

Strategic Environmental Assessment

- or -



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To start with...



Die Isländische Staatliche Planungsagentur - Skipulagsstofnun - zu Besuch im IRS

Am 19. Oktober 2001 waren 20 Mitarbeiter der Isländischen Staatlichen Planungsagentur zu Gast im IRS. Den Besuchern wurden dabei anhand mehrerer Kurzvorträge verschiedene Aspekte der Berlin-Brandenburg-Planung, insbesondere hinsichtlich aktueller Diskussionen zu Regionalparks, kommunikativer

Planung, sowie Verkehrsplanung und -forschung vorgestellt. Ein besonderes Interesse der Gäste galt der Öffentlichkeitsbeteiligung bei der Erstellung raum- und verkehrsrelevanter Politiken, Pläne, Programme und Projekte. Des Weiteren waren die isländischen Gäste sehr am Stand der Einführung einer strategischen Umweltfolgenprüfung (SUP) - der Ratifizierung der sog. ‚SUP-Direktive‘ des Europäischen Rats im August des laufenden Jahres folgend - in Deutschland, bzw. in Berlin-Brandenburg, sowie den damit im Zusammenhang stehenden Implikationen hinsichtlich gegenwärtiger Partizipationsprozesse in der Planung interessiert.

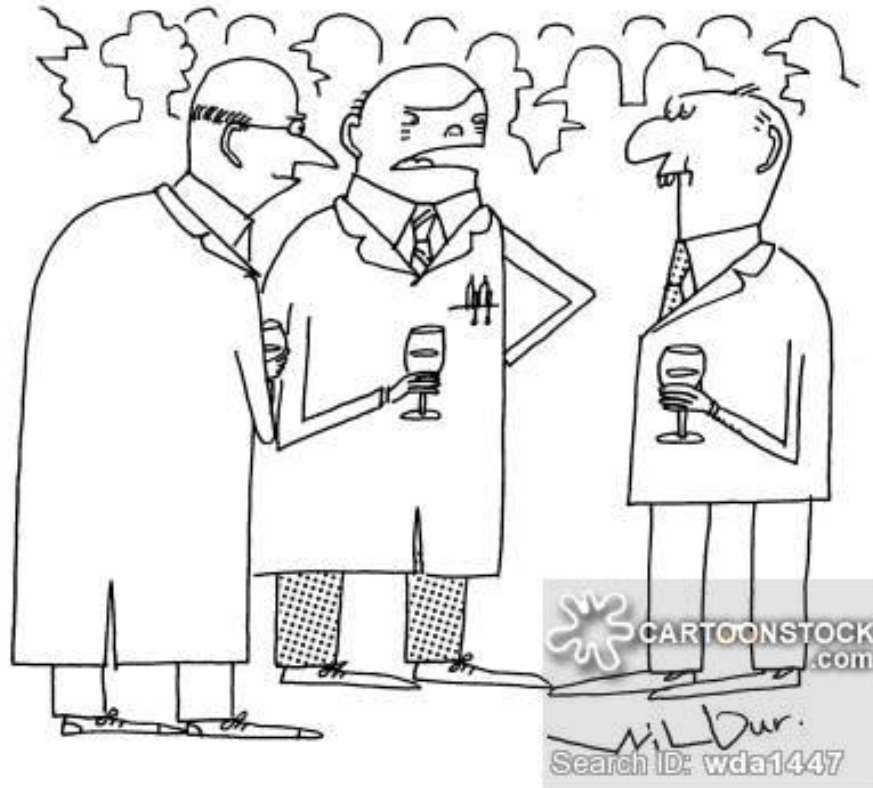
In der Diskussion wurde das Problem der großen Einkaufszentren - der sog. *shopping malls* - an der Peripherie von Städten, sowie andere ökonomische, soziale und ökologische Probleme Brandenburgs und Berlins erörtert. Die Gäste besaßen ein ausgezeichnetes Wissen über den internationalen Stand der Planungsdiskussion. Während man sich darüber einig war, dass ein extrem dünn besiedeltes Land wie Island (250.000 Einwohner auf der Hälfte der Fläche Deutschlands) andere Grundvoraussetzungen für die raum- und verkehrsbezogene Planung mitbringt als ein dicht besiedeltes Land Mitteleuropas, war man am Ende doch sehr über die Ähnlichkeit der in beiden Ländern diskutierten Themen erstaunt.

Beide Seiten wollen, auch im Hinblick auf potentielle EU-Forschungsprojekte, weiterhin in Kontakt bleiben.

Thomas B. Fischer

To start with...

It



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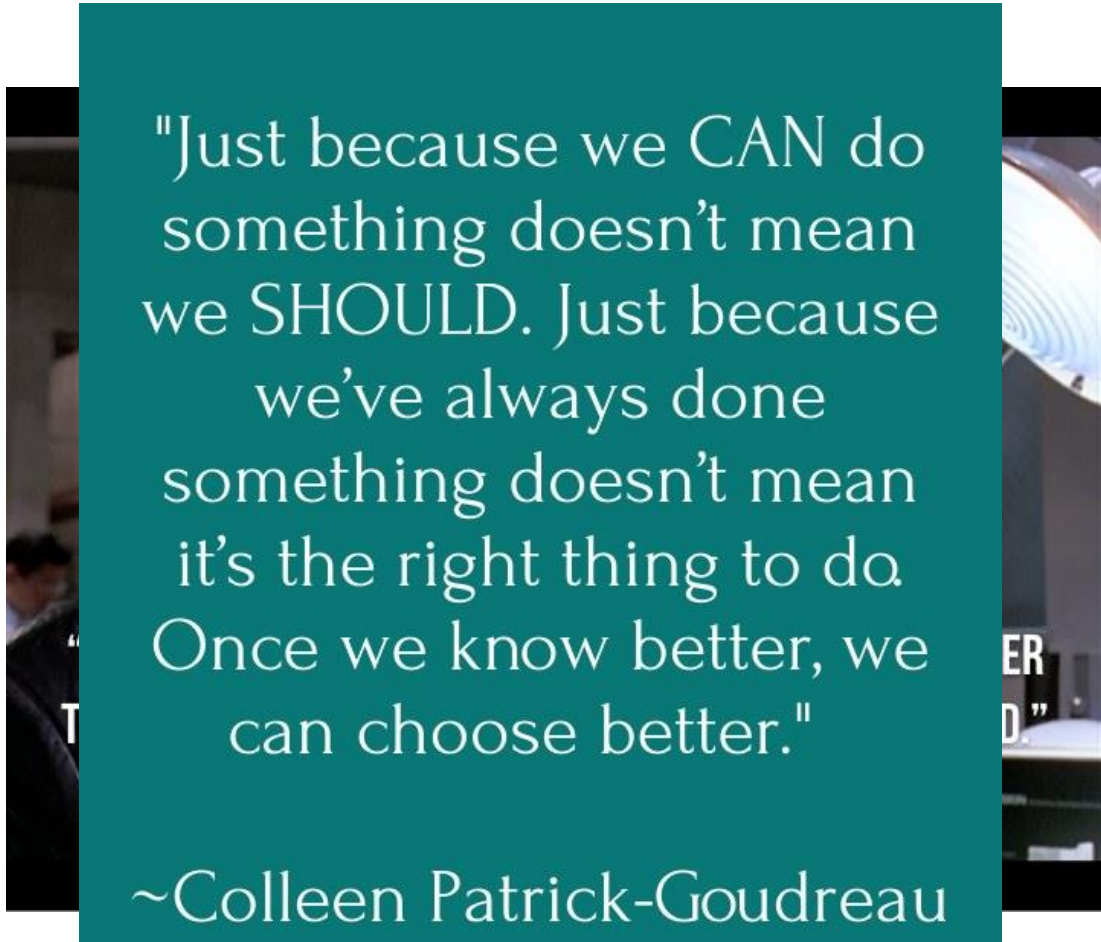
When **we** say "it's not rocket science", we mean it's something far more complicated.

