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INFRA ECO NETWORK EUROPE

***A NETWORK FOR SUSTAINABLE GREEN
INFRASTRUCTURE COMPATIBLE WITH
TRANSPORT ROUTES AND CORRIDORS***

The IENE Steering Committee:

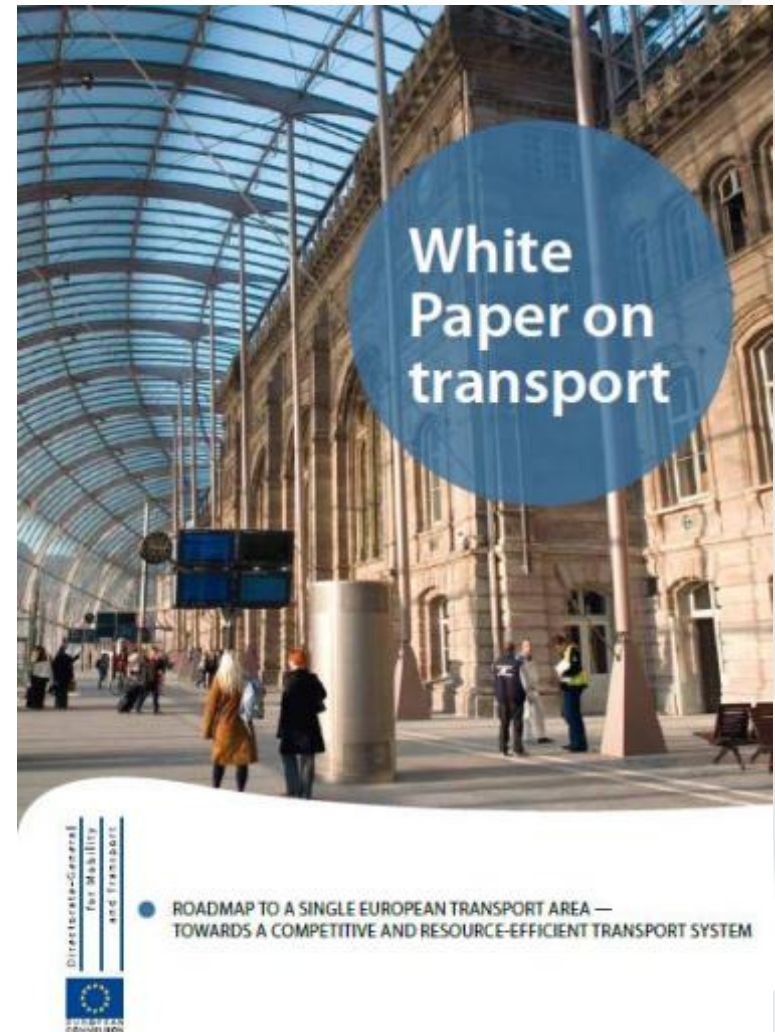
Miklós Puky, Anders Sjölund (Chair), Marita Böttcher,
Lazaros Georgiadis, Carme Rosell, Erland Røsten,
Tony Sangwine, Andreas Seiler, (Head of the
Secretariat), Elke Spindler



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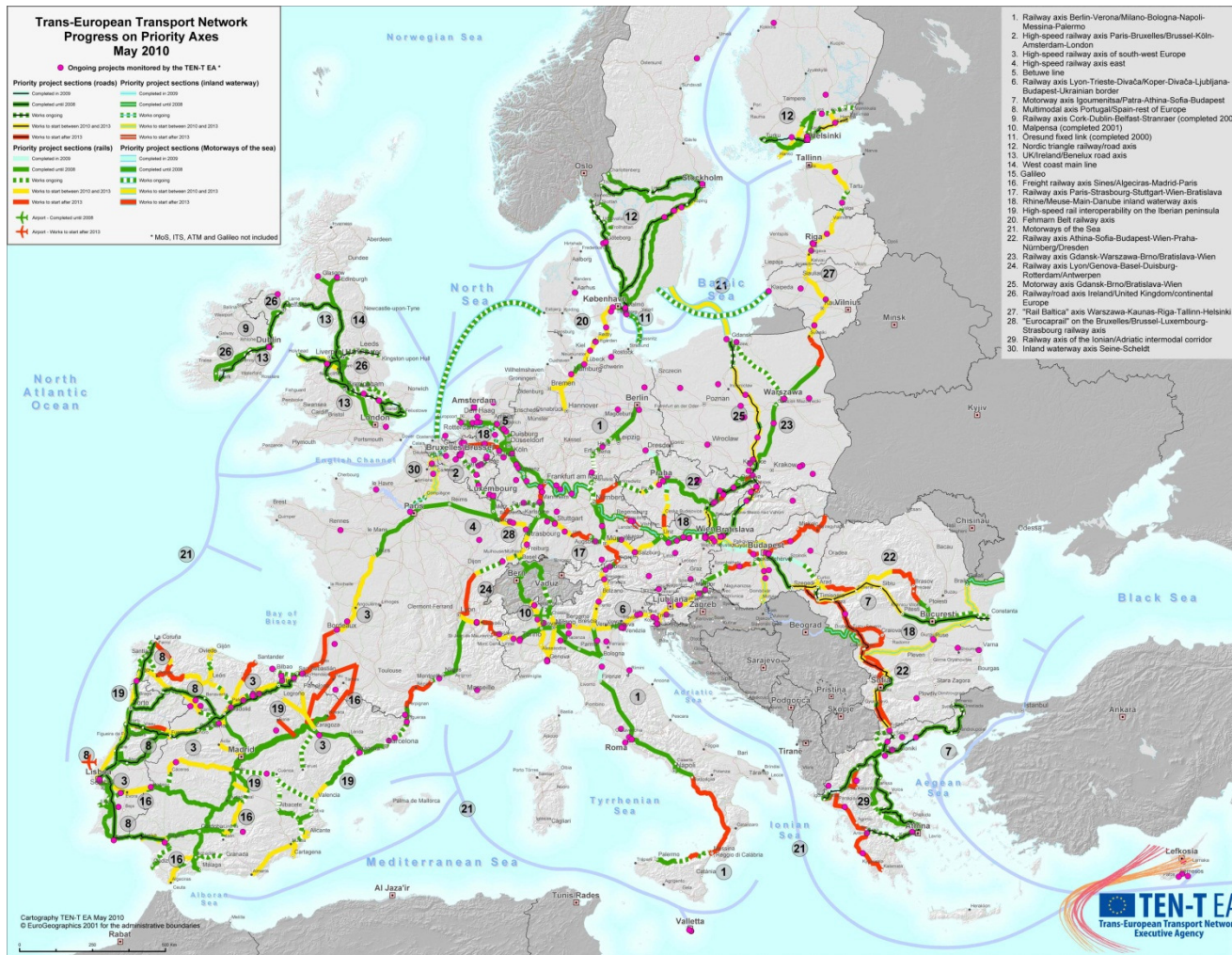
White Paper

