

*Development of Local Level Threshold Terms
for the Risk Analysis of „Region Hannover“
(Germany)*

Dipl.-Geogr. /Master Disaster Management

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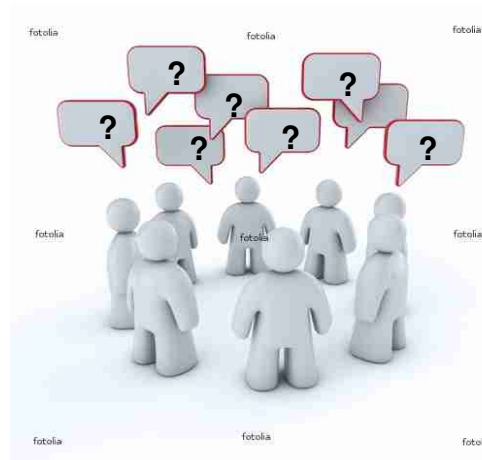
Disaster prevention and risk communication on local level



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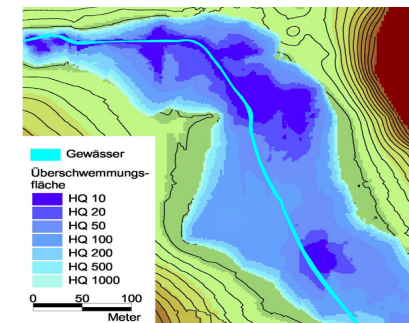
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Source: MERZ, B., M. GOCHT, A. THIEKEN (2005)



Aim of the project:

Development of threshold terms
for the implementation of a Risk Analysis

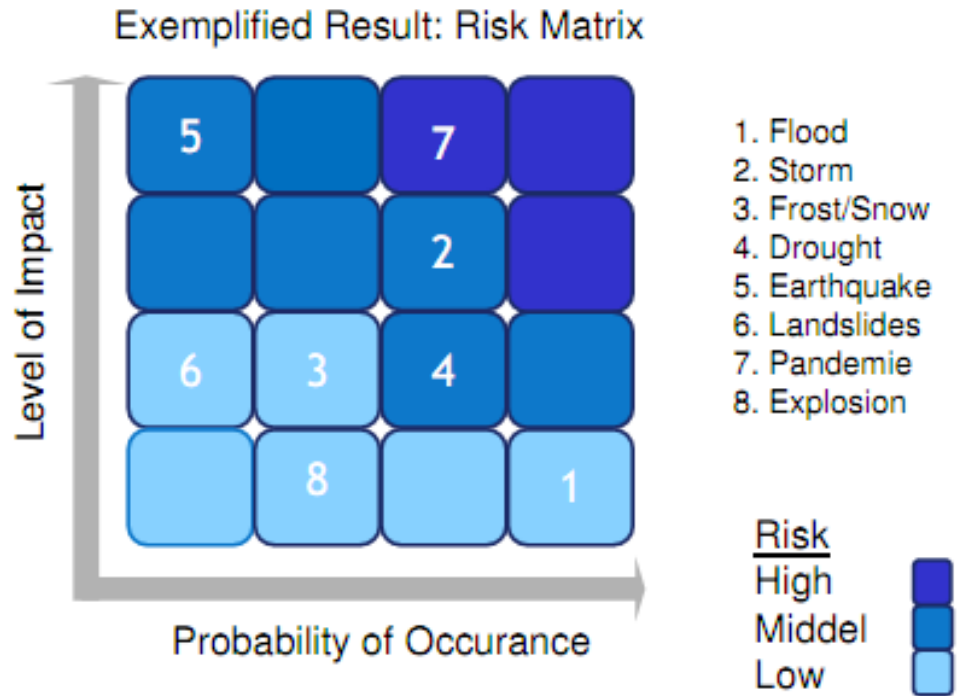
Risk Analysis serves as an instrument of risk communication.