To start with...



- *SEA is about asking why, what, how, where and when questions*
- *It's about common sense – and thus it's more complicated than rocket science... - the environment is (only) one aspect*

To start with...



"Just because we CAN do something doesn't mean we SHOULD. Just because we've always done something doesn't mean it's the right thing to do. Once we know better, we can choose better."

~Colleen Patrick-Goudreau

1 What is SEA?

- Initially, SEA was thought of in terms of project EIA principles to policies, plans and programmes (PPPs). Subsequently, different interpretations emerged, connected in particular with:
 - the **different geographical and time scales** of SEA and EIA;
 - the **different levels of detail** at strategic and project tiers;
 - the **different ways** in which strategic decision processes are **organized**, when compared with project planning.

1 What is SEA?

SEA aims to ensure that due consideration is given to environmental and possibly other sustainability aspects in policy, plan and programme making above the project level. It is:

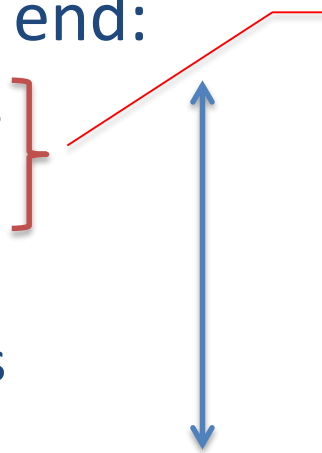
- A systematic, objectives-led, evidence-based, proactive and participative decision making support process for the formulation of sustainable policies, plans and programmes, leading to improved governance; it can function as:
 - a structured, rigorous and open project EIA-based administrative procedure in public and, at times, private plan and programme making situations;
 - a possibly more flexible assessment process:
 - in public and at times private policy-making situations;
 - in legislative proposals and other policies, plans and programmes, submitted to cabinet decision-making.
- A policy, plan and programme making support instrument that is supposed to add scientific rigour to decision-making, applying a range of suitable methods and techniques.
- A systematic decision-making framework, establishing a substantive focus, particularly in terms of alternatives and aspects to be considered, depending on the systematic tier (policy, plan or programme), administrative level (national, regional, local) and sector of application.

1 What is SEA?

- What is a *strategy*...

- a ‘solution’ for moving from where you are now to where you want to be ... what you want to happen to achieve an end:

- Goals / Aims
 - Policies
 - Plans
 - Programmes
 - Projects



Focusing only on these upper tiers isn't strategic...

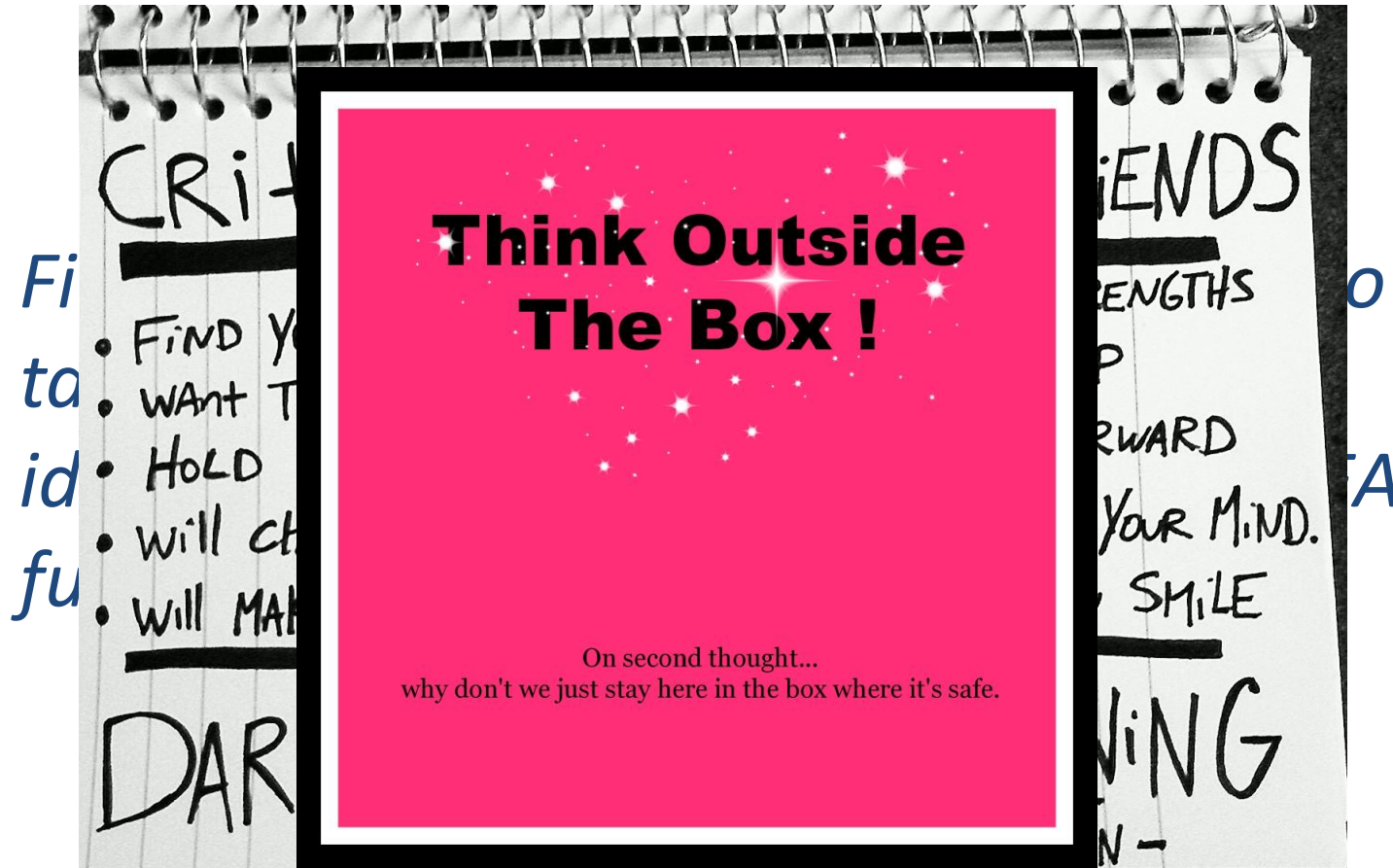
- With regards to SEA, this means looking at ALL tiers, not just the ‘top’ level of decision making

1 What is SEA?



- *High speed rail in Sweden... No one initially asked 'why' should we have it...*
- *Thames Estuary Airport... a prestige project for Norman Foster... supported by Boris Donald Trump Johnson*

1 What is SEA?



1 What is SEA?

Box 8.3: The changing focus of SEA from lower tiers to higher tiers

	SEA	'Higher tiers' / 'Lower tiers'	EIA
Decision making level	Policy	→ Plan → Programme →	Project
Nature of action	Strategic, visionary, conceptual		Immediate, operational
Output	General		Detailed
Scale of impacts	Macroscopic, cumulative, unclear		Microscopic, localised
Timescale	Long to medium term		Medium to short term
Key data sources	Sustainable development strategies, state of the environment reports, vision		Field work sample analysis
Type of data	More qualitative		More quantitative
Alternatives	Area wide, political, regulative, technological, fiscal, economic		Specific locations, design, construction, operation
Rigour of analysis	More uncertainty		More rigour
Assessment benchmarks	Sustainability benchmarks (criteria and objectives)		Legal restrictions and best practice
Role of practitioner	Mediator for negotiations		Advocator of values and norms Technician, using stakeholder values
Public perception	More vague, distant		More reactive (NIMBY)

