

# **Smart Growth: A Sustainable Solution for our Cities?**

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**DECLARATION**

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature :.....

Date :.....

## **Abstract**

The greatest challenge for our time is to ensure the preservation of our environment and the well being of our people. With this in mind and the fact that almost half of the world's population is living in urban areas, it is of the utmost importance to ensure that cities develop in a sustainable manner. Cities are regarded as one of the most magnificent creations of human achievements, but when looking at urban areas around the world it can also be regarded as one of the most problematic achievements. The growth of cities is a natural process and an unstoppable progression of events. Modern cities have a major impact on the environment and to ensure successful reduction of this impact, certain problem areas will have to be identified and addressed without delay in order to be in a position to make any significant change in the long run. Interventions of some sort are needed to make living in cities as well as on the planet as a whole more sustainable. The big question is however, how this can be achieved? One of the possible new interventions is the Smart Growth Concept, which is a form of growth management. Although Smart Growth has been around from the early 70's, it is still a new concept that has not been explored to its full potential. The concept is well known in America but in most countries around the world, including South Africa, it is still a vague concept, which needs more introductions, convincing and ultimately, implementation. Although this article will focus on the Smart Growth concept as a possible solution to creating sustainable cities, the critics do not all agree with this point of view. Enough evidence is however provided to prove that Smart Growth can make a difference in our daily lives. The main aim of this article is to provide the reader with enough information on the subject of Smart Growth, and address the criticism against the concept of Smart Growth, to be able to see the positive influence that the Smart Growth concept can have on our cities.

## Opsomming

Die grootste uitdaging van ons tyd is om te verseker dat die ons omgewing beskerm word en die welstand van ons mense bevorder word. Met dit in gedagte en die feit dat ongeveer die helfte van die aarde se bevolking in stedelike areas woonagtig is, is dit van uiterste belang dat stede op 'n volhoubare manier ontwikkel word. Stede kan as een van die grootste skeppings van die mensdom beskou word, maar as daar gekyk word na stedelike areas rondom die wêreld kan dit ook as een van die problematiese skeppings beskou word. Die groei van stede is 'n natuurlike proses en is 'n onstuitbare sameloop van gebeurlikhede. Moderne stede het 'n groot inpak op die omgewing en om te verseker dat die impak suksesvol beperk word, is daar sekere probleemareas wat geïdentifiseer moet word en wat sonder enige verder vertraging aangespreek moet word, ten einde in 'n posisie te wees om enige beduidende verandering op die lang duur te maak. Ingryping op een of ander manier is nodig om stede meer bewoonbaar te maak, asook die planeet as 'n geheel meer volhoubaar te maak. Die groot vraag is egter, hoe om dit te doen? Een van hierdie moontlike ingrypings is die Innoverende Groei ('Smart Growth') Konsep, wat 'n vorm van groeibestuur is. Alhoewel die Innoverende Groei Konsep al sedert die sewentiger jare bestaan, is dit steeds 'n nuwe konsep wat nog nie tot sy volle potensiaal ontwikkel is nie. Die konsep van Innoverende Groei is bekend in Amerika maar is in die meeste lande rondom die wêreld, insluitend Suid-Afrika, nog steeds 'n vae konsep wat nog verder bekendstelling en oortuiging vereis en uiteindelik geïmplementeer moet word. Alhoewel hierdie artikel die fokus plaas op die Konsep van Innoverende Groei as 'n moontlike oplossing in die skepping van volhoubare stede, is daar kritici wat nie saamstem met hierdie sienswyse nie. Genoeg bewyse word egter voorgehou om te bewys dat die Konsep van Innoverende Groei 'n verskil kan maak in ons daaglikse lewe. Die hoof doel van hierdie artikel is om die leser van genoeg inligting te voorsien rondom die Konsep van Innoverende Groei, en om die kritiek teen die konsep aan te spreek, ten einde die leser te oortuig dat die konsep 'n positiewe invloed op die groei van ons stede kan hê.

## **A c k n o w l e d g e m e n t**

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## 1. Introduction

The need for developing more sustainable cities flows directly from the commitment by the world leaders at the Earth Summit in Rio (UN, 1992) and the World Summit on Sustainable Development held in South Africa during 2002, which had as purpose the development of programmes that will move humanity to sustainability during the 21st century.

The most widely cited definition for Sustainable Development is that of the World Commission on Environmental and Development (WCED, 1987), also known as the Brundtland Commission, which reads as follows: “*Sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs*” (Haughton & Hunter, 1994:16). Dresner (2002: 64) sees Sustainable Development as “*a meeting point for environmentalists and developers*”.

New innovative Smart Growth policies, principles, guidelines and trends are seen by some, mainly in the United States, as an integrated solution to urban sprawl and the global economic, social and ecological crisis, which cities are presently in. It is also seen by some as a modern attempt to create more liveable and sustainable cities, which are in harmony with the nature and which will also satisfy the needs of its inhabitants. With urban sprawl as one of the dominating development growth patterns that is taking over our cities around the world, innovative and strategic solution need to be found to address this issue.

Smart Growth is a concept and term used by those who seek to identify a set of policies that can govern the development and growth of cities. Smart Growth is an example of a Growth Management policy. Growth management is a series of policies applied mainly in the Netherlands (Needham & Faludi, 1999: 481) and the United States (Frazier et al., 2001) and more recently even in Israel (Frenkel, 2004).

Frenkel (2004) state that “*During the 1980s and 1990s, growth-management tools derived from the compact city and new urbanism perceptions were developed and implemented extensively (Fulton, 1996; Jenks et al., 1996). The new approach promoted the preservation of open spaces by focusing on compact, mixed use, and clustered development. Concomitantly, evidence of the effectiveness of the tools in preventing sprawl started to appear in the literature (DLCD, 1992; Nelson and Moore, 1996; Nelson, 1999; Pendall, 1999; Carruthers, 2002). Nonetheless, it is still difficult to say that growth-management policy succeeds in preventing urban sprawl or in achieving sustainability*



(Fulton, 1996; Dieleman et al., 1999; Williams, 2000; Kline, 2000; Bontje, 2001). A trenchant debate prevails among scholars over the efficiency of growth management and its operational ability to restrain sprawl”.

The American Planning Association (APA, 2002) adopted the following definition for Smart Growth “*Smart growth is the planning, design, development and revitalization of communities to promote a sense of place, the preservation of natural and cultural resources, and the equitable distribution of costs and benefits of developments*”. Smart Growth is seen as enhancing ecological integrity over the short and long term, improving quality of life and expanding the range of transportation, employment and housing choices in any region in a fiscally responsible manner.

