

Urban containment policies in European regions. The case  
studies of Randstad and Greater London

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## **Abstract**

Urban sprawl is a phenomenon which refers to the spread of urban areas and creates the need for land use changes. As a result, rural areas are converted into residential areas. Apparently, this conversion has significant impacts on the environment and on the quality of life. In recent decades, the "urban sprawl" concerns the countries around the world. The countries, which are being developed rapidly, create a wide range of policy instruments for the limitation of urban sprawl and for achievement of sustainable development.

But, while the countries have begun to implement policies in order to limit the urban sprawl of their cities, these policies in some occasions are and in some other occasions are not effective and efficient and other times they avoid to be implemented at all. Therefore, there are some factors which affect the implementation, the effectiveness and the efficiency of those policies.

This research examines these factors (from 1990 until 2010) through the study of two European regions, the region of Randstad in The Netherlands and the region of Greater London in Great Britain.

The present research shows that for both regions the role of local authorities in Green Belt and Green Heart area is crucial in implementation, effectiveness and efficiency of urban containment policies. In addition, the gap between policy and practice due to the fact that the national government decided the policy without the participation of other stakeholders and the role of national government in protection or not of Green Belt from urban development are two other main factors for regions Randstad and Greater London respectively.

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## **Chapter 1 - Introduction**

### **1.1 Problem description**

The urban future is one of the issues that have caused great concern in Europe (Ludlow, 2009). In the last decades, the European countries had to face another phenomenon which has consequences on the environment and on the quality of life. This phenomenon is called urban sprawl. Although there is no common definition of urban sprawl, Fox (2010) defines sprawl as

“Low-density, land-consuming, non-contiguous development on the fringe of the settled areas, often near a decaying central city, that invades undeveloped areas. It is haphazard development that expands without limits or order from the core of a metropolitan area”.

The expansion of cities around their peripheries is being driven by factors which vary between countries and cities and they are dependent on the political, social and economic conditions which exist in each city (Christiansen and Loftsgarden, 2011). Such forces include population and economic growth as well as the development of infrastructure and transportation.

The last decades, there is high concentration of population and economic activities in the urban centres (Ludlow, 2009). Currently, according to EEA (2006), 75% of the Europeans live in the cities (EEA, 2006). Approximately, 80 per cent of European population will live in urban areas by 2020, while in seven European countries the percentage will be 90 per cent or more (Ludlow, 2009). According to the OECD (2006) since 2010 more than half of the world's population lives in cities and according to projections by 2050 the population who will be living in the cities will be equal to the two-thirds of the world population (Roorda et al., 2011). This concentration in cities led to the need for designation of businesses, residents as well as networks (Ludlow, 2009).

Furthermore, in previous years, sectors such as transport, technology and infrastructure sector have developed considerably (Ludlow, 2009). Transport networks are major driving force at regional and national level since the new urban areas developed along major highways (EEA, 2011). In addition, increasing car market increases the movement of the inhabitants and enables people to settle outside city centres (Christiansen and Loftsgarden, 2011). The development of those sectors increased the mobility of the population and many people, mostly high income mobile families with children, abandoned city's centres and chose to settle in the suburbs (Ludlow, 2009).

The extension of cities creates negative environmental, social and economic consequences both for the towns and their surroundings. Frequently mentioned effects of urban sprawl including, social disparities between the people who leave in the centre and the people who leave in suburbs, higher costs for development of public infrastructure as well as rural area consumption, consumption of natural resources, increased traffic congestion, energy consumption and air pollution. On

the other hand, the expansion of urban areas offers benefits such as allowing people to have more living space and gardens (EEA, 2011).

In the context of sustainable development, cities implement policies, plans and initiatives in order to address the problems which have been caused by the urban sprawl. Millward (2006) supports that, the produce of economic, social, and environmental benefits can be achieved by controlling urban sprawl (Millward, 2006). Urban containment is an effort to address the development needs of the community, region or state, and “accommodate them in a manner that preserves public goods, minimizes fiscal burdens, minimizes adverse interactions between land uses while maximizing positive ones, improves the equitable distribution of the benefits of growth, and enhances quality of life” (Nelson et al., 2007).

