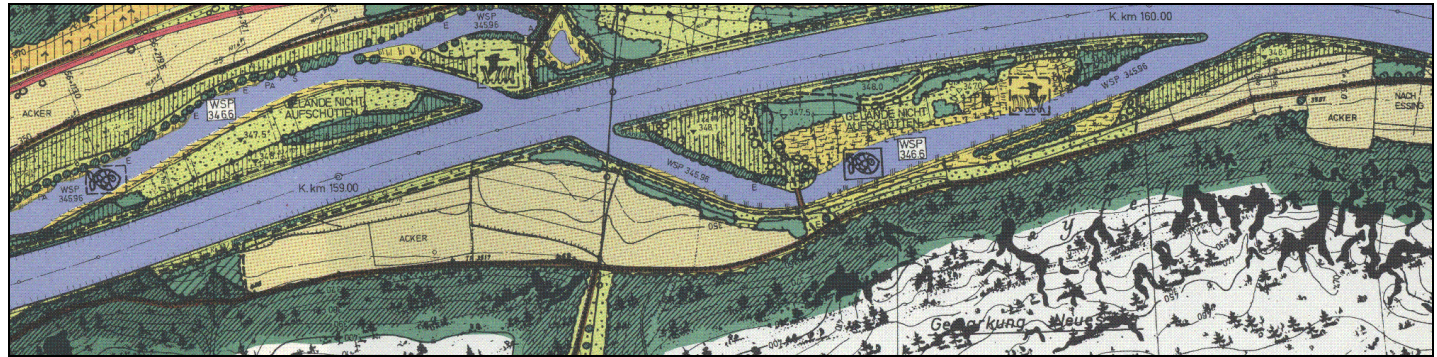
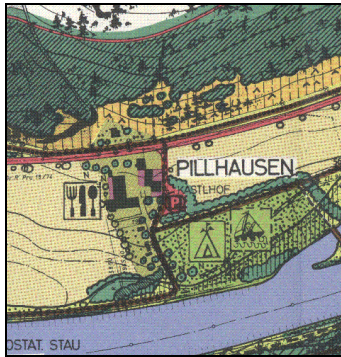


# Main-Danube-Canal: Experiences after 20 Years of Operation



## Controlling the Success of Landscape Conservation Planning Targets

RMD Wasserstraßen GmbH  
PIANC AGA Berlin, 18. May 2011



# Content of Presentation - Main Points

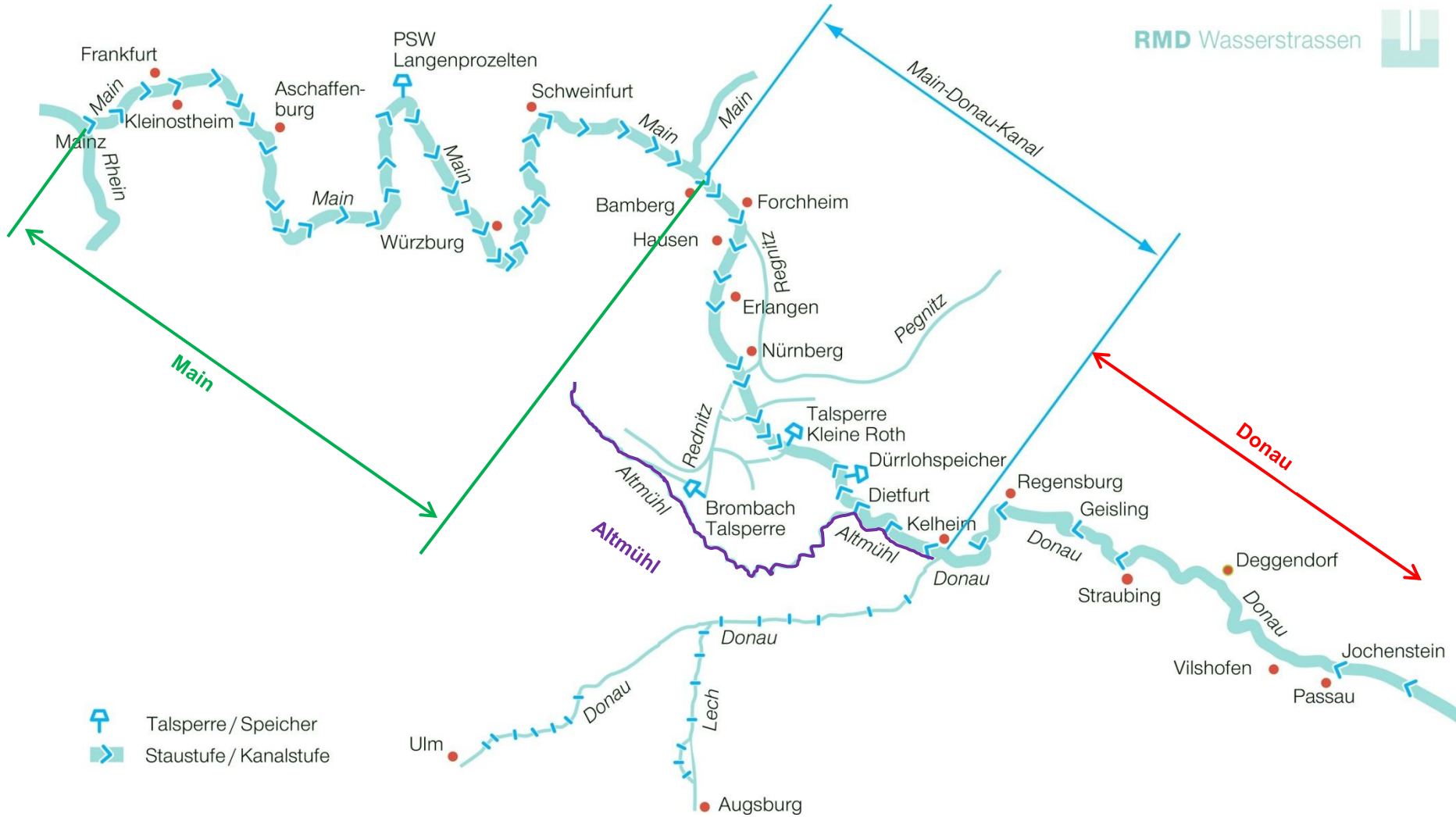
1. Main-Danube-Canal (MDK)
2. Landscape framework plan/Landschaftsplan Altmühltal
3. LBP section Kelheim and Riedenburg
4. Method of controlling the success of measures
5. Goal achievement section „Kelheim“ and „Riedenburg“
6. Summary



