Scenario Management System

Sascha Schlobinski – cismet GmbH
Topics

- SUDPLAN Scenario Management System
- Core Functionalities
- Potential Use
- Background
Scenario Management System

- DSS-environment (scenario management system)
- Users define, manage, execute & explore different decisions & simulate decision scenarios
- visualisation, comparison & documentation of different decisions
Core Functionality

- Common Service User Interface:
  - To access climate data,
  - Use downscaling functionality provided by CS

- Data Export and Import:
  - To connect with local systems

- Comparison Features: Time Series & Gridded Data
  - To evaluate the impact of climate change
Core Functionality

- Model Control Facilities:
  - Model Parametrisation, Execution, Result Management, Visualisation
  - to manage experiments

- Support Urban Planning:
  - Facilities that help to build an climate change enabled information system to support urban planning
Potential Use

- To access climate information
  - (projections of environmental parameters affected by climate change)
- To add the climate change aspect to your own data
- To evaluate the effects of climate change
- To export the results to be used in your own information system
- Or to build a climate change enabled information system to support your local urban planning problem
Required Level of Genericity

- Develop a Solution that can be the basis of a potentially **large number of concrete EIS and DSS** (transferability)

- Develop a platform that supports a large number of tasks in this context
- Cannot be built from scratch in a research project
- Basis for developments **cids** geointegration platform
cids can be effectively used to build

- Information systems with a spatial context
- Information systems for which the integration of legacy systems
- Information systems, to be built up iteratively due to their complexity or size
cids key features

- *cids lowers system barriers & provides cross system & topic data management, search, analysis, visualization & reporting functionalities*

- *It comes with:*
  - Data management & data integration
  - User Management & Access Control
  - Integration of standard based OGC map services (WFS, WMS)
  - Powerful search & research function with or without spatial context
  - Extension Framework to build custom information systems
cids core components

- cids service platform
- cids development and management tools
- cids Navigator
- cismap
cids is Open Source

- **cids** is completely based on Open Source Technologies & is available under an **Open Source license**. The application of the cids integration platform & its components does not cause any initial costs

  - https://github.com/cismet

  - https://github.com/cismet/cids-custom-sudplan
Examples of information systems built with cids

- City information management
- Water body information system (WFD)
- Spatial Facility Management (Airport)
- Environmental Information System
- Scenario Management System
Example: City Information Management

- WuNDA
  - Informationhub
  - 28 topics (incl. ALKIS-Frontend)
  - Webgis functionality
Example: Water Body Information System

- FIS Wasser
  - complex water body information system
  - highly interactive maps
  - reporting for the WFD
Example: Spatial Facility Management

- Airport maintainance
- Map/CAD integration
- Ad hoc business processes
Example: Environmental Information System

- ANAITE
  - Model integration
  - Visualisation
  - Risk Assessment
Scenario Management System

- **SUDPLAN**
  - Model coupling
  - Model control
  - Advanced visualisation
Integrated Scenario Management System

- Common Service integration and user interaction support
- Comparison Framework to support Scenario Comparison
- Model Management (Asynchronous Model Execution Framework)
- Integration Support for Local Models and Data
- Globe based 3D Component
- Visualisation Wizard for end users to select visualisation techniques
WP 3: Scenario Management System

Common Service Integration
Scenario Comparison

- Time Series Comparison Framework to support Scenario Comparison
  - Flexible, interactive visualisation
  - Comparison by visualisation
  - Comparison by operation
  - Maintain spatial context

- Enhance Integration Support for Local Models and Data
  - OGC SOS and SPS service and client counter part
  - Local data import facilities
Model Management

- Enhanced Model Management (Asynchronous Model Execution Framework)
  - Quick & easy integration of models supporting status polling and user notification
  - execution recovery & continuous model status monitoring
Integrated 3D/4D Visualisation

- **Globe based 3D Component**
  (using World Wind SDK)
  - provides many standard GIS features
  - Geospatial service support
  - Comfortable navigation

- **Visualisation Wizard**
  - select suitable visualisation techniques
  - Independence from data source
  - Extendable visualisation collection
  - Intelligent proposal
  - Simple user interaction
Scenario Management System is based on open source and freely available geointegration platform cids

Scenario Management System provides user interfaces to services that offer projections of environmental variables affected by climate change

It can support you to access, visualise, compare and export this data

It can even support you to build your own climate change enabled application to support you in urban planning
Thank You