The Smart Growth concept can therefore possibly play a role in the movement towards developing sustainable human settlements/cities and can also be used as a testing ground for new ideas, techniques and technologies that can be integrated into the mainstream of thinking in ensuring sustainable living environments. However, critics oppose many of the principles of Smart Growth and in some cases provide examples that point out that Smart Growth is not always as smart as what it seems (Gordon & Richardson, 2000). Despite this opposition to Smart Growth the concept can still be used successfully in creating sustainable cities should it be applied in a holistic manner. To make a conclusive argument we have to take a step back in time to see where cities come from and what problems it created before we take a look at the concept of Smart Growth and evaluating it against the critics’ opinions. The concept of Smart Growth within a South African context will also be discussed with ways how to implement smart growth principles in its cities in an effort to achieve sustainable living environments.

## **2. Past and Present Cities**

The first question one can ask is why did cities formed in the first place? People came together for different reasons. Macionis & Parrillo (2004) identified these reasons as mainly being security, more profitable trading, and stimulation of intellectual life, opportunities such as jobs, better housing, and a better quality of life. By looking at the growth of cities of the past, it becomes clear that until relatively recently, urban development was very slow. According to scientific calculations, the first traces that people walked the earth was determined to be approximately 100,000 years ago (Macionis & Parrillo, 2004:5). Cities, or the gathering of groups of people (called civilisation) have only emerged round about 10,000 years ago, while it was only during the last several centuries that the world has acquired a sizable urban population (Macionis & Parrillo,

2004: 5). People lived in small city centres to be close to businesses, jobs and for security reasons. Houses were small, built without services such as water, electricity and sewerage systems, which made the construction of these facilities relatively easy. With the introduction of different transport options such as the street car, train and the automobile, people started to move further away from the city centres. The linkages of roads and railway tracks between nearby towns also made it possible for farmers to sell their products in neighbouring towns, which also lead to bigger towns and cities.

Urbanisation became a global phenomenon in the last half century. More than 50% of the world's population now resides in urban areas (Clark, 2003: 1). Modern cities are associated with urban sprawl, which is definitely one of the major problems of any modern city, which also presents further challenges such as segregation of land uses, traffic congestions, expensive infrastructure, housing shortages, air pollution, and suburbanization, to name only a few. Although the cost of sprawl is difficult to calculate, it is very clear that the development of cities have also often had a negative impact on citizens' quality of life.

By looking at cities and their desirable characteristics, a few guidelines came to mind that according to various authors (Behrens & Watson, 1996; Bohl, 2000; Dewar, 2000; Todes, Dominik & Hindson, 2000; Macionis & Parrillo, 2004; and Sheehan, 2001) should be present in cities and towns to create that sense of place that makes that specific place home to its inhabitants. According to Nozzi (2006a:1-2) to create this ideal city the following principles should be present:

- (1) A safe pedestrian environment should be created for people with no access to cars, such as children, the elderly and the disabled;
- (2) Urban liveability should be enhanced to reduce the desire to flee to the suburbs;
- (3) The need to travel should be reduced;
- (4) Historic structures should be retained, instead of replacing them with parking or shopping malls;
- (5) Neighbourhoods should be made more memorable and dignified ;
- (6) Walking should be made to feel more enjoyable;
- (7) Citizen access to culture should be increased;
- (8) A good environment for smaller, locally-owned businesses should be created;
- (9) More housing options should be provided;
- (10) A sense of place, a sense of community and a sense of belonging should be created and civic pride restored.

According to Oranje, Del Mistro & Shaw (2000), “*The New Urbanism/Neo-Traditionalism*” is an umbrella “movement” closely linked to TOD/P [Transit- orientated development/ planning], the proponents of which “... seek to reconnect transport with land use and in particular to establish transit-oriented development where higher density, mixed use areas built around high-quality transit systems provide instruments & mechanisms to operationalise activity/development corridors focused urban structure that can help loosen the grasp of automobile dependency” (Newman and Kenworthy, 1995: 1”).

However, some people question the physical determinism that the concept of New Urbanism is based on. According to Campbell (2002) the start of British town planning was based on the idea that “[n]ice’ buildings set in ‘nice’ spaces make for ‘nice’ places and ‘nice’ people! However, it soon became clear that utopias of physical form tend to disintegrate in the face of social, economic and political processes (see, for example, Fainstein, 1999; Harvey, 2000)”. Campbell (2002) also warns that “the enthusiasts for the recent wave of New Urbanism might usefully bear [this] in mind”.

Bohl (2000:761) see the New Urbanism concept as “a movement in architecture and planning that advocates design-based strategies based on “traditional” urban forms to help arrest suburban sprawl and inner-city decline and to build and rebuild neighbourhoods, towns, and cities. New Urbanism is an umbrella term, encompassing the traditional neighbourhood development, or neo-traditional town planning, of Andres Duany and Elizabeth Plater-Zyberk (Krieger and Lennertz, 1991), the pedestrian pocket and transit-orientated design articulated by Peter Calthorpe (Calthorpe 1993), Douglas Kelbaugh (Kelbaugh 1989) and Bill Liebermann; and the quarties approach of Lien Krier (Krier 1998)”.

From these definitions of New Urbanism it is clear that the ground principles for both these two growth management concepts, namely Smart Growth and New Urbanism are more or less the same and that they strive for the same goal in achieving sustainable cities.

### **3. Why Smart Growth?**

Why then focus on Smart Growth? If one looks at the tendency around the world with regards to urban development it is very clear that the dominating development growth patterns that take place today can be identified as sprawl. Urban sprawl is one of the most serious impacts of unsustainable cities. Urban sprawl can be considered to be the main reason for suburbanisation, traffic congestion,

housing shortages, segregation of land uses, and invasion of agricultural and environmental sensitive areas and separation of job opportunities from the poor; to name just a few. Other aspects that sustain urban sprawl and make the creation of sustainable cities difficult are the incapability of governments to direct development, to take predictable planning decisions, to provide a variety of housing options and to involve the public in the planning processes before making decisions. Due to the 'wickedness'<sup>1</sup> of these city problems the only way to come up with solutions for these problems are to find some intervention theories/ideas/concepts that can help to stop these problems.

Some of the theories, ideas and concepts that were developed over time, such as Growth Management Strategies, Integrated Development Plans, Forward Planning Documents (such as Guide Plans, Structure plans), Compact City Initiatives, etc, endeavour to provide some solutions to these ongoing 'wicked' city problems. Although there are a few success stories from these interventions, most cities are still growing in vastly unsustainable ways. The Smart Growth concept is not the ultimate solution but can be considered as one of the best ways to make a meaningful contribution to sustainable cities, due to its holistic and integrated approach to problem solving and the fact that it is in my opinion based on a very practical and logic foundation.

