Planning for sustainability: reflections on a necessary activity

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Chapter 10: Planning for Sustainability - Reflections on a Necessary Activity

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Introduction

The concept of sustainable development has had significant import for the policy and practice of spatial planning over the last three decades in the UK. Although there is debate about the extent of tangible or substantive change generated by the emergence of sustainability, there is little doubt that it has transformed the rhetoric that permeates international, national and local policy. This chapter reviews that emergent policy and practice and maps out the main facets of sustainability that can be used to underpin the development of spatial planning responses into the future. In doing this we argue that an appropriately sensitive and embedded planning ethos is critical to the joining-up of different components of sustainable city development.

Planning provides an organising lens through which a range of built environment policy and practice can be effectively debated, orchestrated and implemented with sustainable development playing a central role as an organising concept or 'metanarrative' (Law-Yone, 2007). As a result the concept of environmental, social and economic sustainability has long been something that planners have included in their visions, plans and programmes but wider aims of planning practitioners to ensure wellbeing and efficient resource use predates current terminology. The following UK examples from the pre-Brundtland commission era (1987) illustrate the range of issues and areas that planning has historically been drawn into in order to manage economic 'externalities' and deliver an 'efficient' use of land and resources:

- The breadth of **'material considerations'** - in development control decision-making; covering environmental impact and resource efficiency/conservation;
- The **conservation of open land** – including National Parks; green belts; Metropolitan Open Space; other valued landscapes (e.g. Areas of Outstanding Natural Beauty/ heritage coasts); historic built environments (e.g. Conservation Areas/Listed Buildings/Scheduled Ancient Monuments); and habitats (e.g. Sites of Special Scientific Interest / Nature Reserves) – both as amenity and environmental resources.
- **environmental improvements** – for example in river valleys, on the urban fringe and in areas of dereliction;
- **regional policy/distribution** – policies and funds directed towards growth and investment;

- ***new towns*** – and other large self-contained communities drawing in principles of integration and juxta positioning of compatible uses; and
- ***public consultation*** - on policies and proposals (relating to the principle of participation in the shaping of futures).

The concern with preserving nature, enhancing the quality of life and aiding economic development existed as priorities long before the formal introduction of a planning 'system' in the UK seventy years ago. Indeed the 'ecological' dimensions of human communities and their prosperity have been written about for centuries and indeed have formed important parts of numerous religious canons. Sustainability is not a new concept, even if the word itself, the label, is of relatively recent origin. Robert Nisbet dedicates a whole chapter of his book on *The Social Philosophers* (1973) to the idea of 'the Ecological Community'. As he points out, the roots of sustainability thinking in the Global North go back some considerable way *'the first expression of the ecological community in the West after the downfall of Rome is the monastic order that began in the sixth century with the remarkable Saint Benedict of Nursia'* (Nisbet, 1973: p324). He then goes on to examine fourteen centuries of ecological thinking that have led us, with many historical feedback loops, to the contemporary concept of 'sustainable development'. This historical perspective reminds us that the planning of environmental resources is something that is necessary for all societies at all times: planning as forethought, orchestration and regulation is therefore necessary as a set of activities if sustainability goals are to be achieved.

The (post)modern idea of 'sustainable development' was developed during the 1970s and was first used in 1980 when *The World Conservation Strategy* reconceptualised conservation as: *'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations'* (International Union for the Conservation of Nature, et al, 1980: p. 34).

As part of this 'development' was said to involve:

> *'the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life... For development to be sustainable it must take account of the social and ecological factors as well as economic ones: of the living and non-living resource base, and of the long-term as well as the short-term advantages and disadvantages of alternative actions'.* (ibid., p34).

The standard definitional statement about sustainable development derives from the Brundtland Report (WCED, 1987). The fuller version of the concept is outlined in page 9 of the report and highlights several facets:

> *'The ability of humanity to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development is not a fixed state of harmony, but rather a process of change in which the*

exploitation of resources, the direction of investments, the orientation of technological development and institutional changes are made consistent with future as well as present needs'.

The Brundtland report emphasises these facets as certain key principles, such as meeting '*needs*' (not unlimited demands), considering and providing for future needs (the '*futurity*' principle) and sustainability as a process of change (of '*development*'). It is clearly anthropocentric in its approach (i.e. human needs come first) and this is true of most 'policy' definitions. Many academic critiques of the concept (e.g. Atkinson, 1991; O'Riordan and Rayner, 1991 and Dobson, 2007) have pointed out that different definitions of sustainability fit along a philosophical continuum from 'light' green to 'deep' green. This is illustrated in Figure 1.1 below, which categorises ideas about sustainable (economic) development into three shades of intensity: from 'dry green', through 'shallow green' versions to more radical 'deep green' approaches. This is useful in that it helps us appreciate the variety of ideas that exist *within* the sustainability discourse and which have also led some to claim that sustainability as a concept is rather an empty signifier (e.g. Davidson, 2010; Swyngedouw, 2010).

Figure 10.1: A Philosophical Continuum of Sustainability (based on Gibbs, 1994, p.100)

	Dry Green	*Shallow Green*	*Deep Green*
Environmental Management Strategies	*Relies on science, modelling, prediction.*	*Design with nature, eco-auditing and environmental assessment.*	*'Whole earth' perspective, global sustainability.*
Philosophy	*Human-centered*	*Human-centered*	*Earth-centered*
Characteristics	*Self-regulation through regulated market economy*	*Adjustments to management and business via environmentally sound products and services*	*Green rights, new age economics, self-reliant communities.*
Political Structure	*Centralised national power with new international structures.*	*Devolved power in internationally federated structure.*	*Self-reliant communities connected to global programmes.*

Another useful graphic is the often-used Venn diagram of sustainability, which is based on the inter-linking of environmental, economic and social aspects of the concept (see Figure 1.2). This emphasis rests on an **holistic** approach and this is potentially one of the most radical aspects of the concept and has led to sustainability being posited as the metanarrative guiding planning practice. The requirement to **integrate** these aspects is a defining characteristic of sustainability and one that has challenged the established

practices of planners in trying to balance or trade-off (rather than integrate) these dimensions. Of course, it is no accident that the rise of the sustainability agenda has been accompanied by a shift from (the more narrowly defined) 'land use planning' tag to (the more holistic) 'spatial planning' label.