- Overall European vision on transport 2050
- For a competitive and sustainable European transport system
- Growing transport and supporting mobility
- Reduction of carbon dioxide emissions by 60%
- 10 goals, 40 initiatives



http://ec.europa.eu/transport/themes/strategies/doc/2011_white_paper/white-paper-illustrated-brochure_en.pdf

Trans-European Transport Network (TEN-T)

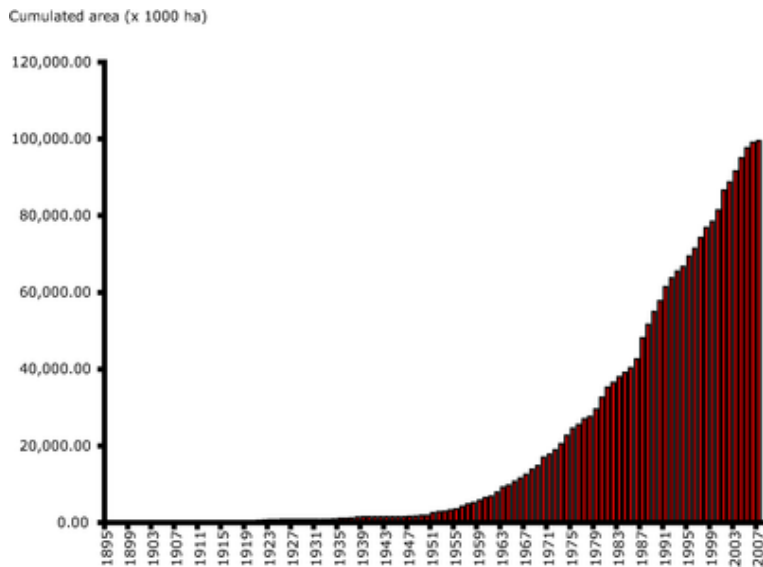


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[http://tentea.ec.europa.eu/images/maps/progress_report_may2010ongoing_projects_20100527_big.jpg]

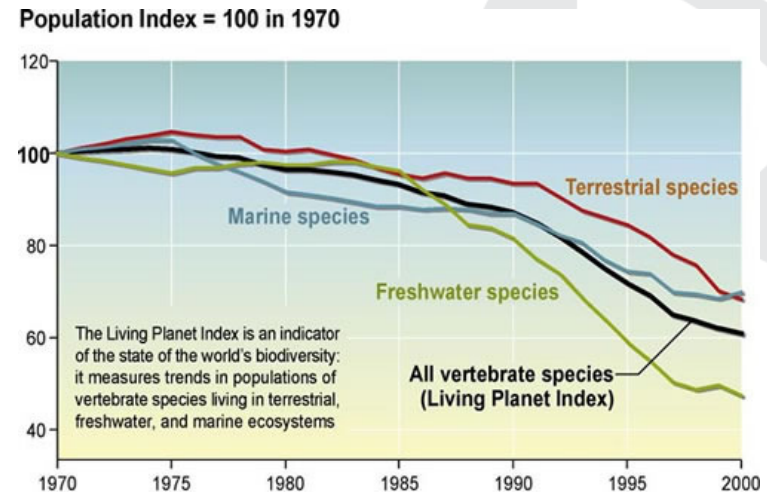
Protected Areas – Biodiversity decrease

Cumulated area of nationally designated areas over time in 39 European countries



<http://www.eea.europa.eu/data-and-maps/indicators/designated-areas/designated-areas-assessment-published-mar-2009>

