



Productive Places: Creating spaces for the new economy to thrive

scdi Scottish Council
for Development
and Industry

Engaging Civic Scotland: Driving Economic Growth

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**GLASGOW
URBAN LAB**
THE GLASGOW
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Preface



provoking contributions. In particular, I would like to thank Brian Evans, Professor of Urbanism+Landscape in the Mackintosh School of Architecture at Glasgow School of Art, director of the Glasgow Urban Laboratory and lead author of the UN Economic Commission For Europe, Habitat III Regional Report On Housing And Urban Development, for his contributions to the conversations and for his substantive essay on Productive Places which follows.

Dr Brian Veitch
Chair
Expert Working Group

SCDI invited an Expert Working Group to discuss how Scotland's public spaces might be developed further to build-on and extend the economic, social, cultural and environmental benefits they deliver.

The expert group brought together thought leaders in planning and development of public realm and cultural infrastructure spaces with experts responsible for their management, for staging events within them, and for attracting people to them - both citizens and visitors. It recognised that:

Many of these spaces provide civic settings for leisure, celebration, remembrance, commerce and social interaction - both formal and informal - and play an important part in the life of communities across Scotland. They are places where people naturally gather in times of celebration and crisis.

A series of wide-ranging conversations took place, with meetings arranged in a number of the Scottish cities allowing direct engagement with local planners, policy makers, businesses and communities. Many of the ideas that emerged have informed the preparation of this report.

On behalf of SCDI, I would like to thank all who took part in the early expert group sessions and conversations for their insight and for their interesting and thought-

Foreword



The last decade has been an era of unprecedented events. The time since the financial crash has challenged everything we thought we knew about long-established economic remedies and solutions. Technological progress has meant that we are working within an ever faster environment and as a result we need to re-shape tried and tested business models.

The global trends - amongst them climate change, an ageing population, shifting geopolitics and technological disruption - are part of a new era. An era where

economics, society and individual behaviours collide - demanding smarter responses from every individual as part of a wider collective effort.

We have long struggled to understand what underlies the Productivity Puzzle. We have thought long and hard about the potential role for labour markets and technological improvements. However, perhaps there is something more we could do to create a growth mindset in our people that is based around not just what they do but also where they do it.

In the course of developing this document we have considered whether good places could drive greater wellbeing, creativity and belonging and whether this in turn is one of the keys to unlocking growth. Being able to value all aspects of our most productive places is critical to underpinning their future success.

The new economy is dominated by data, knowledge and networks. Some of Scotland's most successful new businesses have created value by aggregating needs and meeting them with supply chains that are efficient and proximate.

Two of the most well used words heard in any gathering of people across all sectors are that of 'collaboration' and 'innovation'. However, trying to make these two things happen is easier said than done.

Data in itself does not help us much until we have added context. It is only when we interpret and decode this data that we get new knowledge and its true value. This is where we get innovation. Its when data meets life that it offers us the most powerful tool we have ever had.

In the knowledge economy, work gets done through networks of individuals. Therefore, creating the right conditions for collaboration and innovation is imperative to supporting growth in the future. Enhancing spaces to create attractive places to live and do business is an investment in collaboration. We know that our cities are instrumental in driving economic growth - as they bind together our greatest assets, our people. However, if we were to 'design in' a growth mindset to our future city development, how could that impact behaviours? And more importantly, would it change outcomes?

We are grappling with the concept of inclusive growth and what that means. If inclusive growth is about sharing economic benefits equally, then is it as much about sharing social advantage? If the currency of new economy is indeed data, knowledge and networks, then we need

to consider how we create the infrastructure to support them in the same way that we previously supported broadening of skills and education and the transportation of goods.

SCDI has always taken an active role in planning and the development of spaces and structures to support the economy, from recommending the creation of Hillington Industrial Estate in 1937 to our leadership of the first export mission to China in 1971.

This report is the start of a conversation about how place can enhance economic growth. What needs does Scotland have in this digital era and how can we prepare for the future post-digital economy and allow productive places to emerge? It's a challenging agenda, and we gratefully acknowledge the energy and effort of Brian Evans and Brian Veitch in bringing this report to publication.

Please join our conversation - using our collective knowledge and voice will help us identify these needs and act on them successfully.

Mark Bevan
Chief Executive
SCDI

"Planning and designing environments that bring people together are a critical factor of what should be happening to support wellness."
Professor Sir Harry Burns.



The knowledge economy, the digital revolution and the importance of place

Brian Mark Evans
Professor and head of Urbanism
The Glasgow School of Art

1. Introduction

The public realm is... the space outside - the streets, squares and lanes that... make up the cohesive, pleasant, safe attractive and exciting matrix of a great city.

It provides the setting for grand buildings, the thoroughfares of commerce and the spaces for activity, street theatre, contemplation and promenading - the environment for living and working.¹

This definition was used by the Public Realm Strategy for Glasgow City Centre adopted in 1995 that has stood the test of time and the profound changes over the last two decades. What is remarkable about that document however is not that it is 20 years old, award-winning and recognised as the first of its kind in the UK, but rather that it was introduced, signed-off and promoted by the then Directors of Roads, Planning and Economic Development who brought together three public bodies - the Regional Roads Authority, the City Planning Authority and the Economic Development Agency - in mutual recognition that improving the public realm requires integrated action and delivers integrated benefits to cities and towns and the communities they serve.

Since the mid-1990s almost all cities and towns in Scotland have seen improvements in some form to public space in their centres and in their neighbourhoods. So much so that for some the 'job' may be considered to be done and resources and effort may be safely directed elsewhere. But this is not the case - and for two important reasons: firstly this job is never done, just as community development is never done since communities - residential, business or visitor are dynamic - and constantly changing to meet the needs of the time and the spaces that serve them need to change with them; secondly, the economic case has never been stronger for a reinvigoration of and investment in public space. This document sets out why.

