The ARTS quick-scan methodology

ARTS – Assessment of Regional and Territorial Sensitivity

Erich Dallhammer, Bernd Schuh, Tobias Panwinkler, Joanne Tordy (ÖIR)

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ESPON ARTS

The Challenge

- EU policy proposals influence development of regions

- with often unintended and / or unknown effects
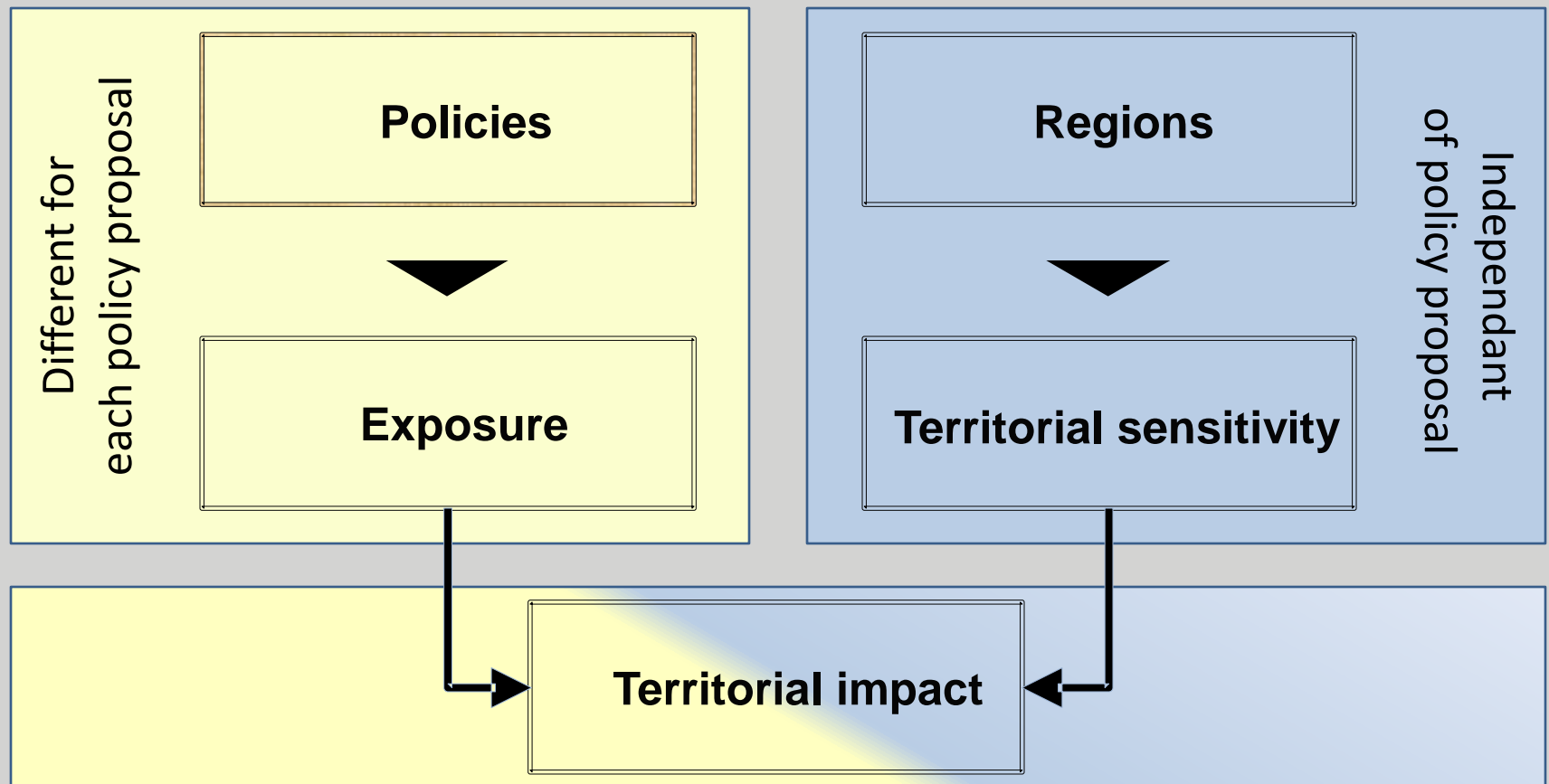
Task ESPON ARTS