A combination of policy pressure coming from the EU (mostly through regularly updated 'Environmental Action Plans') and direct action and lobbying by the environmental movement (particularly Greenpeace and Friends of the Earth) has pushed the UK government into incorporating sustainable development overtly into national policy. Ironically it was Margaret Thatcher, that fierce proponent of the 'free market' (see Thornley, 1993), that introduced the first UK Sustainable Development Strategy (DoE, 1990). However, the principles of sustainability used in this document clearly placed it more at the 'dry green' end of the definitional continuum:

> *'Sustainable development means living on the earth's income rather than eroding its capital. It means keeping the consumption of renewable natural resources within the limits of their replenishment. It means handing down to successive generations not only man-made wealth, but also natural wealth, such as clean and adequate water supplies, good arable land, a wealth of wildlife, and ample forests'* (DoE, 1990: p3).

Figure 10.2: The Venn Diagram of Sustainability (Integrating the Environmental, Social and Economic) (Source: http://www.conceptdraw.com/)

The incoming Labour Government of Tony Blair (1997-2008) did not make much effort to move the definition, saying that sustainable development:

> '...means meeting four objectives at the same time, in the UK and the world as a whole:*
>
> - *social progress which recognises the needs of everyone;*
> - *effective protection of the environment;*
> - *prudent use of natural resources; and*
> - *maintenance of high and stable levels of economic growth and employment'*. (UK Government, 1999: para 1.2).

In 2005 the then Labour Government in the UK responded to critics who argued that unbridled economic 'growth' was not compatible with sustainable economic 'development'. Their version of the UK Sustainable Development Strategy revised the 'guiding principles' of sustainability to cover:

> - *Living within environmental limits*
> - *Ensuring a strong, healthy and just society*
> - *Achieving a sustainable economy*
> - *Promoting good governance*
> - *Using sound science responsibly* (HM Government, 2005: p16).

The latest 'swing' in political orientation and emphasis has come about from the recent Conservative / Liberal Democrat Coalition administration (2010-2015), which placed more emphasis on economic growth and market-led forms of development. The definition used in the current version of the National Planning Policy Framework (DCLG, 2012) illustrates this point, when it says that:

> *"Sustainable means ensuring that better lives for ourselves don't mean worse lives for future generations. Development means growth. We must accommodate the new ways by which we will earn our living in a competitive world. We must house a rising population, which is living longer and wants to make new choices. We must respond to the changes that new technologies offer us. Our lives, and the places in which we live them, can be better, but they will certainly be worse if things stagnate."* (DCLG, 2012: p. i)

Given the brief history of the concept rehearsed above, it is not surprising that one of the key features of sustainable development is its contested nature. This arises because the term 'sustainable development' was created by people to encompass a set of ideas about the way that human beings should/could live their lives in relation to other human beings and the physical world and this, it hardly needs saying, covers very many things. Those ideas were created on the basis of people's experience of living with each other and the physical world and, as such, the term sustainable development is, ultimately, a socially constructed device. Furthermore, once a term like this comes into existence, it is then

deployed and re-created on a daily basis; it in is not only socially-constructed but subject to political manipulation. The social re-construction and contestation of the concept and its components is an ongoing process - drawing in a very large range and number of actors who reinforce and alter the spaces for the expression of sustainable development.

As suggested above, this contestation has an important implication for the way we should approach the concept of sustainable development in planning and development practice and research. Thus, there can be no one absolute definition of sustainability and any attempt to impose one is doomed to perish on the rocks of diverse socialities and conflicting interpretations. An effective and critically aware approach to this problem is to accept the diversity of definition and meaning underpinning the concept of sustainability and to build from a broad definition that allows the exploration of this diversity in an explicit and critical way. In doing this we should accept that terms (and whole discourses) like 'sustainability' are deployed by people in different ways to achieve different objectives. The concept needs to be kept open so that the different ideas that are wrapped-up in the term are transparent, problematised and debated.

Having emphasised the malleability of the concept, we have suggested elsewhere (Parker and Doak, 2012; pp. 61-66) that certain core principles or components tend to surface during any debate about sustainability. At the heart of the sustainability lies five principles, some emphasised by Brundtland. The first is **futurity**, which takes a long-term view of development and considers the impacts of current decisions on future generations. **Environmentalism** introduces the underlying ecological focus of sustainable development which requires decision-makers at all levels to take into account the environmental implications of their actions. The idea of '**development**' features explicitly already and this has been heavily promoted in the various governmental statements mentioned above. However, the narrow interpretation of this word as 'economic growth', as latterly promoted, ignores the wider conception emphasised by Brundtland and others, who see economic development as a basis for providing for people's needs and overall quality of life. Two other socio-political aspects were forcefully inserted into the frame of reference during the 1992 Rio Earth Summit (UNCED, 1992). Many NGO's representing the interests of the global south demanded that sustainable development should also be based on social **equity** and that the meaningful **participation** of all stakeholders should be a core component of processes of determining future action.

These five key facets or elements: futurity, environmentalism, development, equity and participation provide a useful evaluative lens through which planning practice can be organised, shaped and critically assessed. Indeed, these make for touchstones of sustainable development and have already permeated planning policy and practice, interweaving themselves with existing planning ideas to produce the policy package or assemblage we have today. We will return later in the chapter to the implications of these five elements for the development of future policy and practice, but it is useful now to outline how these

facets have contributed to our current ideas about sustainable place-making and to critically review recent attempts to deliver sustainable outcomes.

