

“SO, WHAT ABOUT THIS TOOLBOX”?

- It's a promise we made;
- One of the driving principles, content-wise, of DEMAND
- *Approached (by me/us) as a form of “knowledge development and representation”*
- It is one of the main things (*tasks* in DEMAND) that concern me directly & personally.

HISTORY: slide from meeting end of 2024

GESTRUCTUREERDE DELIVERABLES (NEXT STEP – PLATFORM)

- Templates voor beschrijving tools en hun ‘eigenschappen’:
 - Beschrijving van het thema
 - Verwijzingen naar tools (publicaties, onderwijsmateriaal, toolbeschrijvingen)
 - Verwijzingen naar problems (idem)
 - Lijst met relevante casussen (en casus-eigenschappen)
 - Instapteksten voor tools (bestaand of nieuw) en evt. problems
 - Beschrijving toegankelijkheid per tool (voor relevante doelgroepen)
 - Indien mogelijk toegankelijke vorm (instantie) van tool
 - Gap analyse (ook met casussen in gedachte):
 - Welke tools ontbreken (voor welke problems)?
 - Hoe goed zijn/werken de tools? (evaluatie, voor zover bekend; problems, context)
 - Welke tools moeten worden doorontwikkeld?
 - Beschikbaar(der) maken
 - Toegankelijk(er) maken
 - Impact/werking evalueren (gerelateerd aan problems)
 - Impact/werking verbeteren (gerelateerd aan problems)
 - Toepassen!

It didn't really work...

**So I started thinking about
ways of helping out**



Ondersteuning door Kennisplatform:

Templates digitaal op platform

Knowledge Graph/Tech

Tech-ondersteuning bij gericht zoeken
(WWW)

‘Problem-Solution Chains’
(modelleren)

Onderzoeks-aanpak, o.a.
Design Science Research
Design Patterns

HISTORY: slide from meeting end of 2024

WORK IN PROGRESS: PROBLEM-SOLUTION MODELING

Conceptualisation and (Meta)modelling of Problem-Solution Chains in Early Business-IT Alignment and System Design

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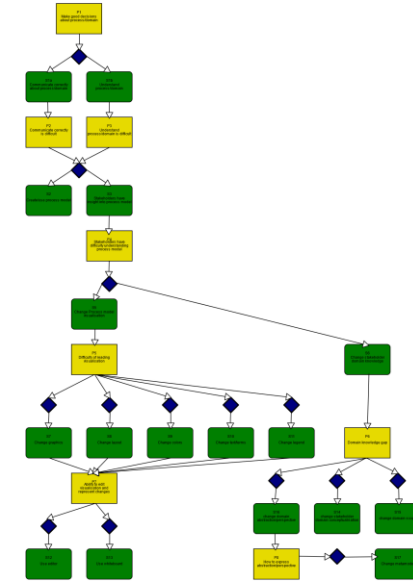
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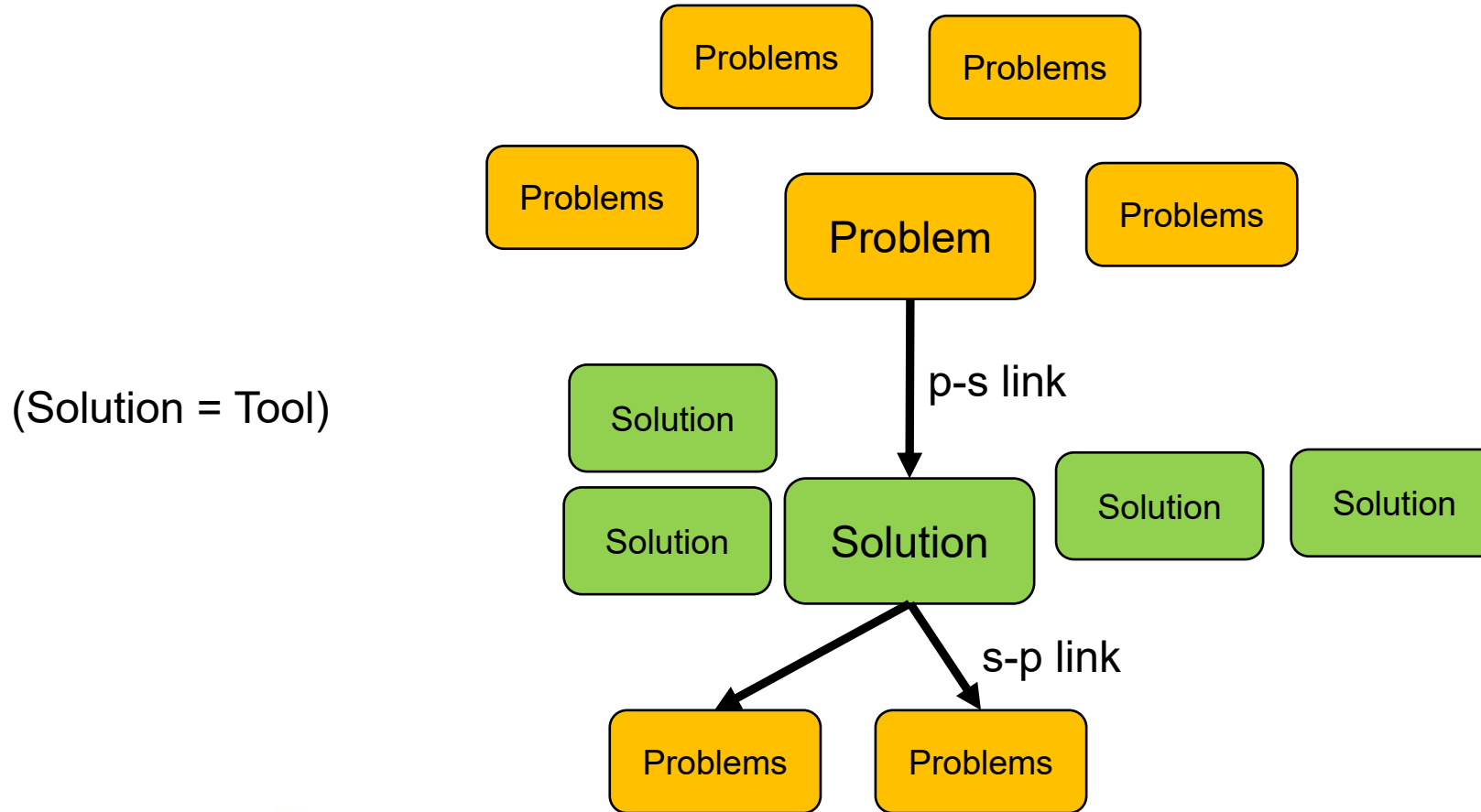
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PSCHAINS & THE KNOWLEDGE GRAPH: MAIN STRUCTURE