1 What is SEA?

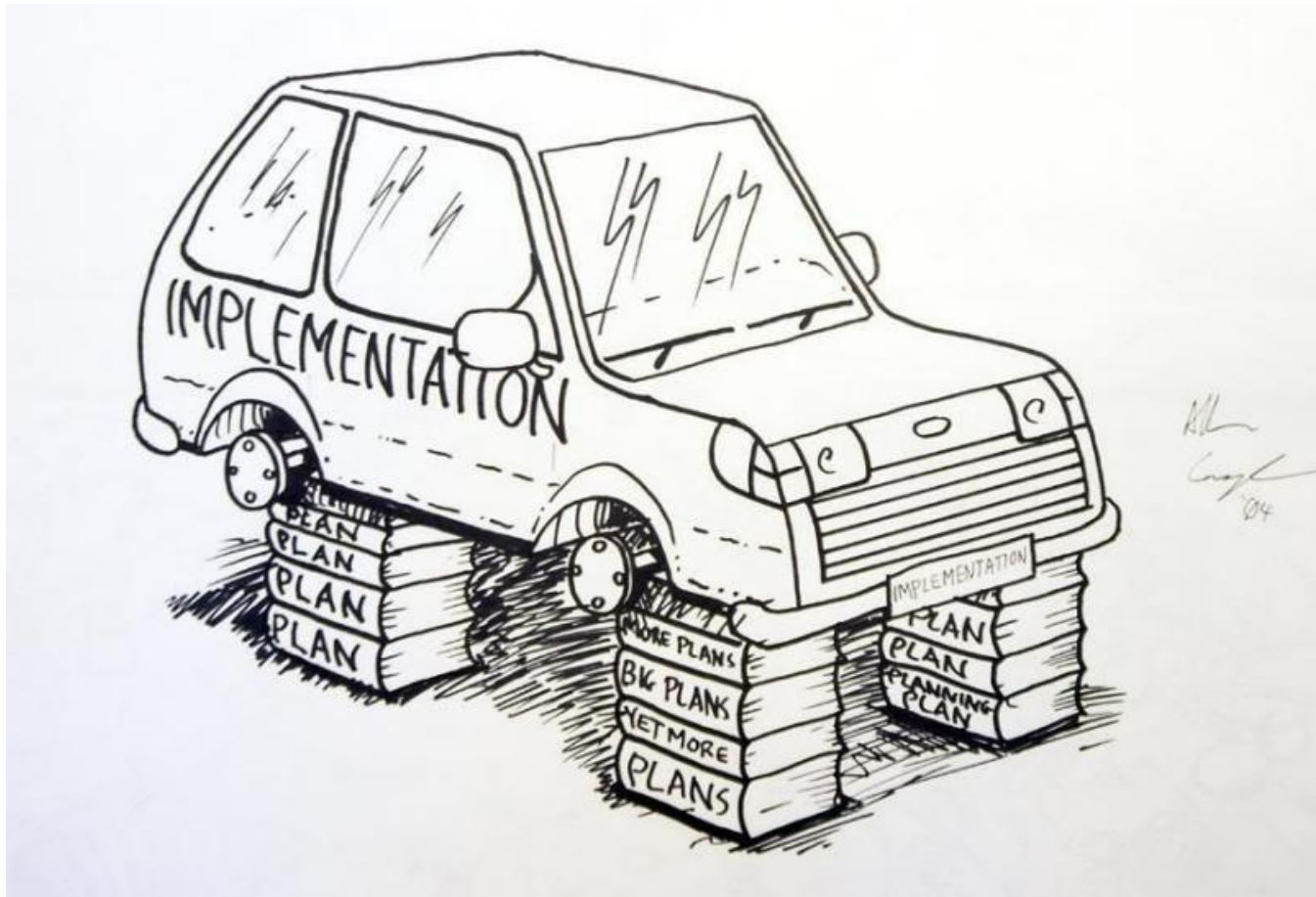
- SEA is applied in a **wide range of different situations**, including trade agreements, funding programmes, economic development plans, spatial/land use and sectoral (for example, transport, energy, waste, water) policies, plans and programmes (PPPs)
- The best-known SEA *‘framework law that establishes a minimum common procedure for certain official plans and programmes’* is European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (*‘SEA Directive’*).
 - *Which is only partially SEA, as it focuses on isolated plans / programmes*

2 Principles of SEA

- The need for SEA results from:
 - the need for a **stronger representation of strategic environmental thinking** in PPPP making;
 - the need for **more effective reasoning** in decision-making;
 - the need for **more efficient** decision making;
 - the need for **better support of good governance and sustainable development** in decision-making.