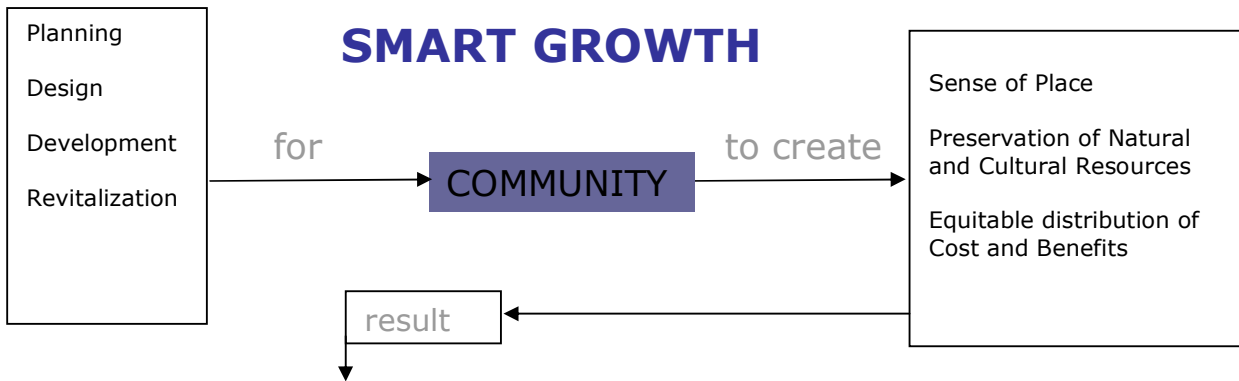
#### **4. Concept of Smart Growth**

Smart Growth has been described as development that serves the economy, the community and the environment at the same time (U.S. EPA, 2004). It changes the traditional question of growth versus no growth to how and where the development and growth should take place (Frazier et al., 2001).

The following schematic diagram of the American Planning Association's definition for Smart Growth is an easy way to illustrate the Concept of Smart Growth.

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<sup>1</sup> Wicked problem: While implementing a possible solution(s) to a problem the consequences thereof create new problems.



**SMART GROWTH** enhances **ecological integrity**  
**SMART GROWTH** improves **quality of life**  
**SMART GROWTH** expands the range for **housing, transport & job opportunities**

**Figure 1:** Schematic diagram of APA definition on Smart Growth (APA, 2002)

Smart Growth has also been described as follows by different writers:

- Smart Growth is development principles and planning practices that result in more efficient land use and transport patterns (Litman, 2003: 5).
- The main aim of smart growth is to recognize connections between development and quality of life (Briechle, 1998: 1)
- Smart growth is “*development that serves the economy, the community and the environment*” and can also be seen as a “*collection of urban development strategies to reduce sprawl that are fiscally, environmentally and socially responsible*” (US EPA, 2004).

From the above definitions it is very clear that Smart Growth is a policy with a holistic approach to problem solving, as it clusters a wide spectrum of activities together to obtain the required results. That is why many believe that the Smart Growth concept can be considered the best option to eliminate city problems or ills (Litman, 2003; Chen, 2004: 8; McElfish, 2004: 11).

From various studies and surveys done by the organisation ‘Smart Growth Network’ (Frazier et al., 2001), they came up with a list of common requirements for Smart Growth policies which can be summarised as follows:

- Development should be economically viable and must preserve open spaces and natural resources;
- Land use planning should be comprehensive, integrated and regional;

- Public, private and non profit sectors should collaborate on growth and development issues and should achieve mutually beneficial outcomes;
- Development processes should be certain and predictable;
- Infrastructure should be maintained and enhanced to serve existing and new residents ;
- Redevelopment of infill housing, brownfield sites, and obsolete buildings are actively pursued;
- Urban centres and neighbourhoods are integral components of a healthy regional economy;
- Compact suburban developments are integrated into existing commercial areas, new town centre and /or near existing or planned transportation facilities.

From these common characteristics that were identified by the Smart Growth Network (Frazier et al., 2001) the following principles have been formalised by the Network and can be considered to be acknowledged worldwide and can also be seen as the basis on which the Smart Growth concept is based:

- Permitting **Mixed land uses**;
- Taking advantage of **Compact Buildings** design;
- Creating a range of **Housing Opportunities** and choices;
- Creating **Walkable Cities/Neighbourhoods**;
- Fostering distinctive, **attractive communities** with a strong sense of place;
- Protecting **Open Spaces and Farmland**, Natural beauty and critical environmental areas;
- Strengthening and **direct development** toward existing communities;
- Providing a variation of **transportation choices**;
- Making development **decisions predictable** , fair and cost effective;
- Encouraging community and **stakeholder collaboration** in development decisions.

The main aim that the Smart Growth Network (Frazier et al., 2001) wishes to achieve by promoting these principles is to create synergies and to generate benefits for cities as a whole by implementing the principles in a holistic and integrated manner. By elaborating on each of these principles, the functionality and practical implications of these principles will be highlighted and the benefits that can be created by means of these principles, policies and strategies will be shown.

#### 4.1 Mixed Land Uses and Compact Building Design

The main aim of remixed land use principle is to provide the people living in any city with the option to live, work and to play within walking distances from each other. This will directly reduce the city ills that are normally visible at sprawled cities. The benefits of changing zoning schemes in such a way that it will make provision for mixed zoned areas and neighbourhoods are one of the obvious ways to create mixed uses. Mixed land uses provide the people (who cannot afford a car, who is too young or too old to drive) the opportunity to live a sensible and enjoyable life by making it possible to shop, relax and to do all their necessary business within walking distance from their homes (Figures 2a, 2b, 3a and 3b). Mixed land uses also ensure that the traffic impact on roads is reduced, which ensure that the roads' carrying capacity is extended for a few years. Adjusting the existing zoning or town planning scheme of a city or town is only one step to creating mixed land use opportunities, the Smart Growth Network identified additional innovative policies and strategies (Frazier et al.,2001) such as financial incentives, changing of planning ordinances or acts, adopting comprehensive and sub-area plans, which include identified community objectives, using enhanced zoning techniques (such as flexible zonings, overlay zonings, impact zonings, as mentioned in the Western Cape Planning and Development Act no 7 of 1999), providing regional planning grants, encouraging the redevelopment of single use areas, and accommodating the re-use of closed, decommissioned or obsolete institutional uses etc. to achieve the successful implementation of mixed land uses.



**Figure 2a:** Mixed Land Use Buildings: Buildings accommodate retail on the ground floor and offices and residential uses on other floors.

*Location: London, England*

*Source: H Groenewald, April 2005*



**Figure 2b:** Mixed Land Use Buildings: Buildings accommodate retail on the ground floor and offices and residential uses on other floors.

