



Methods and tools for Integrated Sustainability Assessment

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Background

- Trend in Europe and OECD toward ex ante policy assessment
 - More integrated and cohesive policy making
 - 'Better' governance (transparent, evidence-based, minimal intervention)
 - Better integration of cross-cutting concerns
- Sustainable development is one such concern
 - Attempt therefore to integrate sustainability concerns into ex ante policy assessment procedures

Questions

- What roles are there for sustainability assessment in guiding policies and decisions in direction of more sustainable development?
- What factors constrain effectiveness of formal policy assessment procedures in securing claimed purposes?
- What gaps/deficiencies in current practice exist and how might these be filled?

Today's presentation

- Contextualise trend to increasing use of ex ante policy assessment – far from un-controversial
- Characterise SA as a spectrum of different approaches – common elements, shared challenges, but differentiated by purpose
- Institutional analysis of current practices – approach, findings
- Gap analysis – potential role for a form of SA in providing support to policy makers and opinion shapers at strategic levels by stimulating processes of exploration, social learning and reframing within issue domains
- Propose a form and design of an SA process that might fulfil these transformational roles (which we term ISA)
- Consider where and how to use ISA

Critique of policy assessment

- Debate in political sciences about nature of political decision making processes and role of knowledge
- Formal policy assessment typically based on policy cycle model . Assumes:
 - Rational linear process from problem diagnosis on
 - Instrumental use of knowledge/evidence
- Assumptions at odds with empirical findings
 - Intrinsically political process; involves negotiations and tactical use of information
 - Rationales for policy making non-obvious/complex
 - Knowledge constituted not just by factual information, but more broadly defined as ideas, arguments, discourse
 - Knowledge developed/used by 'advocacy coalitions' to frame issues in particular ways

Critique of policy assessment

- Discrepancy between empirically-observed policy making practice and:
 - Assumptions underpinning policy assessment
 - Claimed purposes of policy assessment
- In practice, many different potential uses of knowledge:
 - Instrumental
 - Conceptual
 - Tactical/political
- This can be an opportunity:
 - What role could assessment play in learning?
 - Can it be used to support conceptual learning?
 - Can conceptual learning influence the way actors frame issues?
 - Can we achieve issue reframing and build new advocacy coalitions?

Critique of policy assessment

- SD requires structural change
 - Depends on achieving shifts in basic beliefs, attitudes and behaviours of key actors or 'reframing' within issue domains
- In democracies, politicians can't make policy decisions that involve structural changes without supportive constituencies
- Key questions for assessment:
 - What forms of assessment and ways of using assessment might contribute to issue reframing and to building / empowering constituencies supportive of institutional changes needed for SD?
 - What is the potential role of sustainability assessment in supporting SD-oriented governance?

Sustainability assessment

- A spectrum of approaches with some shared characteristics
 - Knowledge development and synthesising processes
 - Object is to test consistency between developments in a system of interest (or drivers of these) and 'intent' of sustainability as this is interpreted in relevant context of application
- SD is a normative, subjective and ambiguous concept – defies a universal operational definition – but core characteristics:
 - Paradigmatic, holistic, multidimensional
 - Emphasises links between social and ecological systems that cut across domains, space, scale and time
 - Uncertainty, complexity, etc.

Challenges for policy SA

- Develop a context-specific interpretation of SD that is credible, salient and commands legitimacy in the application context
- Principle of tiering (multi-level governance structures)
 - Values and decision rules
- Structural/paradigmatic change
 - Requires cross-sector strategies
 - Policies with a deliberate sustainability orientation
 - Policy regime with a deliberate sustainability orientation

Institutional analysis

- Empirical research; four policy jurisdictions (EU, UK, Germany, Sweden); 37 recent policy assessments
- Describe assessment guidelines and practices on dimensions relevant to the challenges and stated purposes

Evaluation dimensions/ questions

Dimension	Question
Paradigm	What kinds of paradigm frame the assessment?
Scope	What kinds of impacts and relationships are considered?
Policy goals	To what extent are policy goals/objectives pre-set?
Process/timing	At what stage is the assessment carried out?
Stakeholders	Which stakeholders are involved, how and when?
Trade-offs	How are trade-offs conceptualised and treated? Are there explicit decision criteria and rules for making trade-offs?
Learning & use of knowledge	Does assessment involve learning, what kind and by whom? For what purposes is developed knowledge used?
Tools, evidence	What types of evidence are used, why, how? How is evidence derived?

Evaluation dimensions/ questions

Dimension	Finding
Paradigm	Paradigm of economic growth, competitiveness and minimal regulation dominates
Scope	Narrow scope. Economic and legal. Surrogate indicators.
Policy goals	Pre-set, sectoral, incremental, individual
Process/timing	Too late to influence policy development process
Stakeholders	If any, regime stakeholders (established power, vested interests)
Trade-offs	Policy goals in conflict – economic concerns dominate – no search for synergies
Learning & use of knowledge	Limited learning; mostly tactical and political use – rubber stamping, some minor adjustments to policies
Tools, evidence	Limited use of tools and evidence. Data often from stakeholders. Expert judgement rather than models.

Institutional constraints

	Factors influencing conduct of assessment
Macro	Higher level or existing policy commitments already frame policy orientation; de facto political priorities are growth/jobs/competitiveness not SD (Lisbon agenda)
Meso	Silo cultures; policies developed in sectors, narrow remits; restricted stakeholder consultations, etc. Low status afforded assessment (unimportant, formality)
Micro	Backgrounds (economics, law) and status (junior) of officers performing assessments

Overall evaluation

- Failings of formalised assessment can't be corrected easily
- Can't use ex ante policy assessment to retrofit a sustainability orientation into policies that were never developed to have a sustainability orientation
- Assessment currently used for screening – constitutes a 'negative' test of sustainability
- A 'regime reinforcing' process, not a regime challenging process

Danger!!!

Typical position of EC officers:

- We have an EU SDS

- We have policy assessment guidelines (IA)

- We've integrated sustainability into IA

But:

EU SDS = more 'aspirational' than directional

Huge dissonance between IA guidance and practice

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Policy assessment is focused on 'impacts' of tabled, sectoral policy proposals

