Optimizing QoS-aware Service Selection for complex Service-based Workflows

- Efficient and flexible workflow execution indispensable in competitive markets
- Interoperability as well as integration of legacy systems and external services necessary

- Service Selection Problem (SSP) for complex workflows
- Workflow QoS for arbitrary combinations of structured and unstructured workflow patterns
- Stochastic QoS

- QoS aggregation for structured and unstructured workflow patterns
- QoS-aware service selection for complex workflows
  - Approach for computing optimal solutions to the SSP
  - Heuristic approach to the SSP addressing scalability issues
- Greedy Adaptation Heuristic accounting for stochastic QoS
  - Simulation of service compositions
  - Approaches for adapting to QoS deviations
  - Reducing arising cost due to QoS violation