- Develop a simplified, evidence-based procedure of an ex ante Territorial Impact Assessment (TIA)

Our approach

- To develop a "quick and dirty" TIA-check

- To combine expert knowledge
  + an Excel tool and standardised indicators

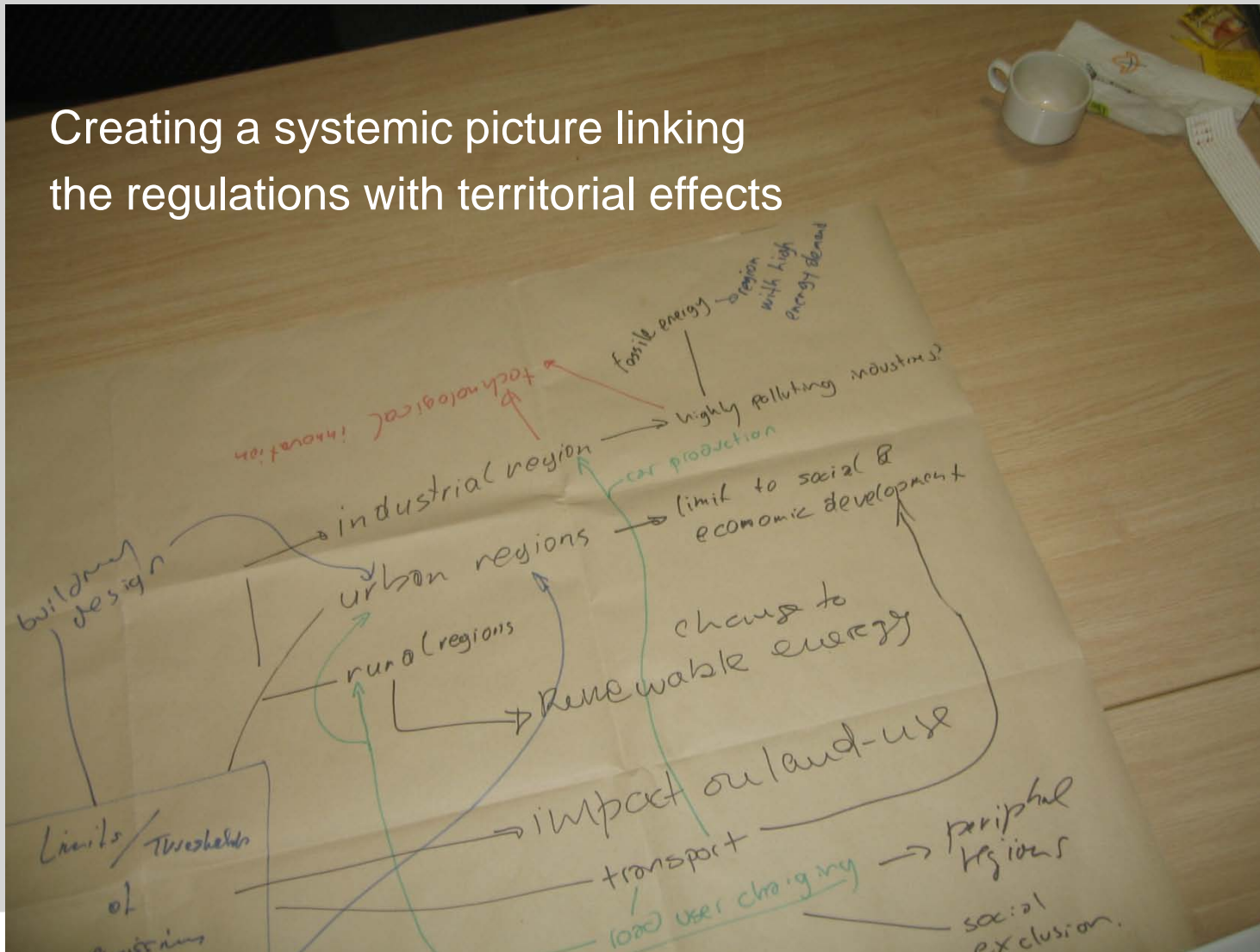- To show results in maps (NUTS 2 level)

