

# Management by Competences

»» Experience intermezzo I



# Building Usefulness in Mycroft Mind, a.s.

- ▶ Objective
  - ▶ to give you an overview of how the building of usefulness may look in practice
    - it is never an easy way
- ▶ Outline
  - ▶ Beginning
  - ▶ Searching for usefulness
  - ▶ Lessons Learnt
  - ▶ New usefulness

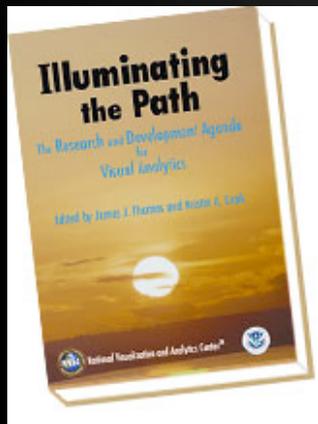


# In the beginning...

- ▶ Founded in spring 2007 as a spin-off of Masaryk University
  - ▶ Technology company
  - ▶ 20 people
  - ▶ 14 R&D team members
    - ▶ all of them students or graduates of FI MUNI
    - ▶ three years experience in conceptual and universal modeling in practice
  - ▶ old MM logo



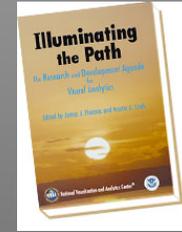
# Inspiration source



## Formulation by National Visualization and Analytics Center, Department of Homeland Security

- Illuminating the path
- A major objective for NVAC is to define a long-term research and development (R&D) agenda for visual analytics to address the most pressing needs in R&D to facilitate advanced analytical insight.
- <http://nvac.pnl.gov/agenda.stm>

# Inspiration and motivation

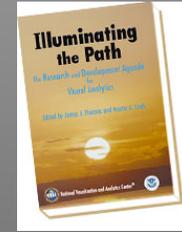


For centuries we have been improving our ability to collect information, and this will continue.

However, our ability to analyze this information is sorely lacking.

The information is massive, complex, incomplete, and uncertain.

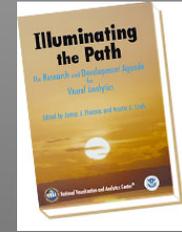
# Inspiration and motivation (cont'd)



Technologies are needed that will support the application of human judgment to make the best possible use of this information and share it with others as appropriate prevent, deter, and respond to threats!

- Create visually enabled tools to support collaborative analytic reasoning about complex and dynamic problems
- Develop both the theory and practice for transforming data into new scalable representations that faithfully represent the content of the underlying data

# Inspiration and motivation (cont'd)



## The visualization must

- Facilitate understanding of massive and continually growing collections of data of multiple types
- Provide user- and task-adaptable guided representations that enable full situation awareness while supporting development of detail actions
- Facilitate knowledge discovery through information synthesis, which is the integration of data based on their meaning rather than the original data type

# Usefulness (2007–2009)

- ▶ The basic idea of MM being useful was to provide an universally usable platform comprising technologies that are
  - ▶ possessing the aforementioned characteristics
  - ▶ easily applicable to build an visual analytics solutions on demand
- ▶ Our mission was to provide:
  - ▶ “Insight into networks”
- ▶ Networks of our primarily focus were
  - ▶ computer networks
  - ▶ sensor networks