Living Planet Index indicates steady Biodiversity decrease



Source: WWF, UNEP-WCMC

<http://www.natura2000.hr/PageTemplates/PageContent.aspx?pageId=48&langID=2>



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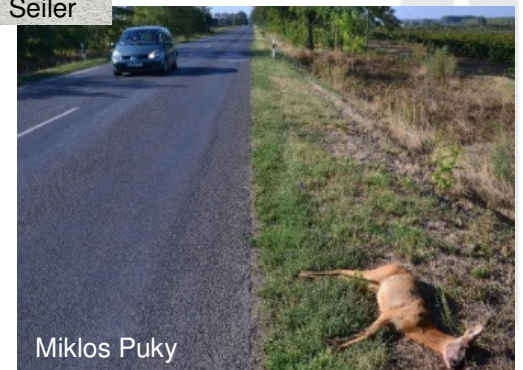
Impacts caused by transport infrastructure

- Habitat loss
- Transformation of habitat
- Fragmentation
- Barrier effects
- Edge effects
- Disturbances
- Traffic mortality



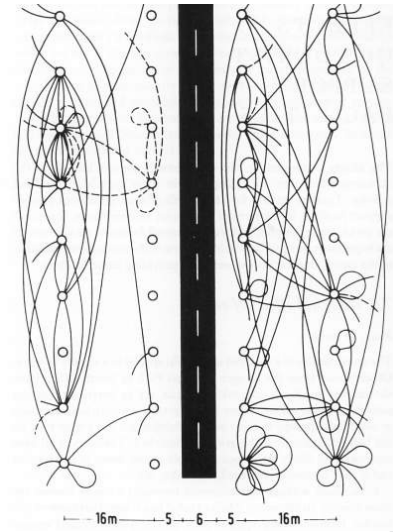
Traffic mortality – traffic safety

- > 500.000 ungulate-vehicle collisions annually
- > 300 human fatalities, 30.000 human injuries
- > 1 billion dollars in damages
- Main cause of mortality for some species (European mink, Iberian lynx, Eurasian badger,...)
- Other species like amphibians highly endangered



Barrier effects

- Disrupts diurnal and seasonal movements
- Disrupts dispersal and migration
- Disrupts genetic interchange
- Leads to declining and degenerated populations

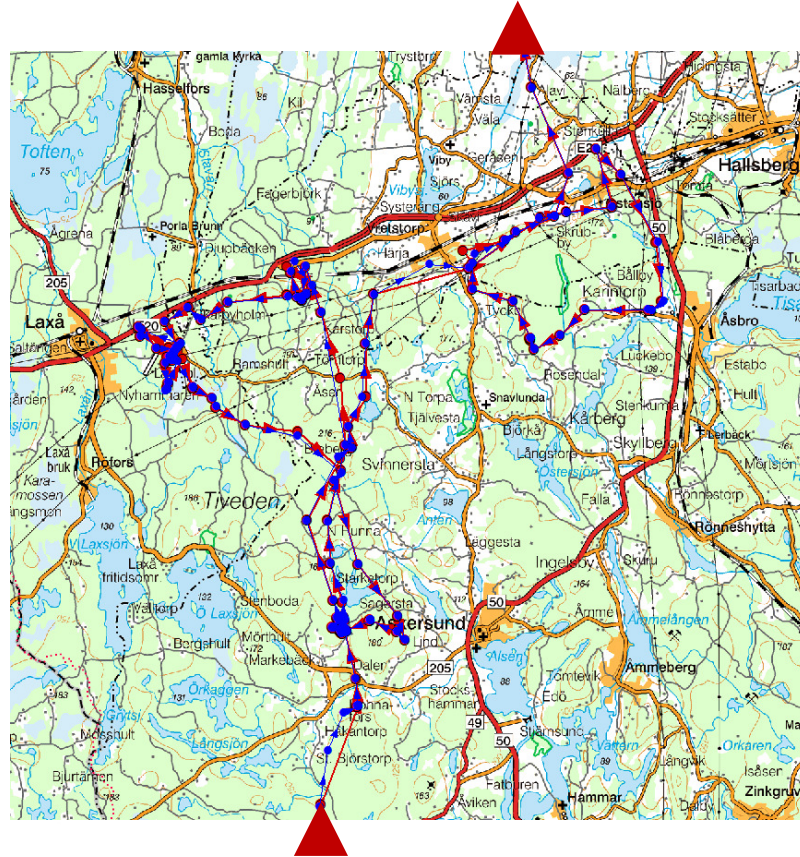


(Mader 1984)



Barrier effects

Highway E20, Sweden, impact migrating wolves



Wolf migration from Southern Sweden northwards - stopped at the fenced Highway E20

