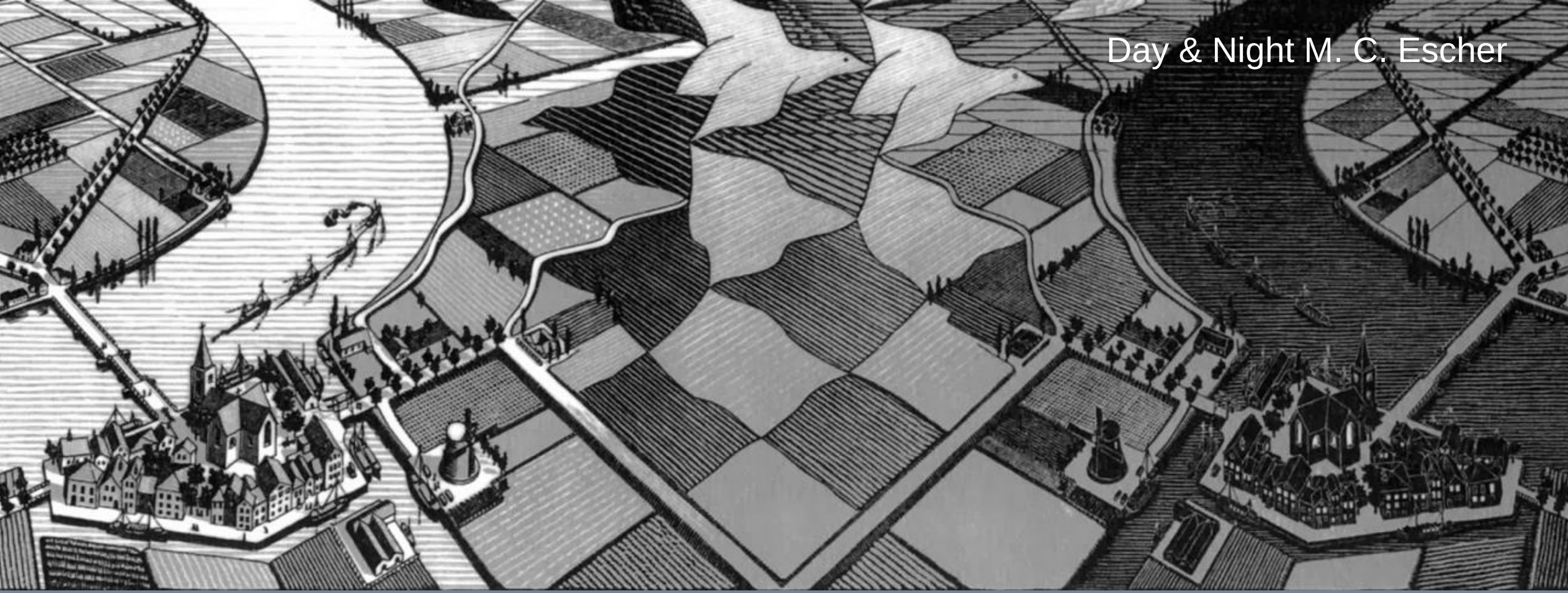

Does Transition Management merge with Strategic Spatial Planning?

A theoretical evaluation applied to the introduction of the Multi-Layer Safety Approach (MLSA) in the Netherlands.

Wim van der Knaap Joa Maouche Mark Zandvoort

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OVERVIEW

1. Introduction
2. Theoretical framework
3. Methods & Theoretical Results
4. Discussion related to MLSA
5. Conclusion & Recommendations

THEORY CHOICE

PLANNING THEORY

- Strategic Spatial Planning
- Reflexive Planning
- Communicative Planning
- …

?

TRANSITION THEORY

- Transition Management
- Strategic Niche Management
- Multi-level Perspective
- …

