Overview BE06

• BE06 Goals:
  – Large scale multidisciplinary compute grid
  – Business models for license management
  – Designing, implementing and validating solution

• BE Details:
  – Duration: 20 months
  – Economic sector: SMEs providing services for groundwater modelling
BE06 - The Problem

- Critical point
- Optimized pump station
- Pump station
- Pressure line
- Flood barrier
- Lake
- Rhein
- Borderline
Main Objectives and Challenges

Main objectives:
• Integration of a new discipline on a grid infrastructure: “Groundwater Modelling”
• Combination of numerical simulation with mathematical optimization algorithms
• Integration of Grid based backup mechanisms and data stores
• Development of new business models to solve current license management problems

Challenges:
• Economical suitability for service providers as well as for end customers
• New business models for collaboration in a multidisciplinary international grid-economy
Expected Results & Impact

• Anticipated output:
  – Software package of industrial implementation for groundwater modelling

• Benefits of using a Grid solution:
  – Allow cost-effective and optimized solutions
  – Perform more complex computing tasks
  – Thereby provide better forecast possibilities for environmental state
  – Reduce …
    • … total cost of ownership
    • … administrative overhead
    • … computation time

• Exploitation intentions:
  – Adoption and usage of developed solution by other companies
  – Adaptation of developed solution to other scenarios
THANK YOU