Unfortunately, the restriction of urban sprawl is a policy which is very difficult to implement. Millward (2006) points out that “Growing cities are like inflating balloons: if you hold them in one side, they will expand more on another”. In recent decades, policies for containment of urban sprawl and for achievement of sustainable development have been applied in many countries with different results. Many policies face problem in their implementation or they find policies do not have the expected results and the cities extended further.

## **1.2 Research objective and research questions**

The main aim of this research is to identify factors explaining differences in the success of urban containment policies. For this aim, a main research question and four research sub-questions form the basis for analysis and examination of concepts and goals that have been set. Specifically, the main research question and the four sub-questions are addressed below:

Main research question: What factors affect the implementation, effectiveness and efficiency of urban containment policies?

1<sup>st</sup> sub research question: What are the driving forces of urban sprawl?

2<sup>nd</sup> sub research question: What are urban containment policies?

3<sup>rd</sup> sub research question: Why urban containment policies are difficult to implement?

4<sup>rd</sup> sub research question: Why urban containment policies are or not effective and efficient?

### **1.3 Research relevance**

In this section of chapter the social and scientific relevance of present research are presented. The phenomenon of urban sprawl is highly interesting because it influences the society directly and significantly. It has a significant impact on the environment, on functions of a city and on human life. However, the restriction of urban sprawl is very difficult to implement.

Social relevance: Urban sprawl can affect social conditions in different ways. For instance, urban sprawl is responsible for a greater separation of urban development according to the income due to the fact that most of the residents in suburban belonging to middle and upper income groups. Moreover, there is increased need for cars and therefore increased isolation of elderly, poor or young people who cannot obtain or drive a car. In addition, increased air pollution, noise and traffic are some others social impacts of urban sprawl. Therefore, the implementation and effectiveness of urban containment policies are necessary for the limitation of social effects. The present research is addressed to policy makers, to national, regional and local authorities that are responsible for spatial planning as well as it is interesting for individual citizens. Consequently, this research can be used for better implementation, effectiveness and efficiency of policies which are related to spatial planning as well as for the awareness of people for better quality of life.

Scientific relevance: Apart from the social relevance the present research has also scientific relevance. There are a lot of researches that have taken place and are related on urban sprawl. Many of them focus on the driving forces of urban sprawl which are different not only between countries but also between cities in the same country. In addition, many others researches focus on the impacts of urban sprawl on environment, society and economy. Moreover, there is number of researches related on policies that the countries implement in order to contain the urban sprawl. They focus on the kind of policies that are used and they examine if these policies manage to contain sprawl in the cities where they were implemented. However, no research so far asked why the policies were difficult to implement or why they were or not effective. This research is unique because even though that focuses on causes and impacts of urban sprawl as well as on urban containment policies, has gone one step further and examines the factors which affect the implementation, the effectiveness and efficiency of those policies. It is important to know if those policies manage to contain urban sprawl but it is also very important for someone who make or implement policies to know the reason why urban sprawl was contained or not. Last but not least, it tries to explain why it is difficult to implement such policies, despite the fact that the restriction of urban sprawl is so important both for people and for the environment.

## **Chapter 2 – Literature review and theoretical framework**

### **2.1 The phenomenon of urban sprawl**

Since cities began to grow, there were concerns about their size. In ancient times, Rome was the first city which its population was one million. As a result, the first and second century AD issued series of Imperial edicts which their aim was to limit the spread of the city. The same kinds of pronouncement were made by the Courts of the Tudor Kings and Queens for 16th century for the London city in order not only to restrict urban sprawl but to stop the spread of plague (Morris, 1994; Batty et al., 2003). But nevertheless, the industrial revolution which began in mid-18th century was the starting point for the explosive growth of cities in Britain (Batty et al., 2003).

In old times urban growth was thought to be sprawl, but in modern times sprawl is defined as ‘uncoordinated growth’: “the expansion of community without concern for its consequences, in short, unplanned, incremental urban growth which is often regarded unsustainable” (Batty et al., 2003). Urban growth is directly identified with sprawl. Since cities get bigger, they have to expand around their suburbs for the accommodation of urban growth (Batty et al., 2003).