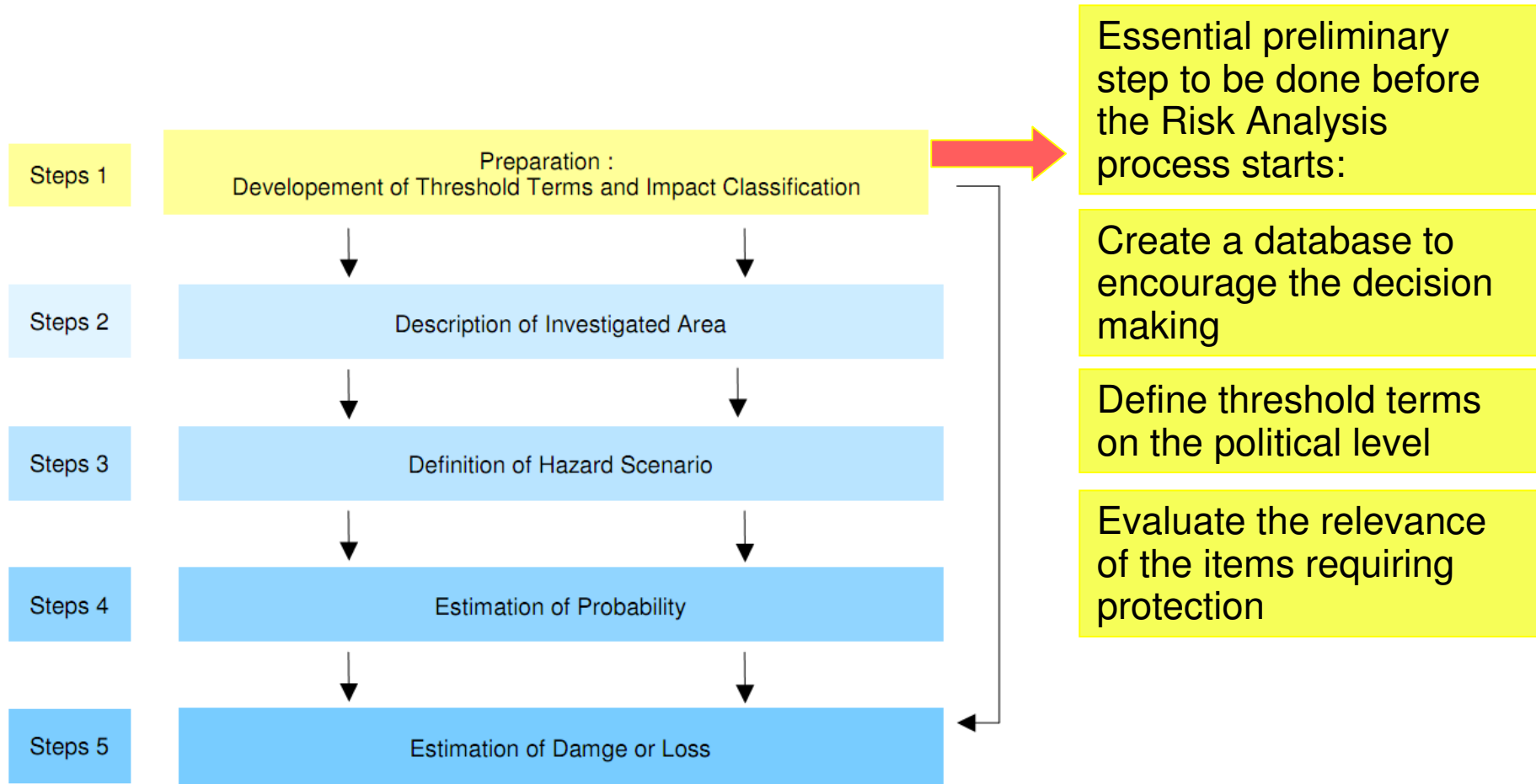
Source:

The method was published by The Federal
Office of Civil Protection and Disaster
Assistance (BBK) in 2010.

