



IENE Workshop on Sustainable Transportation and Eighth Carpathian
Convention Working Group on Sustainable Transport
16-17 May 2018, Budapest



**International approach of IENE on
Sustainable Linear Transportation Infrastructures.
The IGELI project.**

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- Harmonizing Transportation and Nature

IENE – Infra Eco Network Europe

- **Founded in 1996** as a non-political, **formalized network** of experts on Ecology and Transportation.
- A community of practise providing an independent **arena for exchange of knowledge**, experience, ideas etc.
- **Fostering** collaboration for a **safer and sustainable transport infrastructure**.

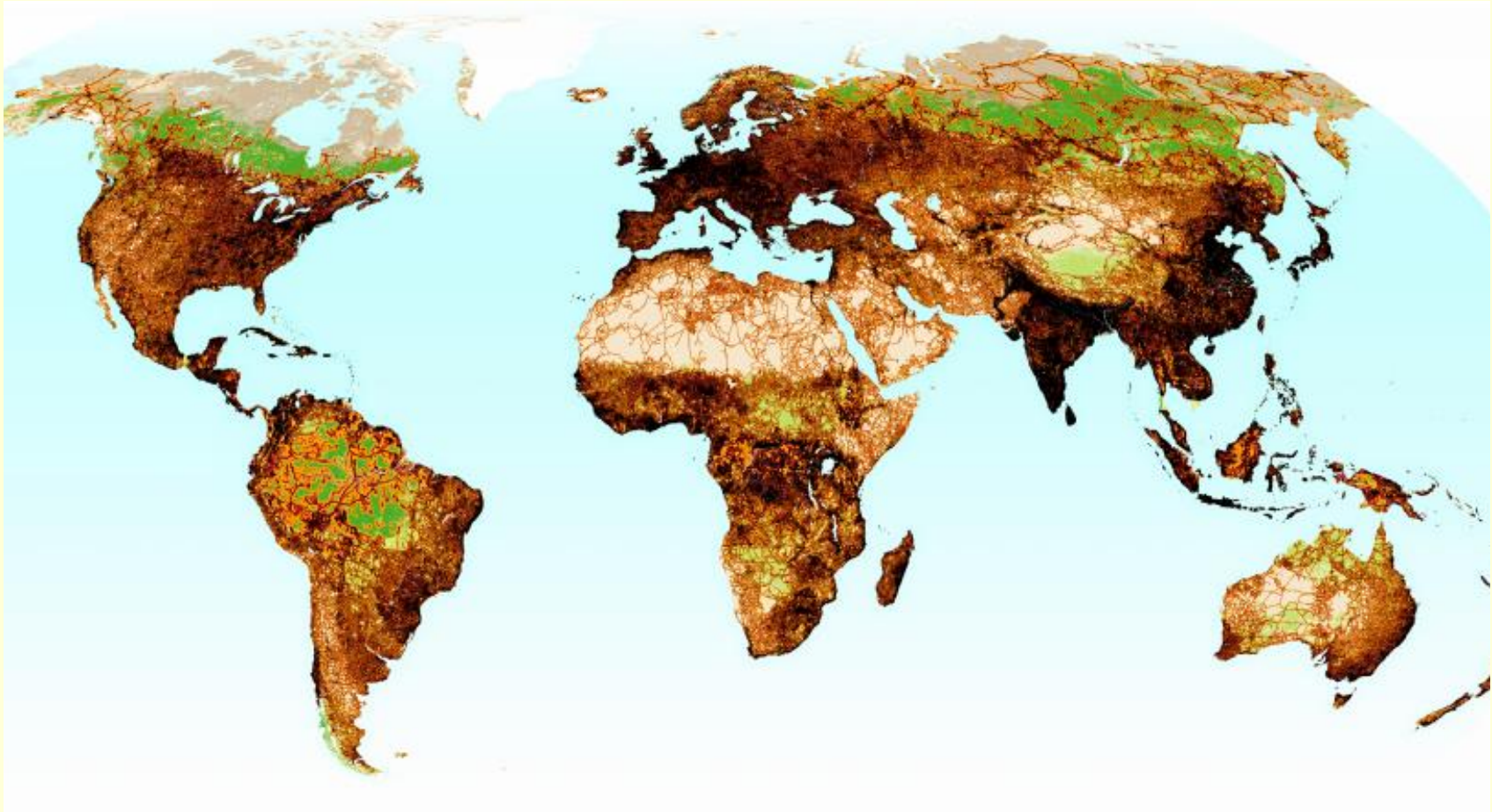


Why this topic



64 million km of existing roads globally
25 million km of new roads to be build by 2050

