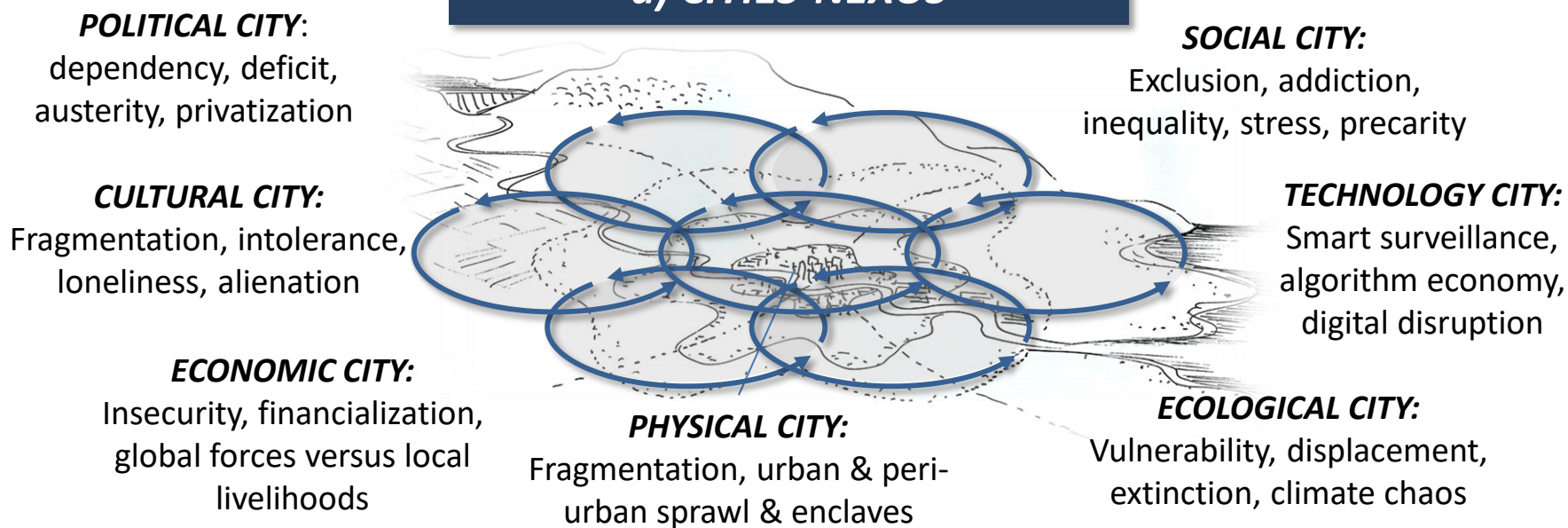


Figure
4-1

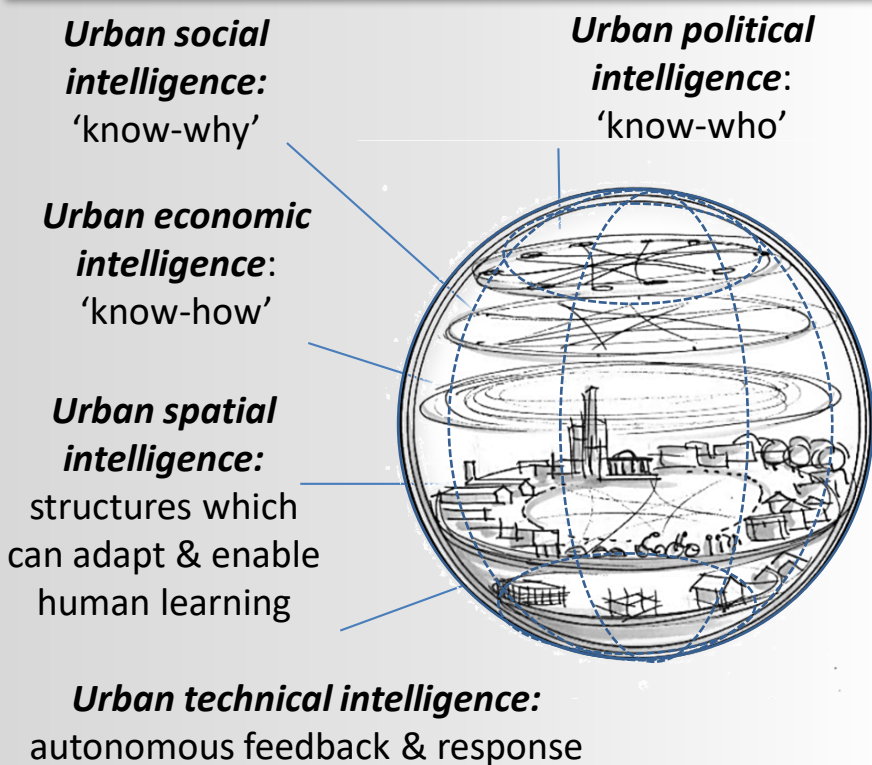
CITIES–LANDSCAPE

Basic mapping formats for city systems: with dynamics of change & alternative scenarios

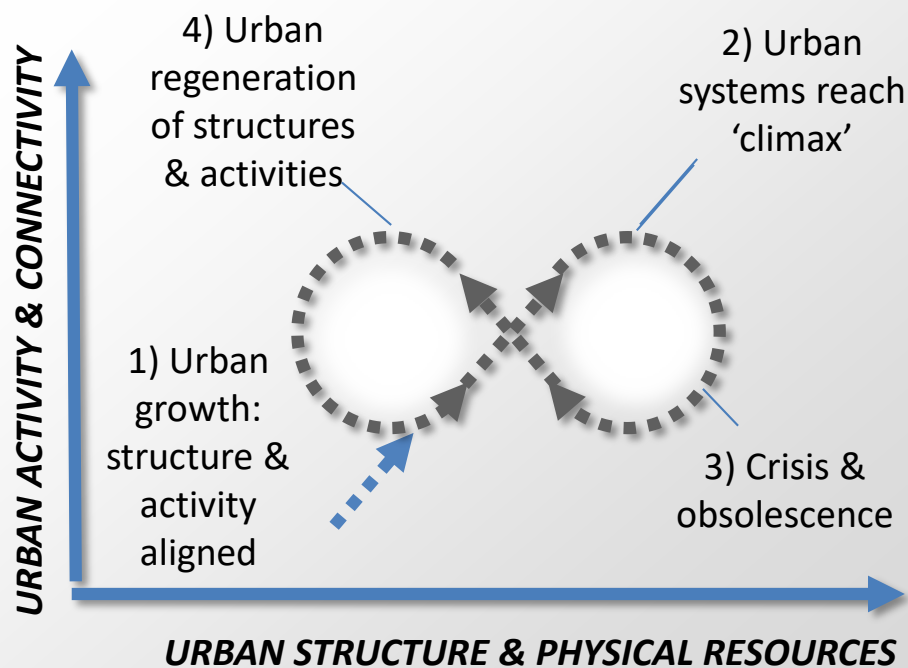
a) CITIES–NEXUS



b) 'DEEPER CITY MIND'