*Location: Paris, France*

*Source: H Groenewald, April 2005*

The second principle of the Smart Growth concept is the provision of compact or densified buildings and land developments in order to make city facilities economically, socially and environmentally more sustainable. According to Kackar & Preuss (2003:7) in their publication, 'Creating Great Neighbourhoods : Density in your Community', a report of the U.S Office of Technology Assessment found that it cost a western city \$10,000 more to provide infrastructure to a lower density suburban development than to a more compact urban neighbourhood. The Urban land Institute also found that the infrastructure cost per housing dropped dramatically as density increases (Kackar & Preuss, 2003:7). From the above it is very clear that by providing businesses and houses of higher densities it will bring the cost of development down and will lead to more reasonable tax income for the local government, without any outrageous financial burden on the individual property owners. By providing a variety of different housing options of different sizes and prices (duplex townhouses, flats, and single family detached housing) within walking distances from shops, offices and recreational areas, as well as public transport, it will not only ensure that a wide spectrum of the society will be able to live there but will also ensure that the densities are of such a nature that it will support the economy, the transport systems and will hopefully also help to create more social unity within the neighbourhood as a whole. According to Kacker & Preuss (2003: 7) higher densities also reduce the impact of the built area on the environment which ensure that people are accommodated on a smaller geographic area which lead to the fact that less land be consumed and that valuable open spaces, farmland and ecologically sensitive areas be protected. Different policies and strategies have been identified by the Smart Growth Network in their document 'Getting to Smart Growth II' that will support the way to compact building design within communities. These are summarized as follows:

- Organize a compact development endorsement program, which will cut down on red tape, will reduce the per-unit construction costs and which will provide a wider variety of housing to the consumers ;
- Adopt a compact development zoning ordinance or zoning scheme which will be applicable in certain areas and which will ensure that the character of the respective communities will not be negatively affected as these type of development will be designated to specific areas that have been identified for this purpose;
- Make use of more traditional neighbourhood design; According to Behrens & Watson (1996:28) the Traditional Neighbourhood Development (TND) which occurred prior to the dramatic increase in car ownership in the 1950, add more liveability to neighbourhoods than what the case is today. TND is characterised by a more open road network, the streets are scaled to pedestrian



size, narrower road reserves, wider pavements and a lot of tree planting on the pavements, more connections between two points and better pedestrian access to public transport stops.

## 4.2 Housing Opportunities and Choices

This principle can be considered as one of the most important and can have multiple positive spin-offs should it be implemented successfully. The main aim of this principle is to provide a range of housing options for various income groups and family sizes in different price ranges. By studying cities and towns it is becoming clear that it is mostly close to the city or town centres where you will find a mix of housing options (apartments, townhouses, single dwellings etc) and the further you move away from the centres you are left with large areas designated for just single residential units. This creates a situation where each neighbourhood only consists of one type of home unit which excluded a lot of people from affording a home in that specific area or which is not suitable for specific family configurations, notwithstanding the fact that the neighbourhood would be suitable for the family due to work obligations, schools or other specific activities that suite the family's lifestyle. To make this principle work, innovative thinking has to be applied in creating suburban neighbourhoods with the capacity to accommodate, single dwellings, town houses, apartments and residential rooms. Although development normally takes place as dictated by the free market or by communal principles and goals as set out in approved planning documents, it is sometimes undermined by existing inhabitants for their own benefit regardless of the fact that it will benefit the community or the city/town as a whole.



**Figure 3a:** Example of Apartments above Retail - Mixed Land Use Buildings:  
*Location: Paris, France*  
*Source: H Groenewald, April 2005*



**Figure 3b:** Example of Apartments above Retail Mixed Land Use Buildings.  
*Location: Paris, France*  
*Source: H Groenewald, April 2005*

In order to make this principle work properly, certain additional policies and strategies can be implemented to promote this idea of a range of housing opportunities. The Smart Growth Network (Frazier et al., 2001) has identified some possible policies which include the following:

- Establish an employer assisted housing programme where employers assist his personnel with down-payment assistance, financial support or technical assistance.
- Streamline the development review process when units include affordable housing – which mean for instance that if a developer is willing to provide a portion of the development at lower prices for identified group or at a other applicable location ;
- Create a regional programme where all communities are encouraged to include a fair share of affordable housing in their area.
- Use transport funds as an incentive to provide housing near transit – should development take place.

#### **4.3 Walkable Cities**

Surveys that have been done in America consistently reveal a significant desire for walkable communities (Humpel, 2002; Nozzi, 2006b). Notwithstanding these findings, walking trails in cities are normally designed for recreational walking and not for an attractive option for accomplishing daily tasks (Frazier et al., 2001). The purpose of this strategy is to place destinations, amenities and facilities close to housing in order to make it possible for the inhabitants to enjoy a safe and pleasant walk to do their daily tasks. In order to achieve walkable cities some sort of planning has to be done to ensure that it became possible. It is proposed that pedestrian master plans should be compiled and implemented. According to a study, that was done in America, roundabout 36% of residents are more likely to choose walking over other methods of transportation, should suitable pedestrian routes be available (Humpel, 2002).



**Figure 4a:** Specific Identified Pedestrian lanes next to automobile lanes.

*Location: Paris, France*

*Source: H Groenewald, April 2005*



**Figure 4b:** Identified Pedestrian Areas next to roads.

*Location: Paris, France*

*Source: H Groenewald, April 2005*

By creating and designing acceptable pedestrian routes certain aspects have to be taken in to account to make it work. Nozzi (2006b) identifies a number of essential ingredients in his paper , ‘The Ingredients of a Walkable Street’, that will be necessary to use and to sustain a walkable street, namely Convivial Concentration of Pedestrians, Residential Densities, Active and Diverse Retail, Traffic-Calming , Narrow lots, Weather Protection, Wide Sidewalks, Unobtrusive Equipment , Active Building Fronts, Short Block Lengths to name but a few. Trees and other green infrastructure and in some cases a form of shelter should be provided along the pedestrian route to make it visually attractive and to provide shelter to the pedestrians from nature elements such as rain, wind, and the sun (Frazier et al., 2001). Special care should also be taken to separate the pedestrian walkways from automobile traffic (Figures 4a and 4b) as far as possible and in cases where the two meet, creative thinking should be used to reduce the possible impact. An example is to narrow streets at certain points by making the distance between the two sidewalks narrower, in order to make the crossing distance shorter and simultaneously to make the pedestrian more visible to the automobile driver. By promoting public transport systems, also one of the principles of creating smart growth cities is to make it possible for pedestrians to reach transit destinations (bus stops, train stations etc) without using their cars to get there. As this remark highlights, it is very important to see that the only way it is possible to create sustainable cities, is when as many Smart Growth principles as possible is used, interactively. To concentrate on one principle will not have the expected result although it may be a short term solutions. By creating walkable cities, the inhabitants will be more willing to make use of the pedestrian routes, which will lead to less traffic on the roads and which will also ensure that less emission gasses are released into the air (Frazier et al., 2001).