- Names
- Problem stories
- Solution stories
- URLs etc. (Wiki / Web)



POV MIRO BOARDS

- About ten of them, so far; result of **POV sessions** with workgroep leads & others:
- **Rough data** for a focused structuring of Problems, Solutions, and P-S Pairs/Chains
- Basis for creating **KG**, structuring and linking all the bits of info on Problems, Tools, etc.
- A **Wiki** that provides textual/visual content and links between texts
- The GK is an **index**, the Graph Database a **repository** underlying (mirroring!) the Wiki
- So the Wiki can be used to **author and present** detailed content;
- The KG presents the whole networked structure of the wiki and can also be used to **navigate and search** the content / wiki.



Screenshot

THE WIKI

- Basic (hyper)text
- With rights, you can
- 1:1 link between wiki and KG:
- They mirror;
- You can edit/search/navigate wiki AND/OR the KG

- General >
- Problem >
- Tool ▾
- Solution: Using Meaning Descriptions to select an Interpretation

Solution: Using Meaning Descriptions to select an Interpretation

Problem: Need to know the right label and/or interpretation of a term / data concept.

Solution: use some form of **concept catalogue**: dictionary, glossary, vocabulary; a list of **terms** (words; labels) and references to **descriptions** (in whatever form) of their meanings. These can include many forms of **meaning descriptions**, including **definitions**, **ontologies**, and **conceptual models** of many sorts.

Many complications can arise, boiling down to the question which term (label of a concept) should carry which interpretation for a particular instance of use of that term; often, a number of interpretations are possible, or alternatively, no sufficiently well-described interpretation is known. Basic forms of complication are:

- **Homonyms**
- **Synonyms**
- **Ambiguity**
- **Lack of clarity**

For correct interpretation to be possible, the right meaning of the term needs to be or become known. This typically requires **retrieval** and/or **selection** of the correct interpretation (from a set of possibilities), typically the one intended by the 'writer' of the term. This can be an *instance* of a word or phrase in a text of some sort, or in a row of a table; it can also be a *type* (e.g. the name of a column in a table). Homonymy and synonymy complicate this by offering more than one possible interpretation of the same term (homonymy: more than one possible terms that can be used as labels for a single concept/interpretation (synonyms)). If some term or phrase can be interpreted in more than one way, it is *ambiguous*; solving this is called **disambiguation**.