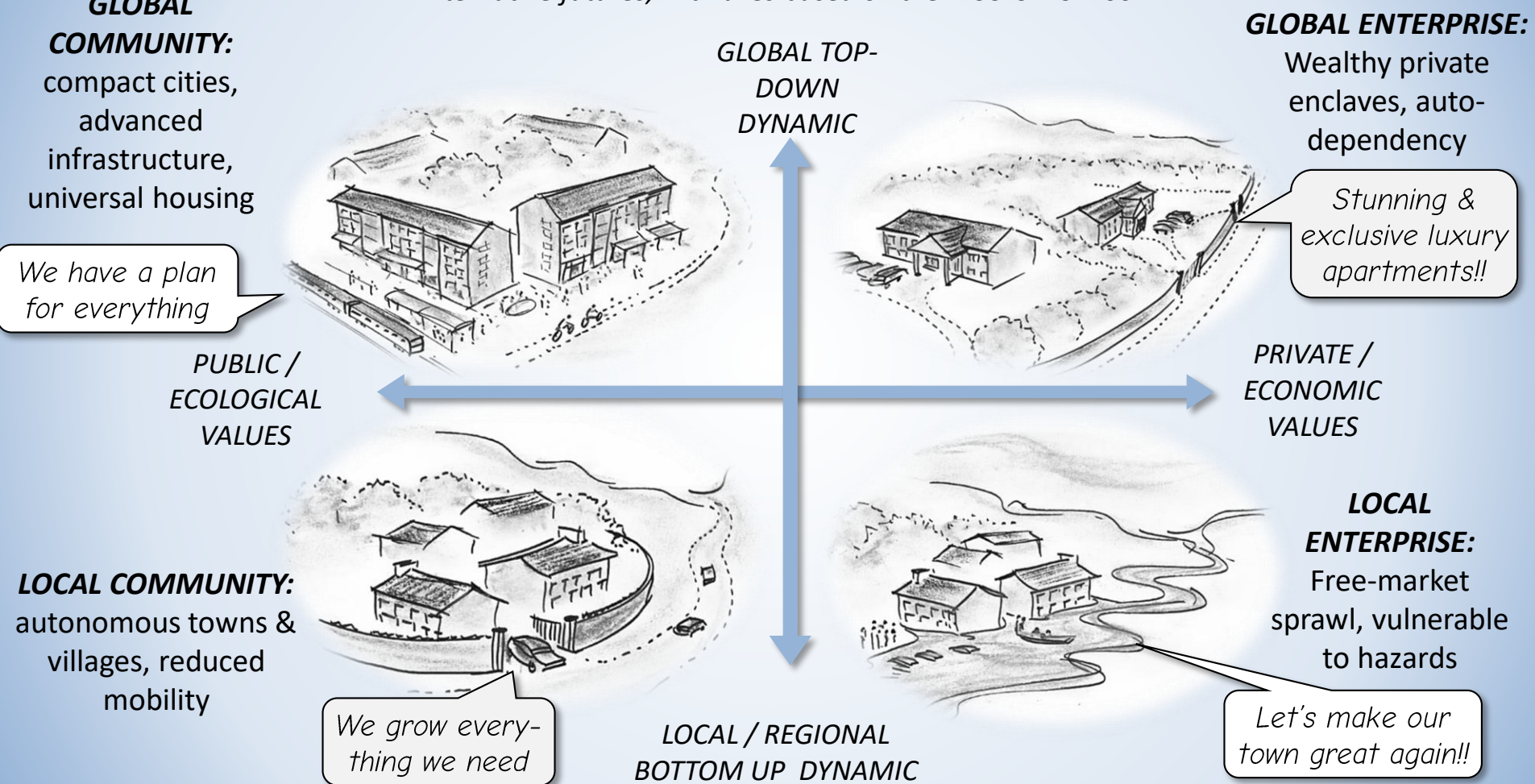


c) DYNAMIC CYCLE of URBAN CHANGE



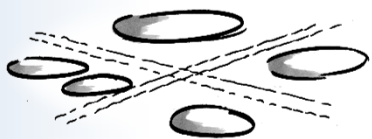
d) CITIES–SCENARIOS

Alternative futures, with axes based on the IPCC 'SRES' 2001

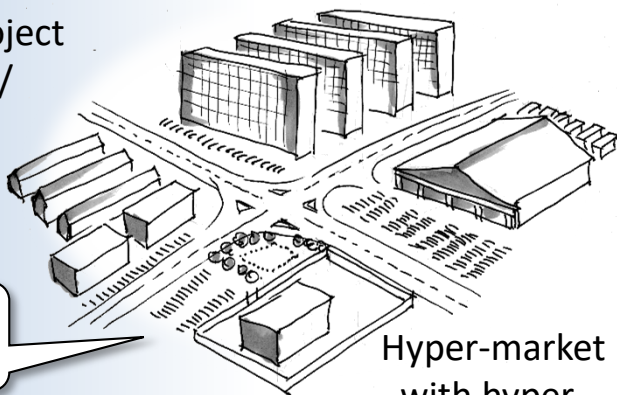


a) LOCAL SYNDROMES-I&II

Mono-functional
land-uses, large
plots, few links



Industrial scale
housing project
/ estate /
enclave



That school
is a prison!

Hyper-market
with hyper-
parking

Children &
youth are
unwelcome
& unsafe

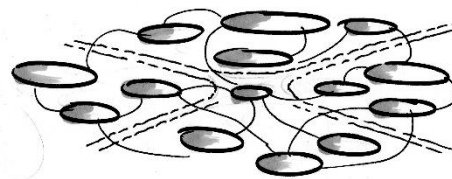
Heavy traffic,
hostile streets



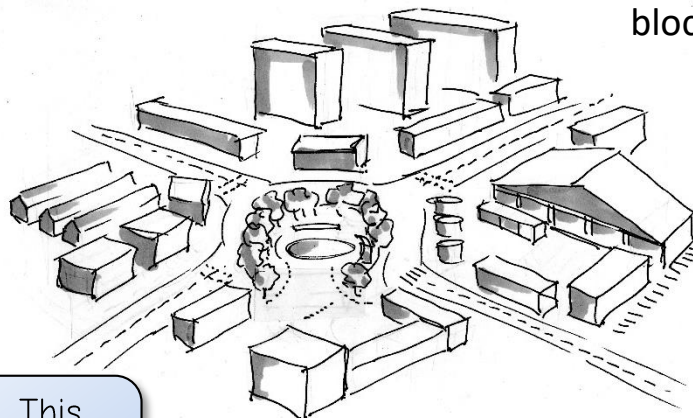
Everyone's
a stranger
round here

b) LOCAL SYNERGIES-III

Multi-functional land-
uses, diverse local
linkages



Housing renewed
with human scale
blocks & streets



Social market
place for new
enterprises

Corner shops
for cohesion

This
school is
a garden

Human scale, biodiversity &
micro-climate, street life

Children &
youth are
welcome &
safe

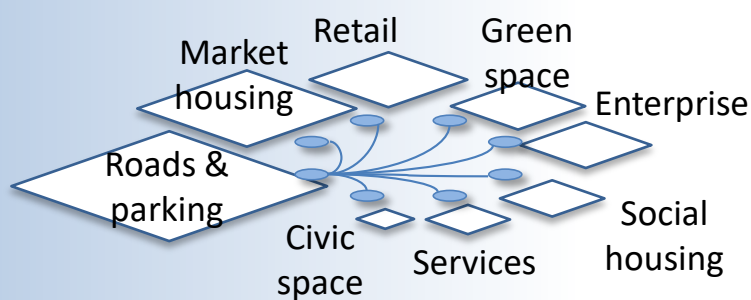


Everyone's
welcome
round here

c) SPACES of EXCLUSION-I&II

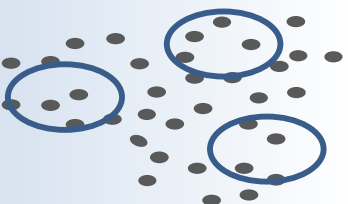
Spatial-social syndromes: mono-function, extractive

SPATIAL PATTERNS



SOCIAL PATTERNS

CIVIL ACTORS
Inner circles,
outer exclusions



SOCIAL
ACTORS
Intolerance,
inequality

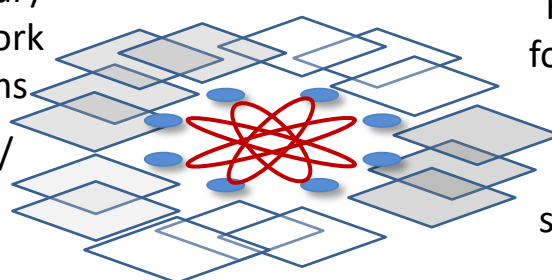
ECONOMIC ACTORS
Exploitation, dependency

d) PLACES of INCLUSION-III

Spatial-social synergies: multi-function, responsive

SPATIAL PATTERNS

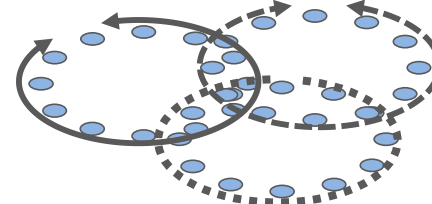
Market / social /
coop / live-work
housing forms
Multi-modal /
walk-cycle-
home-zones



Flexible space
for enterprise &
innovation
Orchards,
school gardens,
allotments

SOCIAL PATTERNS

CIVIL ACTORS:
play streets,
care exchange,
car shares



ECONOMIC ACTORS: social enterprise,
skills mentoring, asset stewardship

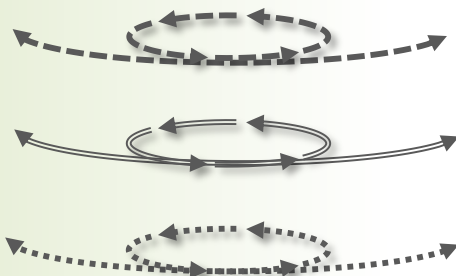
SOCIAL
ACTORS:
connecting
young / old,
rich / poor,
local / global

PATHWAYS

Socio-economic gaps: myopic
profiteering, insecurity, exclusion

Socio-cultural gaps: polarization,
distrust, trauma, alienation

Eco-political gaps: privatized land,
auto-dependency, industrial food



Local livelihood pathway: inclusive social
enterprise & public crowd finance

Local network pathway: cultural
exchange, mutual aid

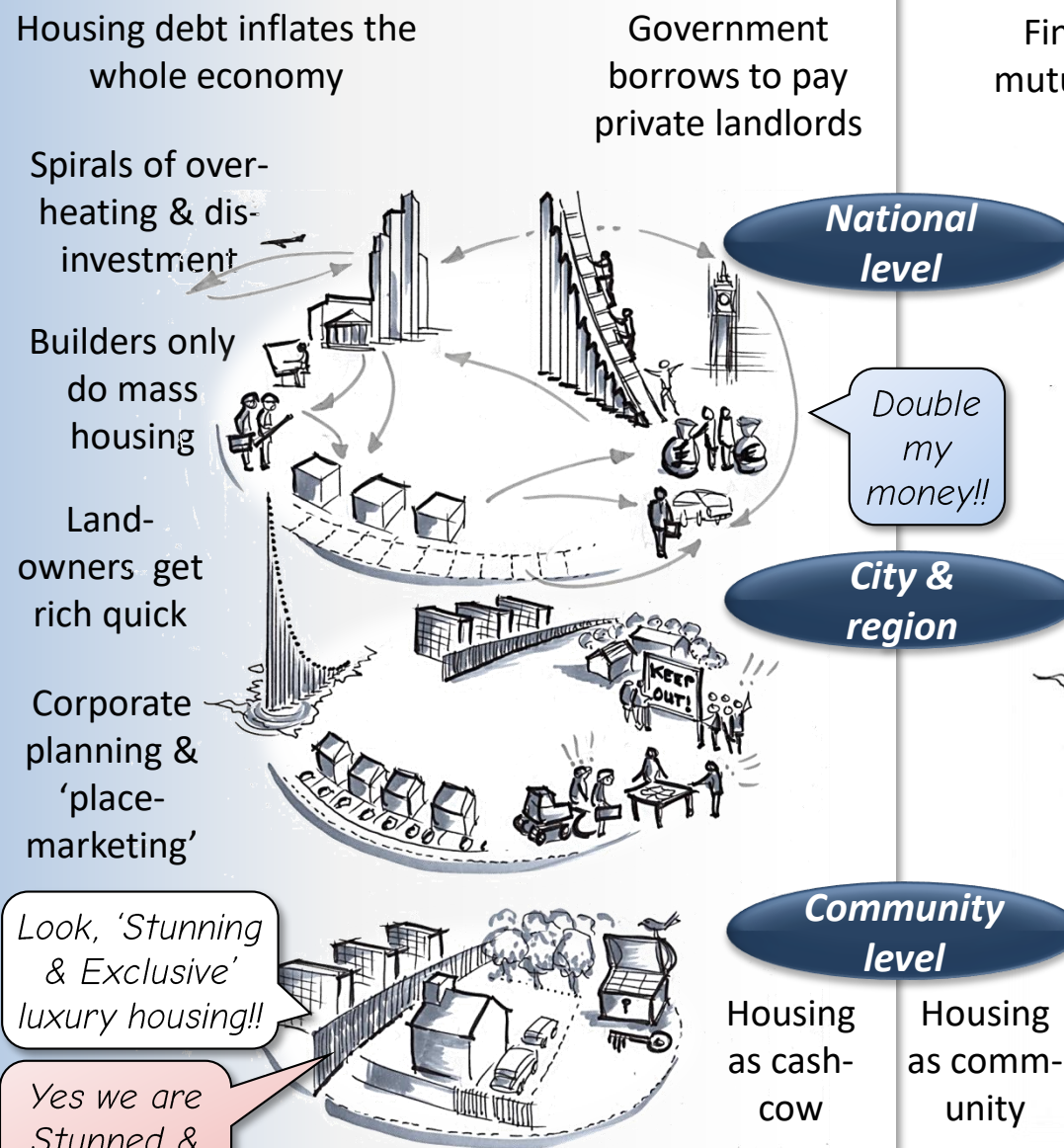
Local stewardship pathway: multi-
function spaces for education, food, health