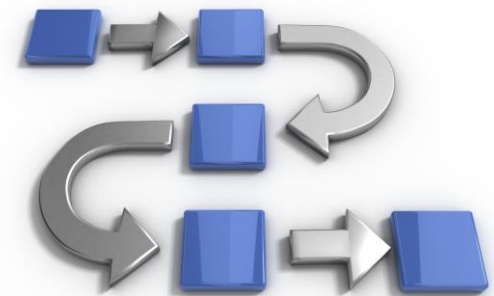


2 Principles of SEA

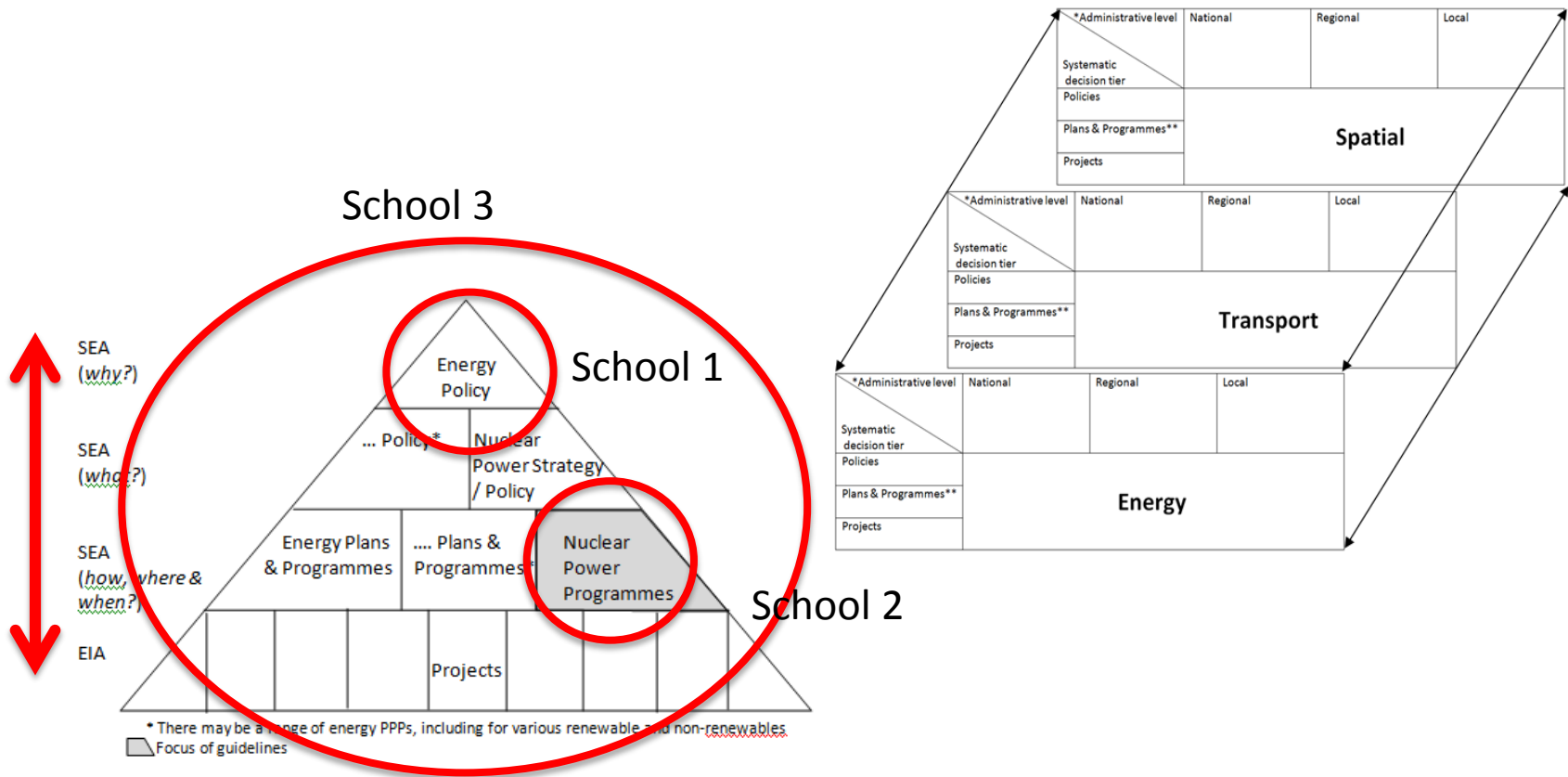


2 Principles of SEA

- The need for more effective reasoning in decision-making;
 - A generic SEA framework can guide decision-makers in systematically addressing, for example
 - initial ‘why’ and ‘what’ questions; typically at the policy tier of decision-making:
 - subsequent ‘what’, ‘where’ and ‘how’ questions; at the plan tier of decision making:
 - ‘where’ and ‘when’ questions at the programme tier of decision-making



2 Principles of SEA



3 SEA as a framework

Systematic decision-making tier	Focus	Tasks	Types of impact to be considered (indicators)	Role of different administrative levels
Vision and policy ↑ ↓	All policy options that might lead to meeting overall policy objectives and targets	<ul style="list-style-type: none"> analysis of current situation listing existing economic, social and environmental objectives and targets and adaptations to transport identifying different development scenarios (eg economic and spatial) identifying different policy options* that may lead to objectives and targets evaluating options in the light of scenarios, indicating trade-offs for achieving objectives and targets, <u>policy assessment</u> monitoring actual developments adjusting policies regularly 	<ul style="list-style-type: none"> Energy consumption and CO₂ Other possible indicators include NO_x and/or SO₂, CH₄, N₂O and land take 	<ul style="list-style-type: none"> Can only be effective if various administrations co-operate closely (different sectors and levels); need to analyse responsibilities first
Network plans ↑ ↓	National or regional infrastructure development options leading to specific projects	<ul style="list-style-type: none"> analysis of current situation identifying – inter-modal – development options according to needs identified in policies within the network assessing impacts on different options to achieve objectives and targets, <u>network assessment</u>; indication of possible trade-offs feedback to policies monitoring actual developments adjusting network plans regularly 	<ul style="list-style-type: none"> Energy consumption and CO₂ Severance and biodiversity Other possible indicators include NO_x and/or SO₂, NMVOC, CO, severance, land take 	<ul style="list-style-type: none"> Can only be effective if the administrations responsible for different transport infrastructures co-operate closely
Corridor plans ↑ ↓	Spatial alternatives within corridors	<ul style="list-style-type: none"> analysis of current situation potential impacts of preferred options, possibly uni-modal (only if multi-modal alternatives are addressed at both policy and network level), <u>corridor assessment</u> monitoring actual developments feedback to policies and networks 	<ul style="list-style-type: none"> Severance and biodiversity land take and harmful emissions Other possible indicators include noise and visual impacts 	<ul style="list-style-type: none"> Depends on higher levels; if vision/policy and network aspects are fully covered, one administration may be the main actor
Programmes ↑ ↓	Identify priority projects	<ul style="list-style-type: none"> Analysis of current situation identifying priority projects using multi-criteria analysis or cost-benefit analysis, <u>programme assessment</u> monitoring actual developments regular adjustment of programmes feedback to previous tiers 	<ul style="list-style-type: none"> concrete environmental damage translated into factors (MCA) or costs (CBA) 	<ul style="list-style-type: none"> One administration may be the main actor
Projects	Project design	<ul style="list-style-type: none"> analysis of current situation optimise project design in terms of policy objectives and targets (<u>project assessment</u>) monitoring actual developments feedback to previous tiers 	<ul style="list-style-type: none"> Localised impacts 	<ul style="list-style-type: none"> One administration may be the main actor

Figure 4. Allocation of tasks within the system's based SEA framework

Note: * Options may include petrol price increases, vehicle taxes according to CO₂ emissions, subsidies for motor vehicles, parking policies, road pricing, speed limits, access restrictions, new infrastructure, better public transport, transport management systems, public campaigns and others

3 SEA as a framework

- Better understanding of what we want to achieve and what we are doing...