The Phoenix Flowers, Glasgow

The Phoenix Flowers (the Garscube Landscape Link) involved the radical revitalisation of a crucial link between north Glasgow and the city centre that was severed by the construction of the M8 motorway in the 1960s.



2: The emergence of the knowledge economy

In 2014, the Scottish Government estimated that some 70% of Scotland's people live in towns and cities of 10,000 or more. This is comparable with the UK as a whole and with other developed economies in Europe.² Scotland's towns and cities flourished during the era of industrialisation, but manufacturing is now a smaller part of the economy.³ In spite of this trend, however, the rise of the knowledge economy, built on a digital revolution based on the Internet, fast computers and networking, is bringing about massive opportunities and challenges for Scotland's towns and cities.⁴

The knowledge economy is reshaping cities and regions in several major waves of development and redevelopment, producing its own space that differs greatly from mercantile economies. Manufacturing reorganised access to raw materials and markets, created and controlled transport networks, attracted large numbers of workers to cities, and set up rigid routines of work, all reflected in the patterns of spatial and social organisation. The knowledge economy is exerting its own spatial requirements, through reshaping industrial towns and cities with new forms that suit the new conditions of economic production, social requirements and cultural institutions.⁵ The spatial expressions of the knowledge economy are likely to be the model for cities and urban areas for the foreseeable future.

The knowledge economy has changed the nature of products that we need. The emergence of knowledge itself as a productive capacity and output has no particular spatial requirements other than the proximity for those engaged in its production. This is changing the nature of sites for production and consumption

in cities, where new clusters of activity are formed, while others are dismissed or dispersed. The new spaces of production are the spaces of knowledge: universities, science parks and cultural quarters, which are created side by side with the new spaces of consumption and new patterns of social inequality.⁶

The knowledge economy has altered the dynamics of urban economics, encouraged the growth of agglomeration economies, and increased the importance of spaces for encounter and their role in innovation on the campuses of Silicon Valley in the US, Cambridgeshire in England, Kirkstra in Finland and indeed 'silicon glen' in Scotland increasingly focussed on the city centres of Edinburgh, Glasgow, Aberdeen and Dundee. These are new forms of clusters formed by public policy or by individuals and firms, including universities, science and technology parks, city centre offices, as well as home-working. The clustering of knowledge enterprise around centres of education and research has reinforced urban concentration as described by the UN.⁷ Whether these respond to the needs of the knowledge economy or to the demands of the development industry - or both - is unclear, but many are located in or on the edge of city centres and around airports and have, in this way, fragmented urban space and contributed to the effects of sprawl internationally and in Scotland.⁸

An early conclusion in the early years of the knowledge economy was that 'place' was no longer of importance: all the citizen needed was a good cable connection to bring the entire globe within easy reach. The consequence of this 'death of distance' was said to be that the city of streets, squares,

stations, shops and restaurants would be replaced by a 'city of bits', a virtual city with a street pattern consisting of digital information highways.⁹ In fact, the converse has proven to be the case. New ideas and innovative solutions come into being through intensive communication and exchange of knowledge with others. The proximity of people is very important. It makes more sense for knowledge workers to pop into a colleague's office than to work via email on a new project with an unknown person on the other side of the world.¹⁰

People still need physical contact with others, not only in their work but also in their free time. And cities, with an 'Experience Economy' of cafes, restaurants, cinemas, galleries, venues and shopping centres, offer all these services on demand. This is the underlying reason why innovative cities such as Stockholm, Barcelona, Munich, Toulouse, Dublin and Louvain have blossomed in the knowledge economy.¹¹ These forces are equally driving Scotland's principal cities and towns - notably Edinburgh, Glasgow, Aberdeen and Dundee.

In fact, knowledge development, globalisation and 'authentic' towns and cities are mutually supportive. As the knowledge economy takes hold, the cities that are able to adapt to the new economic requirements will also be able to capitalise on their local distinctiveness, as localisation (the increasing importance of city distinctiveness, authenticity and identity) becomes as important as processes of globalisation.¹² The emergence of the knowledge economy has revealed an apparent contradiction between cities and globalisation as a 'global-local paradox': in a world that is becoming increasingly more integrated, cities must rely more on their specific local characteristics - expressed by some as 'authenticity'. These unique characteristics help to determine what a city or major town excels in, and the ways in which it can distinguish itself in the competition with other cities. The knowledge economy and the related global-local paradox mean that cities, as in the past, compete for the favours of inhabitants, companies and visitors. Every city derives benefits by drawing in knowledge workers and knowledge-intensive activities and, as a result, gains competitive advantage.

In prosperous regions of the EU, cities have come to resemble one another more and more over time. Convergence of this nature has major consequences. It means that small details, such as the city's image, can be decisive in decisions taken by companies or individuals looking for a place to settle or to visit. In order to maintain and increase their attractiveness to knowledge workers and other target groups, cities must reflect on

what sort of profile they should have, and many have developed a competitiveness strategy as a consequence. Thus inter-city competition for knowledge and innovation requires cities to become 'creative'.

The essence of creativity is the capacity to think up original solutions to day-to-day problems and challenges, and the cities that have been successful in exploiting this economic development are those with access to leading academic institutions within an urban concentration that demonstrate the qualities of diversity and flexibility. Innovation is a key long-term driver of competitiveness and productivity. Universities are central to 'innovation ecosystems' - the networks of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies.

