Knowledge Management – Is it all done by IT?

A practical view

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- How is work organized in today´s R&D?
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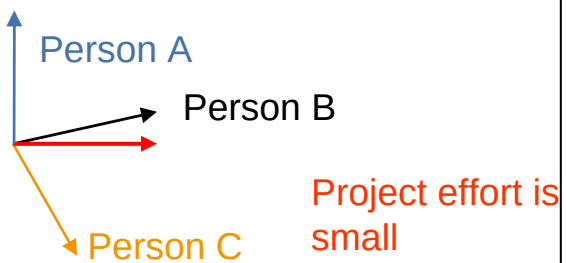
How is work in organized in today´s R&D in industry?

- Work is organized by task sharing between different individuals
- Persons are embedded in complex process networks with many interfaces
- Critical success factor:
  Collective understanding of the targets and tasks

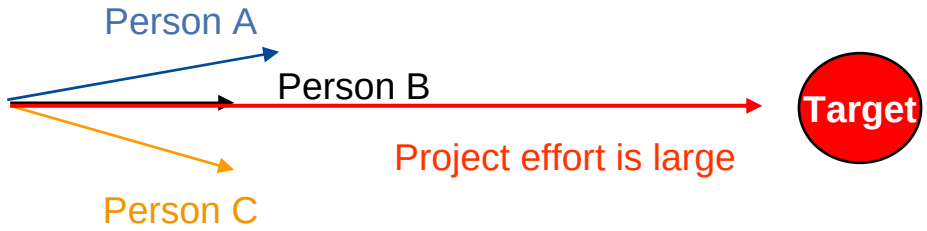
Key *Target* of Knowledge Management: Collective understanding of targets and tasks

- Work processes do have complex aspects and interfaces, which cannot be overseen by an individual alone
- To be successful in a team, each individual has to have an imagination of the targets and tasks
- The more individuals have similar (“same”) imaginations the more the work has a chance to be realized successfully

Different individual views make targeted work impossible



Global Brain is focusing to the target



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Data, Information & Knowledge

Information = Data + Context

- Standards definable
- IT-Systems

Data	*AHBS BS AHC ACXA*
Context	T ⇔ A; I ⇔ B; E ⇔ C
Information	*THIS IS THE TEXT*