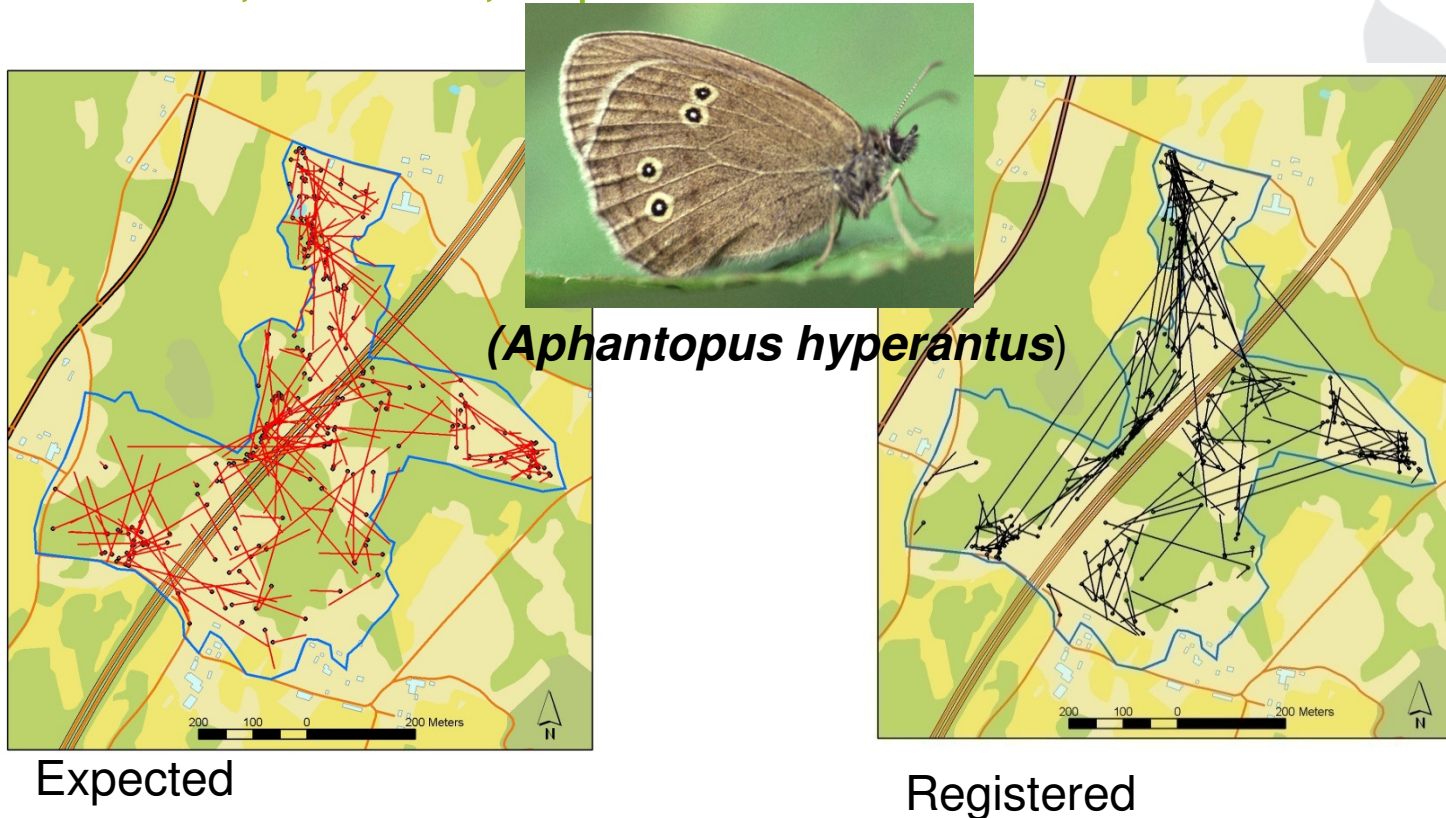


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Data from the Swedish Environmental Agency (Ruona Burman).

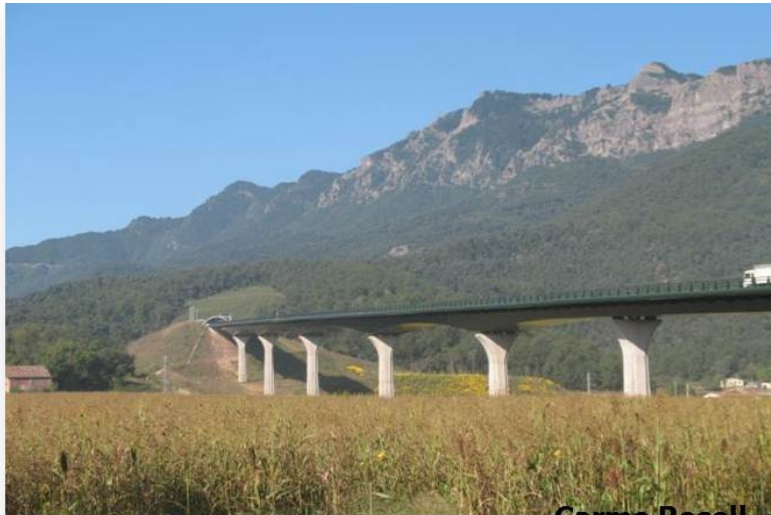
Barrier effects

Road E4, Sweden, impact on some butterflies.



Source: Askling, J., Bergman, K-O., Ignell, H. och Wahlman, H. 2005. Rygggradslösa djur och planering av infra-struktur –dagfjärilar som landskapsekologiska verktyg och modellorganismer. Calluna AB och Linköpings universitet.

