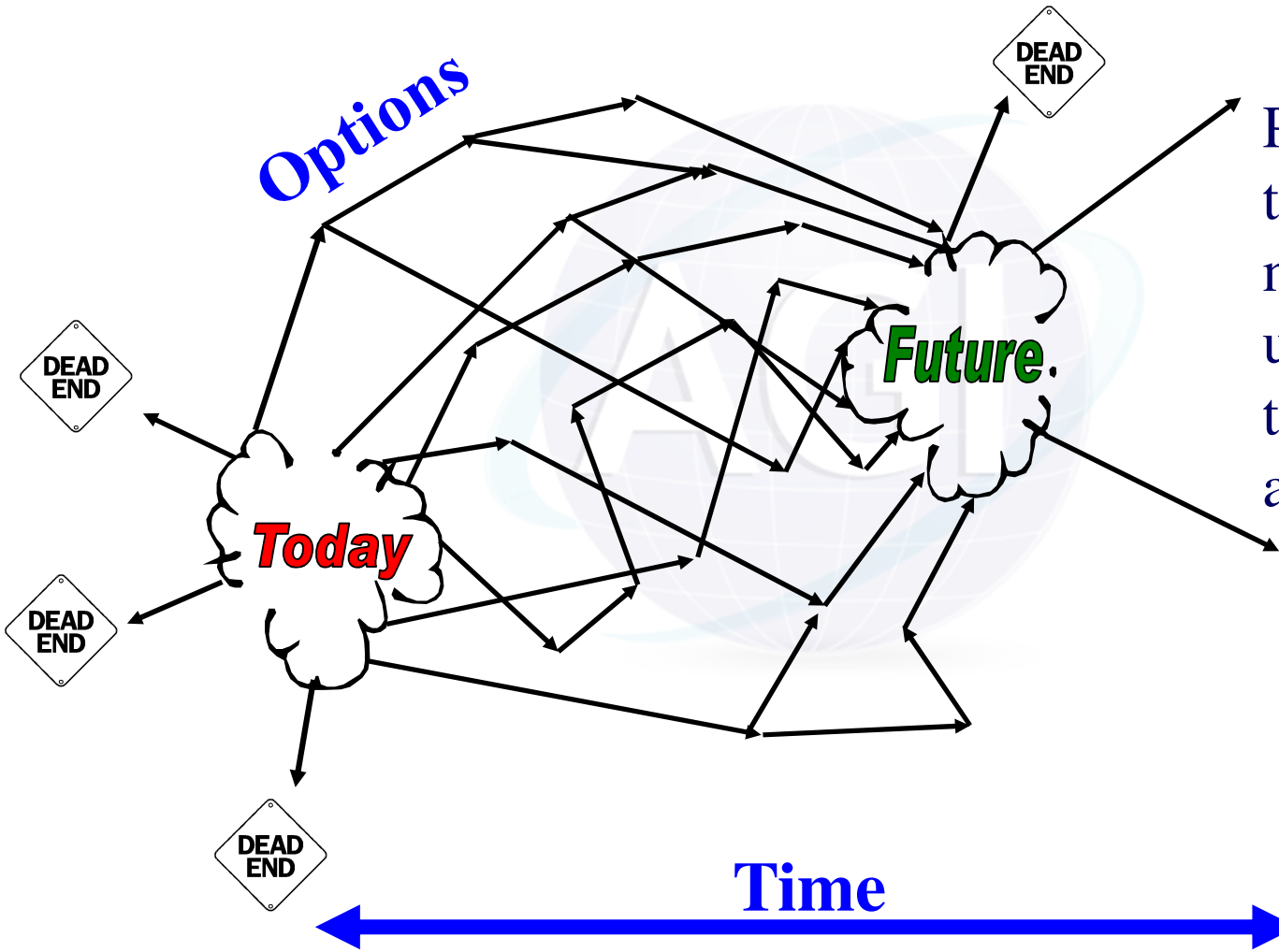
New Product Generations:
Traditional Way vs. Directed Evolution



Traditionally, evolution goes through Trial & Error method. The majority of trials fail because they are influenced by psychological inertia.