Information is a precondition for knowledge creation

Knowledge = Learned information

- Individual
- Located in brain

Knowledge enables to do the right things right

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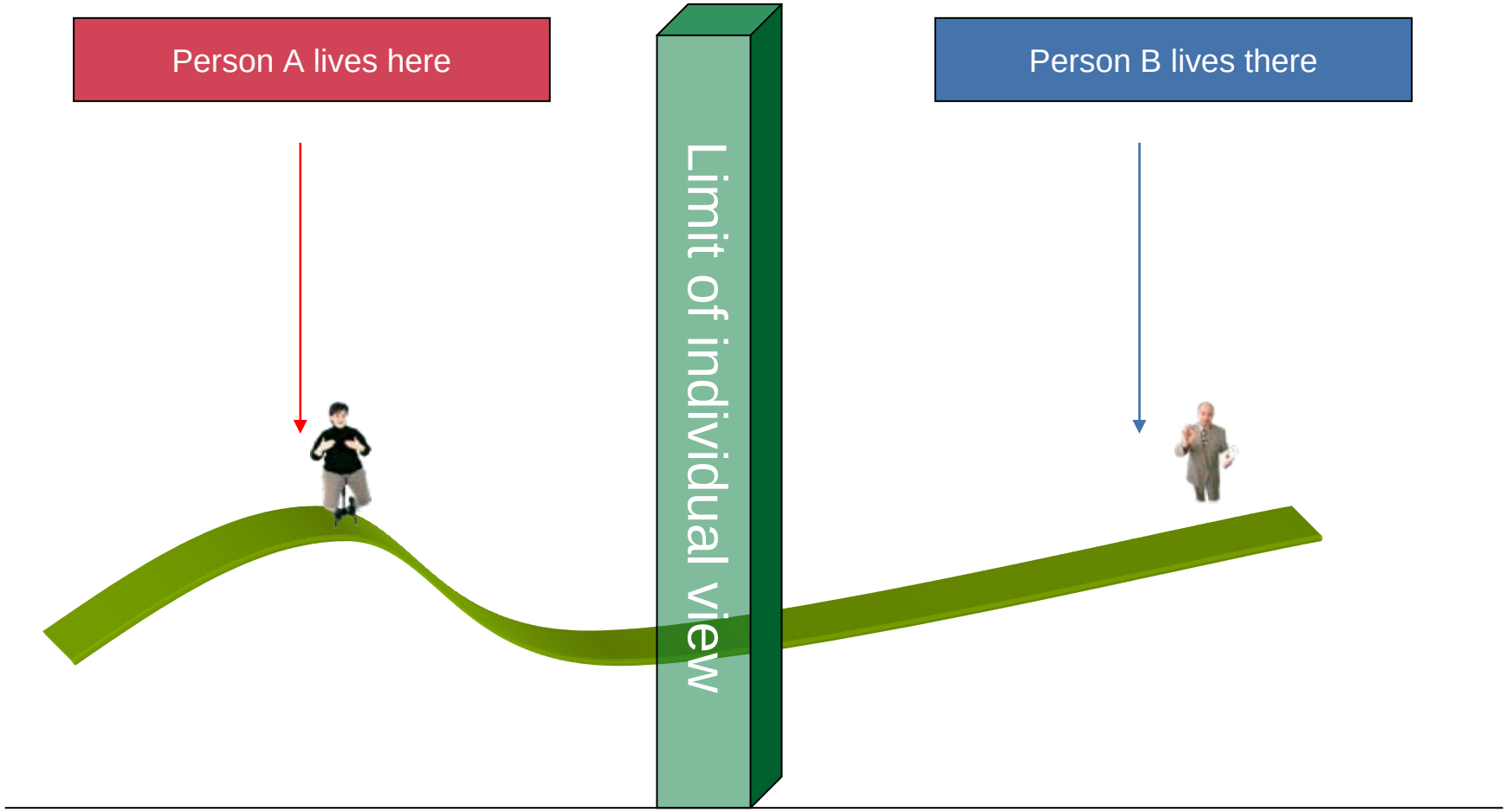
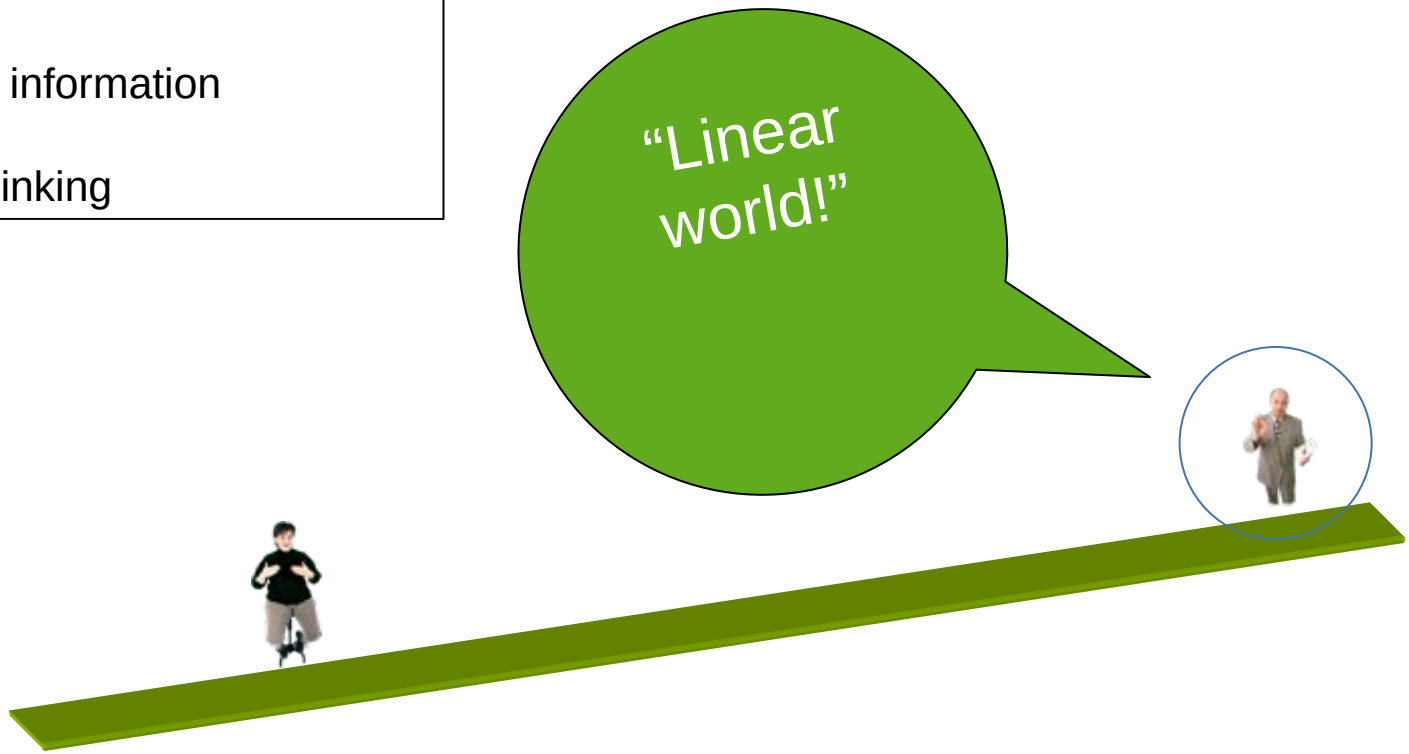
Key *problem* in cooperative work: Building a Collective Brain between different individuals



What person A assumes behind the “wall”

What person B assumes behind the “wall“

- World of the others is unknown
- Marginal information
- Linear thinking



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Goal of Knowledge Management: Building a collective brain with a systematic approach

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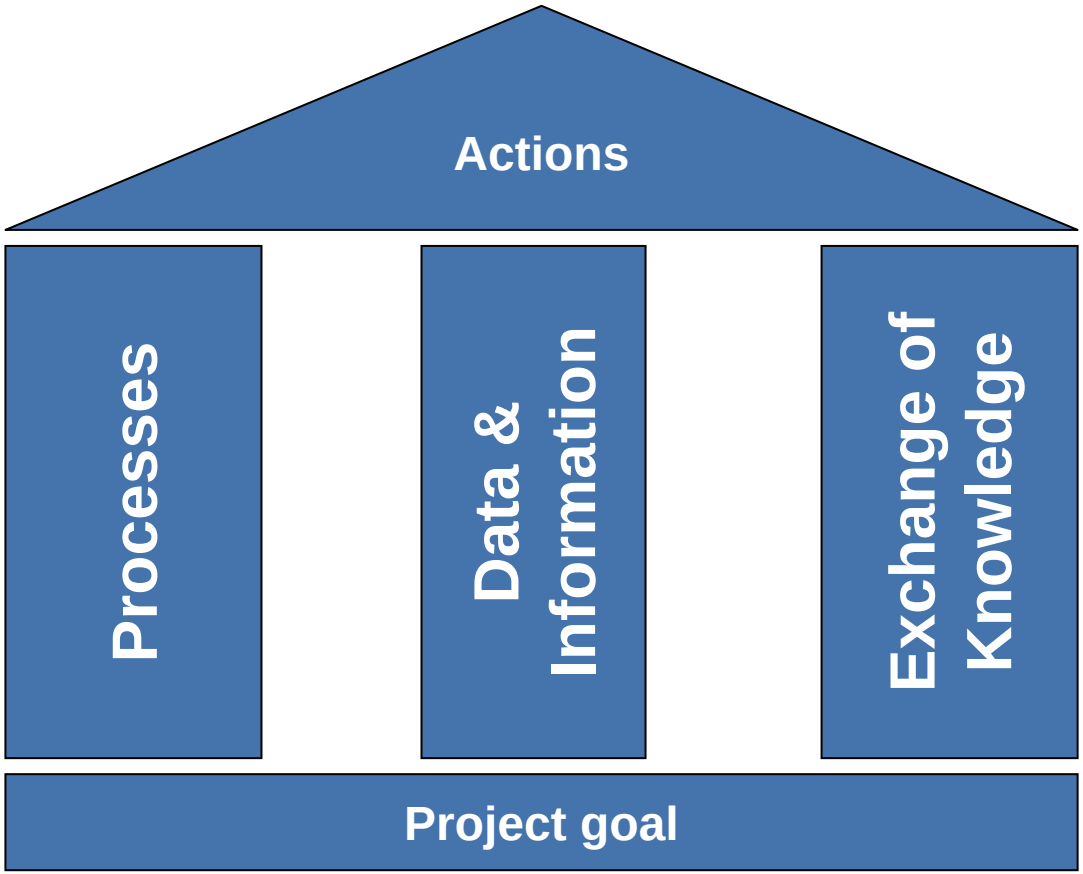
Trinity of Knowledge Management: Building a collective brain for doing the right actions



