Universities as sustainable communities: a prospectus for people and places

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Abstract: The purpose of this paper is to discuss the role of universities as sustainable communities and to identify the requirements for achieving this role. The paper outlines the evolution of sustainable development theory and practice, and then considers the desirability of introducing a spatial (or community) dimension into this field of activity. From this, attention turns to the role of universities as sustainable communities, both in their own right and as a component of wider local or regional communities. In addition, the paper examines the various internal elements of the sustainable university. From the assessment of the characteristics of a sustainable community, the paper identifies a number of areas of potential activity that would allow universities to operate in accord with sustainable community principles. Furthermore, the paper discusses the required adjustments to the learning, research and operational activities of universities. Universities display a number of opportunities that if developed and implemented would both enhance the performance of individual institutions and support local and regional programmes of sustainable development. Hitherto the spatial dimension of sustainable development has been largely ignored and little has been said about the role of universities as sustainable communities.

Keywords: sustainable development; spatiality; sustainable communities; universities.

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1   Introduction

It is now some twenty years since the revival of interest in identifying the nature and implications of the links between higher education and the wider environmental – social – economic context within which all academic institutions operate. Although many individuals in higher education regard these concerns as a new feature or characteristic of a 'responsible' or 'sustainable' college or university, in reality they echo similar – but frequently unheeded – earlier calls for higher education to operate with a high level of regard for what we now refer to as the principles and practices of sustainable development. In 1915 Patrick Geddes argued that universities and colleges had a major role to play in advancing an integrated and comprehensive understanding of places set within the wider spatial context for their operation, but this powerful advocacy was generally neglected, especially during the profligate decades of the 1960s, '70s and '80s. The neglect of the principles and practices of sustainable development, and especially the inter-generational and intra-generational equity principles, led some institutions to make decisions and develop practices which they may now regret: campus developments located at sites poorly served by public transport outwith the major urban centres, buildings designed and built in an era of cheap and plentiful energy, lowest cost rather than best value capital goods procurement, neglected social relationships with local host communities, and underdeveloped links with the local and regional economy. Even though some institutions constantly strived to behave as responsible stakeholders and actors, the traditional central funding model encouraged or even necessitated many poor decisions, especially in the case of buildings and capital procurement.

The legacy of this general neglect of the principles and practices of sustainable development is evident in many higher education institutions. However, in a manner similar to that evident in the evolution of the majority of responsible policy and decision-making systems, the revival of interest in the concept and application of sustainable development has been stimulated by the simultaneous emergence of external and internal drivers for change. A growing concern with resource shortages and price rises, the problems of attempting to cope with an inefficient and difficult-to-manage estate, the need for effective physical accessibility, and, especially, the desire to satisfy the perceptions and preferences of the clients (students, sponsors and supporters) of higher education institutions, has coincided with the rapid emergence of local, regional, national and international policies and actions to promote sustainable development. As a

consequence, most universities and colleges have now started to develop portfolios of activity and practice which represent an increasingly sophisticated response to the challenge of sustainable development, including elements which satisfy the requirements of the environmental, social and economic components of the standard model.

However, irrespective of the merits of the actions taken by higher education institutions, it is also desirable for universities and colleges to link their sustainable development strategies to the wider portfolio of policy initiatives present in their host communities. The need for this clear spatial positioning of the strategies of individual institutions is, once again, nothing new. Geddes (1915) talked of the important role that universities and schools could play in improving the condition of the towns, cities and villages in which they were situated, whilst Khan (1990) advocated linking universities with local communities as a pre-requisite for the introduction and elaboration of effective policy and practice.

These echoes from the past, together with the realisation of the urgent need to enhance the sustainable development performance of higher education, provides the backdrop for the sustainable development actions currently taken by individual universities and colleges. In addition, it emphasises the importance of ensuring that individual sustainable development strategies are set within the context of the wider sustainable development programmes operating in the localities and regions in which higher education institutions are located. An overall organising concept and structure that can help to allow this institution – place relationship to find full expression has emerged during the past decade: this is the notion of the sustainable community.

The following sections of this paper explore a number of aspects of sustainable development and sustainable communities theory and practice. These are then related to the design and implementation of appropriate policy and practice in universities and colleges. Although emphasis in the paper is placed on developing a generic capacity for education and place-management, the paper also briefly makes reference to the wider role of higher education institutions as key stakeholders and actors in their host communities. Following this introduction, attention is turned to the origin and development of sustainable communities theory and practice. These ideas are then related both to the various ways in which universities and colleges operate as activities (or businesses), and to the things which they research and teach. A final section identifies some possible pathways for the (re)establishment of universities as sustainable communities.