The vulnerability concept

Different for each policy proposal

Policies

Exposure

Independant of policy proposal

Regions

Territorial sensitivity

Territorial impact

TIA quick check in 9 Steps

(1) Brainstorming for the conceptual model:
How does a directive affect the development of regions?

(2) Dealing with discrete cause/effect chains

(3) Which types of regions are affected?

(4) What is the intensity of exposure on different fields?

(5) What is the territorial impact on regions?

(6) Do the results make sense?

(7) Which regions are affected in which fields? (maps)

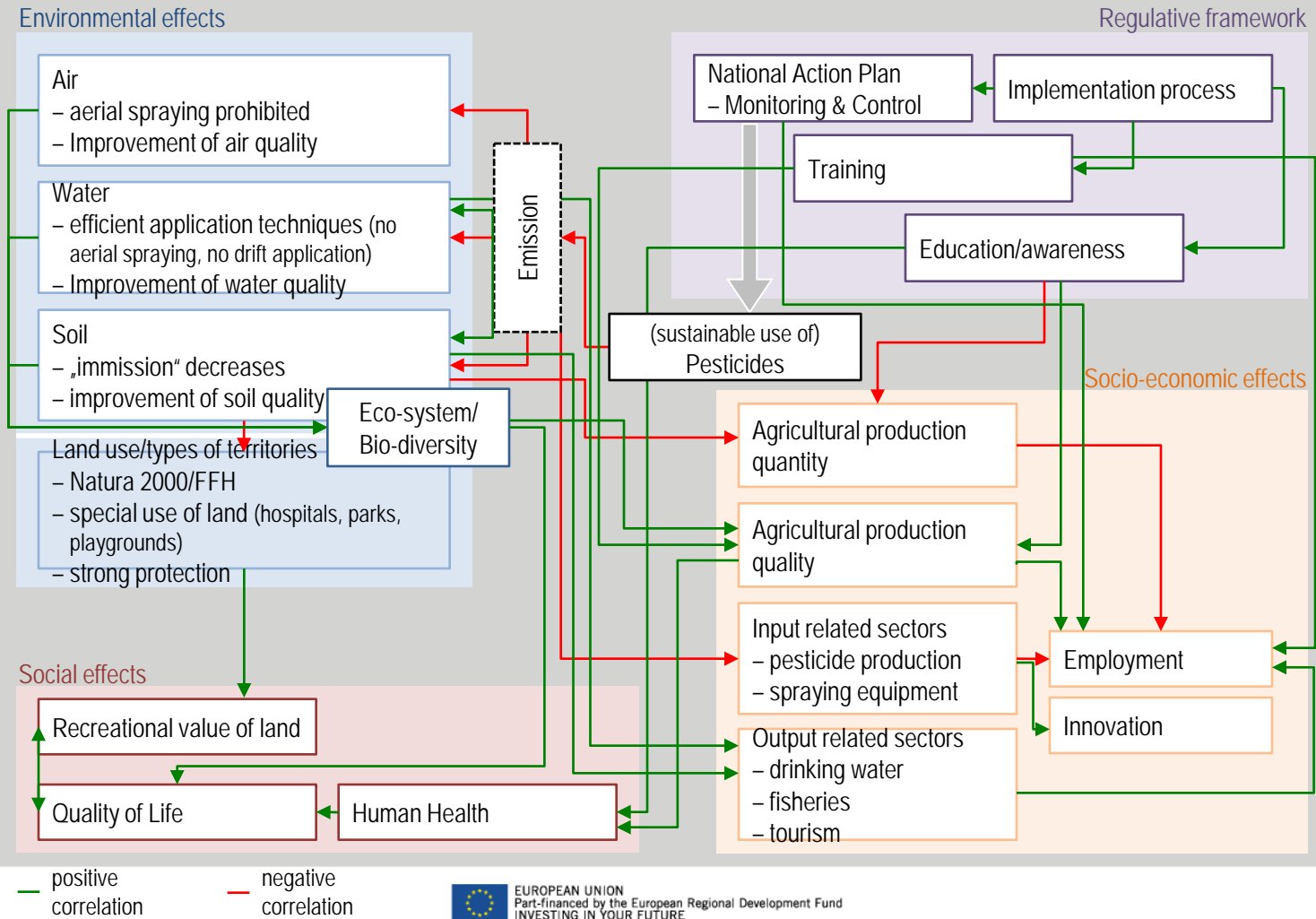(8) What are the policy implications?