Viaducts and tunnels



Carme Rosell



Lazaros Georgiadis



Carme Rosell



Lazaros Georgiadis

Fauna passages - Overpasses



Andreas Wehner-Heil



Perigord, França. C Rosell



Andreas Wehner-Heil



ASFINAG



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Lazaros Georgiadis



Fauna passages - Underpasses



Carme Rosell



Carme Rosell



Amphibian tunnels



Elke Spindler



Elke Spindler



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Egnatia Highway, Greece



Pictures: Lazaros Georgiadis



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NETWORK

Transport networks – Ecological networks



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Defragmentation Programmes

Germany:

- Network of German Habitat Corridors
- German Defragmentation Programme
- Ratified in February 2012
- 93 priority areas for defragmentation measures



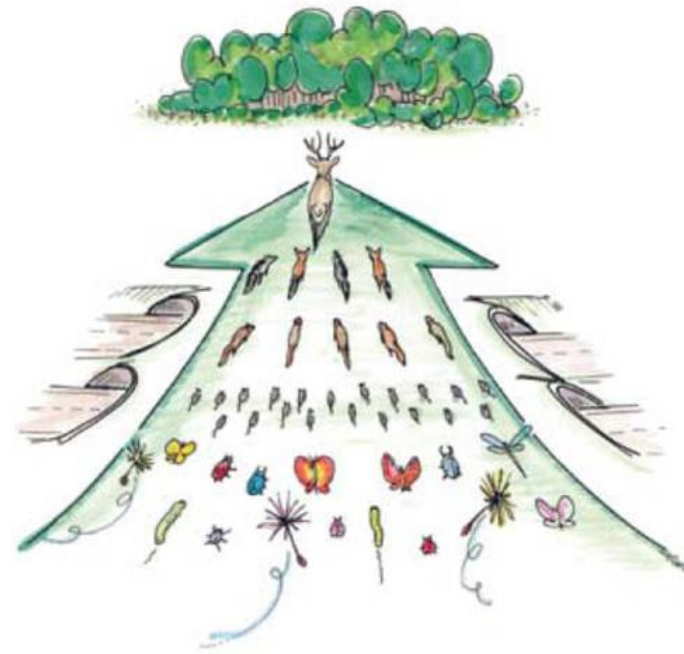
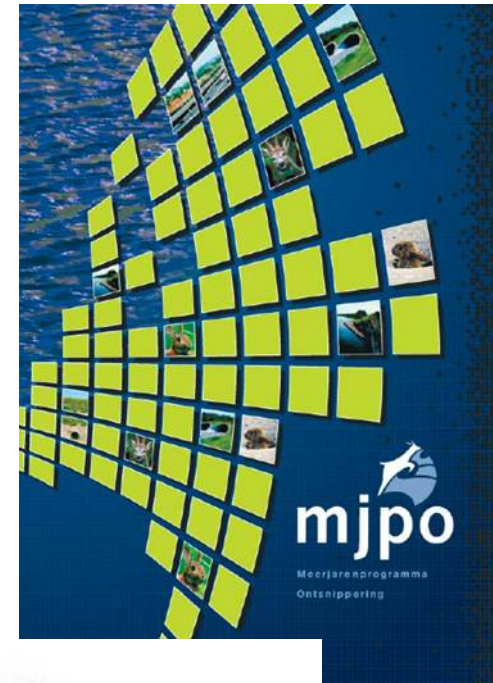
Lebensraumkorridore für Mensch und Natur

Heinrich Reck, Kersten Hänel, Marita Böttcher, Jörg Tillmann und Armin Winter (Bearb.)



Netherlands:

- Dutch National Ecological Network
- Long Term Defragmentation Programme
- Ministry for Transportation and Ministry for Environment
- 2005 - 2018
- 215 conflict points, 602 measures



IENE – Infra Eco Network Europe

- Formalised **network of experts** working with various aspects of transportation, infrastructure and ecology (since 1996)
- Mainly (but not exclusively) European authorities, institutes and individual experts
- Non-profit, non-governmental, non-political
- Providing an independent, **international and interdisciplinary arena** to encourage and enable cross-boundary cooperation in research, mitigation and planning
- Addressing decision makers, planners and researchers as well as the public