#### 4.4 Attractive Communities

To keep cities alive, interventions are necessary in most of the centres of cities. There is a demand for town centres, commercial corridors, public plazas (Figure 5a and 5b) and public transport facilities to create a sense of place that will be enjoyable for its inhabitants (Frazier et al., 2001). Due to the success that certain cities achieved through the implementation of Smart Growth principles, it has made the citizens more aware of the possibilities that could be tapped from the principles, especially if infrastructure and buildings already exist in cities. With a little innovative thinking and design it can be transformed into areas that have that sense of place that people are looking for.

Sheehan (2001) pointed out in her paper ‘City Limits : Putting the Breaks on Sprawl’ that by actively promoting walking and cycling by investing in bike paths, slowing cars down and making streets physically appealing could yield great benefits in accessibility, air quality and traffic safety. An option to make streets more pedestrian friendly was developed by Niek de Boer in 1963, called the “Woonerf concept, which was successfully implemented by the Municipality of Delft in the Netherlands in 1976 (Behrens & Watson: 1996:25). According to Behrens & Watson (1996:25) the woonerf concept has represented a significant departure from the contemporary role of residential streets and forced traffic to behave according to a set of pedestrian rules.



**Figure 5a:** Public Plazas.

*Location: London, Covent Garden*

*Source: H Groenewald, April 2005*



**Figure 5b:** Town Square .

*Location: Delft, The Netherlands*

*Source: H Groenewald, April 2005*

According to Frazier et al., 2001 the following changes to infrastructure and buildings can be utilized to create this sense of place:

- Historian preservation
- Creating usable community greens
- Turning highways into boulevards
- Developing an interactive way-finding and information sign system in town centres,
- Making cultural assets public
- Presenting retail in distinctive and attractive ways to citizens.
- Providing attractive pedestrian bicycle routes.

By achieving success in these smaller parts of applying these principles, it will provide the citizens of a city with so much more to enjoy that will enhance the quality of life.

#### **4.5 Protect Open Spaces and Farmland**

There is a close relationship between open space and the quality of life, economic development and environmental protection (Frazier et al., 2001) Although there may be a debate over whether we should protect green open spaces in the urban areas or densify the area to its maximum to prevent further urban sprawl, it is important to realize that everything should take place in a balanced way. Although urban sprawl should be restricted, open spaces within a urban area should be preserved, especially if it can make a contribution to some of the other Smart Growth principles, namely to use open spaces as pedestrian routes, to create attractive areas with a sense of place where people can relax or to protect biodiversity in corridors.

The mayor objective of this principle should be to protect the open spaces but simultaneously to make it work for the citizens in a positive way. Land conservation should be linked to other Smart Growth principles, as it will help achieving the objectives of this principle. In some cases in the French country side, some town dwellers have a piece of land just outside the town (due to their small erven in towns) where they grow their vegetables for domestic use (Figure 6b).



**Figure 6a:** Farmland outside town  
*Location: Vezelay Area, France*  
*Source: H Groenewald, April 2005*



**Figure 6b:** Farmland outside town  
*Location: La Motte Ternant, France*  
*Source: A Theart, April 2005*

#### **4.6 Direct Development**

Many communities around the world experienced rapid expansions at their edges, as growth has moved to newer developments on the urban fringe and away from the urban cores (Frazier et al., 2001). The main aim of this principle is to direct development towards existing infrastructure. This can be achieved by making use of infill development, brownfield redevelopment or the rehabilitation of existing buildings rather than using greenfields on the urban fringe to accommodate new development. Business improvement districts are also frequently used as a tool to encourage revitalization and redevelopment of existing rundown commercial areas.

Molly O'Meara Sheehan (2001) indicated in her paper 'City Limits: Putting the Breaks on Sprawl' that the U.S. state of Maryland had approved a set of Smart Growth laws in 1997, with enormous success, which has doubled its spending on programs to improve older neighbourhoods, foster transit uses and make roads safer for pedestrians and cyclists. This effort by the Maryland authorities was specifically driven by the need to reduce the pressure on the urban edges and to contain urban sprawl.

## 4.7 Transportation

As communities adopt Smart Growth principles the benefit of linking transportation, the workplace and housing are becoming clearer (Frazier et al., 2001). Although the average person around the world is still using the automobile for the majority of their trips, interest in improving other forms of transportation, such as mass transit, biking or walking, is starting to rise. This is only achievable should alternative transport options be identified and implemented. In many cities a car sharing programs are developed to make it possible for a group of people or families to share cars rather than to each have a car.

Sheehan (2001) pointed out that there is a definite linkage between transportation and land use policies as revealed in case studies in Copenhagen, Portland and Curitiba. With the construction of highways in America, the development potential of residential and business uses at intersections was boosted and further spurred the use of privately owned automobiles. *“Developers see the road as a tremendous asset, an autobahn, with the potential at every entry or exit to the road”* (Garb: 2001).



**Figure 7a:** Separate traffic lanes for automobiles, bicycles and pedestrians .  
Location: Zaanseskans, The Netherlands  
Source: A Theart, April 2005



**Figure 7b:** Traffic lanes for automobile and Street car  
Location: Amsterdam, The Netherlands  
Source: A Theart, April 2005

According to Sheehan (2001) to give people better transportation choices, governments could revise zoning laws to allow homes and stores to be intermixed, and steer new development towards places easily accessible by public transit, by providing safe and attractive streets for pedestrians and bicycles, while making sure that connections between cycling, rail, bus and other forms of transportation, including paratransit, are convenient (Figures 7a, 7b, 8a and 8b).

In the case studies mentioned above in Copenhagen, Portland and Curitiba, the people have reclaimed the streets and make them safer for the children to walk and cycle to school (Sheehan, 2001). This can however only work if the other principles of Smart Growth, such as mixed land use and other transport options are in place to make it cost effective.



**Figure 8a:** Traffic lanes for automobile, street car, bicycle and pedestrians  
Location: Amsterdam, The Netherlands  
Source: A Theart, April 2005



**Figure 8b:** Public Transport: Underground Paris  
Location: Paris, France  
Source: H Groenewald, April 2005

#### **4.8 Predictable Planning Decisions**

Market forces normally determine where a private investor or developer would invest in or develop property. Should Local governments or Municipalities get involved by identifying areas such as brownfields, greenfields, urban infill areas, transit-oriented and pedestrian orientated projects which can be developed to provide a more sustainable city, it will provide the private developers with more certainty to invest money in specific essential developments which could be to the advantage of the developer, municipality and the citizens. In so many cases the private developer invests money in a preliminary project (before the necessary approvals are obtained) only to find out the Municipality is not in favour of the proposed development. The main aim of this principle is to



create a platform where the private developer and the authorities can work together to create a better living environment without wasting each other's time and money.