(9) How to communicate the results?

(1) Conceptual model: Brainstorming

Creating a systemic picture linking
the regulations with territorial effects

(1) Result: Conceptual Model

Deducing potential effects from Directives

Environmental effects

Air
– aerial spraying prohibited
– Improvement of air quality

Water
– efficient application techniques (no aerial spraying, no drift application)
– Improvement of water quality

Soil
– „immission" decreases
– improvement of soil quality

Land use/types of territories
– Natura 2000/FFH
– special use of land (hospitals, parks, playgrounds)
– strong protection

Emission

Eco-system/ Bio-diversity

Regulative framework

National Action Plan – Monitoring & Control

Implementation process

Training

Education/awareness

(sustainable use of) Pesticides

Socio-economic effects

Agricultural production quantity

Agricultural production quality

Input related sectors
– pesticide production
– spraying equipment

Output related sectors
– drinking water
– fisheries
– tourism

Employment

Innovation

Social effects

Recreational value of land

Quality of Life

Human Health

positive correlation   negative correlation

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TIA quick check in 9 Steps

(1) Brainstorming for the conceptual model:
How does a directive affect the development of regions?

(2) Dealing with discrete cause/effect chains (branching)

(3) Which types of regions are affected? (regional exposure)

(4) What is the intensity of exposure on different fields?

(5) What is the territorial impact on regions?

(6) Do the results make sense?

(7) Which regions are affected in which fields?

(8) What are the policy implications?

(9) How to communicate the results?

(3) Expert judgment: types of regions exposed

Directive XX affected region	
	Agglomerated
	All regions
	Chemical industries
	Harbour regions
	High density of rail
	High density of road
a	Industrial regions
	Major airport location
	Natural areas
b	Rural
	Shrinking regions
	Unprofitable farming
	Urban

Provided:
20 types of regions (NUTS2) to be selected

TIA quick check in 9 Steps

(1) Brainstorming for the conceptual model:
How does a directive affect the development of regions?

(2) Dealing with discrete cause/effect chains

(3) Which types of regions are affected?

(4) **What is the intensity of exposure on different fields?**
(exposure matrix)

(5) What is the territorial impact on regions?

(6) Do the results make sense?

(7) Which regions are affected in which fields?

(8) What are the policy implications?

(9) How to communicate the results?

(4) Expert judgment: exposure caused by Directive

	A	B	D	E	F	G
2			Soil			Water
3	**Directive on Air quality**		erosion	pollutants in soil	share of artificial areas / soil sealing	water consumption
4	**Directive XX**	**affected region**	F1	F2	F3	F4
16	a	Industrial regions	no/minor effect	decrease	unknown	unknown	dec
17		Major airport location			strong increase	
18		Natural areas			increase	
19	b	Rural			no/minor effect	
20		Shrinking regions			decrease	
21		Unprofitable farming			strong decrease	
22		Urban			unknown	
23		Wealthy regions				
24		PM10				

41 thematic fields

TIA quick check in 9 Steps

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How does a directive affect the development of regions?