Sustainability and Planning

During the 1990s the sustainability agenda was formally embedded into planning practice and many of the policies/initiatives above were re-defined or developed into a package of policy prescriptions or practices that sought to make planning outcomes more 'sustainable'. These have included a concern with:

- compact city strategies and urban densification;
- mixed use development;
- brownfield redevelopment and related housing targets;
- integrated public transport provision;
- creation of (green) travel plans;
- congestion charging;
- Urban (later Millennium) Village and Sustainable Urban Neighbourhood (SUN) initiatives;
- environmental assessment and sustainability appraisal;
- use of the 'sequential approach' in development control decision-making;
- sustainability checklists for development control decision-making;
- contaminated land reclamation;
- green development or developer guides;
- increasing inclusion of 'sustainability' elements in S106 Agreements;
- sustainable urban drainage systems (SUDS);
- community engagement through Local Agenda 21 (and, more recently, Sustainable Community Strategies and Neighbourhood Planning);
- establishment of (sustainability / regeneration) partnerships;
- use of sustainability indicators to measure / monitor progress;
- waste minimisation and recycling;
- encouragement of renewable energy schemes;
- sustainability codes or standards (for housing and other types of development);
- creation of Sustainable Communities; and
- Eco-towns and Transition Towns.

Each of these policies or initiatives has had its own trajectory, criticisms, problems and successes. They are connected by aims that relate to environmental, social and economic sustainability in some way or measure. In broad terms they are the manifestation of the growing 'discourse' of sustainability in planning policy and practice. Possibly the most all-encompassing policy packages have been overtly aimed at delivering 'sustainable communities'. This has taken a number of forms over recent years as successive governments have sought to 'badge' their own (or other people's) initiatives with suitably populist labels: such as 'urban villages', 'Millennium communities', 'sustainable urban

neighbourhoods', 'sustainable communities', 'eco-towns', 'transition towns', 'resilient communities' and 'localism'. The evidence of success has been variable, with academic critiques (e.g. Biddulph et al, 2003; Raco et al, 2006, and Parker et al, 2015) pointing towards significant warping of the stated sustainability principles; as policy implementation processes mobilise a range of actors towards policy delivery. The inevitable negotiations and re-formulations between sets of inter-dependent organisations and interests have left certain policy priorities side-lined whilst others have been reasserted or retracked and realised in development outcomes.

Two examples of this 'corruption' or marginalisation of sustainable development in planning practice are provided by the 'urban village' story and the current government's promotion of the localism agenda through neighbourhood planning. Urban villages were an early attempt to operationalise an expression of sustainability in the planned environment after the publication of the Brundtland Report. Research by Mike Biddulph and his colleagues (Biddulph et al, 2002; 2003) showed how the conception of urban villages drew upon and blended a range of other ideas including neighbourhood planning, urban social geography, urban design and sustainability. Initiated by the Prince of Wales, this development concept was 'fixed' (but not without some debate) by the development principles established by the Urban Villages Group/Forum (see Aldous, 1992). Figure 10.3 illustrates how the concept then became 'unfixed' or destabilised during policy implementation as it collided with other discourses, local structures and actors.

Biddulph and his team concluded that, *"the urban village concept was constructed differently and to different degrees of refinement by different interests, with no shared or immutable meaning. Thus, both meaning and application are rendered contradictory and contested, resulting in a fluidity of interpretation"* (Biddulph et al, 2002: p.14). This correlates with our view of sustainability as a contested concept that is recursively negotiated on a daily basis. The variable development outcomes of urban village policy implementation are outlined in Figure 10.4, showing how far the urban village development principles were in evidence in the development outcomes from three local case studies. The research team observed that:

> *'...the extent to which the urban village concept was drawn upon and modified in each case study location varied according to the historical and topographical context, the local structures (development industry, planning regimes, community/social structures) and agents (developers, architects, etc.). In this way, the urban village concept as an idealised notion gets transformed through the process of alignment by agents working within local areas, structures and regimes'.* (Biddulph et al, 2002: p.21).

This kind of conclusion alerts us to the importance of building shared understanding and, where possible, common interest around the principles and policy objectives of sustainability, but also a tolerance of the inevitable variety of local conditions and, by implication, outcomes that might arise from 'sustainable' planning practice.