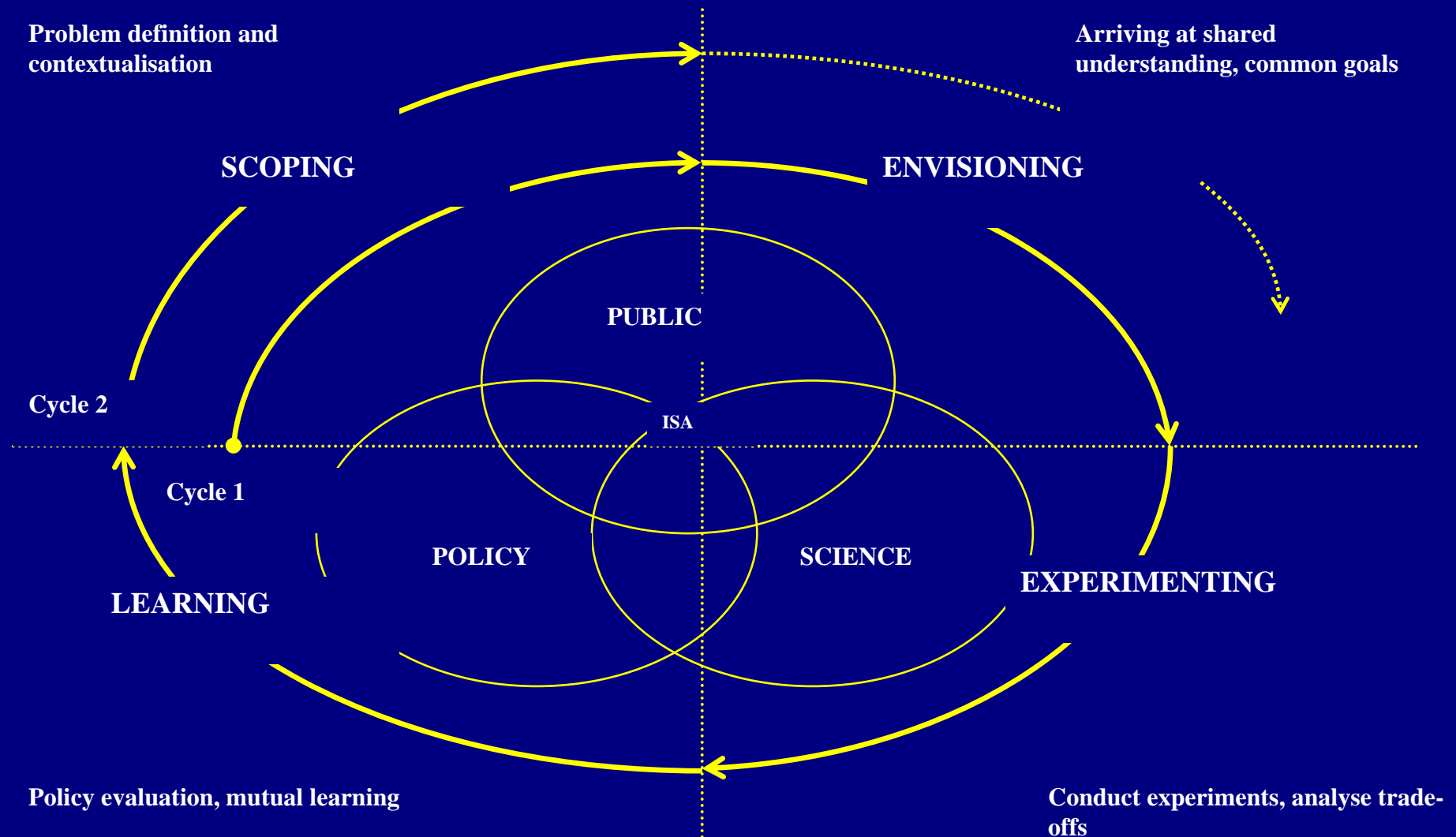
Gap: what kind of SA do we need for sustainability oriented governance?

- Need a process to **structure dialogue and analysis** about how to make progress toward SD and how to address persistent problems of unsustainable development
- Should be aimed at **developing broad strategies**, not individual policies
- Aimed at changing the policy paradigm, so must provide for **exploring, learning, reframing and constituency building**
- Should include, among stakeholders, those with potential or emerging power (not just established power); i.e., **niche actors** (link to transition approaches)
- Simultaneous exploration of the **ends and means** of SD
- No need for such a process to be formal and institutionalised; could operate **a short distance from formal policy making** or in **local and regional development processes**

Integrated Sustainability Assessment (ISA)

- In MATISSE we describe and define an assessment process fit for these purposes as ISA:
 - 'ISA is a cyclical, participatory process of scoping, envisioning, experimenting and learning through which a shared interpretation of sustainability for a specific context is developed and applied in an integrated manner in order to explore solutions to persistent problems of unsustainable development'

A cyclical ISA process



Integrated Sustainability Assessment (ISA)

- Methodologically, ISA combines 3 elements:
 - An **integrated systems analysis** (to secure broad scope for the assessment)
 - A **multi-level, agent-based** analytical approach (that seeks to understand multi-level processes that could lead to structural change)
 - A **cyclical, participatory process architecture** (that seeks to promote social learning among stakeholders)
- Stakeholders in ISA
 - To develop a rich and robust interpretation of sustainability requires **diversity among stakeholders in initial stages** and to identify niche development approaches that might be up-scaled
 - In **later stages, a focus on those with agency**
- Transition-based approach
 - Focus on relationships and processes of change (**new models**)
 - **Vision-led, pathway-driven, process focused** analysis

(S)IA and ISA (purpose and premise)

Premise/purpose	Traditional policy assessment (S)IA	ISA
How is socio-political context approached?	Regime applying	Regime challenging
What is assessed?	Exogenously specified sectoral proposals	Endogenously developed cross-sectoral strategies
What role does assessment play?	Pragmatic: screening sectoral policies for unintended impacts	Strategic: exploring the meaning, ends and means of SD; to develop cross sectoral strategies oriented toward SD
How is assessment conceptualised?	Relationships defining development assumed to be fixed. Purpose is to predict impacts on this basis. No opportunity for conceptual learning.	Current relationships are artefacts of development paradigm. Purpose of assessment is to explore ways of changing these, which requires conceptual learning.
What is potential affect of process on socio-political context?	Limited. May improve coherence and consistency of policies in relation to dominant policy regime.	Potentially profound. Transformation via social and conceptual learning, capacity building, empowerment of niches.

Some conclusions

- SA could play two different roles in the policy process:
 - Exploratory form of SA – such as ISA – are needed **first** to help clarify the problem solving and opportunity creating potential of alternative development paradigms and policy regimes. ISA suited for this **because it can handle the complexity of interdependent resource constraints and externalised costs that lower-level policy assessments struggle to handle sufficiently**
 - More routine ex ante policy assessments could **then** ensure that individual policy proposals will support SD, once an overall policy regime of SD has been established
- ISA could be used ‘bottom up’ to help address development problems at all scales
 - Provides for **boundaries of analysis** to be drawn widely enough to cover the functional scope of the issue
 - Automatically **imposes a ‘sustainability orientation’** on exploration
 - Provides a process that allows principles of SD to be practised

More info about MATISSE?

- <http://www.matisse-project.net>
 - Working papers
 - Model development
 - Approaches to transition
 - Case studies
- Brochure
- Special journal issue: IJISD Vol 3, No 1, 2008
- pweaver@noos.fr

What is a transition?

A transition is a radical, fundamental change in a societal subsystem

A transition is the result of mutually reinforcing developments and trends at different scale levels: *economic, cultural, technological, ecological and institutional* developments

