



Aalto University
School of Arts, Design
and Architecture

USP-E0305 - Urban Challenge Studio 2: Urban resilience and Benchmarking

H. Hewidy, 04.02.2021

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Challenges



Futures



Task

Challenges

Crisis

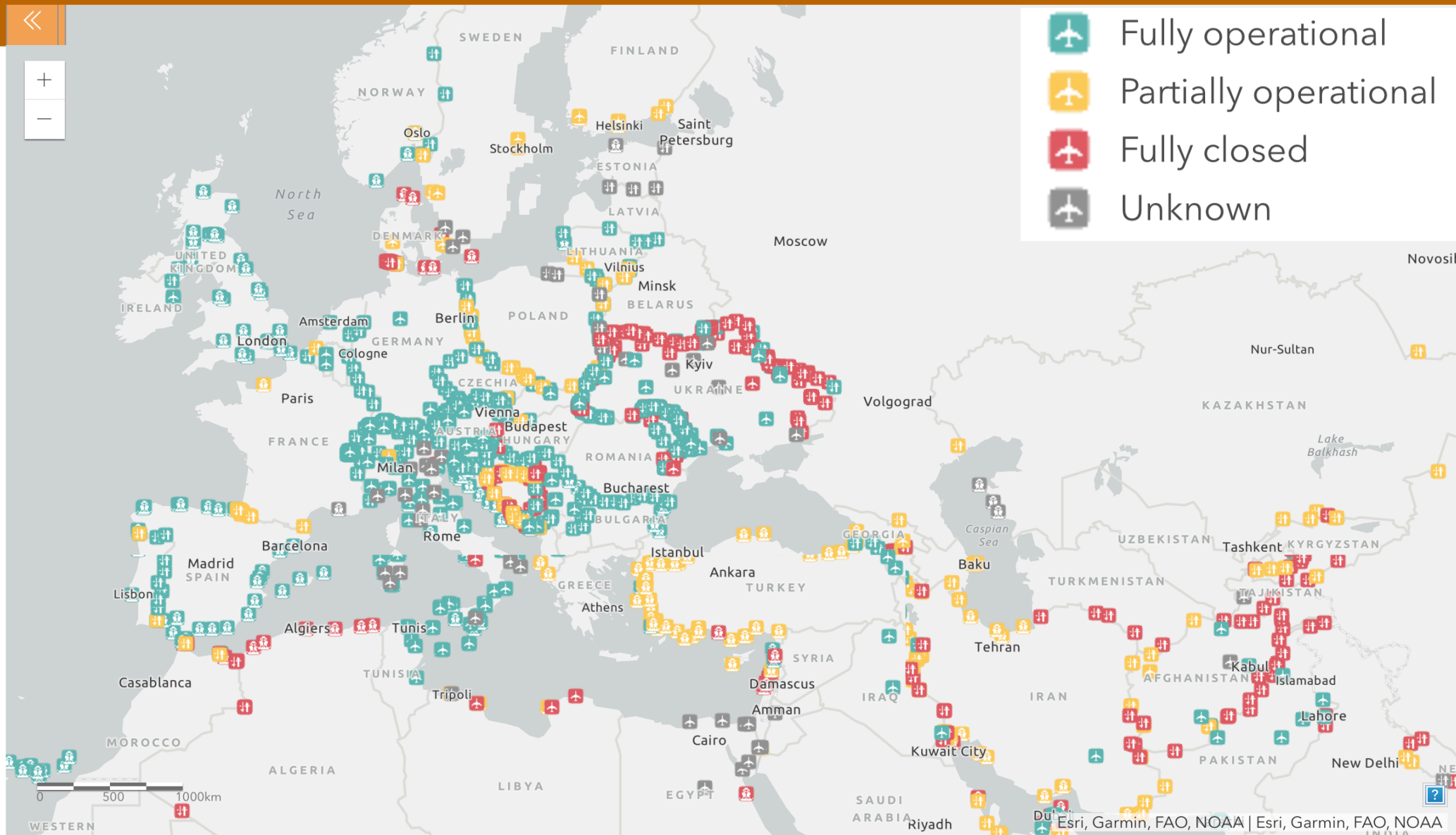


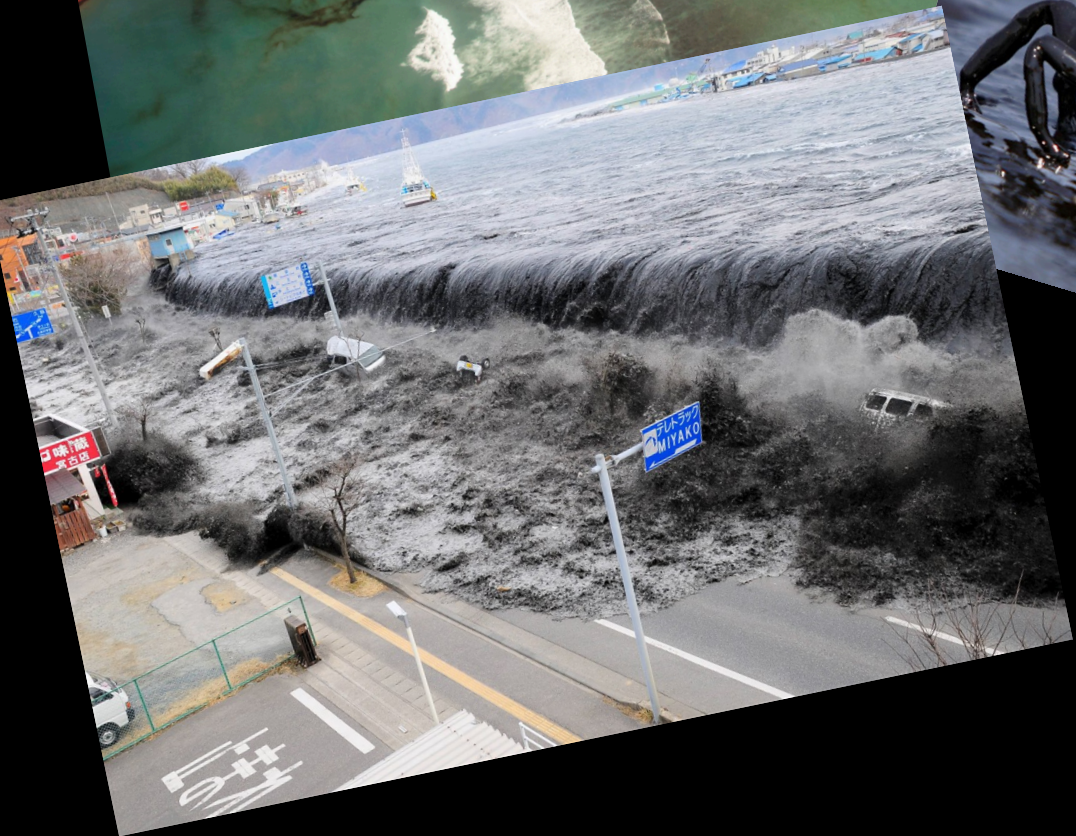
Mobility Restrictions COVID-19

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The current outbreak of COVID-19 has affected global mobility in the form of various travel disruptions, restrictions and blockages. To better understand how COVID-19 affects global mobility, the International Organization for Migration (IOM) has been working to map the impacts on human mobility, at Global, Regional and Country level. Subsequently, the IOM have initiated the following activities:

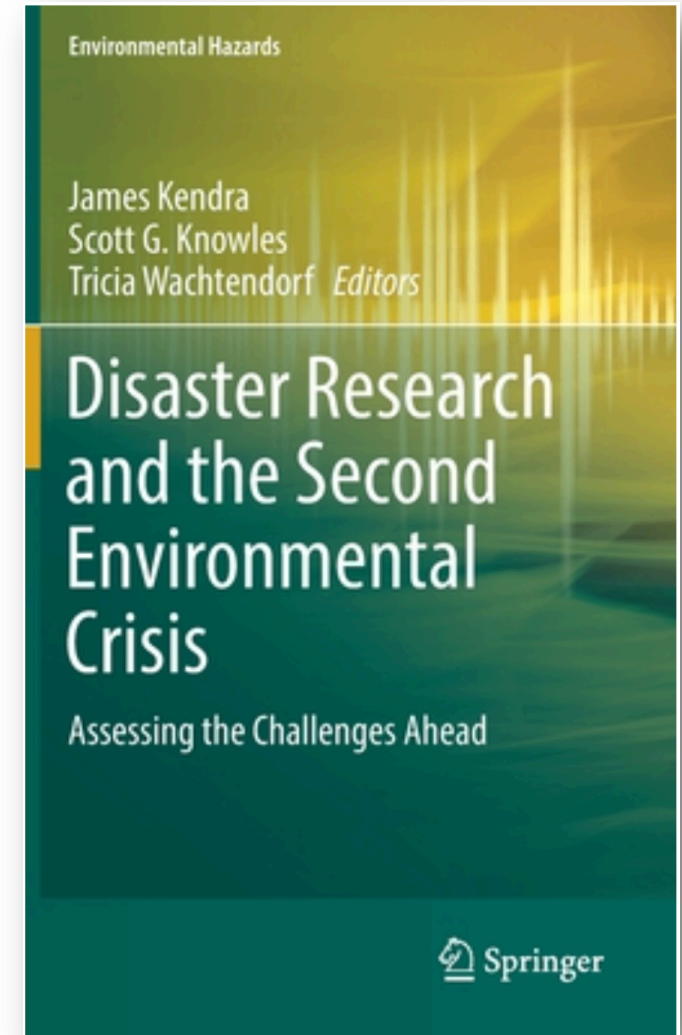
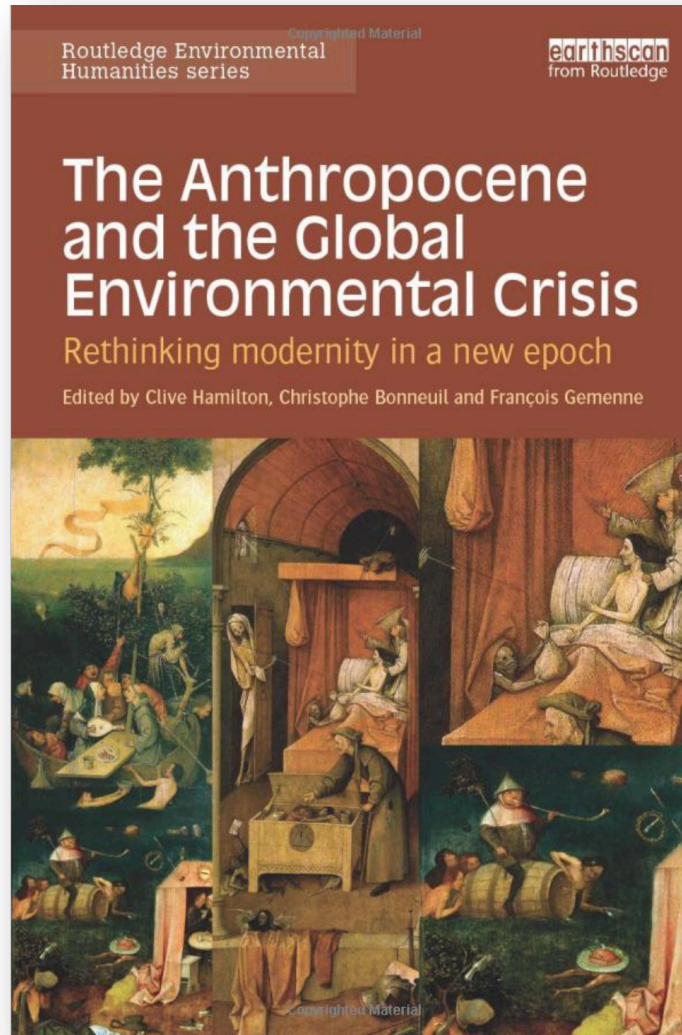
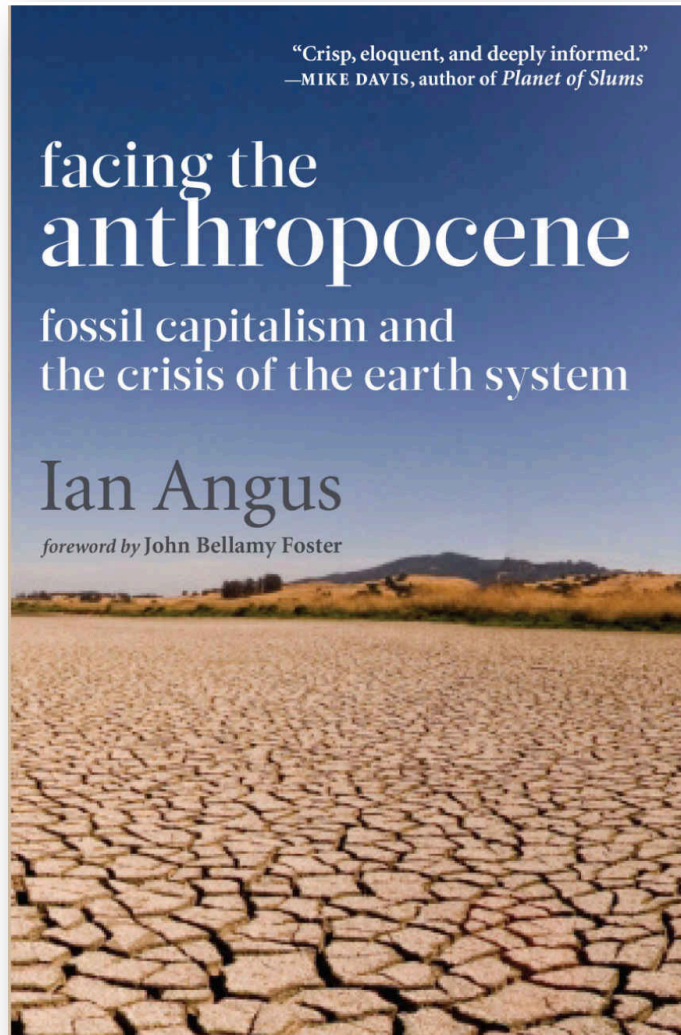
COVID-19 Travel Restriction Monitoring - Using secondary data sources, such as the International Air Transport Association (IATA), media reports and information direct from IOM missions, this platform maps and analyzes the various country, territories and areas imposing restrictions, and those with restrictions being imposed





