SYNERGISTICS – VISUAL PROCESS GUIDE:
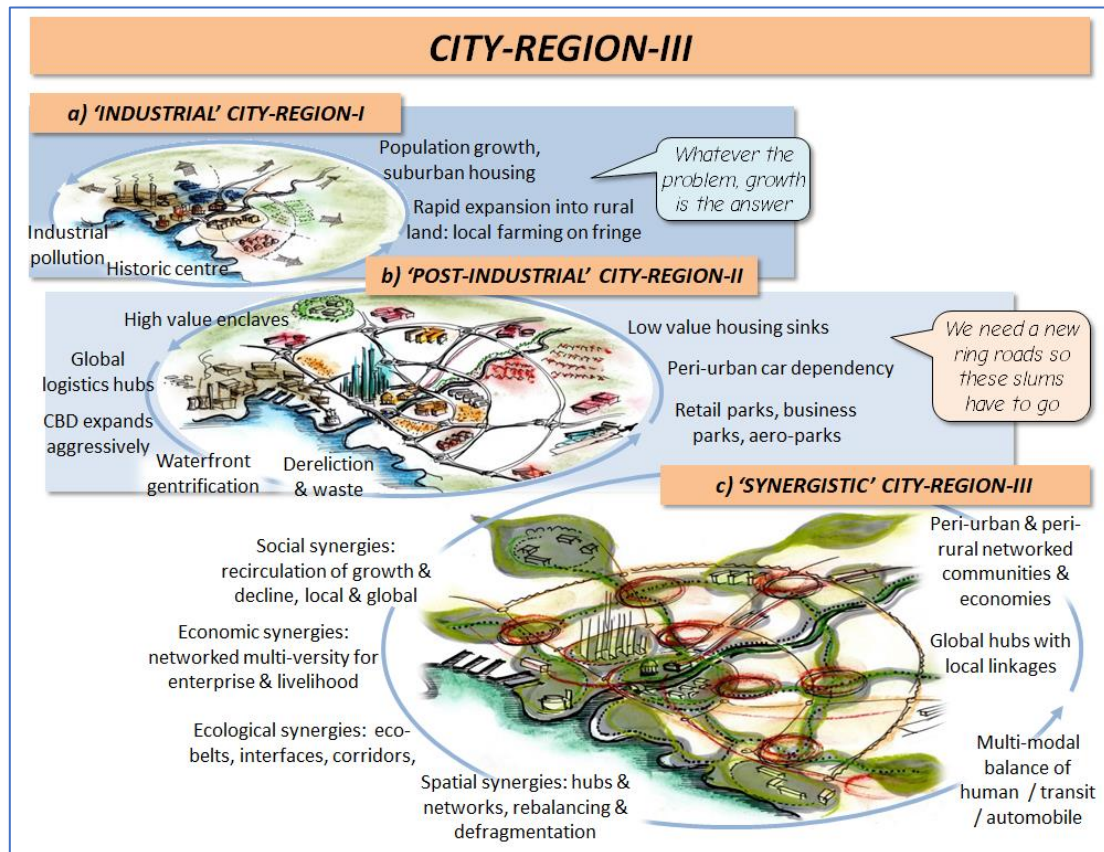
'STRATEGIC PLANNING FOR CITIES & REGIONS'

## OVERVIEW - STRATEGIC PLANNING FOR CITIES & REGIONS

The problems of cities, regions and city-regions are well known in each part of the world. The solutions are also well known in principle: sustainable settlement forms, multi-modal transport, economic diversification, social inclusion, green infrastructure etc. But in practice these solutions are often difficult to achieve. The missing link to achieve the *'sustainability of things'*, we argue, is in the *'sustainability of thinking'* – ways in which each part of society can learn, think, collaborate and co-produce systems of common benefit. City-regional planning and governance has a special role to play, in enabling such thinking to add up – to something like a 'collective intelligence'.

Such intelligence can be mapped by following the '*synergies*'. It has *'deeper'* synergies and inter-connections between all layers – social, technical, economic, ecological, political and cultural. It has '*wider'* synergies, with all communities, genders, classes, ages and ethnic groups. It has *'further'* synergies between upstream causes, and downstream 'effects' (pollution, exclusion etc). All these synergies combine with three 'Modes' of city system – 'clever, smart, and wise':

- In the Mode-I *'clever'* city-region, as in a machine, housing and transport and services each have tangible links and functions. This kind of city might need 5000 units of housing, with more efficient systems to produce them.

- In a Mode-II *'smart'* city-region, the entrepreneurs and innovators can flourish, along with speculators and freelancers. This city is more about incentives and profits, and its priorities lie in housing markets or exchanges or competitions.
- And in the Mode-III *'wiser'* city-region – the **City-Region-III** – wider and deeper problems of social justice or livelihood can be addressed. This kind of city would look for liveable communities and quality of life factors, which might include the 5000 houses, but also much more.