Map of the Complexity Sciences

by Brian Castellani

1940-1950s | 1960's | 1970's | 1980's | 1990's | 2000's | 2020

Issac Newton (The Calculus) [1642 - 1727]
Henri Poincaré (Algebraic Topology) [1854 - 1912]
Dynamical Systems Theory
James Yorke (Founder)
Mitchell Feigenbaum (Chaos Constant)
Benoit Mandelbrot (Founder)
Edward Lorenz (Lorenz Attractor/ Butterfly Effect)
Fractal Geometry
Chaos Theory
Tien Yien Li (Founder)
Nonlinear Systems
James Crutchfield (Computational Mechanics/ Nonlinear Dynamics)
Physics and Computation in Complex Systems
Stephanie Forrest (Computational Immunology Biological Modeling)
Multi-level Complex Systems
Robert May (Population Dynamics)
Carlos Castillo-Chavez (Computational Biology/ Multi-level Modeling)
Per Lötstedt (Computation/ multi-scale modeling)
Ludwig von Bertalanffy (Systems Theory Founder & Systems Biology)
Donella Meadows (globalization)
General Systems Theory
Fritjof Capra (web of life)
Alfred W. Hubler (Dynamics of Open Dissipative Systems)
Doyne Farmer (dynamical systems)
Kurt Richardson (Complexity Thinking)
Peter Checkland (management/ soft systems modeling)
Stafford Beer (management)
James Grier Miller (living systems theory)
Gregory Bateson (ecology of mind)
Systems Science
Complex Living Systems
James Lovelock & Lynn Margulis (Gaia Hypothesis)
Managerial Organizational Complexity
Systems Biology
Computational Biology
Howard Thomas Odum (Ecological Systems Theory)
Ecological Systems Theory
Eshel Ben-Jacob (Self-Organization/ Bacterial sociality)
Yamir Moreno (Physics of Complex Systems)
Anatol Rapoport (mathematical psychology)
Per Bak (Self-Organized Criticality)
Stuart Kauffmann (Biology/Evolution Autonomous Agents)
Eric Bonabeau (distributed/swarm intelligence)
Yaneer Bar-Yam (Dynamics of Complex Systems)
Uri Alon (Network Motifs/Gene Expression)
Margaret Mead (anthropology)
Kenneth Boulding (economics)
Francisco Varela & Humberto Maturana (Cognitive Science)
Autopoiesis and Adaptation
Swarm Behavior
Jean-Louis Deneubourg (Swarm Intelligence, nonlinear dynamics, biological computation)
Nicholas Christakis (Health Networks)
Immanuel Wallerstein (World Systems Theory)
Mark Granovetter (Strength of Weak Ties)
Barry Wellman (Internet, INSNA)
Steve Strogatz (Small World)
Nigel Thrift (Complexity, Place, Time)
Manuel Castells (Global Network Society)
Other Intellectual Lineages
Complex Systems Theory
Self-Organization
Complex Adaptive Systems
Emergence
Oynamics in Systems
Robustness/ Control
Scaling/ Self-Similarity
Jean Carlson/ John Doyle (Complexity & Robustness)
Geoffrey West (Scaling Laws)
Samuel Bowles (Dynamics of Human Systems)
Network Science
Global Network Society
Spatial/ Geographical Complexity
John Urry (globalization/ Social mobilities)
Michael Batty (Cities and Complexity)
David O'Sullivan (GIS, geography & Complexity)
Erich Jantsch (Self-Organizing Universe)
Herman Haken (Self-Organization and Synergetics)
Murray Gell-Mann (Effective Complexity)
Paul Cilliers (Philosophy of Complexity)
Bruno Latour (Actor Network Theory)
Duncan Watts (Small Worlds)
Réka Albert (scale-free networks)
Albert-Lazlo Barabasi (Scale-free networks)
Katy Börner (Visual Complexity/ Networks/ Data Science)
Warren Weaver (Organized & Disorganized Complexity; Machine Translation)
Ilya Prigogine (Dissipative Structure, time, matter)
Talcott Parsons (Sociology)
Niklas Luhmann (Sociology)
John Smith/Chris Jenks (Qualitative Complexity)
Edgar Morin (Philosophy of Complexity)
John Miller (computational economics)
John Taylor (e-science)
Manuel Lima (Visual Complexity)
MIT Media Lab (technology, multimedia, design)
Scott Page (Political Science)
Norbert Wiener (Cybernetics Mathematics)
Arturo Rosenblueth (Physiology & Cybernetics)
Cybernetics
2nd Order Cybernetics
Deborah Hammond (History of Systems Thinking)
Systems Science Engineering
Social Systems Theory
Socio-Cybernetics
Complexity Theory/ Epistemology
Economics and Behavioral Dynamics
E-Science
Visual Complexity
Data Science
Heinz von Foerster (2nd order cybernetics)
Jay Forrester (System dynamics)
George Klir (Systems Science)
Francisco Parra-Luna (Founder)
Social Complexity
Friedrich Hayek (Economy as Complex System)
W. Ross Ashby (Cybernetics of Mind)
Andrei Kolmogorov (Complexity & Information)
Stephen Arthur Cook (Computational/ Time Complexity)
Charles H. Bennett (Quantum Computation)
Nigel Gilbert (Computational Social Systems)
Slyvia Walby (Gender/Globalization/ Complexity)
Patricia Hill Collins (Race/Class/Gender/Sexual Identity/Nationality)
Claude Shannon (Information theory)
John von Neumann (mathematics)
Stephen Wolfram (Complexity/ Cellular Automata)
Christopher Langton (Founder)
Joshua Epstein/ Robert Axtell (Artificial Societies)
Data Mining
David Byrne (Complex Realism/ Case-based Modeling)
Leslie McCall (Complex Inequality)
Brian Castellani/ Rajeev Rajaram (Case-based Modeling)
Intersectionality
Walter Pitts (Founder)
Artificial Intelligence Cognitive Science
Connectionism
Cellular Automata
Computational Complexity Theory
Artificial Life
Agent Based Modeling
Robotics/ Multi-Agent Modeling
Computational Modeling
Case-Based Complexity
Gregory Piatetsky-Shapiro (Knowledge Discovery in Databases)
Frank Rosenblatt (Connectionism)
Genetic Algorithms
Fuzzy Logic
Bart Kosko (Fuzzy Logic)
Katia Sycara (Robotics, Multi-agent Systems)
Michael Wooldridge (Editor, AAMAS)
Jeanette Wing (Computational Thinking)
Emma Uprichard (Time/Complexity/ Interdisciplinary Methods)
Warren McCulloch (Founder)
Teuvo Kohonen (Self-Organizing Map)
John Conway (Game of Life)
Hector Zenil (Algorithmic Complexity/ Computational Biology)
John Holland (Genetic Algorithms)
Lotfi Zadeh (Founder)
Thomas Schelling (micromotives/ Macrobehavior)
Robert Axelrod (Iterative Game Theory)
Douglas Hofstadter (Cognitive Science)
Melanie Mitchell (Computation in complex systems)
Charles Ragin (Founder, QCA, Fuzzy Set Social Science)
Lasse Gerrits (Complexity and Public Policy)

STRATEGIC SPATIAL PLANNING THEORY

TRANSITION MANAGEMENT THEORY

Governance framework

Deal with the longer term (10-50 yrs)

Influenced by Complexity theory

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RESEARCH QUESTION

To what extent are Strategic Spatial Planning theory and Transition Management theory compatible?

And how does MLSA develop?

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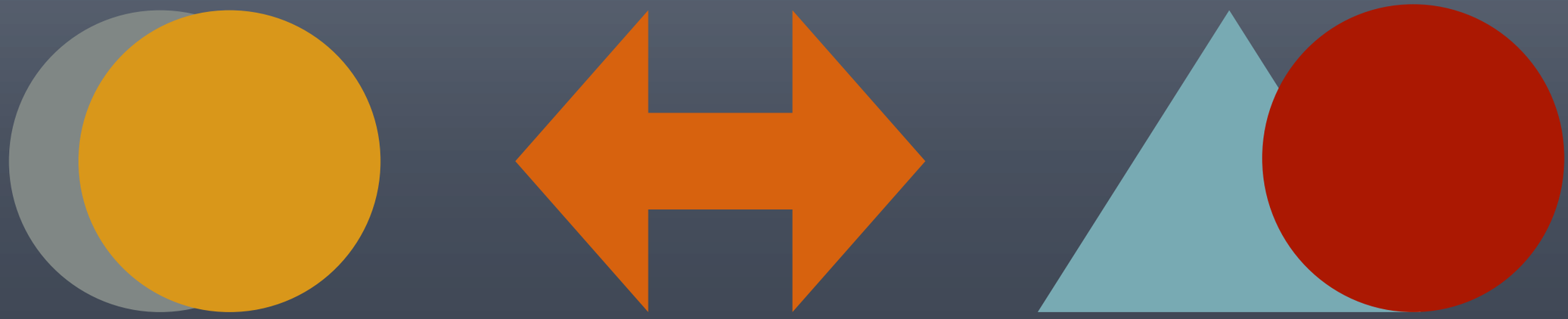
SUB QUESTIONS

- What is the status of the theoretical debate?
- What is the direction of the theoretical debate?
- What are the underlying assumptions of the theory?
- To what extend do the theories overlap, diverge and/or conflict?