(2) Dealing with discrete cause/effect chains

(3) Which types of regions are affected?

(4) What is the intensity of exposure on different fields?

(5) **What is the territorial impact on regions?**

(6) Do the results make sense?

(7) Which regions are affected in which fields?

(8) What are the policy implications?

(9) How to communicate the results? (write-up)

(5) What is the territorial impact on regions?

Result of the Excel tool

		E1	E2	E3	E10	E11	E12	E13	E14
AT11	Burgenland	0,00	0,00	0,00	0,00	0,00	0,00	na	0,00
AT12	Niederösterreich	0,00	0,00	0,00	0,00	0,00	0,00	na	0,00
AT13	Wien	0,00	0,00	-1,06	-0,77	0,00	0,78	na	1,79
AT21	Kärnten	0,00	0,00	0,00	0,00	0,00	0,00	na	0,00
AT22	Steiermark	0,00	0,00	0,00	0,00	0,00	0,00	na	0,00
AT31	Oberösterreich	0,00	0,00	-0,77	-0,78	0,00	0,81	na	1,78
AT32	Salzburg	0,00	0,00	-0,76	-0,99	0,00	0,80	na	1,74
AT33	Tirol	0,00	0,00	0,00	0,00	0,00	0,00	na	0,00
AT34	Vorarlberg								
BE10	Région de Bruxelles-Ca								
BE21	Prov. Antwerpen								
BE22	Prov. Limburg (B)								
BE23	Prov. Oost-Vlaanderen								
BE24	Prov. Vlaams Brabant								

very high positive impact

high positive impact

moderate positive impact

minor positive impact

no exposure

minor negative impact

moderate negative impact

high negative impact

very high negative impact

(7) Result: Map for each indicator
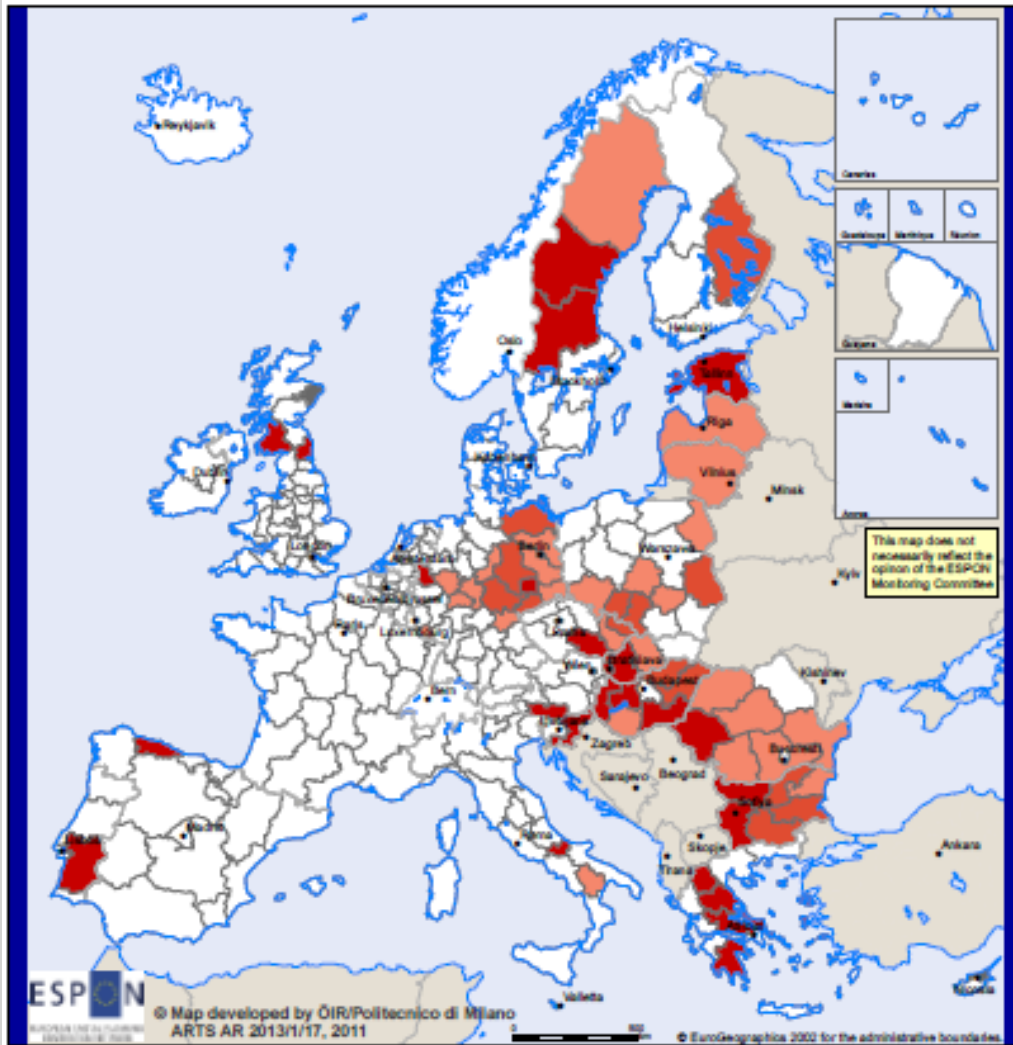
Effects of Directive on recognition of qualification on migration balance in countries of origin