The graphic shows a transition from the clever 'industrial' city, to the 'smarter' post-industrial city, towards a 'wiser' synergistic *City-Region-III*. This wiser *City-Region-III* model, and the collective urban intelligence which supports it, are not blueprints, more like processes of transformation. This short summary shows some methods and tools for working with that agenda, and enhancing the capacity of planning and governance to lead the way.
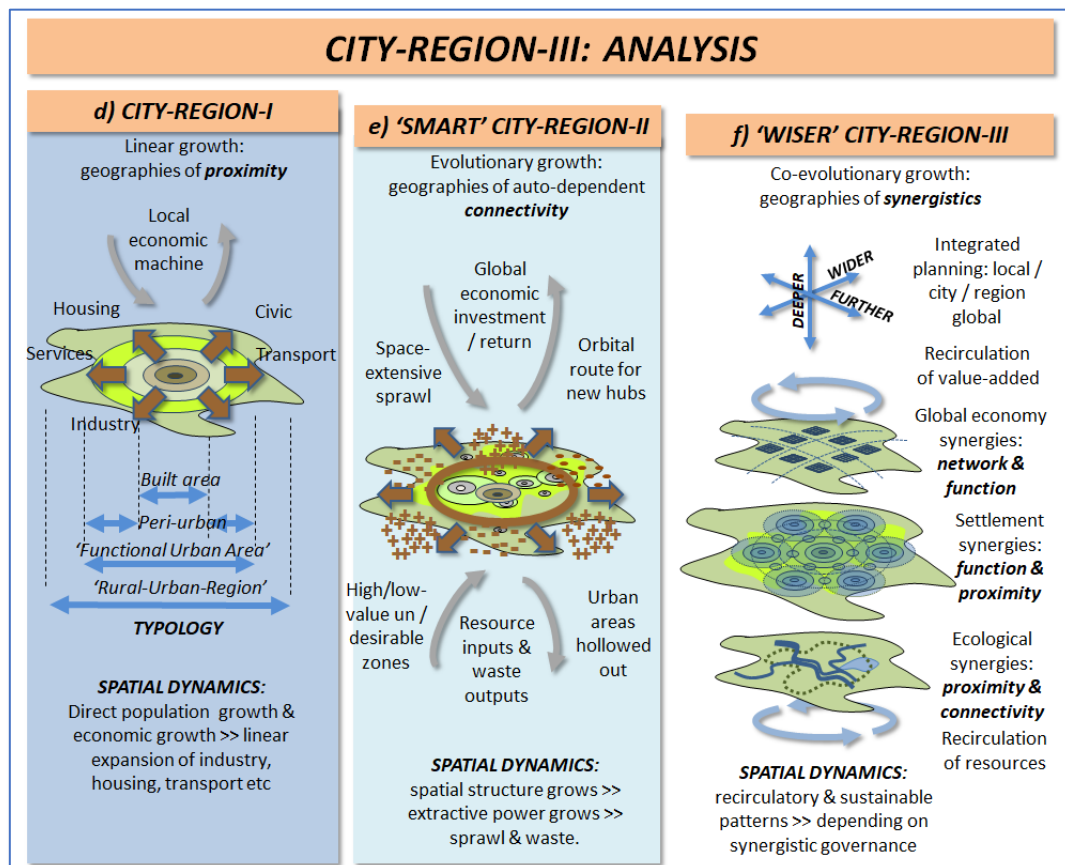
The integrated spatial planning / governance which is needed for the 'Wiser' *City-Region-III*, includes different layers of spatial synergies: e.g.

- Recirculation of value-added: external financial capital or political power should be recirculated locally, as far as possible.
- Global economy synergies: *network & function:* to contain global forces business & infrastructure:
- Settlement synergies: *function & proximity:* the conventional guidance on sustainability planning:
- Ecological synergies: *proximity & connectivity:* new understanding on ecosystems services:
- Recirculation of resources: sustainable resource use & stewardship is built in;

Overall, the general principles of sustainable city-regions, can now be achieved with the help of new insights on synergistic governance. This will follow synergistic pathways which look for different types of synergies:

- *'deeper'* synergies between all layers – social, technical, economic, ecological, political and cultural.
- *'wider'* synergies, with all communities, genders, classes, ages and ethnic groups.
- *'further'* synergies between upstream causes, and downstream 'effects' (pollution, exclusion etc).

This is also helped by other synergistic pathways, to be demonstrated and explored, including:

- *City-making-III*: spatial planning / urban design as co-learning and co-production between all actors;
- *Multi-level-III:* new models for effective governance systems from local to city-region to national;
- *Inequality-III:* experimental methods to explore systemic inequality and political corruption, and some possible responses;
- *Foresight-III:* techniques for exploring creative futures and enabling present day action.