Outlook to an infrastructured future



GLOBIO – future outlook 2002 – 2032
<http://www.globio.info/>



The obvious problem*

Fragmentation

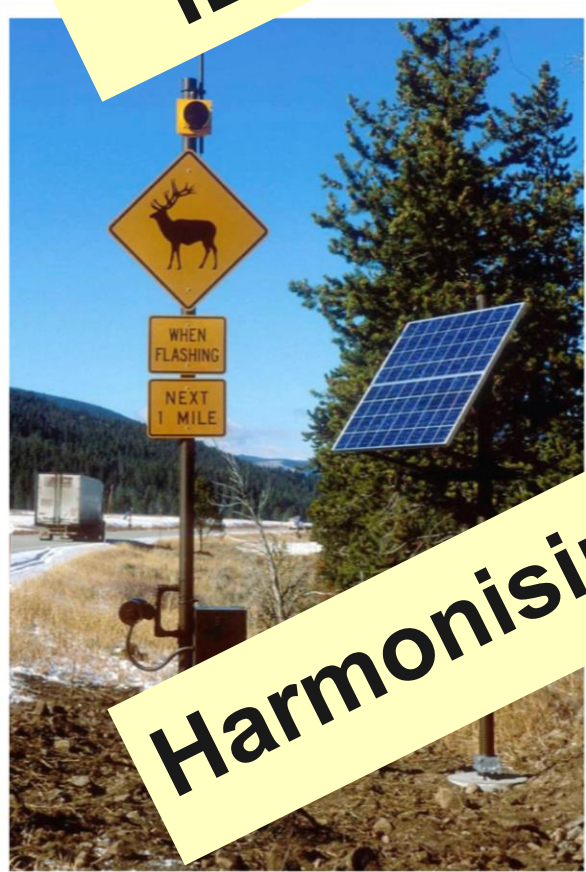


*obvious or not...

....to only one species: *Homo sapiens*



IENE motto & Vision...!



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Can we achieve it?



IENE principles for sustainable LTI:



1. **Strong legal framework**
2. **Sustainable strategic planning**
3. **Ecosystem approach** (values of Grey and Green Infrastructure, Natural Capital, ecosystem services) in combination with the “*Precautionary*” principle
4. **Any case, a unique case** (*no blind copy paste*)
5. **Multi-disciplinary cooperation** (engineers + environmentalists + ...)
6. **Involvement of civil society**
7. **Polluter pays principle** by clarifying:
 - the ethical and transparency concerns
 - including concrete mitigation measures from the planning phase until the operating phases
8. **Long life effective maintenance** (=including maintenance of mitigation measures in the long life budget under operation)
9. **Environmental supervision** and monitoring in all phases of the projects from design to full operation and maintenance
10. **Culture of learning** sharing knowledge and practices (*no secretes between us*)

...To see all our actions...

.....Just visit our website: www.iene.info



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Photo: Åsa Röstell

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- Workshops and meetings
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IENE – Harmonizing Transportation and Nature

IENE is a network of experts working with various aspects of transportation, infrastructure and ecology. The network was initiated in 1996 to provide an independent, international and interdisciplinary arena for the exchange and development of expert knowledge – and with the aim to promote a safe and ecologically sustainable pan-European transport infrastructure. IENE arranges international conferences, workshops and symposia, initiates collaboration projects and helps answering questions that require a joint international expertise.

Recent news

- [Steering committee meeting – August 30, 2016](#)
- [ICOET 2017 in Utah, USA](#)
- [Call for contributions: Frontiers – Ecology and Transportation](#)
- [Upcoming Post Conference Website](#)
- [Spanish guidelines for wildlife crossings and fencing](#)