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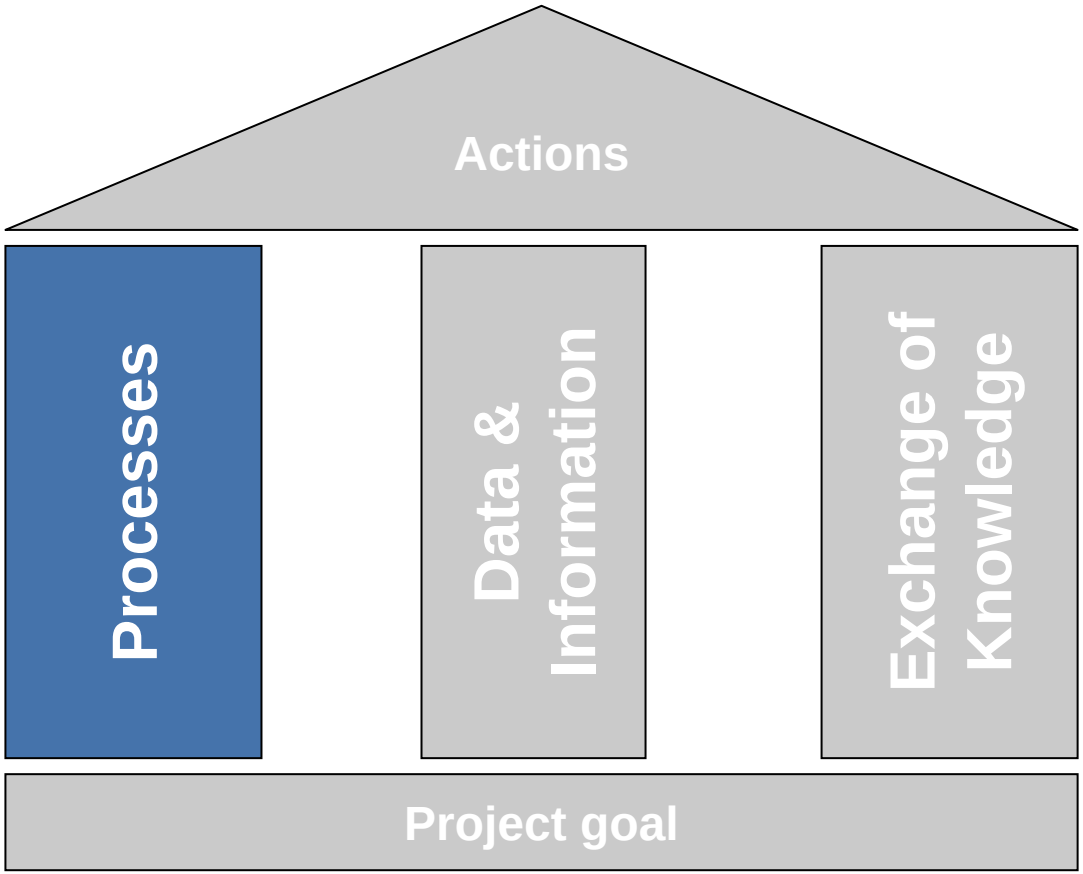
Trinity of Knowledge Management: Building a collective brain for doing the right actions



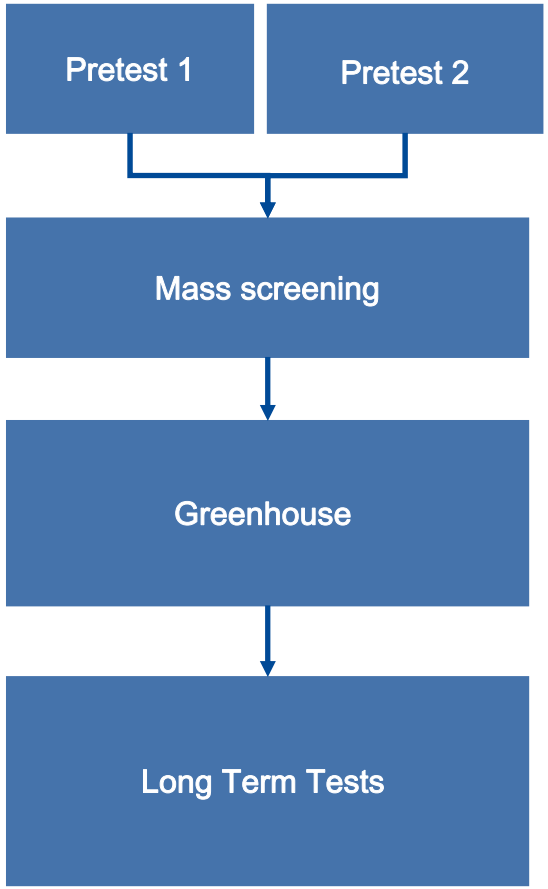
Work processes: Tasks and Targets

- **We know about what we are doing.**
  - No! If asking a little, the initial process knowledge is thin and always different when asking different individuals

- **There is no time left to discuss the processes in detail. No more paperwork. Start solving the real problems now!**
  - No! Acquiring missing process knowledge during project execution is much more time consuming than acquiring process knowledge at the beginning.