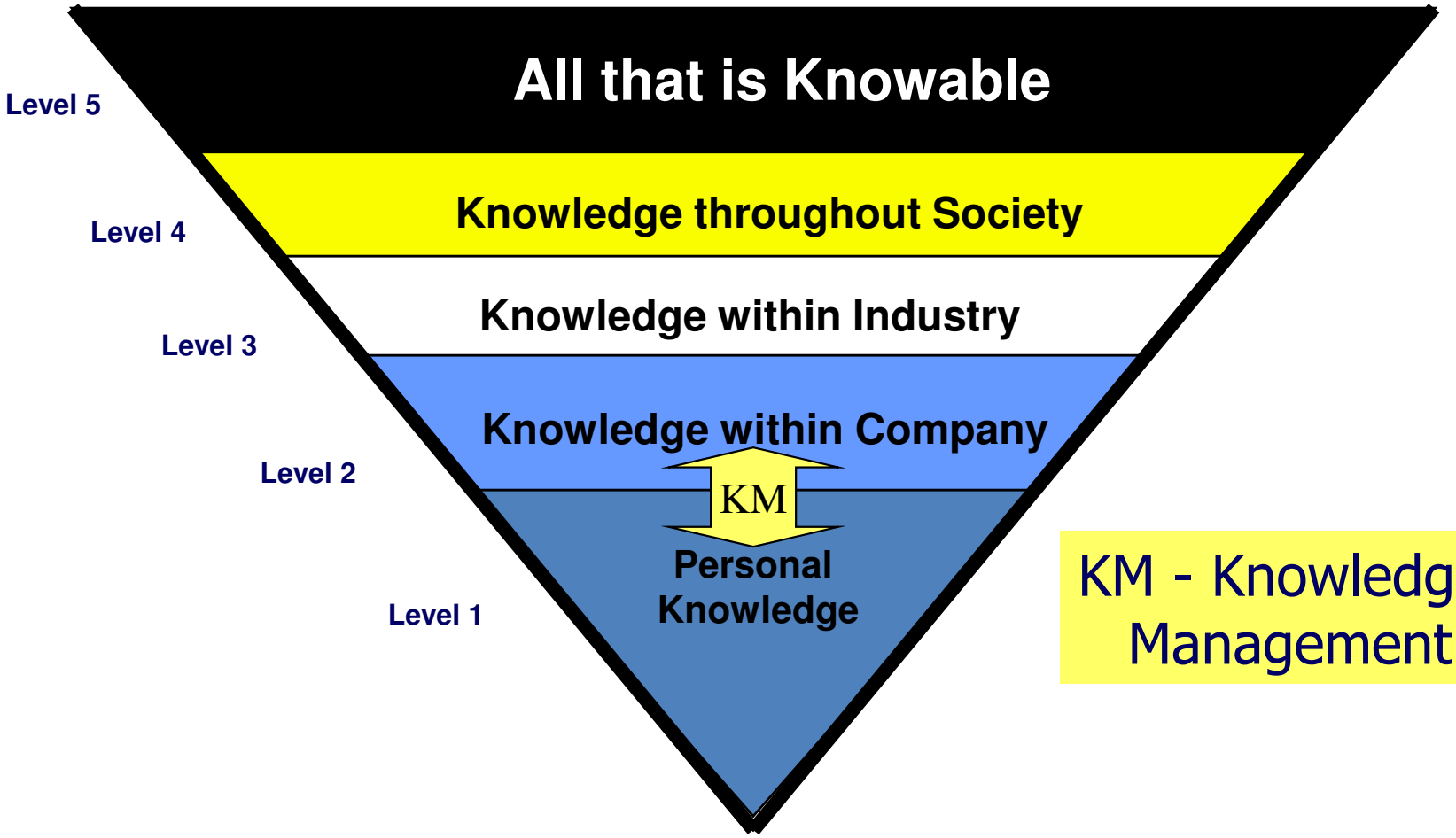
In Directed Evolution, the majority of trials are productive because they follow Patterns of evolution.