STRATEGIC SPATIAL PLANNING THEORY

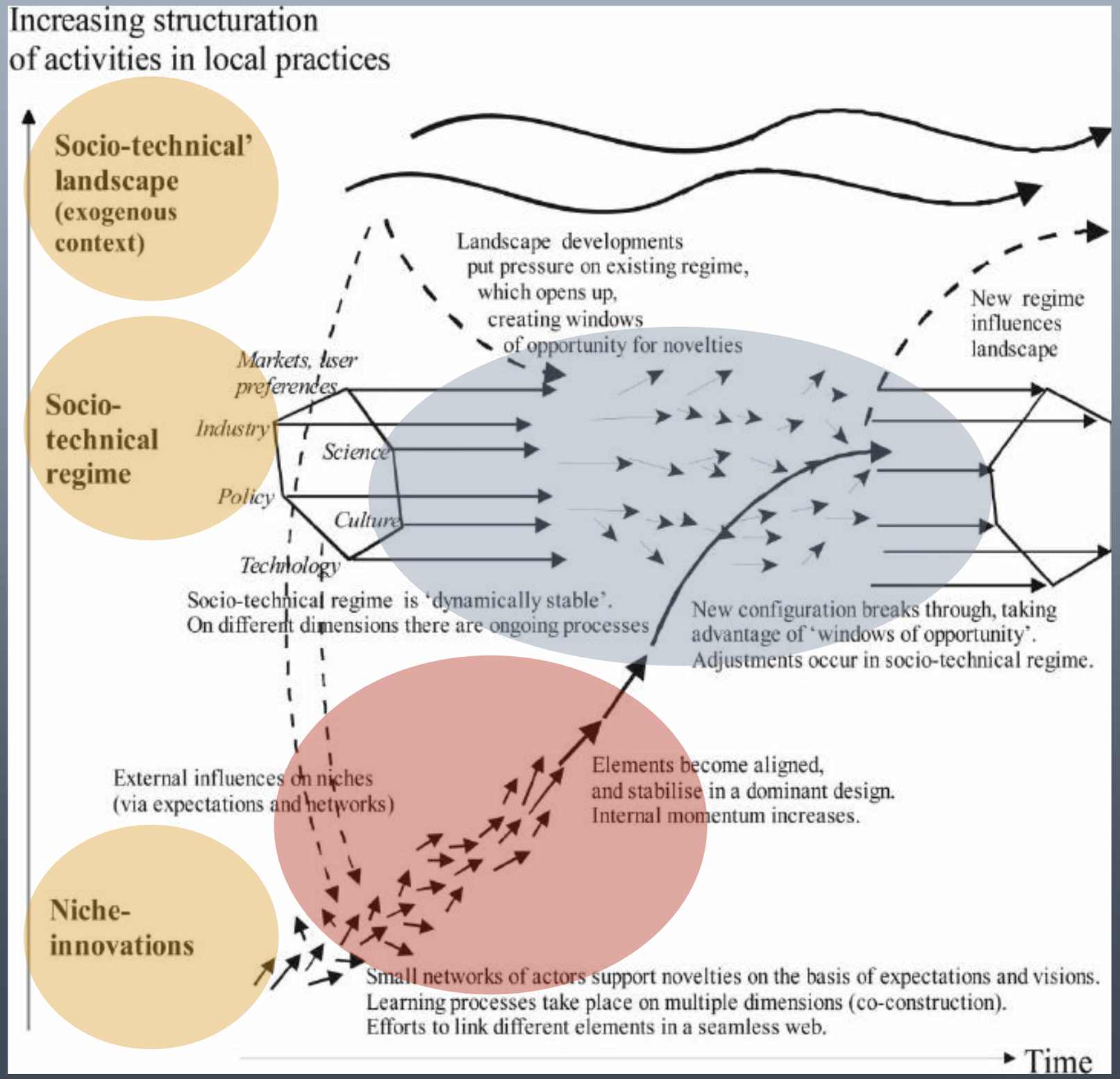
- Transformative socio-spatial process.
- Shapes and frames what a place is and what it might become.
- Through: visions, scenarios, coherent actions and means for implementation

TRANSITION THEORY

Multi-level Perspective

Transition Management

Strategic Niche Management



METHODS

LITERATURE SELECTION

- Scopus as database and selection tool
- Five most influential articles:
- Citation-index score (2 articles)
- Recently publiced (2 articles)
- Relevance (1 article)
- Theory central; no geographical limitations

STATUS

Status analysis matrix:

empirically tested?

usable in multiple contexts?

development?

constructive criticism?

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DIRECTION

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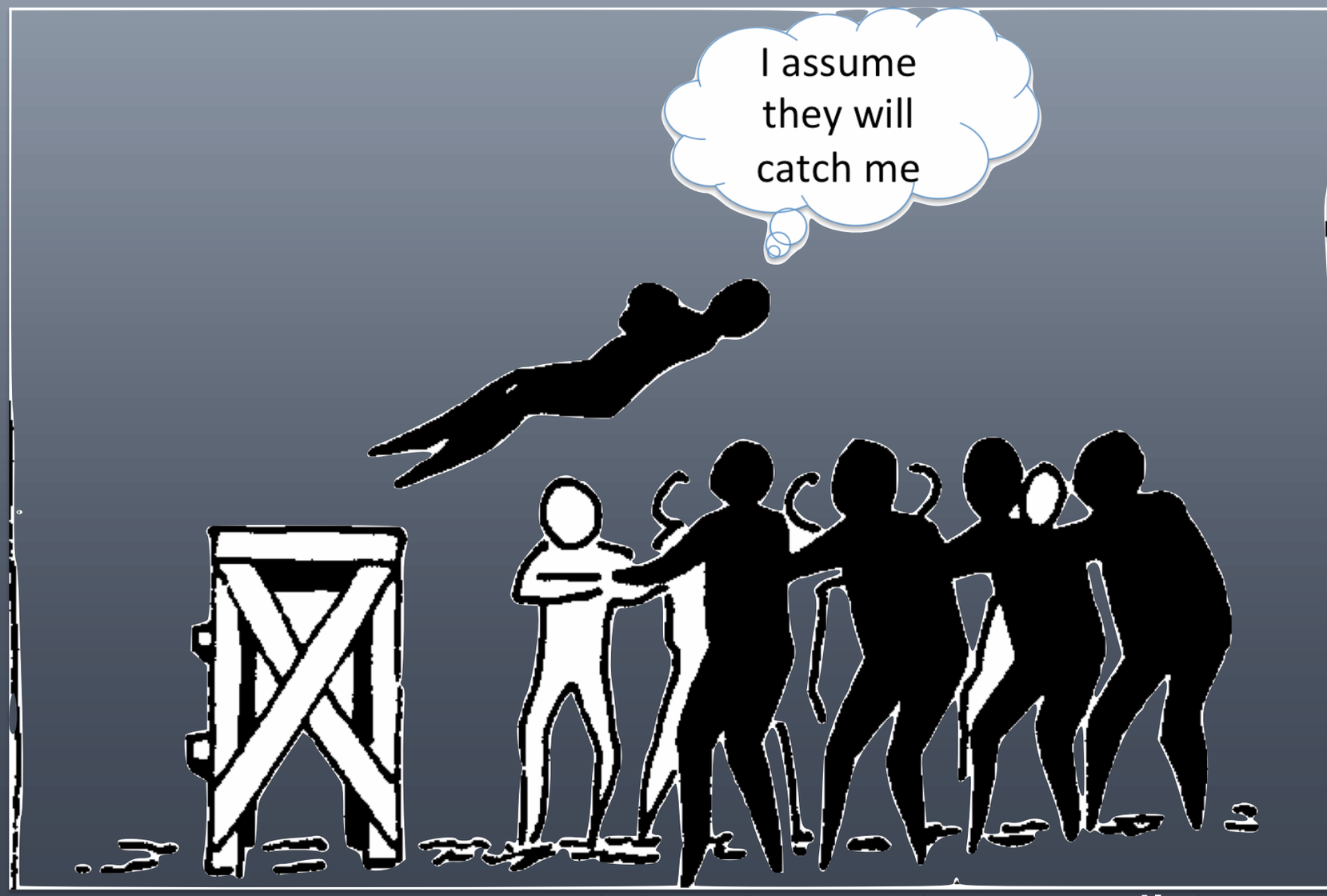
UNDERLYING ASSUMPTIONS

- Thorough and critical review of selected articles
- Longlist
- Shortlist
- Table



RESULTS

THEORY

STATUS OF THEORIES

- **SSP theory** is often tested in practice.
- Used around the world and in multiple contexts.
- Transforming to accommodate critical dimension and transformative practices.
- Receives constructive criticism.

