

# Welcome

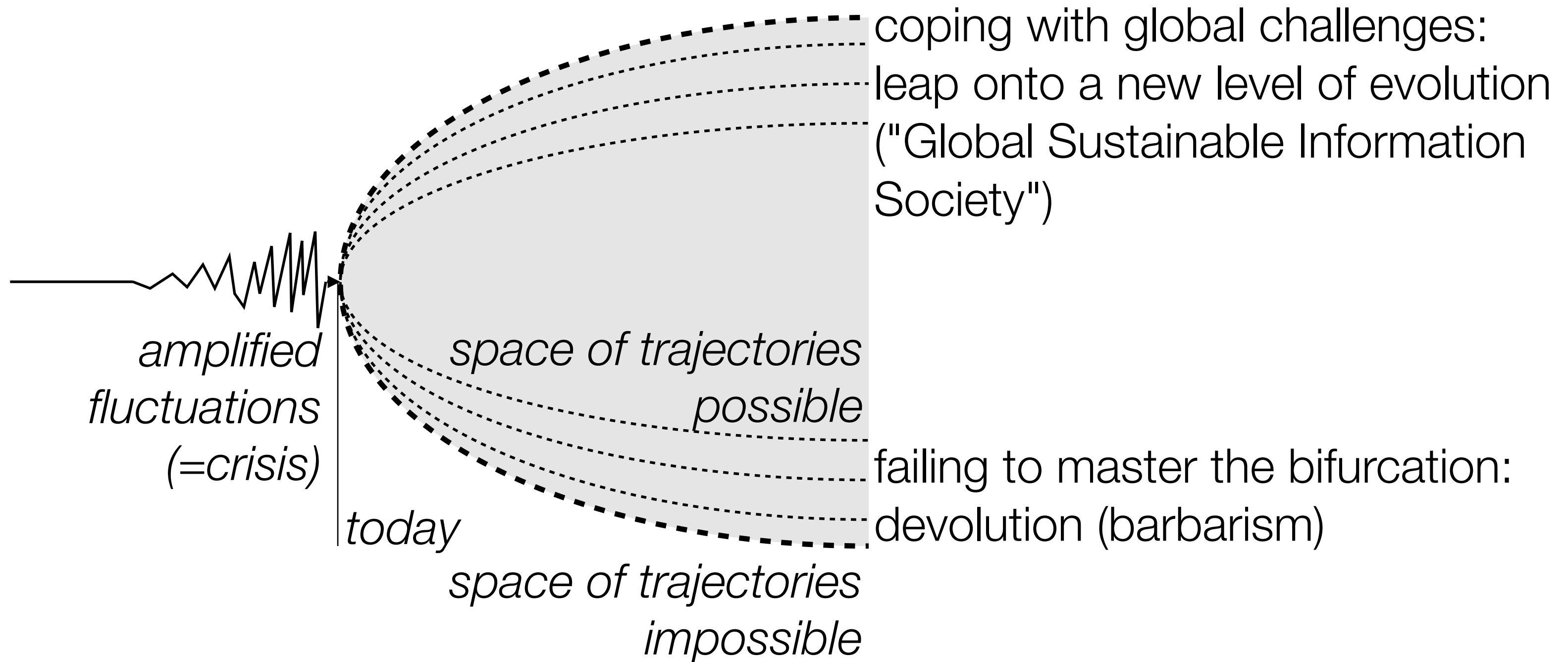
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Wolfgang Hofkirchner, BCSSS  
Chair, EMCSR 2014

Civilisation at the Crossroads  
Response and Responsibility of the Systems Sciences