Figure 10.3: The Dynamic 'Fixing' and 'Unfixing' of the Urban Village Idea (after Biddulph et al, 2003)
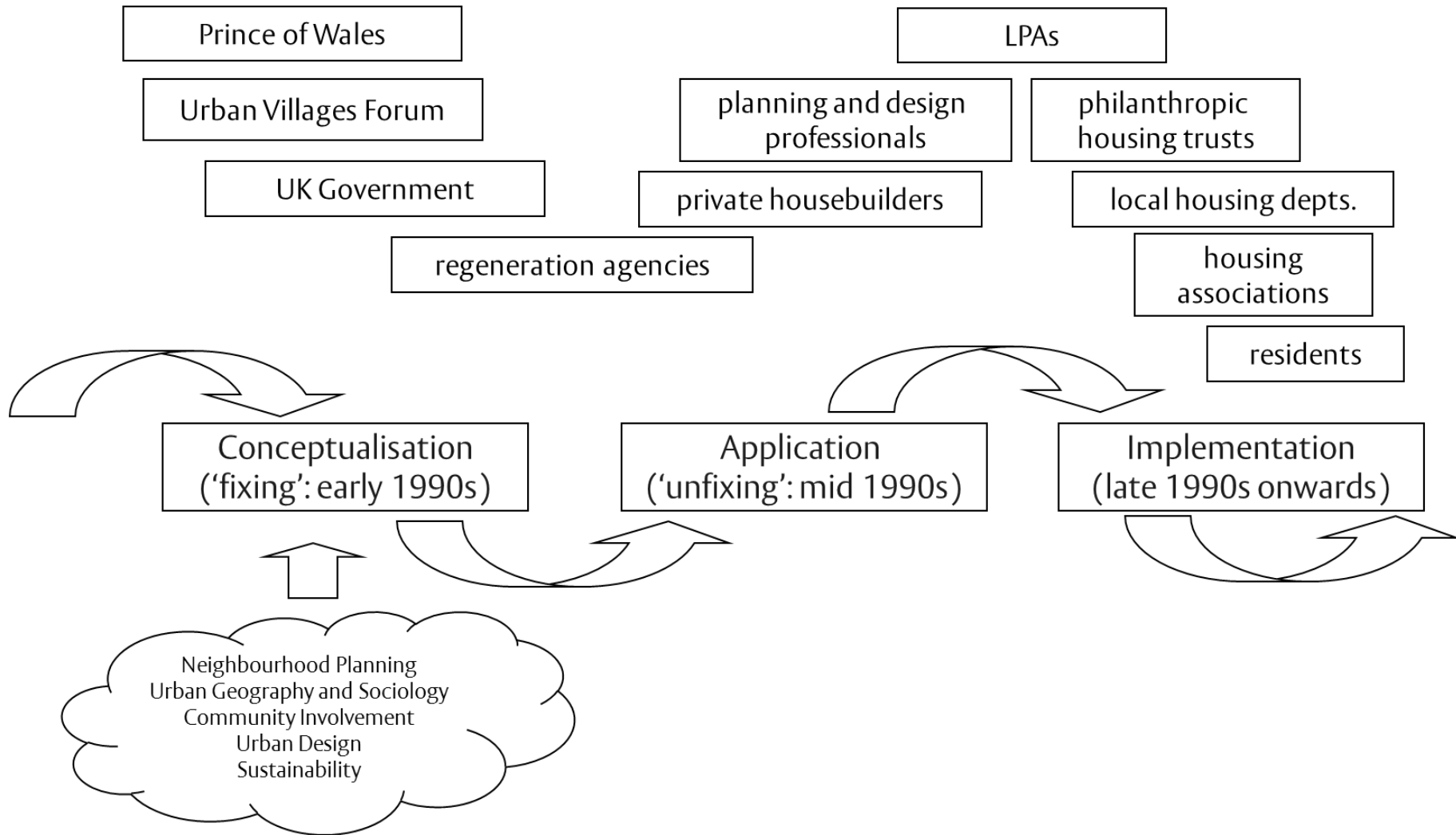
Figure 10.4: Variable Implementation of the Urban Village Development Principles in Three Case Study Areas (after Biddulph et al, 2003).

'Fixing' Concept: Development Principles	'Un-Fixing' in Application/Implementation		
	Bordesley	**Garston**	**West Silverton**
•Urban Design	✗	✗	✓
•High Density Development	✗	✗	✓
•Identity and Place-making	✓ / ✗	✓	✓
•Community Involvement	✓ / ✗	✓	✗
•Environmentally Friendly Design	✗	✗	✓
•Open Space	✓ / ✗	✓ / ✗	✓ / ✗
•Mixed Use	✓	✓ / ✗	✓ / ✗
•Mixed Tenure	✓ / ✗	✓ / ✗	✓ / ✗
•Facilities	✓	✓	✓
•Public Transport	✓ / ✗	✓ / ✗	✓
•Self-sufficiency	n/a	n/a	✓ / ✗
•Social Sustainability	✓ / ✗	✓ / ✗	✗

The Localism agenda pursued by the UK government since 2010 is one of the latest policy packages being deployed to achieve wider stakeholder participation in the planning process; with the intention of achieving sustainable forms of development (see Smith, 2016; Locality, 2012). Although subject to considerable critique (see Davoudi and Madanipour, 2013; Parker et al., 2015; Williams et al, 2014) the identification of local communities as being an important part of shaping sustainable development is significant and reflects a revival in communities helping set agendas. In particular the creation of formal neighbourhood plans; which enable neighbourhoods to take a lead in deliberating on their futures and to take some ownership of how and what development will be realised in their neighbourhood, has clear promise (see Bradley and Brownill, 2016; Parker, 2012). Yet the structures and processes involved in linking types of knowledge and understanding across scales has yet to be convincingly resolved. If neighbourhood planning is generating interest and debate about development at the community scale, it is less clear how, on the one hand communities are sufficiently empowered to make more radical plans, or on the other how to ensure that such plans are sufficiently deliberative - as well as coordinated with wider evidence, need and policy direction from above. This brings into view the need to reflect not only on participation as if it is an end of itself but that the participation actively, deliberatively reflects on the options, issues and other, sometimes apparently competing, facets of environment, development, equity and futurity. Which require attention.

Thus as the neighbourhood scale is becoming a more important locus for decision-making and deliberation, much more attention is needed to help develop the understandings required to bring the facets and implications of integrated sustainable development policy together. Moreover how to apply such considerations responsibly at the neighbourhood scale without displacing local voices entirely is still moot. Indeed findings from research looking at neighbourhood plans indicates how much help has been needed from the public and private sector in support of neighbourhoods (Parker et al 2014; 2015) and moreover how many neighbourhood plans are not pushing the sustainability agenda very strongly – if anything government has acted to deter such behaviour for fear of preventing growth. This is the latest, we fear, in sustainable development practices being pushed back and placed in a narrow or 'drier' container.

