"A society that **intensifies** and expands the use of **land** and **water** in urban areas ...

... needs to rethink the relation between spatial planning and water management."

FRONTIERS OF

LAND AND WATER GOVERNANCE IN URBAN REGIONS

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SPATIAL PLANNING GOVERNANCE WATER **FRONTIERS** MANAGEMENT



FRONTIERS OF

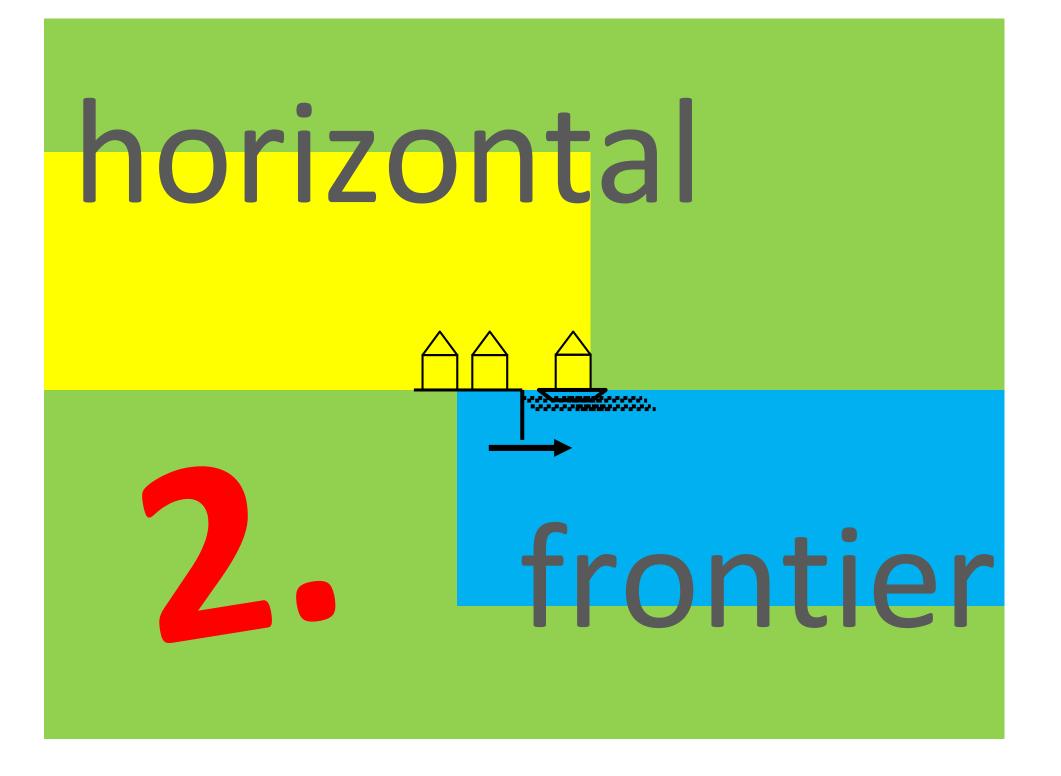
LAND AND WATER GOVERNANCE

IN URBAN REGIONS

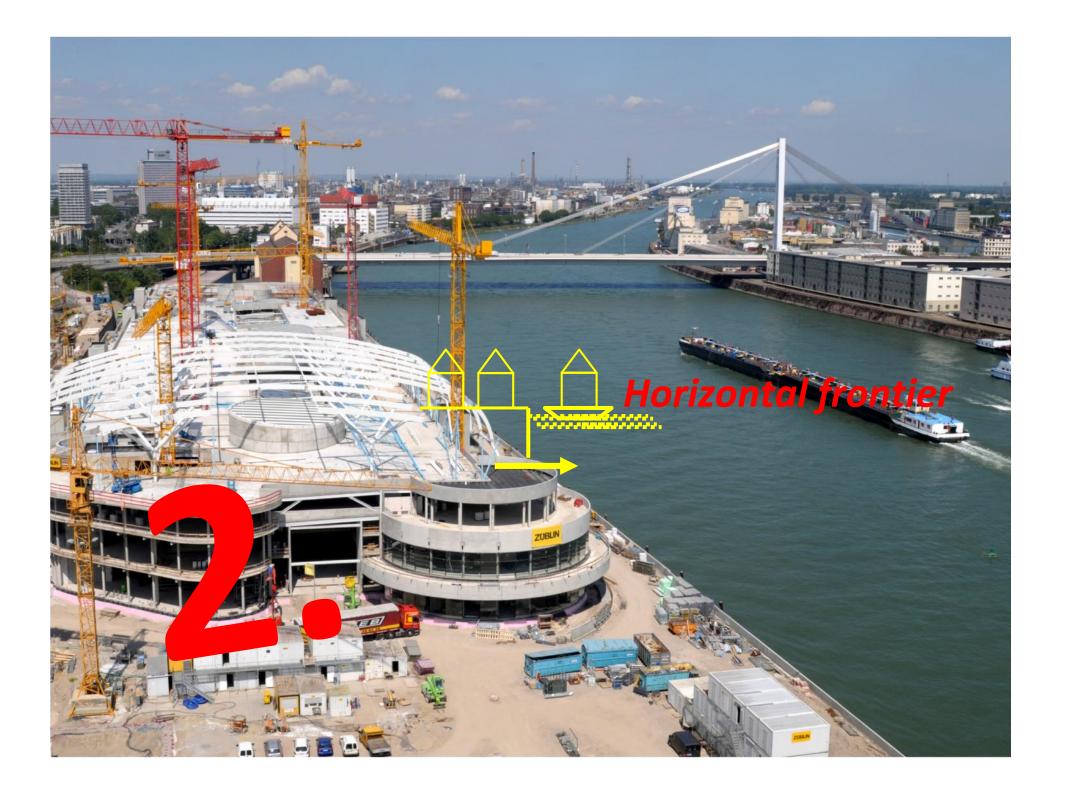
vertica frontier











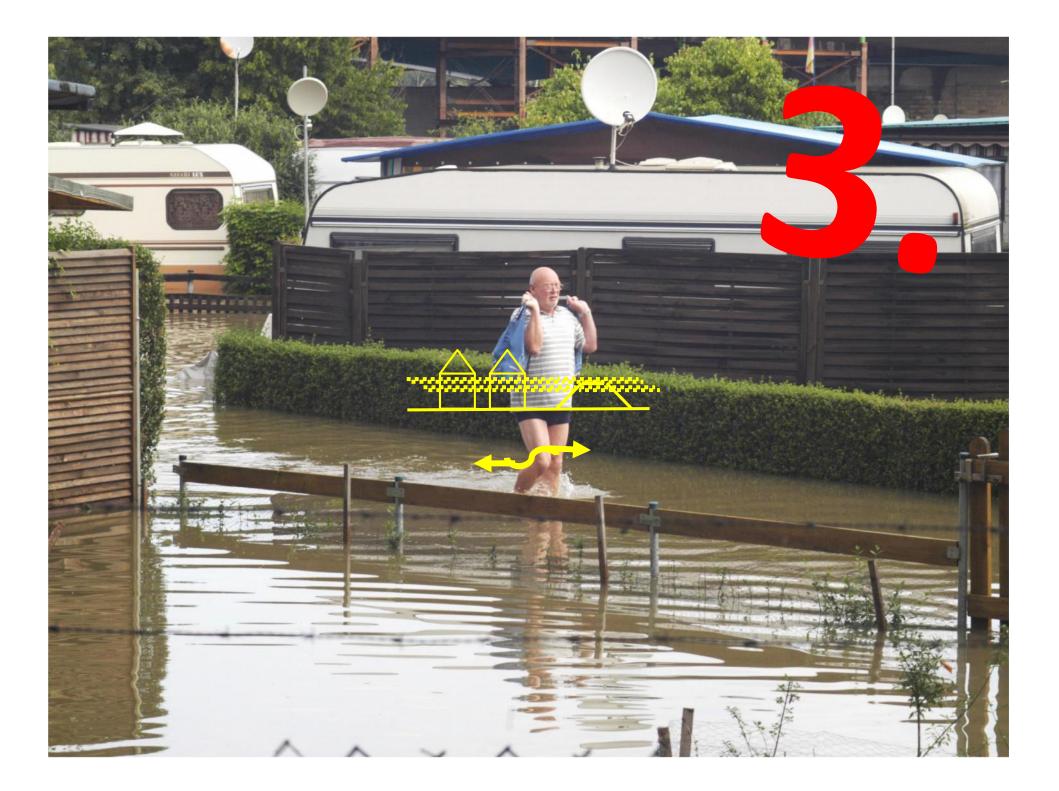
Horizontal frontier

fluid S.