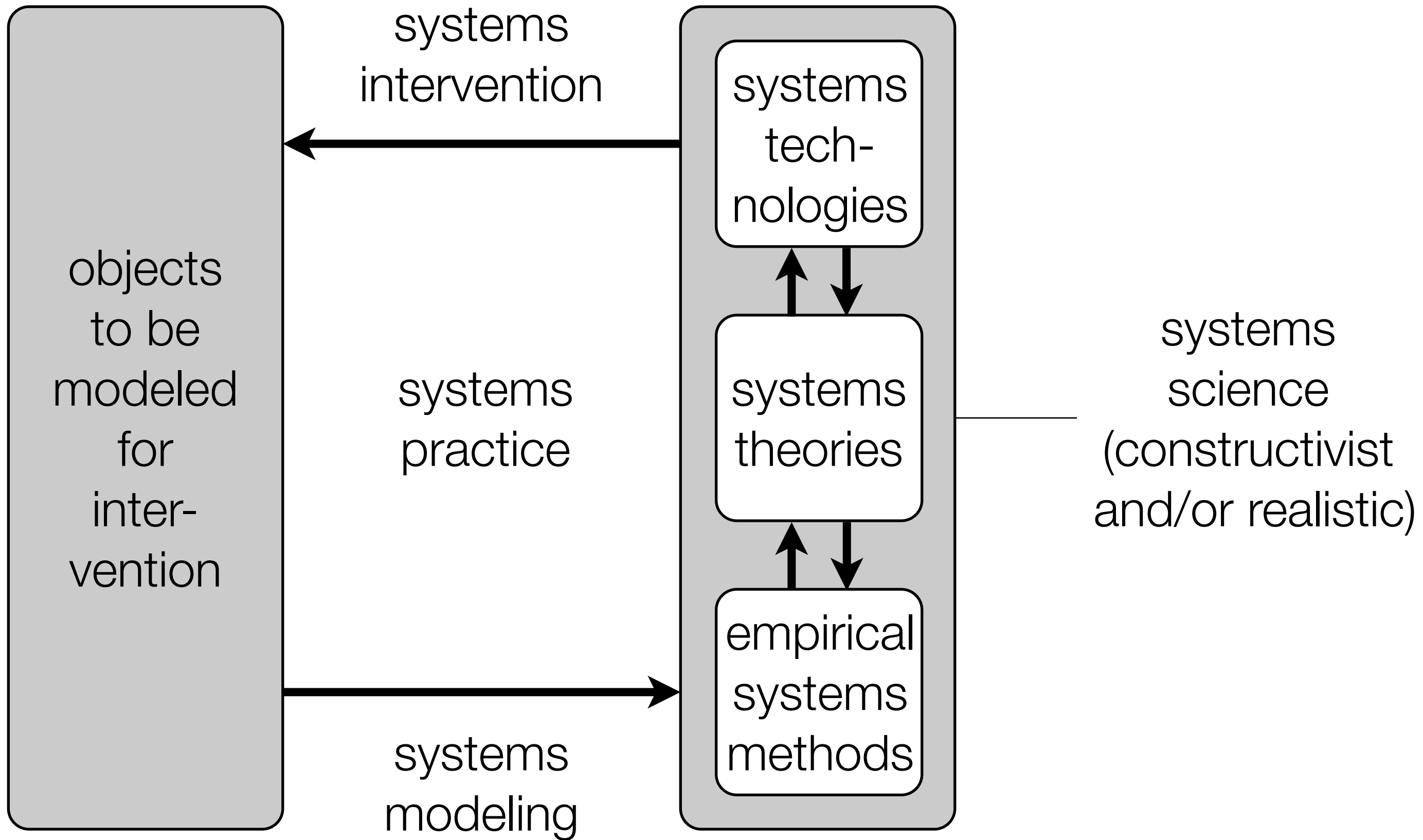
# Civilisation at the Crossroads: global challenges indicate a "Great Bifurcation"

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Global challenges are challenges in complexity:  
Systems Sciences – the best models for dealing with them?

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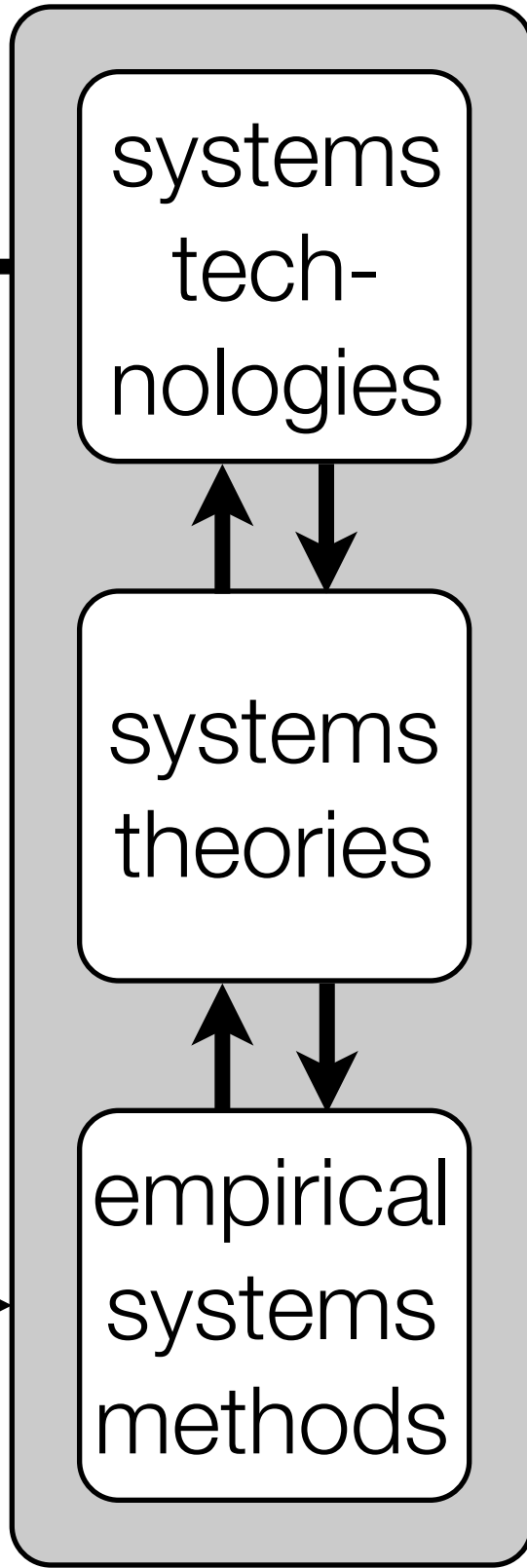