Future Trends and Opportunities

This discussion of planning in relation to 'sustainable communities' leads us towards the contemplation of possible future scenarios. The idea of building an integrated planning response remains an essential component for the advocates of sustainability in the face of the grand challenge that the demands of climate change, economic 'growth' (and recurrent crises), resource uncertainty, rapid technological innovation and demographic restructuring presents. To be effective the response would need to reflect and address the multi-scalar nature of social, economic and environmental entities and processes. The response also requires a more nuanced conception of planning, drawing upon the lessons that have been learned from past attempts to plan and develop 'sustainable communities'. Such a conception is one in which the definitions of the planner and the planned are blurred and decentred and what constitutes 'planning' itself becomes more embracing (or indeed open). In the future, we should take a que from the historical perspective that all societies need to plan and manage the environmental and other resources they are dependent upon and in a way which allows them to adapt effectively to the climatic and other conditions they face.

Therefore, an effective approach towards sustainability requires some fundamental rethinking of the purpose of planning and subsequent 'development' outcomes. This is where the five facets of sustainability mentioned earlier usefully come back into play: for us an effective transition to sustainable development requires a much clearer embedding of environmentalism, futurity, development, equity and participation within place-making policy and practice. How can future patterns of development deliver against these fundamental tests in order to provide for the needs of current and future generations? We use these components as the analytical lens for mapping the future of planning. The particular means of achieving these aspects (e.g. solar panels, neighbourhood plans, or electric vehicles) are almost certain to change and evolve through time, but the underpinning requirements of sustainable development will remain relatively intact. We explore the nature of a future-oriented planning approach

below and provide tentative examples of the types of policy and implementation tools that could be deployed to secure sustainable planning outcomes.

Environmentalism calls for a clear priority to be placed on the essential role of the ecological system in maintaining the necessary conditions for life on the planet. Destruction or significant erosion of the 'web of life' compromises the choices and opportunities of current and future generations. As a society we are tied to that web, we need to undertake a number of actions to maintain and improve the ecological (ecosystem) services that sustain life. Here we can roll forward the historic role of planning in protecting land from development, conserving critical environmental capital and maintaining/managing the use of environmental resources. However, these actions need to be undertaken with a mind-set that treats the 'human' and 'natural' worlds as one entity, each inter-dependent upon the other. Land designations and environmental assessment methods will need to adapt and evolve to capture this 'systems' view of the mankind-environment relationship. Recent moves towards one-planet living and eco-footprinting illustrate the kind of approach which integrates environmental resources/capacities into development trajectories. Similarly, the basic idea of eco-system services is a tool that could, with cautious application, provide a way of planning the protection and enhancement of essential environmental assets. It is noticeable that the idea has gained traction in recent years (Gómez-Baggethun and Barton, 2013) with some local plans beginning to adopt green living type testing e.g. Stroud, Gloucestershire (see Stroud District Council, 2015).

A number of spatial planning tools can help embed the need for **futurity** in societal decision-making. At its most prosaic, planning is about making future plans. Without a clear vision of a desired future and set of objectives and policies to secure that future, sustainable development remains a vague aspiration. Indeed, one of the strengths of open and democratic plan-making is that it provides a space in which the contested nature of sustainability can be debated and conflicting interests can be mediated. Although many have raised questions about the darker side of this process (e.g. Flyvbjerg, 1996; Yiftachel, 1998), the fact remains that some sort of spatial and sectoral integrated plan-making is required to build consensus and map-out the needs and priorities of current and future generations. How such visions are shaped and constructed remains a pivotal issue, often the interests of those living and those with voice marginalise those absent and/or without effective voice.

Such plan-making needs to be constructed within an ethos that can support the processes of experimentation and transition in sustainable development. Given future plan-making requires a framework of agreed goals and objectives (based on the five facets of sustainable development) there will also need to be some flexibility about the particular *means* organised to achieve those goals. If sustainability is a learning process, then the plan can help set the curriculum for that study and achievement.

The debates around the type, amount and form of **development** is also part of the plan-making process. This cannot just be left to the vagaries of a catch-all term and its consequences, such as 'market demand', but these should be defined in terms of a set of social and environmental 'needs' that become the end-points of the planning and development process. Markets are as much an assemblage of people, institutions and discourses as any other aspect of material life, so they can be shaped and orchestrated in certain directions to help achieve preconceived visions and objectives. That is what the 'plan' for sustainable development should really be about: shaping and facilitating transitions towards more sustainable forms of development. Inevitably that shaping process will require a package of regulative constraints and facilitative supports to move development outcomes in line with agreed goals and policies. Persistent and patient movement in the right direction will be important and again the sight of the big picture must be retained and its priority over short term or narrow thinking asserted. Clearly this is of itself a challenge.

The emphasis placed on social **equity** also challenges much of the market rhetoric promulgated in recent governmental policy documents. The evidence accumulated over decades is such that markets, if unregulated, will not act to manage the future sustainably. The provision for social needs (of current and future generations) makes us think about the hierarchy of material, psychological and social needs depicted by Maslow (1954), which stresses the multi-dimensional nature of those needs, only some of which, for some people, are delivered through market processes. The inequality in many market outcomes, such as housing provision, adds a further cautionary perspective on the reliance of 'unburdened' markets as a goal of sustainable development. In order to deliver social equity, therefore, the 'plan' for sustainable development must seek support from non-market tools such as public funding, government agencies, NGO and voluntary sector initiatives, market regulation and forms of partnership working.