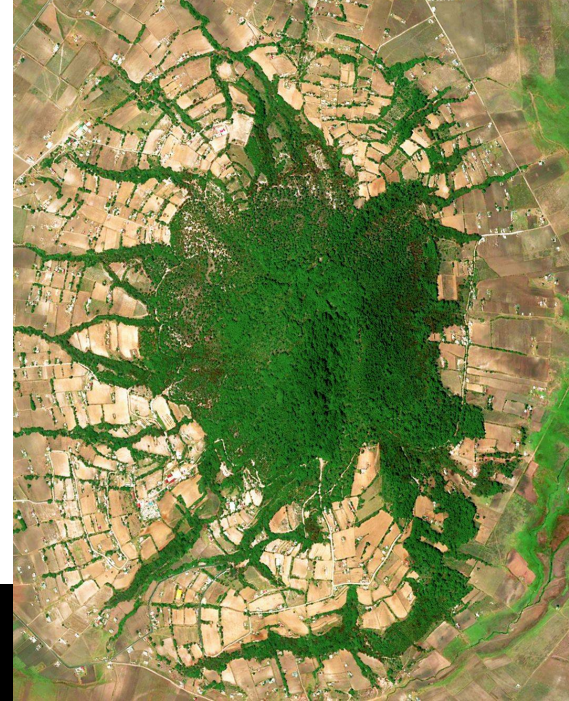
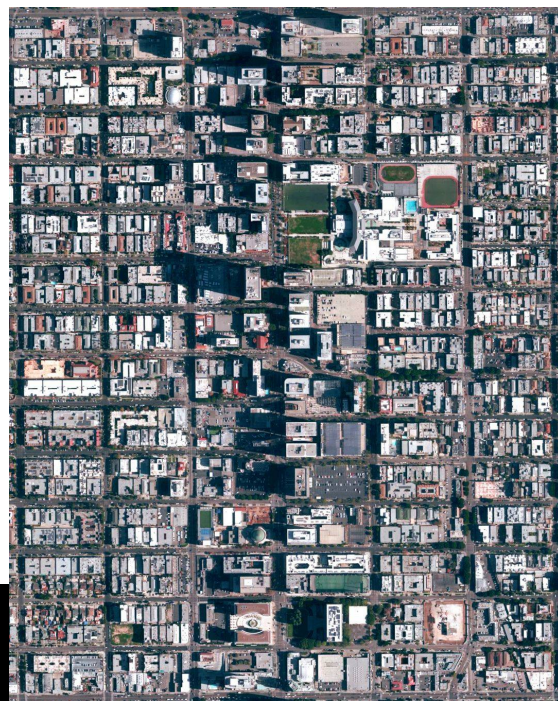
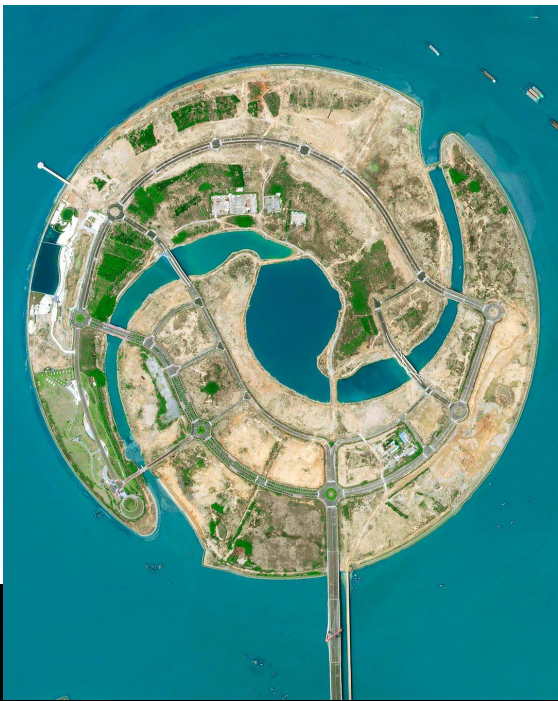


