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**Launching a GIS-based floor-
space management system at
Grün Stadt Zürich (GSZ)**

Dr. Peter Brun
Grün Stadt Zürich

Dr. Michael Heiß
IP SYSCON GmbH



Launching a GIS-based floor-space management system at Grün Stadt Zürich (GSZ)

Dr. Peter Brun (foil 1 to 5)

- About Grün Stadt Zürich
- General Project Objectives
- Project Schedule & Scope

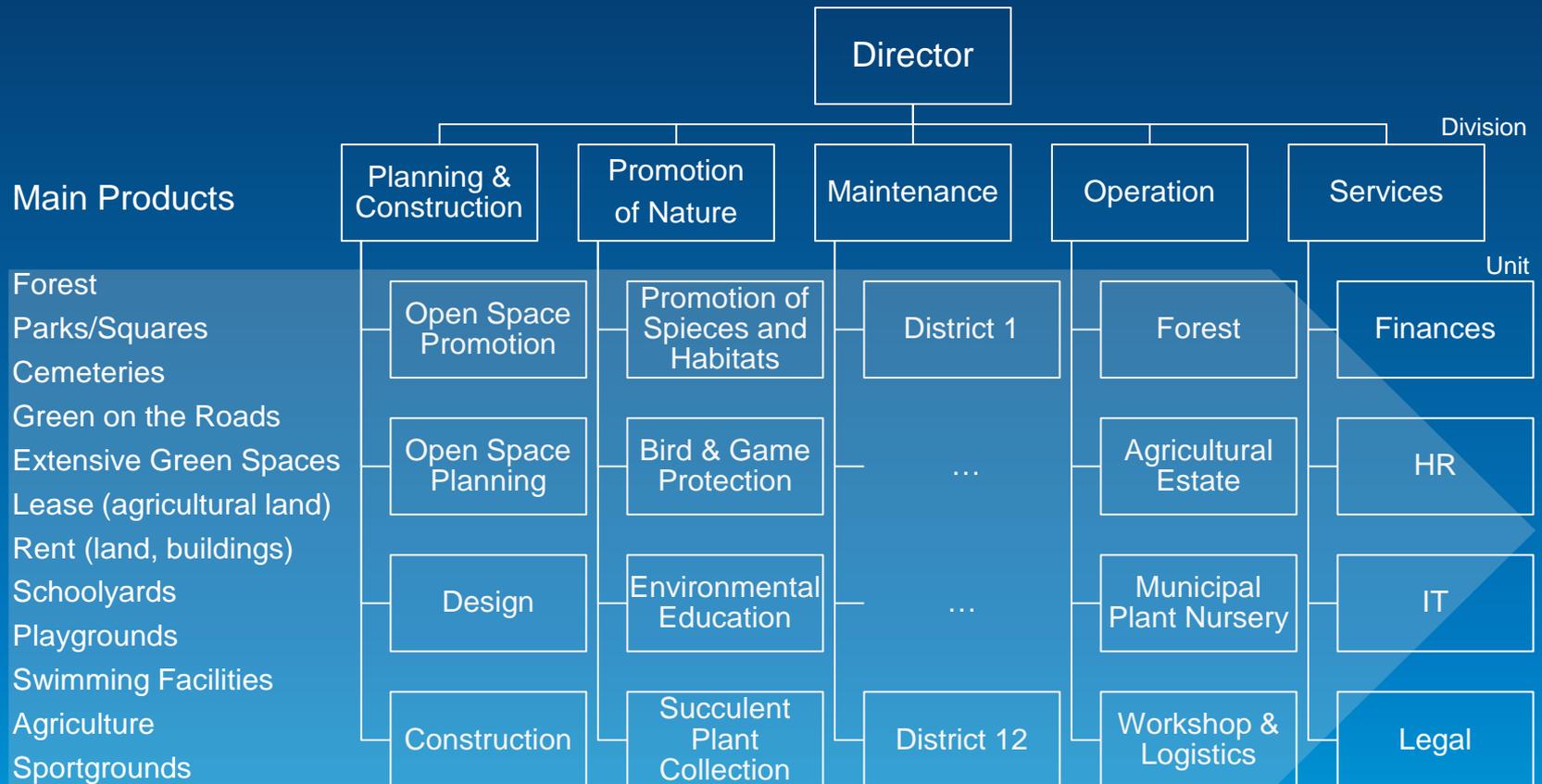
Dr. Michael Heiß (foil 6 to 12)