Mapping the Future Using DE



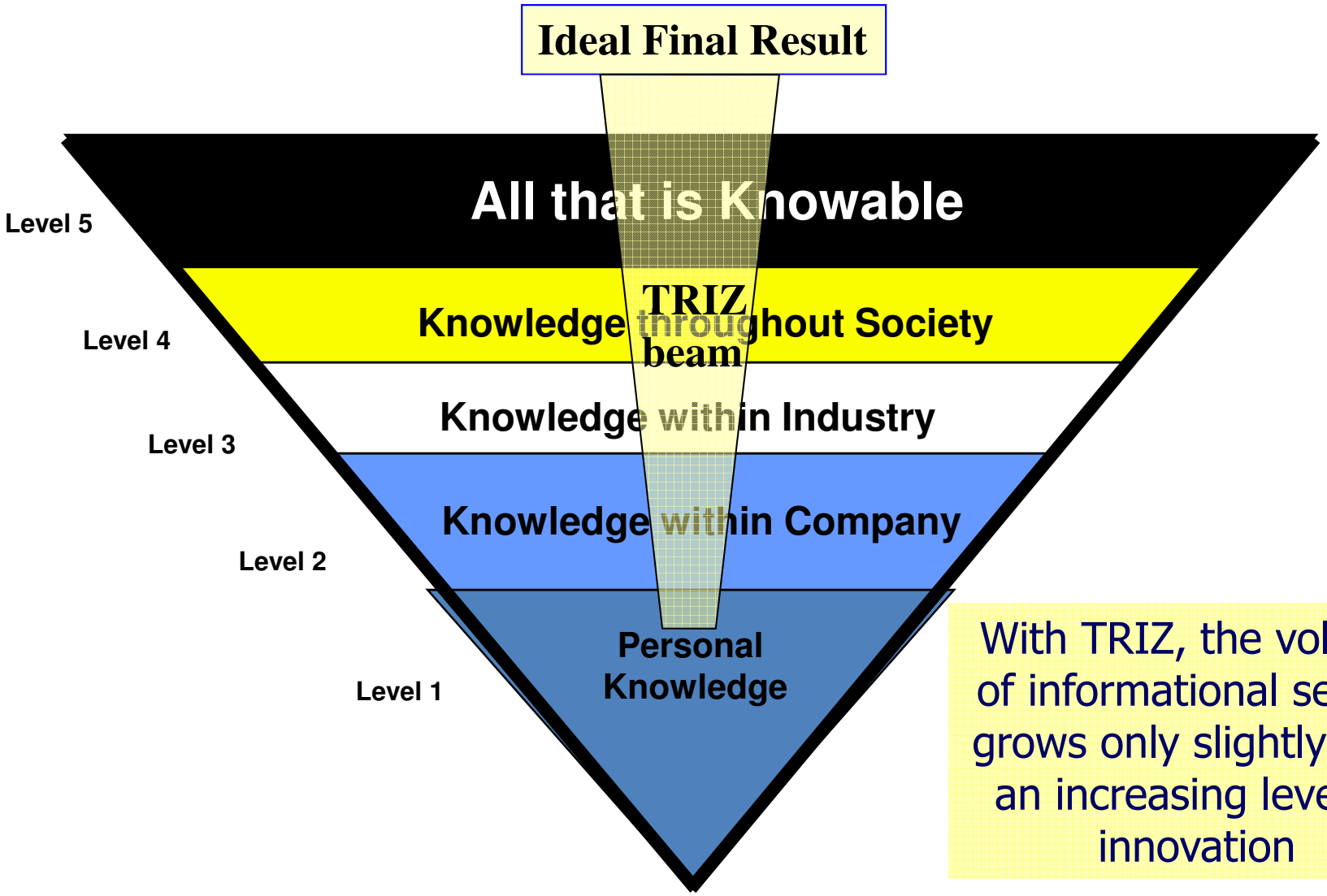
Potential long-term problems need to be understood and taken into account.