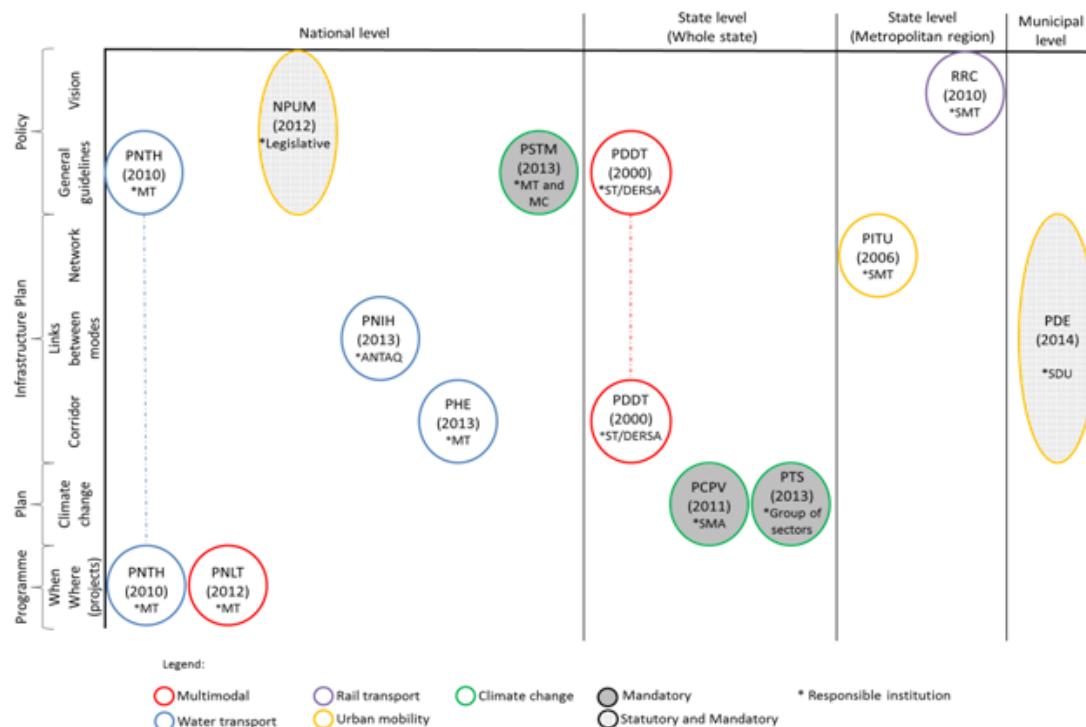
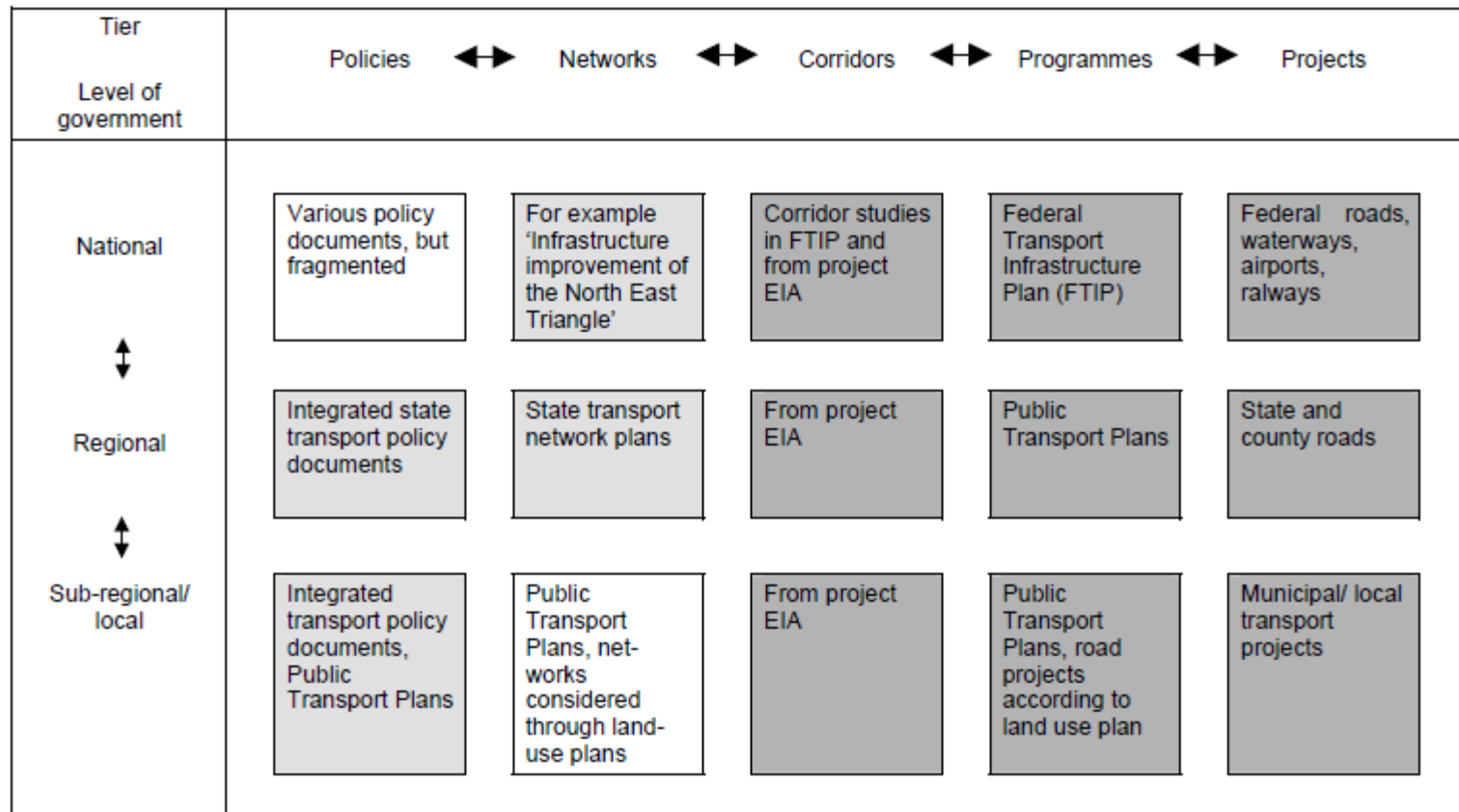


Figure 6 – Planning framework of transport in Brazil (national level), Sao Paulo State (state level), Metropolitan region of Sao Paulo (regional level) and Municipality of Sao Paulo (local level).

3 SEA as a framework



Key:




-  Routinely prepared, has included systematic assessment of impacts for many years
-  Some practice, includes systematic assessment of impacts
-  No assessment