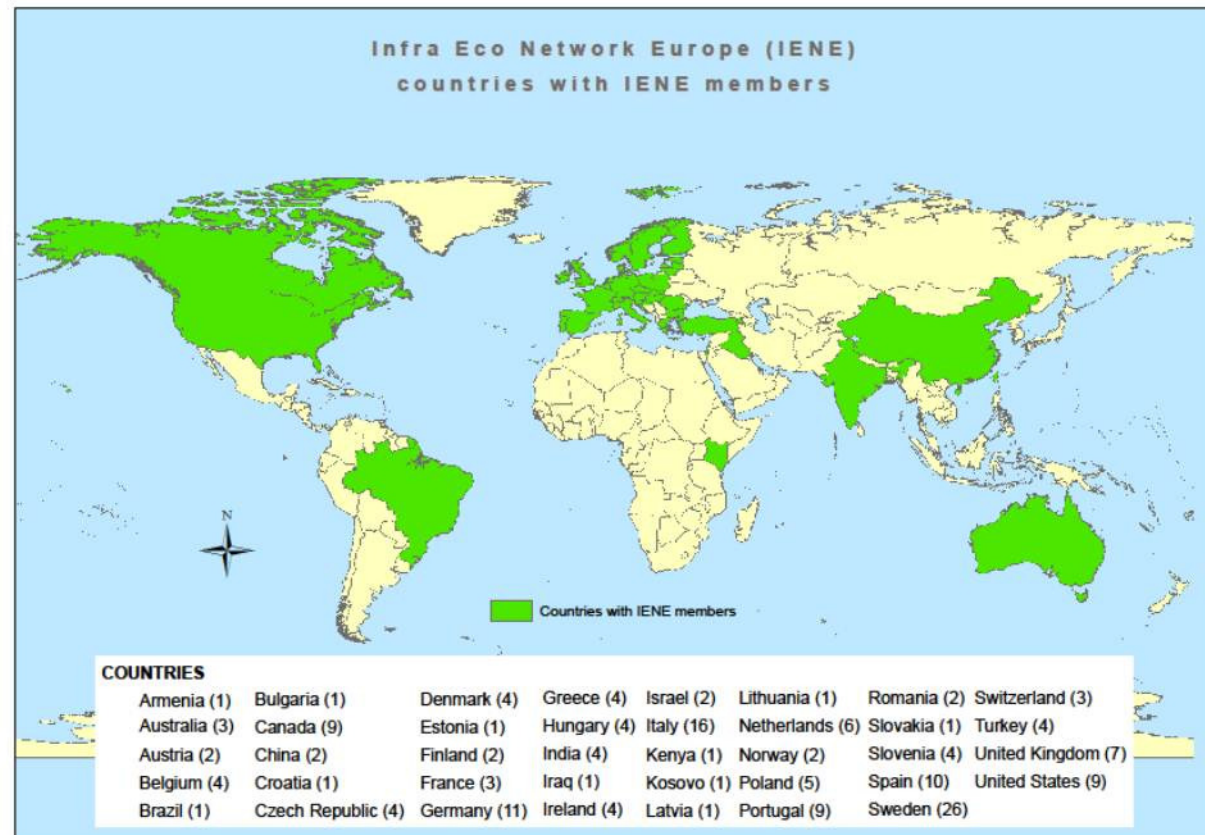
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IENE members

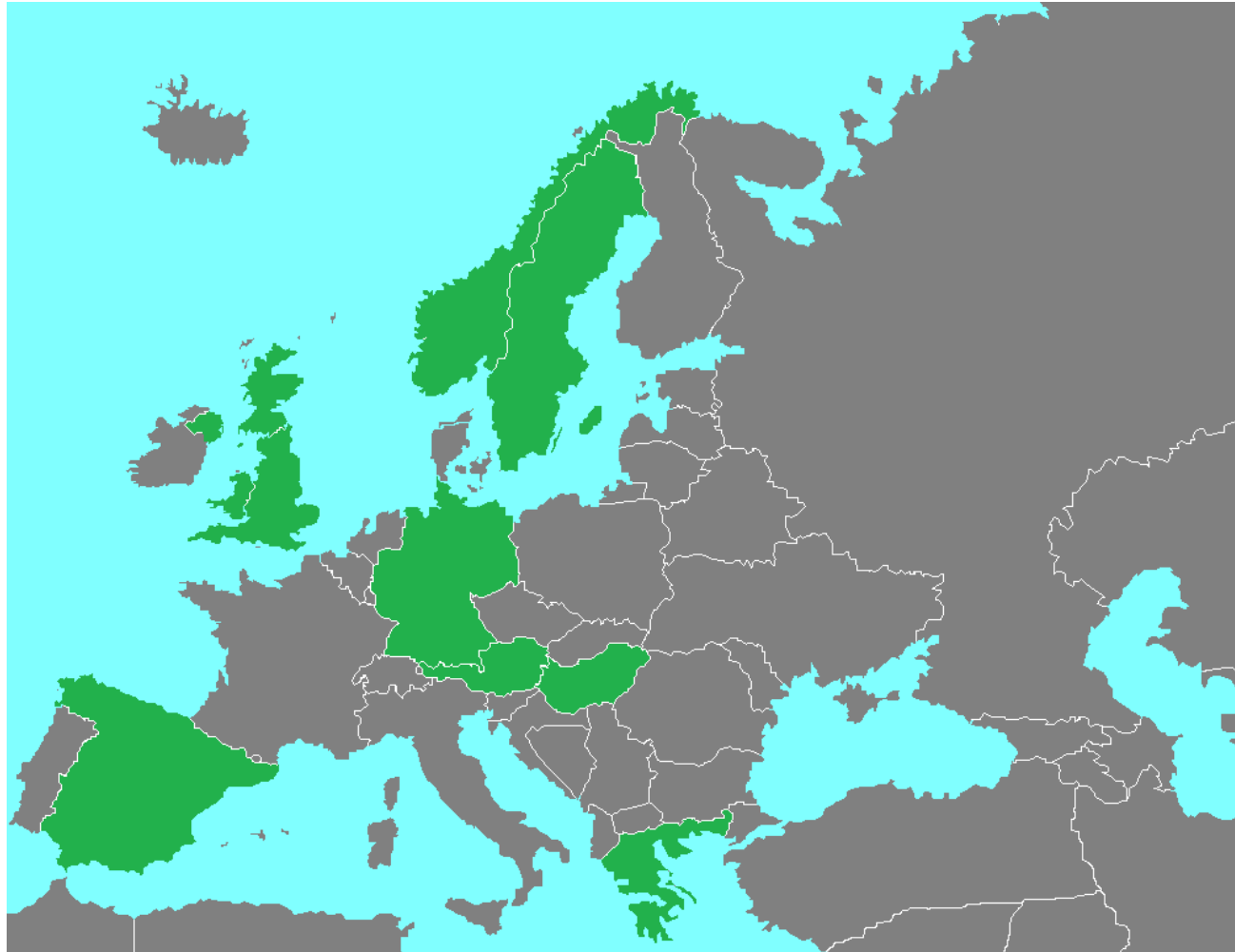
IENE today:

176 registered members

from 44 countries
and 41 organizations



IENE Steering Committee members

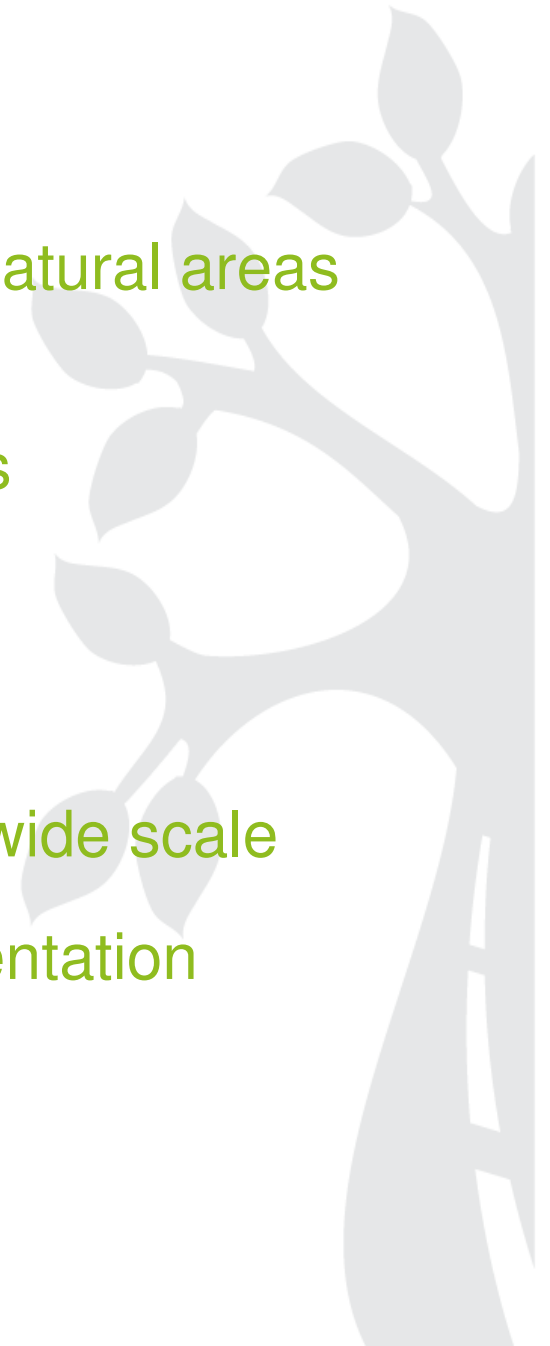


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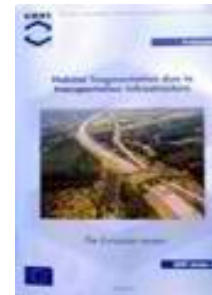
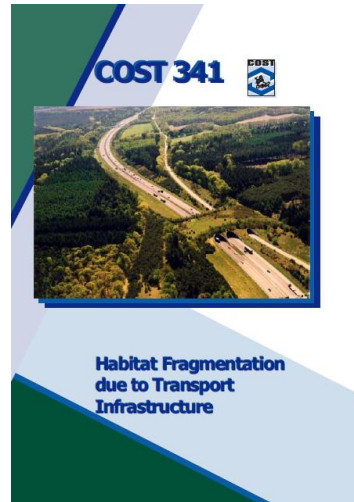
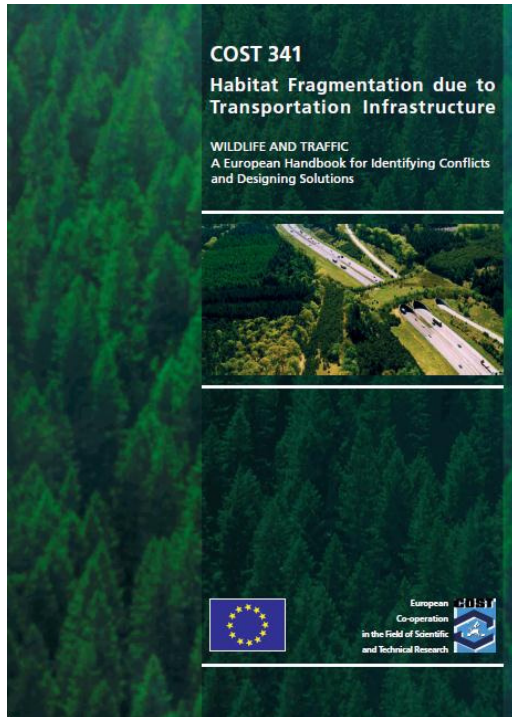