Due to the effect of agglomeration within metropolitan regions, these networks result in higher economic productivity. Universities also spur stronger economic growth through fostering innovation in several ways, including research partnerships with businesses, technology transfer, spin-off companies, and the entrepreneurial pursuits of students, graduates and faculty. In the UK, many venture capital firms have close links with technology transfer units at universities. The availability of finance, particularly private equity and venture capital, is crucial, and finance will follow the locational decisions of people and firms with the most promising and lucrative ideas. Importantly, universities often have deep historic links with their cities, whereas other resources for economic growth - such as residents, workers, firms and investors - are more mobile. However, in attracting people, businesses and investment, cities benefit from strong universities, and universities benefit when their metro economy prospers and offers an attractive quality of life.¹³

3: The digital revolution

The digital economy now drives many and various aspects of the world economy, including banking, retail, energy, transportation, education, publishing, media and health. ICTs are transforming the ways social interactions and personal relationships are conducted, with fixed, mobile and broadcast networks converging, and devices and objects increasingly connected to form the 'Internet of Things'. The manufacturing of ICT and the services it offers are drivers of the global economy. The trade between West and East in services and manufacturing related to ICTs has been one of the principal drivers of the world economy over the last 20 years. Broadband markets are expanding, with an increase in wireless broadband subscriptions - reaching close to one billion in the OECD area - resulting in a decrease in fixed telephony.¹⁴

The expansion of the digital economy has acted as a driver of economic growth in recent years. It is growing quickly and transforming society as a whole.¹⁵ It permeates the entire economy, including retail (e-commerce), transportation (automated vehicles), education (online courses), health (electronic records and personalised medicine), social interactions and personal relationships (social networks). ICTs are integral to professional and personal life; individuals, businesses and governments are increasingly inter-connected through a host of devices at home and at work, in public spaces and on the move. These exchanges are routed through millions of individual networks, ranging from residential consumer networks to networks that span the globe. The convergence of fixed, mobile and broadcast networks, along with the combined use of machine-to-machine communication, the 'cloud', data analytics, sensors, actuators and people, is paving the way for machine learning, remote control, and autonomous machines and systems. Devices and objects are becoming increasingly connected to the Internet of Things, leading to convergence between ICTs and the economy on a grand scale.

Up-to-date, accurate and easy-to-find geo-referenced environmental information can also empower public officials, entrepreneurs, workers, and consumers to take informed decisions that impact on the urban environment and their personal well-being. While eGovernment, Open Data, and other similar initiatives have set a trend towards

greater openness regarding information, there remain challenges with effective public access to environmental information that may still undermine the protection of the environment and hamper the sustainable development of urban areas.

Cities are best placed to maximize the opportunities of the digital economy, and these economies of scale also reinforce the trend towards urban concentration as described by the UN.¹⁶ Furthermore, with manufacturing now largely located in other continents, European cities are particularly well-placed to combine the effects of proximity, higher education and innovation to accelerate growth in the knowledge economy through the digital revolution. The clusters of digital start-up companies in Silicon Valley, London, Stockholm, Stuttgart, Edinburgh and many other European cities are exploring new business models based on collaborative production methods, such as crowdfunding platforms, and the 'sharing economy' that challenge the existing regulation of established markets and may, in time, require balanced policy responses to enable innovation on one hand while protecting the public interest on the other.¹⁷

Many cities are adopting digital strategies, recognising that government can act as catalysts for the digital economy. This is noticeable in the case of Open Data initiatives, where the public sector can stimulate data-driven innovation by opening up public sector information, including different types of data, and by providing easy access to environmental information for all stakeholders. E-Government initiatives are also used to stimulate the adoption of a wide range of applications needed for e-Health and e-commerce. Governments are relying on digital technologies to move from a citizen-centred to a citizen-driven approach, and aim to achieve public sector transformation through the use of ICTs to make this shift, implying that the public and businesses determine their own needs and address them in partnership with public authorities.

4: The Internet of Things



A representation of the Internet of Things

Machine-to-machine communication, cloud computing, Big Data analysis, sensors and actuators combined with machine learning, remote control, and autonomous optimised systems.

While use of the Internet as a digital platform has enabled the creation of the sharing economy, the ability to connect any smart device or object to any other is enabling the 'Internet of Things'. This is having a profound impact on multiple sectors of the economy and urban life, including industry automation, energy provision and transportation. The 'Internet of Things' consists of a series of components of equal importance - machine-to-machine communication, cloud computing, Big Data analysis, and sensors and actuators. Their combination, however, engenders machine learning, remote control, and eventually autonomous machines and systems, which will learn to adapt and optimise themselves.

The Internet of Things also enables governments to manage public spaces in more efficient, more effective or different ways. Remotely monitoring traffic lights or water systems allows them to optimise traffic flows or to better understand flooding risks. It also allows them to achieve policy goals in new ways. For example, reducing congestion using road pricing, calculated on time of day and distance travelled, is possible via GPS and mobile communication, but more difficult to achieve through conventional means. Similarly, smart energy meters lead to more decentralised energy markets and higher consumer awareness of energy use. Analysts and governments have high expectations of e-Health devices that will allow remote monitoring of patients at home or at work. However, few such devices are available on the market - a situation that appears to be due not to a lack of research or government commitment, but rather to difficulties in implementation that are yet to be overcome.¹⁸

5. The importance of public space

The historic cities and towns of Scotland, the UK and Europe are known for their compact cores and the presence of public squares, streets and gardens that are seen as exemplars of urban design. These spaces have been used since medieval times for public gatherings, markets and recreation. Today, however, there is increasing pressure on them from increased suburbanisation and an ageing population.