Figure 5. Transport planning system in Germany

3 SEA as a framework

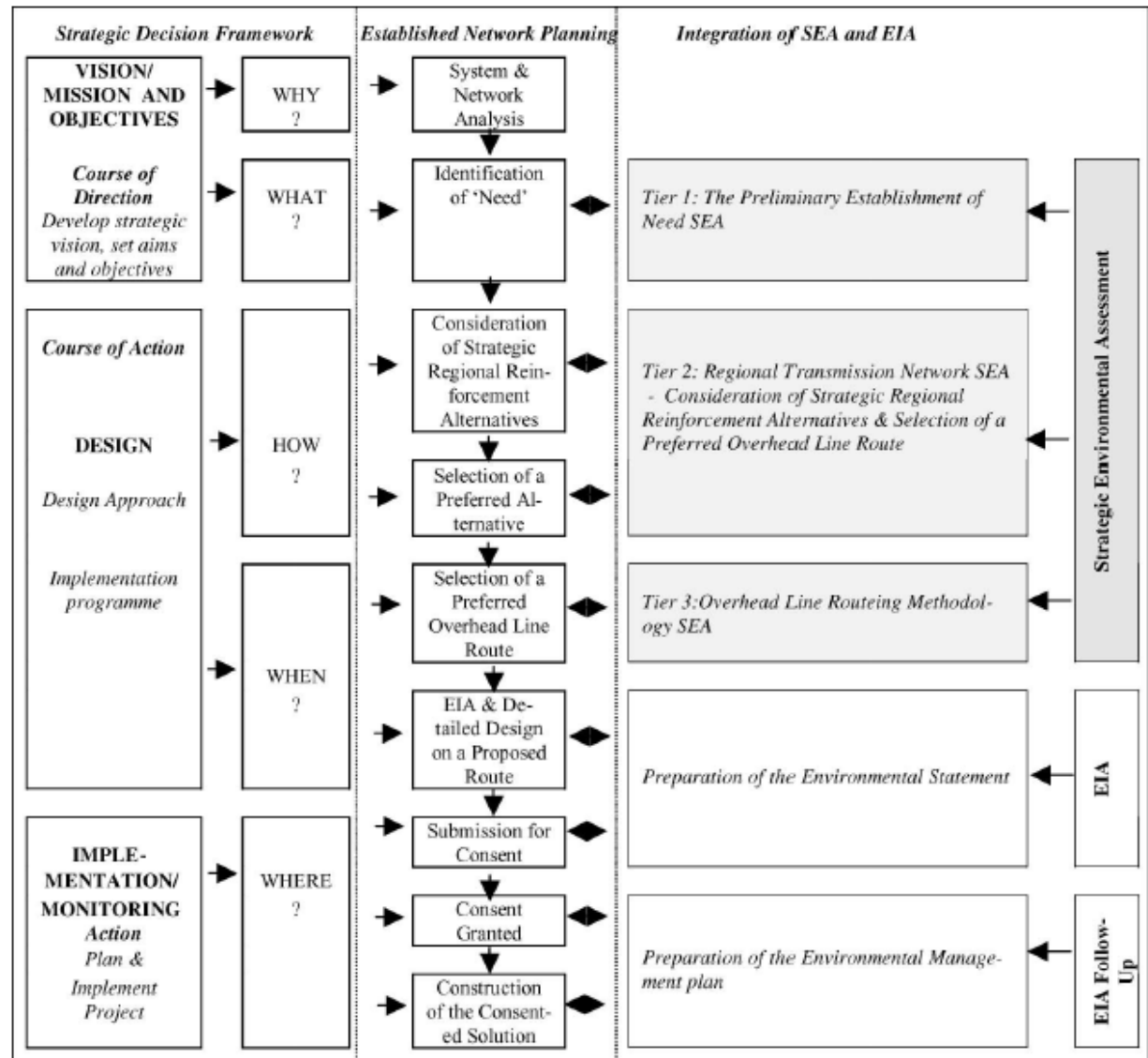
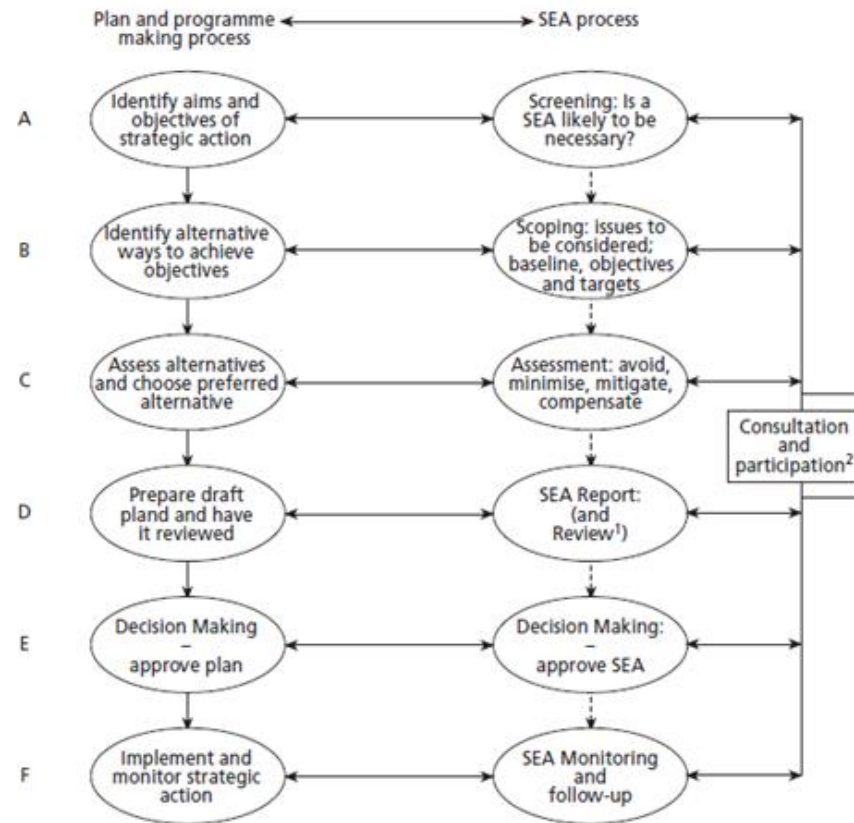


Figure 3. Regional electricity network planning and SEA.

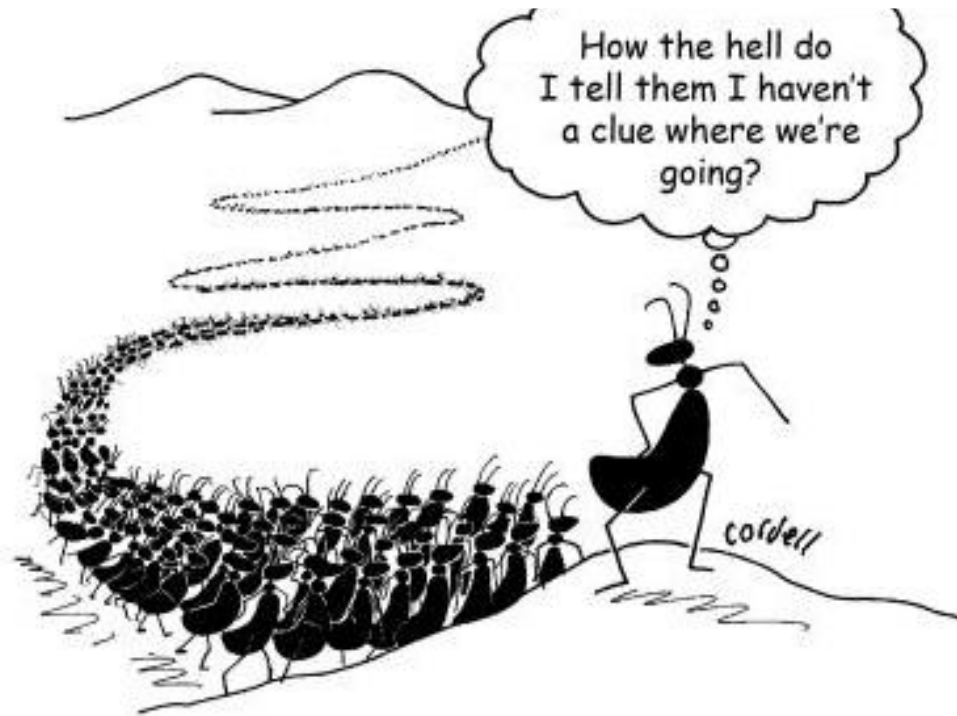
4 SEA process



Notes: 1 not explicitly required by the Directive
 2 according to the Directive, at least at scoping and report stages of the SEA process

Source: Fischer, 2007; see also European Commission, 2006

But...



5 Case studies

- Sustainability appraisal of the Oldham Unitary Development Plan – Appraisal of the Replacement Unitary Development Plan First Deposit Draft, England
 - A discussion based approach was taken, with the sustainability appraisal team discussing proposed policies in terms of their sustainability impacts. In this context, matrices were used to support the appraisal. These showed impacts of proposed policies on sustainability objectives, based on qualitative judgements by the members of the group

Criteria	Global sustainability			Natural resources				Local environmental quality							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Proposed Policies/Action	Transport energy efficiency	Transport trips	Housing energy efficiency	Renewable Energy potential	CO2 fixing	Wildlife Habitats	Air quality	Water conservation	Soil quality	Minerals conservation	Landscape	Rural environment	Cultural heritage	Public access to parks	Building quality
Urban regeneration	✓	✓	✓	✓	✓	✓	✓	✓	✗?	•	✓	•	✓	✓?	✓
Improved trams	✓	✓	?	✓?	✓	•	✓	•	•	•	•	•	✓	?	✓
Use of brownfield sites	•	•	•	✓?	✓	✗?	•	•	✗?	✓	✓	?	✓	✓	✓

- No relationship or insignificant impact
- ✓ significant beneficial impact
- ✓? likely but unpredictable beneficial impact
- ? uncertainty of prediction or knowledge
- ✗? likely but unpredictable adverse impact
- ✗ significant adverse impact