# Main-Danube-Canal/European Transportation Route

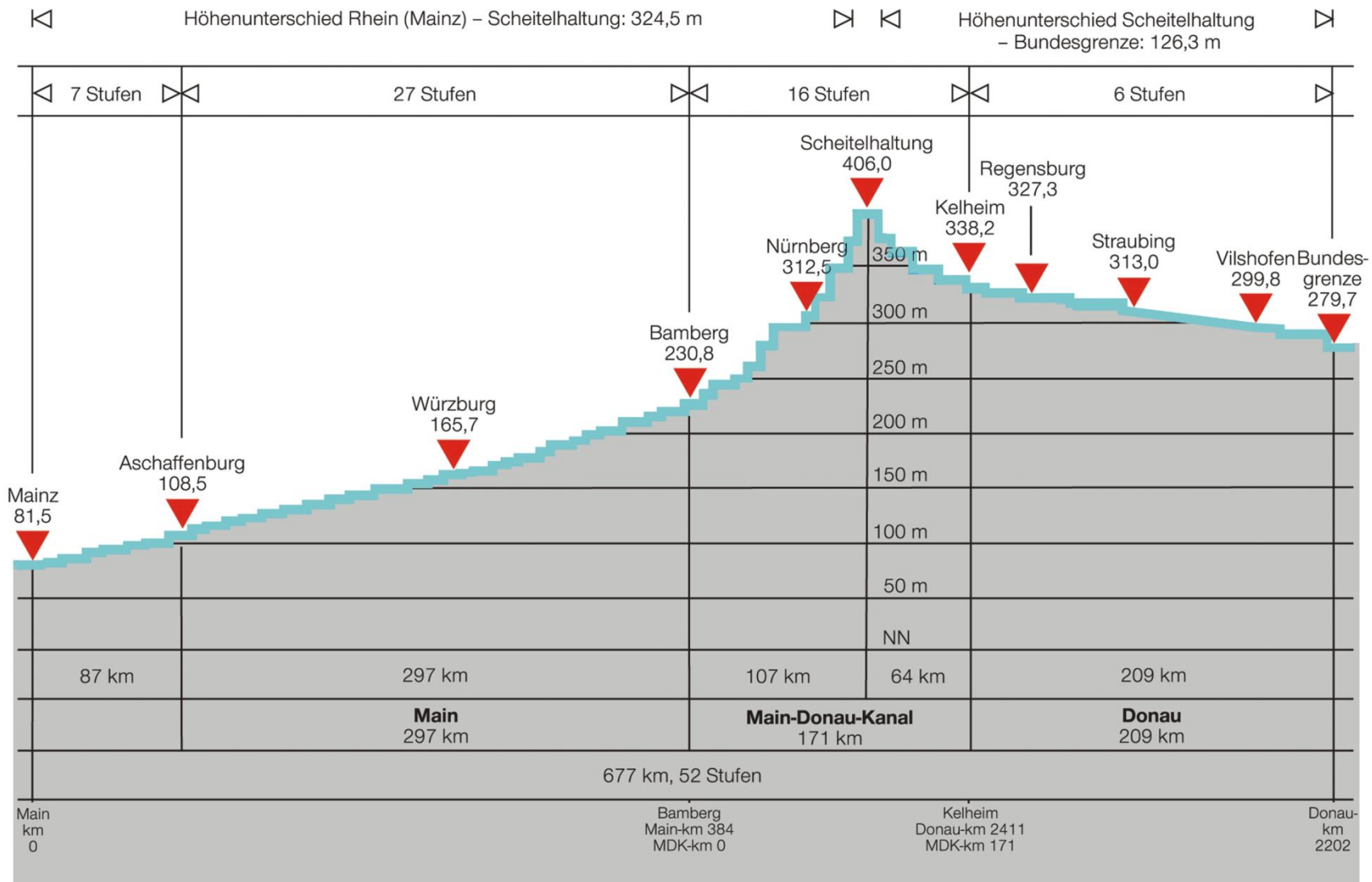


# Technical Concept





# Contour Map



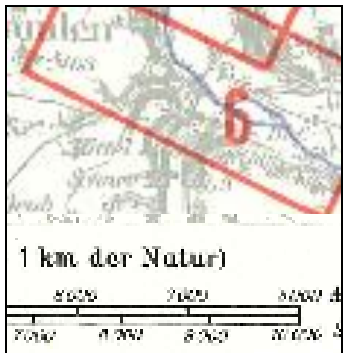
# Landscape Framework Plan



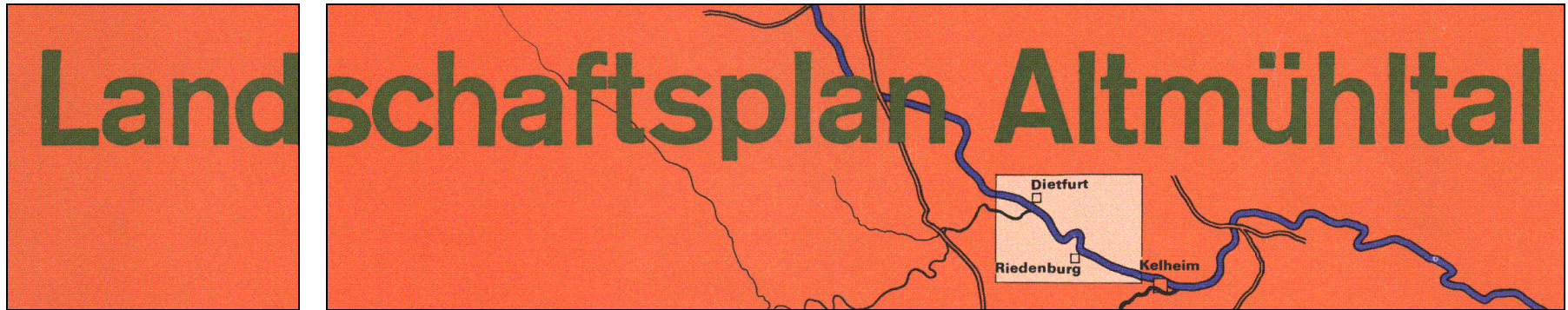
- MDK 30km in the valley of Altmühl
- Altmühltal was conservation area



- Voluntarily prepared by RMD AG in 1972
- Landscape framework plan modified
- Area boundaries



# Landschaftsplan Altmühltal



## 1) Aims:

- Conservation of characteristic features and diversity of landscape
- Nature-related construction of waterway
- Development of typical river cross-section