2   Sustainable development and sustainable communities

Although the sustainable communities model and approach can be seen principally to represent the outcome of a concern to ensure the integrated delivery of a variety of strands of theory and practice centred around placemaking, it also provides a helpful means of relating the requirements of sustainable development to the creation, development and management of places. This bringing together of a number of strands of thinking means that the sustainable communities model is essentially a synthesis, but it is a synthesis with a substantial pedigree.

There is a direct link between sustainable development thinking and the sustainable communities model: this link is provided by the essential requirement that the realisation of sustainable development objectives should reflect the condition of place. Despite the

pressure of significant obstacles to the implementation of many aspects of sustainable development – such as the fragmentation or dispersal of policy responsibilities and functions, the absence in some countries of an adequate integrated delivery framework, or the lack of sufficient skilled and knowledgeable professionals – substantial progress has been made in recent years in the European Union (EU) with regard to the establishment of a spatial framework to guide the elaboration and delivery of sustainable development policy. This spatial framework is evident in various strands of thinking and action; most directly through the emergence of the European Spatial Development Perspective (Commission of the European Communities, 1999), but also in other policy fields, including those concerned with environment, transport, regional development and science and technology (Roberts and Colwell, 2001). These actions at the EU level have, in turn, influenced thinking and practice at the member state level, with the emergence of spatial strategies providing guidance for the development of entire member states, as in the case of Ireland (Department of the Environment and Local Government, 2002) or for constituent national, provincial or autonomous territories at a sub-member state level, as in the case of two of the four UK nations – Wales (Welsh Assembly Government, 2004) and Scotland (Scottish Executive, 2004). Below the level of the member state and the nation-cum-province, most EU member states have established regional and local arrangements for spatial planning and management that can support the integrated delivery of sustainable development objectives (see, for example, Communities and Local Government, 2008).

The establishment of spatial capacity as a 'top-down' response to the challenges of sustainable development has been matched by a range of 'bottom-up' initiatives, some of which have proved to be highly influential. As a consequence, simultaneous innovation from the 'top-down' and the 'bottom-up' has resulted in the emergence of a suite of policies aimed at providing an enhanced capacity for the design and delivery of integrated and comprehensive policy. Prominent among such policies in the UK is that referred to as sustainable communities.

Before examining the detail of sustainable communities thinking and practice, it is important to reflect on a point made earlier; this is the difficulty frequently encountered in delivering the objectives of sustainable development in operational situations dominated by fragmented sectoral actions, many of which can work against each other. This was a danger identified by the World Commission on Environment and Development (1987), and it is still evident in many countries, regions and localities. The tensions between different aspatial sectoral approaches to sustainable development are demonstrated by the difficulties encountered in attempting to bring together the fundamentals of sustainable development (environmental, social and economic) with the cross-cutting objectives of inter-generational and intra-generational equity, and then relating them to each other in the particular circumstances of an individual location.

Dealing with 'wicked issues' such as those discussed above has proved to be amongst the most intractable issues facing governments, businesses and voluntary organisations at all operational levels. Clarke and Stewart (1997) identified these difficulties and illustrated them in relation to individual policy fields and at different spatial scales: for example, the search for safer communities involves much more than enhanced policing, whilst the use of economic controls to limit energy consumption is not without significant social equity consequences. What Clarke and Stewart identify as the causes – too much emphasis on linear and partial thinking, on simple management objectives, and on the placing of organisational and operational boundaries, etc – can also be seen to create

barriers to innovation and adaptation. Their solution to these difficulties is presented as the promotion of "thinking capable of grasping the big picture, including the inter-relationship between objectives and the interaction between activities and different objectives" [Clarke and Stewart, (1997), p.4].

Clarke and Stewart provided an early representation of what the present authors describe as a 'whole of place – whole of life' approach to policy and practice. In short, the effective elaboration and delivery of the components of the standard sustainable development model requires the addition of political and organisational dimensions, together with an explicit spatial perspective (see Figure 1). Although the establishment of a spatial perspective can be guided by certain general principles, considerable evidence exists which identifies the need to provide specific regional and local calibration in order to ensure adequate grounding of the model.