#### **4.9 Public Participation**

Stakeholders normally wish to be involved in the planning and development process from the beginning. By involving the stakeholders from the beginning can provide the developer with constant creativity which can ensure that his or her development is more liveable and vibrant to the community if their wishes are noted. Developers are normally frustrated and sometimes scared to involve too many stakeholders because they believe it can jeopardize the development or it can delay the development which may be very costly. That is why authorities should develop a public participation process system where the general public can be involved and take part in the development decision without unnecessarily delaying or jeopardising the developer's application without very good reasons. Should an acceptable development application approval system be in place, it can be to the advantage of the developer as well as the citizens that are affected by the development. With the evaluation of applications, Municipalities may find that they do not have the expertise to deal with such applications and should then make use of consultants – experts in the field – to assist them with the evaluation of the specific project rather than to slow down the application. Smart Growth is a concept that should continually be developed and updated and it is important that the decision makers as well as the non profit groups visit Smart Growth communities to learn from them and to make use of the ideas and programmes that have worked for these communities in the past.

#### **5. Criticism of Smart Growth**

Notwithstanding the enormous support the concept of Smart Growth has to transform our cities into sustainable living environments; a lot of negative criticism has been highlighted against the concept (Gordon & Richardson, 2000; O'Tool, 2001). For practical reasons only a few specific issues will be discussed namely:

- Densification/Mixed land uses has many negative impacts
- Housing options and affordability
- Transport options
- Consumer preferences

- Smart Growth actually promotes no growth
- Smart Growth is just another layer of regulations

### **5.1 Densification/Mixed land Uses**

Critics claim that by increasing density, Smart Growth increases traffic congestion and air pollutions (Litman, 2003). What the critics do not mention are the fact that due to the density, public transit can be provided more cost effectively and less people will make use of their own transport. With mixed land uses the opportunity is also created that people can work and live in the same neighbourhood, which also leads to less automobile traffic.

O'Toole (2001) believes that Smart Growth policies only worsen the quality of life of the residents, increases traffic congestions, air pollution, increase consumer cost, taxes and just about every other impediment to urban liveability. A specific example used by O'Toole (2001) in his article to justify his views, is that of Portland City. Very strict densification policies were implemented which indicated that the urban edge boundary will only be moved outwards by 6% and that the population density within the urban area will have to accommodate an increase of 70% over the next 50 years. A light rail system was developed and high density development was promulgated along the rail to promote light-rail ridership. Although the high density developments took place at these strategic locations, it did not increase the rail ridership significantly. Due to the land use policy that was implemented in Portland City which specifically promoted higher densities and restricted development to the inside of the urban edge, a shortage of single family houses occurred. The house prices moved from one of the nations most affordable markets for single family housing in 1989, to one of the least affordable since 1996. According to O'Toole (2001) a survey that was conducted in 2001 highlighted that only 30 % of the households could afford to buy a medium priced home. The planners of Portland City further decided not to increase roadways but rather to direct the money to the provision and upgrading of public transport in the hope to solve the traffic congestions that occurred. Notwithstanding the fact that the construction of the proposed railway system would have been much more expensive than the widening of the freeways the project was continued. The impact of the new rail system only reduced the average travelling of 13.5 miles per resident with 0.7 mile, which is insignificant.

To comment on O'Toole's statements, there are two aspects that need to be emphasised. Firstly, assuming that the findings of O'Toole as stipulated above are correct, the way in which Portland

approached these problems with the abovementioned interventions could have been incorrect. The American Planning Association (APA, 2002) specifically identified possible mistakes that can be made by governments if growth management only takes place on a local level, which can result in exclusionary practices that can have a negative effect on Smart Growth in general. The significance of this example is that the ways in which the Smart Growth principles are linked with each other are of enormous importance. As mentioned earlier, Smart Growth Strategy is a holistic approach, and although each principle can be implemented individually, which was maybe the case in the abovementioned Portland example, it should rather be implemented in a holistic manner (the principles should be implemented together to ensure that it will not jeopardise other principles).

## **5.2 Housing Options and Affordability**

According to Gordon & Richardson (2000) Smart Growth proponents see waste and inefficiency in the ways that cities are developed and are busy searching for solutions to change these ways.

The critics further believe that due to development restrictions on the urban fringe, it reduces the land affordability (Litman, 2003). O'Toole indicated in this article 'The folly of Smart growth' (O'Toole, 2001) that the land-use policies as implemented by the Smart Growth principles, with specific reference to Portland, America, have distorted the region's housing market greatly. The restrictions have changed one of the nation's most affordable markets for single-family housing in 1989 into one of the least affordable.

## **5.3 Transport options**

Critics indicated that the Smart Growth concept of providing more transit options as a process to reduce automobile travelling is a waste of time as people consider automobile travelling as the most convenient. Achieving a balance between pedestrian/cycle ways and cars will be the greatest challenge for planners to achieve. The city planners should look at options for how they can raise the quality of pedestrian and other transport systems to a level that the cars play a secondary role in certain areas, especially in the town centres (Abrams & Ozdil, 2000). In 1960 when the car was starting to take the cities over, Copenhagen (Denmark) made crucial choices in this regard. Rather than widen the roads to ease congestion, streets were closed and pedestrian routes were establish

(Sheehan, 2001). The success of this decision has led to the closing of further streets together with the reduction of parking areas in certain areas in the city. Simultaneously the public transport was upgraded and further bicycle lanes were built. A further positive spin off from these drastic steps that were taken a few decades ago was that according to a survey that has been done in major industrial countries between 1973 and 1992, it has been found that Denmark was the only country in which a shift from cars towards buses and rail led to a clear reduction in travel energy use and emission (Sheehan, 2001).

#### **5.4 Consumer preferences**

Gordon & Richardson (2000) point out that the advocates of Smart Growth offer little analysis or discussions of the costs, the implied tradeoffs, the consistency of the vision, or even the consumer's desire for such communities. They are also of the opinion that people should be given a choice of what they want and not what will only benefit the developer. According to Gordon & Richardson (2001), markets do a better job of discovering consumer preferences and providing desired goods and services than Smart Growth planning. Smart Growth and New Urbanism policies have for instance often been used as selling points.