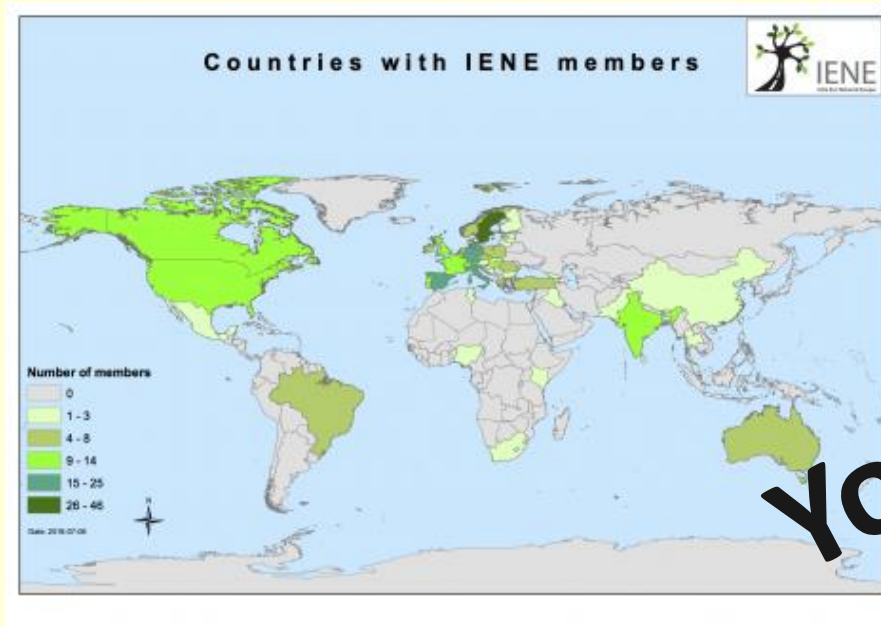
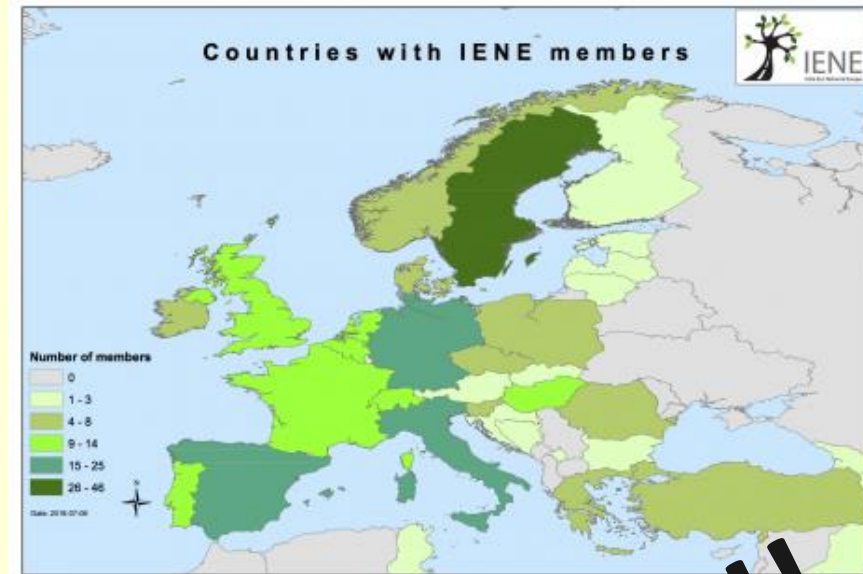
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- [Subscribe to IENE news list](#)
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- #### Upcoming events
- October 17-19, 2016:**
[CIBIV 2016, Lavras, Minas Gerais, Brazil](#)
 - May 14-18, 2017:**
[ICOET 2017, Salt Lake City, USA](#)
 - September, 2017:**
[IENE 2018, Netherlands](#)

IENE is steadily growing!

IENE today

- >400 members
- representing 50 countries
- from every Continent



Join us...
You are welcome!!!

A first case study

1. So, our first experience on the need of IGELI was the case of the Dawei road, a trans-border transportation project in Myanmar and Thailand.
2. There, the basic principles and special recommendations were asked by WWF, which funded a project including field visits and special events for exchanging of knowledge and experience.
3. In ICOET 2015 a loose coalition was formed by WWF, IENE and ANET for the development of an international approach for Environmentally friendly linear infrastructure - Guidelines.



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The need for **sustainable** transportation infrastructure

- Can we support species to survive without helping them to communicate?
- Can we support species to communicate without secure the cohesion of the ecosystems and their landscape?
- What means “**sustainable**” development concerning **construction and operation of Linear Transportation Infrastructure**?
- What is the special need in developing countries with large areas of high level importance for biodiversity?