Public space comprises:

'all areas that are open and accessible to all members of the public in a society, in principle though not necessarily in practice'.¹⁹

Public space is an important part of the 'urban advantage'.²⁰ Yet, in times of urban change, public spaces come under pressure from many causes. In regions with high development pressure, the extent of public space can decrease, thereby threatening the amount of public space provided and the quality of life for the people. In Europe, however, challenges to public space arise as much from shrinking and ageing cities, as well as urban sprawl, that induces changes in the role and the use of public space.²¹

Public space is essential to urban prosperity. It increases and sustains not only the economic productivity of urban areas, but it facilitates social cohesion and inclusion, and can be an expression of identity, all of which enhances the quality of life for the city's inhabitants.²²

For these reasons, there has been a growing trend over the past 20 years to improve the quality of public spaces in cities across the developed world. Scotland has been part of this movement and so far has kept pace with its UK and European competitors. For the sake of competitiveness and social inclusion, it is essential that this process continues. It needs to be approached from aesthetic, environmental, economic and social points of view. In general, high-quality public spaces are perceived as desirable, because - if well designed - they work for everyone in the city. It is, therefore, pluralist in intent, making the city more than just an agglomeration of individuals. Good public space should add to the aesthetic qualities of the city and, equally, work for all sectors of the population, irrespective of age, gender,

prosperity or culture. It underpins the competitive economic advantage of towns and cities that seek to exploit the knowledge economy and the digital revolution and attract the mobile knowledge workers and students.

The UN includes public space in its Sustainable Development Goal 11 to 'make cities and human settlements inclusive, safe, resilient and sustainable', and contains targets that, by 2030, will 'provide universal access to safe, inclusive and accessible green and public spaces, particularly for women and children, older persons and persons with disabilities'.²³ Excellent though it is, this target does not yet address the question of quality in public space, but focuses rather on quantity expressed as an average share of the built-up areas of cities.²⁴

Marischal Square, Aberdeen

Marischal Square will deliver a vibrant new mixed-use quarter for Aberdeen and include offices with associated car parking, hotel, retail, cafés, restaurants and civic space, along with public access, landscaping and public realm improvements around a site once dominated by a former council headquarters building.



6: The renaissance of and importance of streets and squares

Streets are the arteries of any town or city. They connect neighbourhoods, businesses and people. They give life to place and allow for, sometimes even determine, its development. The role of streets is changing too with changing trends in demographics in Scotland and Europe though ageing, family size and urban structure.²⁵ Urban sprawl undermines the importance that streets play in the public image of a city, since they lose their role as urban space much faster and more drastically than in a compact urban centre.²⁶ The 'Future of Places Forum' envisions streets as 'multimodal networks of social and economic exchange, forming the urban framework of interconnected public space'.²⁷ In order to realise such a vision, streets need to be recognised and valued as some of the most important elements of the structure of any town or city.²⁸

In recent years, UN Habitat has observed an increasing trend in Europe and North America towards making streets less car-dependent and more cycling and pedestrian friendly.²⁹ Copenhagen is an outstanding example of this trend, where daily commutes by car has fallen to less than 25%.³⁰ Over the course of 50 years and four subsequent development phases, Copenhagen was transformed from a traffic place to a people place and recognised as the most liveable city in the world in 2013.³¹

The reconfiguration of streets addresses many urban issues, such as the role and use of public space, the improvement of the infrastructure, the stimulation of the economy, the promotion of environmental issues and the reduction in greenhouse gas emissions. The reorientation of streets towards a more people-centred approach, enhances the quality of urban life.

In his introduction to 'Streets Ahead', the late Anglo-Catalan Architect, David Mackay stated:

"The street is the backbone of our society. Unfortunately, this fact has been overlooked by many people who are too busy propping up secondary supports to our way of living, such as excessive attention to television and the internet which confuse reality with fiction and remove the sense of community between individuals."

In the twenty years since the mid-1990s, a great deal has been done with public and greenspace in Scotland. In the later 1990s, Scottish Enterprise published 'Streets Ahead'³² - a manual for good streetscape design - and since 2000, the Scottish Government has produced an extensive and progressive raft of guidance that helps in the process including 'Streets for All'.³³

7: The benefits and opportunities of public space

The public realm should be a place that is accessible to all. These are the everyday spaces that we move through and linger in, the areas where we live, work and play. Good public space is timeless. In order to create these environments that maximise the benefits of public space

there is a need for civic Scotland to embrace innovative and collaborative thinking to produce the positive effects that increase the productivity of public space in all areas of our life. The core benefits and opportunities arising from good public space include the following:

Economic benefits and opportunities

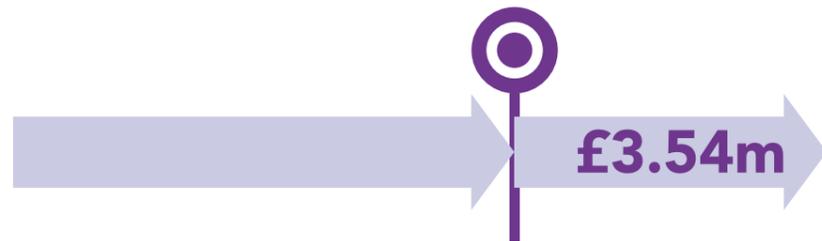
Public spaces in Scotland make a significant contribution to the economic performance in Scotland's towns and cities:



During 2010 the twelve Edinburgh Festivals between them generated additional output of £245m in Edinburgh and £261m in Scotland, and supported 5,242 new FTE jobs in Edinburgh and 4,917 in Scotland.³⁴



During the 11 days of the Commonwealth Games in 2014, there were over 500,000 visits to the Festival 2014 venue at Glasgow Green, and more than 3.4m travellers passed through Glasgow Central Station. Scottish companies won £290m of Tier 1 Games related contracts, and created 500 spaces for New Entrant Trainees. The Games helped to secure a further 37 high profile national events for Scotland with an estimated economic impact of £14m.³⁵



The 2014 Am Mòd Nàiseanta Rìoghail (The Royal National Mòd) contributed £3,547,661 to the business community in Inverness - over a £1million more than the event target.³⁶

Public space can help the economy through:

- Increases in property value brought about by good public space in the case of housing, commercial or production uses. Public private partnership working can help ensure city-wide gains to help increase social equity and social development and the contribution of land owners to urban development;
- Better integrate cities, help mitigate climate change and support efficient urban energy and waste management;

- Encourage micro, small and medium scale economic activities (both formal and informal) to assist with the integration of built and green infrastructure.
- Support sustainable production and consumption, social interactions, as well as vibrant, inclusive, and diverse public space through networks of markets, commerce, street activity and urban management.