Transitions require and imply system innovations

Transitions

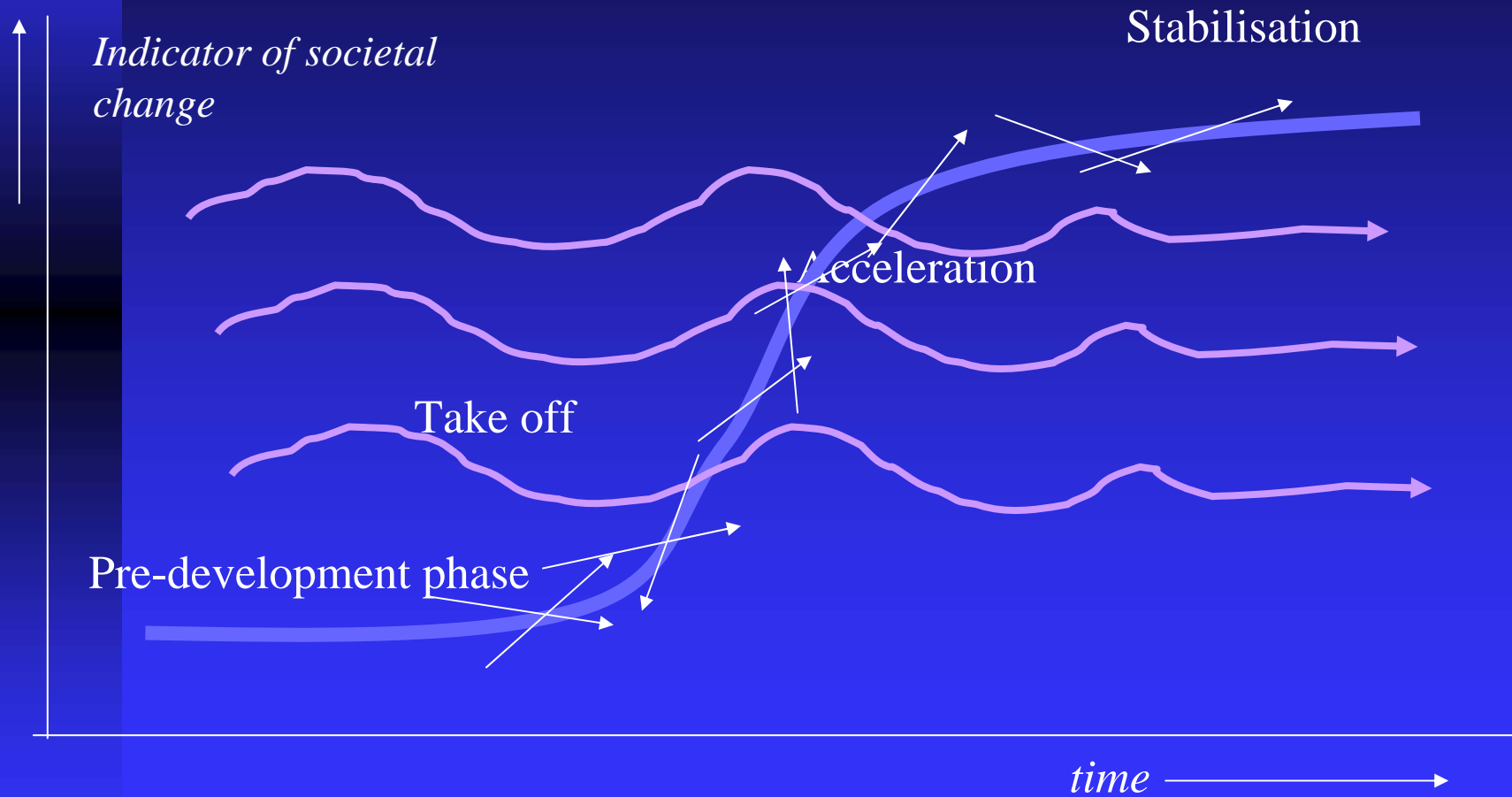
Development as a game with 'rules' and 'players'

- Transition requires new structures and practices
- In turn, requires a new 'game' with new 'rules' (institutional changes)
- Dominant players have interests to defend in existing arrangements and rarely want to change the rules drastically
- But, new players may 'break open' the game and change the rules;
- Transition as 'evolutionary revolution'?

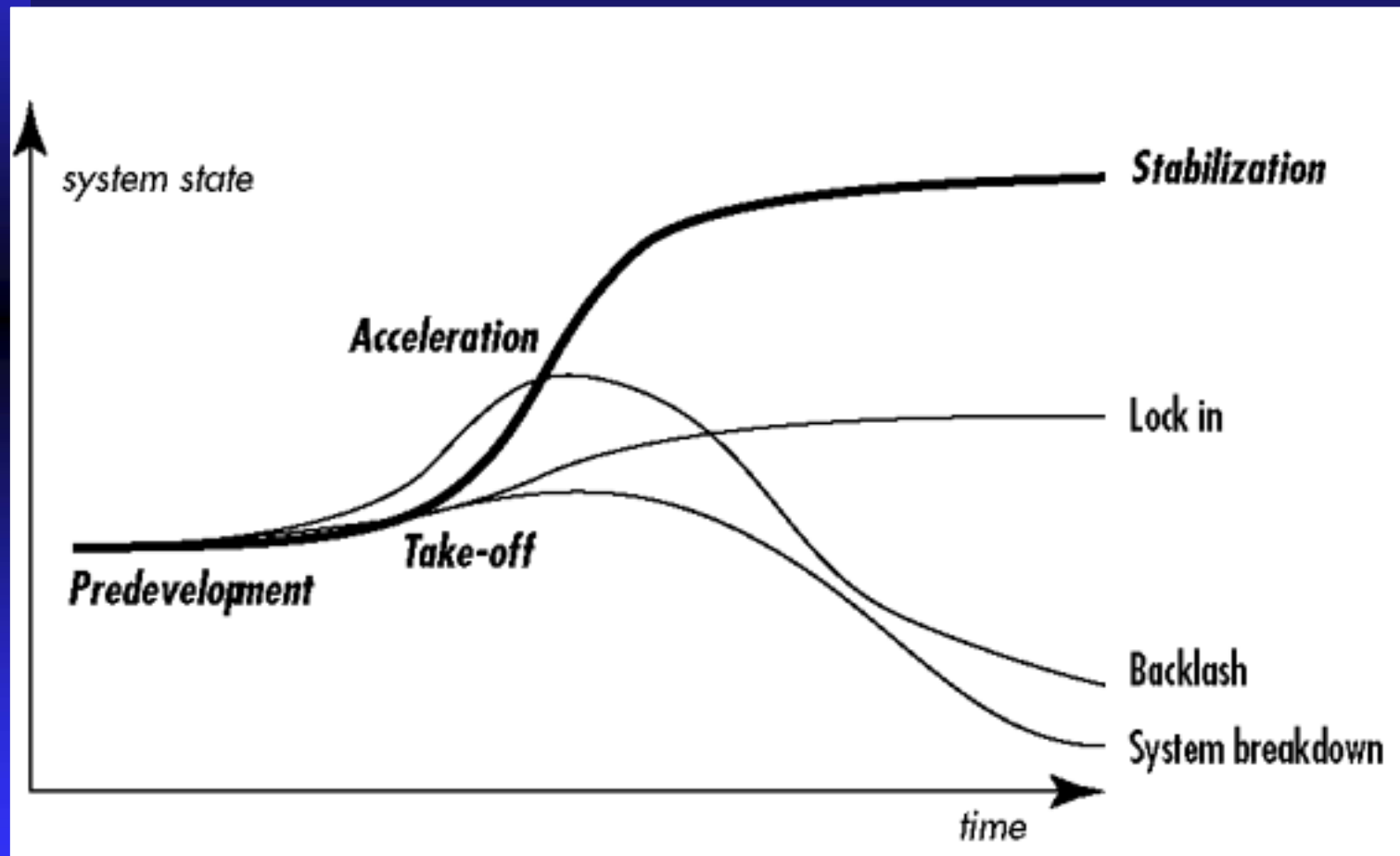
Transitions research framework

- Transition theory is in development
- Transition research invokes three related concepts
 - multiple-phases
 - multiple-levels
 - stimulating and guiding transitions
- Concepts are tested through hypotheses in two ways:
 - comparing empirical with theoretical transition patterns
 - reconstruction of historical transition processes and simulation of possible future transition processes