#### **5.5 Smart growth is a code for no growth**

The Urban Land Institute (1999) identified a few facts that throw some light on the Smart Growth concept. Many see Smart Growth still as a code for 'no growth' but it is actually just the opposite. Smart Growth must rather be seen as a concept that promotes growth, it is just a matter of where and on what scale. The fact is that cities are growing and that is unstoppable, and therefore more emphasis should be placed on how the development will be managed rather than trying to restrict development. A further aspect that was mentioned in the above-mentioned article (Urban Land Institute, 1999) is the fact that Smart Growth is often seen as being anti-suburb and therefore some planners and developers only concentrate on the densification of the inner city. Smart Growth should rather be seen as a concept that tries to keep a balance between densification and market driven developments in urban and sub-urban positions.

## **5.6 Smart growth creates another layer of regulations that slows development**

The critics further see Smart Growth as just another layer of government which slows down development. If regulatory reform takes place as promoted by the Smart Growth concept the processes will be streamlined so that desirable projects are permissible and easier to do. Most of the current regulations around the world are favouring low density, separated land uses and residential areas which make it difficult to establish the Smart Growth concept. Supporters of Smart Growth seeking to reform unmanageable building codes, zoning schemes and ordinances and to streamline procedures that will make it easier to build project that reflect Smart Growth characteristics (Urban Land Institute, 1999).

South Africa is no exception in this regard. Government Departments are normally responsible for preparing legislation for their department. Although Green- and White papers (concept legislation) are circulated for comments, the required co-operation between the departments and general public are not always successful which leads to legislation that clashes with each other. A further problem that is being experienced in South Africa is the fact that there is so much legislation, policies and guidelines applicable to development that it leads to a lot of red tape, indecisiveness of decision makers and confusion within the general public. It can also be argued that the South African Government's approach is not integrated, holistic and practical enough. Although these last two approaches (holistically & practical) may be direct opposites of each other, the message is that with very law and regulations that are written, a logical and practical implementation plan should also be compiled and implemented.

## **6. Where is Smart Growth heading according to the experts?**

In America, Smart Growth has both as a movement and a set of values and ideas experienced tremendous growth in richness and influence in the last twenty-five years (Liberty, 2004). However, although most of the experts agree with this statement, there are mixed feelings about exactly where Smart Growth stands today. Smart Growth has been described as one of the more compelling social movements in the past decades in the United States, with supporters promoting important reforms in the way cities grow and function. However Smart Growth is not seen by everyone to be as important as it is to some of its supporters and therefore some believe that it still does not receive

the proper attention that it merits. Beach (2004) believes that in the absence of large-scale changes, the movement will remain impotent and little more than a boutique initiative. Chen (2004) is however of the opinion that Smart Growth is still on the roll. According to him it has made undoubtedly impressive gains from legislative victories, research breakthroughs, new coalitions and greater public awareness. Notwithstanding this belief, the dominant paradigm for growth all over the world is still urban sprawl, which has a negative influence on the quality of the community and sustainability. Harris (2004), the Director of the Joint Centre for Sustainable Communities feels that although the concept has gained a wide-spread level of awareness, it has not achieved enough of understanding or acceptance. People, even in other countries, are still holding onto the American dream of a specific type of living (large erf, suburban living, own transport etc.) and do not have any desire to live in denser areas or to move closer to the city/town centre. However, this may change as oil and petrol prices rise. Corbett (2004) believes that Smart Growth cannot be considered as business-as-usual yet and specific interventions will have to be done to ensure change. This viewpoint of Corbett (2004) can be endorsed. There are too many policies and strategies that do not support or compliment the Smart Growth principles. Local governments as well as inhabitants do not always see the enormous possibilities that a Smart Growth strategy can provide for their areas and towns. According to McElfish (2004) the Smart Growth concept has demonstrated its strength and persuasive power by providing development choices, improving communities, and conserving environmental benefits for future accessibility.

To build on the state of Smart Growth special attention should be give to the following:

- The Smart Growth Strategy should be publicised more.
- The principles of Smart Growth should form part of the National, Provincial and local government's legislation and policies
- Governments should be educated in the field of Smart Growth to understand the enormous possibilities that can be drawn from the concept.
- Policies should be more practical and implementable rather than thick lengthy documents which are very complicated and difficult to implement.
- Communities should be educated to make the paradigm shift towards the Smart Growth concept. This can however only be achieved if the concept is fully understood.

By taking the concept of Smart Growth and specifically looking at the principles thereof, the facts that are available and the state of Smart Growth initiatives across the world, certain assumptions can be made in order to determine in which way the concept should be heading to achieve all the benefits that are publicised by the concept. In the March 2004 newsletter of the Smart Growth

Network, an in depth article was written by Robert Liberty (Liberty, 2004) on the discussions he had with specialists in the field regarding the State of Smart Growth Today, which threw light on the success and enormous positive action that Smart Growth can have on our existing planning and development agendas. Most of the experts that were interviewed by Liberty (2004) were positive about the progress that Smart Growth is making and commented as follows:

- We have to capitalize on Smart Growth popularity to accomplish major objectives (Chen, 2004).
- Special attentions should be giving to development policies on local government level in order to achieve the Smart Growth principles (Corbett, 2004).
- Don Chen (2004) wished to see Smart Growth as the mainstream approach to community planning.
- Smart Growth should be ‘business as usual’ according to Judy Corbett (2004). Smart Growth principles should be incorporated within spatial planning documents, and should continuously be implemented and improved in order to have a cumulative affect on sprawl.
- The opinion was raised that most of the general public in the United States still see Smart Growth as synonymous with ‘no growth’ or ‘slow growth’ (Harris, 2004). People criticize Smart Growth policies due to the fact that it does not achieve the required outcomes. According to Harris the American Dream meant to buy your own single family home, on a generously sized plot in a quiet suburban neighbourhood with two cars (and garages) and enough food on the table. As times changed and the new agenda is to move way from this dream in order to create more sustainable cities, (cities that are based on the Smart Growth Principles ) many people start to fight the system purely on the basis that they still want to live the “American dream” regardless of the consequences and costs. Harris (2004) suggests that the only way we will be able to promote the Smart Growth concept is to listen and learn from the leaders and the members of the affected communities on how Smart Growth can be refined and applied in ways that are respectful of the aspirations and experiences of all citizens.

Looking at the development of South African Cities the past decades most of the affluent people in South African Cities are living on large erven, close to a city centre or on the periphery of the city. A change has however started to developed where young affluent people are starting to move back to city centres after new and revitalising projects (stylish apartment blocks) took place in the city centres.