Summary & self-evaluation: City-Region-III			
	Mode-I: **Linear**	**Mode-II:** **Evolutionary**	**Mode-III:** **Co-evolutionary**
	'CLEVER': *(complex)*	*'SMART':* *(emergent complexity)*	*'WISE':* *(cognitive complexity)*
'WIDER': (actors/factors			
Neighborhood	Local functions	Values & competitions	Local quality of life
Housing	Housing as units	Housing as markets	Housing as communities
Retrofit	Low-carb reduction	Low-carb markets	Low-carb live-ability
City-region	Linear urban expansion:	Adaptive growth	Deeper wider synergies
Anti-city-region	Green belt policy	Rural-urban markets	Integrated 'eco-belt'
City-making	Command regulation	Market-based policy	Co-learning & co-creation:
DEEPER: (domains)			
Social	Social units	Social networks	Social intelligence
Technical	Mono-functional	Multi-functional	Integrated systems
Economic	Industrial production	Extractive capital	Holistic livelihoods
Environment	Ecosystems functions	Ecosystems markets	Ecosystems in society
Political	Institutional structures	Power games & processes	Political intelligence
Cultural	Cultural niches	Cultural markets	Cultural civilizations
Spatial	City as machine	City as jungle	City learning multi-versity
Myths & archetypes	*Economic & population & space growth*	*Capitalist evolution & Suburban way of life*	*System transformation & 'Quality of life'*

The self-evaluation / summary table here can be used to define the problem - whether lack of flood defence, or lack of social cohesion capacity. Then we discuss the changes in motion, positive and negative. Thirdly, we can use the table to structure discussion on visions and opportunities and synergies: and fourth, the possible pathways to meet them. This method can combine with the visual templates below, and also other tools - hi-tech / low-tech, people-centred / analysis, local / global focus, and so on. In the following pages we set out:

- An overview of the synergistic toolkit and method of use
- A visual thinking guide with templates and a worked example.

'Strategic planning for cities & regions' has to, somehow, connect spatial planning with social, technology, ecology, economic, political and cultural issues. Meanwhile, 'grand challenges' such as artificial intelligence or social inequality, are even more 'hyper-complex', inter-connected, and controversial. What can be done?

'Synergistics' – the science and art of working with synergies – has been developed for such challenges. It provides practical methods and tools, to help explore and enable 'collective intelligence'. It can work in organizations, institutions, supply chains or value-chains, business / enterprise models, networks or communities.

To explore the potential for collective intelligence, calls for creative and visionary thinking. For this we use the Synergistic Toolkit, a flexible set of techniques with 4 stages and 12 steps:

a) ***System mapping:*** the baseline syndromes and issues on the table: also includes *'co-learning':*
b) ***Scenario mapping:*** the drivers of change & alternative futures: (*'co-knowledge'*):
c) ***Synergy mapping:*** design of opportunities, synergies, innovations: (*'co-creation'*):
d) ***Strategy mapping***: design of practical pathways, road-maps, policies & projects (*'co-production'*).
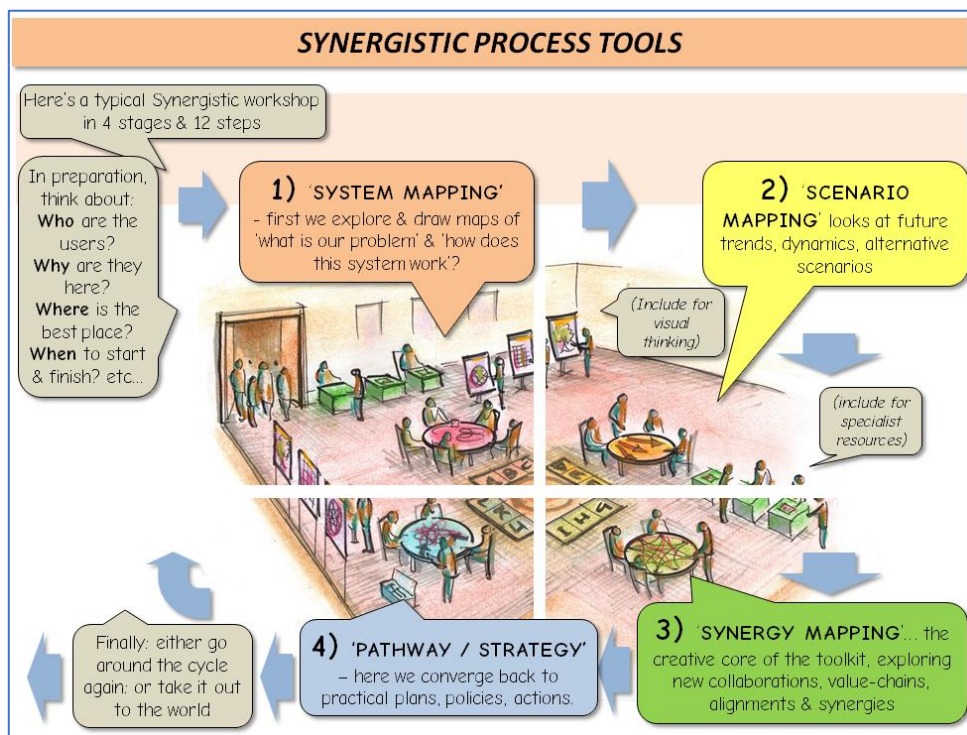
The picture here shows all four stages in one big room (in reality each could be at a different time and place)**.** The scheme is very flexible: it can take hours, days, weeks or months, depending on time, people and resources. The cycle can be more interactive, or more about desk-study, data-mining, expert debate, or stakeholder interviews. Overall these tools help to explore 'grand societal challenges': to identify 'what kind of problems' are we talking about: and then explore 'what kind of solutions' are most useful.