5 Case studies

- SEA for new development areas for Rotterdam and Leiden, The Netherlands

Figure C1.1 Development alternatives

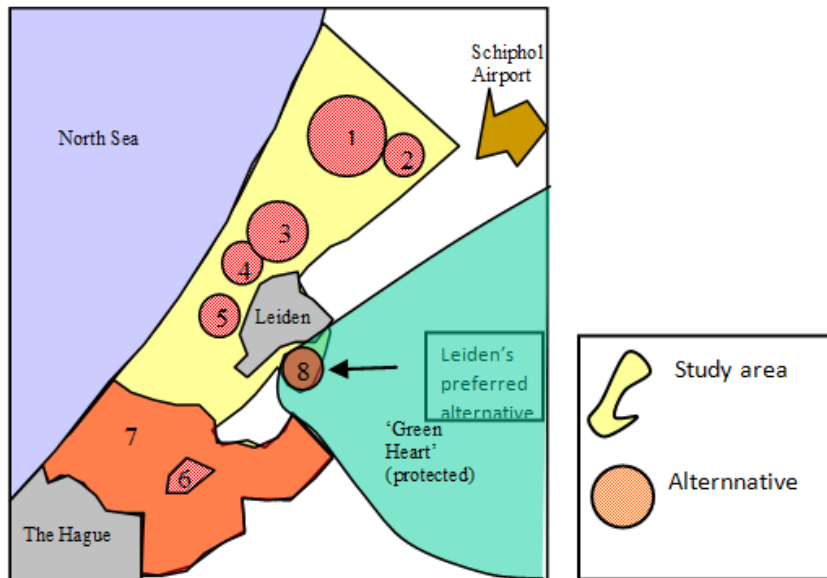


Table C1.1 Final results for different alternatives

	Most favourable	Least favourable
Liveability	5	3
Environment	2, 7	8
Sustainability	1	8
Economy	2, 8	1, 3
Costs	3	5

Source: own design, following SEA for the Leiden and Rotterdam regions

5 Case studies

- SEA for Municipality of Weiz Urban Plan revision on future use of 27 areas, Austria

Table D1.1 Impact matrix SEA Urban Plan Revision Weiz

Area no. x (from 1 to 27)	Old urban plan	no action	intentions of municipality	best environmental option
Alternatives Information provided				
Environmental criteria				
Socio-economic criteria weighting				
Recommendations, mitigation measures and comments				

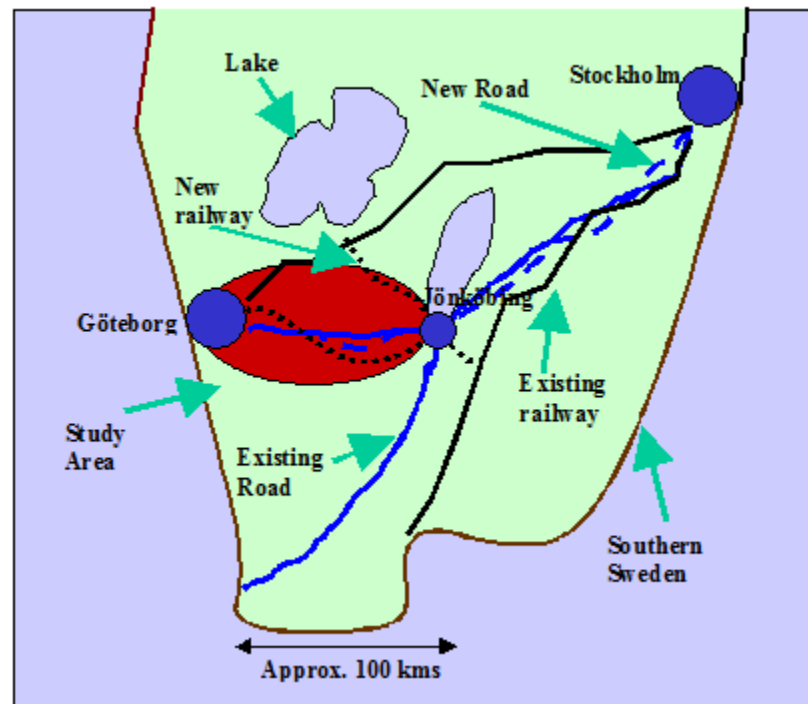
Figure D1.1 Development areas that were assessed