**Figure
4-3**

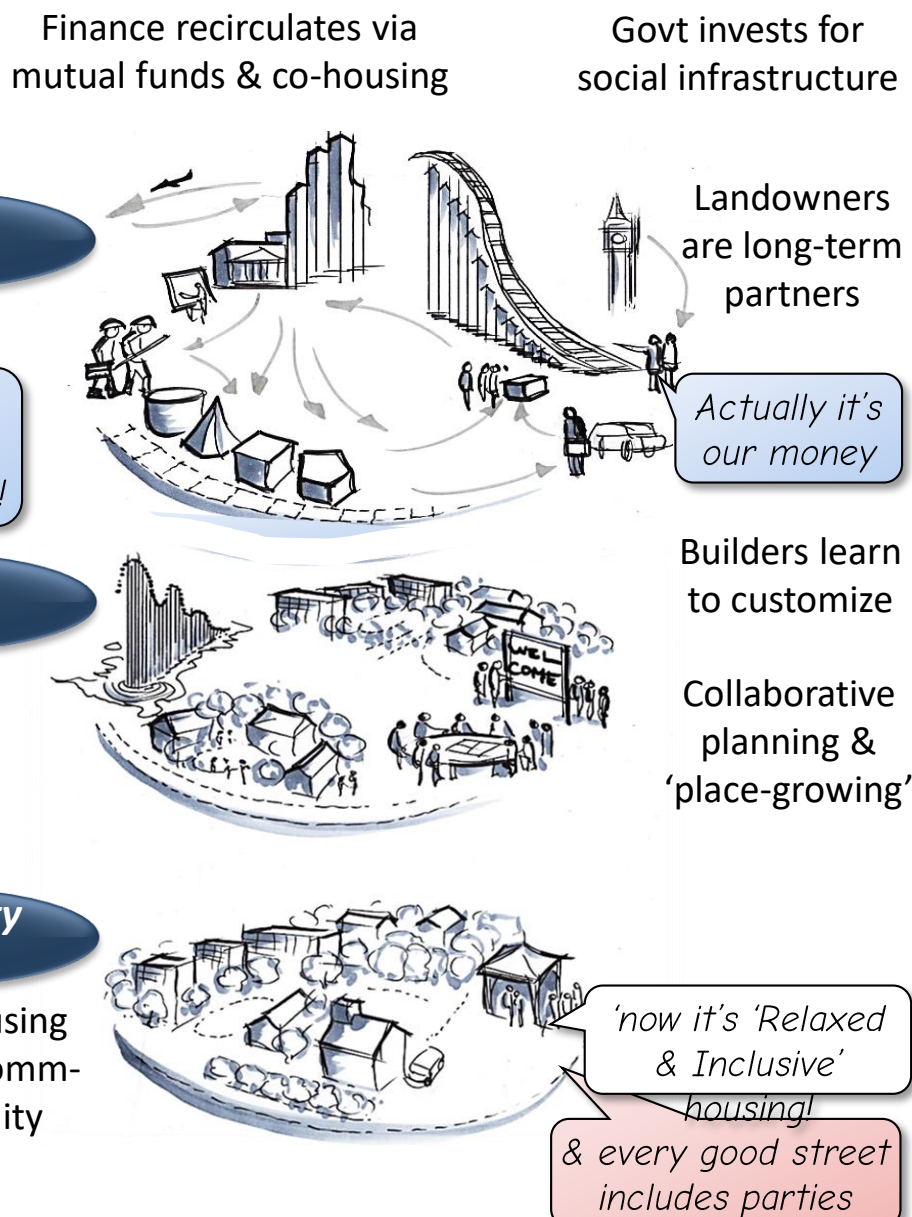
HOUSING-III

Housing systems national, regional, local: from market myopia to housing intelligence

a) SMART / UNSMART HOUSING-I&II

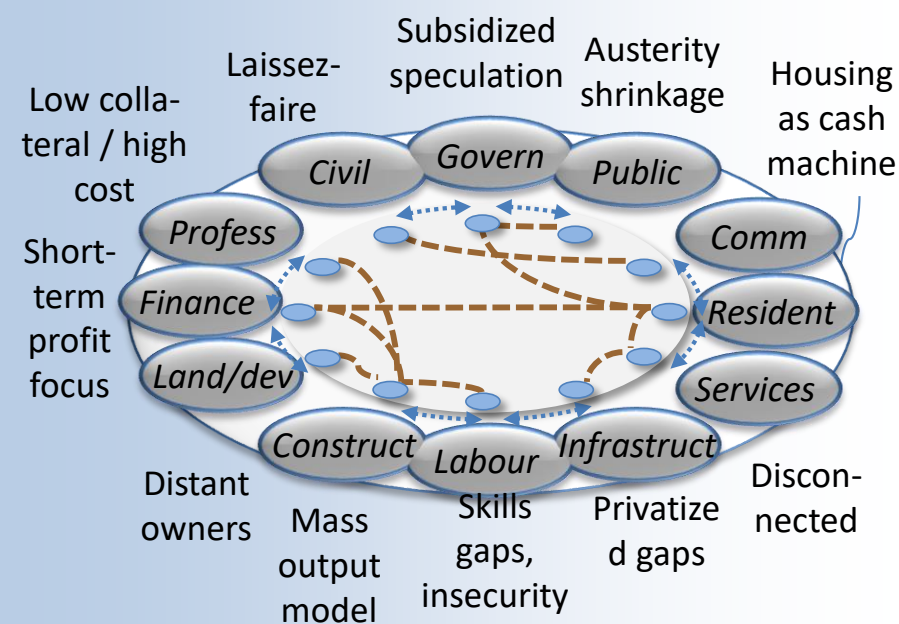


b) 'WISER' HOUSING-III



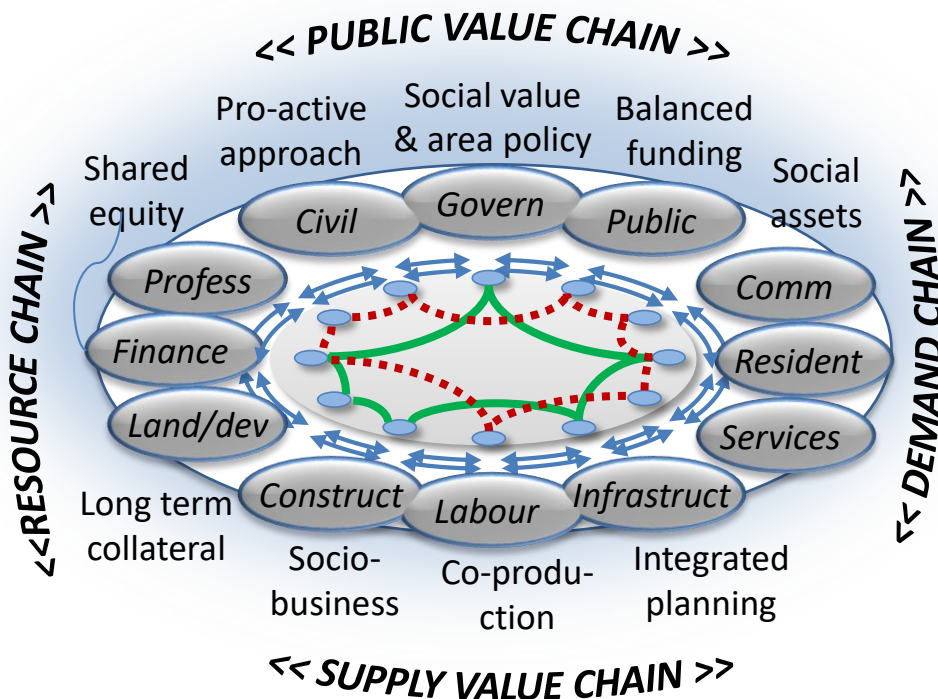
c) COMMODITY HOUSING-I&II

Typical gaps, conflicts, power relations between actors



d) LIVELIHOOD HOUSING-III

Potential synergies & value chains around the table

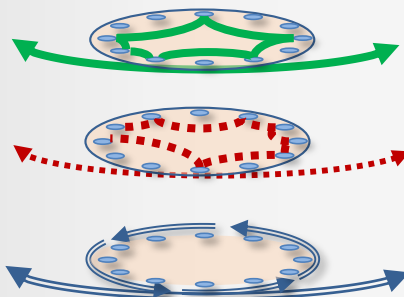


e) PATHWAYS

Equity gaps (private housing): speculation, moral hazard

Tenure gaps (public housing) split incentives, tenant exclusion

Supply-demand gaps: inertia, fragmentation, distrust



Housing institutional pathway: mutual finance, landlord / builders / community

Housing democracy pathway: cooperative co-housing, flexible tenures

Housing value chain pathway: responsive markets, standards, procurement

**Figure
4-4**

RETROFIT-III

Energy efficiency renewal & adaptation: mutual learning between buildings & people

a) 'DISPOSABLE CITY'-I&II

Housing & other buildings are financial commodities

Split incentive barriers to rental housing retrofit

Houses are disconnected from neighbours

Commercial property is owned by corporate web of tax avoidance

Material waste sent to landfill

Conservatories & patios are heated

We need a new smart TV & a week in Bali!!!