- **TM theory** is difficult to apply in practice, not validated empirically.
- Diffusing to other countries and context is challenge.
- Not changing fundamentally, but is being improved rapidly.
- Receives a lot of constructive criticism.

DIRECTION Strategic Spatial Planning

Timeline of strategic spatial

If we do not allow for strategic spatial planning to constitute spaces of both deliberation and strife, where radically different futures can be imagined and discussed, strategic spatial planning processes can do little more than support and legitimize neoliberal practices and concepts as superior in strategic spatial planning (Olesen, 2014)

The second wave of neoliberalisation of strategic spatial planning relates then to the normalisation of neoliberal practices and concepts, which results in an increasing pressure on existing planning frameworks and practices (Olesen, 2014).

The continued process of neoliberalisation, now entering the phase of roll-with-it neoliberalism, seemed in many northwestern European countries to result in a decentralisation of planning tasks and a reduced role for the state. As strategic spatial planning had mainly been brought forward by centre-left governments in North-western Europe in the 1990s, these ideas struggled to find political legitimacy in the increasingly neoliberal political climate in the 2000s (Olesen, 2014).

The process of Strategic spatial planning always involves a clash of interests and power between people, organizations and institutions. But it is , or should be , a process with stakeholders who are aware of the fact that they need each other. It combines long-term thinking with short-term interventions within a co-productive decision-making process (Van den Broeck, 2013).

In the 1990s, northwestern Europe experienced a revived interest in ideas of strategic spatial planning. Here, strategic spatial planning was increasingly seen as an activity for positioning cities and city regions in the European competitive landscape of a single market and a global economy, promoting the 'competition state'. The role of strategic spatial planning was now interpreted as facilitating economic growth and competitiveness. In a sense, this period can be argued to represent the first wave of neoliberalisation of strategic spatial planning (Olesen, 2014).

In the mid-20th century, strategic spatial planning was mainly concerned with growth management through the preparation of structure plans. It was widely recognised that a strategic approach to land-use planning needed to manage the rapid population growth and urbanisation processes characterising northwestern Europe at the time. In this period of spatial Keynesianism, spatial planning played an important role in correcting market failures by distributing growth and economic development evenly across state territories, providing services for a reasonable quality of life (Olesen, 2014).

In the 1980s an increasingly neoliberal political climate put the idea of spatial planning and correcting market failures under pressure. The period was characterised by policies of roll-back neoliberalism and suspicion of state-led planning, which was largely regarded as restricting economic growth and competitiveness (Olesen, 2014)

1950s 1960s 1970s 1980s 1990s 2000s 2010s 2015

strategic spatial planning in a number of Western countries evolved towards a system of comprehensive planning at different administrative levels (Albrechts, 2004).

In the early 1980s, the state and local governments were called upon to use the strategic planning approach developed in the corporate world. From this period onwards, the introduction of strategic planning happened across all the very different traditions of planning in Europe (Albrechts, 2010).

Retreat from strategic planning, fuelled not only by the neoconservative disdain for planning, but also by postmodernist scepticism. The focus of urban and regional planning practices was on projects, especially for the revival of rundown parts of cities and regions, and on land-use regulations (Albrechts, 2004).

The growing complexity, an increasing concern about rapid and apparently random development, the problems of fragmentation, the dramatic increase in interest in environmental issues, the growing strength of the environmental movement, a reemphasis on the need for long-term thinking and the aim to return to a more realistic and effective method of planning served to expand the agenda. In response, more strategic approaches, frameworks, and perspectives for cities, city regions, and regions had again become fashionable in Europe by the end of the millennium (Albrechts, 2004).

The concept of strategic spatial planning experiences difficulties because of a disconnect between the pace of actual events and the time it takes to prepare the requisite planning studies that will allow a city or region to adopt a plan that will serve both as an inspiring political vision and a policies framework for more short-term, operational planning. To overcome this difficulty, the emphasis should be shifted away from 'plans' to planning studies that focus on ways of dealing with critical urban policy and management issues under alternative assumptions ('scenarios'). Long-range planning studies are best conducted with extensive and informed public discussion and debate (Friedmann et al., 2004).

Keeping to more of the same and to vested interests will not be sufficient to tackle the challenges at hand. Therefore transformative practices should be embedded into spatial planning. Strategic planning needs to avoid two traps that planning is usually confronted with: the trap of linearity and the trap of being stuck in regulations. Where traditional spatial planning is mesmerised by the myth of control strategic spatial planning emphasises process and emergence. A focus on 'becoming' forces planners have to focus on the 'becoming' and apply the strategic force of reverse thinking with a critical analysis of the driving forces at work (Albrechts, 2010).

Substantive rationality or value rationality are (re)introduced to keep planning from becoming more concerned with how to plan rather than with the content of planning. This is needed to counteract the pure instrumental rationality that encourages an analysis of trends and extrapolates them in order to arrive at conceptions of social and economic futures. Strategic spatial planning is not just a contingent response to wider forces, but is also an active force in enabling change. It does not flow smoothly from one phase to the next. It is a democratic, open, selective, dynamic and creative process (Albrechts, 2004).

DIRECTION

Transition Management

With all its strengths and precision on the level of transformative knowledge, TM lacks a deeper consideration of individuals engaging in transition experiments, or a basis for monitoring or assessing changes occurring at the level of the participating individuals. Participants are essential ingredients to see niche experiments evolve (towards more sustainability). Therefore, TM should embrace a more encompassing conceptualisation of the individual. This extended comprehension should include peoples' values, motivations and reasons for action both for themselves and within a collective. This might help to correctly assess intra-individual changes with regard to sustainability awareness or motivation prompted in the learning processes facilitated in a typical TM process (Rauschmayer et al., 2015).

TM falls short of distinguishing the normative orientation of change. TM is claimed to be explicitly a normative model by taking sustainable development as long-term goal. Despite of focussing explicitly on addressing sustainability issues, the TM concept has witnesses critique of its understanding of sustainable development as being rather blurred. As the transition management methodology puts the concrete definition, interpretation and valuation of sustainability in the hands of the process, i.e. the participating individuals, a substantive definition of sustainability cannot be found in TM literature. The approach falls short to propose methods to assess the procedural achievements (e.g. future visions or pathways) developed by participants against scientifically grounded understandings of sustainability. This may in the end lead to sustainability becoming completely negotiable, and therewith random, at niche, but also at regime levels (Rauschmayer et al., 2015).

TM has been developed to infer societal transitions, but TM lacks target knowledge, as it cannot differentiate between sustainability-related outcomes and other outcomes of transitions. TM does not have a sufficiently clarified understanding of those individuals who are participating in the transition experiments. TM additionally lacks systems knowledge as it concentrates on the transformation within the niches and not those that should be induced at the societal or individual levels.
The capability approach covers part of these normative and individual shortcomings.
Practice approaches, can be mobilized to describe changes at the societal level, indicating how social practices come about and change (system knowledge). At the same time, PA lacks target knowledge and transformative knowledge.
Combined these three heuristics could generate a heuristic assemblage that could be of use to describe, explain, assess and interrelate changes at the individual, the niche, and the regime levels (Rauschmayer et al., 2015).