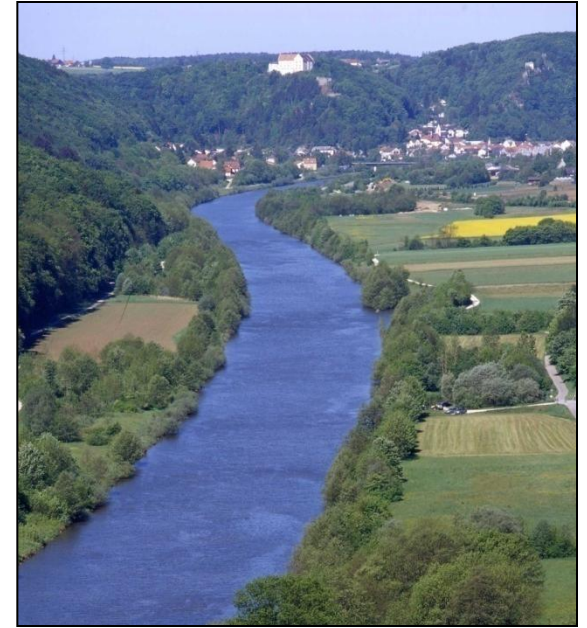
## 2) Landscape survey

## 3) Measure plans

## 4) Impact mitigation regulation at MDK



# Harmonious Involvement of Waterway



Photos: period 1978-2001





# LBP Section Kelheim and Riedenburg



- accompanying landscape conservation plan Kelheim :

landscape architect:	Prof. Grebe, Nürnberg (TEAM 4)
plan approval:	September 1980 and August 1982

- accompanying landscape conservation plan Riedenburg:

landscape architect:	Prof. Grebe, Nürnberg (TEAM 4)
plan approval:	December 1986 and March 1988



# Types of Success Control

## Success control

```
graph TD; A[Success control] --> B[Controlling implementation:]; A --> C[Functional control:]; B <--> C;
```

### Controlling implementation:

Control, if landscape conservation measures of the plan approval are implemented

### Functional control:

Examining the level of achieved ecological effectiveness of landscape conservation measures



# Approach of Functional Control

1. Targets of accompanying landscape conservation plan
2. Describing the method of quantitative and qualitativ balancing
3. Analysis method of the vegetation/flora and fauna
4. Analysing actual state and assessment of vegetation (quantitative)
5. Analysing actual state and assessment of flora/fauna (qualitative)
6. Assessment of goal achievement
7. Balancing