The privatisation of public space should be avoided especially with streets and squares in urban development by enhanced partnership working between the public and stakeholders.



The High Line in Manhattan is one of the world's most successful urban transformation projects. A disused and elevated rail freight line running through several urban blocks in downtown Manhattan has been transformed from a forgotten and derelict space into a hugely popular attraction and species rich park and a very important pedestrian business link.

Environmental, transport and design benefits and opportunities

The public realm can help reduce our carbon footprint by making it easier to move around by walking or cycling, and encouraging people to use public transport.

Trees and other green infrastructure is attractive and can filter out pollutants within a city and freshen the air. Good public space design can help to minimise the impact of cities on the climate system, through mitigation (energy savings and resource efficiency in public services) and adaptation (green and blue grids, infrastructure, minimization of heat island) and can generally lead to better resilience of cities.

Public Space provides human scale, throughout towns and cities to support everyday use, maintenance, security and safety for all. The design process should be a co-production between stakeholders and include physical, cultural and social and economic needs. Public spaces are key to protecting urban biodiversity through the promotion of ecosystem services to support human and natural habitat systems.

Scottish and UK Government policy now requires the enactment of the paradigm shift from diesel and petrol to electric and hybrid cars supporting climate-aware and sustainable mobility, boosting efficient modes of transport and balancing the Modal Split of daily journeys including continued policies and awareness raising on the effects of private vehicles on health, productivity, sustainability and equity.

Promoting walkability and cycling is a key measure to bring people into the public space, reduce congestion and boost local economy and interaction, as well as improving safety in cities. Walkability helps to reduce car reliance, alleviate congestion, air pollution and resource depletion.

Walkable and cycle-friendly public space designed on the human scale is an effective tool for gender balance and age-friendly cities through increasing liveability and enjoyment in the urban environment.

As a society we need to continue to improve the quality of affordability of public transport as a structural means to promote equitable and sustainable mobility. Public transport needs to be intermodal and have a balanced relationship with the neighbourhoods it crosses supporting public space and overcoming barriers to movement.

There is a need for public space at the scale of the city, the districts and the street level, that respond in a

sensitive way to urban challenges of mobility, ecology and social issues.

Public space not only includes squares, parks and streets, it also extends into entrances, underground spaces and public buildings and needs to be integrated with civic facilities, public infrastructure, housing and commercial areas.

The street, the shop, the office and the house are interrelated spaces. Friendlier and safer public spaces are those that reflect a greater level of participation and use by neighbours. Adequate and well-connected networks of streets and public spaces, particularly in the expansion of urban areas, are as important as the design of the space itself.

Social benefits and opportunities

Public space provides a forum for the exchange of ideas and opinions, and events in public spaces have a series of purposes: entertainment, general social interaction and a place for people to learn and collaborate and develop skills. The social function of public space as a meeting place contributes towards social sustainability and an open and democratic society by engaging citizens, including the hardest to reach.³⁷

Public spaces should be free of charge and free from physical, legal and architectural barriers to encourage wide social discourse and accessibility to all sectors of society.

It is important to ensure the access from public space to natural zones, waterfront and heritage and cultural sites.

Public space assists people to remain engaged in the city and should respect and protect individual and collective rights and freedoms: freedom of expression to assemble and the right to information, consultation and participation in decision making processes.



Image build up of green and social space

These images help to illustrate what wellness means in terms of peoples' perception of the built environment and the impact that it has on individual feelings of space, safety and wellbeing. A: Imagine being transferred to this place - your home for the foreseeable future, seven days a week. Does it provoke a feeling of wellbeing? B: Somewhere to go or somewhere to drown your sorrows? That's what happens when people live in a place they don't like; they turn to other things to make them feel better. C: Better? No one completely understands why trees and nature make people feel better but they do and it is also a sign that someone cares for the area. D: There are people walking and they are relaxed, the area is safe and there are opportunities for social interaction. The area sends out a message of a community that cares about itself and its place.

Health benefits and opportunities

Public spaces provide an opportunity to address the causes of poor health at a time of diminishing public resources and the need to think smarter about public expenditure. The ongoing trend in Scotland's cities to make city centres more walkable and easier to cycle supports active travel and increased levels of physical exercise.

Health and community benefits are encouraged and supported when people participate in communal or group activities in public spaces. Evidence shows that urban green and open spaces contribute to public health and wellbeing by promoting physical activity and reducing health inequalities, and promote mental and social health.³⁸ Public spaces help to address issues of social exclusion and loneliness.

Public space should provide opportunities for enjoying indoor/outdoor spaces and promote healthy practices and sustainable consumption and production patterns in harmony with nature; it should contribute to wellbeing across the ages and genders and be income blind.

Cultural benefits and opportunities

Public spaces can showcase cultural connections, provide opportunity for expression and events; and act as a setting to enhance and preserving built heritage. Public Space can act as a 'playground' for people, audiences and participants. The recent surge of 'pop up' events in Scotland provides opportunity for entrepreneurship in public spaces and creating a 'safe space' for innovation, many also provide chance for commercial activity, enhancing the economic opportunities of public space.

Public space can help to create the environment to dispel the myths and destructive stereotypes associates with migration by fostering public debate about the varied and overwhelming positive contribution of migrants in the local communities.

Far from threatening natural or heritage values, public access to conservation-oriented and fragile areas allows people to become informed and value and defend them.