Source: own design, following SEA

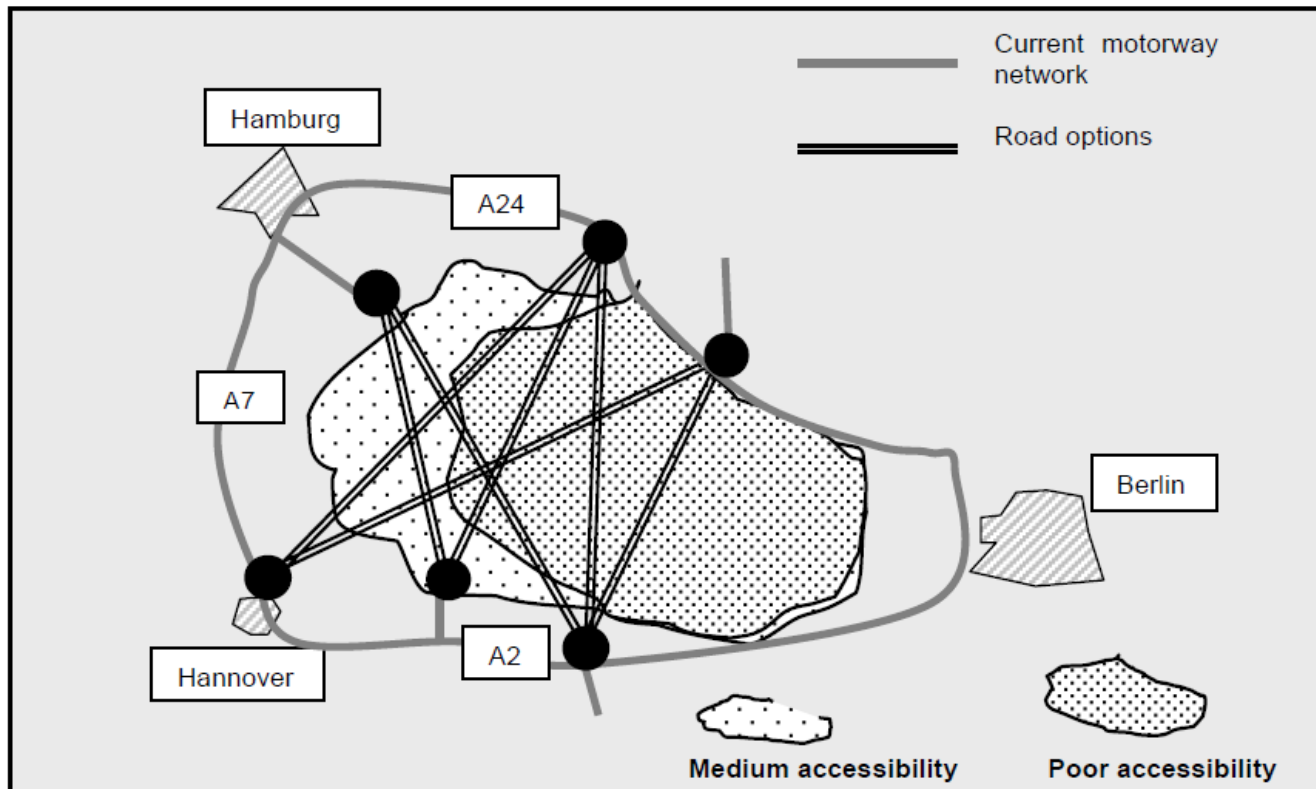
5 Case studies

- SEA for the Gothenburg – Jönköping Transport Corridor, Sweden



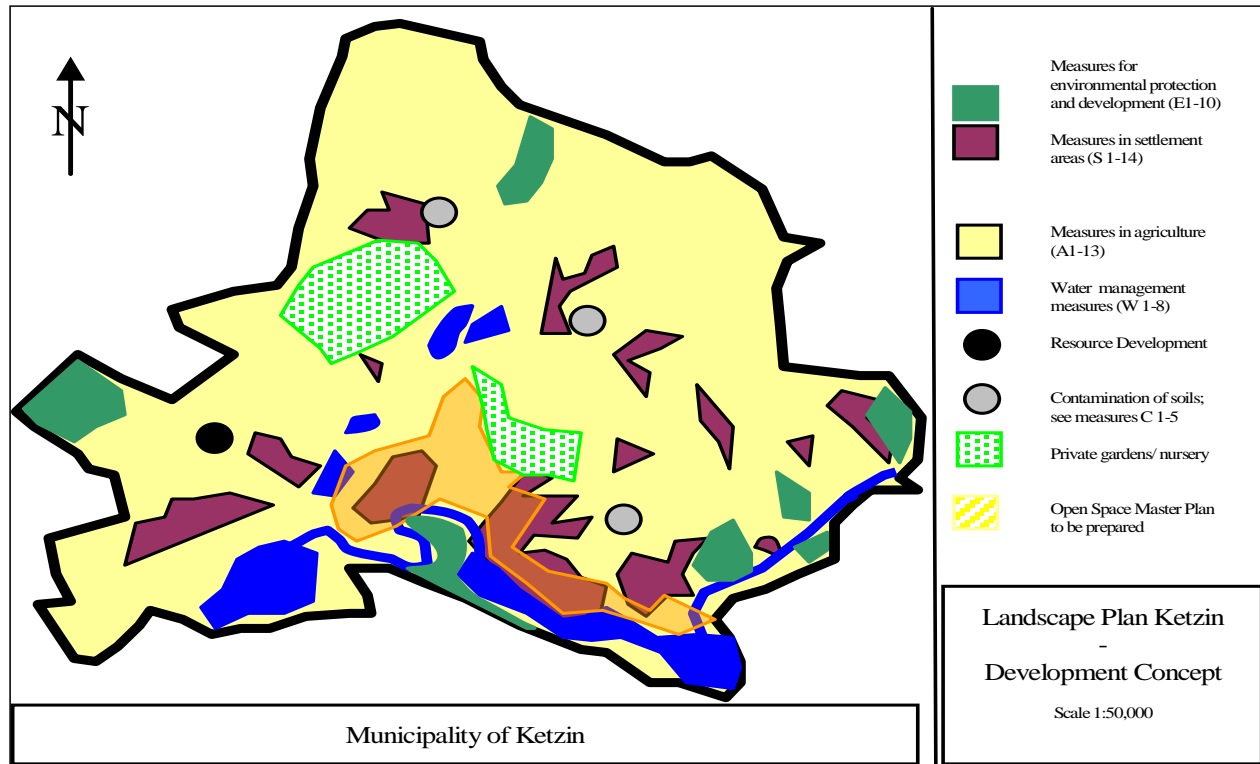
5 Case studies

- SEA for the Berlin-Hamburg-Hannover Triangle



5 Case studies

- Local land use plan Ketzin



6 For consideration

- It is human nature to think wisely and act foolishly

Anatole France



6 For consideration

Levels of Understanding	Individual	Organisational	Social	Types of Learning	
Evaluation	Know why Questioning underlying principles Changing values and behaviours	Know why Integrating principles into Organisational culture Changing norms and practices	Know why Changing values and behaviours	Know why Double Loop Learning	Transformatory Learning
Synthesis					
Analysis	Know how Adjusting the Plan	Know how Adjusting the Plan	Know how Adjusting responses to Plan	Know how Single Loop Learning	Instrumental Learning
Application	Adjusting SEA Process	Adjusting SEA Process	Adjusting input to SEA process		
Comprehension	(Development of individual/organisational capacity— initially likely to be a few 'experts')				
Knowledge acquisition	(Legal/administrative/political procedures)				
	(Familiarity of terms and concepts) Know that				

Very rarely

Not often...

routine

6 For consideration

- More emphasis on interactive approaches?

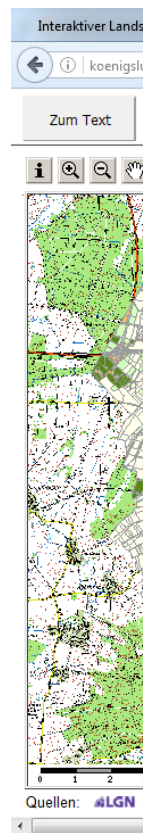
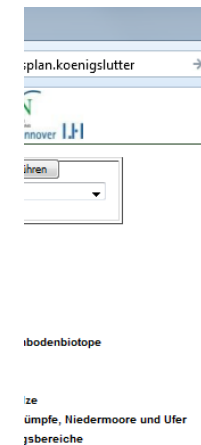


Figure 2: An Assessment of the Königslutter Landscape Plan Learning Outcomes

Levels of Understanding	Individual	Organisational	Social	Types of Learning		
Evaluation	<i>Know why</i> Questioning underlying principles Changing values and behaviours	<i>Know why</i> Integrating principles into Organisational culture Changing norms and practices	<i>Know why</i> Changing values and behaviours	<i>Know why</i>	Double Loop Learning	Transformatory Learning ----- Instrumental Learning
Synthesis	Applying understanding to other areas	Applying understanding to other areas	Applying understanding to other areas			
Analysis	<i>Know how</i> Adjusting the Plan	<i>Know how</i> Adjusting the Plan	<i>Know how</i> Adjusting responses to Plan	<i>Know how</i>	Single Loop Learning	
Application	Adjusting SEA Process	Adjusting SEA Process	Adjusting input to SEA process			
Comprehension	<i>Know that</i>				<i>Know That</i>	
Knowledge Acquisition	(Development of individual/organisational capacity – initially likely to be a few 'experts') (Legal/administrative/political procedures) (Familiarity of terms and concepts)					



- Strong indications that Landscape Plan resulted in learning outcomes
- Indications that Landscape Plan resulted in learning outcomes
- Some indications that Landscape Plan resulted in learning outcomes

Pakka þér fyrir!



SYMPOSIUM THEMES

Water is the most important resource on this planet, and a significant proportion of global investment and infrastructure is concerned with ensuring its supply, management, quality, and transportation. Every €1 invested in clean water can yield €4–€13 in economic returns, but when its use becomes unsustainable and its supply limited, polluted, or even too abundant during flood events, our society and its infrastructure can fail.

All forms of development interact with water at a physical, policy, regulatory, social, or cultural level. In the face of future climate change adaptation and mitigation, new infrastructure will need to be resilient to both current and future hydrological risks. The impact assessment (IA) of water effects for new infrastructure or water-relevant policies, plans, and programmes (through EIA or SEA, for example) is a complex and critical step within the appraisal of investment, operational, or future sustainable management cycles.

This IAIA symposium aims to:

- Advance a multidisciplinary discussion about the challenges and opportunities associated with the management of water-related impacts across investment sectors.
- Support IA professionals in effectively meeting challenges associated with water IA, management, and planning.
- Promote new approaches in impact assessment.

FIRST ANNOUNCEMENT

IAIA Special Symposium

**Water and Impact Assessment:
Investment, Infrastructure, Legacy**

31 August - 2 September 2016

Bishop Grosseteste University (BGU)
Lincoln, England, United Kingdom