Figure 1   Sustainable development and place
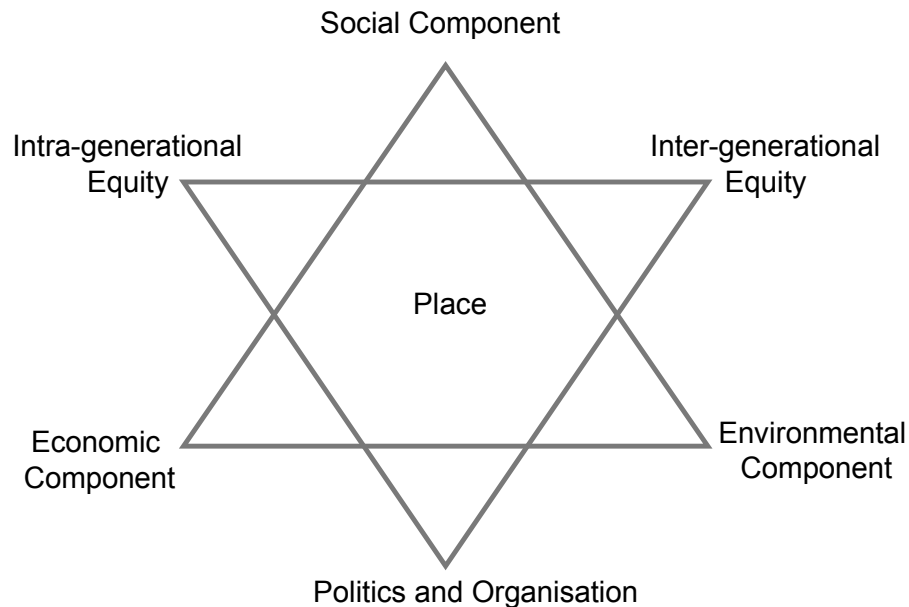
Source: Roberts (2007a)

The representation of sustainable spatial development provided in Figure 1 implies the interaction of the standard triangle of sustainable development components with an inverted triangle of processes and organisational structures; both aspects are also related to the characteristics, opportunities and problems evident in an individual place.

Taken as a complete package, these various aspects of sustainable development provide detail and offer the user the confidence required if the model is to be applied operationally. From this foundation of insight and understanding, the next step is to relate sustainable spatial development to the characteristics and requirements of individual places. This introduces the sustainable communities model and, as noted above, this model provides a means of grounding the elaboration and implementation of sustainable development in individual places.

Although, as noted earlier, the sustainable communities concept and model has an impressive pedigree – most notably the 'social city' ideas of Howard (1898) – in the modern era the notion of sustainable communities emerged during the 1990s. From early assessments of regeneration theory and practice, calls emerged for the introduction of a more comprehensive, integrated and spatially relevant approach (Roberts and Sykes, 2000; Joseph Rowntree Foundation, 2000). These calls, combined with the imperatives of sustainable development, led to the rapid emergence of the sustainable communities concept and model. The first Sustainable Communities Plan (ODPM, 2003) was published in 2003, together with a series of linked policy statements, including accompanying policy proposals aimed at influencing the formulation and delivery of planning, housing and social development programmes and strategies. During the following two years a number of further elaborations and applications were introduced, including a learning, skills and knowledge programme (ODPM, 2004) and, as part of the British Presidency of the European Union (EU), an international sustainable communities policy and skills programme, which was agreed by the EU member states in December 2005 in the form of the Bristol Accord (ODPM, 2005a).

Figure 2   The sustainable communities model (see online version for colours)

In summary, the sustainable communities model provides a response to the earlier partial, sectoral and fragmented attempts made to deliver sustainable development, and it also provides a direct and explicit explanation of the spatial implications of the principles of sustainable development. Elaborating the former point, it is apparent that the requirements of sustainable development cannot be met by, for example, simply dealing with energy conservation issues in isolation from the other component elements, any more than sustainable development can be actioned by only dealing with social cohesion

or economic opportunity. Rejecting partial, sectoral or fragmented approaches, the sustainable communities model deals with the full range of sustainable development issues in an individual place – the sustainable community. As can be seen in Figure 2, the sustainable communities model embodies the principles of sustainable development:

- it aims to balance and integrate the environmental, social and economic components of a community – the 'balanced development' principle

- it aims to satisfy the requirements of the present generation and of future generations – the 'futurity' principle

- it respects the present day needs and desires of other communities locally, regionally, nationally and internationally – the 'equity' principle.

