

Integrating climate services into public policy processes

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Scientific Evaluation
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Public policy processes: The legal framework



Intervention regulation in Germany

Federal Nature Conservation Act:

„...Adverse effects of nature and landscape as a result of structural intervention shall be functionally compensated, or equivalent other land upgrading shall be made....“

Current challenge:

Weather extremes lead to failure of compensation measures



A new home for 350 sand lizards



Lizards victims of the flood?



Stuttgart 21: Sand lizards died after relocation

Research question

Question:

What happens with the functionality of selected compensation measures in the future?

Cooperation: Environmental protection authority of the state capital of Schleswig-Holstein, Kiel (246 000 inhabitants)
(administration)

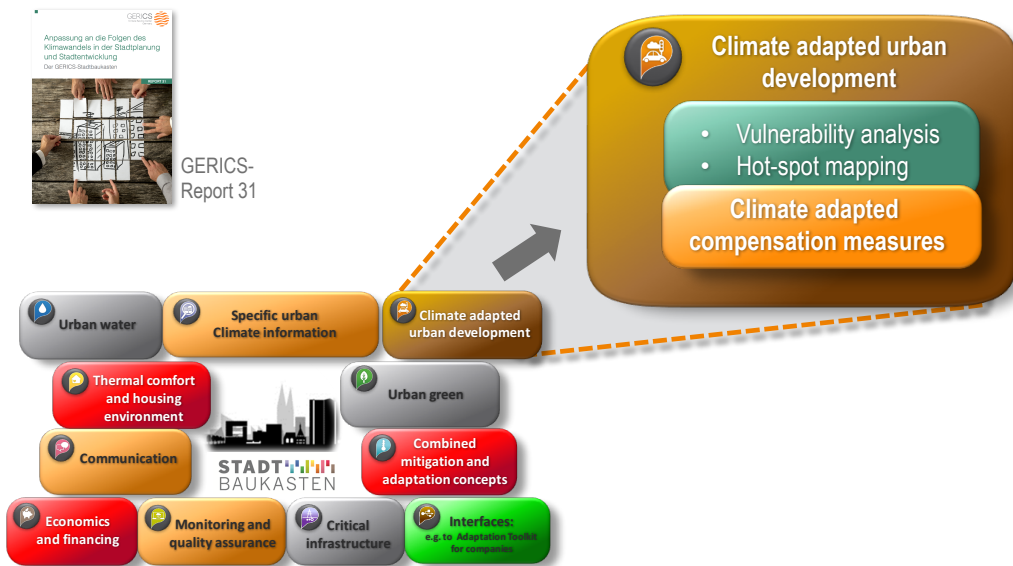


Specialised planning company Grontmij GmbH, Bremen

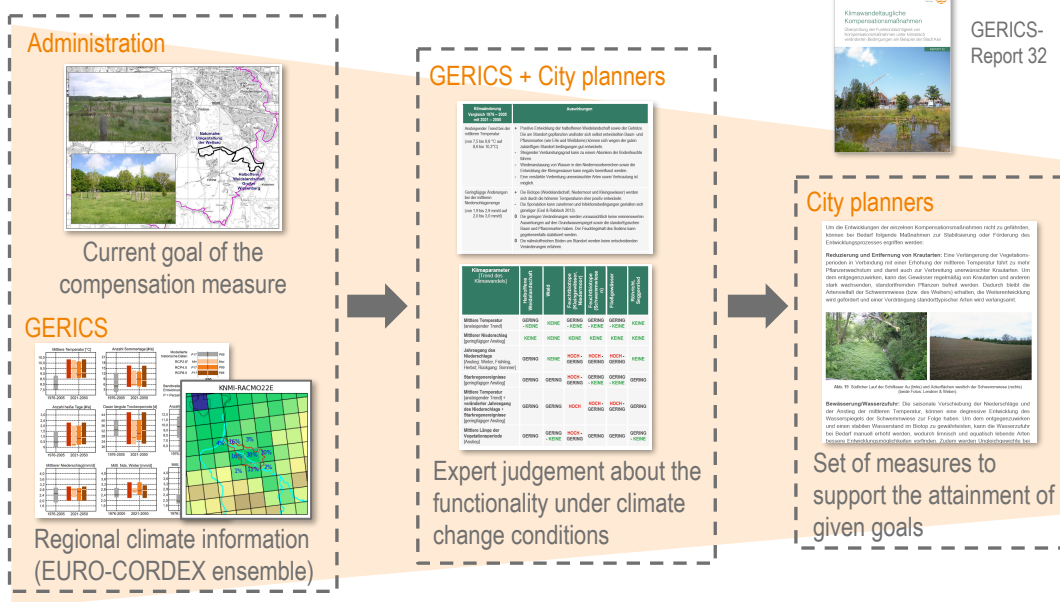
(city planners)



Climate services for urban development



Climate adapted compensation measures



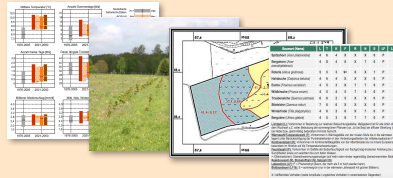
■ Case study: „Initial afforestation Mielkendorf“

(extract of results)

Variable / Index [Trend of climate change]	Evaluation of impacts on given compensation goals	
	Forest (deciduous trees)	Wetland habitat (small water bodies)
Mean temperature [increasing trend]	SMALL - NO	HIGH
Mean precipitation [minor increase]	NO	SMALL - NO
Changing annual variation of precipitation	SMALL	HIGH
Heavy rain events [minor increase]	NO	HIGH
Mean temperature [increasing trend] + changing annual variation of precipitation + heavy rain events [minor increase]	HIGH - SMALL	HIGH

Expert judgement is based on:

Climate projections, field examinations,
maps (soil conditions, hydrogeology, ...),
technical literature,...



■ Conclusion

New Concept: Climate adapted compensation measures

First documented approach for the implementation of regional
climate ensemble information into the legal frame of existing city
planning tools.