objects  
of  
higher-order  
complexity

systems  
intervention

systems  
practice  
in the age  
of  
global  
challenges

systems  
modeling



responsible response?

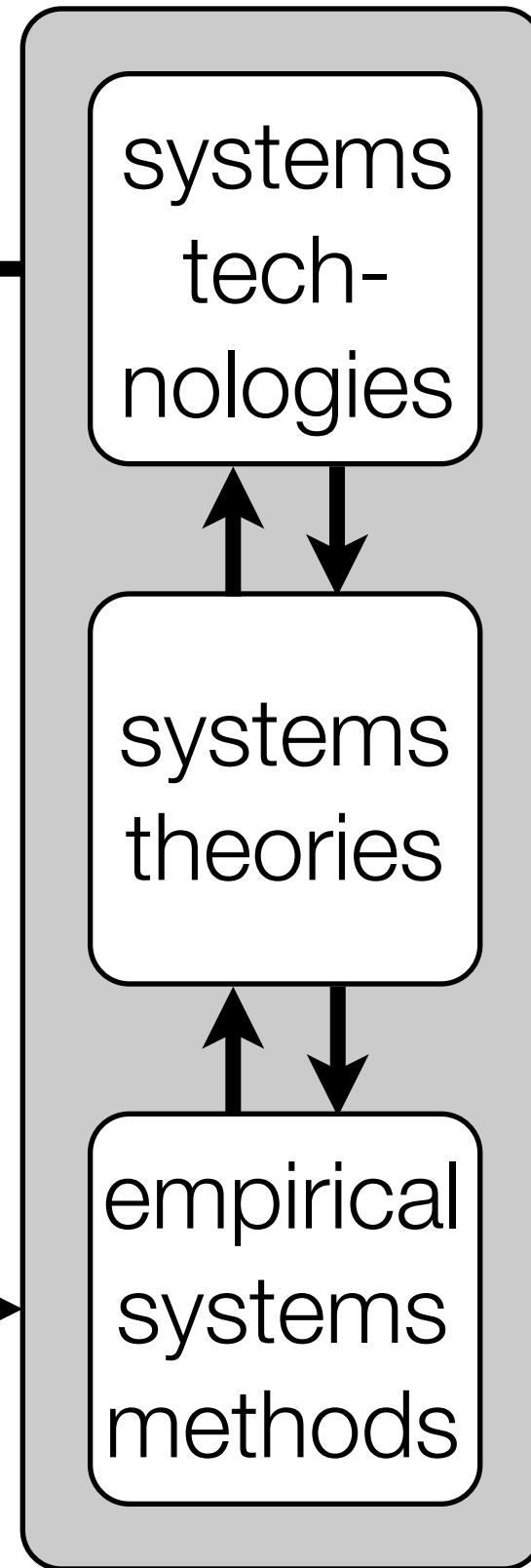
"strategy  
in complexity":  
(enable social systems to)  
catch up with the  
higher-order  
complexity  
of the systems  
to be steered!

emergent objects withstanding re-production, reversion/reduction, and explanation/prediction

systems intervention

systems practice in the age of global challenges

systems modeling



responsible response?

"emergent design" (processes, products; engineering, management): regard emergence as property of the higher-order complex systems to be steered!

objects  
in need of  
sustainabil-  
sation

systems  
intervention

systems  
practice  
in the age  
of  
global  
challenges

systems  
modeling

systems  
tech-  
nologies

systems  
theories

empirical  
systems  
methods

responsible response?

"sustainable  
development"  
(social systems):  
redefine sustainability  
as capacity  
of social systems  
to catch up with the  
higher-order  
complexity  
that ensues from  
their own  
development!