Visual thinking is at the centre of the synergistic methods and tools. This Guide provides a series of templates and typical questions, for each of the 4 stages and 12 steps.

These visual templates provide a easy and practical structure for building and visualizing complex information, i.e. concept maps / systems maps / *deeper-mind* maps. (these are different to *mind-maps*, as they focus on collective intelligence with multiple agendas).

The templates can be easily copied onto flip charts with writing or images on sticky notes. The order of using the templates depends on the theme, the event, the participants etc. Sometimes we start with the Scenario Mapping (D,E,F): in others we start with Synergy Mapping (G,H,I).

Overall, visual thinking is one of the best ways to explore creative, out-of-the-box, inter-connected ideas.

- Participants are asked for visual ideas or small sketches, to be completed by a graphic facilitator.
- Participants can respond to 'future cards', 'scenario visions', or other visual inputs
- Participants are encouraged to draw concept mappings, using the visual templates.
- The templates are very flexible, and can be used in a creative open-minded way.
- If participants don't agree on the images or mappings, each can do their own version.
- The templates in stage 1 & 3 are focused on the development of collective intelligence.
- The templates in stage 2 & 4 fit with mainstream futures / scenario methods: and with standard route-mapping / project management methods.
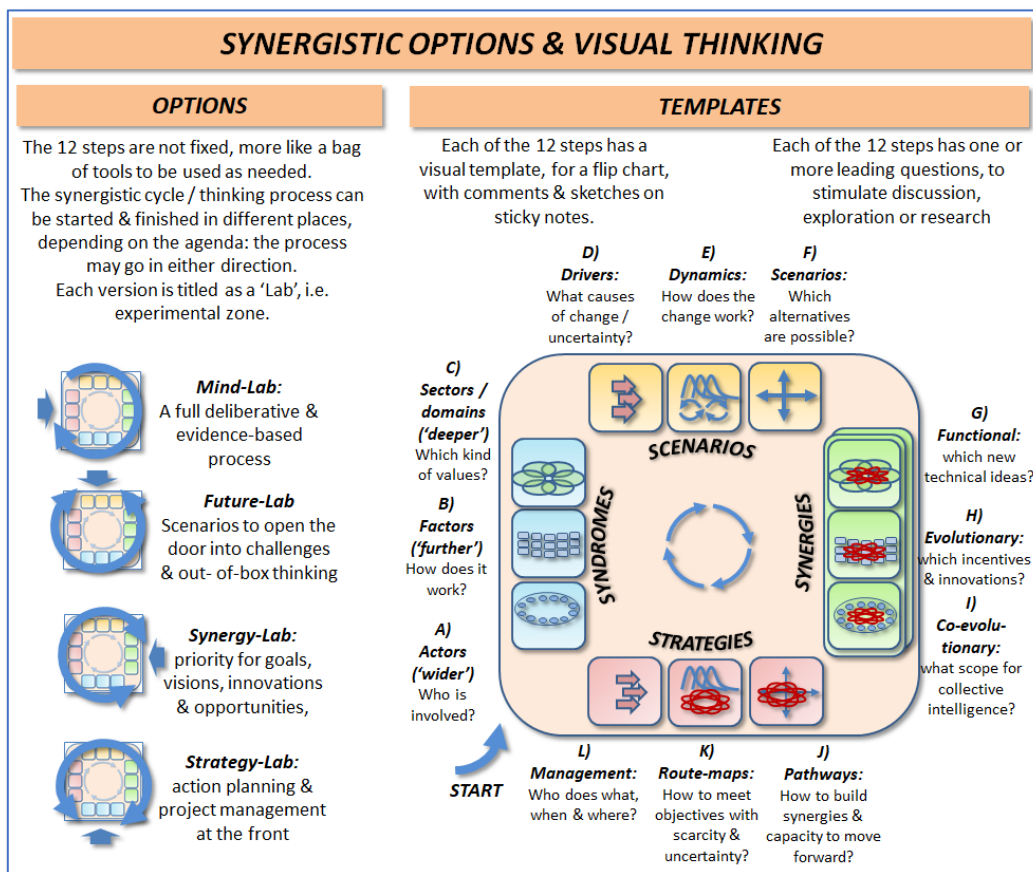
Each of the 4 stages and 12 steps is shown in the following pages, with likely questions to be addressed, and with cues for visual thinking methods. The graphics on the left side are blank templates (to be copied onto flip-charts or similar). The graphics on the right side are worked examples (based on a low-carbon agenda).