- **Processes are always linear and simple structured**
  - No! Almost all processes are complex systems.

Processes: Tasks and Targets



Simple?

Obvious to all?

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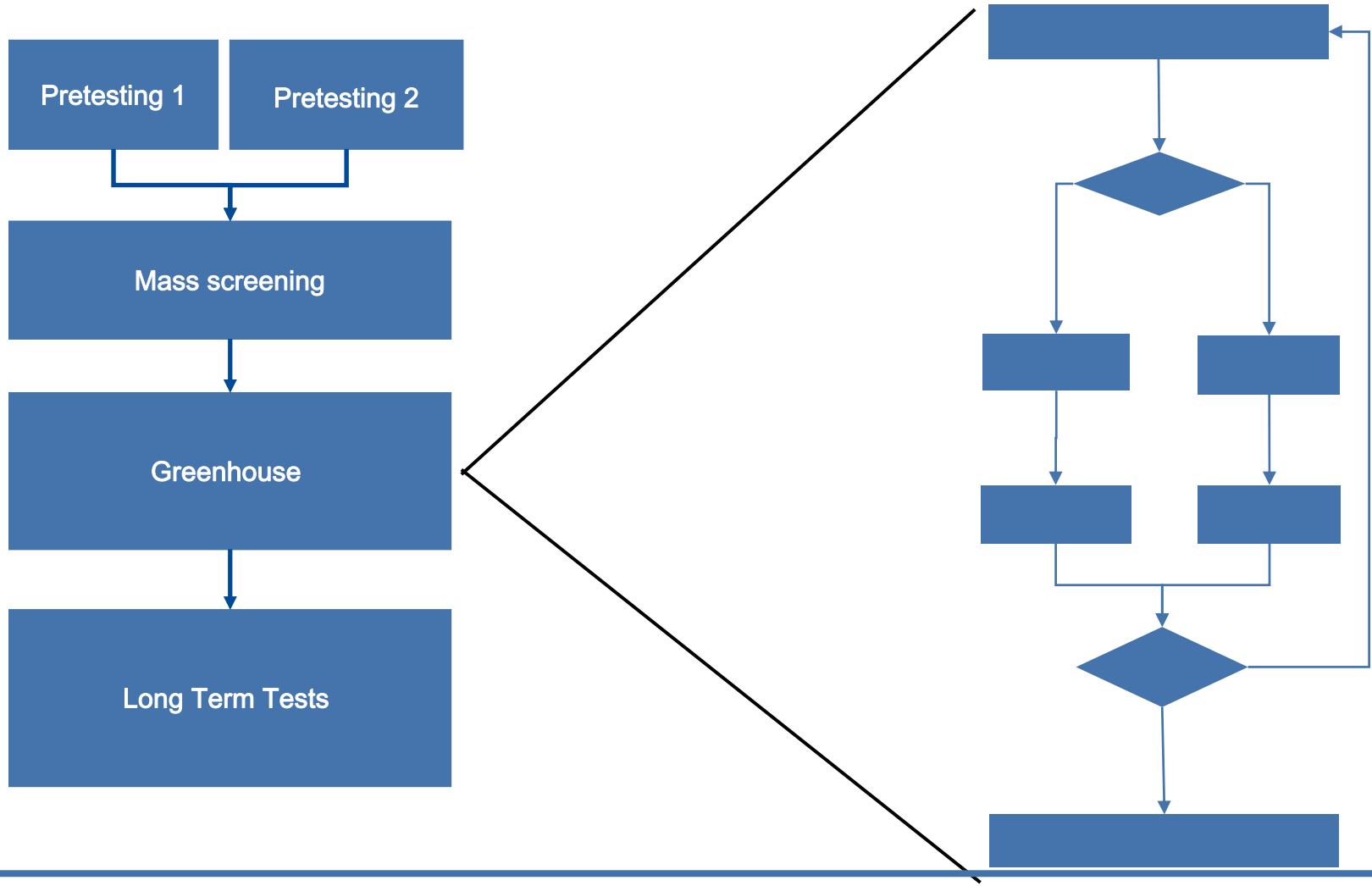
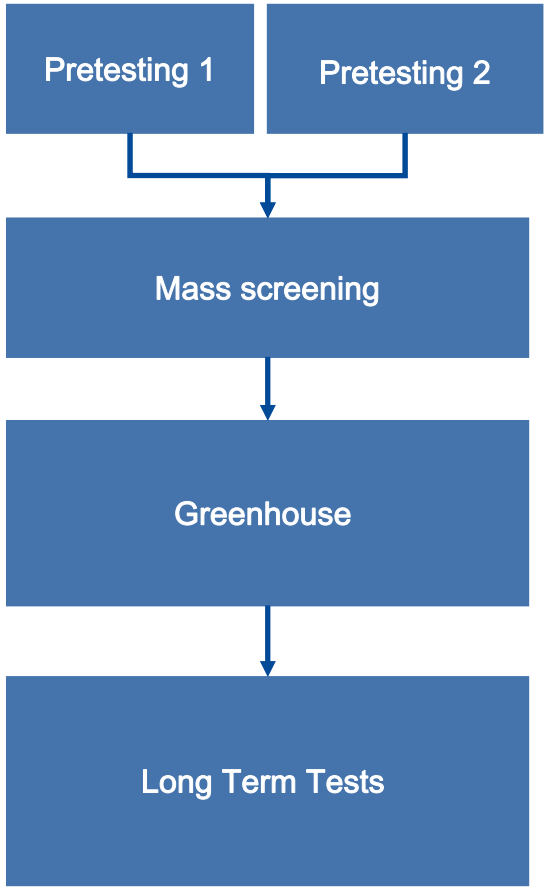
Processes: Tasks and Targets