Educational benefits and opportunities

Public spaces and educational and cultural facilities (schools, libraries, civic centres, and museums) have a pedagogical function that is essential for life and social discourse.

In many Scottish towns, the most expensive public asset is the high school, built around at least one great space, which in most modern examples is an atrium. In our Cities, the largest public buildings are often our hospitals, which are increasingly seeking to internalise public space. One of the most expensive private assets in any settlement can be the shopping mall, also usually built around a central space.

All of these buildings recognise the importance of place, seeking to recreate the dynamics of a public place, rather than a sectoral approach that is by its nature exclusive.

The importance of Governance

The quantity and quality of public space can be safeguarded through urban governance and management by developing effective, accountable and transparent processes at all levels and by ensuring inclusive and participatory decision making.

Public space requires a legal and policy framework at a Scottish Government level that both enables local authorities to effectively implement national urban policies and empowers them as policy makers benefitting from a sufficient level of autonomy in decision-making in accordance with their competences.

The management of public space requires political commitment from all levels of government for an efficient and effective share of functional assignments for coordination and cooperation. Such a policy should be shaped through a transparent and participatory process involving - beyond nation, subnational and local authorities - all relevant non-state actors, such as NGO's, citizens and the private sector.

8: Conclusions



The Glasgow Science Centre from the River Clyde

Scotland's most extensive corridor of regeneration.

Scotland has undergone economic transition in the last 20 years and there have been winners and losers among the towns and cities involved in the transition. Manufacturing industry has declined, however, the rise of the knowledge economy built on a digital revolution based on the Internet, fast computers and networking, is bringing about massive opportunities and challenges for cities.

The knowledge economy is reshaping our industrial towns and cities to a form that suits the new conditions of economic production, social requirements and

cultural institutions. The emergence of knowledge as a productive capacity and output with few spatial requirements is changing the nature of sites for production and consumption in cities. New clusters of activity are formed, while others are dismissed or dispersed. The spaces of knowledge include universities, science parks and cultural quarters, which are created side by side with the new spaces of consumption and new patterns of social inequality.

The knowledge economy has altered the dynamics of urban economics, reinforced the growth of agglomeration economies, and increased the importance of spaces for encounter and innovation. It has also reinforced the importance of place. The 'death of

distance' and the replacement of the city of streets, squares, stations, shops and restaurants with a 'city of bits', i.e. a virtual city with a street pattern consisting of digital information highways, has been unfounded, and the converse has proven to be the case. New ideas and innovative solutions come into being through intensive communication and exchange of knowledge with others. The proximity of people is very important.

Knowledge development, globalisation and 'authentic' cities are mutually supportive. As the knowledge economy takes hold, the towns and cities in Scotland that are able to adapt to the new economic requirements will also be able to maximise on their local distinctiveness, as localisation (the increasing importance of city distinctiveness, authenticity and identity) becomes as important as processes of globalisation.

The knowledge and digital economies now drive many and various aspects of the European and world economy, including banking, retail, energy, transportation, education, publishing, media and health. ICTs are transforming the ways in which social interactions and personal relationships are conducted, with fixed, mobile and broadcast networks converging, and devices and objects increasingly being connected to form the Internet of Things. Scotland's towns and cities are well placed to maximize the opportunities of the digital economy and the economies of scale they possess.

The challenge for Scotland in any strategy for public space is therefore to improve and increase the incidence of it on the one hand, while revitalising and re-purposing it on the other.³⁹ It is crucial to understand that public space is not a static, monolithic concept, but that it is closely interconnected with other facets of urban life and development, from the environment and transportation to social life and the economy. Therefore, improvement need to be made in parallel with other initiatives, addressing the inter-linkages with all the other aspects of city processes, such as transportation and the regeneration of run-down areas, offering the possibility to turn around the perception of entire districts or even towns and cities as evidenced by the case studies set out in the next chapter. A countervailing trend to the improvement and expansion of public space has seen the privatisation of some public space, with examples in some countries limiting access to former public spaces after their acquisition through private development entities. Given its essential role in urban life and the urban economy, cities, municipalities, and regional and national governments need to monitor this trend, while simultaneously improving hard and green public spaces to reap their full potential.

This document, prepared for the Scottish Council Development and Industry, calls on the Scottish Government, Scotland's local authorities and businesses to redouble our effort in reinvigorating Scotland's public spaces and green spaces, due to their vital importance to Scotland's economy, social-equity, environment and health.

The new economy - the knowledge economy electrified by the digital revolution - demands an 'experience economy' in our towns and cities that in turn requires high quality and accessible public space and green space for all of Scotland's people.

Over the last 20 years, Scotland has done a great deal in pursuance of this aim as the case studies in this document show. Many of the principles that deliver quality in public space are timeless and it should most certainly be possible to employ these principles to ensure that the changes to public space and green space that we bring about are sustainable and long lasting.

This document is deliberately 'Brexit-blind' and seeks to address the evidence that good public space in irrespective of politics a fundamental human good. There is no cause for complacency if Scotland wants to deliver and support competitive and equitable towns and cities across the country.

Case Studies: Meanwhile uses

Former industrial towns and cities often have an abundance of vacant land and buildings. Much thought is put towards the long-term regeneration of such places but in the short-term the time a building lies empty or land is left vacant the surrounding community suffer the consequences.

'Meanwhile uses' aim to bridge the gap until long term regeneration can occur. It is the process of using vacant land or buildings on a temporary basis until a permanent solution can be formed. Rather than allowing the space to become a problem its use can be gifted to the community for social interaction and community activities.

On top of promoting good corporate social responsibility there are potential benefits that can arise from meanwhile uses. Landowners can see their costs reduce as bills and business rates will most likely fall upon the meanwhile user. Peace of mind can also be achieved as an active property is less likely to face vandalism. Furthermore, having a meanwhile user is a good way of showing the potential of a site making it more attractive for future commercial use.