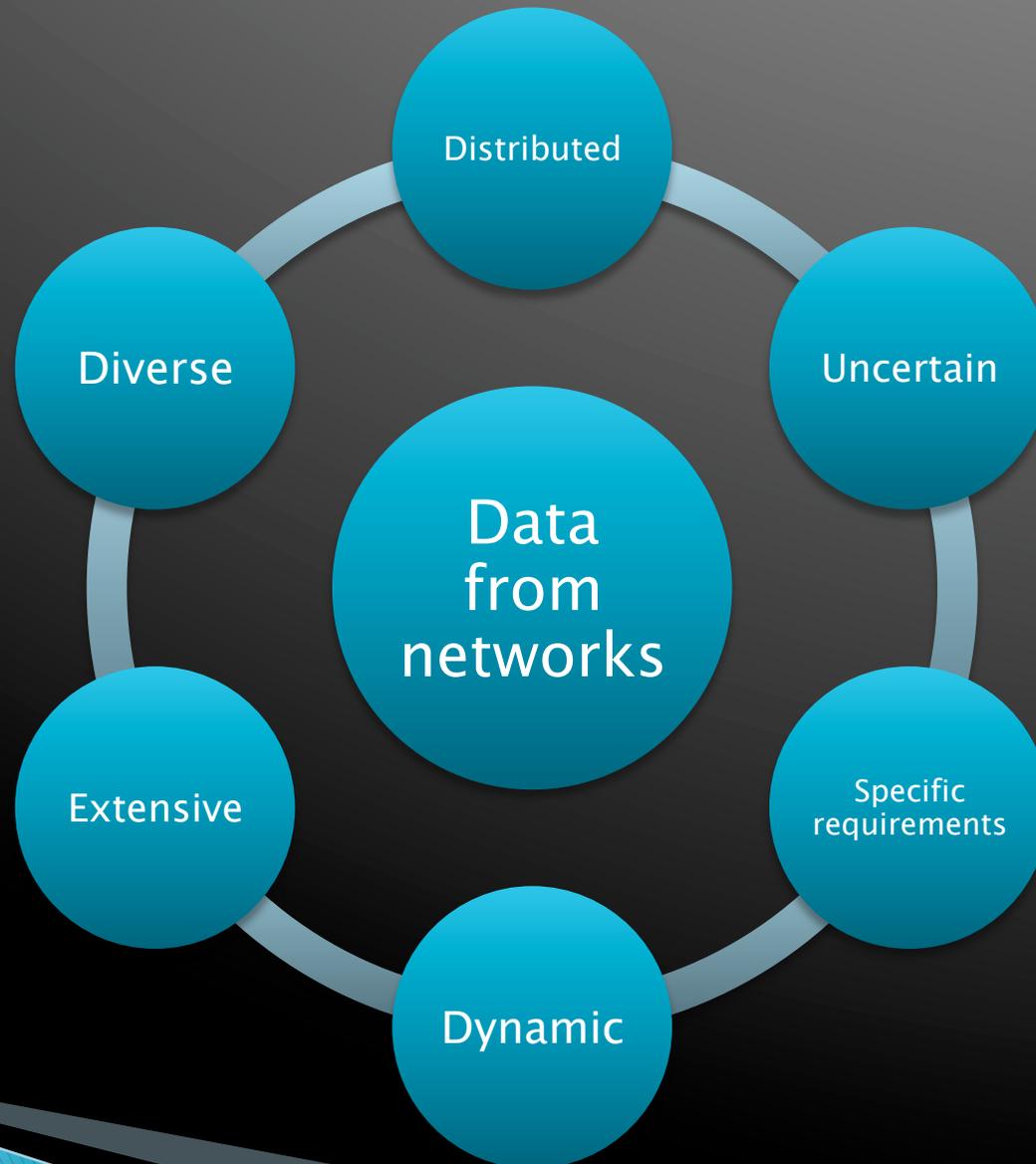
# Value of a network

Untapped data

Hidden connections/relationships

Dynamic events represent opportunities or threats

# Six barriers



Searching for the usefulness

# Overview of the solution

## Data Space

Databases

XML files

HTML files

Log files

...