The Knowledge Pyramid



KM - Knowledge Management

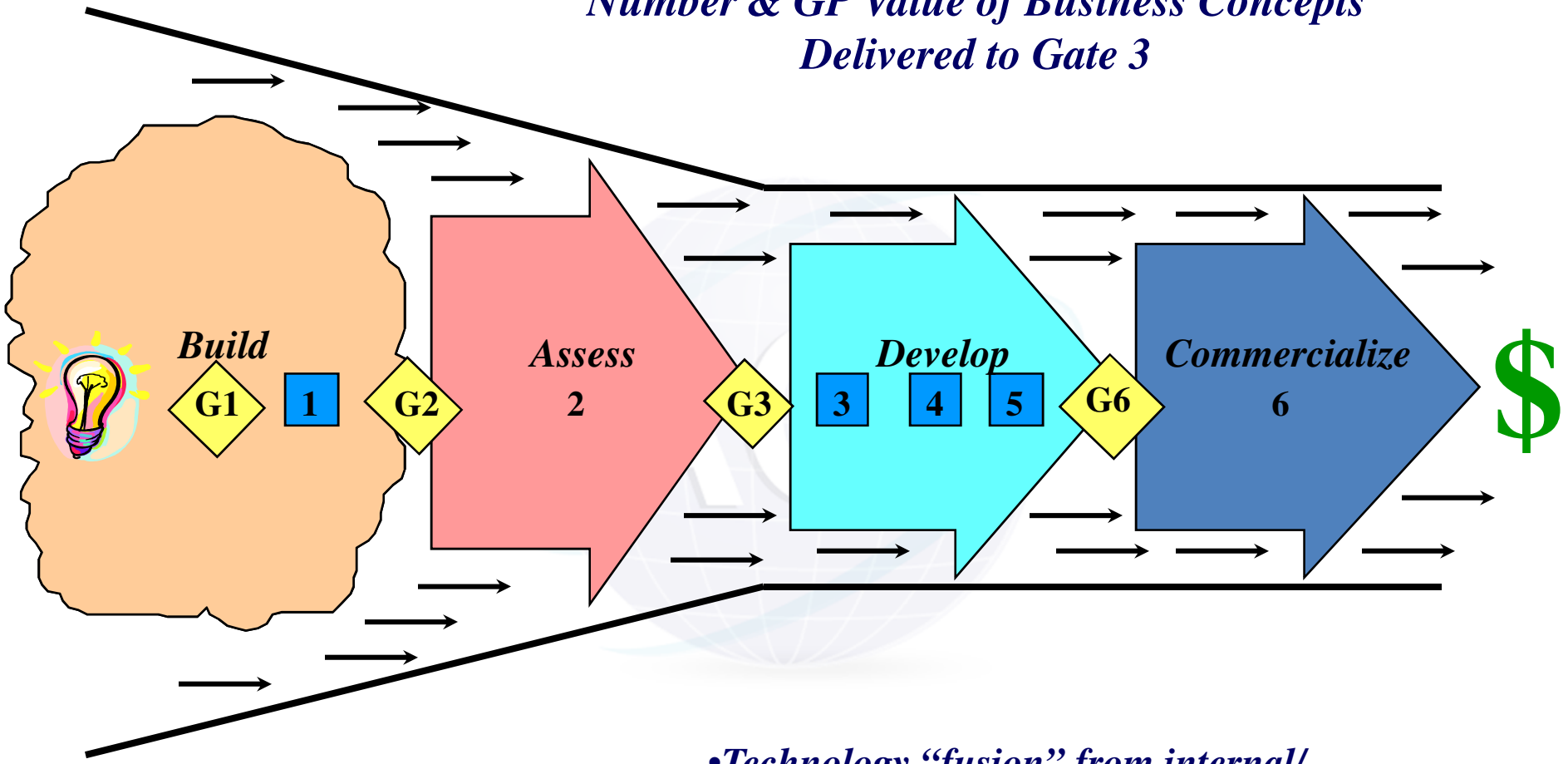
Tapping our Knowledge



With TRIZ, the volume of informational search grows only slightly with an increasing level of innovation