#### **Definitions of urban sprawl**

Although there is considerable literature on the topic of urban sprawl, there is no common definition (Christiansen and Loftsgarden, 2011). One of the simplest definitions is that of Brueckner (2000) according to which the urban sprawl can be characterized as “Excessive spatial growth of cities” (Christiansen and Loftsgarden, 2011). Furthermore, one of the most common used definitions is the definition of the European Environmental Agency (2006) that defines sprawl as “the physical pattern of low-density expansion of large urban areas, under market conditions, mainly into the surrounding agricultural areas”.

Due to the fact that there are many definitions of sprawl many authors tried to categorize them in different types. In this section, two categorizations of definitions of urban sprawl will be presented. The review of those types can help us to understand the conflict between various views of sprawl.

Siedentrop (2005) mentions five types of definitions including:

1. “Definitions of sprawl according to density attributes of a settlement system: these definitions consider low-density forms of settlement, decreasing density and functional decomposition of cities as sprawl” represented by e.g. Glaeser and Kahn, 2003, Fulton et al., 2001 (Franz et al., nd).
2. “Definitions of sprawl that deal with de-concentration processes of urban functions combined with the spatial expansion of urban uses into rural

areas”. Representatives of these definitions are for example Glaeser et al. 2003, Pumain 2003 etc. (Franz et al., nd).

3. “Definitions of sprawl characterized by structure and form attributes of a settlement system. Sprawl is understood as an urban form building process, that transforms a former monocentric compact structure into a discontinuous, polycentric and disperse settlement structure” (Galster et al. 2000, Torrens, Alberti 2000, et al., Franz et al., nd).

4. “Definitions based on socially relevant effects of land use, e.g. traffic induced effects, loss of fertile soils, etc.” (Ewing, 1997, Downs, 1999, Franz et al., nd).

5. “Definitions based on normative planning and order perceptions. Unplanned urban development that runs counter to the objectives of spatial development is identified as sprawl” (Gassner 1978 et al., Franz et al., nd).

Furthermore, Galster et al. (2001) present a definition of sprawl based on eight dimensions of land use patterns:

- Density: “is the average number of residential units per square mile of developable land in an urban area” (Galster et al., 2001).
- Continuity: “is the degree to which developable land has been built upon at urban densities in an unbroken fashion” (Galster et al., 2001).
- Concentration: “is the degree to which development is located disproportionately in relatively few square miles of the total urban area rather than spread evenly throughout” (Galster et al., 2001).
- Clustering: “is the degree to which development has been tightly bunched to minimize the amount of land in each square mile of developable land occupied by residential or non-residential uses” (Galster et al., 2001).
- Centrality: “is the degree to which residential or non-residential development (or both) is located close to the central business district (CBD) of an urban area” (Galster et al., 2001).
- Nuclearity: “is the extent to which an urban area is characterised by a mononuclear pattern of development” (Galster et al., 2001).
- Mixed uses: “is the degree to which two different land uses commonly exist within the same small area, and this is common across the urban area” (Galster et al., 2001).
- Proximity: “is the degree to which land uses are close to each other across urban area” (Galster et al., 2001).

Franz et al. (nd) point out that sprawl seems to be a multidimensional phenomenon within these types of definitions. Some of the definitions that have been mentioned above are more frequently used than others but the existence of some many definitions about urban sprawl is not useful. If we take into account all the definitions it is not clear when and where the phenomenon exists and when and

where not. With so many definitions every urban structure can be identified as sprawl.

### **Drivers behind urban sprawl**

Small (2000) points out that it is hard to find solutions against sprawl if we don't fully understand its causes (Franz et al., nd). This section of the research presents the main drivers of urban sprawl according to the existing literature. It is worth noting that it is very difficult for someone to generalize the driving forces of urban sprawl. According to Christiansen and Loftsgarden (2011) there are many factors which affect the urban sprawl and it is not easy to determine which of these factors has the greatest influence. Moreover, driving forces behind urban sprawl differ between cities, regions and countries and are dependent on the political, social and economic conditions which exist in each city (Christiansen and Loftsgarden, 2011).