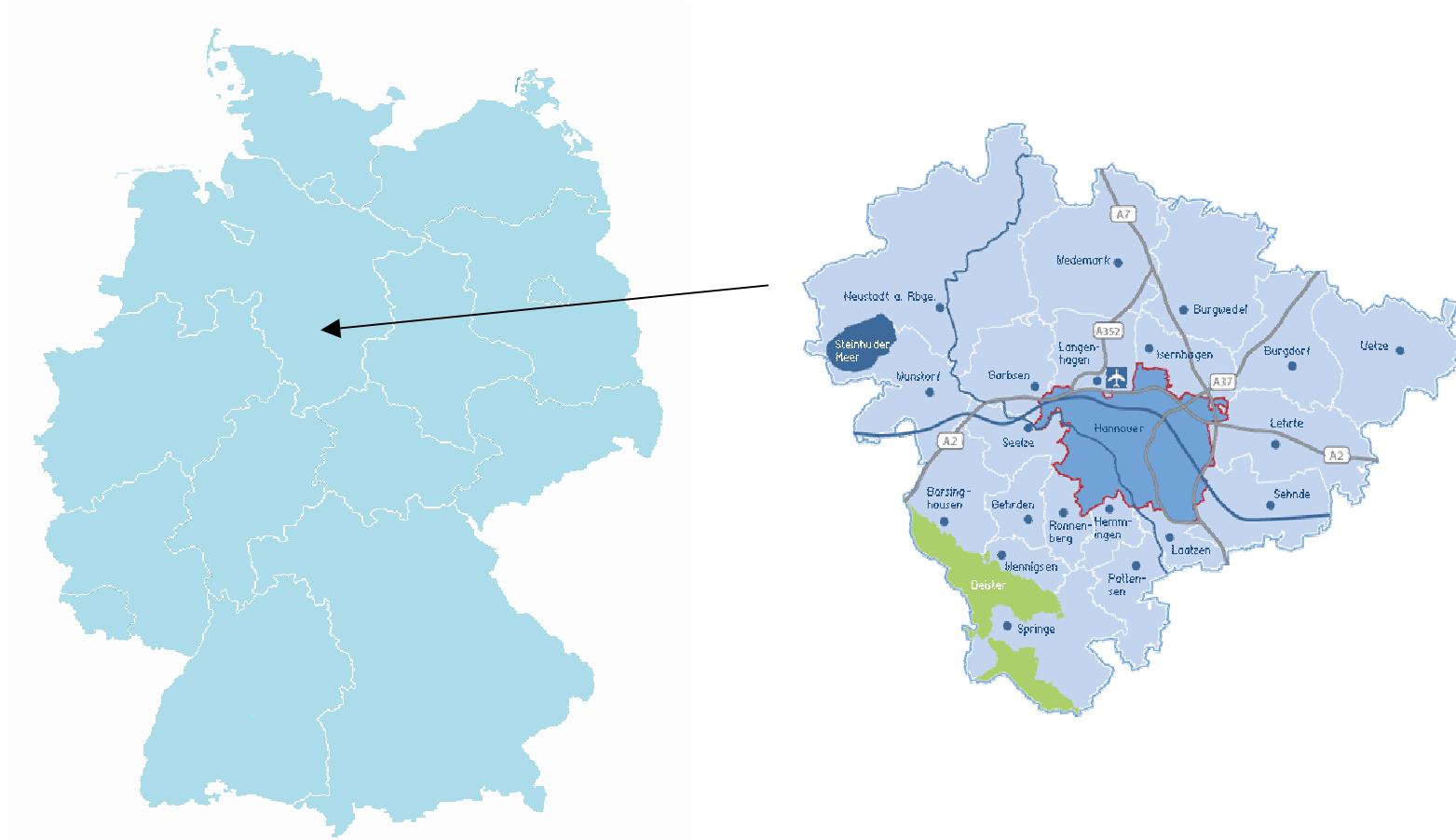


A Risk Analysis combines the consequences of a hazard with the probability of its occurrence.





The investigated area was “Region Hannover” (Region of Hannover, Germany).





How can impact in Region Hannover be evaluated prior to its occurrence?

How to measure damage or loss?