## 7. Smart Growth - the South Africa Perspective

The South African city is characterised by low density, fragmentation and separation of land uses. Dominant city planning and management systems and policies applicable to South African Cities have been almost entirely imported from the UK, Europe and US and have the following characteristics (Dewar, 2000):

- Anti-urban or suburban living – free standing houses on large erven
- Separation of activities – residential, commercial and recreation activities are separate
- Enclose neighbourhoods – gated villages, no integration between neighbourhoods
- Automobile orientated – primary mode of movement – not on pedestrian scale

Further factors that have been highlighted by Dewar (2000) that have determined the structure of South African Cities are the legacy of apartheid which has resulted into the following:

- Poor people have to travel the furthest to job opportunities.
- Due to security reasons investors do not want to invest close to townships.
- Poor people are located where the least resources are available
- Land is cheaper on the periphery, which encourage urban sprawl and developed into formless cities without a sense of place.
- Poor public transport systems due to low densities and poorly regulated public transport system.

After the democratic elections in South Africa the government started a process of seeking for greater compaction, by means of promulgating the Development Facilitation Act, 1995 (RSA, 1995a) in order to promote and to steer development towards more compact cities. Dewar (2000) identified three interrelated factor which make such a policy approached a necessity namely:

- Self employment opportunities
- Opportunities close to home to reduce travelling.
- Public transport options

The government further produced a discussion document about Urban Development Strategy (UDS) (RSA, 1995b) where certain visions and strategic goals were identified to ensure that South African cities will be developed in a sustainable manner. The seven strategic goals that were identified by the UDS (RSA, 1995b) are as follows:



- To create efficient and productive cities with less poverty and sustained by dynamic economies;
- To reduce existing infrastructure and service disparities
- To provide better housing and shelter and greater security of tenure for urban residents
- To encourage affordability growth of local economies
- To tackle spatial inefficiencies especially the mismatch between where people live and work and to improve the quality of the urban environment
- To transform local authorities into effective and accountable local government institutions
- To establish safe and secure living and working environments.

By looking at these strategic goals many of the Smart Growth principles can be identified which indicates that the goals that South Africa set for itself could be considered in line with what the Smart Growth concept prescribes to achieve sustainable cities. Many Spatial Development Frameworks, Growth Management policies, legislation and regulations regarding urban planning and management have seen the light after the democratic election, to help ensure that the South African Cities develop in a sustainable manner. Notwithstanding the above, 12 years after the democratic elections and much promulgated legislation in this regard, few actual changes have taken place. One exception is certain revitalization programmes that are at the moment taking place in many of the city centres around the country. Cities still have all the characteristics of a poorly designed city with continuing urban sprawl which related to low densities, separated uses, poor public transport system and automobile orientated neighbourhoods.

However one cannot totally ignore the effort of some of the Local Authorities in trying to create a model city. For instance, the former Cape Metropolitan Council compiled the Cape Metropolitan Development Spatial Framework (MSDF) (Cape Metropolitan Council, 1996) while the former City of Cape Town compiled a document, the Draft Municipal Spatial Development Framework (Muni-SDF) (City of Cape Town, 1999) in an attempt to deal with both compaction and spatial structural readjustment (Dewar, 2000). The core concept of the Cape Municipal Development Spatial Framework (Muni-SDF) provides a clear strategy for compactions through a process of residential infill and Dewar (2000) has identified four forms of infilling namely:

- Structural –High density housing around centres and routes
- Economic – encourage property owners to subdivide their properties
- Spatial or surgical – create special places

- Social – relax existing restrictive regulations/zonings to accommodate more dwellings on property

By comparing the MSDF and Muni-SDF principles with the Smart Growth principles, it is clear that both these sets of principles are in line with the Smart Growth principles. However as mentioned before, to achieve real sustainable cities the implementation of the whole spectrum of Smart Growth principles have to be present, preferable simultaneously, to obtain the required result. In addition other issues also have to be addressed, such as changes towards more sustainable technology and addressing social and economic policies that hinder sustainability.

The lengthy and time consuming development processes in South Africa are also putting a financial constraint and burden on potential investors in South Africa. Due to this undesired situation the Provincial Administration of the Western Cape is in the process of producing regulations and legislation that will try to combine the environmental and development planning processes in order to ensure a better and faster development process, which will be beneficial to the economy, environment and social aspects.

A further major problem that puts a damper on the development and transformation of South African cities is its past legacy of apartheid. Although a new democratic South Africa was established in 1994 it will take a long time, maybe a few generations before the apartheid ghost will be eliminated totally. In most cases the South African government came up with really innovative planning principles that can enhance the quality of live of its citizens but from personal observation it appears that on grassroots level the general public is still fighting the apartheid battle. The implementation of some of the Smart Growth principles such as mixed land uses (e.g. to move more businesses to townships to reduce travelling) and more integrated housing options (rich and poor living in the same neighbourhood) will be difficult to implement, especially with the different stakeholders involved.

The implementation of Smart Growth principles in South Africa, due to its rocky past, will be a complicated and challenging process which will require exceptional and innovative skills to ensure success. To conclude, it would definitely be to the advantage of the National Government of South Africa to investigate the option of a Smart Growth Act which is based on the abovementioned Smart Growth principles with practical implementation guidelines that can ensure that the South African Cities developed in a sustainable manner.

## **8. Effective Interventions**

By evaluating the pros and cons identified in this article it is concluded that there are no quick fix solutions for the problems that we created ourselves through city planning. It is true that although the Smart Growth concept can be argued as the way to go, it is not that easy to implement. However, notwithstanding the critics and all the negative comments regarding the potential of the Smart Growth Concept, many positive interventions can be made to ensure the success of the Smart Growth concept.

## **9. Conclusion**

Smart Growth can be seen as a set of policies or strategies that can be use individually or simultaneously to ensure that cities develop in a sustainable manner. Therefore, the more of the principles of Smart Growth are present in any development, the more sustainable that development can be considered. Smart Growth consists of various strategies which make it a holistic approach to eliminate city problems. It is definitely an alternative to urban sprawl which can be considered the worst enemy of South African cities. By evaluating the pros and cons identified in this article the main conclusion that can be made is that there are no quick fixes to the city problems that we have created for ourselves. It is also true that although it can be argued that the Smart Growth concept is the way to go, it is not always easy to implement and to make it work in practice. However, with more support and more effective implementation of Smart Growth principles in our cities, it is definitely a concept that could possibly make a positive contribution to the quality of our lives. It might also help to ensure that the race to create sustainable cities is won.

The key to creating sustainable cities is to find that golden thread that creates the sustainable multiplier, as this will ensure that all the complex system linkages can be addressed in integrated ways, which will inevitable force attention onto the many related contributing factors. The Smart Growth concept with its strategies and principles has the potential to be the above-mentioned golden thread, should it be implemented successfully.

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