Although TM aims at radical changes the definition of this change is (in line with the systems' perspective) very encompassing, including structure, culture and practices. In this complex picture it somewhat remains opaque what exactly should change. In addition, the role of individual agency (besides the role of frontrunners) is without clear conceptualization within the systems perspective. Here this systems perspective should be combined with a thicker description of the object of change, taking account of both, agency and structure (Rauschmayer et al., 2015).

Around 2011 scholars voice criticisms about TM because TM-researchers have a double role which can be prone to obscuring the analysis: possessing definitional power on how issues are framed in the participatory process and on how the selection of the participants is framed. It also remains opaque how the interaction between (niche) experimentations and incumbent (regime) system could be prescribed in practice (Rauschmayer et al., 2015).

In essence, TM is an explorative and participatory process addressing 'persistent' or 'wicked' problems and searching for long-term sustainable solutions (Rotmans et al., 2001 in Rauschmayer et al., 2015).

Within TM-processes, sustainability is never an a priori explicit objective, but rather the possible outcome of negotiation, debate, competition, and experiment (Loorbach, 2007 in Rauschmayer et al., 2015).

Around 2007 TM is critiqued for its naivety to issues of power, politics and democratic legitimacy. Allegedly too little attention is paid to the processes of negotiation of the goals with in TM experiments (Rauschmayer et al., 2015).

2000 — 2005 — 2010 — 2015

Transition Management (TM) is a concept that has gained significant traction from approximately 2001 onward. TM is a reflexive and participative governance concept that attempts to manage transformative change (i.e. influence the speed and direction of change) towards sustainable development by combining long-term thinking with short term action (thus complementing conventional policy) through a process of searching, experimenting and learning (Lachman, 2013).

Transition scenarios help to anticipate sudden changes and deviations from trends, align and engage multiple stakeholders, keep options open, and contribute to learning. The methodology to conceive transition scenarios is identical to the traditional scenario planning methodology (Sondeijker et al., 2006; Wiek et al., 2006 in Lachman, 2013).

TM is a governance framework for addressing persistent societal problems. (Loorbach, 2010).

TM as prescriptive mode of governance could be characterised as a reflexive approach toward long-term social change through small steps based on searching, learning, and experimenting. It is normative in its ambition, prescriptive nature, long-term focus, and analytical basis (Loorbach, 2010).

Based on the understanding of transitions in complex societal systems, central tenets of the transition management approach are, for example, the need for a long-term perspective to guide short-term development, the acknowledgement of uncertainties and surprise, the importance of networks and self-steering, and the necessity of creating space for innovation (Loorbach, 2010).

TM is promising both theoretically and as operational management strategy, but it still develops quickly and largely needs to prove itself. TM has been mainly implemented and conceptualized as a "shadow track" in which way visions, ideas, and agendas can be developed in a more innovative way than within the context of regular policy processes (Loorbach, 2010).

Diffusing and translating TM to other countries and contexts poses an inspiring challenge. The ambition is to validate the partly descriptive and partly prescriptive parts of TM for the coming period empirically, and in such a manner that a scientifically well-grounded concept and framework can be used and further developed in a broad societal context and also internationally (Loorbach, 2010).

Though promising in theory, TM has been proven difficult to apply in practice; hence, it has been difficult to assess whether TM actually works.
Current literature on TM focuses more on management of niche-regimes dynamics than management of the transition itself (Lachman, 2013).

M is a reflexive governance approach. It can be understood as "a multi-level model of governance which shapes processes of co-olution using visions, transition experiments and cycles of learning and adaptation.
M is inclusive and calls for setting long-term and intermediate goals, alignment of policies short- and long-term policies and strategic perimentation, besides traditional policies.
e presented concept of TM has been derived from the complex systems approach, new forms of governance and social theory.
M aims for directed evolution and is possibly best described as directed incrementalism, taking on board criticisms voiced against crementalism such as lack of orientation, conservatism and negative stance against analysis.
M is a model to shape processes of co-evolution into sustainable directions, with clear guidelines for how to do this. It takes society into w directions offering sustainability benefits in a prudent manner, by relying on processes of variation and selection with special tention to system innovation (Kemp et al., 2007).

M provides an interventionist approach building on empowering collectives as it translates descriptive knowledge of complex systems' development into tenets and struments of transition governance. (Rotmans and Loorbach, 2009).

e complexity of the system is at odds with the formulation of specific objectives and blueprint plans. Therefore TM avoids a too early selection of innovations and keeps tions open to learn about alternatives before selecting. This allows for an adaptive, open and participatory process of vision development (Rotmans and Loorbach, 2009).

e underlying premise is that a better understanding of the dynamics of complex, adaptive systems provides insight into the opportunities, limitations, and conditions under ich it is possible to influence such systems. This implies a strong linkage of content and process: The combination of analytic insights into systems complexity and derstanding of the process of governance complexity is new and has resulted in a set of management principles that forms the basis for the management framework. The anagement principles are reflexive rather than deterministic, reflecting a belief that transitions toward sustainability can be directed to a limited degree (Rotmans and orbach, 2009).

timeline Transition Management theory

DIRECTION OF DEBATE

SSP theory:

- focus on the becoming;
- use of scenarios and back-casting makes room for imagining radically different futures;
- increasing critical dimension.

TM theory:

- diffusion to other contexts;
- lack of target and system knowledge is addressed;
- understanding of individual agency is addressed
- power, and politics remains issue