Main aims:

- Reduce degradation and loss of Europe's natural areas and biodiversity
- Protect hitherto unfragmented natural areas
- No Net Loss
- Mitigation of impacts
- Implement Green Infrastructure at Europe-wide scale
- Develop an integrative European Defragmentation Programme



European Handbook – Wildlife and Traffic

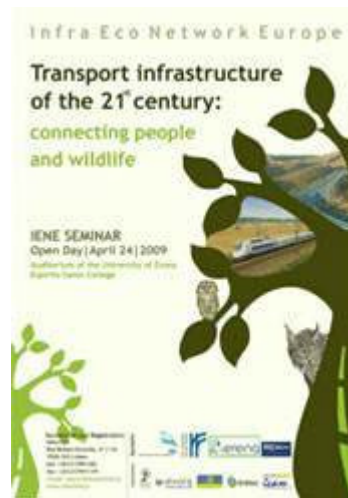


National guidelines and regulations



IENE arranges...

- Biannual International Conferences on Transport and Ecology
- Scientific workshops dealing with specific questions in different countries



IENE upcoming activities

- Scientific workshop in Romania, in spring 2013 (21-23 May)
- Scientific workshop in the Czech Republic in autumn 2013 (16-18 October)
- International Conference on Transport and Ecology in Norway in autumn 2014

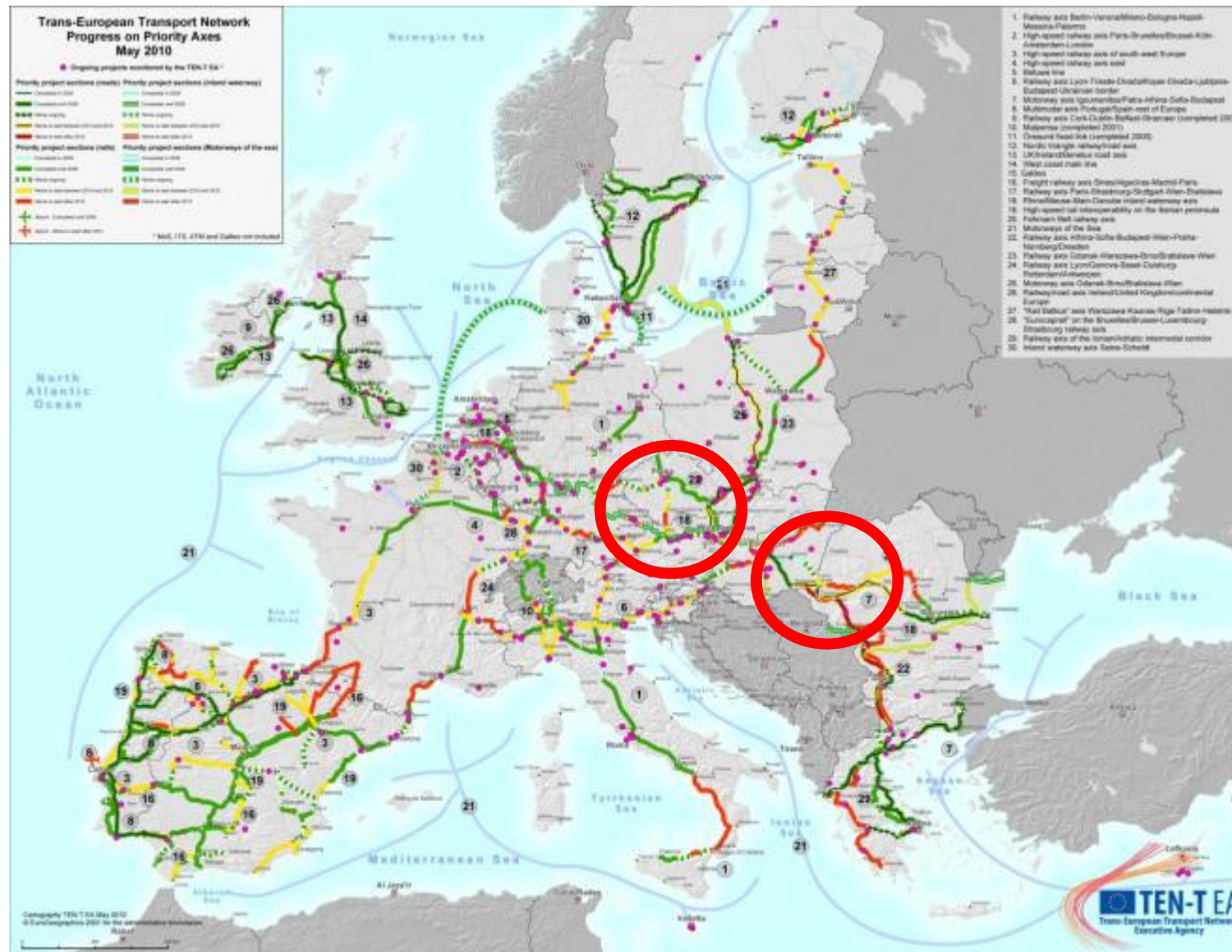
For further Information: www.iene.info



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Trans-European Transport Network (TEN-T)



Thank you for your attention!

Miklós Puky

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On behalf of the IENE Steering Committee

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