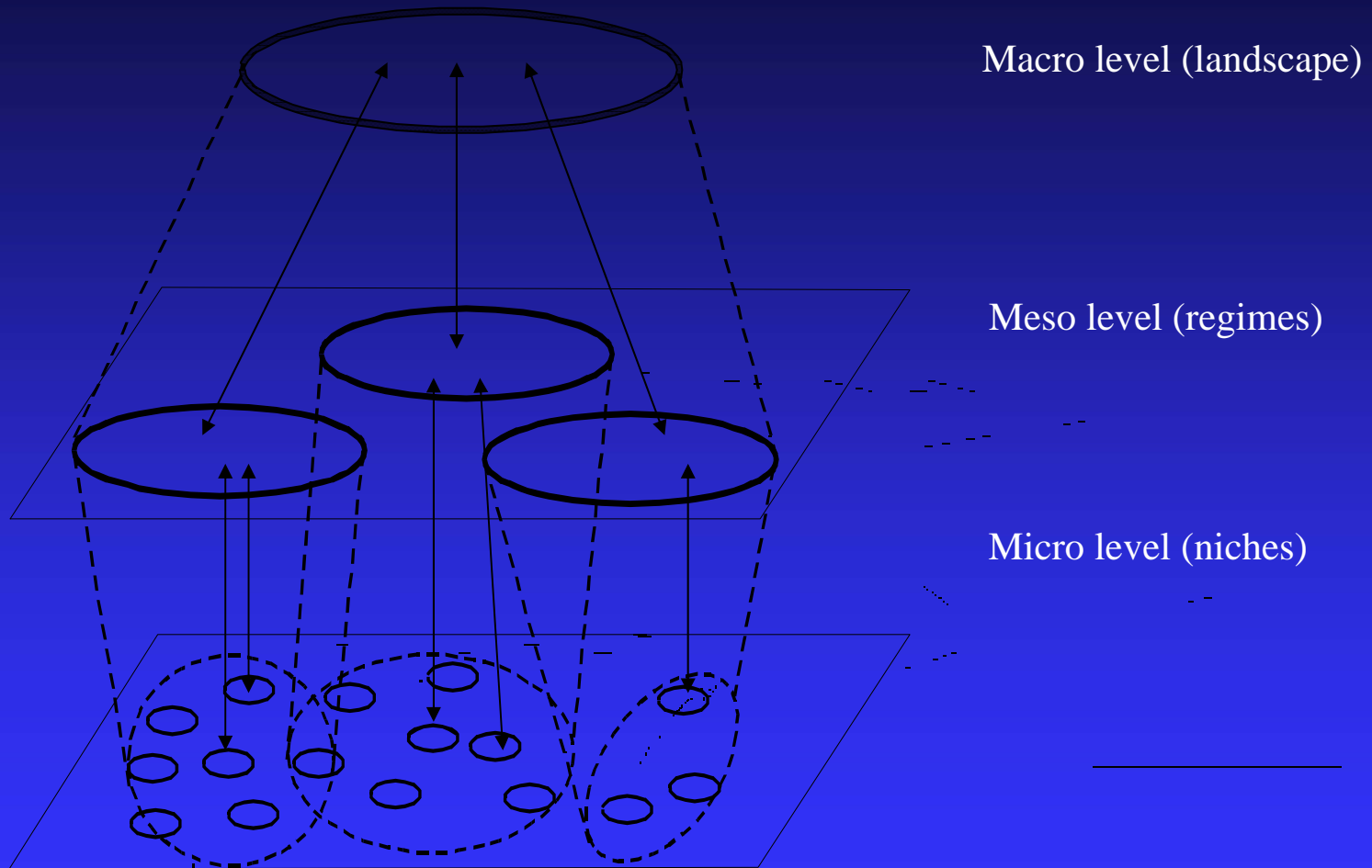
Multi-Phase concept



Multiple transition paths



Multi-level concept



Approaches to transition

Starting points

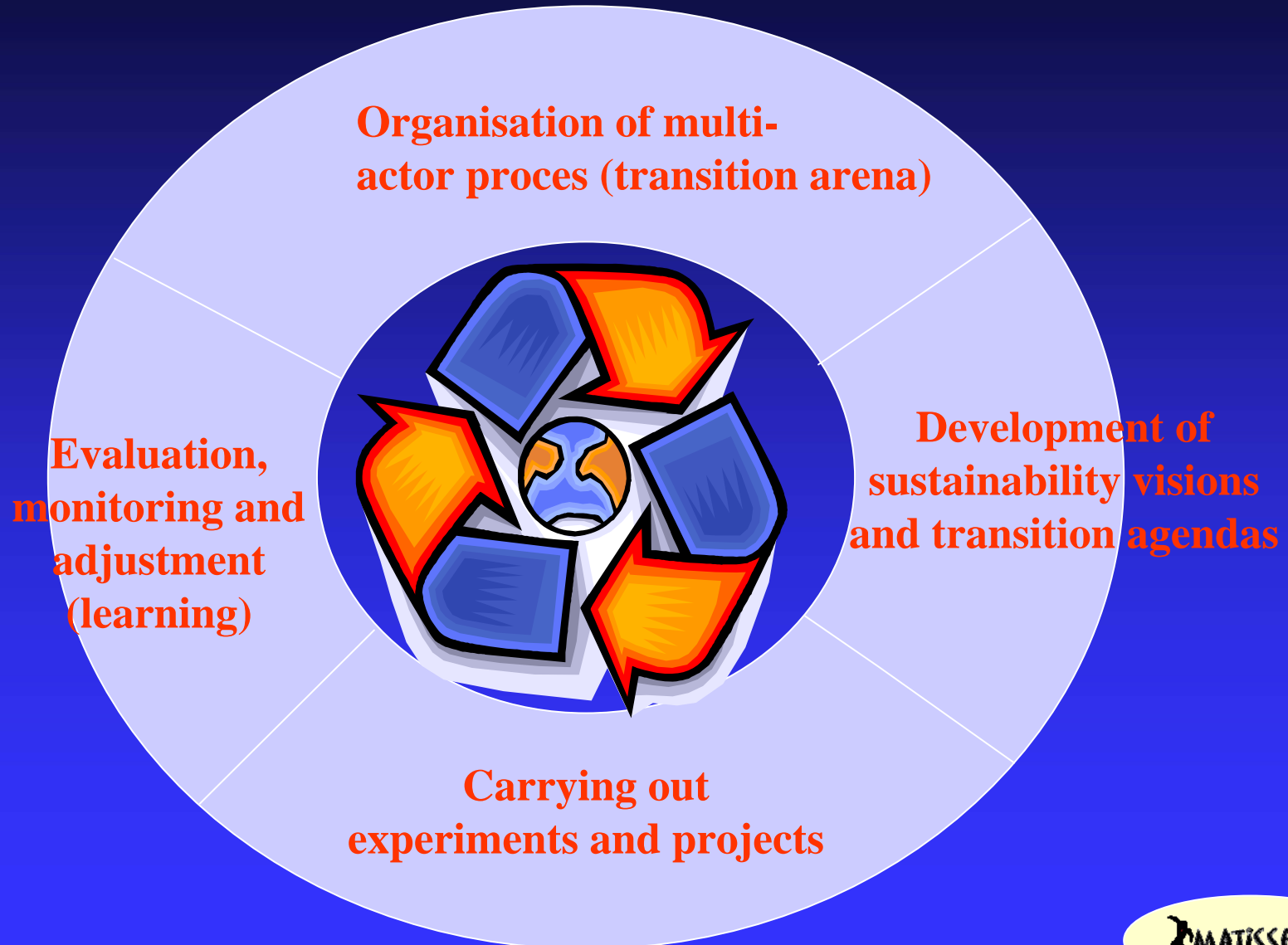
- Societal change cannot be controlled and governed: however, we can influence the direction of change
- Steering of societal change is a reflexive process of searching, learning and experimenting
- Complexity is no barrier or obstacle, but a lever for societal change
- All actors steer, from the possibilities and chances, but also from the limitations and boundaries

Transition management

Steering Principles

- stimulate niches at the micro-level (*variation*)
- interconnect niches with same direction (*emergence*)
- develop visions at macro-level that can act as guidance for niche-development (*new attractors*)
- 'empowerment' of niches (*selection, clustering, upscaling*)
- further modulation between macro-micro level (*co-evolution*)