UNDERLYING ASSUMPTIONS

Based on short list

Tracking number	Underlying assumptions Transition Management Theory	Kemp et al 2007	Rotmans&Loorbach	Loorbach 2010	Lachman 2013	Rauschmayer et al	Albrechts 2004	Friedmann et al 2004	Albrechts 2010	Van den Broeck 2013	Olesen 2014	Underlying assumptions Strategic Spatial Planning Theory	Tracking number
T1	Takes long-term thinking (at least 25 years) as a framework for shaping short-term policy.											Combines long-term thinking (25-30 years) with short-term interventions.	S1
T2	Tries to find new attractors for systems or visions by developing (sustainability) solutions.											Requires the prospect of a win-win situation and the involvement of actors on an equal basis to build some form of consensus around which actors can mobilise.	S2
T3	Is a reflexive and participative multilevel governance approach, based on insights from complex systems theory and new forms of governance.											Should be a process where radically different futures can be imagined and discussed.	S3
T4	Uses the development of sustainability images to initiate a process to develop transition pathways and draws up a common transition agenda.											Constructs visions or frames of reference in a dialectic back-casting and fore-casting process.	S4
T5	Recognises danger of lock-in, avoids this by keeping options open.											Always involves some sort of clash or conflict between stakeholders as they have different values, opinions, interests and their competences varies.	S5
T6	Continuous cycles of learning, searching and experimenting are crucial to Transition Management.											Based on consensus building.	S6
T7	Monitoring and evaluating the transition process and transition management is a vital part of the search and learning process of transitions.											Is a form of governance that implies the mutual dependency of actors with different and even competing interests, goals and strategies.	S7
T8	Views transitions as radical, structural change of societal (sub)systems that is the result of a co-evolution of economical, cultural, technological, ecological and institutional development at different scale levels.											Uses visioning, not to eliminate uncertainty, rather it seeks to work as well as possible within the context of uncertainty.	S8
T9	Combines scenarios, back casting and forecasting to set goals for new sociotechnical systems.											Is focussed on decisions, action, results, and implementation in both the short- and the long-term and incorporates monitoring, feedback and revision.	S9
T10	View sustainability not as an end state, but rather as the possible outcome of negotiation(s).											Takes a critical view of the environment, in terms of determining strengths and weaknesses in the context of opportunities and threats.	S10
T11	Uses experimenting and learning to guide guided variation and selection (learning-by-doing and doing-by learning).											Focusses on a limited number of strategic key issues.	S11
T12	Initiates and executes transition experiments and mobilizes actors to broaden, deepen and scale up existing and planned initiatives and actions.											Takes into account power structures, uncertainties and competing values.	S12
T13	Focusses on persistent problems.											Is a public-sector-led socio-spatial process.	S13
T14	Creates space for niches in transition arenas to provide distance and protection from the regime and resources for experiments and empowers niche actors to generate viable alternatives for the regime.												
T15	Shapes processes of co-evolution.												
T16	Content and process are inseparable.												
T17	Is explicitly a normative model by taking sustainable development as a long-term goal.												

Connecting similar underlying assumptions

Showing conflicting underlying assumptions

Neutral underlying assumptions below this line

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SIMILAR UNDERLYING ASSUMPTIONS (18) - EXAMPLE

- Transition Management takes long-term thinking (25 years) as a framework for shaping short-term policy
- Strategic Spatial Planning combines long-term thinking (20-30 years) with short-term interventions

CONFLICTING UNDERLYING ASSUMPTIONS (3) - EXAMPLE

- Transition Management, recognises danger of lock-inn, avoids this by keeping options open.
- Strategic Spatial Planning, is focused on decisions, action, results and implementation in both the short- and long-term and incorporates monitoring, feedback and revision.

NEUTRAL UNDERLYING ASSUMPTIONS (11) - EXAMPLE

- Transition Management uses experimenting and learning, to guide variation and selection.
- Strategic Spatial Planing takes into account power structures, uncertainties and competing values.

DISCUSSION THEORY

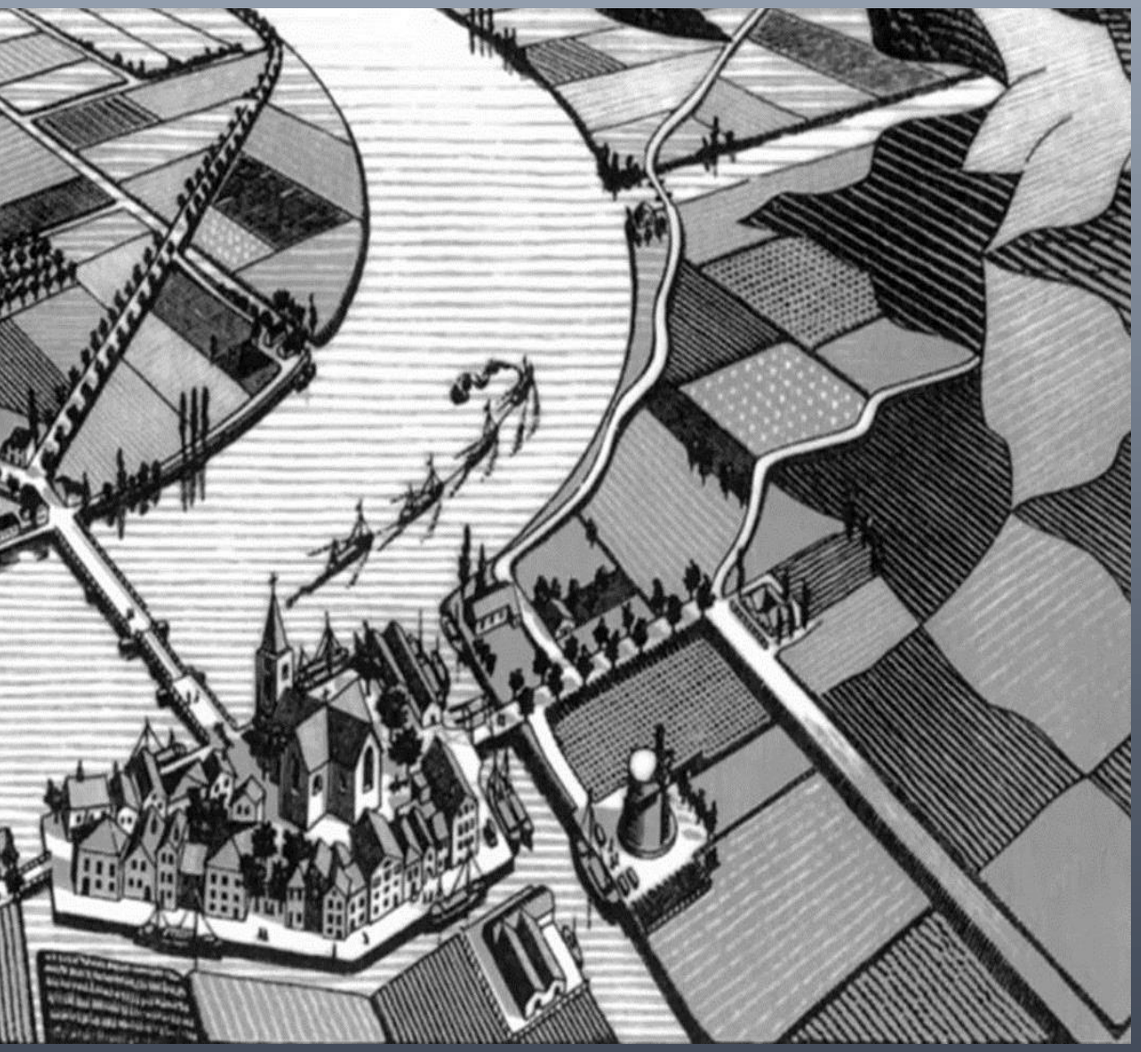
Selection of articles.

Analysing direction of the theoretical debate.

Depicting underlying assumptions

More scripted method might result in more scientific results.