Provide information from data space which will help to achieve user goals

Mycroft engine

## Goals

Alert on emerging opportunity

Alert on emerging threat

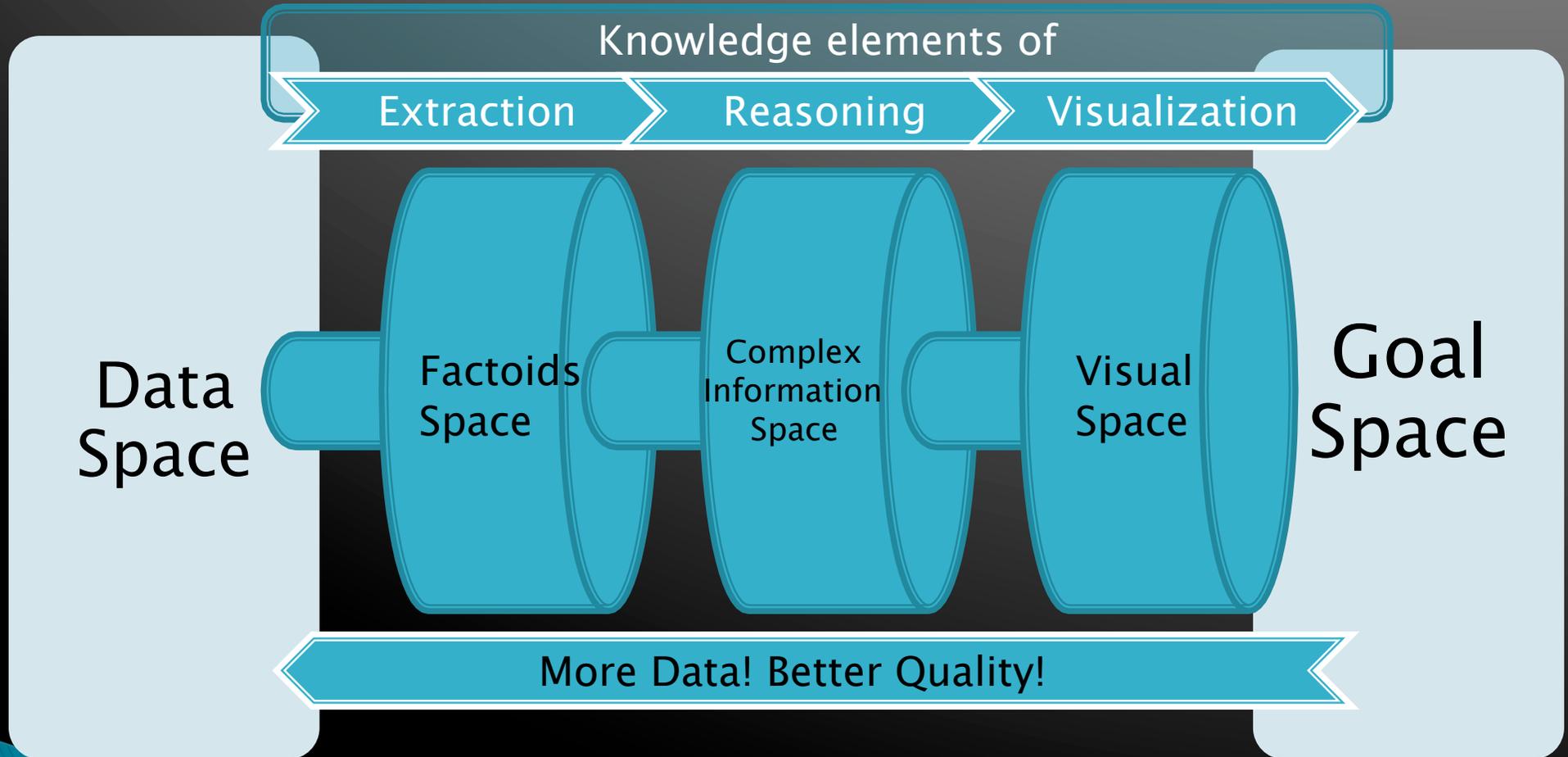
Insight to context of information

...