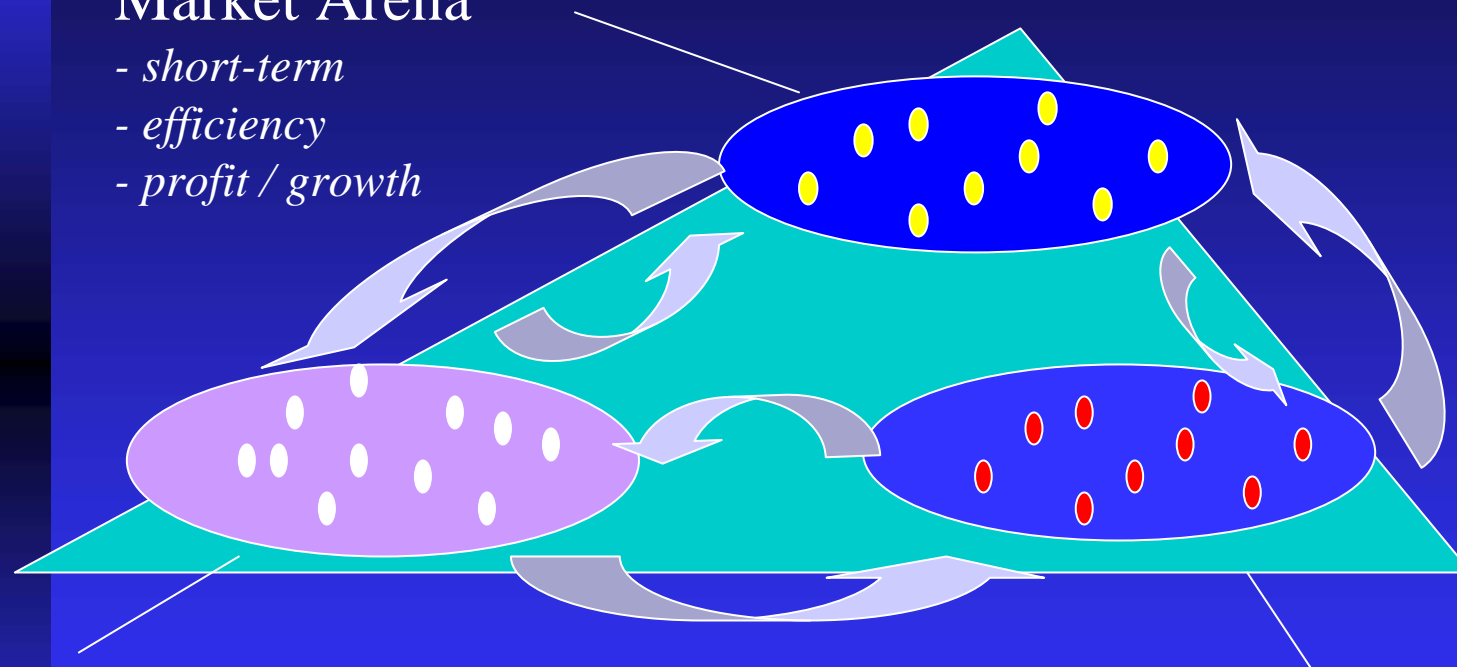
Transition management



Communicating Arenas

Market Arena

- *short-term*
- *efficiency*
- *profit / growth*



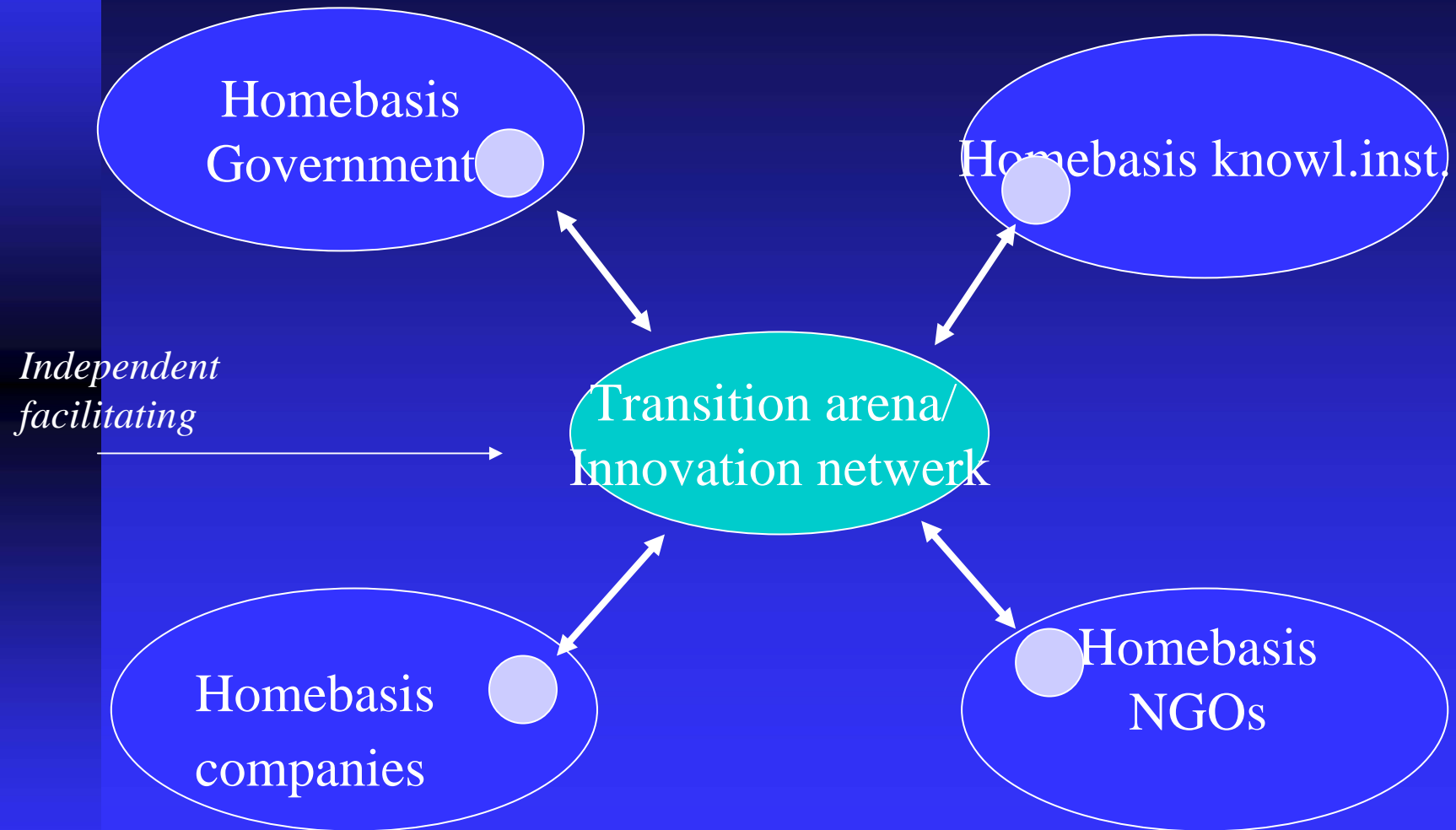
Political Arena

- *short-medium term*
- *peloton*
- *incremental changes*
- *problem- and goal-oriented*