MULTI LAYER SAFETY APPROACH (MLSA)



- Dune-dike prevention (probabilistic reasoning)

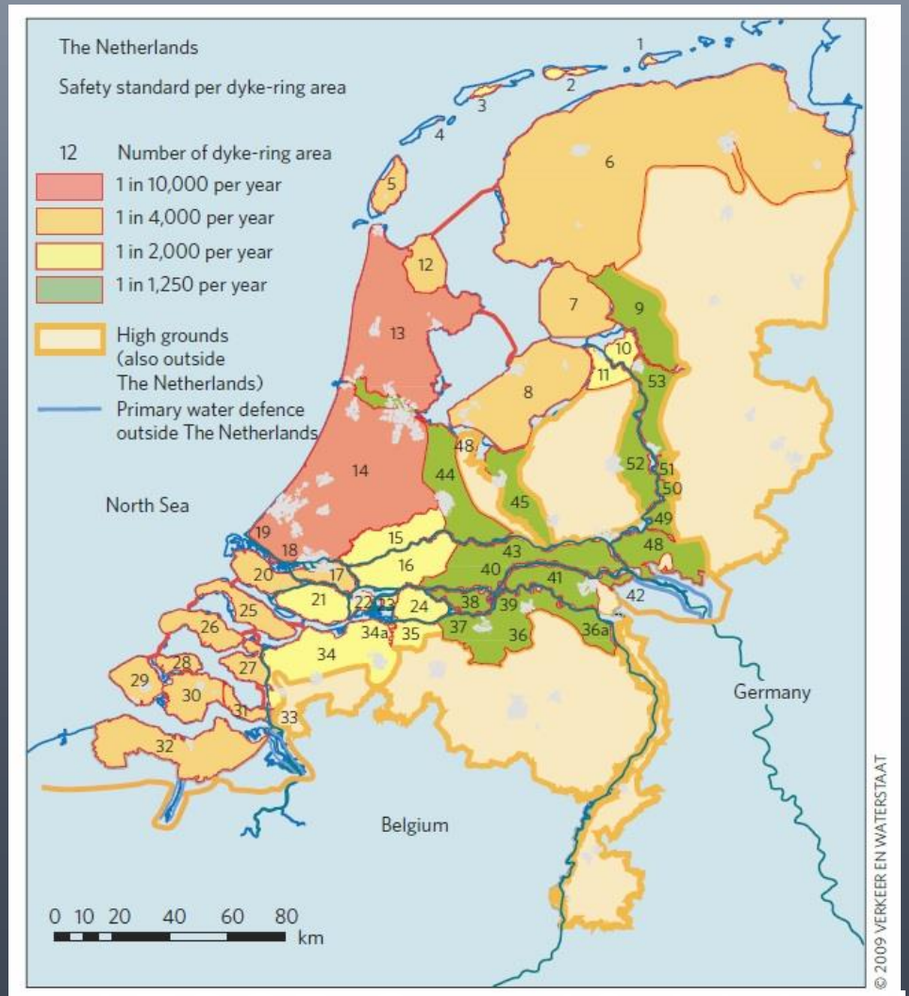


Figure 1 Flood safety standards of dykes in The Netherlands. The current level of protection ranges from a flooding probability of 1 in 1,250 per year inland to 1 in 10,000 per year along the coast.

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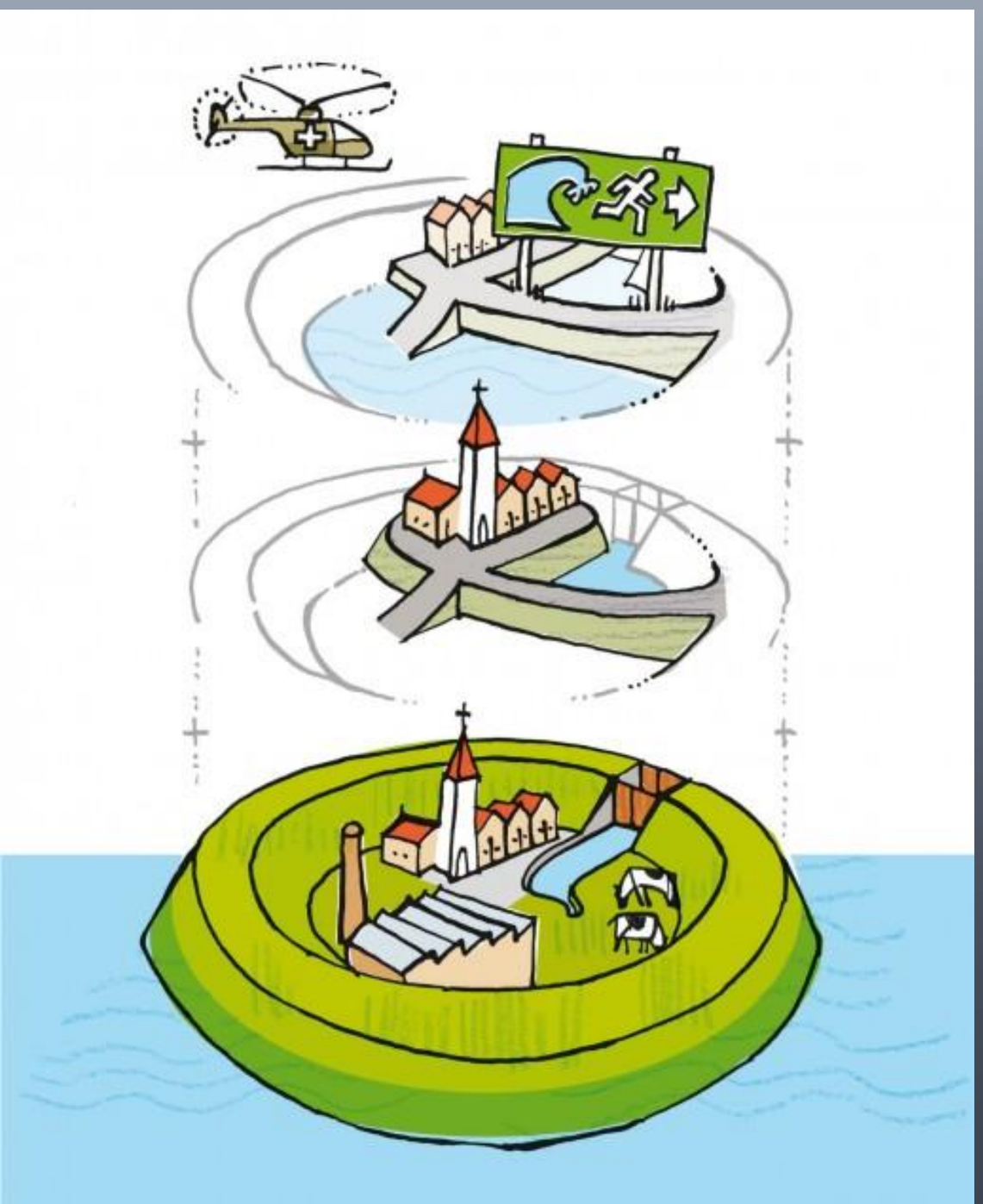
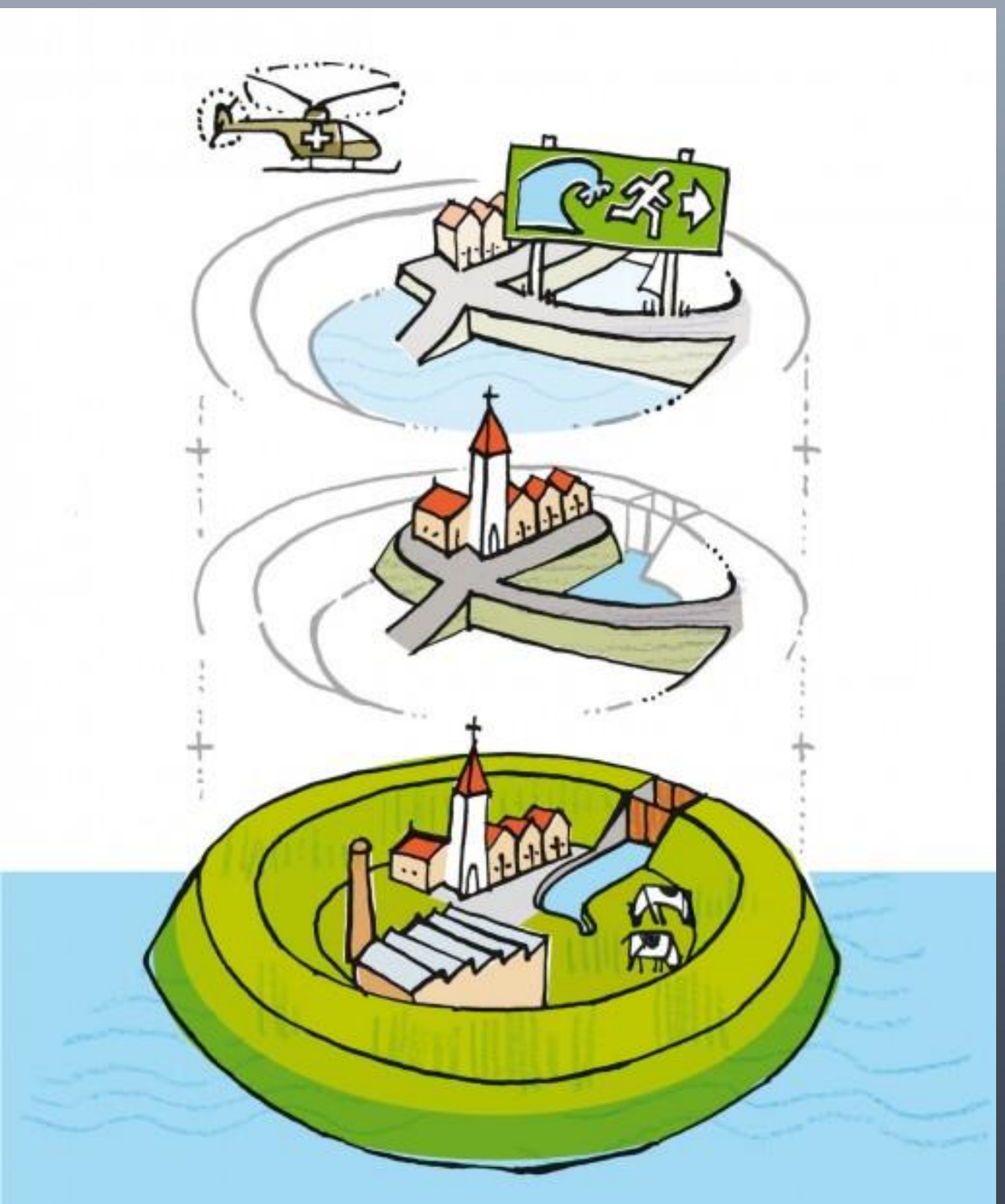
MULTI LAYER SAFETY APPROACH (MLSA)