- *Concept study objectives*
- *Data model / System architecture*
- *System customizing and extension*

Office of Parks and Open Spaces Zurich

- is part of the Civil Engineering and Waste Management Department Zurich
- consists of 5 divisions
- has approx. 430 employees
- plans, builds, maintains and operates approx. 4'300 ha of public open space including
 - **300 parks and squares**
 - **20'700 road trees**
 - **19 cemeteries**
 - **150 sport grounds, playgrounds and swimming facilities**
 - **2'200 ha of forest**
- provides to the public:
 - **Relaxation**
 - **Leisure and recreation**
 - **Experiences in nature**
 - **Conservation of nature and the countryside**
 - **Retention of land reserves**

(Matrix) Organisation of the office



Product Manager vs. Head of District

Product Manager's responsibilities

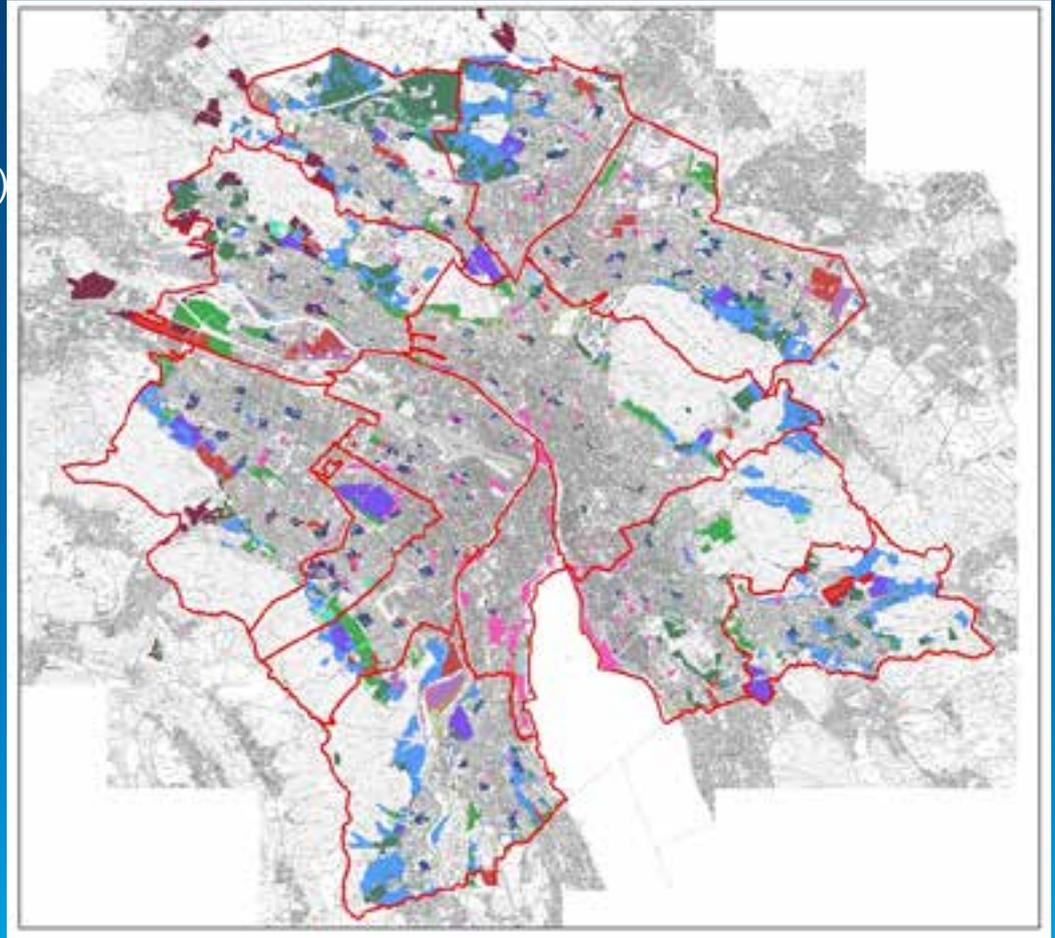
(18 product managers; 28 products)