Transition Arena

- *long-term*
- *forerunners*
- *system innovation*
- *problem/goal seeking*

Communication with home basis



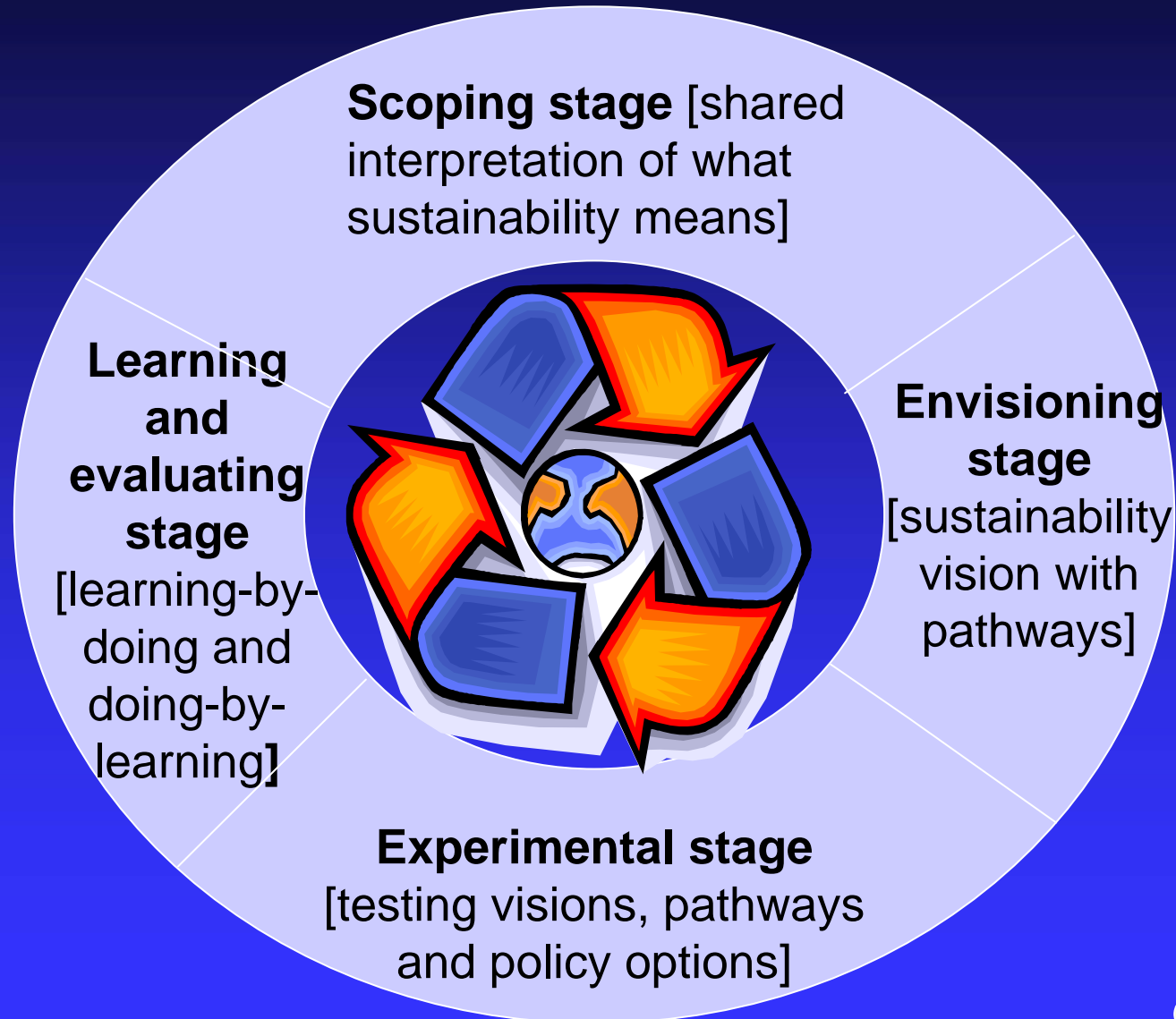
State-of-the art of transition management applications

- five Dutch ministries are experimenting with transition policy
- at the regional level governmental bodies are also experimenting with transition policy
- new knowledge networks have been established in the fields of infrastructure, construction, water, energy, land use, mobility, and the general transition network [KSI]
- It is intended to form a European transition network in the coming years

Transitions in ISA

- Transitions cannot be handled by SIA (an impact assessment process)
- Transitions are key to ISA, because structural change is required for resolving persistent problems
- Assessing structural change requires a dynamic, systemic, multi-level agent-based approach (implies a focus of relationships, learning, behavioural change)
- Implies new models and tools, since transition is concerned with changes between equilibria

ISA cycle: at operational level



ISA Process

- Process of knowledge brokerage and integration
- Involves stakeholders from: business companies, government, NGOs, knowledge institutions
- Stakeholders to represent diversity of perspectives
- Representation of niche-players (not just regime players)
- Independent facilitator
- Stakeholder dialogue
- Role of researchers: informing, observing, analysing, learning

Substance and Process hand-in-hand

Scoping

- make different perspectives explicit
- establish boundaries consistent with the functional scope of the issues
- analyse overlapping elements in different perspectives
- develop shared perspectives if possible
- 'reframe' the issue(s) (often related to a persistent problem) to allow for new solution possibilities