Although it is unlikely that any two communities will adopt an identical programme or follow an identical development pathway, it is evident that the sustainable communities model and approach provides a common set of guidance (ASC with ECOTEC, 2006) for the development and management of places. In addition, it is also evident from comparative research across the European Union that there are substantial links between the various practices of sustainable development and the sustainable communities model. These links have increasingly been reflected in policy and practice, including the discussion of environmental resources as "crucial to the functioning of the economy and to our quality of life" [Commission of the European Communities, (2005), p.3].

The sustainable communities formulation is applicable to places of many kinds:

- to centrally located places and to remote communities

- to large cities, to towns and to villages and scattered rural settlements

- to poor and prosperous communities

- to new settlements, regenerating areas and the majority case of what can best be called evolving communities.

In all cases the desired end state is the establishment of a place which is sustainable over time and in its entirety; in the words of the policy guidance: "places where people want to live – now and in the future" [ODPM, (2005b), p.56].

However, achieving this desired end state implies both that the various activities which make up a place are all operating in a way which contributes to the entire sustainable community, and that these individual contributions amount to a whole which is greater than the sum of the parts. In the case of universities and colleges, the latter point is of special importance because it reflects both the ways in which institutions operate and the things which they teach and research.

3 Universities as sustainable communities: a special case?

Building on the analysis and assessment provided above, it is evident that most components, aspects or elements of placemaking need to be planned and managed in such a way that they play an effective part in the creation and maintenance of a sustainable community. Some components, aspects or elements can be implemented in a way which goes beyond this minimum contribution, and they have the potential to provide higher

level leadership, facilities or services that can offer support to others or can provide a basis upon which others can act and thereby operate at a level of performance beyond the minimum. There are a number of organisational and individual stakeholders who appear able to promote this higher level leadership, a typical example is the enlightened, innovative and well-organised local authority. Such an organisation can both set an example of behaviour and performance, and provide the democratic accountability and civic leadership that are essential in order to command support from other stakeholders and actors in a locality or community. Likewise, universities have the potential both to demonstrate individual operational excellence and to play a wider leadership role. Indeed, universities can make an additional unique leadership contribution through providing the skills and knowledge that are essential in order that all organisations and individuals can contribute to the development and management of sustainable communities.

Working with appropriate public, private and voluntary sector partners, universities can and frequently do contribute to the advancement of the sustainable communities agenda, and they do this chiefly through three strands of activity:

- first, and often the leading area of activity, through initial moves to introduce environmental and social initiatives related to the management of estate and purchasing functions, and the enhancement of human resources policy – typically such initiatives mature and become embedded as a central strand of the institution's corporate strategy;

- second, and much more patchy in its evolution and spread, through the review and advancement of teaching and research that reflects and incorporates the values, principles and objectives of sustainable development – as is the case with many other overarching or cross-cutting ideas which reflect the wider aspirations and goals of civic society, some university teachers and researchers may initially be unwilling to operate beyond the narrow confines of their discipline or to update their practices, but there is evidence of a growing realisation and acceptance of the importance of the wider sustainable development/sustainable communities agenda;

- third, and growing in significance in most UK universities, through the wider role performed by institutions as key stakeholders in civic society at various spatial levels from the very local to the global – this is now increasingly seen as an essential component of the mission of the 'responsible' or 'sustainable' university (Robinson and Adams, 2008).

Although this paper emphasises the importance of the 'whole of place – whole of life' approach to the establishment and management of the various affairs of the university as a sustainable community, attention is focussed in the remainder of this section on the first two 'internal' activities: the operational aspects of a university and the teaching and research which takes place there. Particular emphasis is placed on establishing an appropriate learning environment and portfolio of programmes; this is a matter which has recently received increased attention and encouragement from the Higher Education Funding Council for England (HEFCE, 2008) and other UK national organisations, including the Academy for Sustainable Communities and the Sustainable Development Commission.

Whilst this paper has argued in support of the introduction of the full range of sustainable development and sustainable communities attitudes, principles and activities

in universities, it is acknowledged that each institution will develop its own portfolio in a distinctive manner. This is in accord with general practice. Indeed, the desirability of providing a unique, tailored response within the context set by local social, environmental, economic and organisational circumstances is widely regarded as a prerequisite for effective policy and practice (Roberts, 2007b). As a consequence, this paper provides generic guidance and offers examples of the types of policy that might represent the attainment of a university sustainable community.