Searching for the usefulness

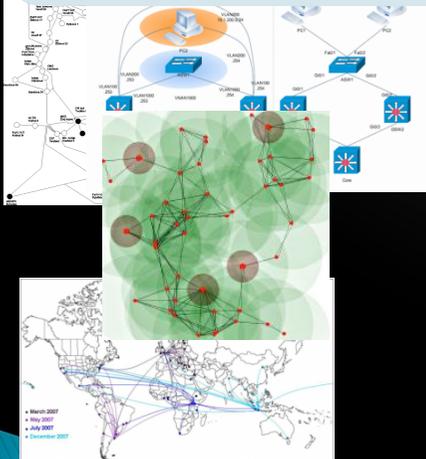
# Mycroft engine functioning



# Solution construction

## Data driven construction

Which opportunities and threats we are able to recognize in available data space

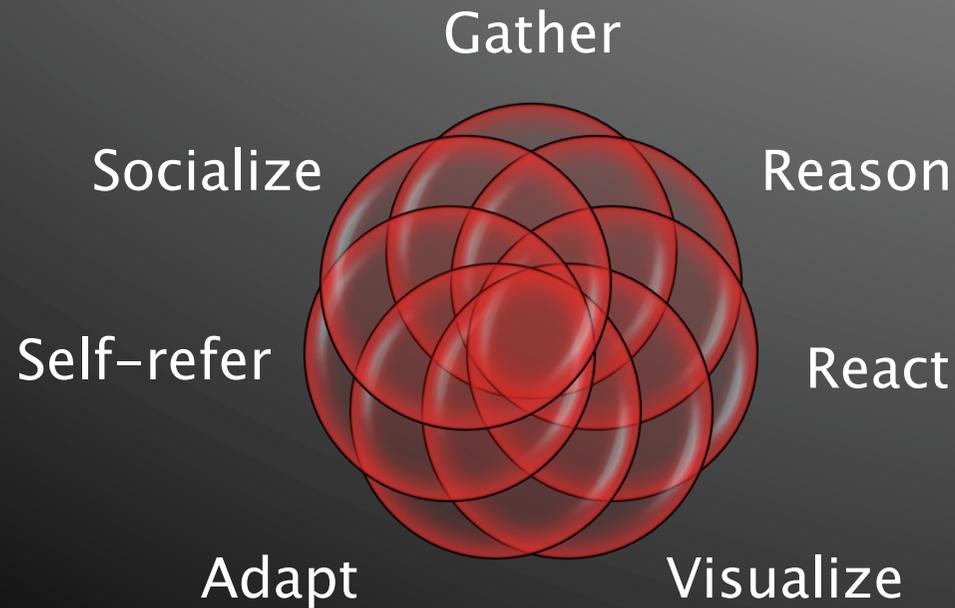