A) ACTORS MAPPING – ('WIDER' SYNERGIES): **'ROUND TABLE'** TEMPLATE

- *Q: Who is involved?*
- *Q: how do they interact?*

Identify the most important people, stakeholders, communities: explore their roles & relations (social, economic, political etc).
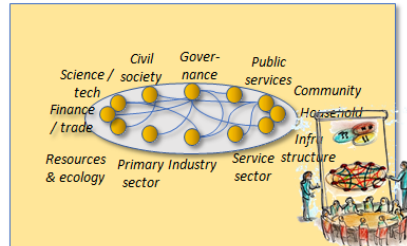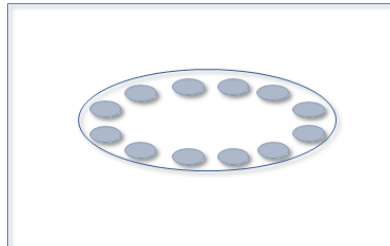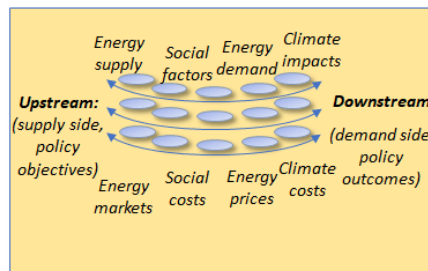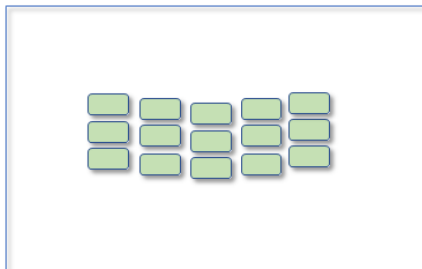
B) FACTORS MAPPING – ('FURTHER' SYNERGIES): **'BUSINESS MODEL'** TEMPLATE

- *Q: How does the system work?*
- *Q: Where are the upstream / downstream factors?*

Explore the metabolism or flows (resources, money, policy, labour, social value etc):

Look for upstream causes / downstream effects of the flows, (e.g. ecological / social impacts)

C) DOMAIN MAPPING – ('DEEPER' SYNERGIES): **'CLOUDY CRYSTAL BALL'**.

Questions to be addressed:

- *Q: Why is this project important?*
- *Q: Which values & domains are involved?*

Explore what kind of problems & what is the scope: which are the goals / visions? (social / technology / economic / environment / political /cultural etc).
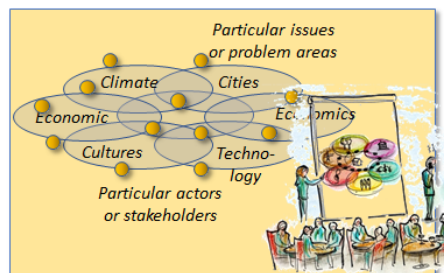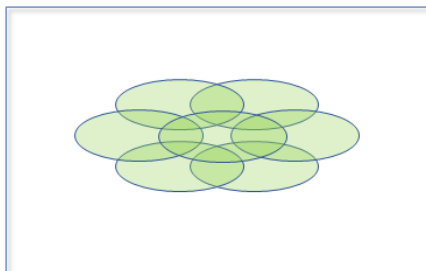
DRIVERS - *'FORCE FIELDS'* TEMPLATE

