A model with AI tools for task synthesis

- What is it for?

- Component structure

- User role and actions

- Inventive task pattern-based data processor*

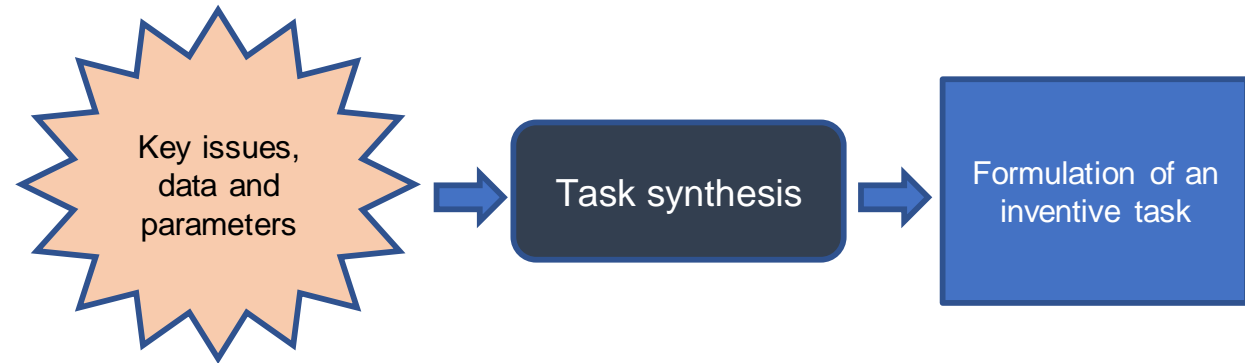* Innovative TRIZ Task Pattern as a Tool for its Identification, Assessment and Performance Management https://triz-summit.ru/triz/metod/inno/kassou-inn/
* Architecture and Design Implementation of Innometric System https://www.youtube.com/watch?v=_2FmAPx1Ew4
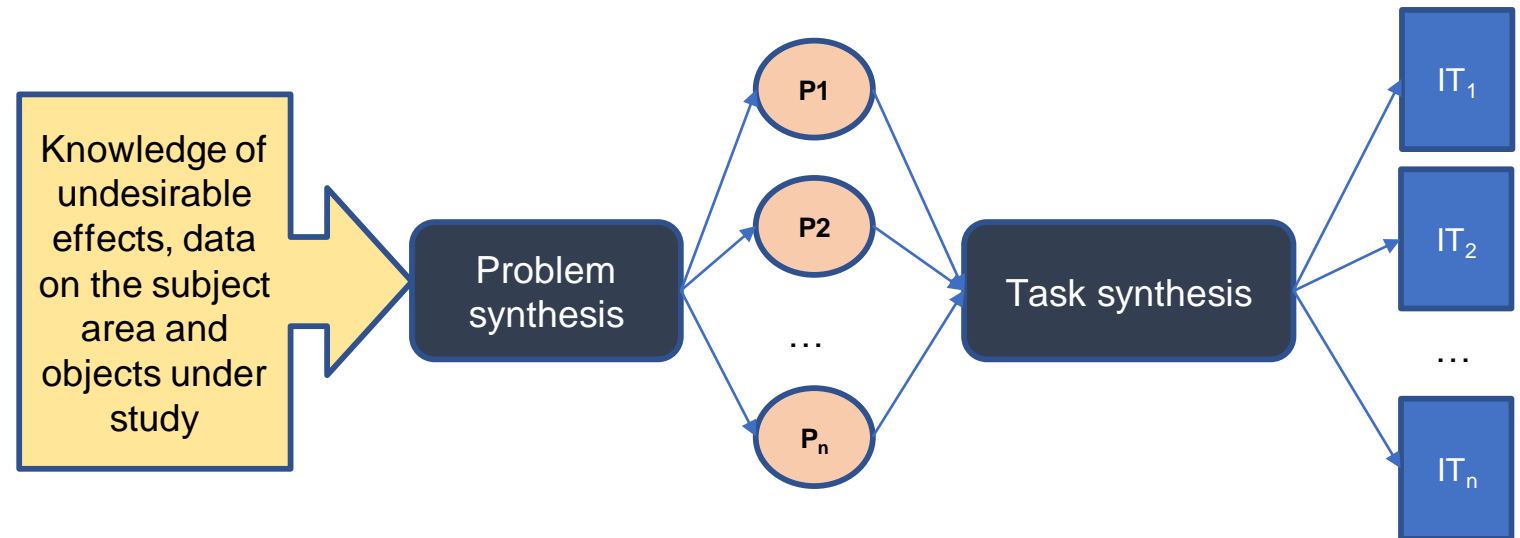
Inventive task synthesis What is it for?

Formation of inventive task statements using AI tools, it is necessary to have:

a) once comprehensive data are available on key problems to be solved in given conditions and parameters.

b) in modelling and forecasting an array of problems and their solutions.