Sudan in September 6th 2020



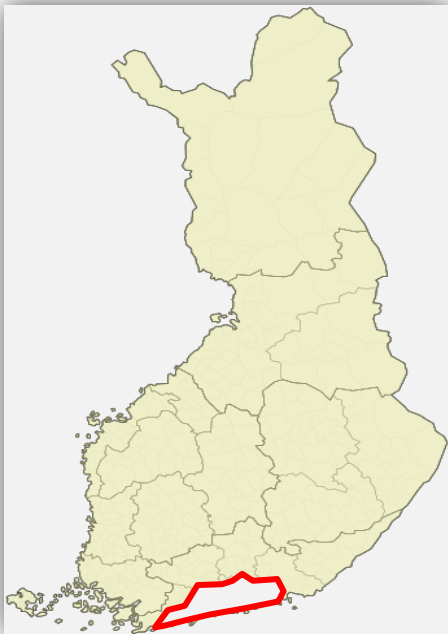
Land-Use



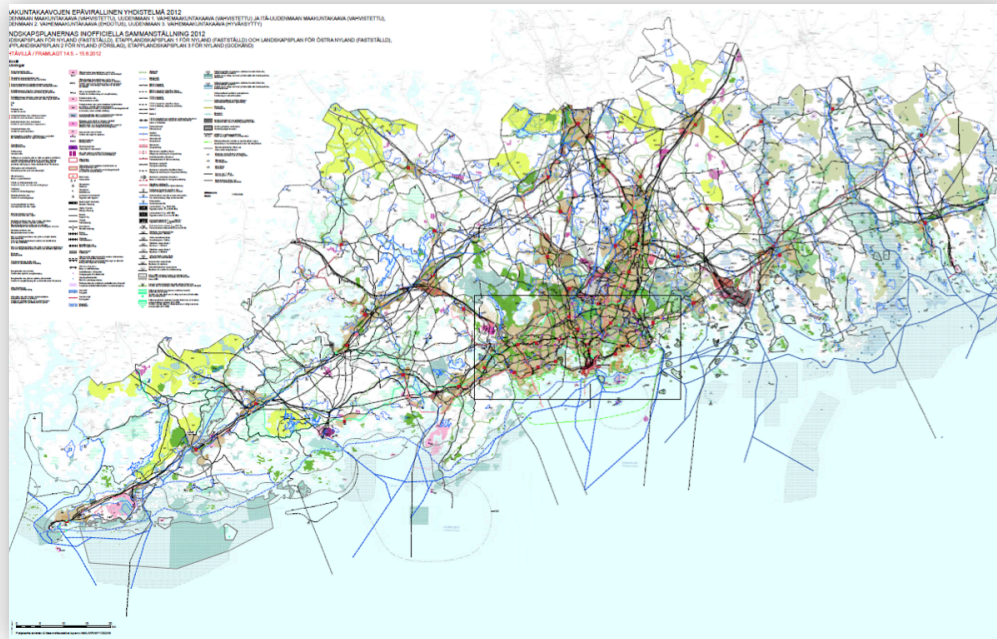


Territorial Nature of Planning

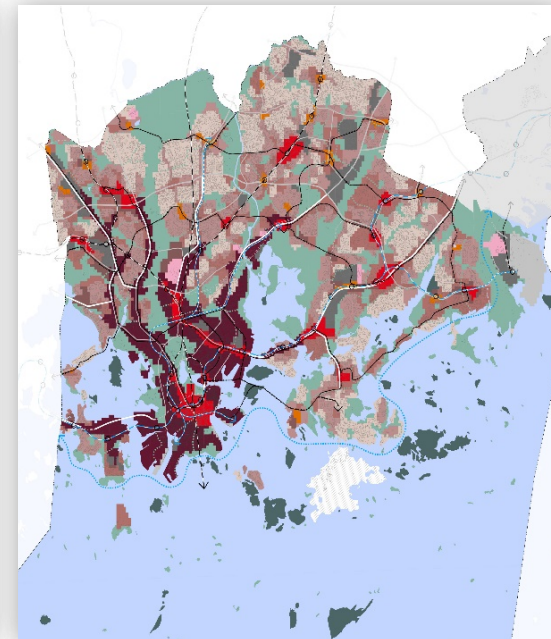
National objectives for land use



Regional plan



Master plan



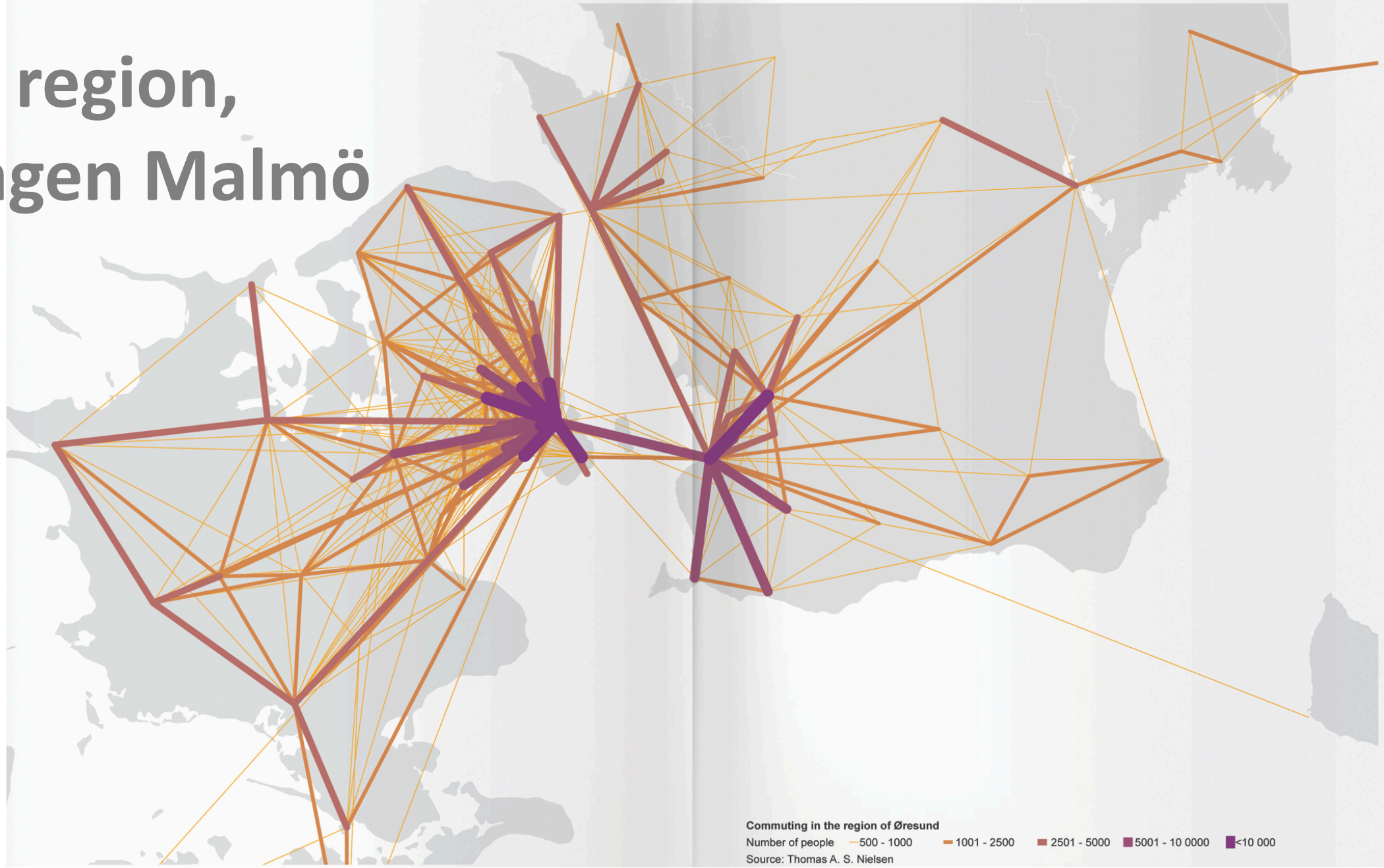
Detailed plan



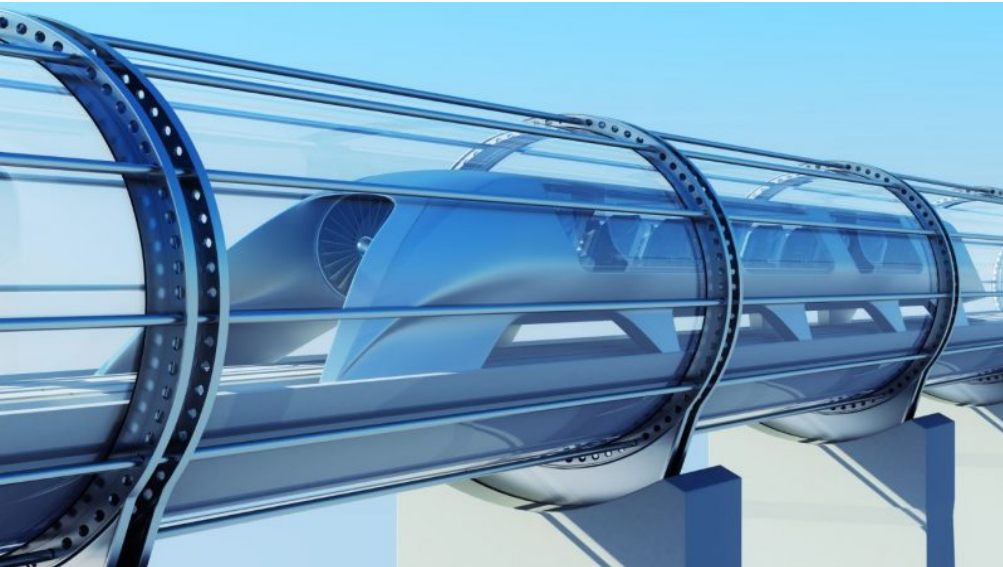
TEN-T CORE NETWORK



Oresund region, Copenhagen Malmö



Hyperloop One Stockholm-Helsinki



City-Region

“The boundaries of the modern community, instead of being precise lines, are blurred, if **not indeterminate**...”
(Hawley, 1950:248)

“The concept of the city-region, like all concepts, is a **mental construct**. It is not, as some planners and scholars seem to think, an area which can be presented on a platter to suit their general needs”.
(Dickinson, 1964:227)

“ [...] City-region is the area that can be reached within **45 minutes by car** from the FUA centre....”
(ESPON, 2004-6)

Amos H. Hawley, (1950) Human ecology: a theory of community structure Ronald Press Co.

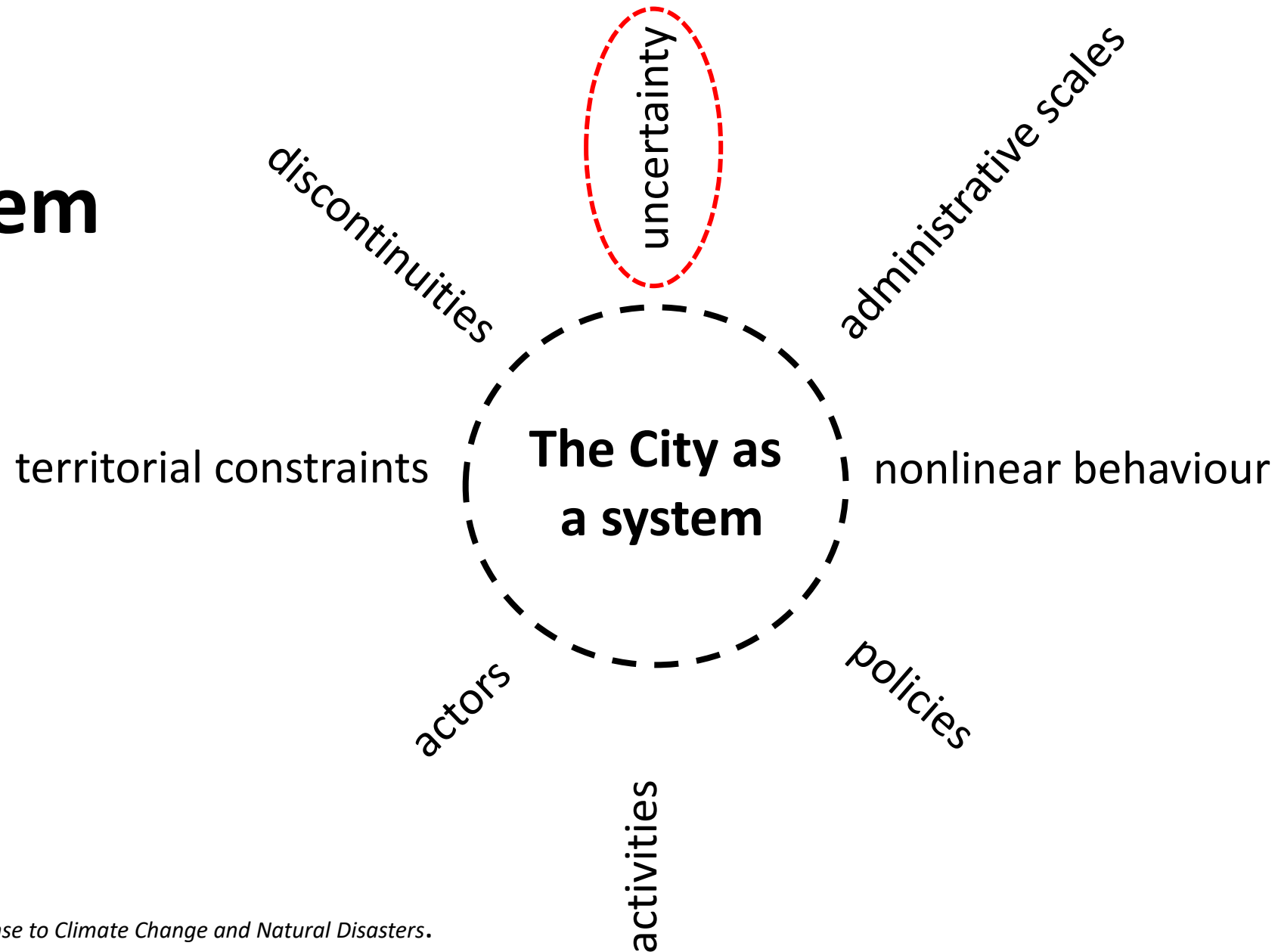
Robert Eric Dickinson, (1964) City and region: a geographic interpretation Routledge & K. Paul

ESPON 111, (2004) Potentials for polycentric development in Europe

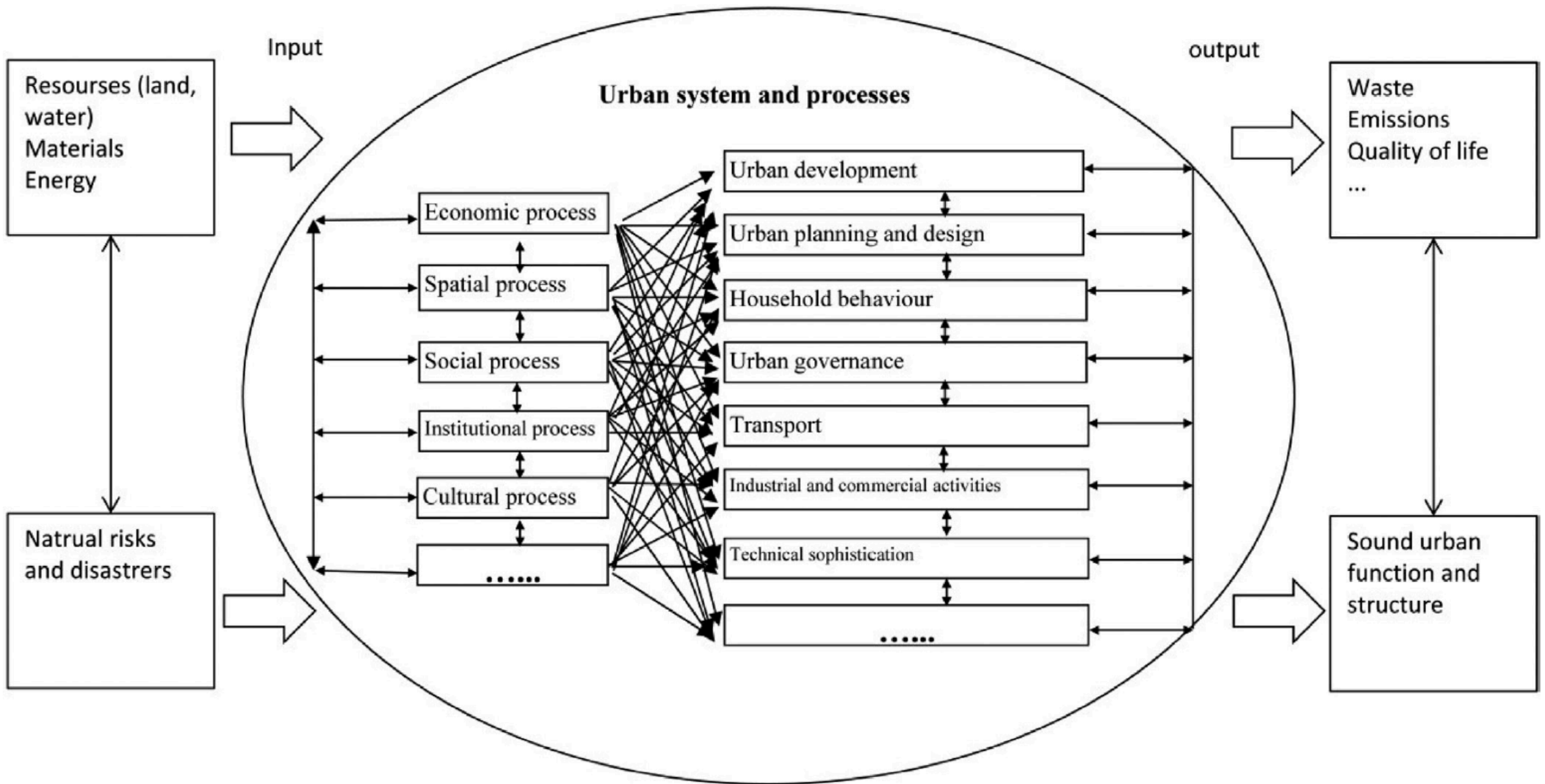
The multidirectional flows

- People
- Goods
- Services
- Capital and assets
- Pollution and waste management
- Environmental resources
- Knowledge
- Social norms, values, culture, lifestyles and identities