The key question on local level was how to draw the line between the estimation of an acceptable impact, a tolerable impact or a disastrous impact of a hazard.



Civil Protection perspective

Human beings
(e.g. injury or death)

Infrastructure and supply
of necessary goods and
services.

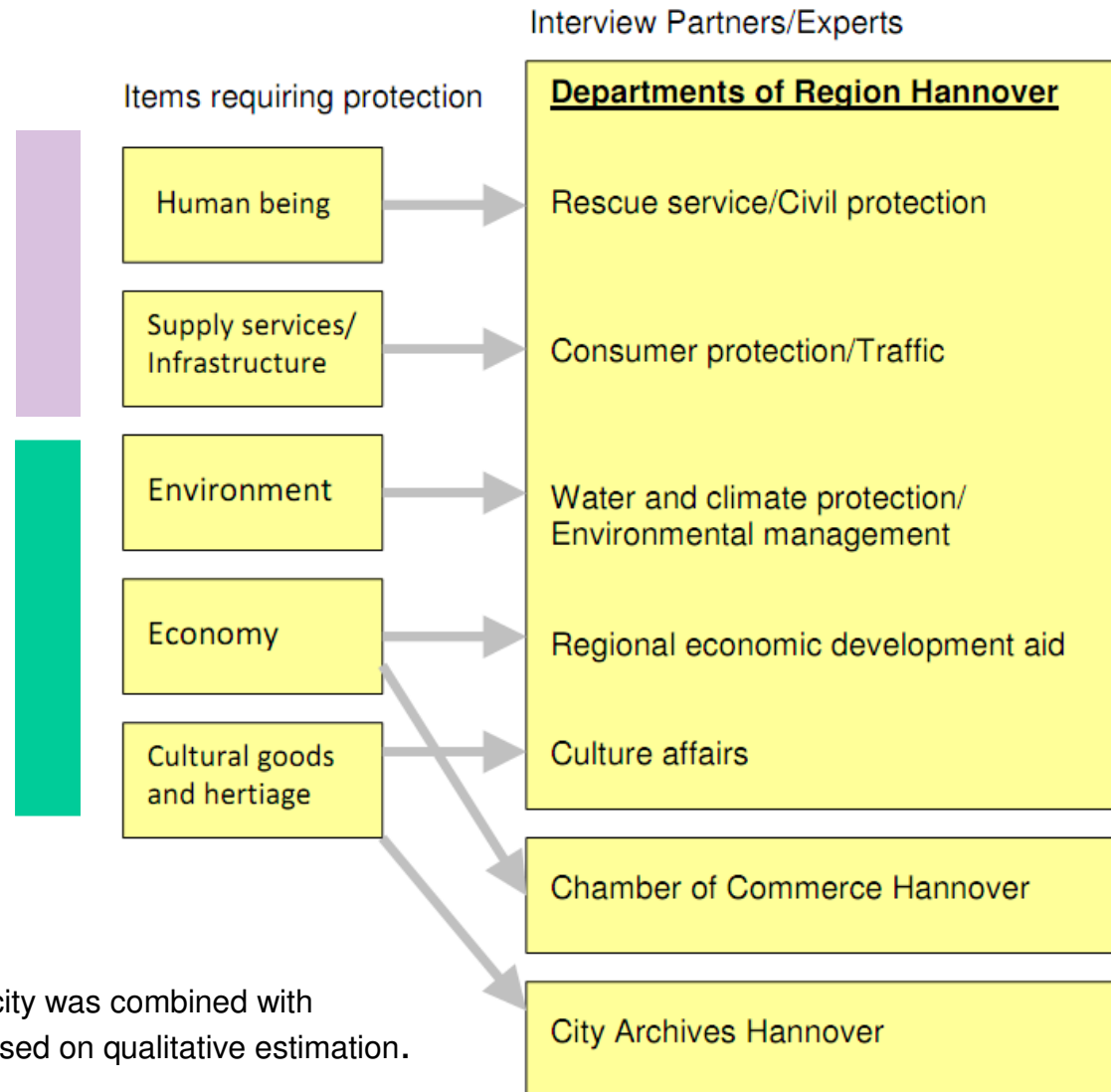
The sustainable perspective

Impact on the environment,

The effects on the economy
(e.g. production loss)

Impact on cultural goods
and heritage

These five different items which require protection needed to be investigated to quantify the potentially extend of damage in Hannover Region.