In order for these four components of sustainable development to be debated, orchestrated and implemented appropriately, a **participatory** approach to future development is required. This needs to build upon and utilise the tapestry of social and other networks that exist within and between communities, in order to proactively plan for and incorporate the actor networks that negotiate and shape planning practice. In doing this, we need to 'plan like communities', acknowledging that planning takes place on a daily basis, and is undertaken by a whole host of groups and organisations. Figure 10.5 illustrates our thinking in this area. This depicts the various stakeholders (individuals or organisations) that interact with each other within any given 'community'. These actors both create and draw upon a range of resources to further their particular objectives (illustrated by the 'wells' of capital in the diagram). In any community there are some actors who operate as key nodes (in dark green), bringing different actors together to negotiate common objectives, orchestrate different resources and build/extend network relations. Accepting and 'using' this process of community network building, an effective approach to planning a 'sustainable

community' would seek to both map this capital-network and shape it towards sustainability objectives that are both relevant to the network and agreed by the stakeholders. These objectives would populate an overarching sustainability strategy and a set of formal or informal partnerships that would mobilise the actor-network towards more effective forms of policy implementation than hitherto witnessed in many of 'sustainable community' initiatives attempted in the UK or other locations. Indeed, some of the more bottom-up arrangements, such as the transition town initiative (Hopkins, 2008; Bulkeley et al, 2010), have echoed this kind of model. However, they have often lacked a multi-scalar dimension to their operation (something the 'community strategy' programme of the previous Labour Government tried to incorporate, see Raco et al, 2006), so an explicit 'follow the network' approach is needed to address the 'glocal' nature of issues like climate change, economic resilience, infrastructure provision and demographic movements.

This kind of model for embedding (negotiated) sustainability components into co-produced 'planning' frameworks sits quite comfortably with some of the eco-city ideas that have been developed over the last 20 years. The more nuanced approaches have accepted and worked with the need for an overtly 'political' (i.e. power-aware) dimension to the process. Building on earlier work undertaken for the OECD on 'Ecological Cities' (CAG/LUC, 1994) and by the EU Expert Group (EC, 1996), Joe Ravetz worked with a team from the Town and Country Planning Association to produce a book entitled 'City Region 2020' (Ravetz, 2000). It was based on 'action-research' in the North West emanating from a debate and campaign aimed at supporting eco-city planning in the UK. The book, like the earlier OECD and EU reports, is underpinned by a 'systems' and 'networked' view of urban regions. There are a number of related themes running through the book, including integration of sectors, activities and, also of organisational policies (and of space and time at different spatial levels) and a process, over time, of re-engineering the city-region. It contains a comprehensive consideration of different aspects or sectors (six in total) and contextual factors like funding constraints, political power, the centrality of the economy, globalisation and spatial variations in policies and outcomes – somewhat resembling a PESTLE analysis.

Figure 10.5: Capital-Networks Approach to Sustainable Communities (based on Doak and Parker, 2002)
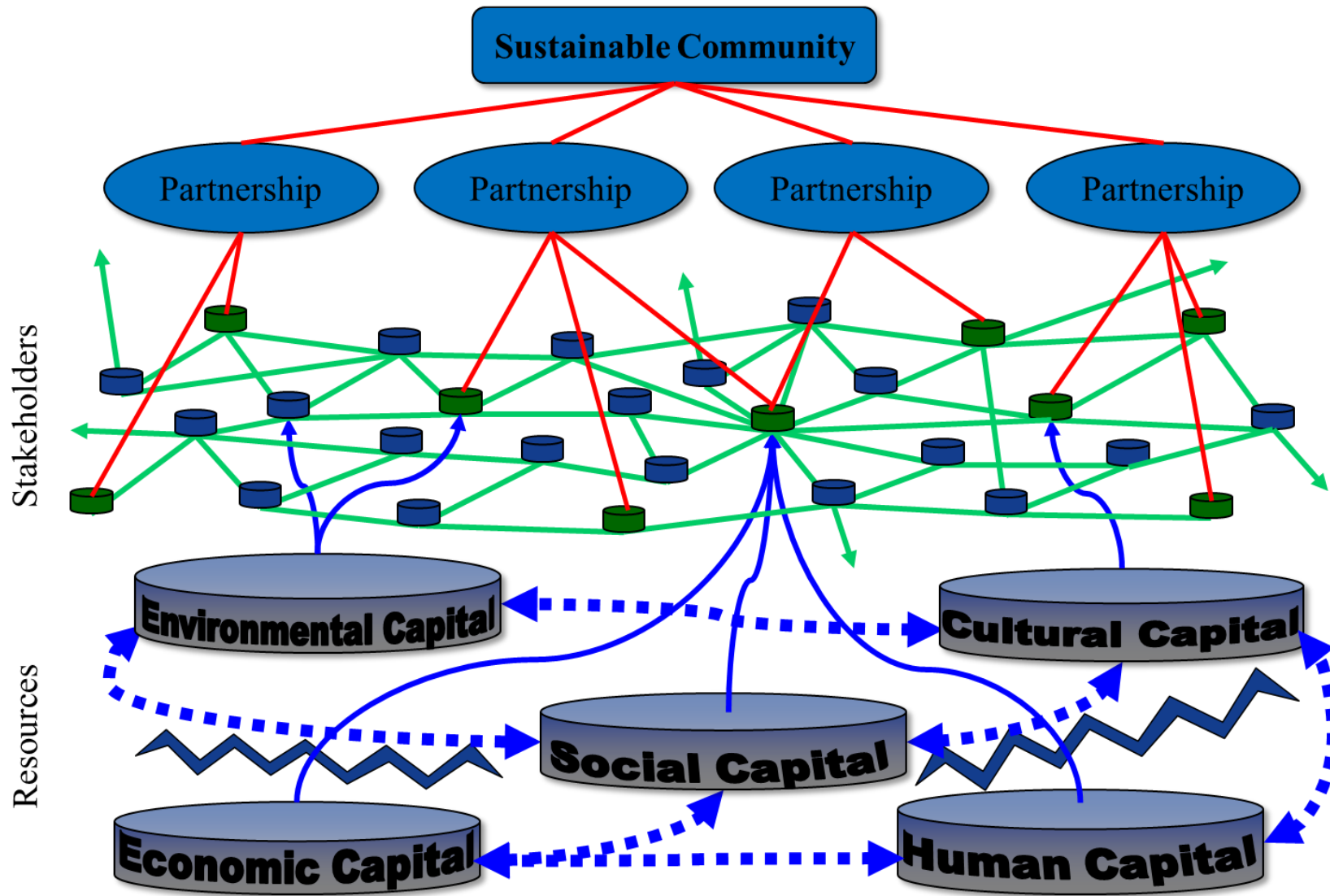
In the chapter outlining the 'political metabolism', Ravetz (2000, pp. 250-270) sets a context for the political mobilisation of sustainable development and stresses the role of 'structure' and 'agency' in constructing a new political order (arguing for a form of Third Way or democratic renewal). The illustrative diagram of the 'political metabolism' shown in Figure 10.6 incorporates the argument for the network-based set of political processes required to challenge dominant discourses and negotiate sustainability strategies. Ravetz argues that multi-sectoral partnership working is necessary to address eco-city challenges and achieve appropriate sustainable outcomes. He suggests that each sector and each geographical scale (neighbourhood through to region) should construct interlocking '2020 development strategies'. The illustrative example for the built environment strategy is summarised (2000: p86) and shown in Figure 10.7 below. The capitals-networks model discussed above provides the kind of detailing that could operationalize these strategic ideas for eco-city building and help construct the kind of strategies Ravetz was seeking.