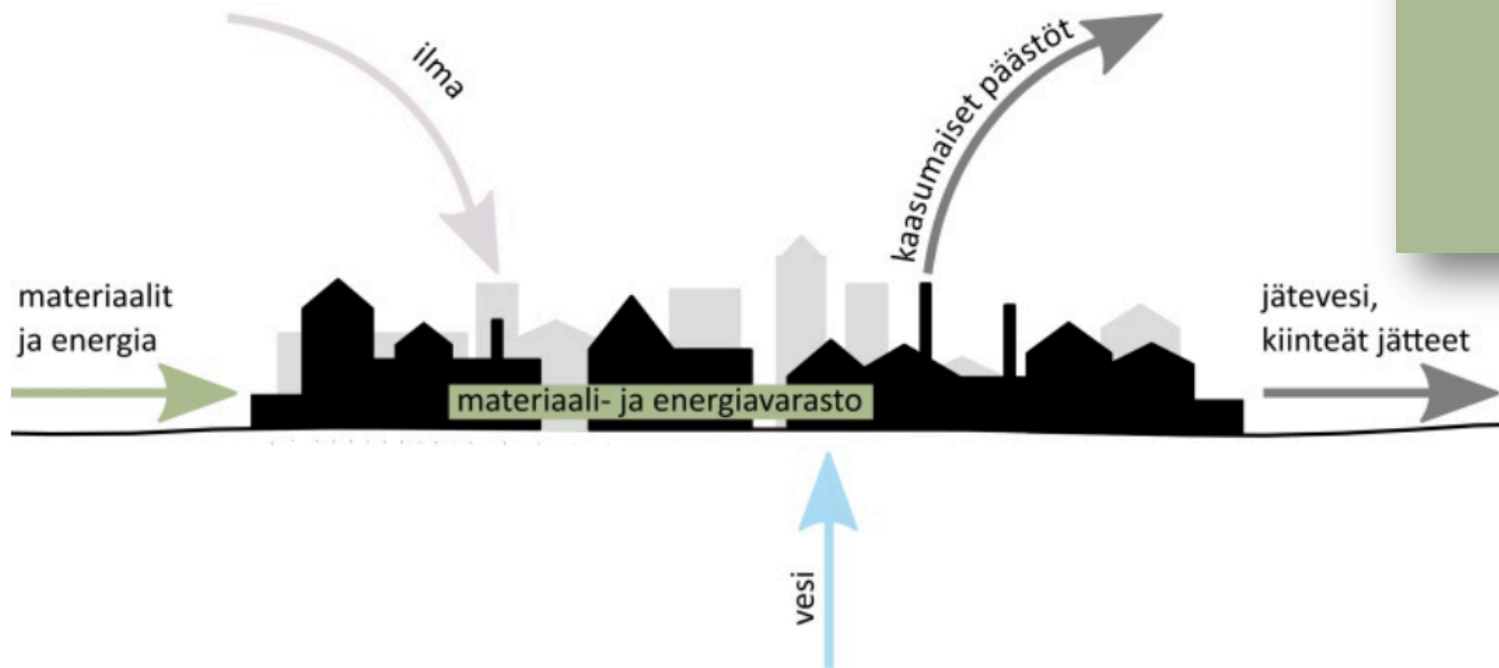
The city: a complex system



Etingoff, K. & . (2016). *Ecological Resilience: Response to Climate Change and Natural Disasters*.



Etingoff, K. & . (2016). *Ecological Resilience: Response to Climate Change and Natural Disasters*.



URBAANI METABOLISMI

*Neljä skenaariota Salon kaupungin
tulevaisuudesta ja aineenvaihdunnasta*



Diplomityö
Heta Seppälä

Aalto-yliopiston taiteiden ja suunnittelun korkeakoulu
Arkkitehtuurin laitos
Maisema-arkkitehtuurin tutkinto-ohjelma

Present planning problems

- **Change, complexity and uncertainty**
- **The lack of an integrated approach**
- **Short-term orientation**
- **The ‘predict and provide’ model**
- **Limited collaboration of stakeholders**
- **Projections as the main methods**

Projections limitations

Under-representation of uncertainty, what effects robustness of plans based on them;

Being 'unvaried' and not giving much attention to the complex interactions within and between urban dimensions;

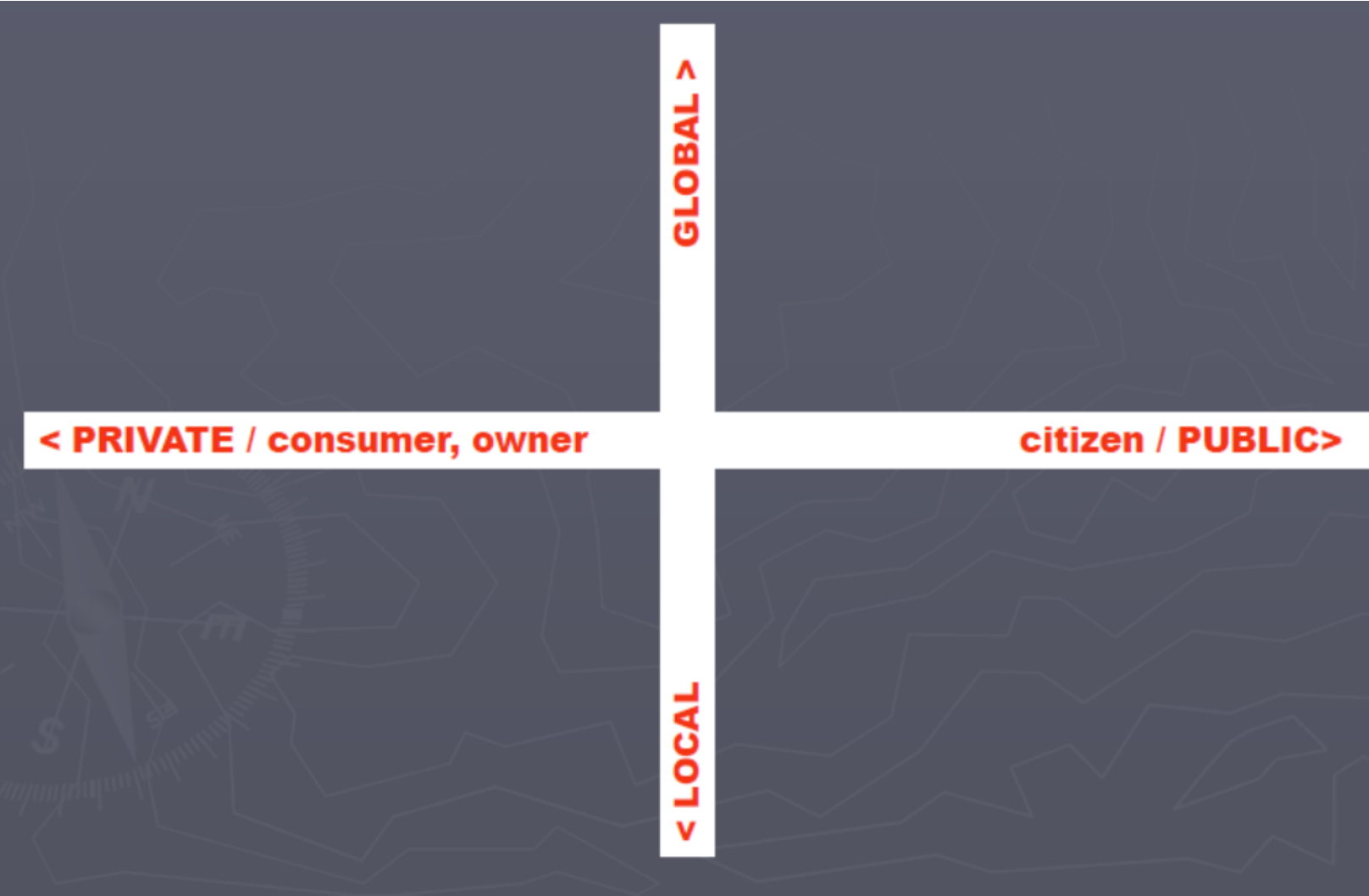
Focusing on measurable variables, such as economic, demographic and environmental, and underplaying the less tangible ones, like social, cultural and political

Rejecting the imagination by attempting to concentrate on what *will* be, rather than what *could* be (Cole 2001).




Economy

Neoliberalism



The quadrant public-private, Global-local Demarcates the context of the research. Taipale 2009



THE
STRANGE
NON-DEATH OF
NEOLIBERALISM

COLIN CROUCH

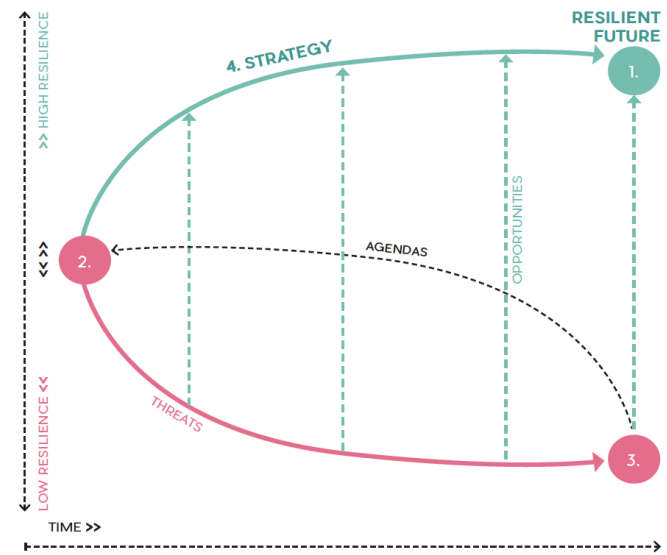
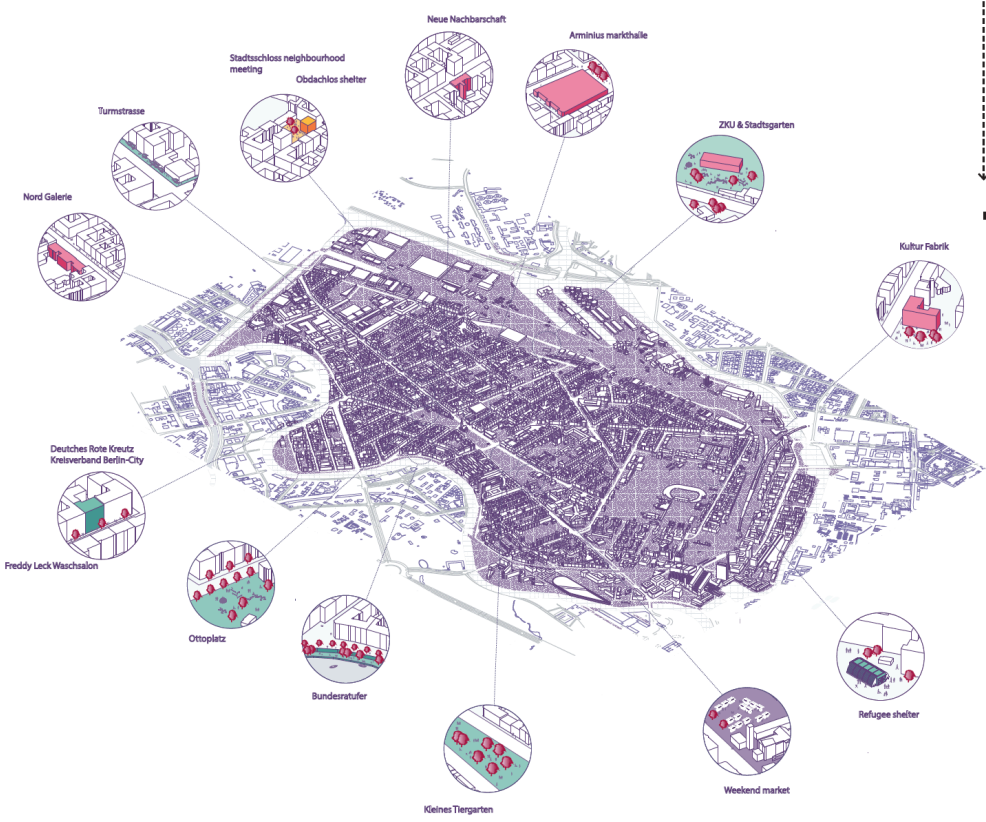
Detroit

From 2000 to 2010 the city of Detroit lost over 250,000 residents, one quarter of its residential population. The impacts are a **high rate of child poverty**, the **crumbling of the city's infra structure**, **26 percent vacancy of residential lots**, a city suffering from **adult illiteracy** and **underemployment** rates that have been estimated to approach **50 percent**. (CDAD, 2016; Schindler, 2016)



Detroit Future City strategy

Schindler, S. (2016). Detroit after bankruptcy: A case of degrowth machine politics. *Urban Studies*, 53(4), pp. 818-836. doi:10.1177/0042098014563485
CDAD (2016). "About: Detroit's Current Crisis." Retrieved 25.5.2016, from <http://cdad-online.org/about/>.