## Goal driven construction

Which opportunities and threats we want to recognize in our business

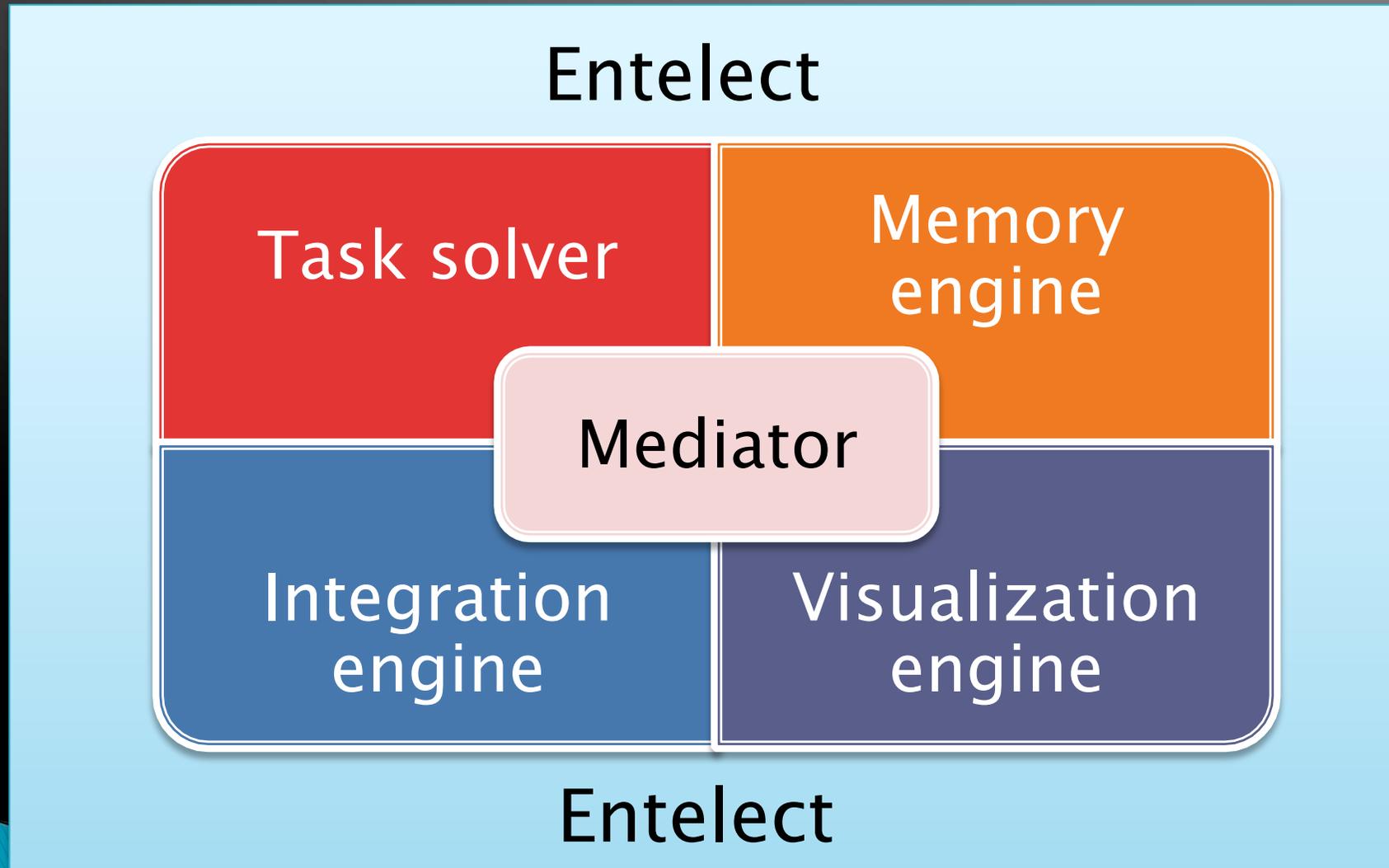
Searching for the usefulness

# Mycroft key abilities scheme



The combination in one single system of the above abilities, which enhance each other, makes the Mycroft engine powerful and unique.