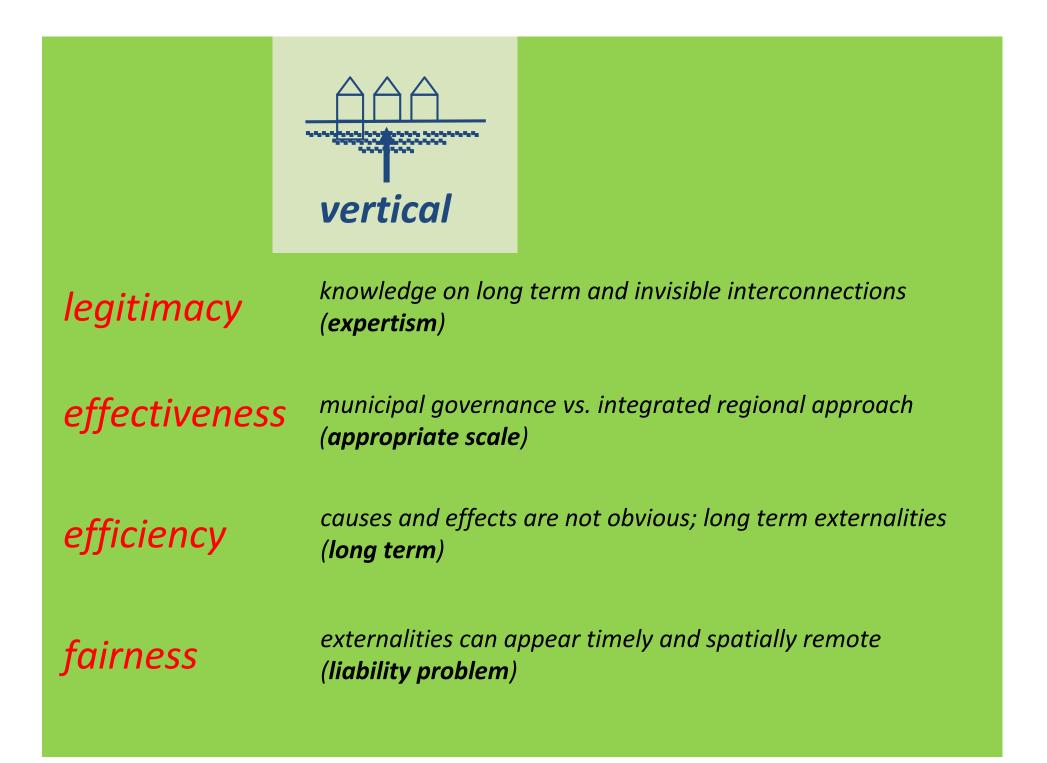






governance

legitimacy **DECISION MAKING** effectiveness **INSTITUTIONS** efficiency TIME PERSPECTIVE fairness WINNERS & LOSERS





legitimacy

norms, values and rationalities shape decision-making (*direct consent*)

effectiveness

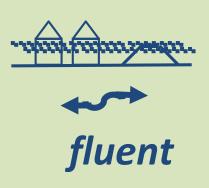
project-driven implementation,
public & private stakeholders

efficiency

high socio-economic dynamics (short term)

fairness

balancing competing interests (economic, social, environmental)



legitimacy

spatially disconnected problem areas (downstream) and solution areas (upstream)

effectiveness

complex, large scale, trans-boundary institutions (transboundary)

efficiency

measures upstream affect efficiency downstream (*risk driven*)

fairness

barely win-win situations possible (Pareto decisions)

	vertical	horizontal	fluent
legitimacy	expertism	direct consent	disconnected
effectiveness	appropriate scale	project-driven	transboundary
efficiency	long term	short term	risk driven
fairness	liability problem	balancing	Pareto decisions

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