URBAN *neighborhood* REIMAGINED

*community-driven urbanism for
futures of social urban resilience*

Hartikainen, Milja (2016)

Globalization

TECHNOLOGY

Microsoft Cutting 1,850 Jobs in Smartphone Unit

By NICK WINGFIELD MAY 25, 2016



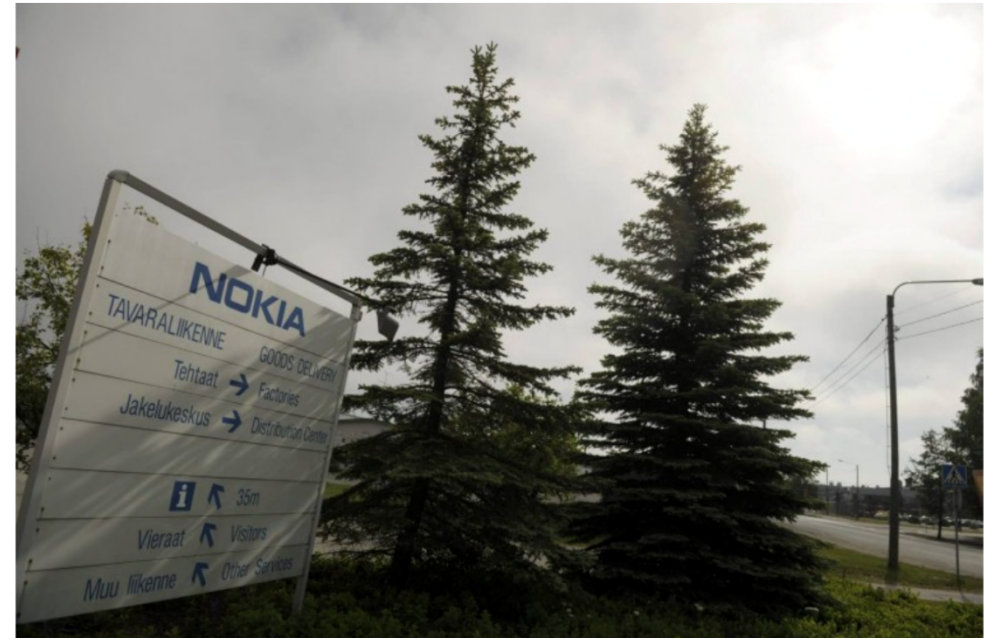
Microsoft's offices in Oulu, Finland. The company has written off nearly the entire value of its deal for Nokia's mobile business, which was based in Finland. Markku Ruottinen/Lehtikuva, via Reuters

Kansan Uutiset

Tilaa uudistunut
Kansan Uutiset

KOTIMAA ULKOMAAT TALOUS KULTTUURI NÄKÖKULMIA BLOGIT +

LEHTIKUVA/ ANTTI AIMO-KOIVISTO



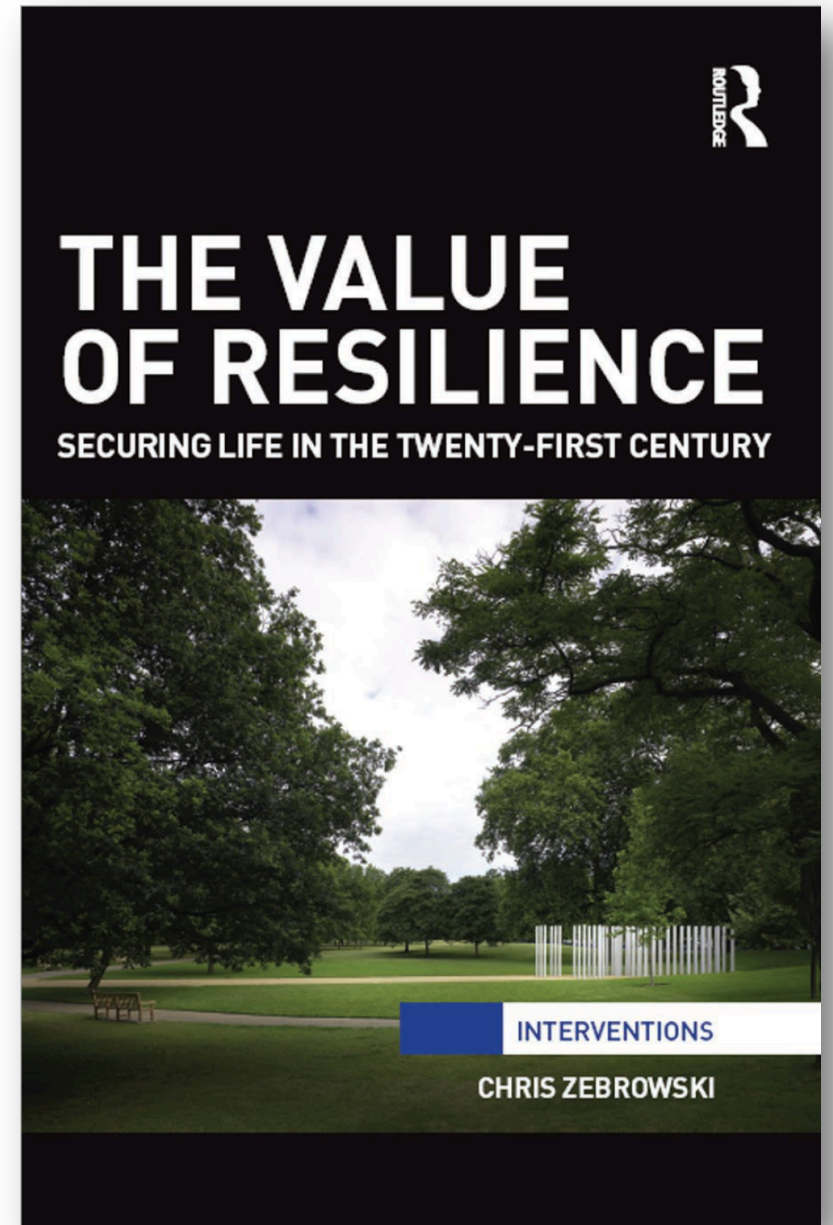
Nokia lakkauttaa Salon tuotantolaitoksensa.

**NOKIA LEIKKAA SUOMESSA 3700
TYÖPAIKKAA – SALON TEHDAS SULJETAAN**

Futures

Resilience and Power

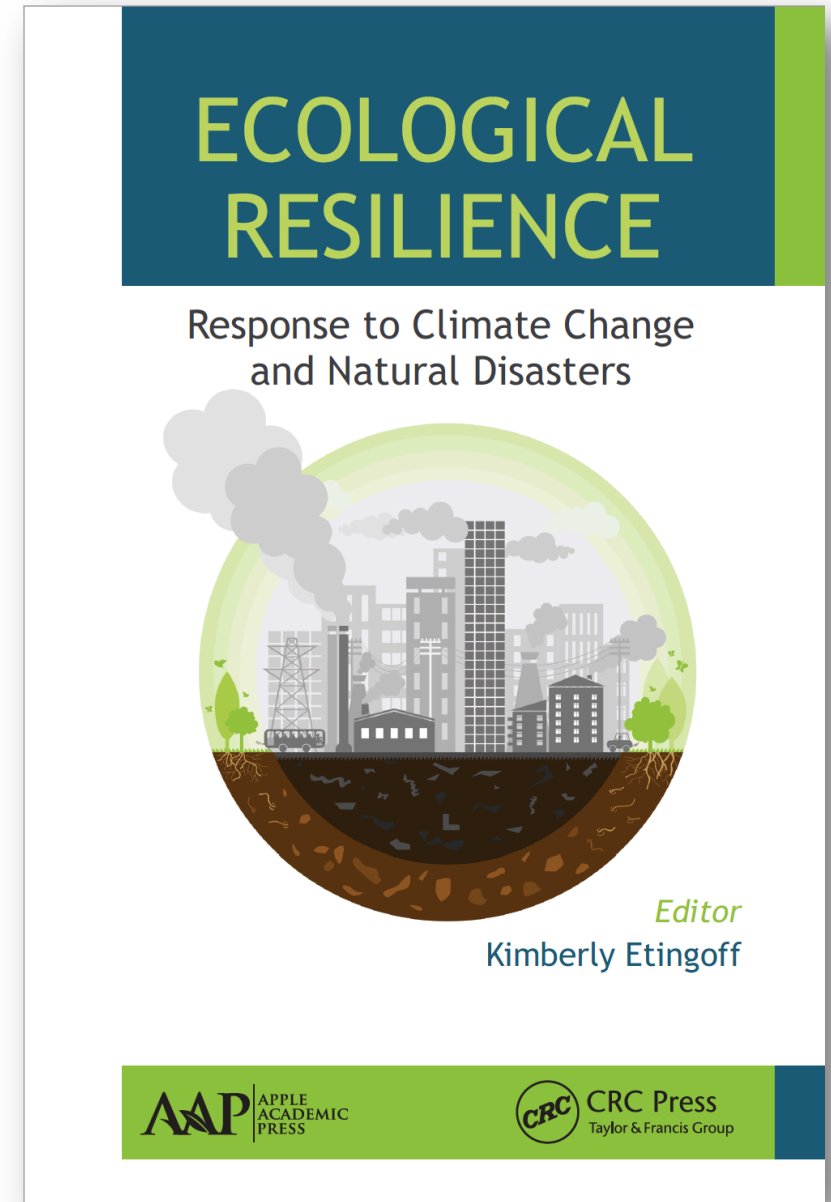
The author analyses resilience as an **emergent security value**. Utilizing a **biopolitical analytic**, it demonstrates that the value of resilience has appreciated alongside transformations in the order of power/knowledge enacted by political economies of security.



Ecological resilience

[...] is a broader concept and refers to the **magnitude of the disturbance** that can be **absorbed** before the **system changes its structure**. A city system's resilience in this sense is determined by its **ability to persist and adapt to a new environment**; a city's **resilience reflects its ability to remain** within given ecological thresholds, either in the existing environment or in the new environment.....