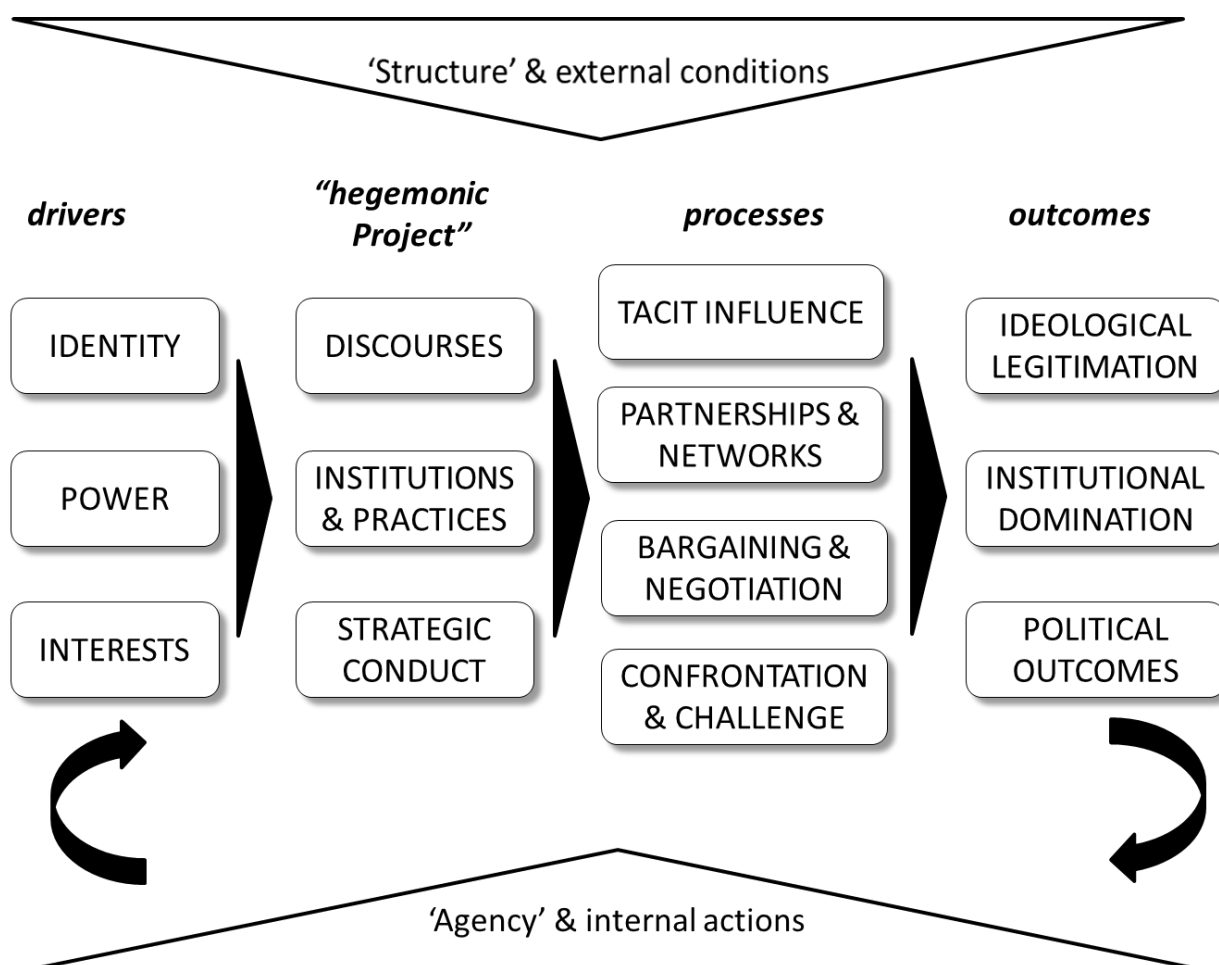**Figure 10.6: The 'Political Metabolism' of the Eco-City** (Source: Ravetz, 2000; p. 252)
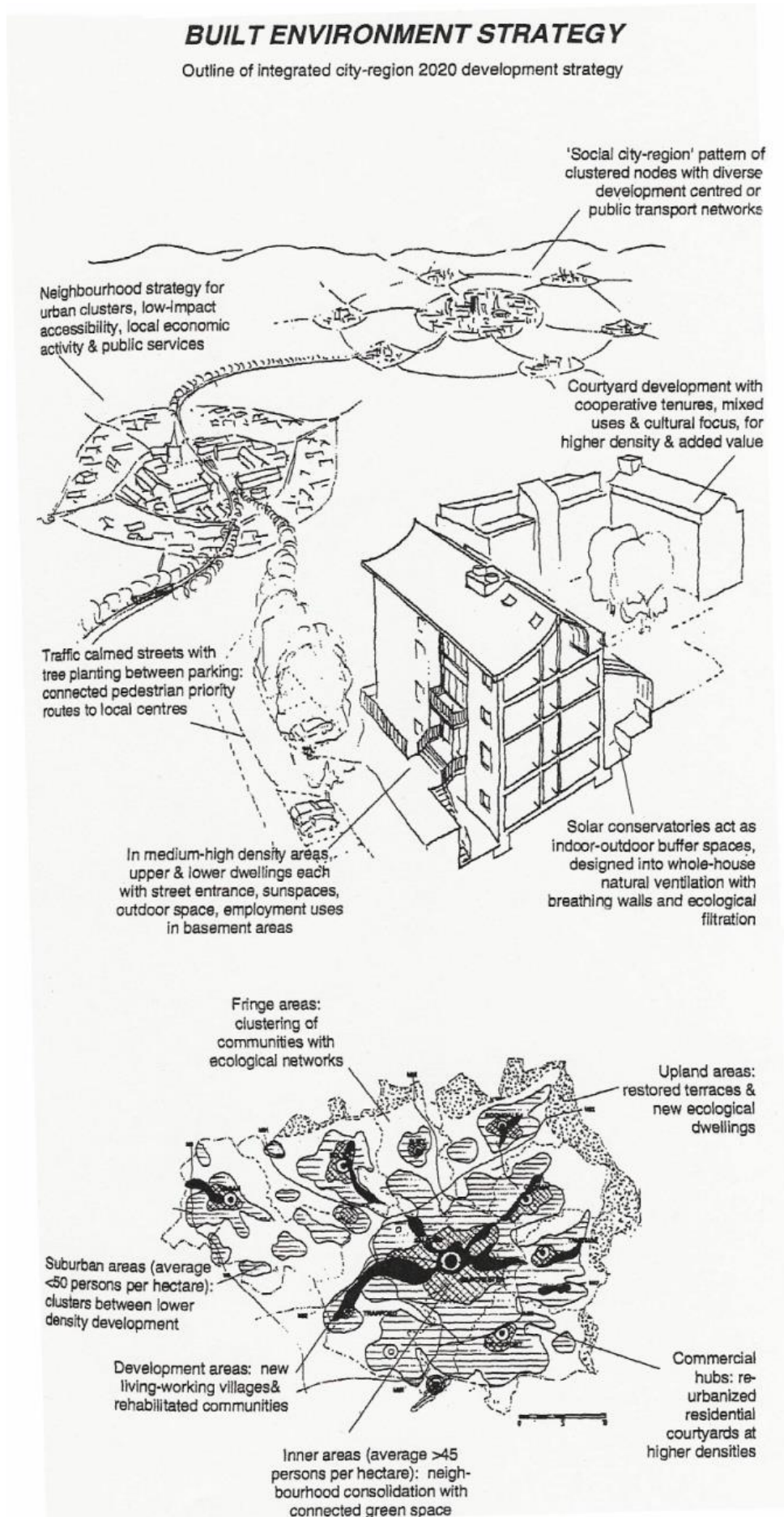
Figure 10.7: 2020 Development Strategy for the Built Environment (Source: Ravetz, 2000; p. 85)