- *Which forces of change?*
- *Which uncertainties?*

Identify each kind of change, for impact & uncertainty. Select the top 2 or 3 most important changes.
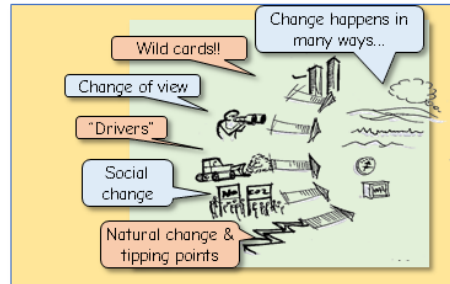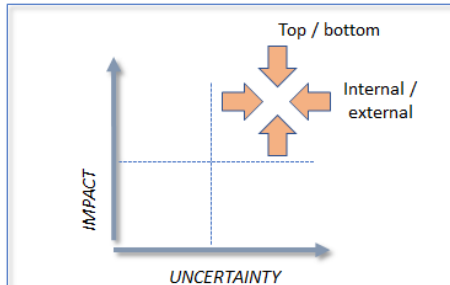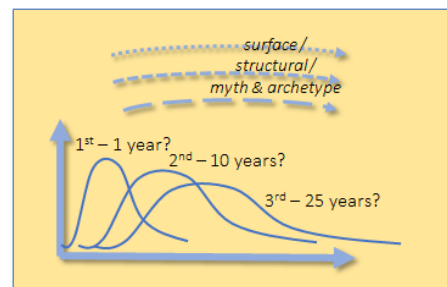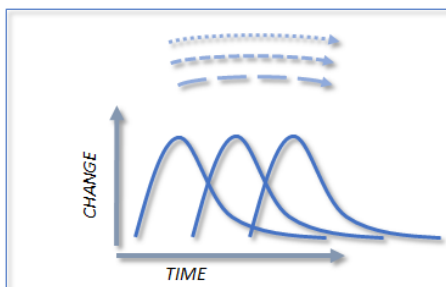

D) HORIZONS - *'3 MOUNTAINS'* TEMPLATE

- *When are the horizons of each change?*
- *Which are surface / structural / archetype changes?*
- *When is there growth / decline/ restructuring?*

Explore which are short / medium / longer term changes:
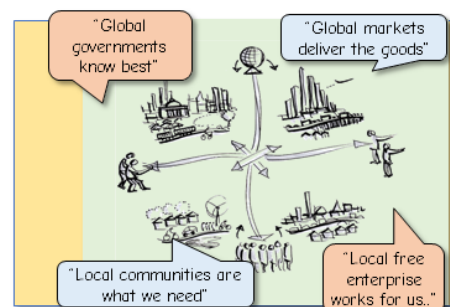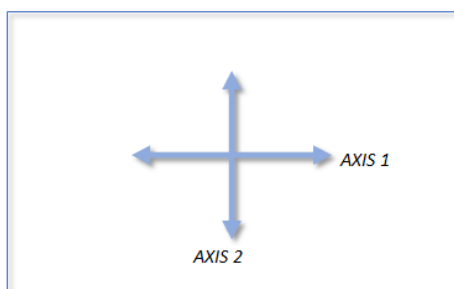
Explore the patterns or cycles of change

E) SCENARIOS - *'CROSS-ROADS'* TEMPLATE

- *What if the best / worst happens?*
- *Which are the most 'interesting' alternative futures?*

Explore 'what-if' the top 2/3 changes are high / low impact, positive / negative.
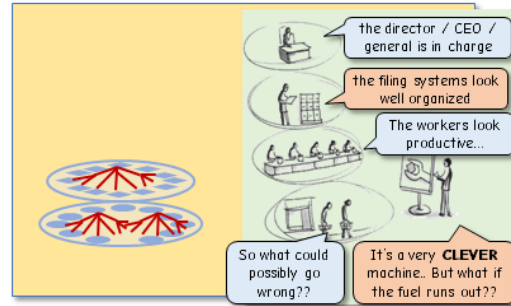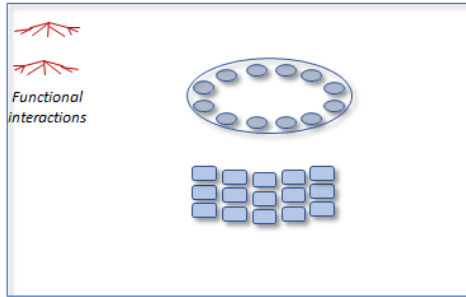
Explore the scenarios with stories, headlines, images.

F) LINEAR – (MODE-I) - *'CLEVER IDEAS'* TEMPLATE

- *How to improve the functions & operations?*

Explore practical ideas & synergies between the 'actors' & 'factors' (social / technology / economic / environment / political /cultural etc). Draw the possible inter-connections.