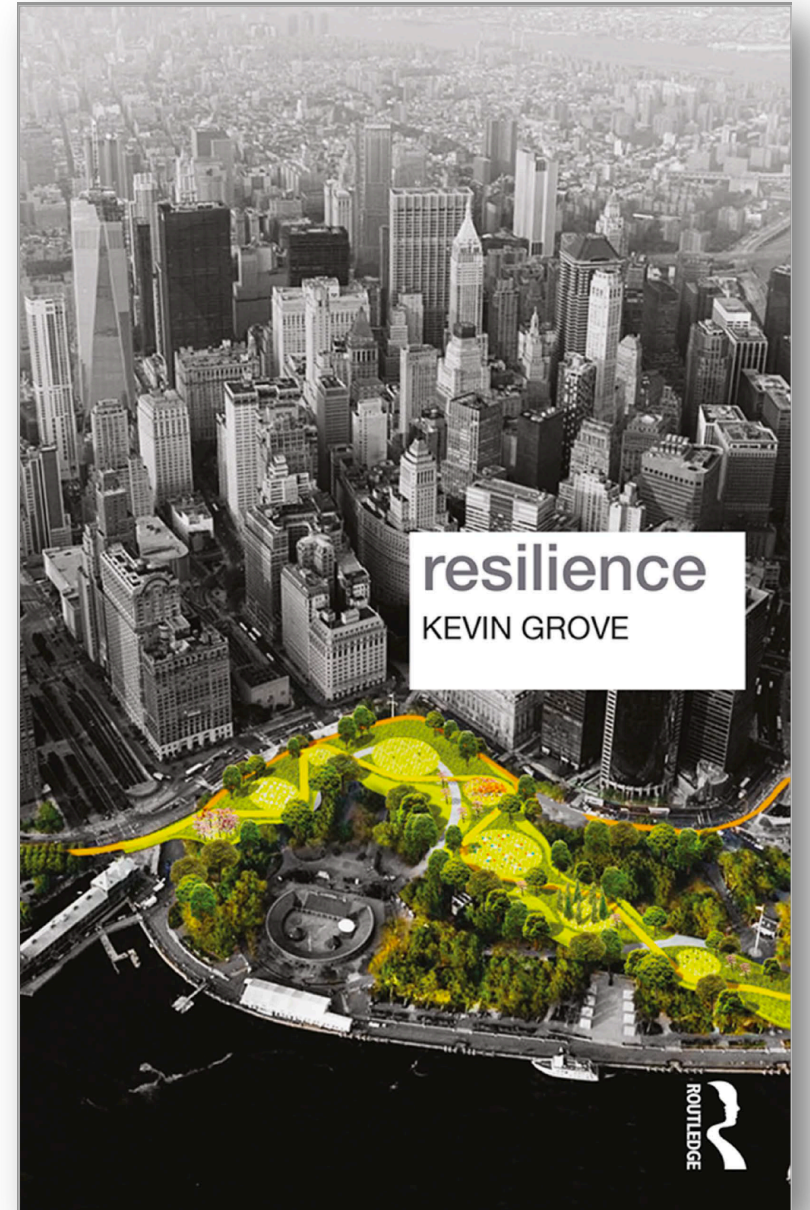
As its systems are strengthened, a city has a stronger ability to **resist** or **adapt** to new disturbances, for instance, natural **disasters**.

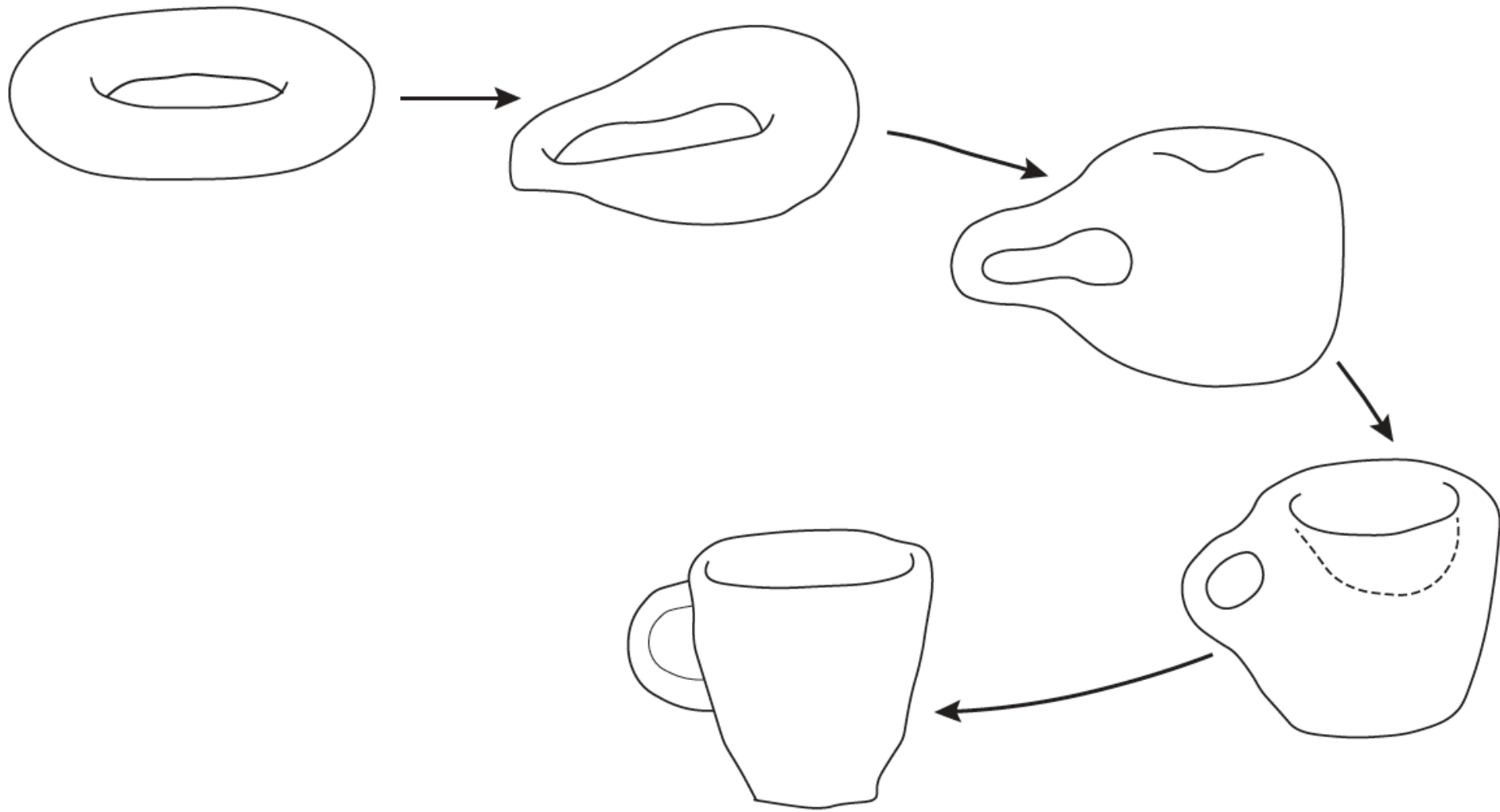


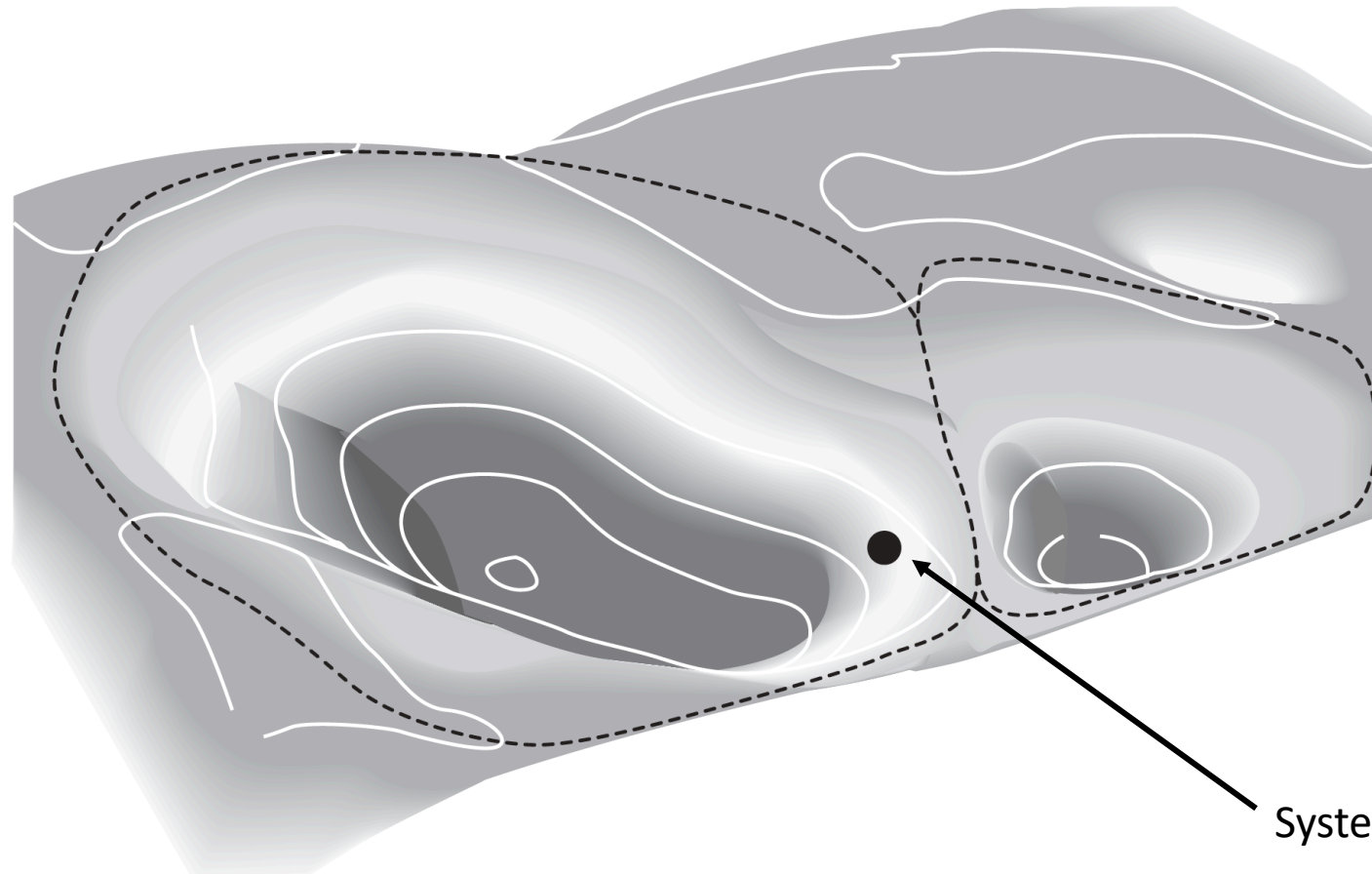
Topology

[a] term derived from **differential geometry** to signal a multi-dimensional **state space** that can be **stretched**, **twisted** and **deformed** while **retaining the same essential structure**.

State space is not defined by abstract, quantitatively determined measurements; instead, it **consists of qualitative relations** between the **variables** that constitute a particular system.







System in its current position

Futures studies

Futures studies is best seen as a discipline that aims:

*To discover or invent, examine and evaluate, and propose **possible, probable and preferable** futures.* (Bell W., 2003)

Planning can best be defined as:

*The making of an **orderly sequence of actions** that will lead to the **achievement** of a stated goal or **goals**.* (Hall P., 1993)

Futures studies are integrated with **strategic planning** in such a way that the former provides the **vision(s)** of the preferred result and **procedurally** is present in each phase of the latter.

Terminologies

Prospective

Transformative practices

Resilience

Benchmarking

Scenario

Backcasting

Terminologies

Prospective

Transformative practices

Resilience

Benchmarking

Scenario

Backcasting

”[it] refers to the **ability of an urban system**—and all its constituent socioecological and socio-technical networks across temporal and spatial scales—to **maintain or rapidly return to desired functions** in the face of a **disturbance**, to **adapt to change**, and to quickly **transform systems** that limit current or future adaptive capacity.” (Meerow et al. 2016).

Meerow, Sara, Newell, Joshua P., & Stults, Melissa. (2016). Defining urban resilience: A review. *Landscape and Urban Planning*, 147, 38–49.

