



COST Action 341

**“HABITAT FRAGMENTATION
DUE TO
TRANSPORTATION INFRASTRUCTURE”**



What the presentation is about?

- Introduction
- Outcomes of COST 341
- Organisation of COST 341



What is **COST** ?

(European **CO**operation in the Field of **S**cientific and **T**echnical Research)

- Intergovernmental co-operation
 - 1971
 - 17 Scientific & Technical domains
- Participation
 - 32 COST countries
 - The European Commission
 - International organisations and research establishments from non-COST countries
- COST Actions
 - Concerted actions of national funded R&D
 - Memorandum of Understanding (MoU)





Objectives of the COST Action 341:

To promote a safe and sustainable pan-European transport infrastructure through recommending measures and planning procedures with the aim of conserving biodiversity and reducing vehicular accidents and resulting fauna casualties



Fragmentation caused by roads



Rijkswaterstaat, The Netherlands

Fragmentation caused by other landuse



Rijkswaterstaat, The Netherlands

Roads form barriers for movements of animals



Marcel Huýser

Fauna casualties



Rijkswaterstaat, The Netherlands

A high number of badgers, an endangered species in the Netherlands, are killed on roads



Rijkswaterstaat, The Netherlands



THE ACTION WILL BRING VIA ITS DELIVERABLES THE FOLLOWING BENEFITS:

- in the stress produced by linear transportation infrastructure on the European biological heritage via implementation of a scientifically based, uniform set of measures.
- Saving of time and money by learning from past mistakes and avoiding overlapping research.
- Enhancement of road safety.
- Enlarged and diversified manufacture of related products (ecoducts, tunnels, fences), and consequently more employment.
- European integration in the field of planning procedures and technical requirements for implementation of mitigation and compensation measures.
- Provision of scientific and technical support to the implementation of the Trans-European Transport Networks (TEN-T).





Initiated by:

IENE Infra Eco  Network Europe

- * **European network of experts and institutions involved in the phenomena of habitat fragmentation caused by the development of transportation infrastructure networks.**
- * **Created in 1996 with the objective of promoting the cooperation between different countries, the exchange of information and the developing of common research programs.**





PARTICIPANTS of THE COST ACTION 341

- Austria
- Belgium
- Czech Republic
- Cyprus
- Denmark
- France
- The Netherlands
- Hungary
- Norway
- Spain
- United Kingdom
- Switzerland
- Sweden
- ECNC
- Ireland
- Portugal





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OUTCOMES:

1. *13 National State of Art Reports on Habitat Fragmentation due to Linear Transportation Infrastructure*
2. *European Review on Habitat Fragmentation due to Linear Transportation Infrastructure in Europe*
3. *The European Handbook on how to avoid Habitat Fragmentation due to Linear Transportation Infrastructure*
4. *On-line database*
5. *Final Report of the COST Action 341*





EUROPEAN REVIEW ON HABITAT FRAGMENTATION DUE TO TRANSPORTATION INFRASTRUCTURE IN EUROPE

- è **habitat fragmentation and infrastructure:**
 - è **effects on nature,**
 - è **overview of environmental bottlenecks;**
- è **current situation regarding solutions:**
 - è **avoidance of habitat fragmentation,**
 - è **overview of mitigation/ compensatory measures,**
 - è **maintenance aspects,**
 - è **evaluation / effectiveness;**
- è **legislative framework;**
- è **on-going research;**
- è **review of relevant case studies and projects;**
- è **cost effectiveness of defragmentation measures;**
- è **gaps in knowledge, identification of research areas and recommendations;**
- è **directory of institutions and organisations involved;**
- è **bibliography.**





THE EUROPEAN HANDBOOK ON HOW TO AVOID HABITAT FRAGMENTATION DUE TO TRANSPORTATION INFRASTRUCTURE

- è *methodology/indicators to define and quantify 'fragmentation' priorities for tackling environmental bottlenecks;*
- è *ways to avoid fragmentation in the planning phase/ integration of infrastructure in surrounding landscapes;*
- è *best practice in mitigation/compensatory measures for existing and planned infrastructure;*
- è *technical description/maintenance;*
- è *methods to evaluate/monitor the effectiveness of measures;*
- è *recommendations on methodological aspects of a monetary evaluation of external effects;*
- è *recommendations for planners to help them with planning procedures.*



Fauna passage, Hoge Veluwe, The Netherlands



Fauna passage, Boer Kotte, The Netherlands



Rijkswaterstaat, the Netherlands

Fauna passage for small terrestrial and aquatic animals



Other measures can reduce fauna casualties



Fences along roads prevent fauna casualties but need good maintenance





THE ON-LINE DATABASE WILL COMPRISE:

- è Literature in the field of transportation infrastructure and habitat fragmentation;
- è On-going projects in the field of transportation infrastructure and habitat fragmentation;
- è Existing mitigation measures;
- è Metadata on existing databases concerning habitat fragmentation (e.g. fauna casualty database)

can be accessed on the following address:

<http://www.iene.info>





PRODUCTS OF COST 341 ADDRESSED TO:

- è European Community (DGs Energy and Transport, Environment, Enlargement);
- è Policy and decision makers on national level: Transport and Environment Ministries);
- è Technical and Scientific-research community;
- è Advisory/Construction companies;
- è European and national non-governmental organisations;
- è Financial Institutions (European Investment Bank, European Bank for Reconstruction and Development).





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- **Organisation of COST 341**



PLANNING

September

1998

1999

2000

2001


2002

November

2003

- 
- National State of the Art Reports

- 
- European Review

- 
- European Handbook on Habitat Fragmentation due to Transportation Infrastructure
 - Database
 - Dissemination of the information
 - Final Report





ORGANISATION

MANAGEMENT COMMITTEE

Two representatives from each participating country / international organisation and one representative from the European Commission

NATIONAL WORKING GROUPS

Experts of each participant country

THEMATIC WORKING GROUPS

Database // State of the Art report // European Handbook // Dissemination

MANAGEMENT COMMITTEE MEETINGS

1st Brussels - Oct 1998

2nd Hungary - Apr 1999

3rd Switzerland - Oct 1999

4th Spain - Apr 2000

5th Edinburgh - Oct 2000

6th Antwerp - Apr 2001





DISSEMINATION

- Workshops, Seminars and Conferences
- Conference Proceedings
- Interim and Final Reports
- CD-ROM
- The COST Transport Web site

<http://www.cordis.lu/cost-transport/scr/cost-341.htm>



Tunnel for small and medium size mammals