Processes: Tasks and Targets



- Processes represent the individual and global activities, tasks and targets of work
- Processes can be documented, made accessible to all relevant team members and can be collective developed
- Process analysis help to detect bottlenecks and critical points
- Processes are necessary for efficient development of supporting IT-systems

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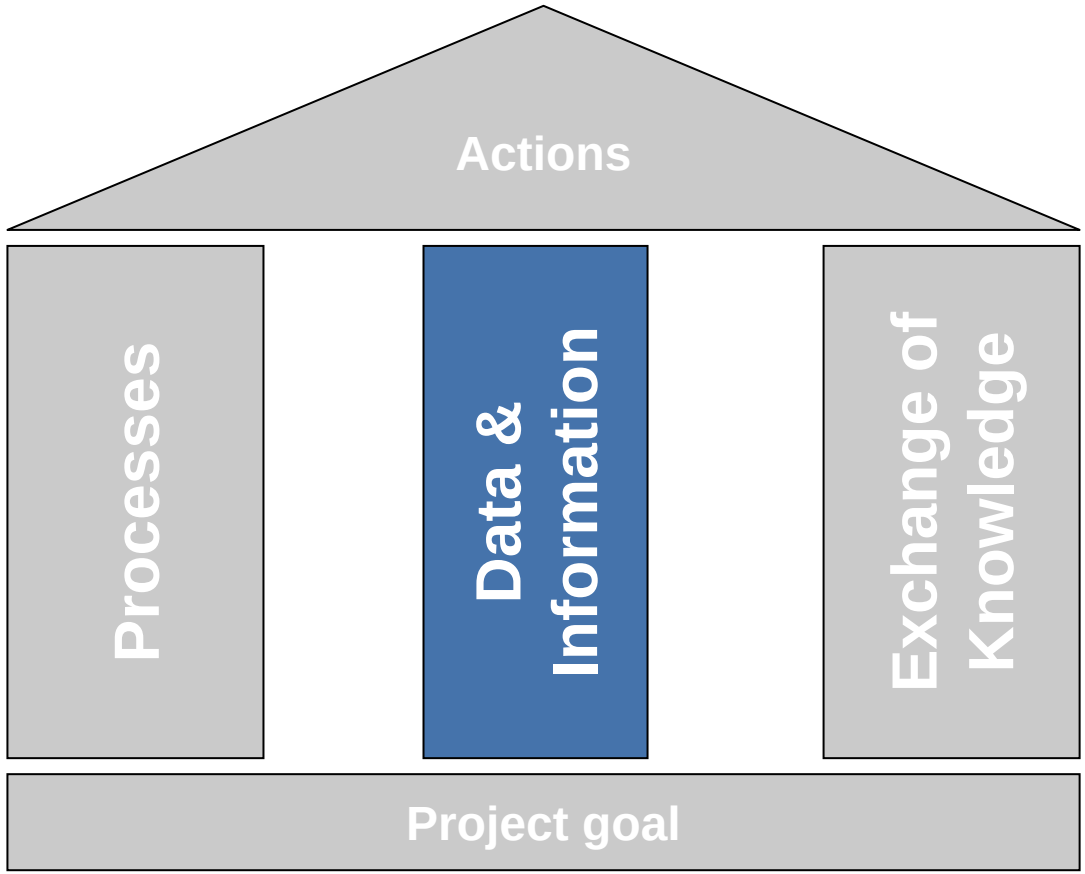

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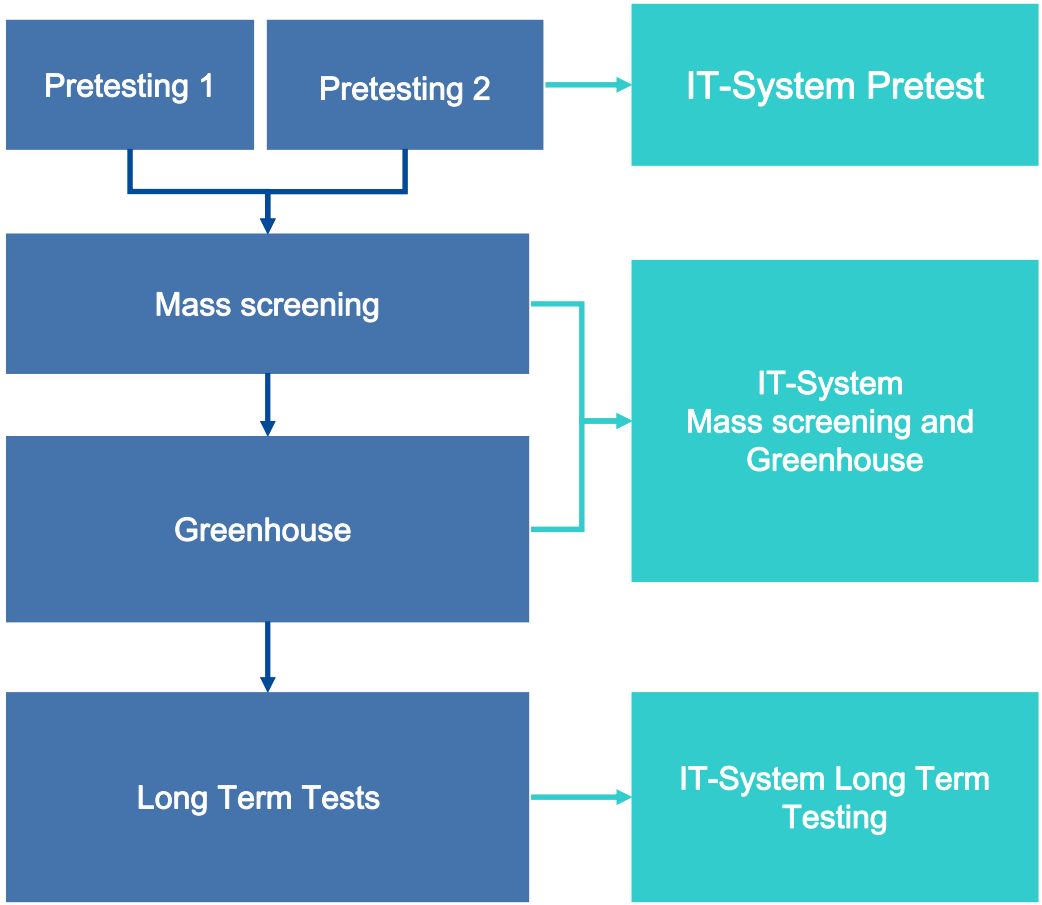
Data and Information: Where and how do we store data and information