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The first steps toward IGELI

After ICOET 2015 we started a global discussion including workshops and presentations in :

1. The IENE 2016 International Conference, Lyon, France.
2. The IUCN 2016 international Congress, Hawaii, USA.
3. The ICOET 2017 International Conference, Salt Lake City, USA.

The actual feedback of these events is related with our Workshop and the need:

1. To evaluate the international policy on transportation and ecology.
2. To make some basic definitions on the terminology and the tools we use.
3. To start to set up a strategy for the development of IGELI.



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**So, which is the international environmental policy
on Linear Transportation Infrastructure
the last 40 Years**

Or,

**Did we recognize the problem of fragmentation on
International level?**



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International environmental policy on LTI the last 40 Years

We evaluated 5 international conventions and their reference on fragmentation:

1. Bonn Convention for Migratory Species, 1979
2. Convention on Biological Diversity (CBD), 1992
3. CBD 2011-2020 Aichi targets, 2010
4. UN Sustainable Development Goals, 2015
5. UN Paris Climate Change Agreement, 2015



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Discussion on an overall evaluation of the 5 Conventions

The evaluation of the five conventions about direct or indirect use of the terms “**fragmentation**” and “**linear/transportation infrastructure**” shows:

1. There is a **direct reference to “fragmentation” only in one text** of the Aichi Targets in Target 5/ Strategic goal B.
2. There are **several indirect references to “fragmentation” in all conventions** with more emphasis in Bonn Convention for migratory species.
3. **There is no reference to “Transportation Infrastructure” or “Linear Infrastructure”,** but there are references to **“Transport Systems”** and **“Infrastructure”** which is the most common as more wide scale term.



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Setting targets according to the 5 Conventions:

According to the evaluated Conventions we have a concrete framework of targets to achieve through the angle of LTI point of view:

1. To secure the free migration of migratory species (*Bonn Convention*).
2. To halt the loss of biodiversity (*CBD*).
3. To bring close to zero, the degradation and fragmentation of the natural habitats (*Aichi targets*).
4. To create the “framework” for **building “sustainable” LTI** which need to secure a combination and the balance of the support of developing and environmental vulnerable countries (*UN Sust. Development Goals*).
5. To find the best way to build sustainable LI in a constantly changing climate and world (*Climate Change Agreement*).



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Suggestions for 3D approach: A. Ecological connectivity's concepts approach:

Supporting the “**recognition of the problem**” and the using a basic roadmap concepts' tools:

1. **Genetic isolation**as the main problem
2. **Habitat fragmentation**.....as the main cause
3. **Ecological and Landscape connectivity**as the main aim
4. **Green and Grey Infrastructure**
..... as the main crossing point and conflict areas
5. **Sustainability**as the main objective
6. **Mitigation**as the main solution



Suggestions for 3D approach: **B. Approach of Strategic Logical Framework:**

Developing a International Strategy for development of sustainable transportation infrastructure following a logical framework and determining:

1. A **General Aim/Goal**
2. **Concrete Targets**
3. The **Objectives**
 - Concept Tools (finalizing-enrichment)
 - The Audients -Stakeholders
 - Principles to be followed
 - Technical tools
4. An **Action Plan** with: **Activities - Deliverables - Time table**
5. Following up procedure



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Suggestions for 3D approach: C. Going to an Action Plan in multiple level

Rank Range	Rank levels	Definition of Actions and tools needed from the policy and to practical level
↑ Policy level · Technical level ↓	Policy	A statement of recognizing a problem, expressing the political will and decision to solve it and defining concrete goals to achieve.
	Strategy	A plan towards to achieve the goals, with analysis of the situation and defining the appropriate objectives to work on and the better solutions to be implement in practice.
	Principles	As a framework of general basic rules to be followed by the strategy. IENE has set up basic principles for development of Environmentally Friendly LTI .
	Action Plan	As a concrete framework of actions that follows the objectives towards to achieve the goals in a concrete time table.
	Handbook	As a special book or edition focusing and analyzing of special topics and providing general directions for actions and possible special case studies*.
	Guidelines	As a special book or edition focusing on special topics and providing concrete directions for actions.
	Manual	As a special tool for guiding special actions, procedure or constructions.
	Standards	As a special tool providing precise details of characteristics of actions, procedures or constructions. Such a case is the establishment of Green ISO for Linear Transportation Infrastructures**.
	Protocol	As a special tool providing precise details of procedures of actions.
*	Case studies	<i>Case studies have been proposed and evaluated as very important for “lessons to be learned” to use or to avoid examples. Special editions of case studies evaluated as very important.</i>
**	LTI Green ISO	<i>Green ISO for Linear Transportation Infrastructures can be used as basic requirements on procurement procedures on Banks or Investor funding.</i>

International environmental policy on LTI the last 40 Years

...following...