Terminologies

Prospective

Transformative practices

Resilience

Resilience for whom?
Resilience of what to what?
Resilience for when?
Resilience for where?
Why resilience?

Benchmarking

Scenario

Backcasting

Meerow, S. & P. Newell, J (2019) Urban resilience for whom, what, when, where, and why?, Urban Geography, 40:3, 309-329

Terminologies

Prospective

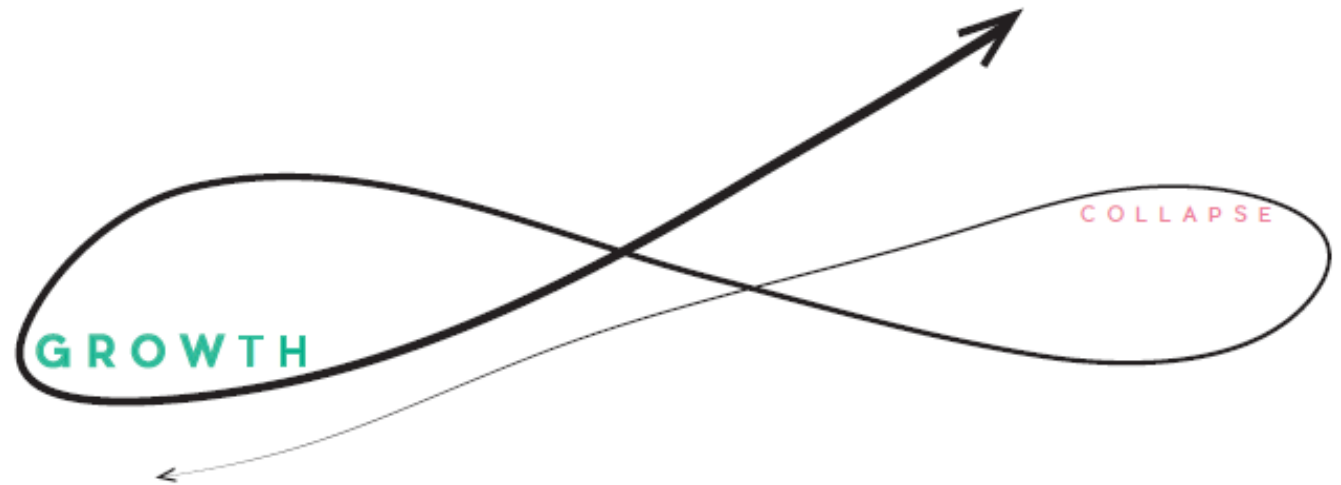
Transformative practices

Resilience

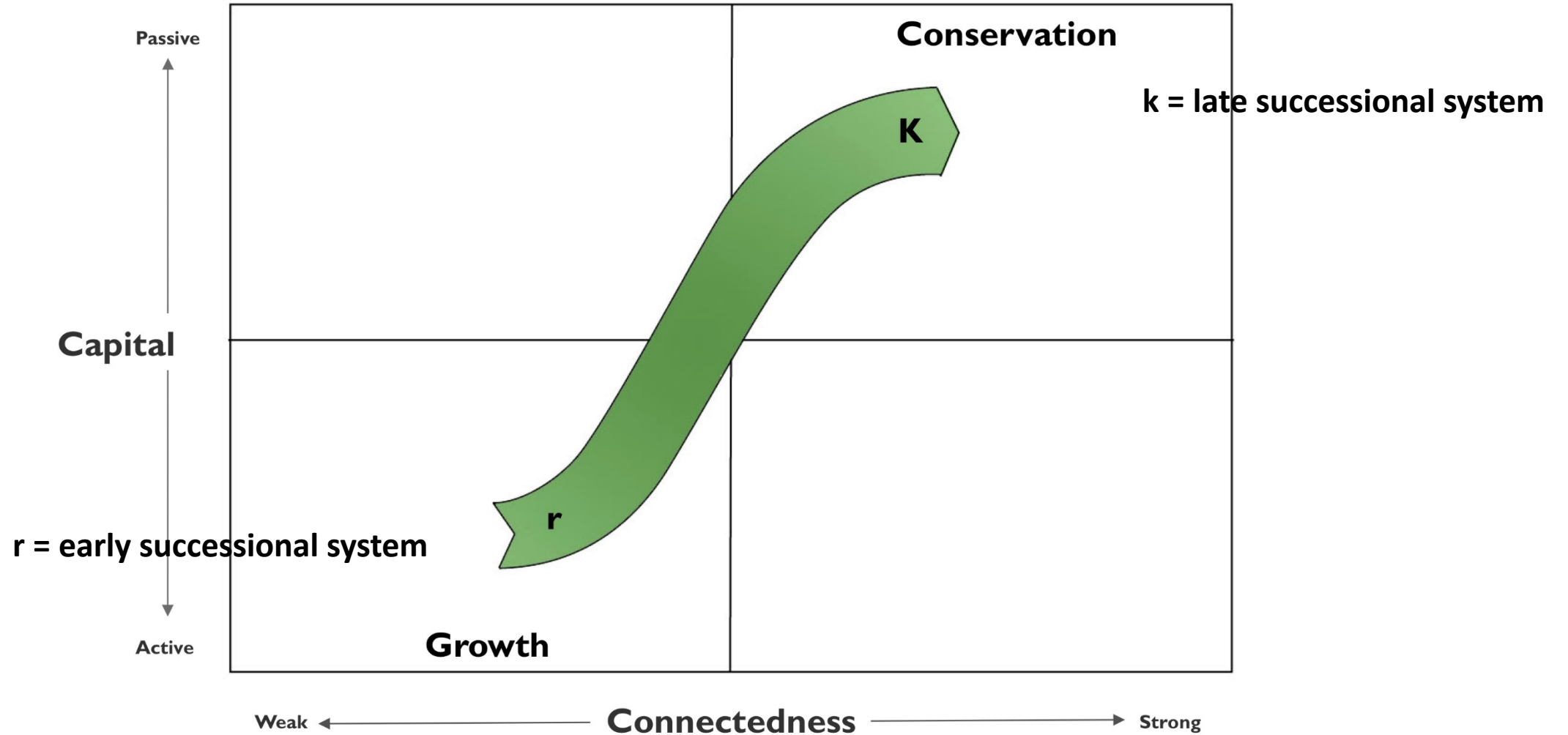
Benchmarking

Scenario

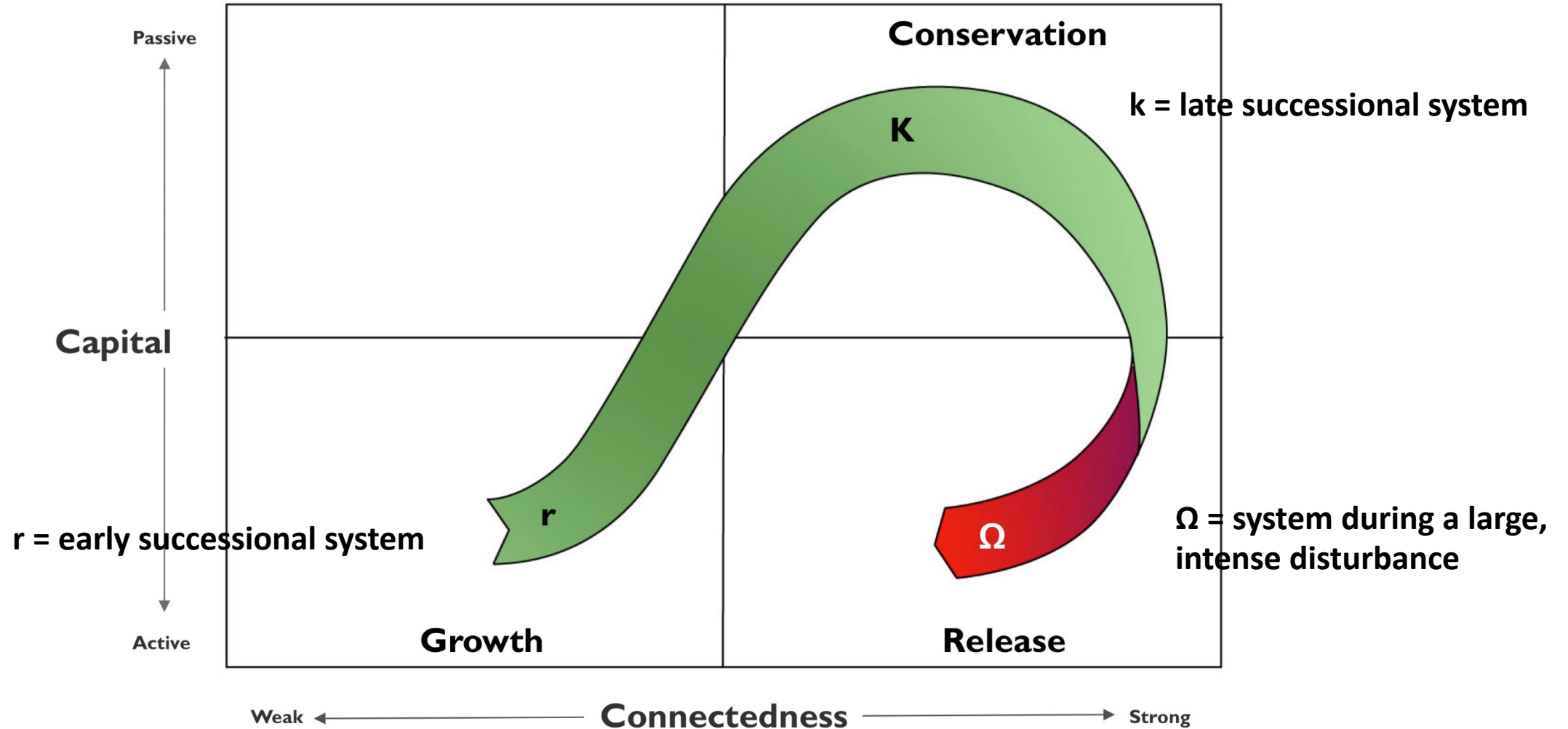
Backcasting



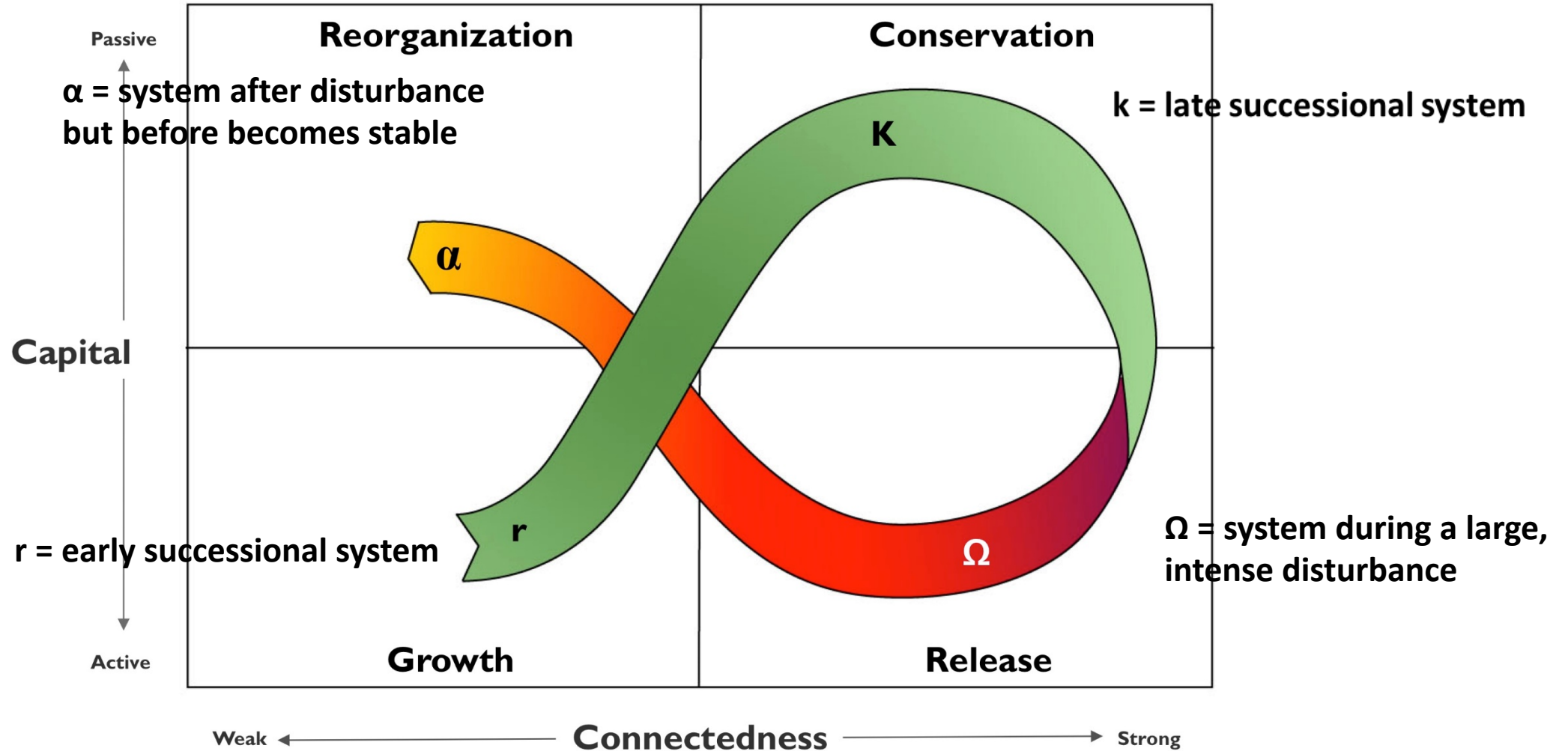
Cycle of adaptive change



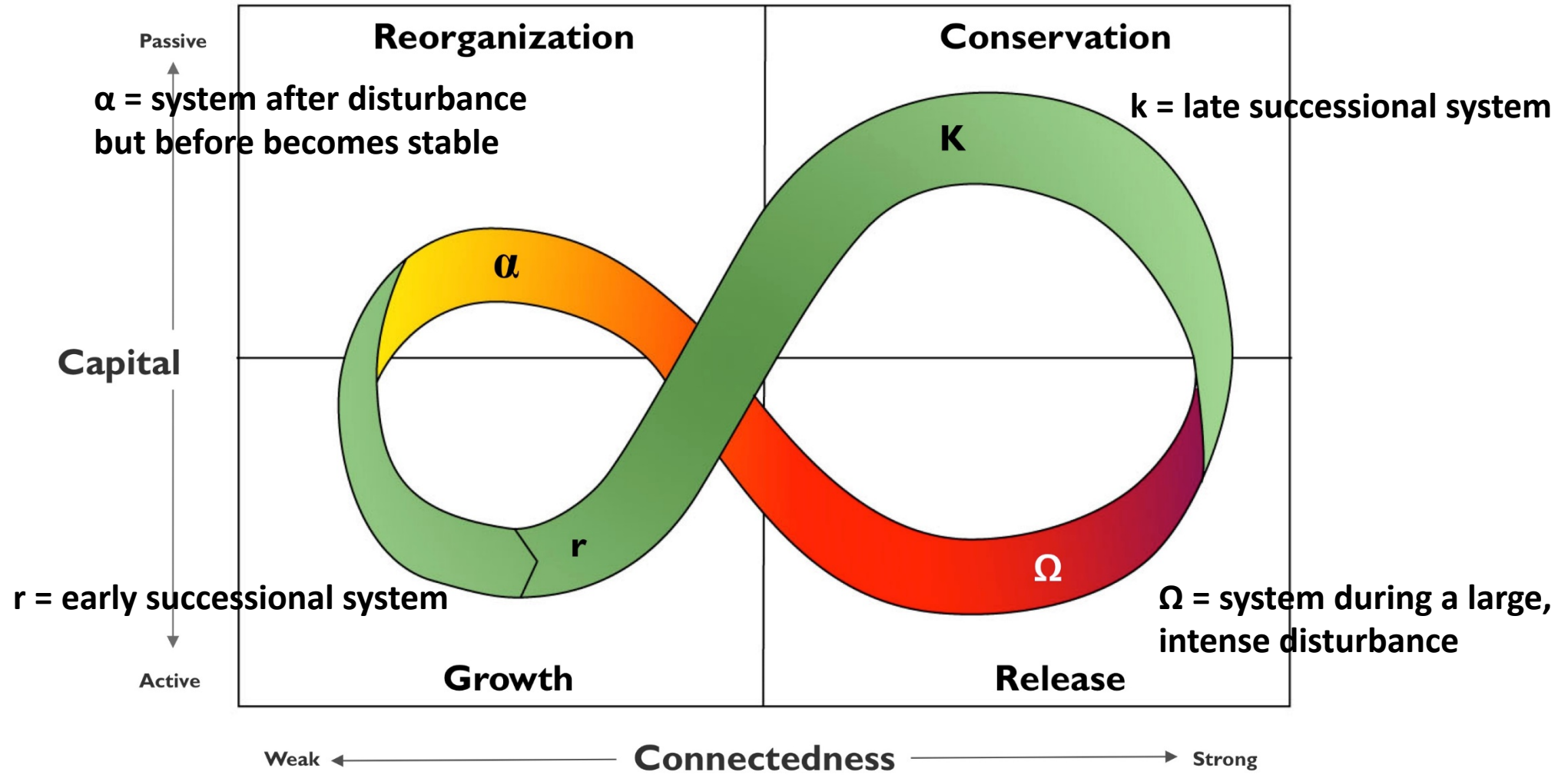
Cycle of adaptive change



Cycle of adaptive change



Cycle of adaptive change













Largest System

Large and Slow

- e.g. Governing

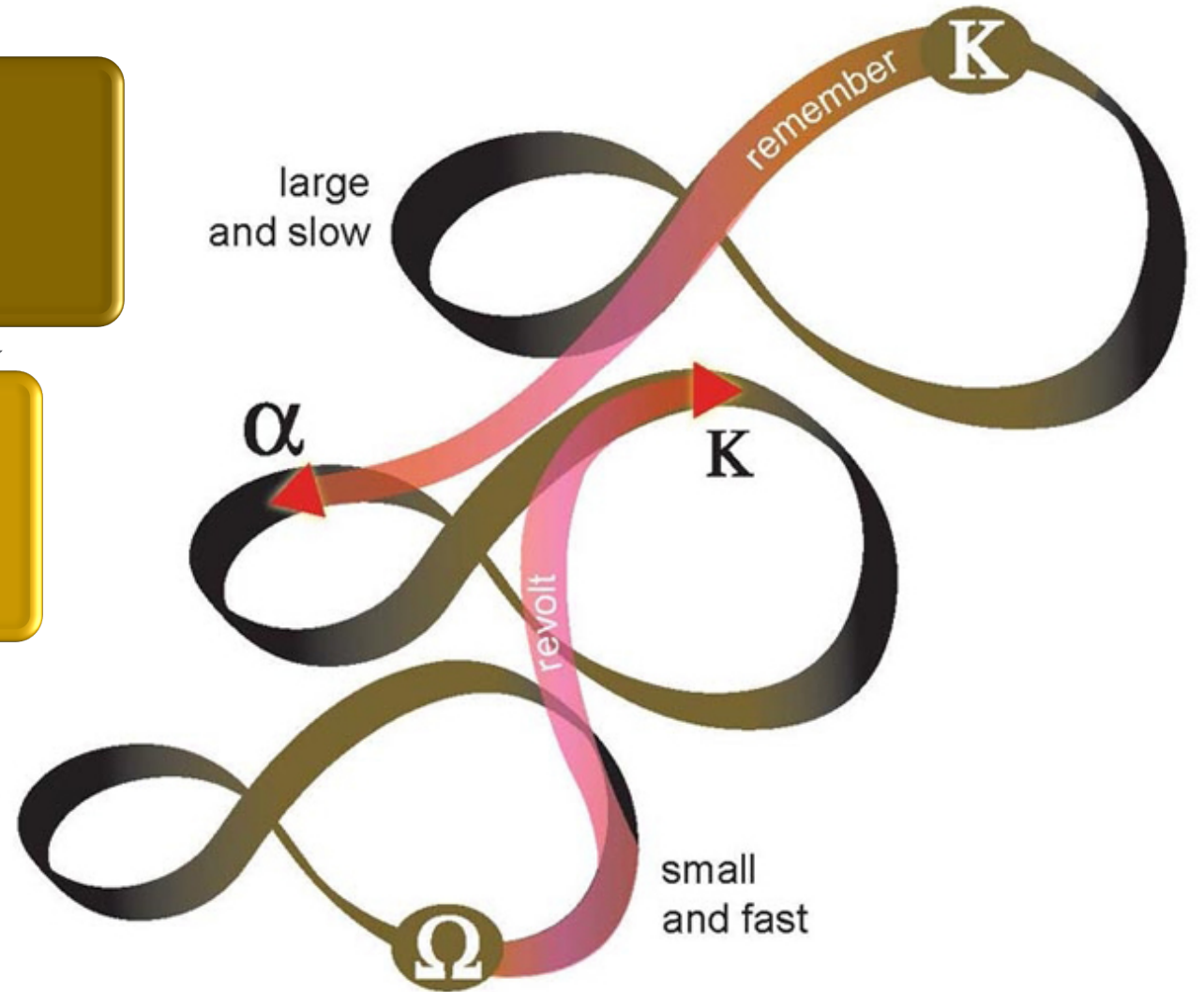
Middle System

- e.g. Dominant Practice

Smallest System

Small and Fast

- e.g. Innovators



Terminologies

Prospective

Transformative practices

Resilience

Benchmarking

“Benchmarking is the search for the best industry practices which will lead to exceptional performance through the implementation of these best practices” (Camp, 1989).

Scenario

Backcasting

Camp, R.C. (1989), Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance, ASQC Quality Press, Milwaukee, WI

Terminologies

Prospective

Transformative practices

Resilience

Benchmarking

”Benchmarking is an activity that looks outward to find best practice and high performance and then measures actual operations against those goals” (Kumar et al., 2006).

Scenario

Backcasting

Kumar, A., Antony, J. and Dhakar, T.S. (2006), “Integrating quality function deployment and benchmarking to achieve greater profitability”, *Benchmarking: An International Journal*, Vol. 13 No. 3, pp. 290-310.

Terminologies