- Long term storage of data
- User Friendliness
- Unification of data and technical terms

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Data and Information: Where and how do we store data and information

User Interface (Rich Client or Web Client)

Business Logic (Processes)

Persistency Layer (Databases)

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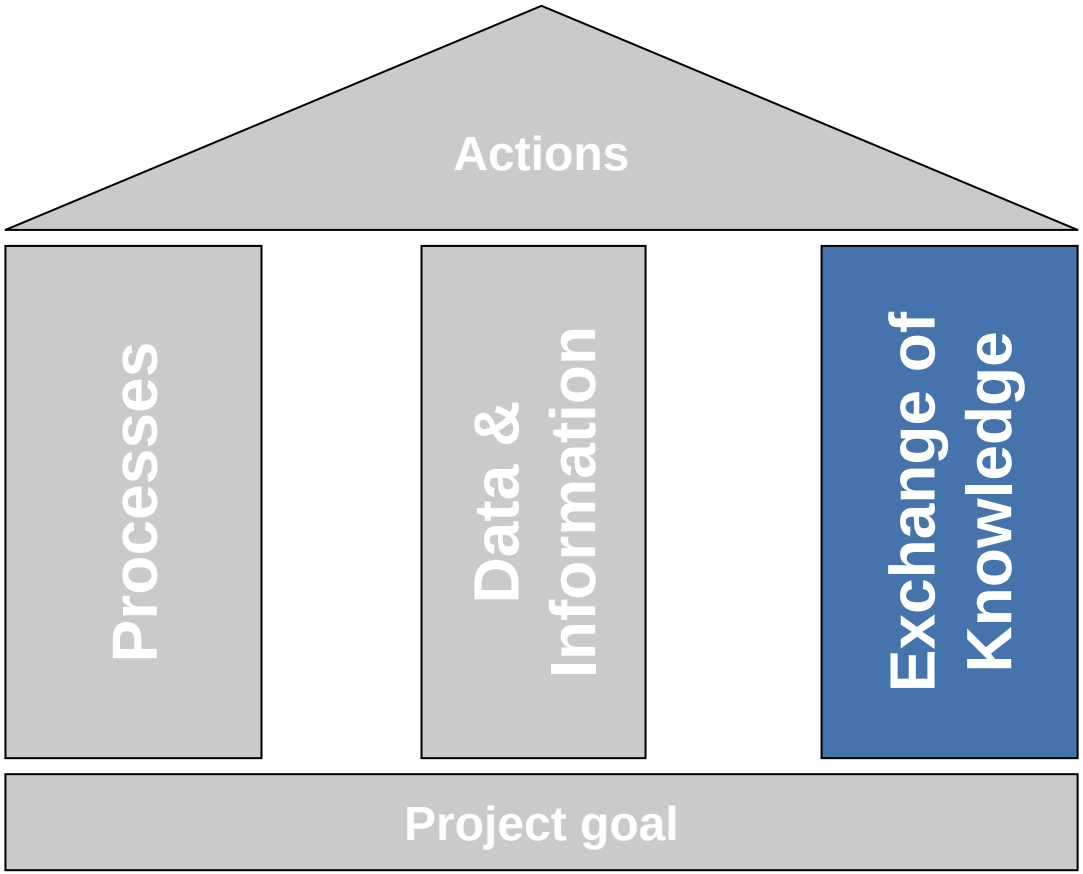
Trinity of Knowledge Management: Building a collective brain for doing the right actions