Throw-away lifestyle, over-size cars & long haul flights

b) 'RECIRCULATORY CITY'-III

Physical buildings are linked with social, ecological, public values for integrated regeneration & renewal

Digital platforms (blockchain trading, predictive AI etc) provide 'know-what' connectivity

Human platforms (entrepreneurs, intermediaries, mentors) - 'know who' & 'know why' connectivity

Integrated waste, energy, ventilation, heat storage, re-use / recycling

We need a wiser way of life

c) LINEAR RETROFIT-I&II

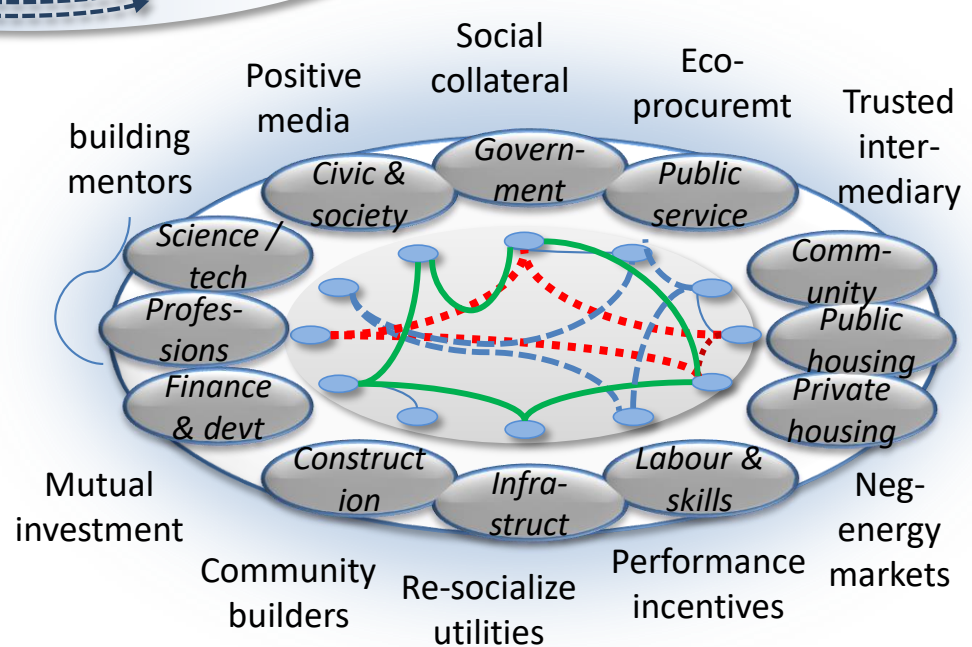
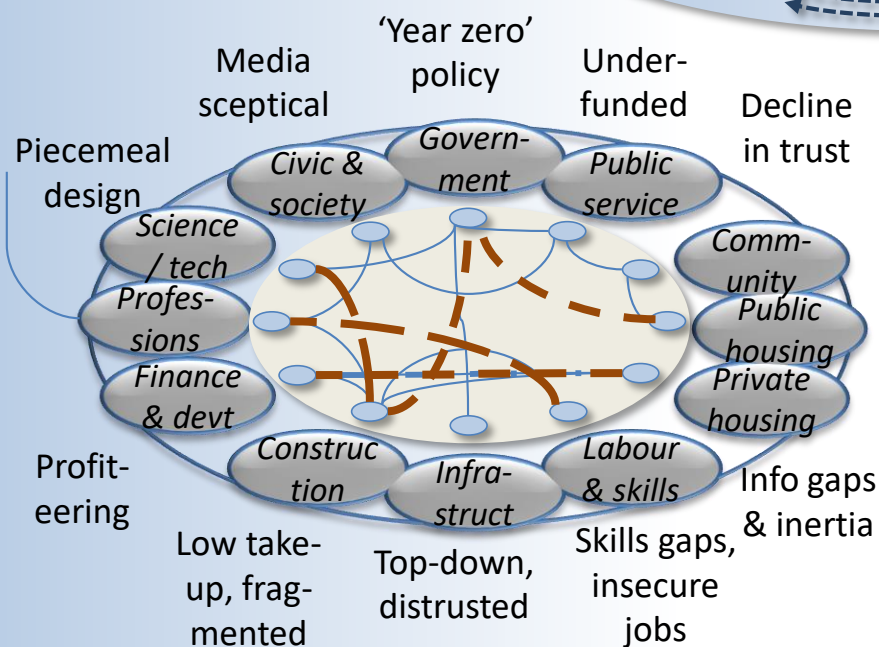
CHANGE MAPPING

d) DEEPER-WIDER RETROFIT-III

Typical gaps & conflicts between retrofit stakeholders

Functional buildings >> >> Multi-functionality
Fixed tenures >> >> Flexible tenures
Building as space >> >> Building as services

Potential synergies & multi-value-chains in retrofit

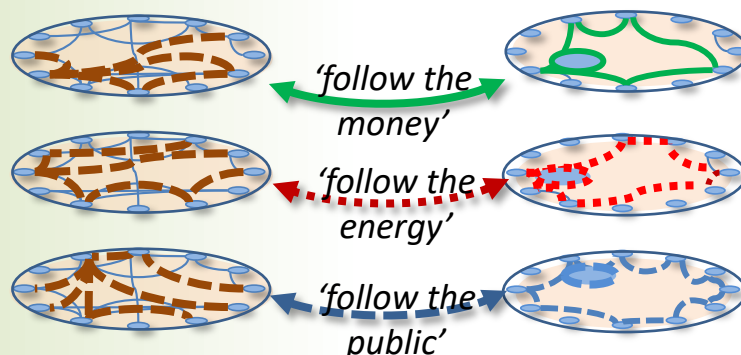


e) PATHWAYS

Ecological economic gaps: myopic profit, moral hazard

Socio-technical gaps: Inertia, uncertainty, distrust

Urban-political gaps: Split incentives, silos, barriers



Retrofit eco-tech pathway: owners, agents, utilities, builders, lenders

Retrofit behavioural pathway: skills, mentoring, standards, circles

Retrofit metropolitan pathway: new tenures & stewardship

Figure
4-5

CITY-REGION-III

Co-evolution of spatial structures: from industrial to synergistic city-region

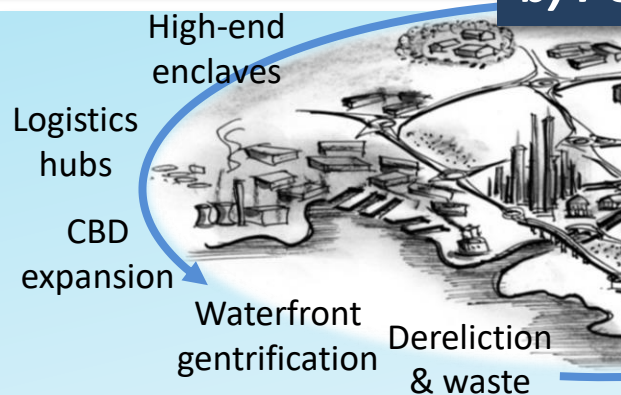
a) INDUSTRIAL CITY-REGION-I



Population growth,
suburban housing
Rapid expansion into rural
land: local farming on fringe

We need a
new factory
so this river
has to go

b) POST-INDUSTRIAL CITY-REGION-II

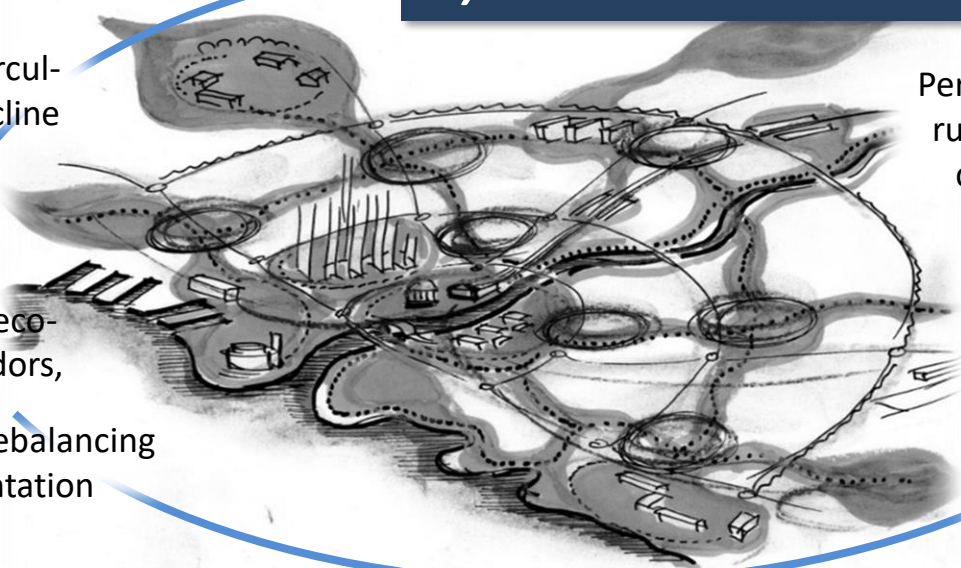


Low value housing sinks

Peri-urban car
dependency
Retail parks,
aero-parks

We need a
new CBD so
these slums
have to go

c) 'SYNERGISTIC' CITY-REGION-III



Peri-urban & peri-rural networked communities

Global hubs / local linkages

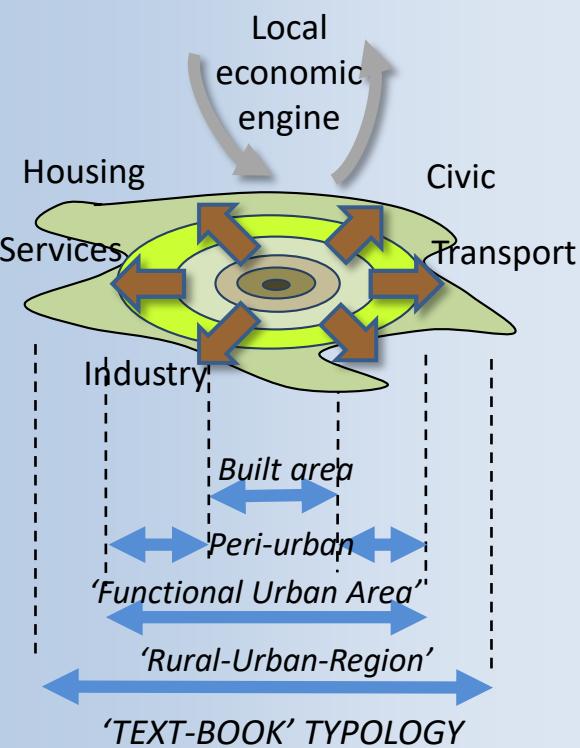
Multi-modal balance of human / transit / car