The response capacity was combined with expert interviews based on qualitative estimation.

Result 1.1

Exemplified classification of impact on human beings (a)	Assistance and supply for evacuated persons	Value
very high impact	> 250.000 persons	5
high impact	150.001 - 250.000 persons	4
moderate impact	30.001 - 150.000 persons	3
low impact	10.001 - 30.000 persons	2
very low impact	< 10.000 persons	1

Evacuation of 14.500
Inhabitants of
Hannover at night
in 9/2013

Result 1.2

Exemplified classification of impact on human beings (b)	Availability of hospital beds for seriously injured	Value
very high impact	> 4.400 persons	5
high impact	> 3600 - 4.400 persons	4
moderate impact	> 2.800 - 3.600 persons	3
low impact	> 1.200 - 2.800 persons	2
very low impact	0 - 1.200 persons	1

Result 1.3

Exemplified classification of impact on infrastructure and supply (a)	Period of a blackout	Value
very high impact	> 12 h	5
high impact	8 – 12 h	4
moderate impact	4 – 8 h	3
low impact	2 – 4 h	2
very low impact	< 2 h	1

Blackout for 2-3 h
at night 7/2011
City of Hannover

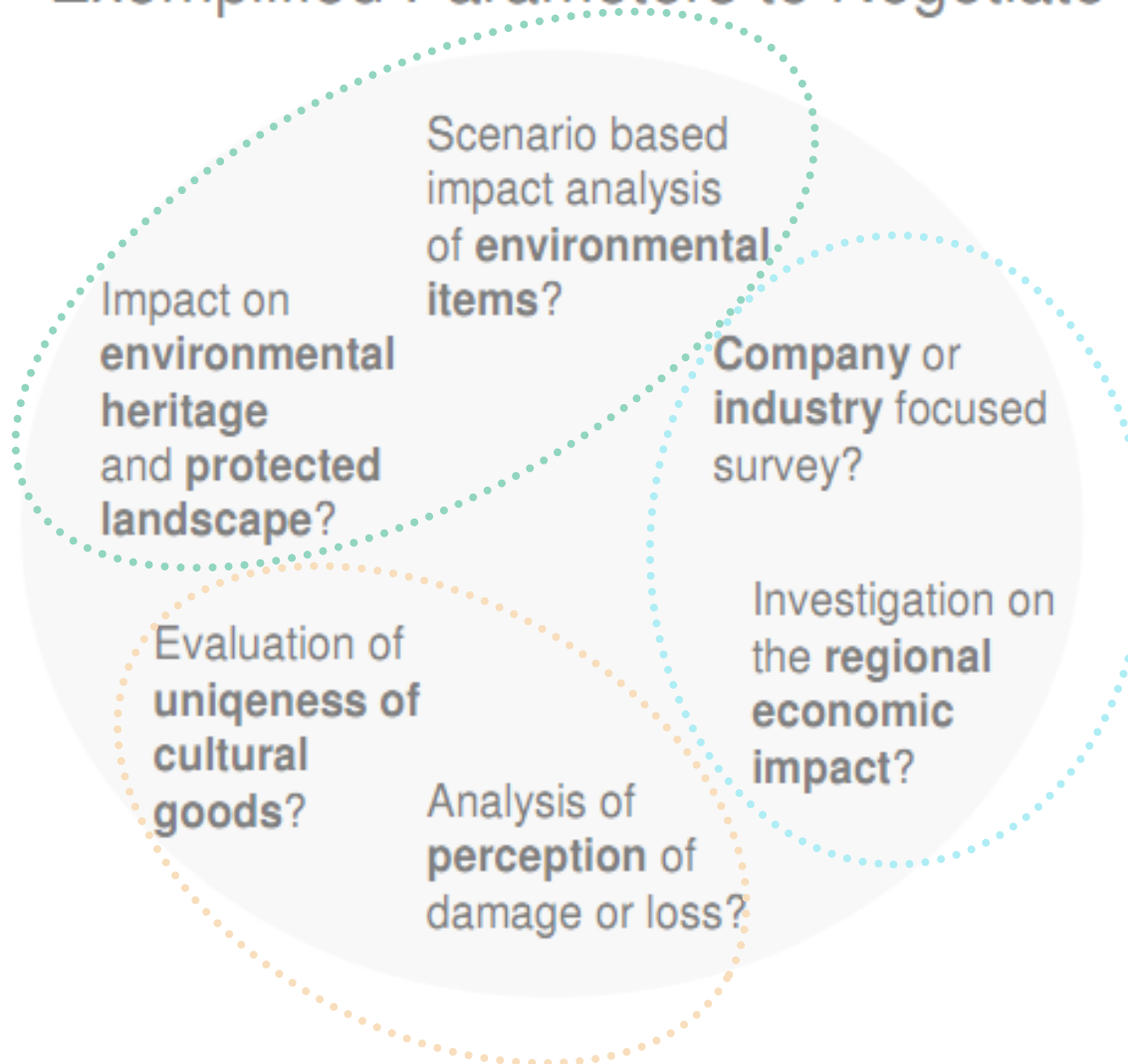
Result 1.4

Exemplified classification of impact on infrastructure and supply (b)	Stoppage of production and delivery of food	Value
very high impact	5 days	5
high impact	4 days	4
moderate impact	3 days	3
low impact	2 days	2
very low impact	1 day	1