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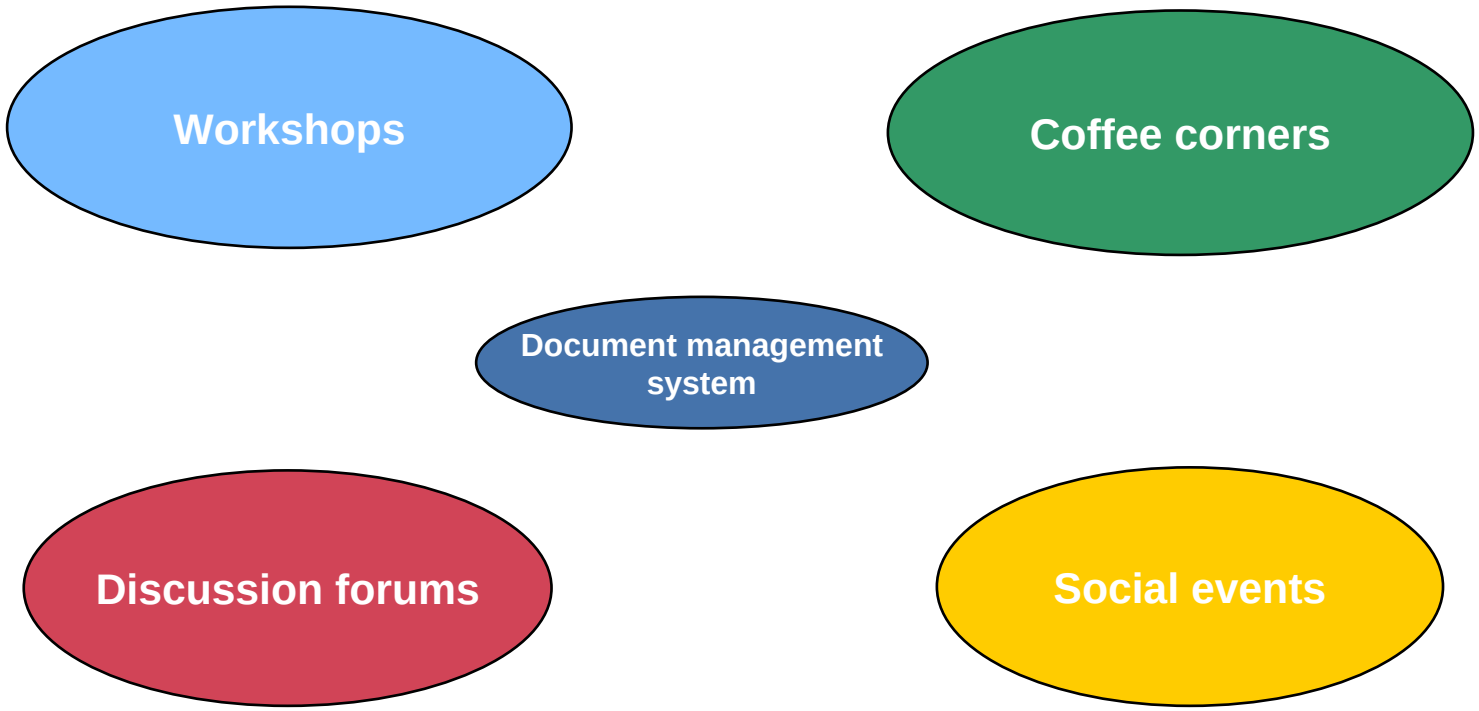
Exchange of Knowledge: Increase probability of contacts between individuals



Exchange of Knowledge: Knowledge Broker

- Link between different organizations and projects
- Focusing on
  - Targets
  - Interests
  - Spirit
- Working towards a collective brain

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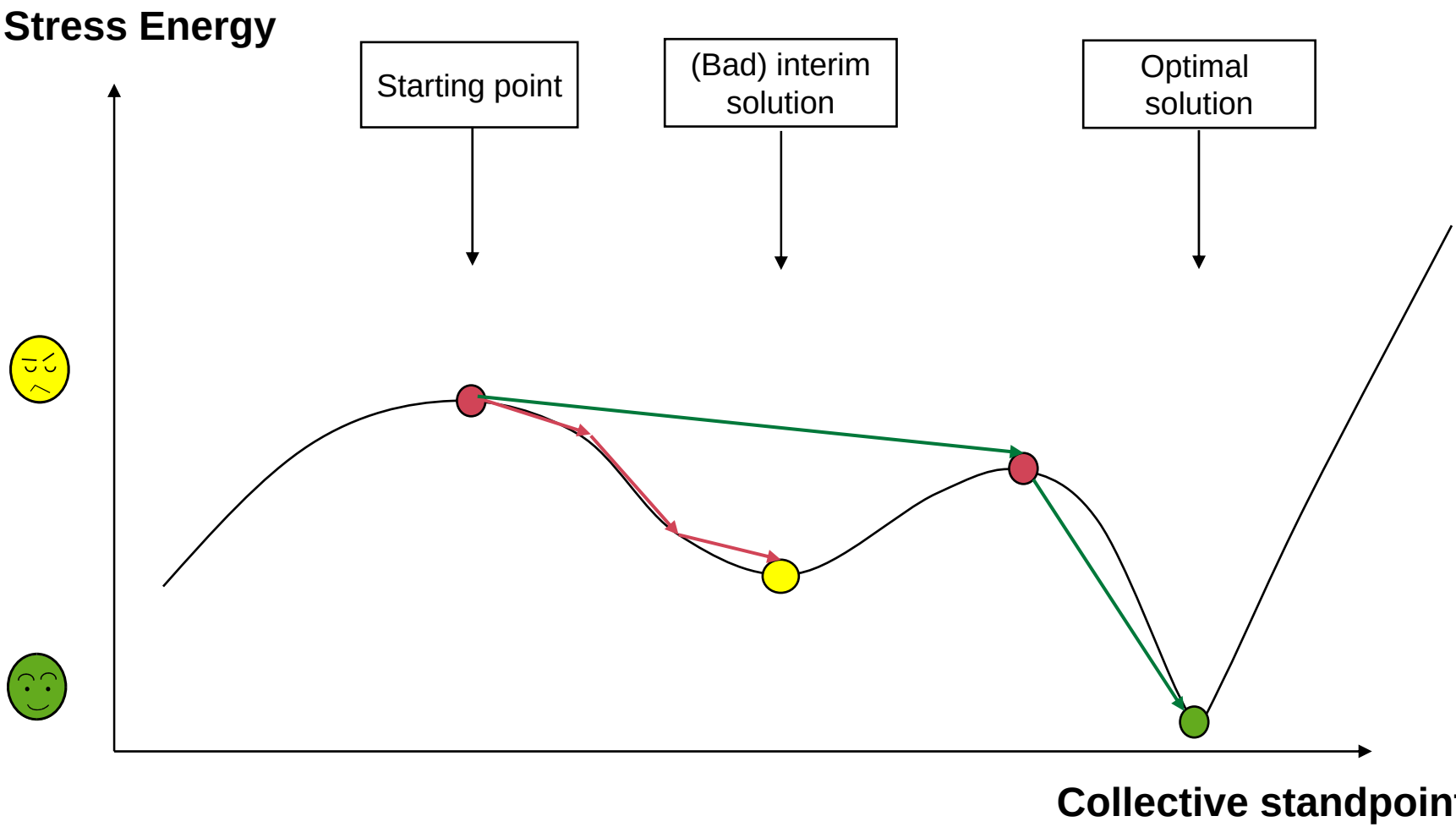
Finding of a collective standpoint is an iterative process minimizing the stress energy