We need a sustainable city-region & synergistic thinking to make it go

d) CITY-REGION-I

Logic of functional growth:
Geography of local **proximity**

SPATIAL PATTERNS:



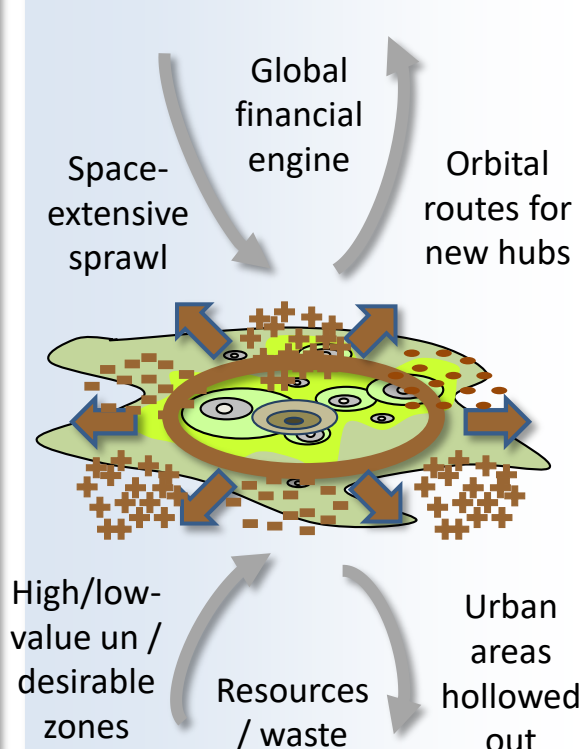
SPATIAL DYNAMICS:

Population & economy grows>>
Rapid spatial expansion>>
Local pollution & waste

e) SMART CITY-REGION

Logic of evolutionary competition:
Geography of global **connectivity**

SPATIAL PATTERNS:

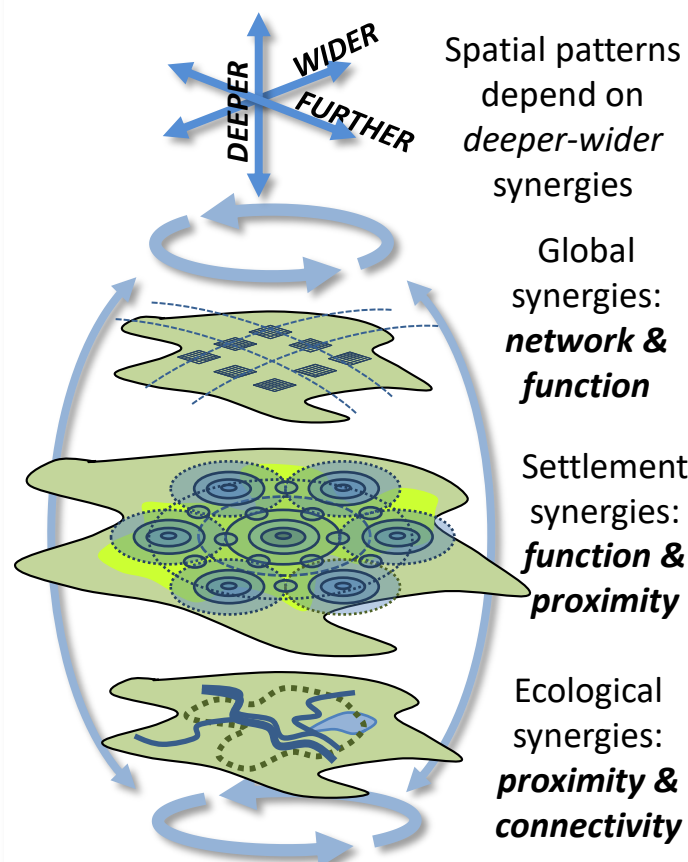


SPATIAL DYNAMICS:

Extractive power grows>>
Spatial structure turns inside-out>>
Global pollution & waste

f) 'WISER' CITY-REGION-III

Logic of co-evolutionary collaboration:
Geography of local-global **recirculation**



SPATIAL DYNAMICS:

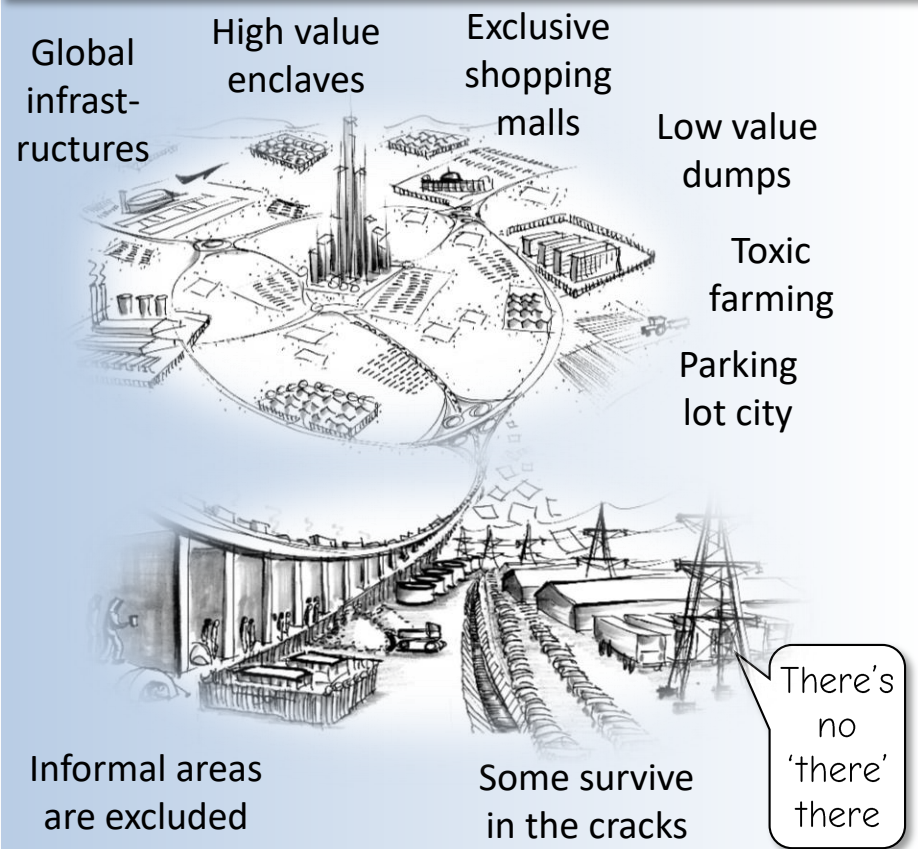
Recirculation value grows>>
Spatial diversity & complexity>>
Local-global cycles>>