- Dune-dike prevention (probabilistic reasoning)
- Risk approach (including exposure flood and vulnerability - 2009)

Multi-layer safety, prevention, sustainable spatial planning and disaster management © Beleidsnota Waterveiligheid 2009-2015

MULTI LAYER SAFETY APPROACH (MLSA)



Multi-layered approach:

3. Disaster management (Katrina effect)

2. Smart land-use planning

Room for the River

Living with Water: spatial planning, urban design, multiple layers of defense and green infra

1. Robust Protection

Multi-layer safety, prevention, sustainable spatial planning and disaster management © Beleidsnota Waterveiligheid 2009-2015

MULTI LAYER SAFETY APPROACH (MLSA)

- ‘deliberate transition’ using policy documents, pilots, legal arrangements by RWS + local authorities since 2009

- 17 interviews; policy documents; reports; literature

MULTI LAYER SAFETY APPROACH (MLSA) ™

- Interviewees: will take a long time to become common practice; missing principles/attractors to catalyse

- No MLSA scenario's involved, merely FRM – probabilistic reasoning

- Only common understanding about MLSA is that it will always be 'work in progress' and is a situated practice

MULTI LAYER SAFETY APPROACH (MLSA) SSP

- Vested interests (mainly the prevention + allocated budgets) acts more as a lock-in

- Competing interests, structured by amongst others existing responsibilities and budget allocations for safety sustaining or improving measures

- Not based on consensus building; it is a designed approach by public officials

MULTI LAYER SAFETY APPROACH (MLSA)

- More opportunistic use than considered long term change
- Intention to collaborate between layers and actors
- Especially cost efficiency on short term seems to prevail
- Power, resource management and knowledge integration are more or less ignored

CONCLUSIONS

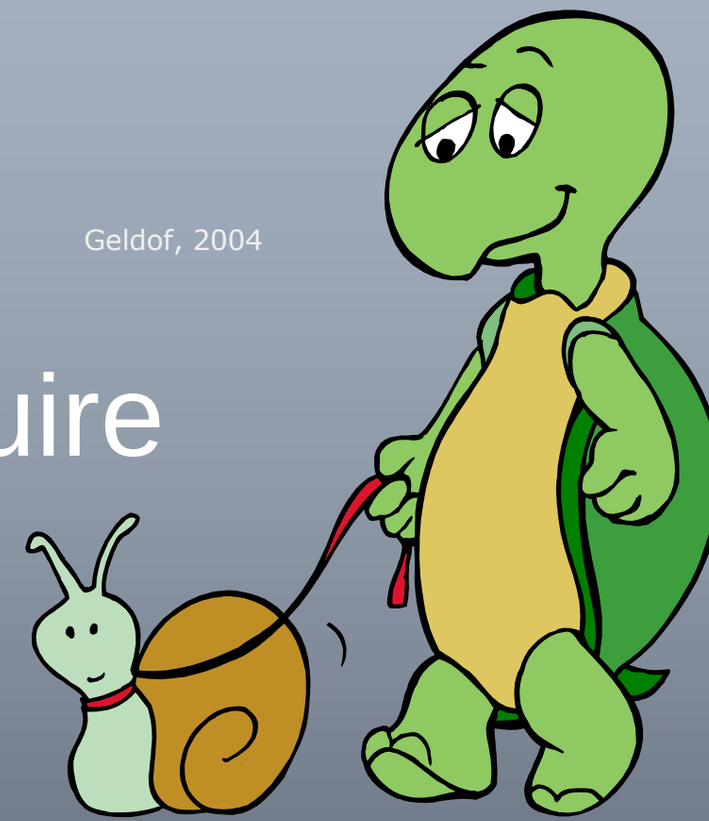
- SSP and TM theory are fundamentally compatible
- TM theory should develop further
- Both theories can learn from each other
- Learning process in implementation of MLSA – maturing steps, also in the organisation

WHAT CAN WE LEARN FROM MLSA?

THANK YOU

Processes need the time they require

QUESTIONS?



Geldof, 2004