# Mycroft engine components



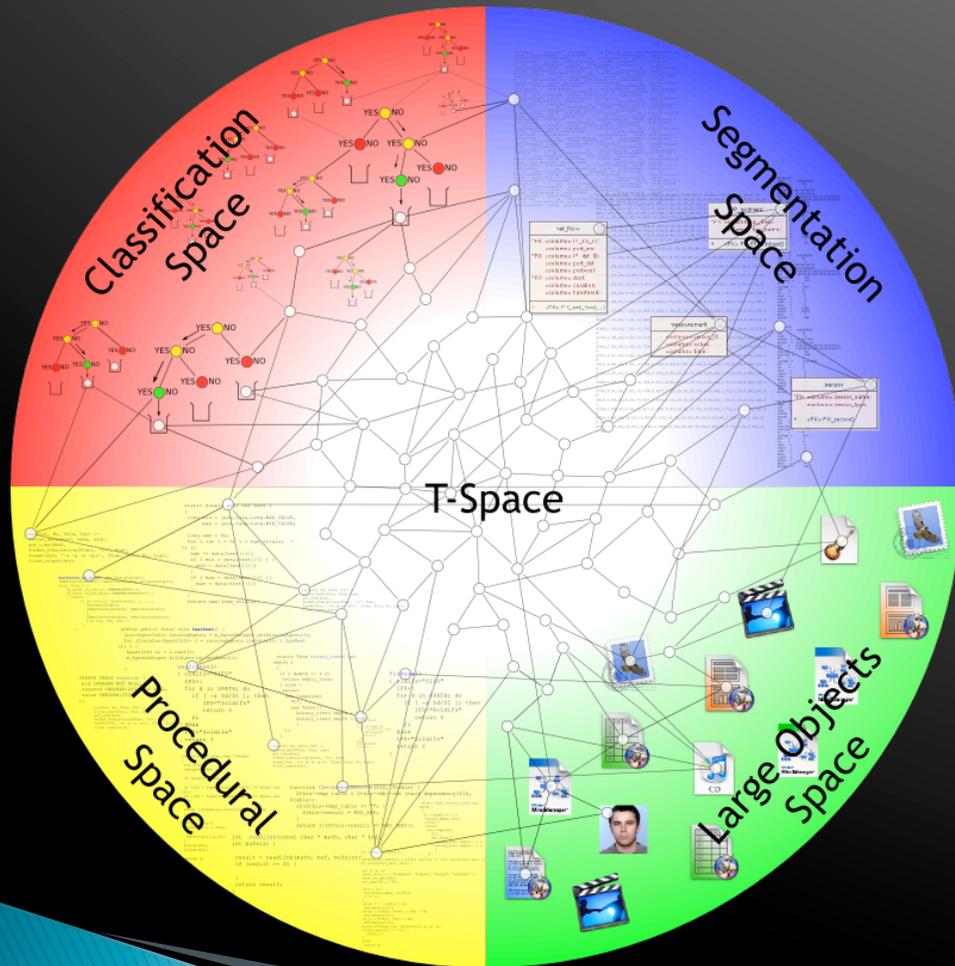
# Mycroft Engine Applications

- ▶ MyNetScope generation 1
- ▶ BuidlingScope generation 1
- ▶ MyShop and AskAround
  - ▶ only partial usage (memory and task solver)

# Mycroft Engine Applications Evaluation

- ▶ MyNetScope and BuildingScope generation 1
  - ▶ gens1 were catchy at the presentation but hard to use in daily routine
  - ▶ robustness and stability issues (Java + Caché + Prolog)
  - ▶ gens2 based purely on Caché
    - ▶ MyNetScope was successful and have been sold within Mycroft Mind subsidiary AdvaICT
    - ▶ BuildingScope was developed too early in respect of current customer needs
- ▶ MyShop and AskAround
  - ▶ underestimation of the business part
  - ▶ multi-sided (e-shops and its customers)
  - ▶ project was abandoned

# Memory engine



Robust memory engine

Combination of SQL (S-SPACE), semantic networks (T-SPACE) and trees (C-SPACE)

Allow to handle huge, context dependent, uncertain and inconsistent data

Allow to quickly recognize complex behavior patterns occurring in time

Based on Caché database from InterSystems

# Lessons learned

## Technology alone is never interesting for business!

- You need its applications that illustrates the value!
- What is more, you need its successful applications!
  - Successful applications mean that they are really helpful to someone.

## The details are very important!

- Your VP has to be as specific as it can be for every customer segment!
- The features of your product or service must support the VP details in very straightforward way!

## It is easier to align your business with already existing field!

- People will understand what you are doing easier.
- You gain their trust easier.

## Even partial success is very important for motivating people!

- Many from the R&D people left in the beginning of 2010.

## Get business aspects or better people involved at the very beginning!

- Our primary interest was in technology and technical solution, as we are technical people.

# Lessons learned in respect to MbC

We were able to enthuse all visionaries with our intention.

However, we had only general sense of the value we offered to customers.

We were too abstract in our VP thus customers did not see easily that they have problems we are here to solve!

Subjects



Needs



Services  
Products

# Usefulness (2010–)

- ▶ Fundamental strategy revision was done in the beginning 2010
  - ▶ MM start to shift from pure technology company to application and solution provider
  - ▶ Alignment with Complex Event Processing (CEP)
  - ▶ visit [www.mycroftmind.com](http://www.mycroftmind.com)
- ▶ Principles behind remain the same and consistent, but the message to the outer environment changed
  - ▶ That makes Mycroft Mind more readable and understandable by prospects, potential partners, investors...
- ▶ New mission statement
  - ▶ “Distilling oceans of data into flows of valuable information!”
- ▶ First contract for CEP solution signed in Q1 2010
  - ▶ Experience from its realization will be introduced on 18<sup>th</sup> March within PV055 course

# My role in Mycroft Mind, a.s

2007–2009

- member of R&D team
- focus on design and analysis of memory engine
- project management methodologist
- development and implementation of metaprocesses and supportive tools

2010

- Chief Technology Officer
- responsibility for revision and adoption of new technologies to be used for CEP-based solution provisioning
- new business cases evaluation
- HR Manager
- project management methodologist

2011

- Chief Analytics Officer
- responsibility for revision and adoption of new procedures, methods, techniques and tools to create and deliver new CEP-based solutions more effectively
- new business cases evaluation
- project management methodologist