Figure
4-6

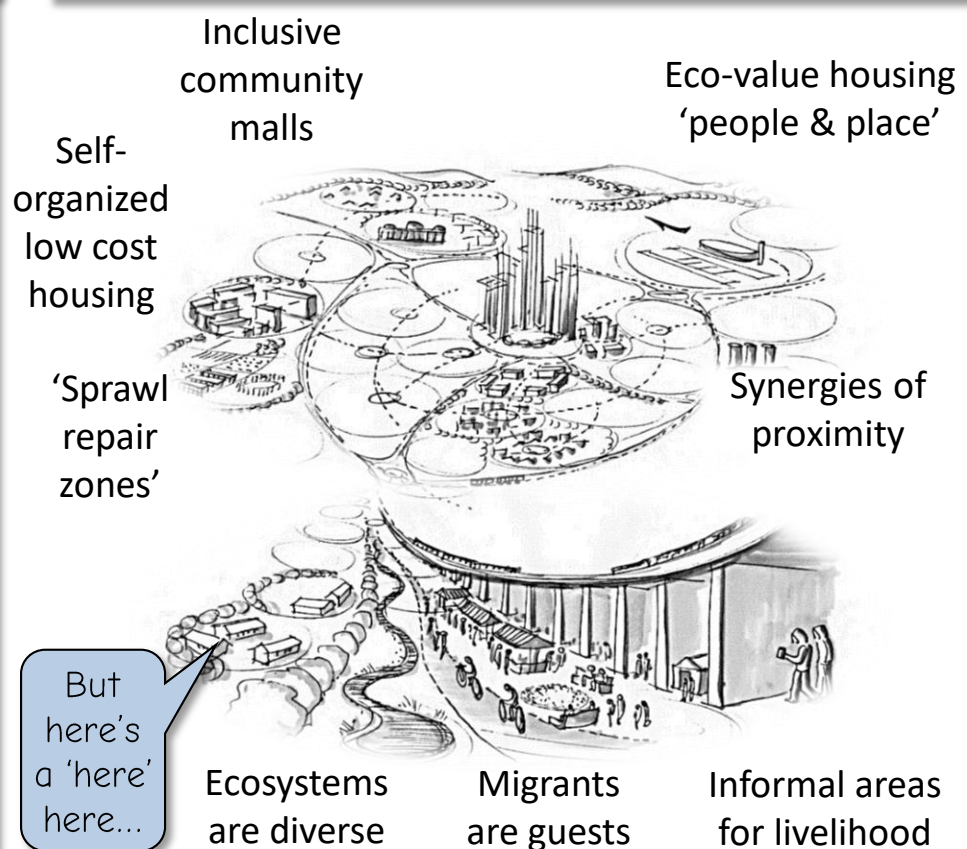
ANTI-CITY-REGION-III

Peri-urbanization & 'cities but not as we know them', from sprawl to synergies

a) URBAN SPRAWL - I&II

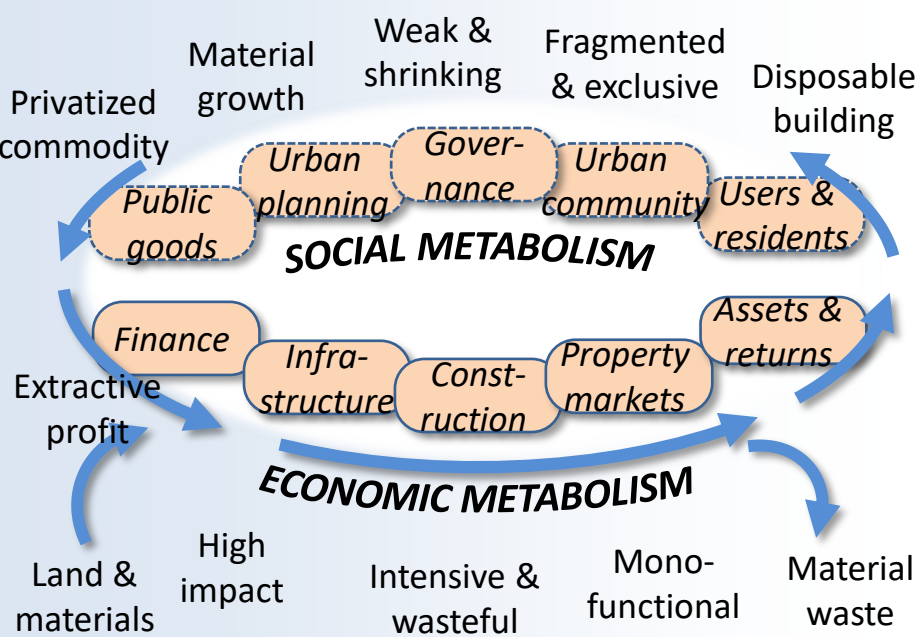


b) URBAN SYNERGIES - III



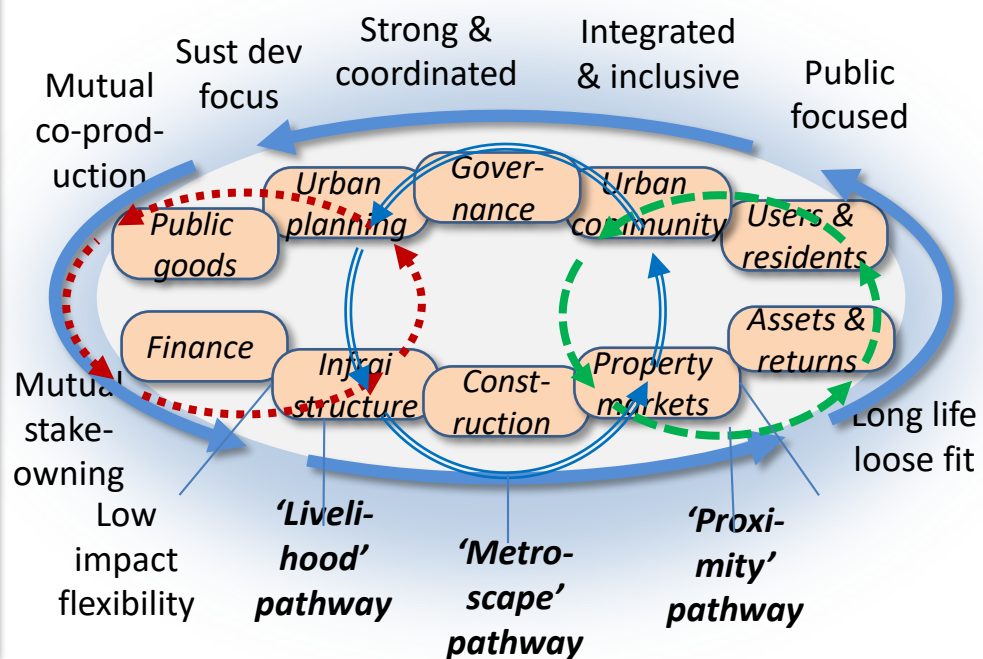
c) LINEAR METABOLISM-I&II

'Real estate' market logic leaves gaps in social metabolism



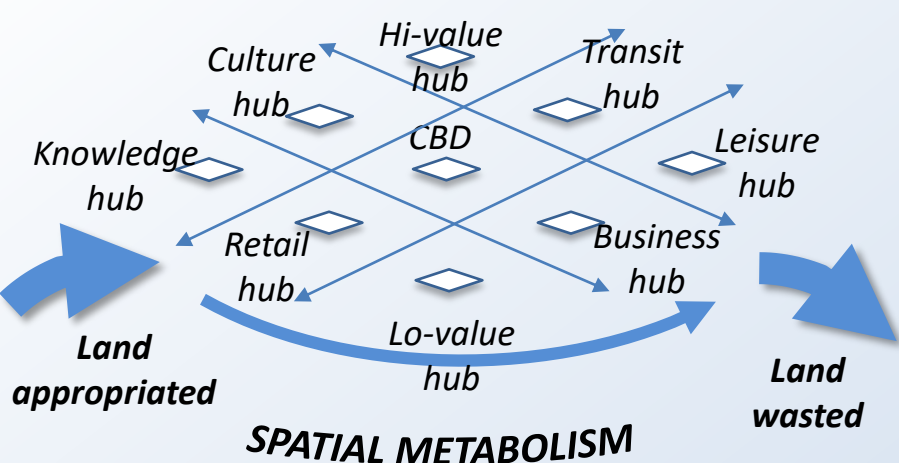
d) RECIRCULAR METABOLISM-III

'Reality estate' is integrated with eco-social value