For organisations in the community there are advantages to becoming a meanwhile user including the ability to attain low cost, low commitment space and space for start-up businesses. Additionally, already established businesses can experiment new ideas with little risk. Meanwhile uses can inspire economic growth in a community. The whole community can benefit from more vibrant and attractive community uses.

There are good signs of progress with success stories beginning to emerge. The 'Meanwhile Foundation', promoting the use of meanwhile uses, work with various stakeholders on local projects. One of these was 'Rayners Lane'. Previously a library, the property was a part of the "start here" community project. It was transformed into workspace and event space as well as a pop-up shop. What was a previously a problem for the community is being used to help the development of the community.

Meanwhile uses however do have their shortcomings. Letting someone in for a short period can be problematic difficult, especially with the costs of drawing up leases. The UK Government has looked at this issue and has drawn up guidance. To encourage people to become

'meanwhile users' often perks are offered such as the dropping of business rates. Although this is beneficial for the owner and user it leaves a hole in council budgets.

The rise in meanwhile uses is encouraging. The ability to deal with the short-term issues of development is welcome along with benefits to the community. However, more can be done to make to process more accessible. Improving match-making between landowners and potential meanwhile users as well the reform of business rates and planning systems require attention. It is clear the potential is there for meanwhile uses to flourish but this requires action to be taken to promote this to potential meanwhile users.

Case Studies: Wellness not illness - why place matters for health⁴¹

Health systems spend much of their time and resources addressing the 'absence of disease or infirmity' and health care – in reality, treating sickness – and this frequently represents the biggest single item in governmental budgets. The reality is that a 'complete state of physical, mental, social well-being' seldom receives much overt discussion or promotion.⁴²

Today society, focuses on illness rather than wellness but communities that cares for themselves contribute greatly to psychological wellbeing. Improvements to the environment help to improve wellbeing which in turn helps to improve social cohesion ... and these all support enhanced economic performance.

Scotland's life expectancy is now the poorest among a group of western European countries but for most of the last 150 years, Scottish life expectancy has been at the average of western European statistics. It is only in the last few decades that Scotland has fallen behind.

This is a recent phenomenon which has become manifest since 1950 and is related to poverty. When the detail is examined, it becomes apparent that the richest 20% of Scotland's population is doing fine and their life expectancy is increasing. By contrast, for the poorest 20%, life expectancy is not increasing at the same rate. Scotland's poor health is a reflection of the health of the poorest in our society.

It appears that the culture of alcohol consumption has changed radically in Scotland, enough to drive alcohol-related mortality for Scottish men and women from one of the lowest in Western Europe to the highest in a twenty-year period.

The local authorities where mortality from these causes is at the highest are those in west central Scotland and Dundee. These places were the industrial heartland of Scotland, the cities and towns of shipyards, steelworks, engineering, locomotive works and mills.

Today we know that prevention is possible but it requires us to re-order our social priorities. Too often in the most deprived parts of any society people are labelled as helpless or incompetent. They are told where to go and what to do. They are not in control of their lives. This does not promote wellness, so our challenge has to be

to find ways of giving people a sense of control over their lives.

One way of achieving a sense of control is to be involved in decisions that shape the environment in which one lives and to create environments which promote social connectedness. The literature around connectedness shows that high levels of social integration confer an increased likelihood of survival when compared with people with low levels of social integration.

Planning and designing environments that bring people together are a critical factor of what should be happening to support wellness.

If we are going to make strides in Scotland in transforming our environment then we need to begin by involving people. This will result in better planning outcomes and the people involved will have a better sense of their own self-worth and feel more in control of their lives. The outcome will be an improved sense of wellbeing in Scotland. Results of recent epidemiological studies show that greater availability of, and accessibility to, urban green areas spaces are linked to various health benefits, such as stress reduction, improved well-being and mood, better sleep, improved pregnancy outcomes, reduced cardiovascular morbidity and reduced mortality.

Case Studies: Creative projects and talented people - the power of transformation⁴³



Cultuurpark Westergasfabriek recreation, Amsterdam

Cultuurpark Westergasfabriek, Amsterdam. A transformational urban regeneration project in Amsterdam. The park is extremely popular for informal recreation, relaxation and social interaction.

In former industrialised countries around the world, the extent of derelict land, buildings and objects awaiting transformation is growing every day. A new methodology of transformation is needed is both top-down and bottom up. Transformation needs a vision, a team and a strong future programme that has been developed by the people that matter: the community and the stakeholders.

'Creatification'

There has been a lot of discussion during the last decade about the creative economy and the emergence of a 'creative class'. What is more important, is the 'creatification' of the economy as compared with first the industrialisation of the economy followed decennia later by its automation – or 'computerisation'. The phenomenon of 'creatification' has grown bigger such that today the added value in products and places is based as much on brand as on the product.

Economic development is about adding value; branding is about adding creative value to a product. Since creative added value is not psychical, the work

to produce it can be undertaken anywhere. However, anywhere is not everywhere: some cities are successful in attracting these economic activities and others are not. The creative economy needs the attractive city; and they all need a market.

The marketplace of the creative economy can be that successful project around the corner; it is the public space in your favourite city combined with the events and activities that take place. The attractive space to work combined with the market; that is the thing that can make people stay.

Shrinking places

In sharp contrast to the 'world cities', many medium-sized towns and cities do not grow at all and many lose population and economic activity. It would be much better for these places to work together in clusters and regional economic agglomerations. Even at the level of a small city, it is clear that the neighbourhoods which have higher educational institutions, a well-functioning market, a clean, green and safe environment and a reasonable amount of sports and culture do much better than neighbourhoods that are one-dimensional and lack opportunities for newcomers to connect socially with the local population.