Conclusion

This chapter has emphasised the contested and socially contingent nature of the definition and interpretation of sustainable development, and the emergence of certain key principles from that (contested) process. We have also shown how much activity and many mechanisms have been mobilised by planners over time. There is evidence of a rich history of sustainability thinking in planning practice and wide experience of the difficulties inherent in multi-stakeholder and multi-scalar policy making and implementation processes. It has been argued that sustainable forms of urban development need to take their cue from the key components of sustainability which we have explained above and that a planning framework is central to engaging with, mediating and coordinating the range of actors that produce and use the built environment.

That necessary planning process needs to work in an adaptable and multi-scalar way, embedding key agents of change and sources of knowledge in order to develop strategic visions and 'anticipatory intelligence'. In a world formed by assemblages of networked relations (De Landa, 2006; De Roo and Hillier, 2016), planners (broadly defined) need to work 'with the grain' to restructure the network-building processes that currently often lead to un-sustainable forms of development. Using a capitals-network approach would allow communities to map those networks, and the available resources and resource barriers that exist, in order to negotiate more sustainable policy objectives and development outcomes. Rather than be 'knocked-off course' by the 'dark side' of existing actor networks, such as happened in relation to urban villages and may well be taking place with the new localism, a power-aware approach would explicitly engage with the 'political metabolism' of those networks and encourage stakeholder interests to broker multi-scalar sustainability strategies and deliver the agreed objectives/principles in a more open and democratic way.

Once the visions and goals have been negotiated and arranged into future-making plans, a whole (new, old and revised) set of implementation tools can then be drawn into to help deliver outcomes in line with the needs of current and future generations. The market can and indeed should be shaped and orchestrated through facilitation, regulation, taxation, funding, negotiation and partnership working, whilst other resources and forms of knowledge will come from non-market groupings such as NGOs, community enterprises, governmental agencies and social movements. To shape this constellation of actors, powers, resources and institutional arrangements in a consistent and purposeful way towards the facets of sustainable development, a clear and consistent line of guidance is required. It can certainly learn from the implementation process and be flexible on details, but it needs the political support that only effective multi-scale governance structures can play in legitimising the agreed plans and strategies developed through the community planning processes outlined above. With that broad 'planning framework' in place and structured according to sustainability

principles, the transition to a sustainable built environment has a stronger chance of being realised.

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