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Seven heuristically *rules* for finding a quick path to a collective standpoint

- Don´t believe that your discussion partner understands you initially or that you understand him or her.
- Don´t believe that the context of the topic in discussion is completely known to all.
- Provoke opposite views in order to check the stability of the common view of the discussed topics
- Be always aware of your body language and those of the others
- Eliminate disagreements immediately, even if they are only tangible
- Summarize your point of view with your own words and let summarize results in the words of your discussion partners
- Only be satisfied with a result of a discussion, if the result is emotionally satisfying to all

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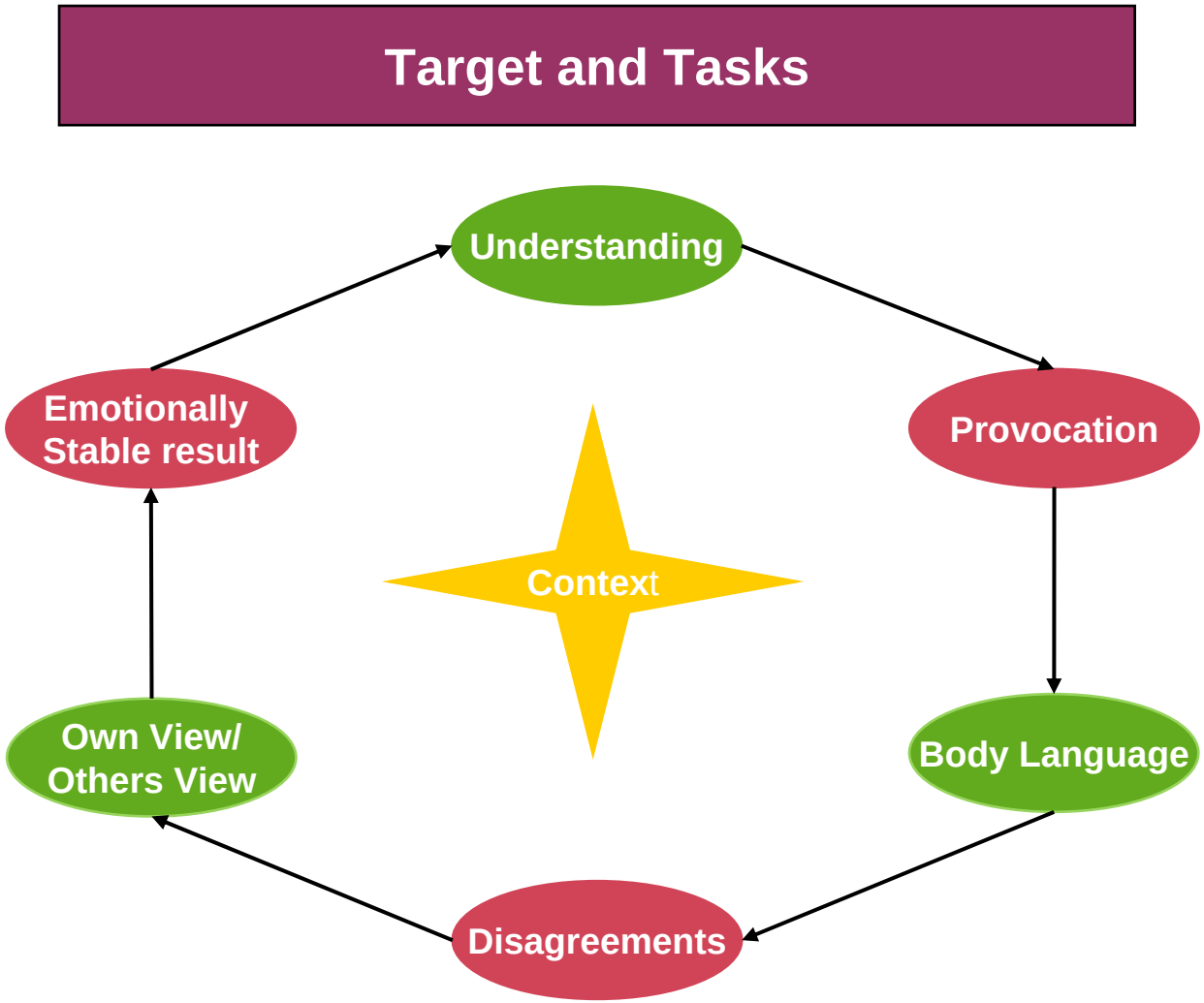

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Knowledge on temperaments supports to cope with different working styles: Examples of different temperaments (www.keirsey.com)

Promoter Promoting tasks and targets	**Inventor** Creating ideas and visions
Inspector Building structured work, demanding of roles and responsibilities	**Mastermind** Deep understanding and solving of problems

- **Lifted off**
- **Spontaneous**
- **Down-to-earth**
- **Highly Structured**

Observant, “Pragmatic”

Intuitive, “Non-Understandable”

Summary and “take home messages”

- **Do you know about all your processes?**
- **Do you care about your data and information?**
- **Do you cultivate a communication culture?**