# Section Kelheim and Riedenburg

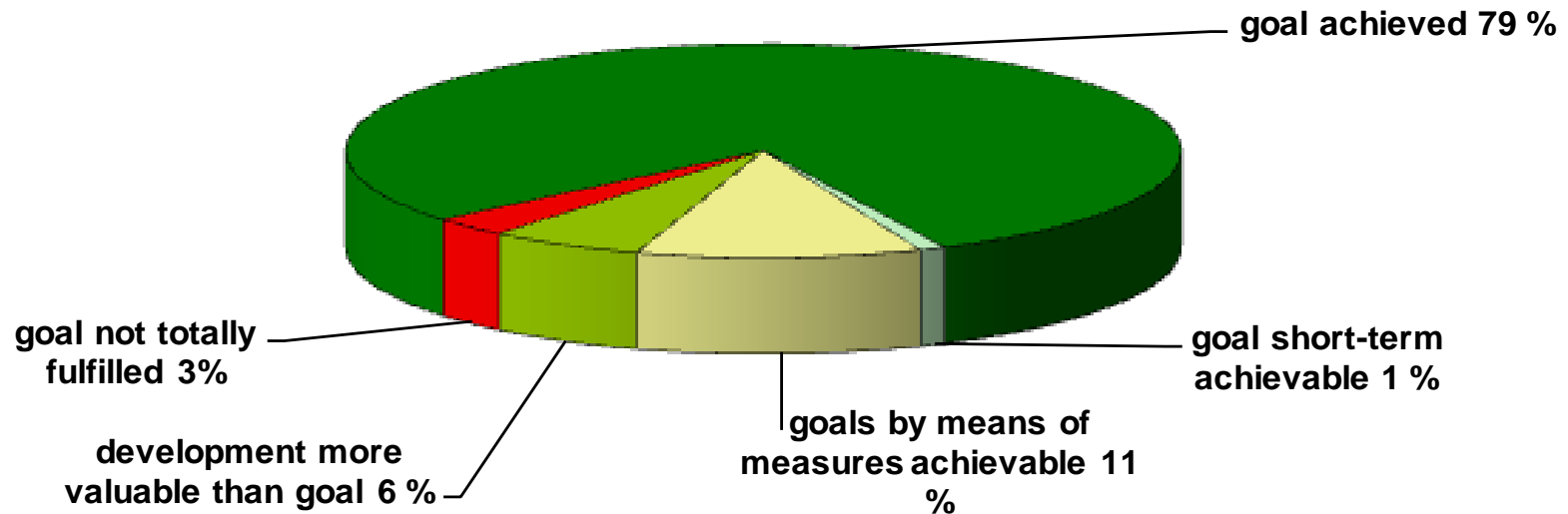


- Expert opinion control of success Kelheim:  
landscape architect: Prof. Grebe, Nürnberg (TEAM 4)  
present state: report June 1996
- 61 ha ecological valueable habitat structures
- Expert opinion control of success Riedenburg:  
landscape architect: Prof. Grebe, Nürnberg (TEAM 4)  
present state: report November 1997
- 151 ha ecological valuable habitat structures





## Degree of goal achievement 97 %



- Diversity of species increased
- Nature conservation importance of the section: „regional“
- 80 Species of Red data book mapped
- Degree of goal achievement 97 %
- Control of success in areas with measures compensated



# Meander Altessing

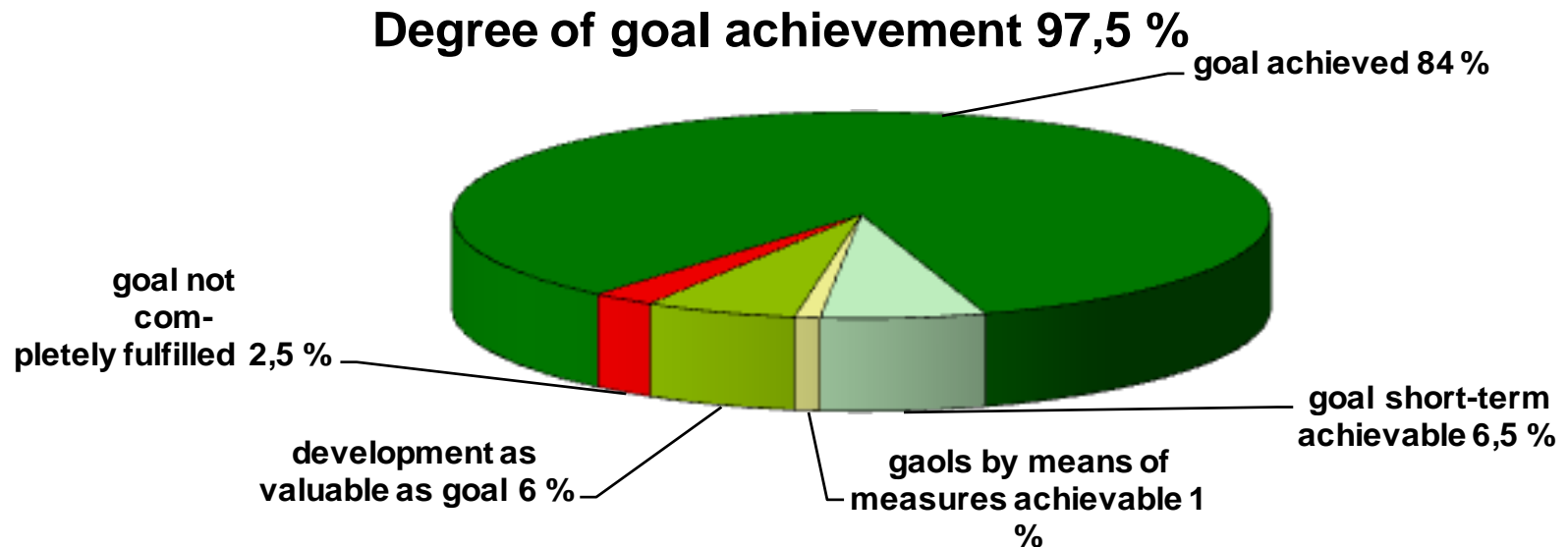




# Wetland west of Prunn



# Degree of Goal Achievement - Section Riedenburg



- Diversity of species increased
- Nature conservation importance: „regional to supraregional“
- 103 Species of Red date book mapped
- Degree of goal achievement 97,5 %
- Control of success in areas with measures compensated





# Meander Gundlfing





# Wetland Untereggersberg





# Island Griesstetten



# Summary of Success Control

- Measurement of success Kelheim and Riedenburg legal obligation of plan approval
- Nature conservation success control is a comparison of achieved goals with present state
- Indicators for effectiveness of compensation measures are the vegetation, flora and species
- balancing is carried out by standards of value
- **Overall result:** the success control is in both sections compensated





# Main-Danube-Canal

