Reactive Capabilities
- Decouple (re)active functionality from active DBMS
  - Service-Oriented Architecture (SOA)
  - Event-Condition-Action Rule Engine
    - constructed composing other services
      - complex event detection, event filtering, alarm, event logging, condition evaluation, action execution,...
    - components combined and configured according to the required functionality and scenario
  - Interaction with various systems through plug-ins
- High-level definition of rules
- context-sensitive
- Flexible and extensible
- non-monolithic piece of software

Main Contributions
- Autonomous, flexible and extensible (re)active functionality service
- Novel approach for event composition in distributed environments
- Correct interpretation of events coming from diverse sources
- Proof of concepts
  - vehicle personalization, Meta-Auctions

Problem Analysis
- Common functionality required
  - data exchange
  - data dissemination
  - continuous monitoring
  - appropriate reaction to simple and complex situations
  - often events need to be processed in real time
  - full-fledged DBMS functionality is not always needed

Dealing with data heterogeneity
- Use of the MIX Model
  - definition of concepts and their relationship
  - conversion functions
  - explicit additional context information
  - representation of data plus additional semantic metadata
  - allow correct data interpretation

Event dissemination
- Provide a higher level of abstraction to describe the interests of publishers and subscribers
- Events represented using MIX
- Subscribers can specify their assumptions
- The notification service delivers ready-to-process events to subscribers