

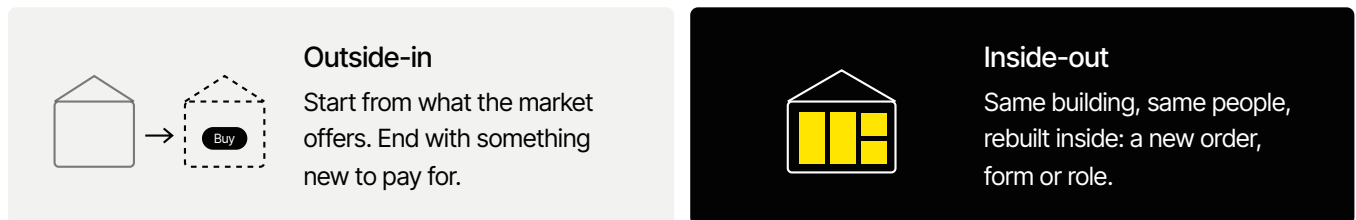
Systematic Inventive Thinking (SIT)

Why the answer is usually already inside your walls.

Most consulting methods start outside the company and end with something to buy. Systematic Inventive Thinking starts with what you already own. Here is how it works, and why we made it our core method.

Two directions

When a result will not move, most methods look outward first: they benchmark competitors, scan the market and compare vendors. The answer is usually something new, such as a building, a system or a team. It may be right. It is also the most expensive answer, and the slowest to pay back. SIT works the other way. It starts with the people, assets, processes and data you already have, and asks what would happen if one of them changed its order, form or role. Most of its answers **rebuild what is there**, rather than add to it.



Where SIT comes from

SIT was developed in Israel in the 1990s from TRIZ, the method Genrich Altshuller built by studying patterns in a very large number of patents. SIT made that discipline simpler and took it beyond engineering. Research by Jacob Goldenberg and colleagues showed that many successful new products follow a small number of repeating patterns, and that those patterns can be learned and applied on purpose.

No time spent hunting a root cause

Most problem-solving methods begin with a problem statement and a search for its root cause. SIT may be the only method that does neither. It came from studying how products actually changed as they developed, clustering those changes and finding the patterns that repeat. Those patterns became its five thinking tools, each applied to something that already exists.

- 01 **Subtraction.** Remove something everyone thinks is essential, and see what the rest can still do.
- 02 **Multiplication.** Copy an element, but change the copy so it does a different job.
- 03 **Division.** Split a product or process apart, and put the pieces back in a new order.
- 04 **Task unification.** Give something you already have an extra job.
- 05 **Attribute dependency.** Link two things that have always varied on their own.

The principles behind it

The last one names what SIT works against: **fixedness**, seeing each thing only as what it already is. It is what makes people say a thing “cannot change”.

- 01 **Closed world.** Look for the answer inside the system you already have.
- 02 **Function follows form.** Change the form first, then ask what job it could do.
- 03 **Path of most resistance.** Set aside the first idea that comes easily.
- 04 **Qualitative change.** Prefer the answer that removes a problem.
- 05 **Breaking fixedness.** See past what each thing is “for”.

Our analysis

SIT’s thinking tools are pattern recognition. Applied to the resources you already own, the defined patterns predict where their unused innovation potential lies.

This is our reading, from using SIT with clients in Thailand. If the tools are patterns, they can be used predictively: before anything is bought, each existing resource is checked against each pattern, and the places with unused potential stand out. It is a faster, cheaper starting point than a market scan, and it keeps the answer inside the organization that will run it.

When we add other tools

SIT is our core method, not our only one. We add others when a situation calls for them.

Theory of Constraints

Eliyahu M. Goldratt. When the result is capped by one point in a chain.

TRIZ

Genrich Altshuller. When a technical contradiction blocks the design.

Strategic foresight

Practised by our founders since 2005 and 2007. When the design must hold in conditions that do not exist yet.

CIRCO

TU Delft. When materials, product life or what happens after use are part of the problem.

How an engagement runs

Define

The result, its baseline and who decides

Challenge

Test what everyone treats as fixed

Redesign

A future state, with the people who run it

Validate

Known, projected and uncertain kept apart

Mobilize

Owners, sequence and measures

Further reading: Goldenberg, J., Mazursky, D. and Solomon, S. (1999), *Creative sparks*, Science. Boyd, D. and Goldenberg, J. (2013), *Inside the Box*, Simon & Schuster. SIT, TRIZ, Theory of Constraints and CIRCO belong to their owners; Bold Group applies them.

What has everyone told you cannot change?

Bring it to an hour with Teerasak Wongpiya, Co-Founder and Managing Director. In Thai or English, online or at your office.

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