...our participation in TransGreen Project...

...we want to include in IGELI one more Convention:

The case of **“THE CARPATHIAN CONVENTION”**

..as a Special Case Study of ...**how...**

...**after “THINKING GLOBALLY” ...**

.... **we can go to “ACT LOCALLY” ...**



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THE CARPATHIAN CONVENTION under IGELI'S multiple level approach

Rank Range	Rank levels	Definition of Actions and tools needed from the policy and to practical level
↑ Policy level · ↓ Technical level	Policy	A statement of recognizing a problem, expressing the political will and decision to solve it and defining concrete goals to achieve. = THE CARPATHIAN CONVENTION SIGNED
	Strategy	A plan towards to achieve the goals, with analysis of the situation and defining the appropriate objectives to work on and the better solutions to be implement in practice. = THE PROTOCOL ON SUSTAINABLE TRANSPORT
	Principles	As a framework of general basic rules to be followed by the strategy. IENE has set up basic principles for development of Environmentally Friendly LTI. = INCLUDED IN THE PROTOCOL
	Action Plan	As a concrete framework of actions that follows the objectives towards to achieve the goals in a concrete time table.= WE ARE HERE JUST TO WORK ABOUT!!!
	Handbook	As a special book or edition focusing and analyzing of special topics and providing general directions for actions and possible special case studies*. = TRANSGREEN
	Guidelines	As a special book or edition focusing on special topics and providing concrete directions for actions.
	Manual	As a special tool for guiding special actions, procedure or constructions. = TRANSGREEN
	Standards	As a special tool providing precise details of characteristics of actions, procedures or constructions. Such a case is the establishment of Green ISO for Linear Transportation Infrastructures**.
	Protocol	As a special tool providing precise details of procedures of actions.= INCLUDED ALREADY!!!
*	Case studies	<i>Case studies have been proposed and evaluated as very important for “lessons to be learned” to use or to avoid examples. Special editions of case studies evaluated as very important.= TRANSGREEN</i>
**	LTI Green ISO	<i>Green ISO for Linear Transportation Infrastructures can be used as basic requirements on procurement procedures on Banks or Investor funding.</i>

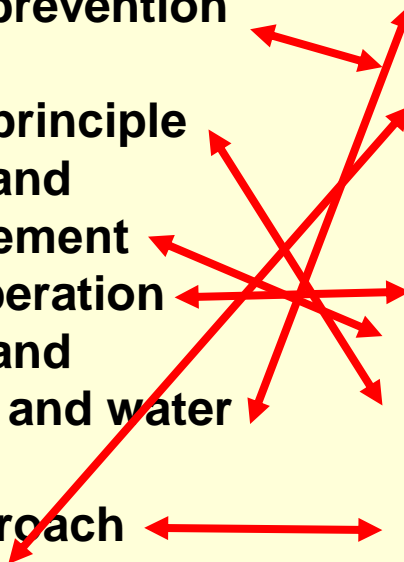
THE CARPATHIAN CONVENTION and IENE principles in a common basic line

Carpathian Convention Principles

1. The precaution and prevention principle
2. The “polluter pays” principle
3. Public participation and stakeholders’ involvement
4. Transboundary cooperation
5. Integrated planning and management of land and water resources
6. A programmatic approach
7. Ecosystem approach

IENE Principles

1. Strong legal framework
2. Sustainable strategic planning
3. Ecosystem approach with the “Precautionary” principle
4. Any case, a unique case (*no blind copy paste*)
5. Multi-disciplinary cooperation
6. Involvement of civil society
7. Polluter pays principle
8. Long life effective maintenance
9. Environmental supervision and monitoring in all phases
10. Culture of learning