Key issues, data and parameters → Task synthesis → Formulation of an inventive task

Knowledge of undesirable effects, data on the subject area and objects under study → Problem synthesis → P1, P2, …, P_n → Task synthesis → IT_1, IT_2, …, IT_n

A model with AI tools for task synthesis. Component structure.
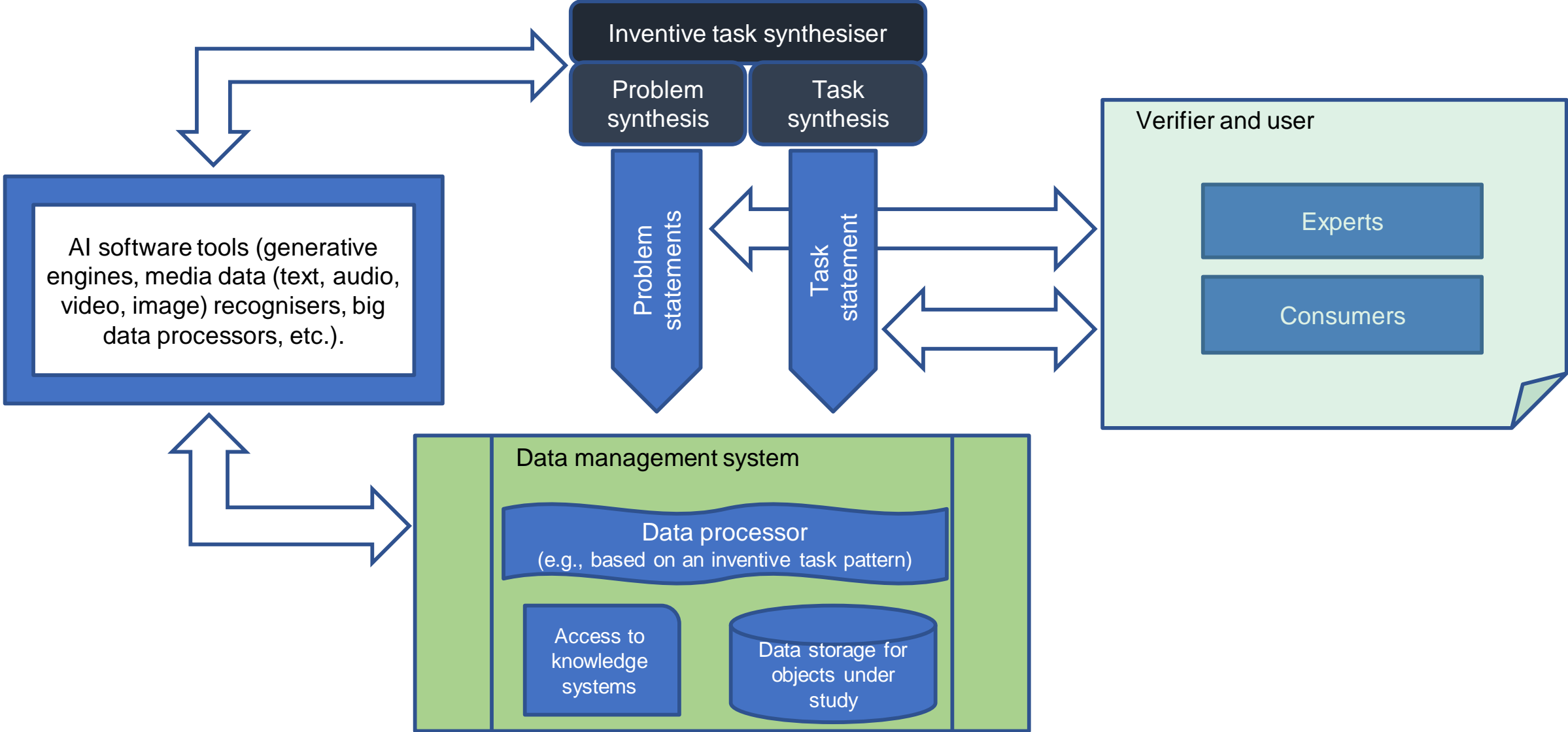
Inventive task synthesis model. User role and actions.

Ideal Final Result (IFR) of a system applying the inventive task synthesis model:

An IT system capable of independently collecting information about objects via installed hardware and software sensors and extracting data from knowledge systems, as well as pre-processing such data by interacting with a user (human or other IT system).

Developmental stage 1: Human System User. Roles: Expert Consultant, Customer-Taskmaster, Trainer.

Development stage 2: IT System User. Roles: Collection Source, Data Processor, Analyst, Robot.

Inventive task pattern (PTIS-pattern) based data processor

An inventive task pattern may contain identifying information about the inventive task for one or more stages of its life cycle.

This pattern can be updated, it allows for tracing of states and searching for and identifying objects of similar type in the database.

Each of the four descriptors consists of multiple inventive task parameters that make the pattern unique.

P Problem descriptor
(**P**roblem identification)

T Task descriptor
(**T**ask formulation)

i Idea descriptor
(Solving idea generation)

S Solution descriptor
(Solution design)

Fields of forms	Data types	
Problem name	composed text*	"Data mining tools"
Field	extendable list*	Management & Business
Investigated object	extendable list*	Business model
Targeting object values	extendable list*	Performance
Problem description	composed text*	"Data mining tools"
Problem type	extendable list*	High cost
Task name	composed text*	"Data mining tools"
Task field	extendable list*	Management & Business A
Task formulation	composed text*	"Data mining tools"
Investigated object	extendable list*	Business model
Task type	extendable list*	Problem-to-Solve
Task stakeholders	extendable list*	Shareholders
Idea name	composed text*	"Data mining tools"
Idea author	initiated automatically	Account email address
Idea formulation|description	composed text*	"Data mining tools"
Investigated object	extendable list*	Business model
Targeting object values	extendable list*	Performance
Idea type	extendable list*	Novelty&Innovativeness
Solution name	composed text*	"Data mining tools"
Solution author	initiated automatically	Account email address
Solution formulation|description	composed text*	"Data mining tools"
Investigated object	extendable list*	Business model
Targeting object values	extendable list*	Performance
Solution type	extendable list*	Novelty&Innovativeness
Advantages	extendable list*	High efficiency
Disadvantages	extendable list*	Less secured
Stakeholders	extendable list*	Shareholders
Method of generated solution	extendable list*	Function oriented search
Solution description files	attachable	Exist/Not exist
Prototype status	predetermined list*	Generated