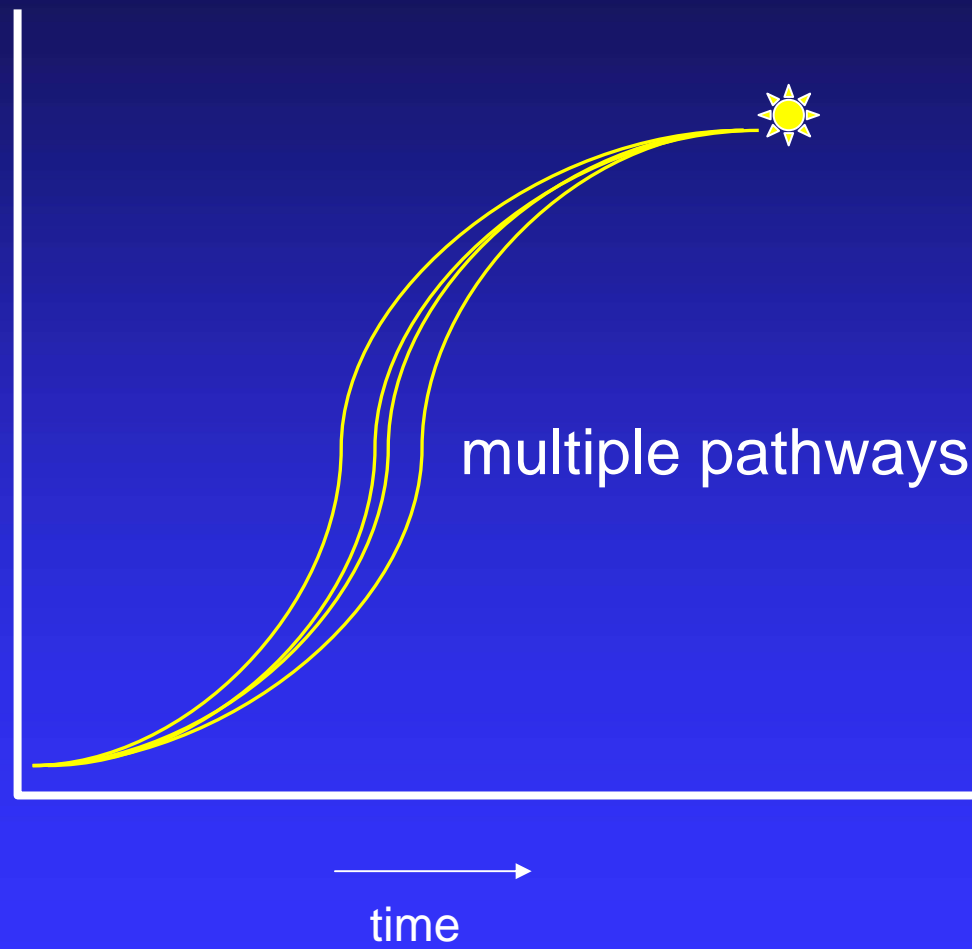
Envisioning

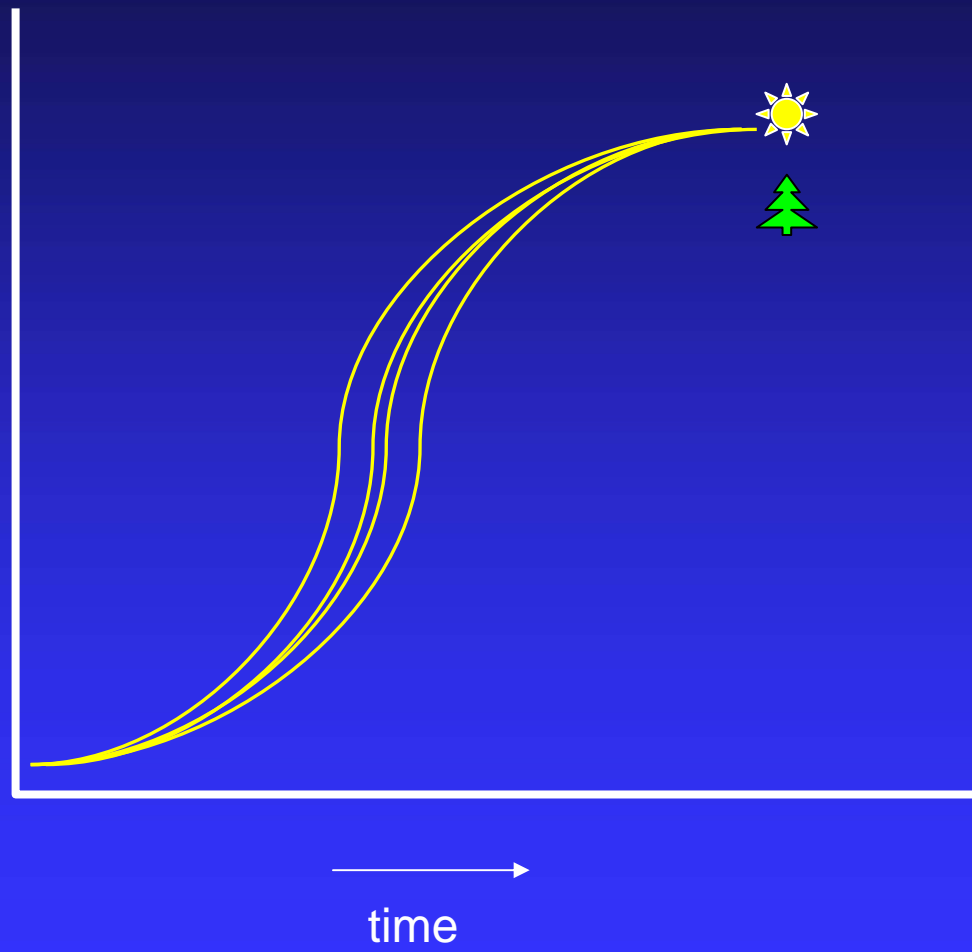
- develop a sustainability vision – reveals values – imposes a sustainability orientation on solutions and actions
- vision is multidimensional (e.g. Sustainable)
- Backcast-scenarios – pathways linking from present to future vision

