



# IENE 2010

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**COST 341**

**Habitat Fragmentation due to  
Transportation Infrastructure**

**WILDLIFE AND TRAFFIC**

**A European Handbook for Identifying Conflicts  
and Designing Solutions**



Rijkswaterstaat  
*Ministerie van Verkeer en Waterstaat*



**Questionnaire  
handbook COST 341**  
Results and conclusions



European  
Co-operation  
In the Field of Scientific  
and Technical Research





## Workshop Wildlife and Traffic CEDR task 7

- Presentation outcome questionnaire Handbook COST 341
- Discussion around this outcome
- Recommendations to the road directors (CEDR) concerning best practice to reduce the effect on wildlife from transport infrastructure
- Coming actions for CEDR-task group



## Questionnaire and response

- Questionnaire sent out by CEDR-office (Paris) to Road Directors
- 26 sent out and 22 responses received
- 85%



## Translation

- 9 yes, 12 no and 1 is publishing in 2010
- Translated 2004 – 2007; 2010
- Not translated because:
  - English is ok in our country
  - Fragmentation doesn't occur in our country
  - Already a handbook in use



## What was added in translated version

- More technical details for designers
- National circumstances included
- Other target species incorporated
- More related to the impact of infrastructure
- Relations to national standards
- More recent experiences



## How is handbook in use

- It is one of the handbooks for taking measures
- It is a source for ideas when mitigating is needed
- It is one of the existing, national standards
- Wish to have a wider implementation:
  - In EIA-processes
  - Among consultants
  - Among planners
  - Among designers



## What is missing?

- A. Policies, Legal issues
- B. Problem of fragmentation due to infra
- C. Planning and Design
- D. Special groups of species
- E. Technical details and experiences; do's and don'ts
- F. Other problems for wildlife around infrastructures
- G. Monitoring; use and effectiveness
- H. Standards and specifications
- I. Cost effectiveness
- J. Fauna passage related issues (road safety, recreation-nature)
- K. Implementation
- L. References





## A. Policies

- More over European laws and directives
- More integration of policies



## B. Problem of fragmentation due to infra

- More arguments and prove that de-fragmentation measures are necessary
- What about cumulative impacts
- How to deal with the differences in ecosystems between the countries; country oriented solutions
- What about inter species relations when you design measures



## C. Planning and design

- Planning issues
- Area oriented approach
- The number of measures per length infrastructure
- Role of verges



## D. Special groups of species

- More attention to special groups of species:
  - Bats
  - Birds
  - Insects: butterflies, dragonflies and ground beetles
  - Reptiles
  - Carnivores



## E. Technical details of measures

- Dimensions (length, width, height)
- Material
- Water management at ecoducts and in culverts
- Location
- Alternatives of specific measures
- Noise and light from cars at ecoduct
- Good and bad practices
- More details about role of detergents (smell, ultrasonic noise, light)
- New findings
- Do's and Don'ts



## F. Other problems for wildlife around infra

- Avoiding and solving other traps around infrastructure:
  - gutters,
  - seepage water treatment,
  - fences for different target species



## G. Monitoring

- What do we know already about use
- What do we know about effect at populations
- Guideline for good monitoring
- New techniques about monitoring (DNA, GPS, specific species)



## H. Standards and specifications

- Standards for design
- Relation with other standards (safety)
- Standards for inspection
- Lists of possible failures to use by inspectors
- Standards for maintenance
- Functional specifications for contracts
- Criteria for well functioning
- Integration with other tools as Auto Cad
- Guidelines for inspection of realised measures





# I. Cost effectiveness

- Cost effectiveness
- How to encourage cheaper solutions



## J. Fauna passages related issues

- Road safety
- Recreational co use and impact at ecological function of passages
- Spreading cattle diseases via passages
- Selective use by species (ecoducts not for wild boar)



## K. Implementation

- How to rise awareness; related to different target groups?
- How to reach designers, planners, contractors?
- How to implement measures in local communities?
- Use websites; transport and nature related websites?



## L. References

- Information from where?
- Is the information proven or not
- Is the information based at experiences



## What kind of version?

- Digital, Electronic version
- A lot of drawings, schemes, schedules, boxes
- More technical details
- Possibilities to make relations with other tools



# Implementation?

- Three factors of success of the COST 341 Handbook
  - International conference in Brussels (2003)
  - Selling and distribution via publisher
  - Possibilities via websites
- Other possibilities
  - Via education (students, schools)
  - Via conferences
  - Via active introduction in own department



# Discussion

- 1. Response?
- 2. What kind of version?
- 3. Implementation?
- 4. What is missing: A lot of questions and wishes
  - How to deal with this long list??
  - What is part of a handbook and what not
  - What have to be elaborated in specific actions/research
  - What is already done in other frameworks / networks



# Recommendations to road directors

- What?
- How?
- Who?
- When?





## Coming actions for CEDR task group

- Using outcome of this workshop in our report
  - Recommendations concerning handbook