The question, therefore, is how to make any city more attractive and to give it a new and extra impetus. The transformation of existing land and the reuse of derelict, industrial buildings and land offer the perfect chance for cities to do just that.

From 'detraction' to 'attraction'

There are three significant elements that have a large impact on making a city attractive.

Firstly, education is the answer to almost everything. Cities that lack higher education are shrinking and declining cities. This is logical since the main reason for migration is very often accessibility to good education. For example, over the age of 40, only 2% of the Dutch population moves in a given year. Below 40, that percentage can be as high as 12%. The time to 'catch' talent is when people are young and when people move in their early career between the ages of 20 and 35.

A key aim should be to provide a city offer that is attractive to young people at the time they are completing their education. This means affordability and availability in the housing market, as well as the

possibility of starting a business or working alongside other like-minded people.

Secondly emancipation: the opportunity of personal betterment, achievement and fulfilment. A city that offers many possibilities to start a small business, that offers opportunities for everybody, is far more attractive than a city that doesn't have that quality.

Thirdly, the marketplace. In this space, culture plays an important role. Education, inspiration and accessibility, of course, play a big role but recreation and sport may be more important. Culture plays a very important role because, in its widest sense, culture is about creativity, making things different.

Talent is the fuel of the creative economy. The creative city is the city with the greatest capacity to attract and connect with talent. Talent is about the best and the brightest and, usually, youth. Talent is the most valuable resource of the new economy.

The best projects act as catalysts: they create a strong identity and have the capacity to stimulate further beneficial change. The best projects are those that encourage the talented to come and stay. These projects create points of attraction that can make a difference.

Case Studies: Natural Capital



Cultuurpark Westergasfabriek greenspace and sculpture, Amsterdam

Cultuurpark Westergasfabriek, Amsterdam. A transformational urban regeneration project in Amsterdam. Semi-natural habitats in the park, with opportunities for informal recreation with sculpture and artworks an important feature.

Cities the world over are facing similar issues, the lack of space and the need for natural urban capital. Green infrastructure can improve the quality of life in cities along with economic, health and social benefits.

Nature is fundamental to our wellbeing but it also has vast economic potential. From ecotourism to sales of recreational equipment to all the services that underpin natural sites, there is huge economic opportunity.

Furthermore, the 'greening' of the urban environment can aid economic performance in the long term. Many advantages of natural urban capital are hard to monetise but are wide-ranging. This can include crime reduction, improved physical health, improved mental health and water management to reduce flooding to name a few. By investing in our natural urban capital and making are cities 'greener we can take advantage of the vast array of benefits.

Although every city is unique many share the same issues. Urban sprawl is an ever-growing issue in cities the world over that is destroying our natural capital. Poorly located developments can destroy natural habitat and increase fragmentation. Poorly designed developments have little

regard to the existing natural capital and fail to include the surrounding environment in the development. If we do not take action there is the possibility that we could leave much of our ecosystem stranded.

The need for a strong ecosystem is crucial as it underpins our economic prosperity, health and wellbeing. "Green Infrastructure" can deliver social and economic benefits by contributing to the quality of life of urban people and by enhancing the desirability of cities.

In previous centuries the natural environment was respected greatly and the desire to change it was challenged. Since the industrial revolution this is no longer the case and often the natural environment is seen as an obstacle. The key appears to be finding a balance of developing whilst embracing the natural habitat. This requires a change of mind-set with our politicians, business leaders and communities. The technology and resources are there but the will for change is required to push ahead.

Steps in the right direction are being taken and success stories are beginning to emerge. Whitehall now as the natural capital committee and in Scotland the 'Forum for Natural Capital' has been set up. These bodies work to monetise our natural systems so business leaders and decision makers have a better understanding of the economic importance of our natural landscape. In business, attitudes are changing. Businesses want to demonstrate social responsibility and they now wish to be associated with green initiatives that contribute to the environment and social wellbeing.

Attitudes in society may also be turning as people are turning their backs on out of town shopping centre in the pursuit of vibrant towns and authentic city centres. In times where technology and cities are now the norm the need for something different, a natural landscape, is more desirable.

There are several steps we can take in order to make the most of our natural capital. One priority is to be clear with investors about the benefits of a green environment. The idea that the natural world can be broken down into monetised amounts will not always be well received but it gives clarity to decision makers as to the advantages of green capital. For example, the lowland canals in Scotland has generated over £150million in economic impact. This information is a clear indicator of the advantages of this sort of investment.

As the advancement of urban green space benefits us all and partnerships such as the Central Scotland

Green Network involves politicians, communities and other stakeholders working together to ensure that developments maintain the surrounding landscape and promote future green infrastructure projects. Strong leadership is required to champion these ideals and bring about change.

Acknowledgments

Expert Working Group:

Brian Veitch, Group Chair

David Anderson, Head of Planning and Design, Transport Scotland

Marie Christie, International Events Director, EventScotland

Graeme Cumming, Managing Director, AECC

Brian Devlin, Future Glasgow

Sarah Drummond, founder, We are Snook

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Steve Tolson, Chairman, RICS Scotland

Images:

Cover:

LDA Design

Inside cover:

AC Manley

Page 4:

Gillespies, LLP

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Peter Sandground/Scottish Canals

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Before: James Corner Field Operations

After: Brian Mark Evans

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Collective Commons, Knowlton School, Ohio State University

Footnotes

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London Olympic Park, London

The new family park and play area, South Plaza, Queen Elizabeth Olympic Park, London. One of the most important elements of the legacy from the 2012 Olympic games in London has been the transformation of a large swath of the lower Lea Valley in East London. The Olympic Park was a centerpiece of the Games and is now the cultural heart of the new mixed use districts post-Games.

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