- planning (jointly with project leader)
- designing / building (jointly with project leader)
- renting / leasing
- controlling and reporting
- consulting services
- definition of maintenance service levels
- overall product budgeting
- public administration duties

Head of District's responsibilities

(12 districts; 12 Heads; approx. 230 employees)

- maintaining according to product budget
- placing orders (supplier mgmt.)
- make budget



Project Schedule

- Project initiation Jan. 2009
- Project (re)launch Oct. 2011
- Basic concept study created (in house) Jul. 2012
- Public invitation to tender finished Nov. 2012
two-stage tender procedure
 - Detailed concept study for implementation
 - System development / system adaption

- à Awarding „IP SYSCON“: Apr. 2013
- Concept study for implementation provided Aug. 2013

- *Second-stage-contract conclusion* Oct. 2013
- *Prototyping and testing finished* Mai 2014
- *Roll out completed* Jul. 2014
- *Project closure* Nov. 2014

Project Scope

Intention:

Substitute an outdated GIS-based 'green-space-inventory' with a modern and easy to handle and upgradable GIS tool supporting the business and management requirements and processes throughout all levels.

Main objectives:

- § Centralize geographical, technical and meta data
- § Implement the product structure
- § Implement the business processes
- § Mapping the modular structure of the office
- § Introducing a role based user access model
 - **Product Manager:** power user → edits information
 - **Head of District:** normal user → receives information *in the future: allocates tasks*
 - **Secretariats:** normal user → retrieves information
- § Integration into internal (e.g. SAP) and external systems (e.g. cadastral survey)
- § Generating a Task Management System with memory function (e.g. leasing contracts)
- § *In the future: Mobile-GIS*

Further requirements: e.g. Archiving, Controlling, Reporting, Journaling



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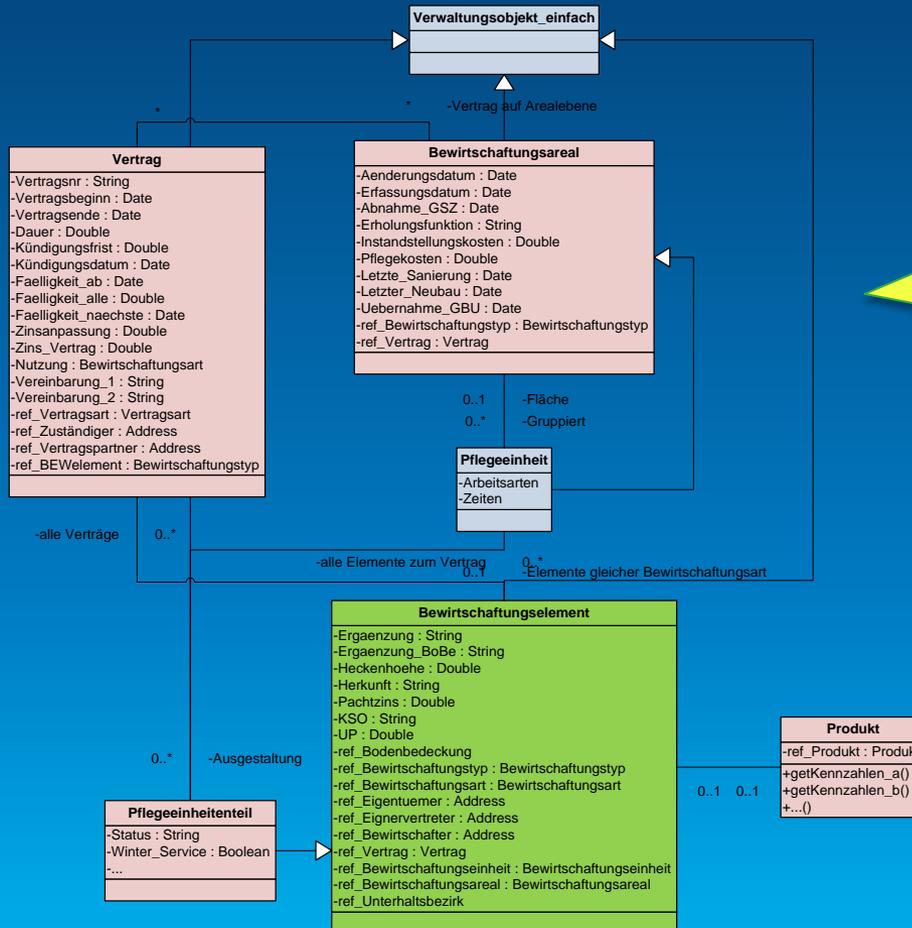
Concept study – Objectives