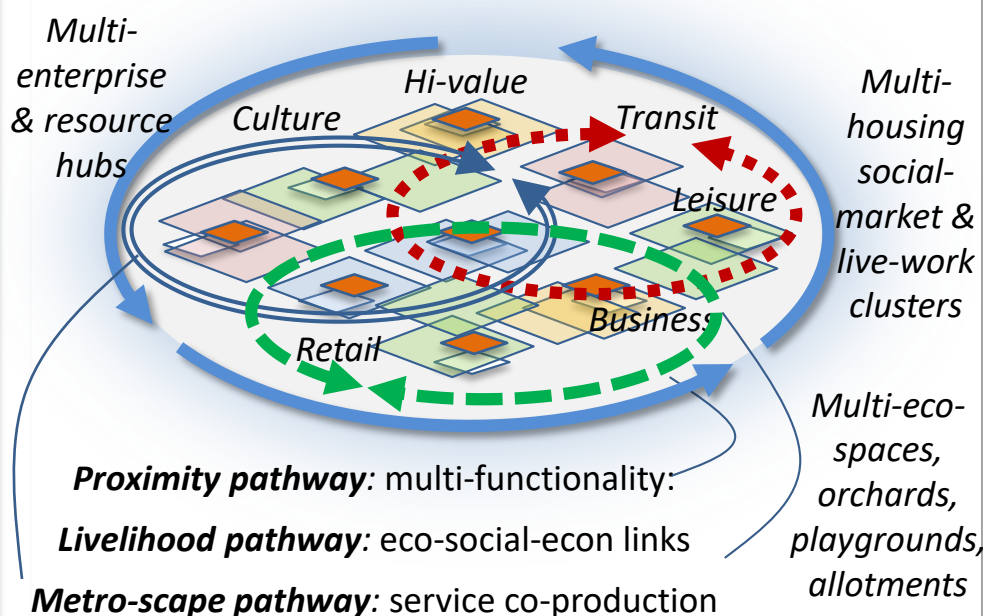
e) ENCLAVE SPACES-I&II

Urban sprawl with disconnected mono-functional plots

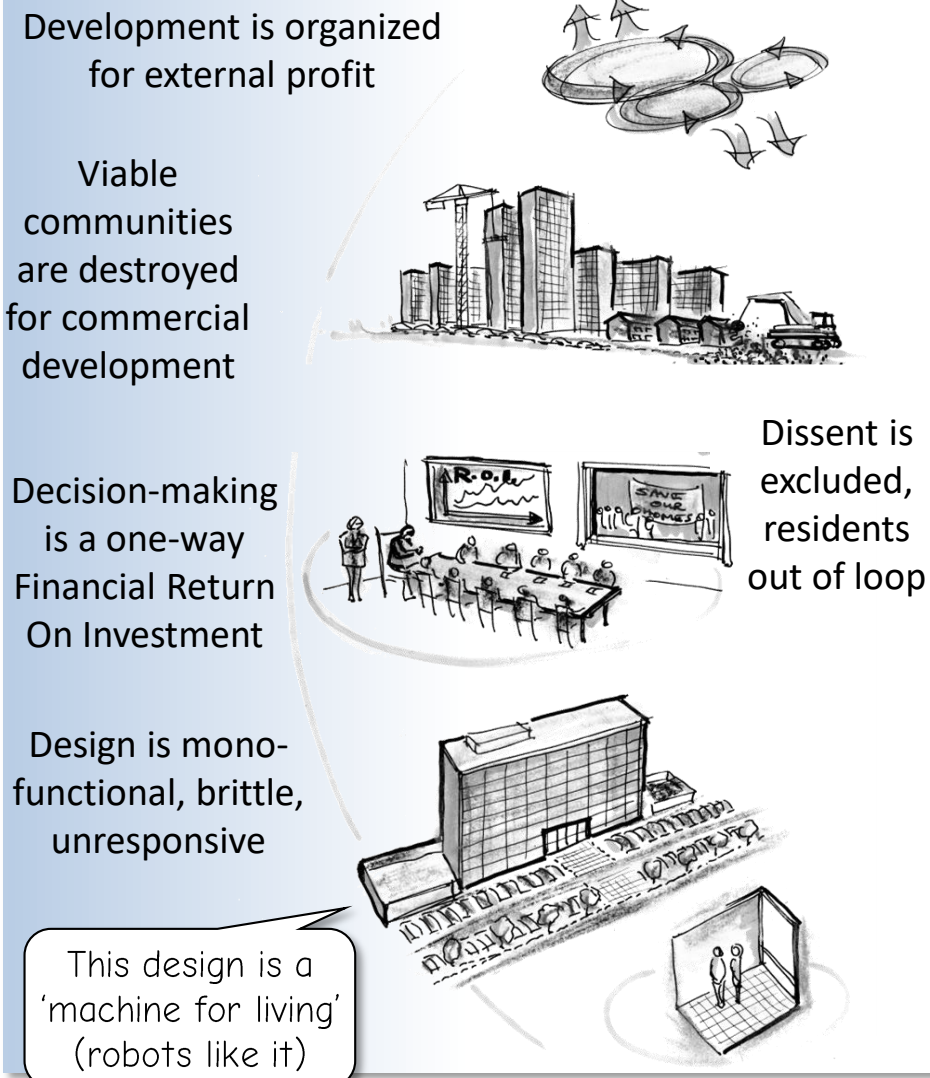


f) CONNECTED PLACES-III

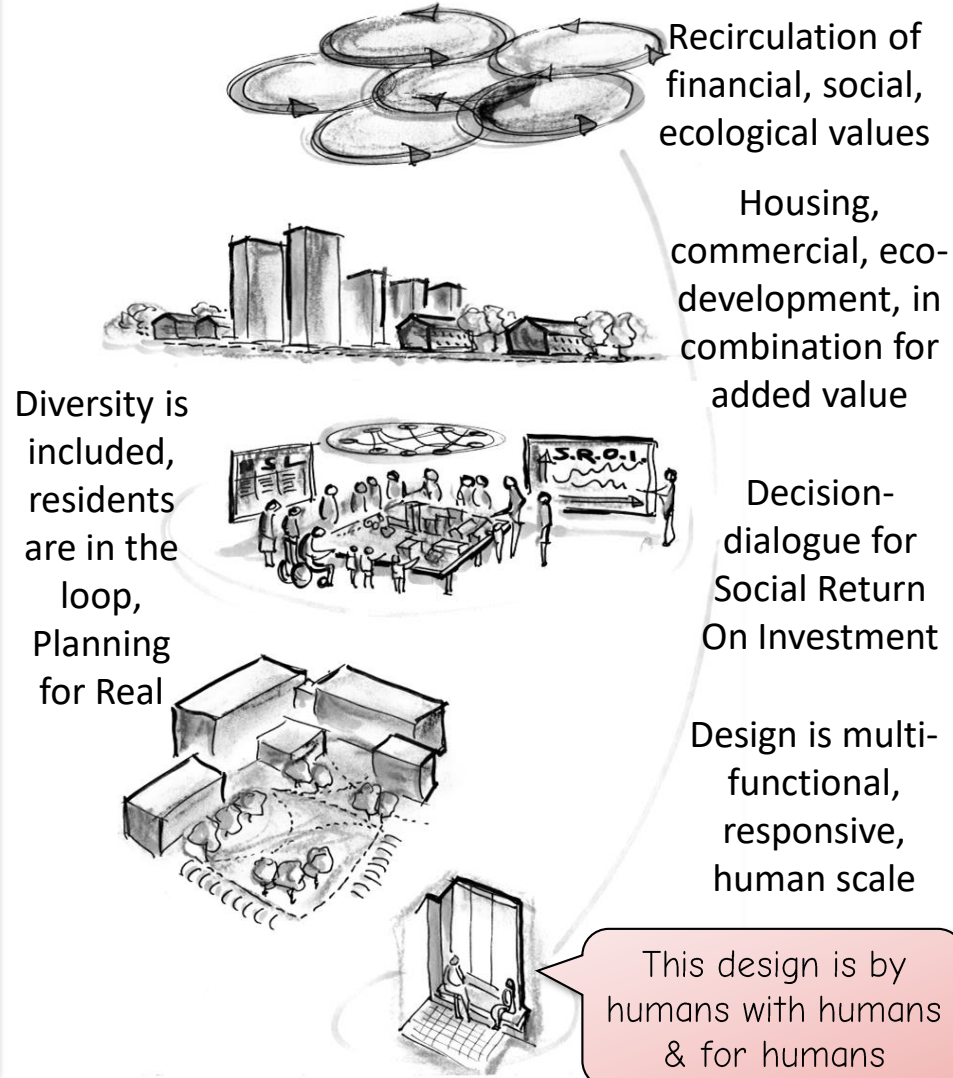
Synergistic development with connectivity & diversity



a) SMART /UNSMART PLANNING-I&II

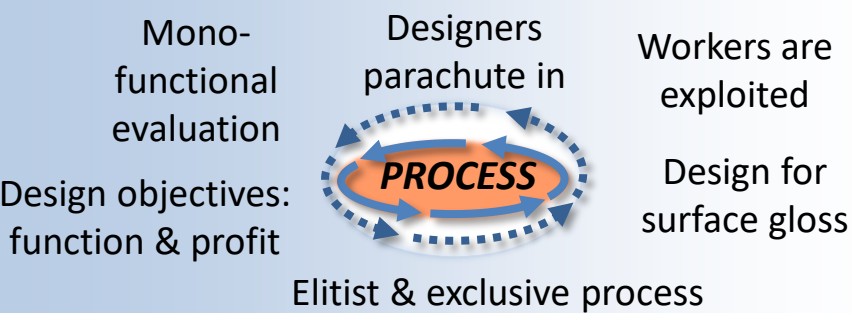


b) 'WISER' PLANNING-III



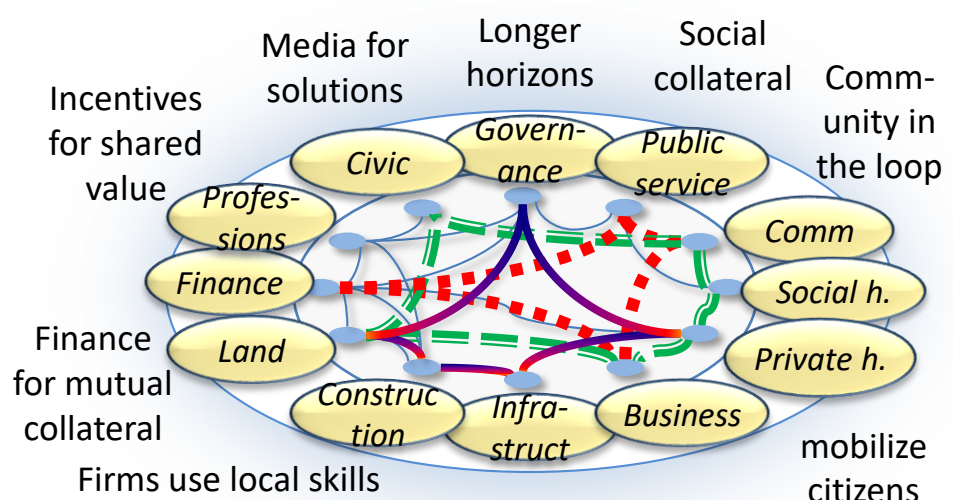
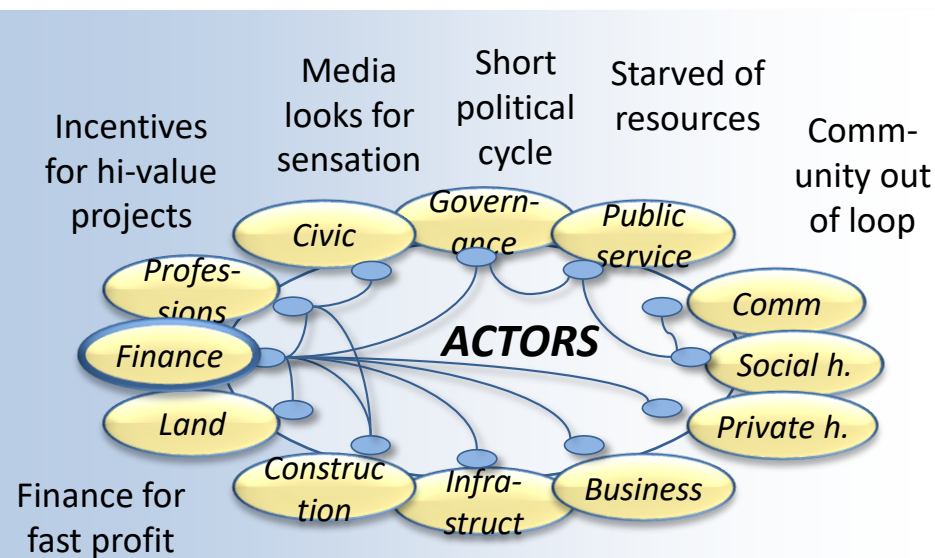
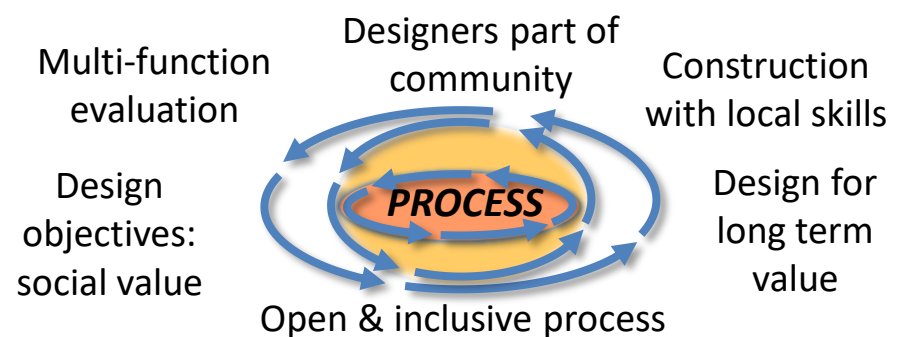
c) CIVIC DESIGN SYNDROMES-I&II