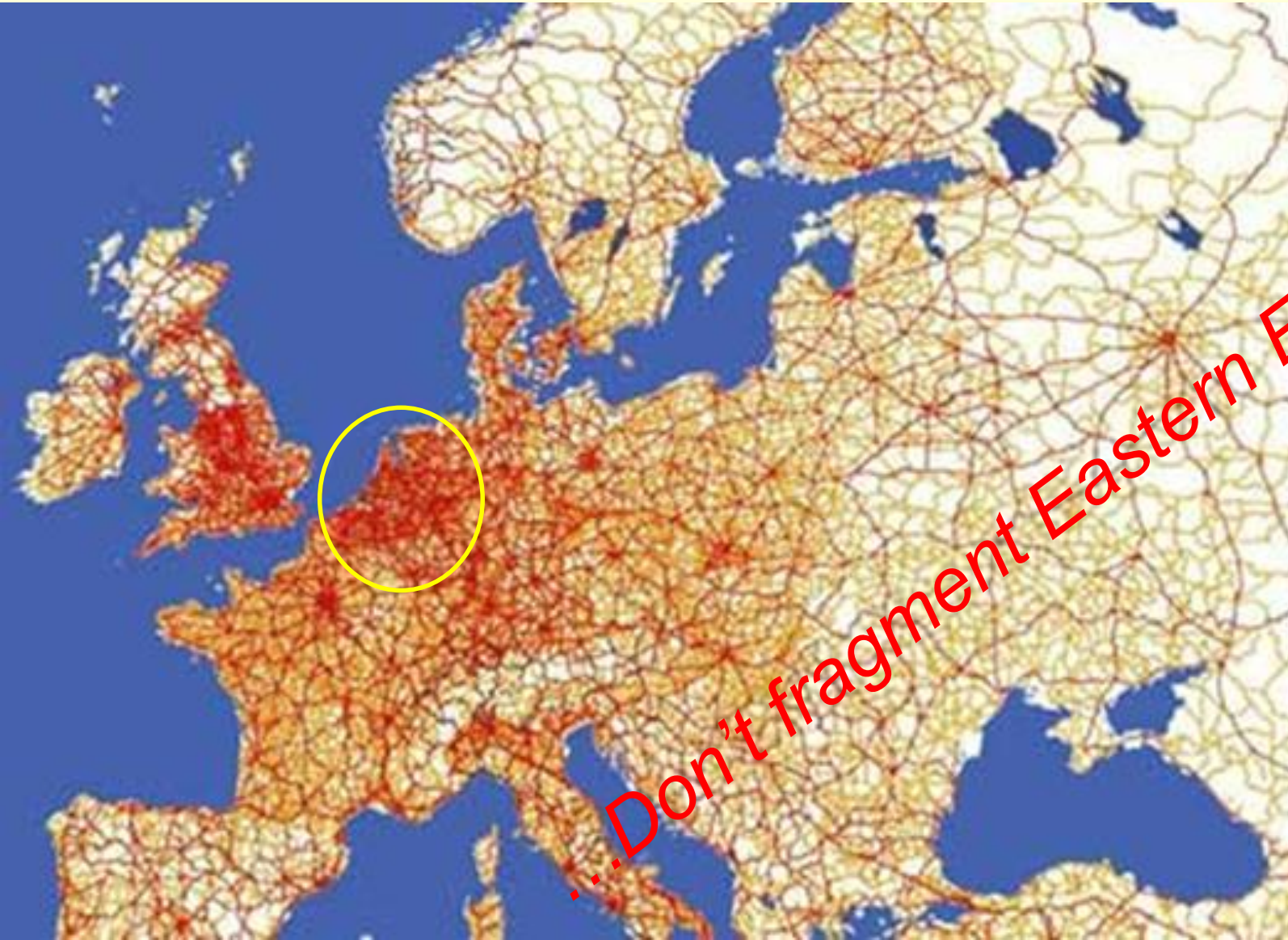
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Lessons learned from Western Europe ...a Case Study...

- IENE 2018 Conference, Eindhoven
- **11-14 September 2018: SAVE THE DATE**
- *“Crossing borders for a greener and sustainable transport infrastructure”*
- **Why in Netherlands?**
- Celebration of **15 years** of national **DEFRAGMENTATION** program



Message from Netherlands...



...Don't fragment Eastern Europe!



Thank you
for your attention

Join us...

... in ...

...Harmonizing Transportation and Nature...

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