Floor-space Management System = FMS

- § The concept study delivers the basis of adaptation and implementation of FMS,
- § it defines the technical, content related and organizational requirements,
- § it describes the functions referred to a web-based information retrieval system
- § it specifies the necessary features for data capture, storage and evaluation and
- § it determines the measures to assure a high data quality.

Concept study – data model

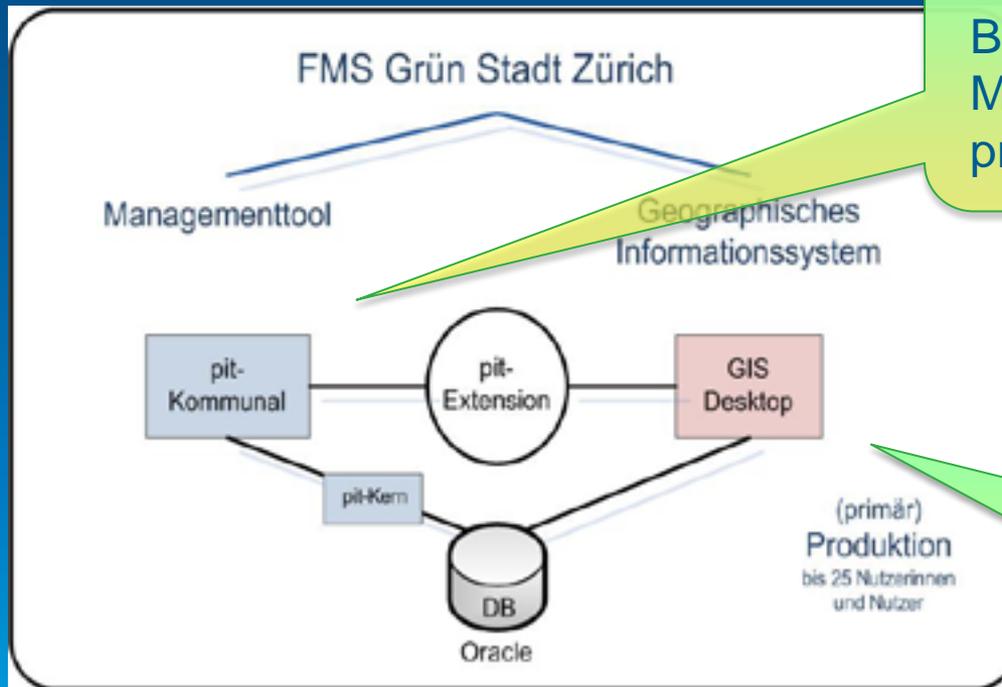
§ The implementation of the FMS is based on a a well prepared data model .



Our slogan:
As close to the
standard as possible,
as customized as
necessary!

Concept study – system architecture

- § The FMS consists of two parts: the management tool (based on pit-Kommunal and a GIS (based on Esri ArcGIS).