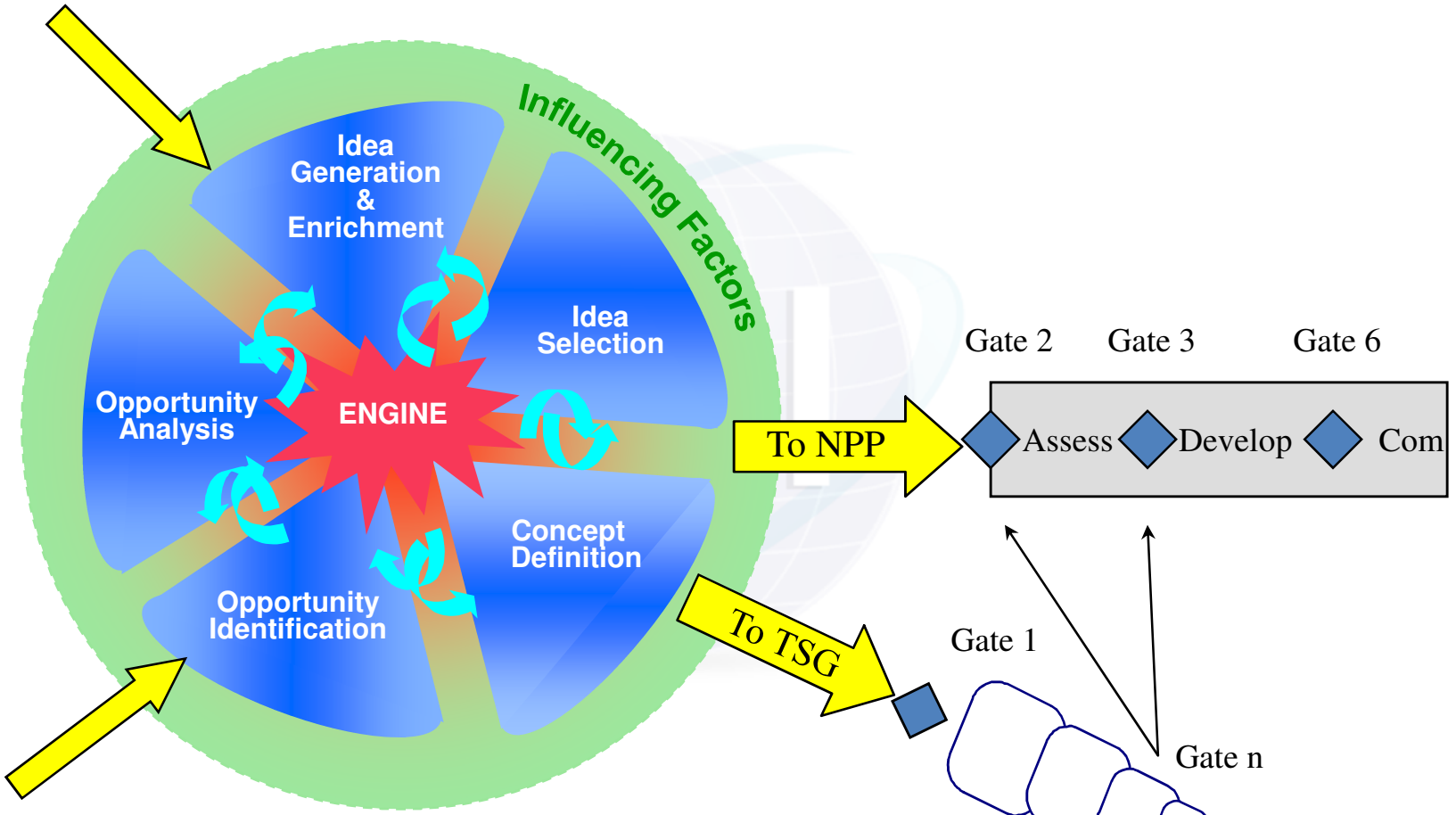
Structured Innovation Output

Number & GP Value of Business Concepts Delivered to Gate 3



- *Technology "fusion" from internal/ external search coupled with Rapid Screening*
- *Cycle Time Compression -- frees resources*