G) EVOLUTIONARY (MODE-II): *'SMARTER IDEAS'* TEMPLATE

- *How to make smarter inter-connections?*

Explore the state-of-the-art entrepreneurial ideas & synergies between 'actors' & between 'factors'. Draw the possible inter-connections.
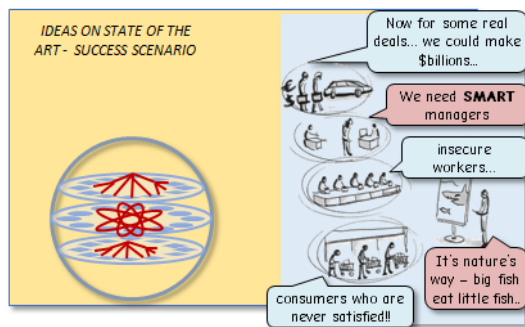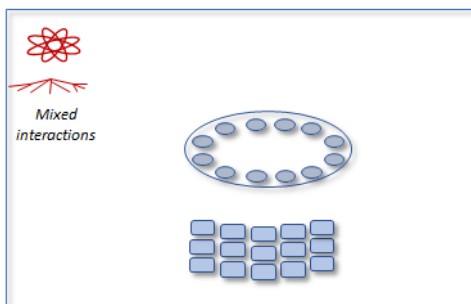
H) CO-EVOLUTIONARY (MODE-III): *'WISER IDEAS':* TEMPLATE
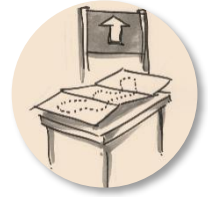
- *How to grow a wiser kind of intelligence?*

Explore beyond state-of-the-art 'visionary' ideas & synergies, between different 'actors' & 'factors'. Draw the possible inter-connections, with multiple layers.
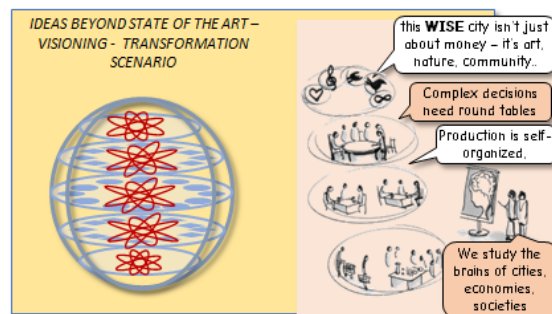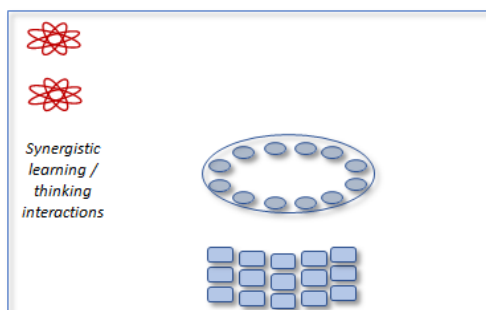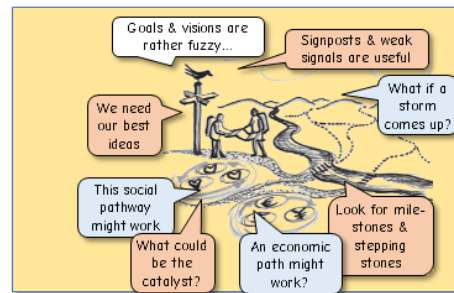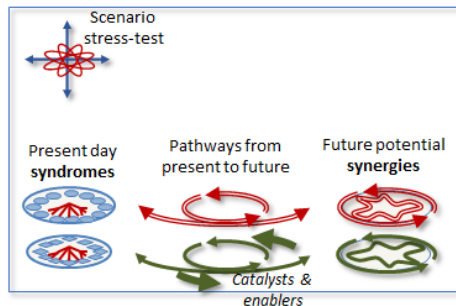
(J) PATHWAYS - 'PATHWAYS'

- *Which pathways could best realize the opportunities??*
- *Are these future-proofed?*

Develop 'pathways' of strategic change, which connect the most robust ideas / synergies (internal / external: short /medium / longer). *(there are different formats to show the pathways)*
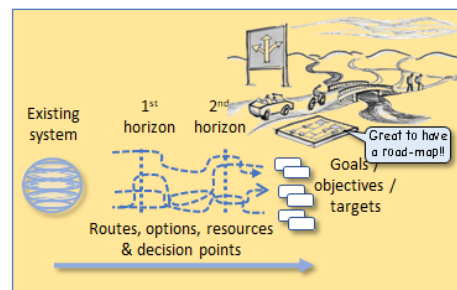
Test the best ideas / synergies against each scenario: & select the most robust.