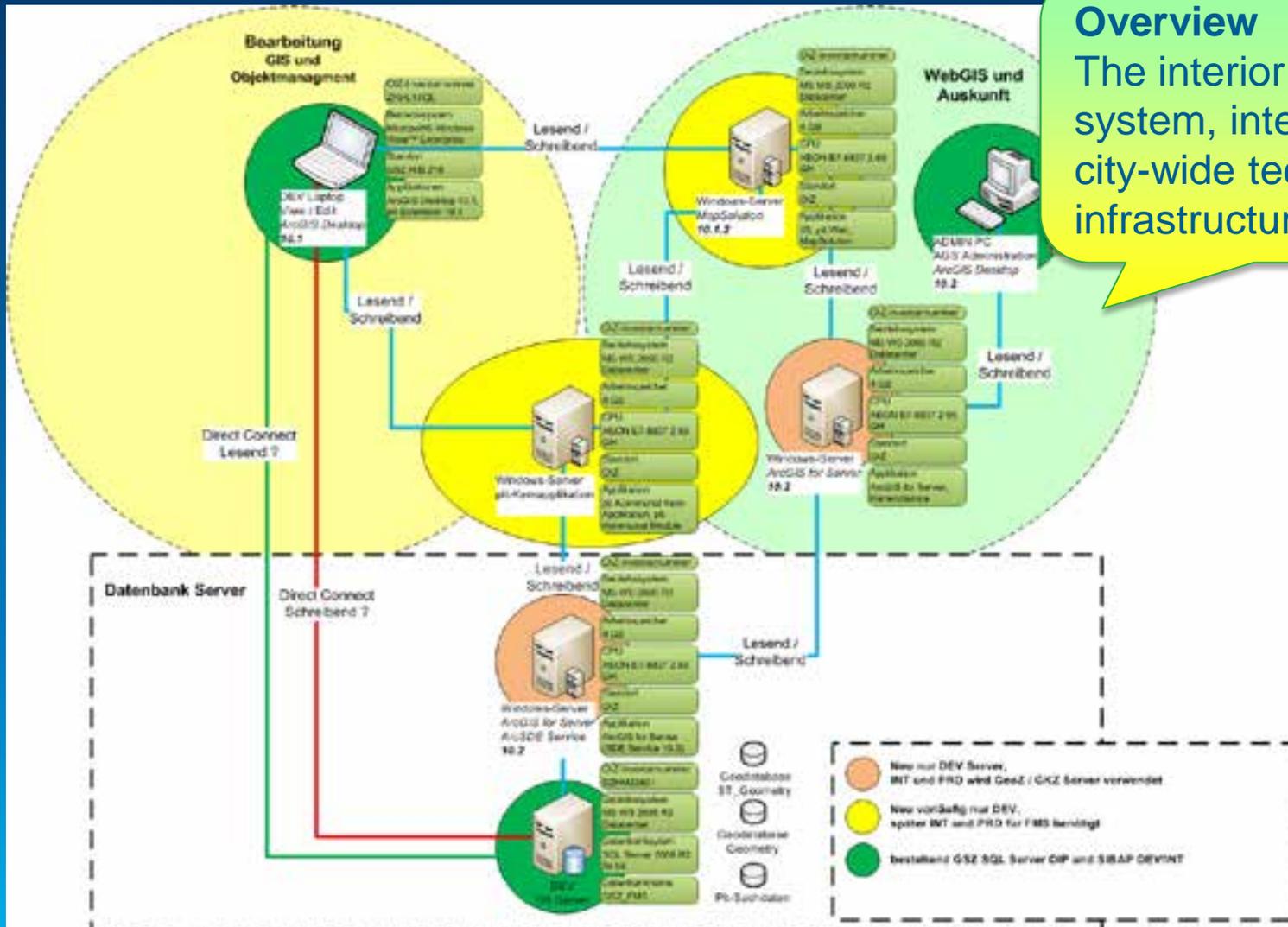
Pit-Kommunal

Broad offer of Green Management tools, provided by IP SYSCON.

Esri ArcGIS

The FMS relies on the long experience of the GIS worldleader.