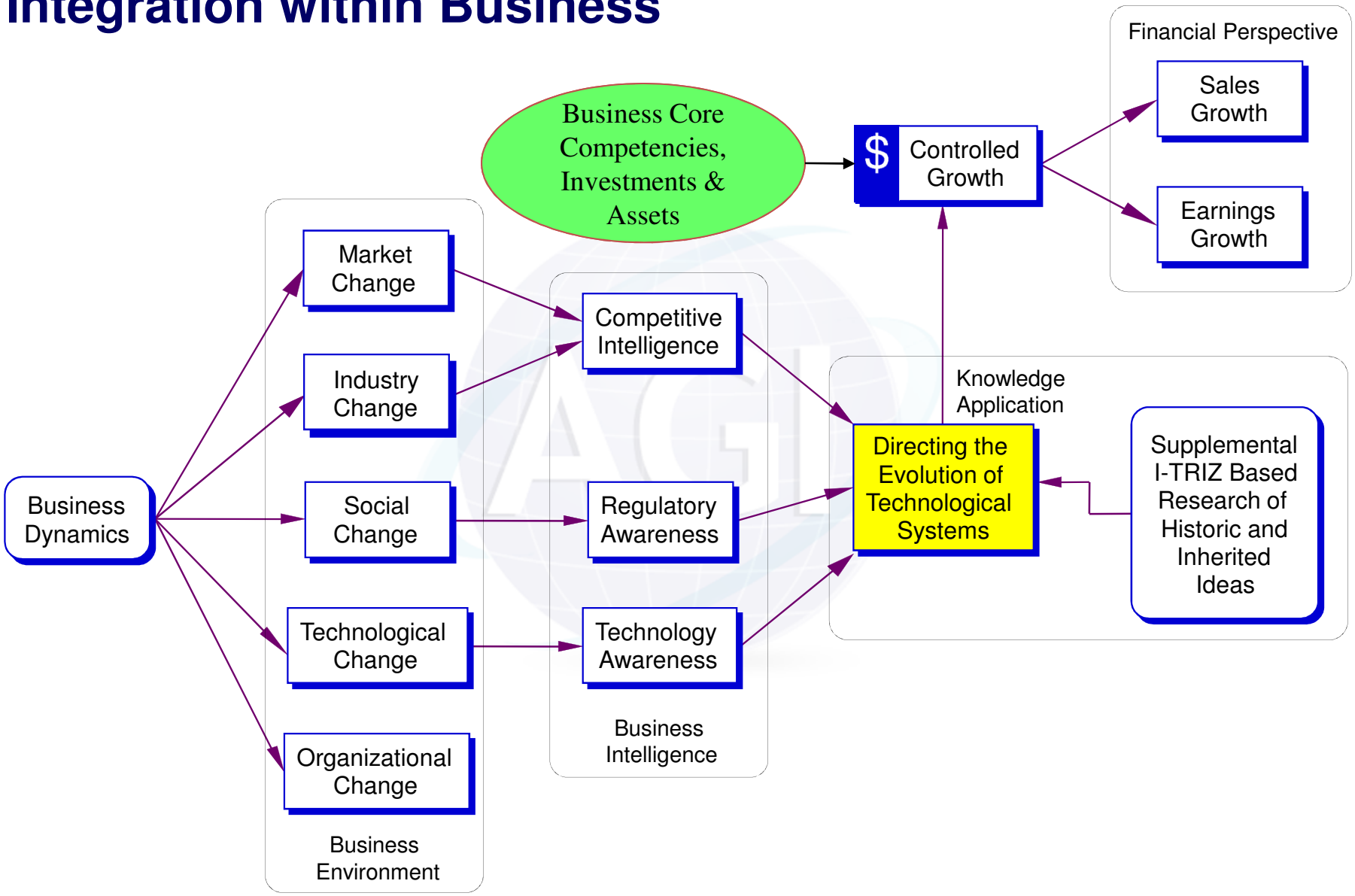
Structured Innovation



New Concept Development

Technology Stage Gate (TSG)

Integration within Business



Breaking the Market Constraint

- Use the TOC Thinking Processes to understand the undesirable effects of the customer that your organization can impact to create a competitive advantage.

- Typically organizations are looking for something they can do quickly to differentiate themselves from the competition. Usually this is accomplished by determining policies that affect the way existing products are offered that when changed solve some of the hefty undesirable effects of the customer.

Breaking the Market Constraint

- At the same time TRIZ can be used to help accelerate the time to invent a new product or service by providing accelerated education, innovative software tools and analytical services.

- Once the organization has the next invention scoped, TOC Project Management provides the knowhow for timely product development with the new products being launched on scope and on time while staying within budget.