

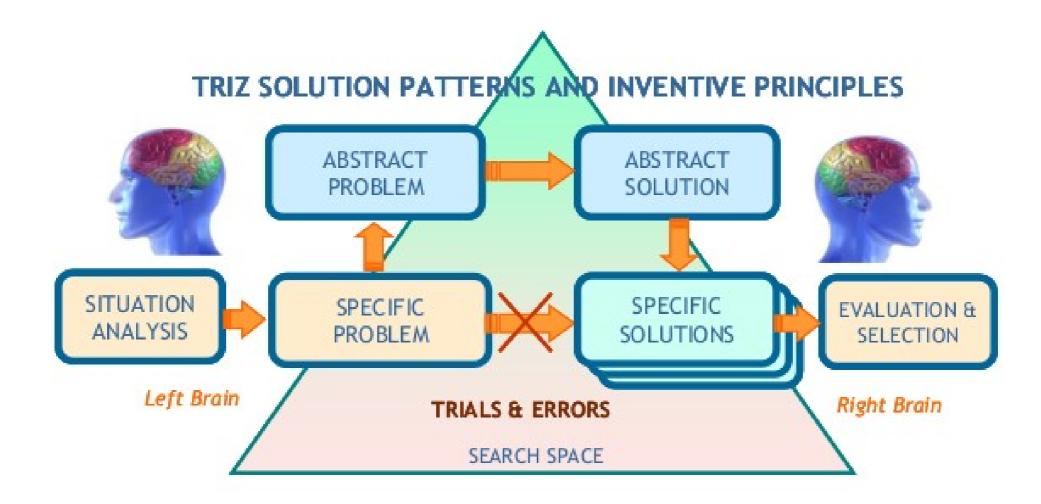
# BUSINESS TRIZ ONLINE SPRING 2022

#### On the Interconnection of Projectand Product-Centered Systemic Modelling

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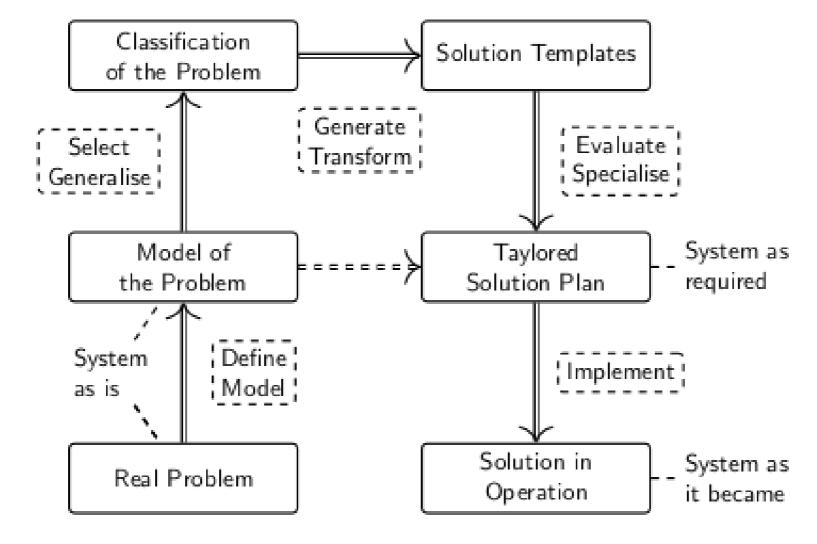


#### TRIZ on the Blackboard





## TRIZ and Real-World Systems





## Organisations

This applies in particular to organisations.

Shchedrovitsky distinguishes in this direction between the phases of creating an organisation and a "living organisation".

Moreover, he distinguishes three dimensions of that notion

- Organisational work as practical activity.
- Organisation as the result and means of organisational work
- Organisation as a form of life of the collective.



## Development of Organisations

Organisational work  $\rightarrow$  development of the real-world counterpart of a system.

A "living system" has a structural as well as an operational dimension.

A system can be structurally disassembled, but can only be operated in its assembled state.

Fundamental contradiction of any systemic view – the contradiction between the *necessity of decomposing* a system for its analysis and its basic indecomposability in operation.

This principal indecomposability does not end at the system's boundary.



## Long-term and Short-term Goals

This real-world development can itself be represented in blackboard form through comprehensive planning.

Organisational systemic development is driven by

- long-term goals of developing product portfolios and
- developing the company's short-term *capabilities to produce* products and services from this portfolio.

Strategic and operational management.

Contradictions between long-term and short-term goals.

This is a kind of a contradiction that is difficult to handle with TRIZ tools.



### Project-like Business

Today short-term *operational* activities have greater variability and are often planned and implemented as **projects**.

Additional to the representation of *planning* of projects at the strategic level blackboard, the representation of the *implementation* of these projects on that blackboard also plays a role.

To do this, however, it must be understood how project plans, initially a "dead body", as noted by Shchedrovitsky, are integrated into the "living system" of organisational work.



### Project-like Business

Another challenge for project activities: Cross-company cooperations Strategic plans of different partners overlap in such projects.

This type of business activity is on the increase.

The transition to customised products is a general trend with the increasing possibilities of digitalisation of planning and manufacturing processes.



#### A Use Case

Three business partners in Leipzig successfully applied for funding for a project to develop an App for Indoor Navigation for Visually Impaired People.

**Product idea:** The app is a kind of digital assistant of the user that not only supports navigation in buildings but also organises the direct connection to different kinds of structured information in the web.

#### Technical challenges:

- 1. Organisation of bidirectional interaction for a specific target group.
- 2. Expanding applications for location-based services.
- 3. GPS is available as outdoor localisation service, but there is currently no comparable indoor equivalent.



#### A Use Case

Contradictions between short-term and long-term interests of the project partners: Technical experience gained during product development also heavily plays a role, at least for internal motivation.

The project context is embedded in four supersystems – that of the funding agency and each of the three project partners - and is essentially determined by the approved project application.

The conflicting long-term goals of the partners met in a rough consensus of the project proposal, which was approved by the funding agency.



#### A Use Case

**Problem:** Long-term and short-term business goals are in contradiction.

**Solution:** Practical short-term advances towards a long-term goal identified at the blackboard permanently modifying the long-term goal based on the experienced results of the short term projects thus processing the contradiction.

Rough consensus and running code.

(The Tao of IETF: A Novice's Guide to the Internet Engineering Task Force)

**Principle of Unfinished Thought:** Thoughts can be thought on when the time comes. Most of them disappear by themselves anyway.

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