Returning to the two 'internal' strands of activity referred to above, it is evident that in most universities the development and implementation of the two activities have proceeded at different speeds. This is to be expected, and is likely to continue to occur, but it is also apparent that there are both direct and indirect linkages between the strands. The presence of these links suggests that there are potentially powerful synergies that can be tapped to mutual advantage. For example, at the University of Leeds, the ARCADE project – an initiative designed to enhance the resource performance of buildings through better design, development, monitoring and management – provides a platform for the improvement of estate management, offers an action research project for students and delivers an enhanced working environment. The first aspect draws upon previous experience and best general practice applied to the specific scheme, the second aspect provides a subject for research and learning which, in turn, adds to the estate management capability of both the university and general practice, whilst the third aspect enhances social welfare. This mutual reinforcement of the learning – research – application cycle of activity offers an example that can be replicated across the full spectrum of sustainable communities activities, including initiatives related to social justice, resource use and responsible economic development.

The above observations beg the question: what would a full package of activities look like and how could such a package be developed? Put simply, the first strand of activity, which reflects the design and development of the full range of what can be called operational functions (estate, finance, procurement, human resources, etc), will vary from institution to institution, but should encompass all of the relevant activities. There will inevitably be trade-offs, but these choices are best made on the basis of the open assessment of options and should contribute to the overall performance of the institution; this reality of contested strategic choice reflects experience in other sectors (Cowans, 2006). The second strand of activity, which is concerned with the research and learning functions, can be seen as the essential complement to the operational functions. This second strand will be aimed at securing a basis of knowledge and learning that can be used by both formal learners – students at pre-degree, degree, post-graduate and continuing development levels – and by the staff of universities and partner organisations. An essential feature of this learning and knowledge strand will be the development and application of insights and understanding about generic or overarching activities, including such issues as partnership, teamwork and engagement (Meehan and Thomas, 2006).

Establishing a comprehensive programme of activities of this nature allows for the creation of an institution-wide capability for a university to both think and operate as a sustainable community or, to be more precise, as part of a wider sustainable community. Fundamental to the achievement of this objective is the development and implementation of the generic skill associated with the creation and management of such a place. These generic skills form the core of the sustainable communities learning programme (ODPM,

2004) and they can be incorporated into both student and staff learning programmes. The key generic skills that need to be incorporated into the curriculum include:

- visioning and strategic thinking

- team and partnership working

- stakeholder and community engagement

- leadership

- programme design and implementation

- project management and delivery

- financial management and appraisal

- conflict resolution

- breakthrough thinking

- process and change management

- analysis, decision-making and evaluation

- communications.

In addition to this initial listing of generic skills, new generic components are continually being added, such as understanding climate change and promoting social cohesion. It is likely that further additions will be made as national, regional and local circumstances change.

In order to allow for the development of these generic skills, alongside learning related to the principles of sustainable communities, universities work in partnership with the various national and international professional bodies, other interested public, private and voluntary organisations, public sector agencies, such as the Academy for Sustainable Communities (ASC) (now part of the Homes and Communities Agency and known as the Homes and Communities Agency Academy) and the Sustainable Development Commission, and intergovernmental organisations, such as the European Urban Knowledge Network. Agreements have been brokered on the desirability of working together to deliver sustainable community skills and principles, including the ASC's Joint Commitments (ASC, 2006a) and the Homes and Communities Agency Academy's Skills Action Plan. Various associated initiatives have seen the establishment of a suite of learning programmes and resources aimed at both universities and other organisations. Key elements in this suite of programmes and resources are:

- a Foundation Degree in Sustainable Communities aimed at students seeking a pathway into formal degree-level education and mature students wishing to change career

- a Sustainable Communities Generic Skills Module, which can be delivered as a conventional whole module or distributed as learning units within an existing course

programme – this is designed to be delivered at undergraduate, postgraduate or continuing professional development level

- a Continuing Professional Development programme, Raising Our Game, aimed at a range of professionals and others involved in the creation and management of sustainable communities

- a number of courses developed to support the development of leadership skills – these are available through the Taking the Lead programme

- an online facilitated series of introductory workshops designed for a broad range of practitioners who wish to develop a common understanding of sustainable communities and generic skills – this is the In A Nutshell programme

- a number of special courses and resources dealing with specific issues that are considered important to the delivery and management of sustainable communities – including developing and managing brownfield sites, demystifying climate change and promoting social cohesion and community empowerment

- a toolkit of resources designed to support those tasked with developing learning and development in sustainable communities

- a number of research projects and programmes aimed at capturing innovative thinking and practice – included in the projects are ten funded jointly by ASC and the Economic and Social Research Council.