Concept study – system architecture



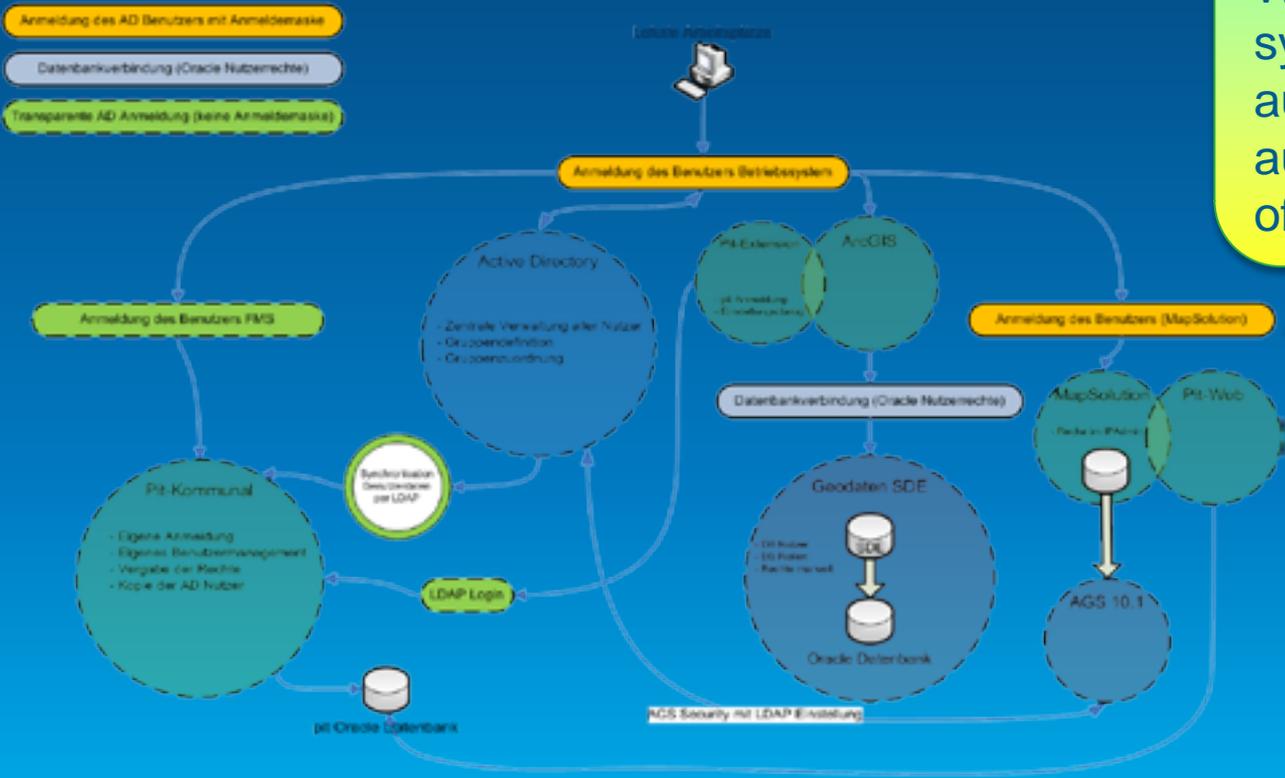
Overview

The interior of a complex system, integrated in a city-wide technical infrastructure.

Concept study – authorisation concept

§ As part of the concept study, an authorisation concept was designed, coordinated and adopted.

LDAP integration:
When logging on to the system, the user is automatically authenticated for the use of FMS modules.



Conclusion - What's been achieved?

- § Upon completion of the concept study, the realisation can start.
- § The data model is able to execute the required user specifications.
- § The design of FMS makes available evaluation, reporting and controlling on an interdisciplinary level.
- § The fine structure of the FMS is able to differentiate between the main products of Grün Stadt Zürich.
- § The information retrieval system is designed on different levels.
- § An enhanced communication between FMS and SAP will be provided as a basic service.
- § And – last but not least – customizing and extension of the FMS base on a reliable model. That saves resources and money.

**Thank you very much for your kind
attention!**

Dr. Peter Brun

Dr. Michael Heiß