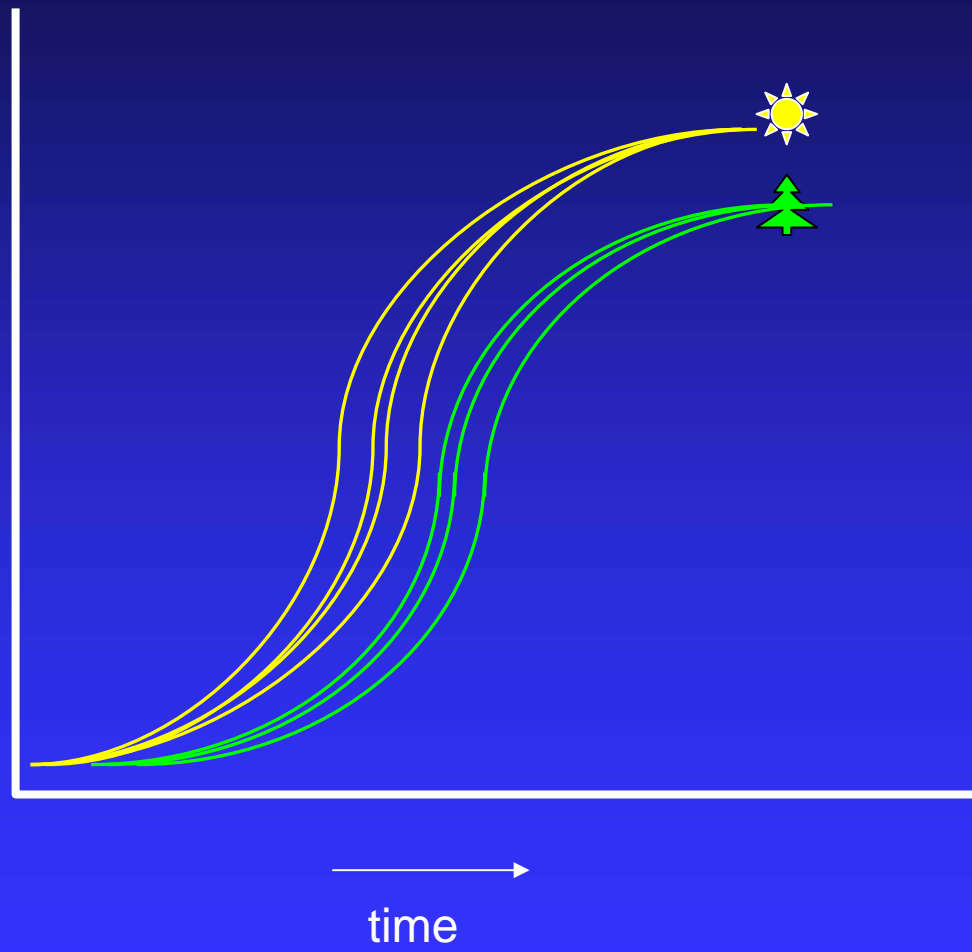


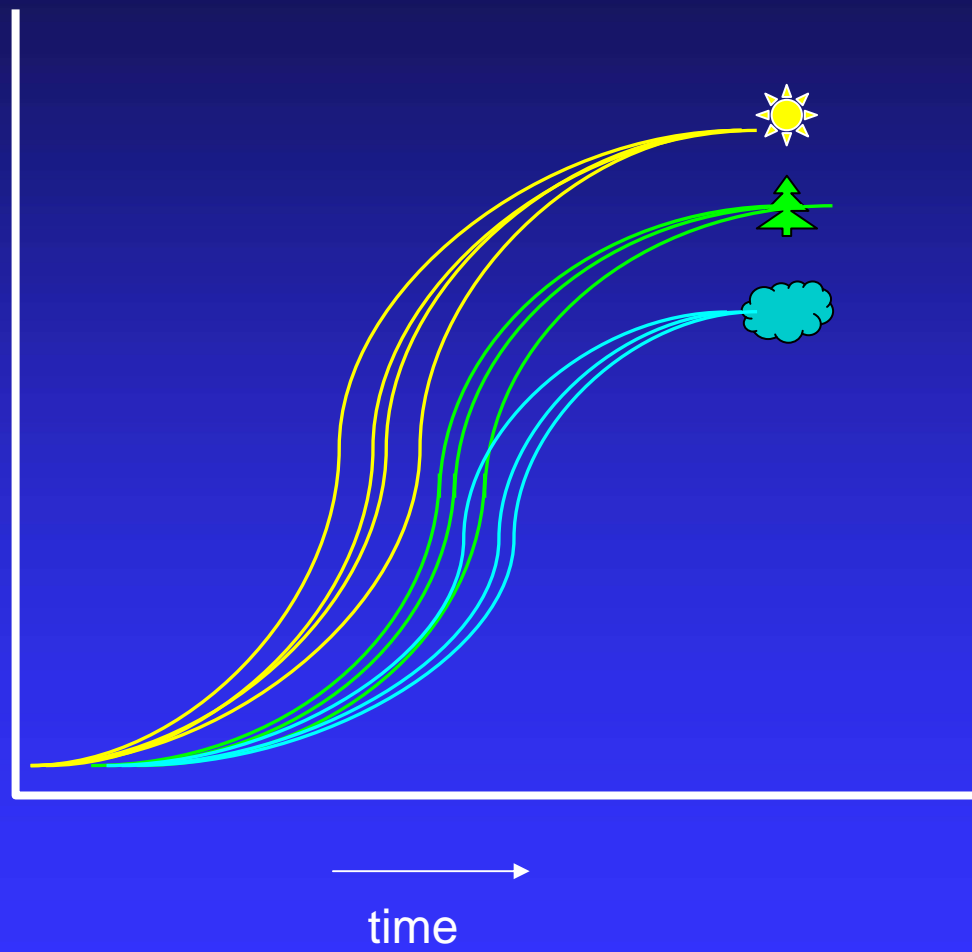
Vision

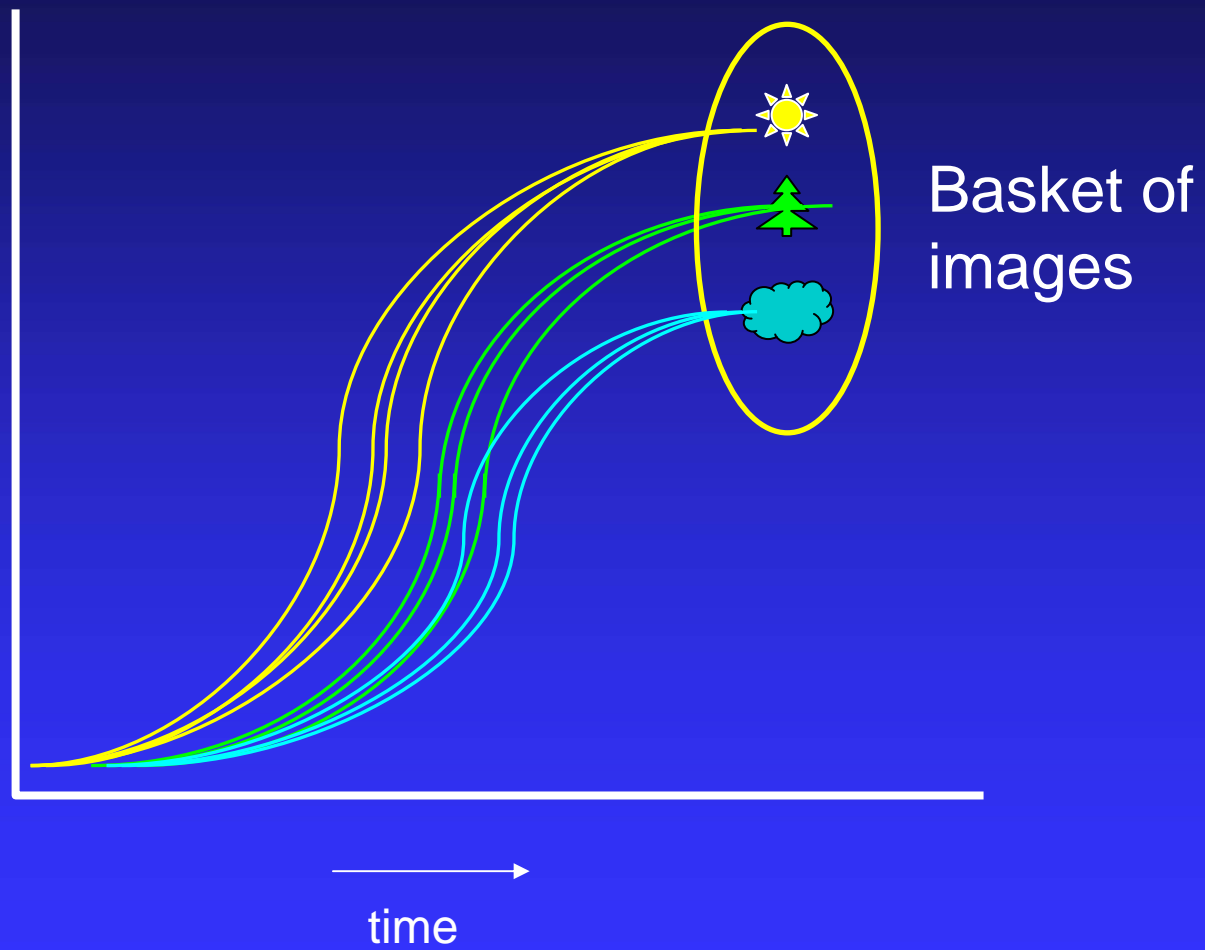
time











Experimenting

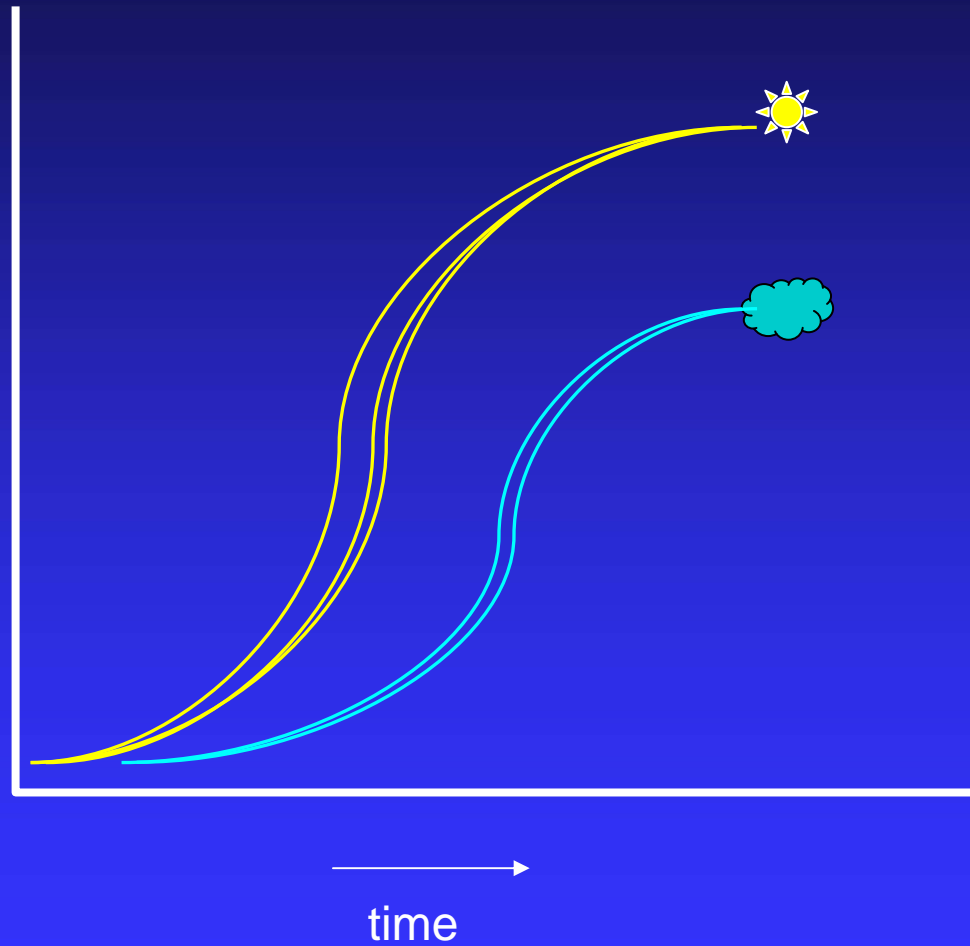
Testing sustainability nature of pathways & images

Requires experiments with simulation models or with conceptual models / ordering framework

Which images and pathways are sustainable and which not?

Converging selection of pathways

...and reduce the number of options



And a new iteration begins...