The above noted programmes and learning materials represent a common resource available to all universities. What they do not offer is a fixed or universally applicable structure of learning that can be implemented without regard for the individual requirements and characteristics of a university and the community in which it is located. As a consequence, and respecting the broader contextual conditions in which individual institutions operate, it is inevitable that the elements of the general suite of programmes will be utilised in different ways by individual universities. Some institutions will use the learning programmes to reinforce or modify existing courses, some will use the learning resources to enrich the content of courses, whilst other universities will find it helpful to introduce some of the programmes in full in order to fill gaps in their portfolios of courses.

   A final point of importance is the need to acknowledge the potential role of the suite of sustainable communities learning programmes as a means of enabling the corporate institutional development of a university. This implies that universities as public institutions have learning requirements and wider responsibilities that go beyond the gradgrind minimalism of basic service delivery and the tyranny of the financial bottom line. Learning organisations have first to satisfy their own learning needs if they are to perform as 'smart' institutions. Jim Dator of the University of Hawaii has put this wider challenge directly in his call for universities as public institutions to promote quality education that can instil: "the values and skills necessary to preserve the world rather than to develop it", and thereby contribute "to the solution of many environmental and social problems" [Dator, (2004), p.21].

4   Conclusions: values and skills for the future

Returning to the observations made in the introduction to this paper, it is evident that universities have a number of important roles to play in both the way in which they function as organisations and providers of learning, and through the contributions that they make as major stakeholders in the spatial hierarchy of communities. Central to the effective delivery of these roles is the continual refreshing of the core values of institutions and, in the context of this paper, the redirection of efforts to ensure that sustainable communities principles and skills are embedded in all aspects of university life. This positive redirection is all the more necessary given the desirability of inculcating a new sense of purpose that offers an alternative to the previous and current growth orientated model. Again, Dator argues that this redirection may become the forced reality of the future: "when the current economic house of cards collapses" [Dator, (2004), p.20] – this was a searching insight and forewarning in 2004, and is even more appropriate in the autumn of 2008.

Developing and implementing the measures discussed in the second and third sections of this paper offers a pathway to establishing a university as a sustainable community. In suggesting that this is the case, the authors are well aware that the standards of performance required of an individual university are many and varied – research, financial, educational attainment, etc. – and that the level of performance required for the achievement of sustainable community status is, in itself, far from fixed or unambiguous. As was made clear earlier in the paper (in Figure 2 and the related text), creating a sustainable community is an aspiration rather than a fixed target, and the direction of travel is more important than the mechanistic ticking of performance boxes.

Equally important as the actions taken by the individual university with regard to its operational and learning activities, is the way in which an institution behaves as a responsible and, if justified by its performance, an exemplary stakeholder in the local and regional community. Looking to the future, this is all the more important as universities seek to address the requirements of students – who are now more aware than ever before of the driving imperatives of sustainable development and sustainable communities (Walker, 2008; ASC, 2006b) – and the rising expectations of their local, regional, national and international partners (HEFCE, 2008), including those who are now pledged to create a national skills action plan for sustainable communities.

The examples and models of working outlined in this paper demonstrate what is necessary, how the transition from a conventional university to a sustainable university community can be achieved, and how sources of partnership, support and knowledge can be harnessed in order to achieve the transition. However, as noted earlier, this process of transition is unlikely to be even in terms of its nature and coverage or to evolve at the same speed across the entire university sector. As Cooper and Symes (2009) argue, it is likely that the future pathway of development will be mixed, with both homogeneity and particularity evident in varying proportions, reflecting both the aspirations of the individual institution and the prevalent environment, social and economic condition of the locality or region. What is less ambiguous is the challenge as set out in the UK Sustainable Development Strategy: "sustainable development principles must lie at the heart of the education system such that schools, colleges and universities become showcases of sustainable development among the communities that they serve" [UK Government, (2005), p.38].

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