(K) ROUTE-MAPS - 'ROUTE-MAPS'

- *What strategies could turn the pathways into reality??*
- *When are the key stages?*
- *How much resources are needed?*

Identify the goals & objectives: Identify links to plans & actions, actors involved, factors & resources needed. (internal / external: short /medium / longer)
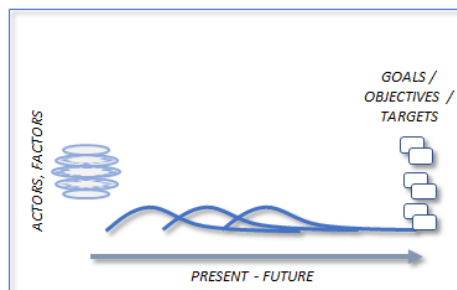
(L) MANAGEMENT/ EVALUATION - 'ACTION PLANS'

- *How to manage the actions?*
- *How to evaluate the results??*

Set up management plan with practical priorities & actions: Identify the next steps with actors & resources: Explore how to monitor performance, evaluate results & feedback.
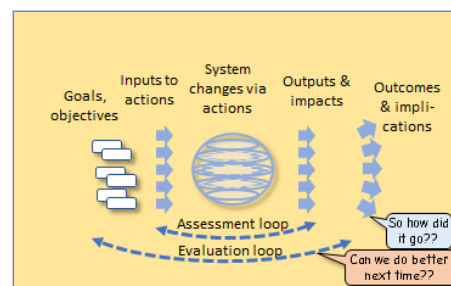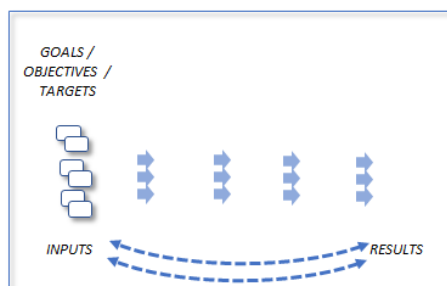
This table is a summary of the 12 steps in the Synergistic Toolkit, with key questions to be addressed, & examples of urban development. Note the steps can follow in different orders (not always A, B, C)

		KEY TASKS	KEY QUESTIONS	URBAN EXAMPLE
SYSTEM / SYNDROMES				
A)	**Scoping**	Explore the scope of the problem / system /issue / agenda / problematique…	what is the agenda or problem for today: where are the boundaries?	*What is the scope & agenda: housing / infrastructure / public space?*
B)	**'Wider' synergies**	Explore how the system works, , and the relations of the actors in the system,	how do the actors / factors interact: what kind of system, hierarchical or networked?	*E.g. who are the key actors- investors /owners / developers / designers / residents?*
C)	**'Deeper' synergies**	Map the overall 'metabolism' of the system, with inter-connections between domains.	Which are the key domains e.g. social / technical / economic / ecological /political ?	*What are the main forces shaping behind the peri-urban syndromes*
SCENARIO MAPPING				
D)	**Drivers**	Explore the forces of change, both external and internal.	what are the driving forces of change, uncertainty, internal / external, near / far horizon?	*What are key drivers of change & uncertainty ('21 drivers')*
E)	**Dynamics**	define the most significant dynamic cycle effects.	what dynamics of change – succession / renewal / tipping points / transitions?	*How does the cycle of renewal work here: (e.g. development / conservation / restructure?*
F)	**Scenarios**	explore alternative futures with structured 'what-if' questions.	which projections and scenarios are most relevant & plausible?	*How could the future peri-urban be different from today?*
SYNERGY MAPPING				
G)	**Linear mode-I**	map the system qualities which are more linear & mono-functional	what opportunities for functional efficiency & performance of the system? Any negative effects?	Is the key peri-urban issue *linear growth? (housing, services, infrastructure etc)*
H)	**Evolutionary mode-II**	map the qualities which are evolutionary & inter-connected.	opportunities for creative enterprise, new functions & niches? Any negative effects?	Is the key peri-urban issue *adaptation / evolution? (housing, services, etc...)*
I)	**Co-evolut-ionary mode-III**	Map the qualities which are more co-evolutionary & synergistic	how can opportunities emerge via synergistic collaboration, co-learning & social intelligence?	Is the key peri-urban issue *co-intelligence / co-evolution? (housing, services, infra, etc...)*
STRATEGY MAPPING				
J)	**Pathways**	look for synergistic pathways, to link between present 'syndromes' & future 'synergies'	which synergistic combinations can form pathways to bring actors/ factors into alignment & added value.	*How to make real positive change in the peri-urban? (housing, services, infra, public realm...)*
K)	**Road-maps**	look for synergistic links between objectives, resources, actions, enablers.	which pathways, actors and factors can be combined into practical strategies & actions? what implications for resources?	*Which resources, actions, timescales to realize these? (housing, services, infrastructure, public realm...)*
L)	**Management / Evaluation**	rational /relational management methods with assessment & evaluation.	how can results be evaluated, with feedback & learning into the next cycle?	*How to learn: before, throughout & following the urban policy process?*