Negative Impact
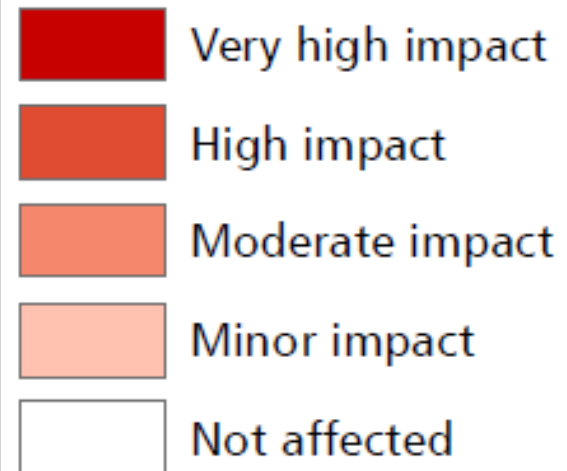
- Very high impact
- High impact
- Moderate impact
- Minor impact
- Not affected

© Map developed by ÖIR/Politecnico di Milano
ARTS AR 2013/1/17, 2011

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

© EuroGraphics 2002 for the administrative boundaries

TIA quick check in 9 Steps

(1) Brainstorming for the conceptual model:
How does a directive affect the development of regions?

(2) Dealing with discrete cause/effect chains (branching)

(3) Which types of regions are affected? (regional exposure)

(4) What is the intensity of exposure on different fields?

(5) What is the territorial impact on regions? (Territorial Impact Matrix)

(6) Do the results make sense? (plausibility and quality check)

(7) Which regions are affected in which fields? (mapping the results)

(8) What are the policy implications?

(9) How to communicate the results? (write-up)

TIA Quick Check in 2 versions

A Standard version and an Advanced version

The standard TIA quick check:

- Helps to identify the relevant fields
- Shows NUTS2 regions with a potentially high impact
- Helps to set a focus for more detailed impact analysis.

The TIA quick check

Standard Version

A methodology for a TIA ex-ante quick check
ESPON ARTS aims to develop a tool by which to analyse
the impact of EU legislation that takes the sensitivity of
regions into account. The analysis of regional sensitivity to
EU directives and policies is intended as a simplified,
evidence-based procedure of Territorial Impact Assessment
(TIA). This 'quick check' should be as simple,
comprehensible and user-friendly as possible.

The advanced TIA quick check

- Provides the technical framework
- Allows users to define special indicators
- Can be used also for NUTS3 regions and beyond

Testing the TIA quick check

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