Real estate sector leaves gaps in eco-social fabric



d) CIVIC DESIGN SYNERGIES-III

'Reality estate' is integrated with eco-social value

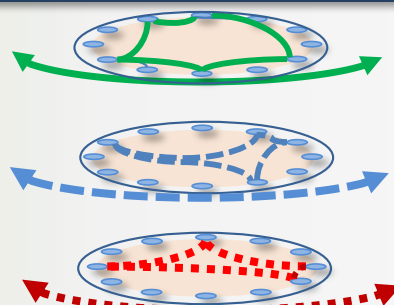


e) PATHWAYS

Social-economic gaps: myopic profit, asymmetric info, trust hurdles

Socio-technical gaps: Inertia & uncertainty, low innovation

Political economy gaps: Split incentives, silos, trust barriers



Civic livelihood pathway: value chain of finance, landlords, agents, residents

Civic cognitive pathway: integrated skills, standards, innovations

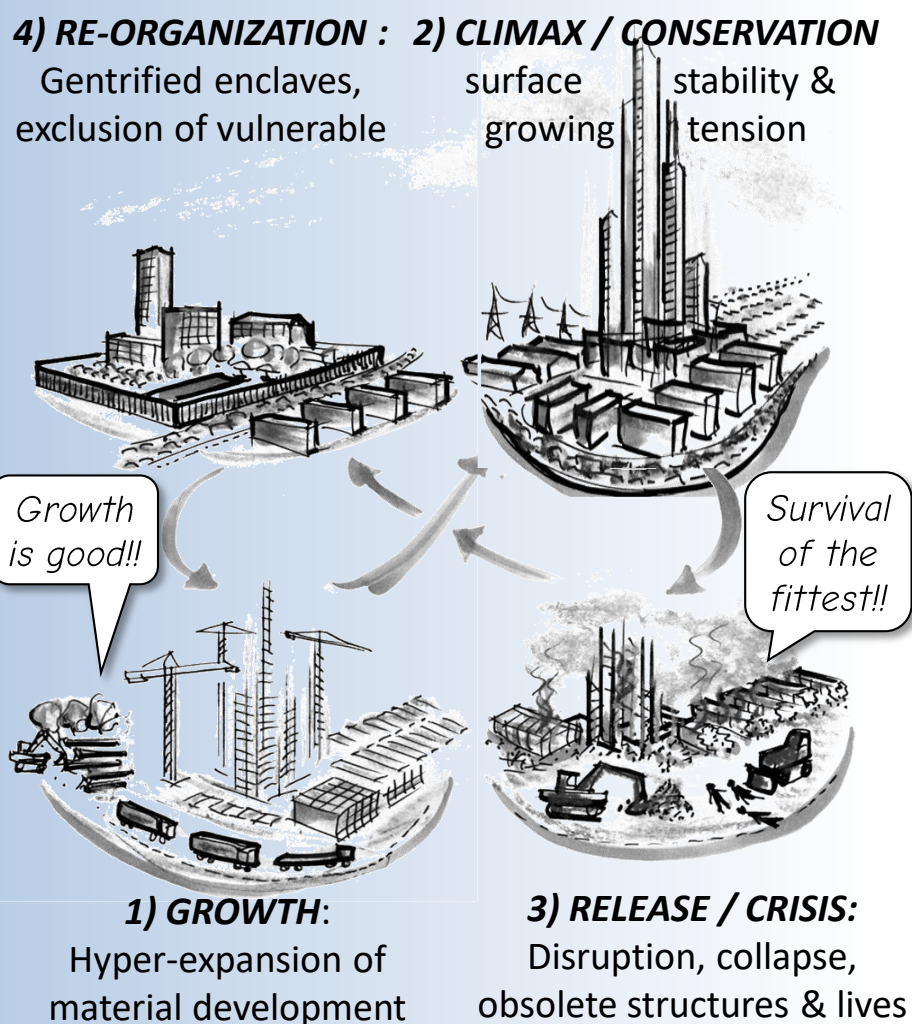
Civic institutional pathway: new tenures & stewardship

Figure
4-8

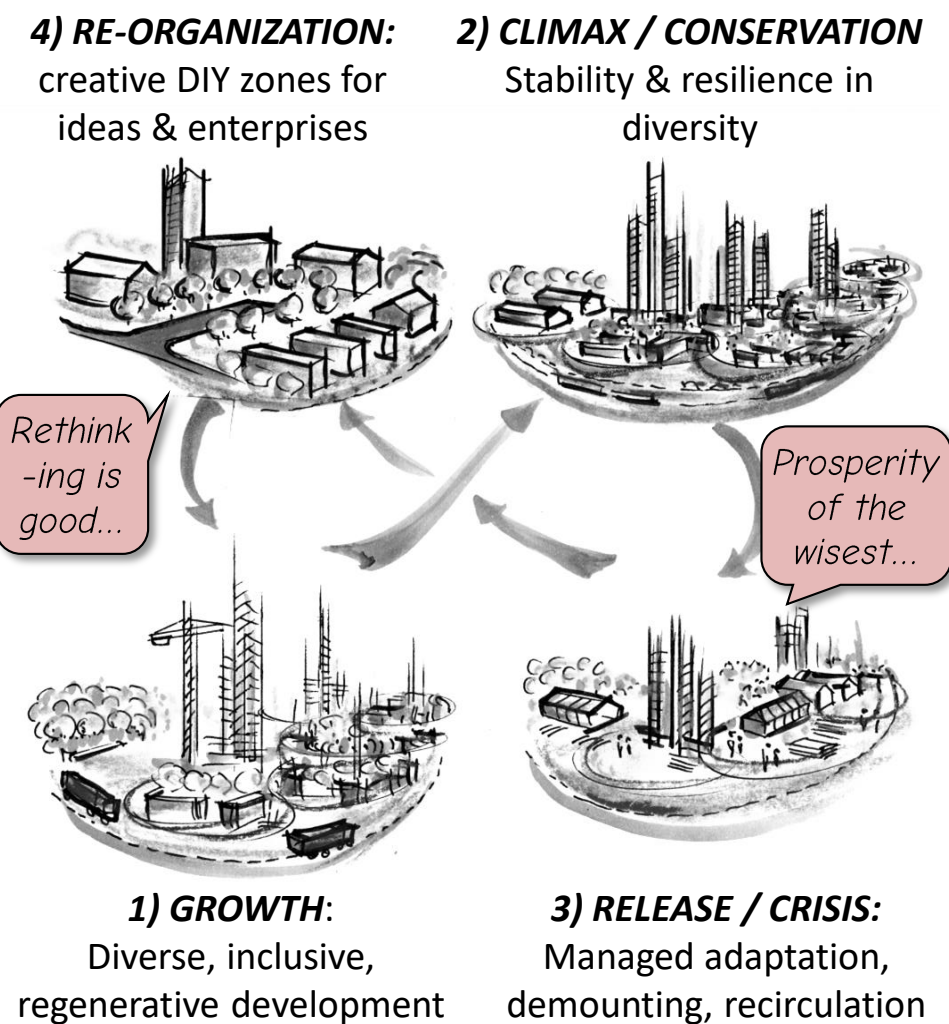
CITIES-III

Putting it together: the dynamic cycle, urban connexus & synergistic pathways

a) SMART / UNSMART URBAN CYCLE

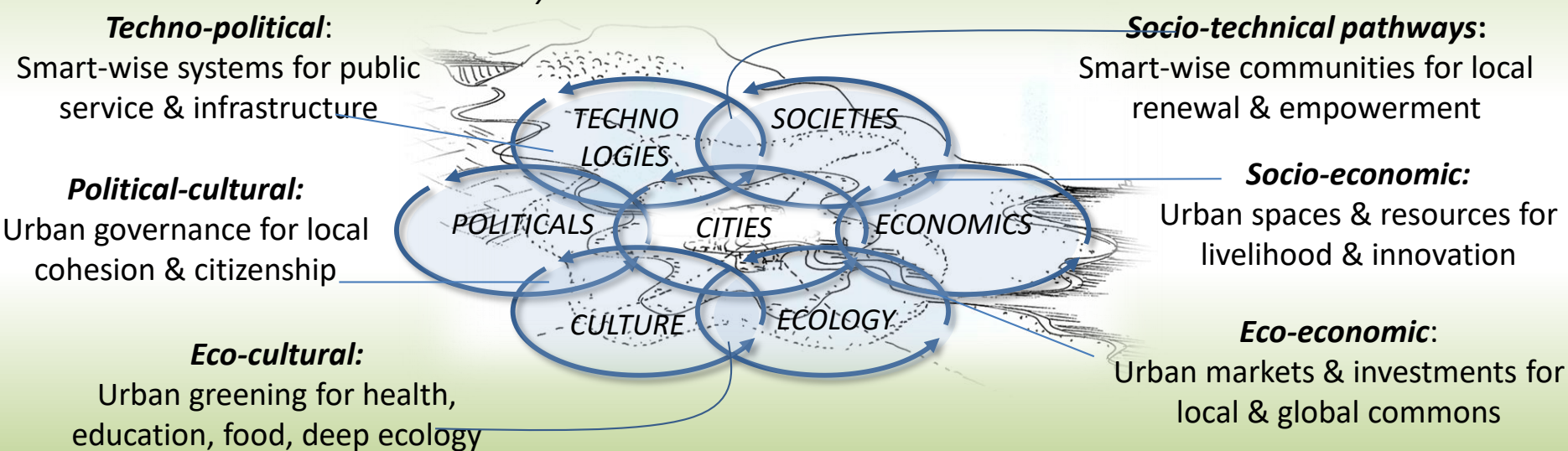


b) 'WISER' URBAN CYCLE



c) CITIES-III CONNEXUS

Pathways on the interconnections between domains



d) CITIES-III PATHWAYS