Prospective

Transformative practices

Resilience

Benchmarking

Scenario

Backcasting

”Quite often, the benchmarking concept is understood to be an act of **imitating or copying**. But in reality this proves to be a concept that helps in **innovation** rather than imitation” (Thompson & Cox 1997).

Thompson, I. and Cox, A. (1997), “Don’t imitate, innovate”, Supply Management, pp. 40-3

Benchmarking

Basically, benchmarking allows cities to:

- (i) take stock of the current situation
- (ii) compare itself with cities that are performing better
- (iii) Identify strategies for improvement
- (iv) set targets for future performance
- (v) monitor and review progress
- (vi) prioritize infrastructure & service funding
- (vii) build networks amongst cities
- (viii) provide opportunity for increased collaboration amongst cities

(Holloway & Wajzer, 2008).



Best practices

Holloway, A., & Wajzer, C. (2008). Improving city performance through benchmarking. Sydney, Australia: International Cities Town Centres & Communities Society, 7–10 October 2008.

Task (T3)

T3 (Best Practices)

The task aims to understand the relation between The City & The Countryside in a **practical context: how is the theme integrated in development visions?** Groups study reference cases that are relevant to the theme and reflect those to the planning material related to the Porvoo case area.

Each group will study and present at least two cases of a balanced growth vision for a city & countryside. **One case can be on green belt and the relation of nature to urban.** The cases can be ***visionary works*** or ***already implemented***. You are encouraged to study cases in your home countries. For your text, please have an approx. word count of 3000 words.



Thanks!

This presentation is available @ MyCourses
Contact Hossam (hossam.hewidy@aalto.fi)