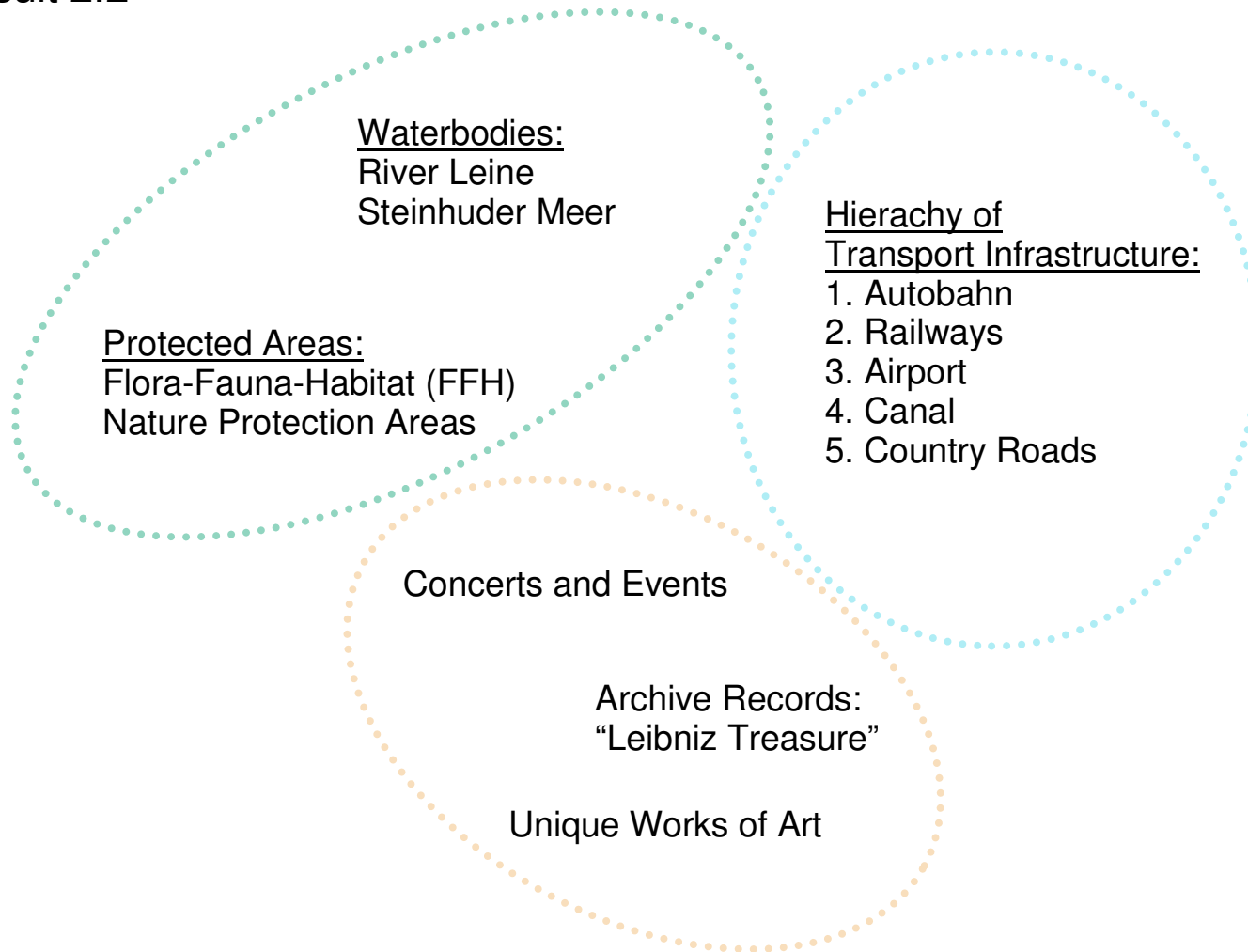


Result 2.1

Exemplified Parameters to Negotiate

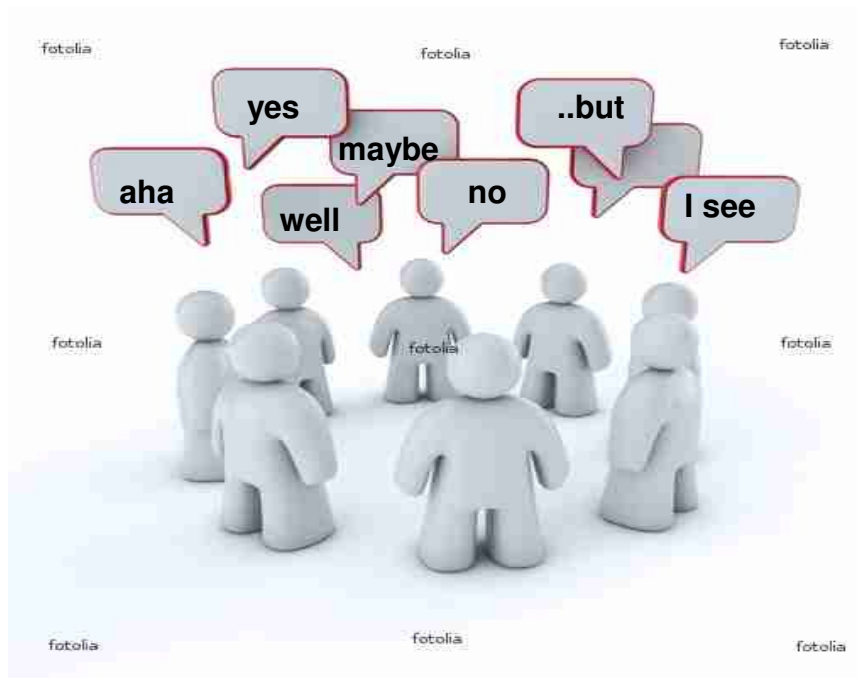


Result 2.2

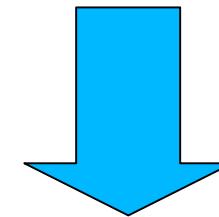


Threshold terms in a sustainable perspective should be complemented with methods of participation practice.

The Risk Analysis process improves disaster prevention while improving transparency.



Quelle: ag visuell, Fotolia # 38044029



Perception and acceptance of precautionary activities can be changed “in a positive way”.

Administration and people are prepared !

Thank you very much for your attention!



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For further questions please contact us

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