Although it is difficult to categorise the drivers behind urban sprawl, Leontidou and Couch (2007) claim, that the drivers can be categorized in three categories (macro reasons, meso reasons and micro reasons). Macro reasons are political-economic paradigms and trends such as globalization, cheap energy, reduction in transport costs, rising real incomes as well as declining household price. The second category meso reasons, includes place-specific contexts such as local geography and environment, local economic, cultural and social conditions, local demography and migration, local governance: organization structure and capacity as well as local governance policies and actions. Micro reasons which the third category includes individual decisions and actions such as amount and nature of personal housing investments; household location; places of work; retailing and leisure (Christiansen and Loftsgarden, 2011). A similar categorization is used by ESPON (2010). They use the same categorization as Leontidou and Couch (2007) but elaborate it by introducing five sectoral categories society, economy, governance as well as transport and land.

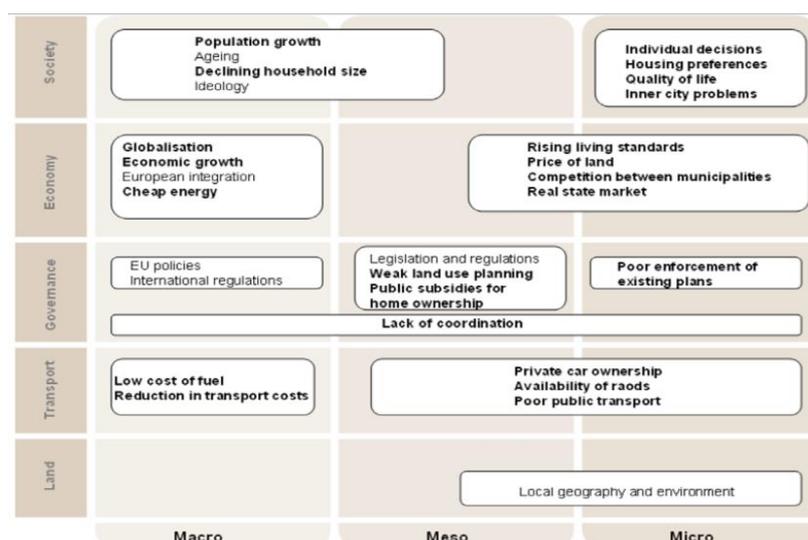


Figure 1: Drivers behind urban sprawl  
Source: (ESPO (2010:22), Christiansen and Loftsgarden, 2011).

The causes behind sprawl, discussed by several researchers, can be summarised as presented below:

- **Population growth**

Bhatta (2010) argues that the increase of urban population is the first reason of urban growth. Natural increase in population and migration to urban areas are the two population growth factors behind the rapid urban growth. Natural population growth is the increase of births over deaths. In addition, migration is the long-term movement of people to a new location outside the community of origin. There are two types of migration, internal migration (when people move to a new place within the country) and international migration (when people move to a new place in different country). Both immigration types are significant and contribute to urban growth. Moreover, he claims that the “huge growth in urban population may force to cause uncontrolled urban growth resulting in sprawl” (Bhatta, 2010). Historically, the increased urban population drives the growth of cities but in Europe even though there is little or no population pressure, there are many others factors that still driving sprawl (Ludlow, 2009).

- **Economic growth-Globalization**

Economic growth can attract people to cities (Langørgen, 2007; Christiansen and Loftsgarden, 2011). The expansion of economic base, for instance increase in number of working persons as well as the higher per capita income, creates demand not only for new housing but also for more housing space for individuals (Boyce 1963; Giuliano 1989; Bhatta 2009b, Bhatta, 2010). This demand encourages the developers for rapid construction of new houses. Rapid development of housing and other urban infrastructure is blamed for two reasons. The first reason is the lack of time for planning and coordination among developers, governments and proponents and the second reason is that it produces many discontinuous developments (Bhatta, 2010). Moreover, according to EEA (2006) global economic growth is one of the most important drivers behind sprawl. Today, the globalization of economy is interrelated with the development of information and communication technologies. Both of them are beginning to have effects on the spatial distribution of population and employment. It is possible that information and communication technologies will drive urban development to more sprawled future (Audriac, 2005; EEA, 2006).

- **European integration**

The reduction of social and economic regional differences within the European Union is one of the foremost objectives of the EU cohesion policy. The objective is not only to promote economic and social development but also to promote high employment and sustainable development (ESPON, 2009; Christiansen and

Loftsgarden, 2011). EU integration in order to improve mobility and accessibility supports investments in longer-distance transport networks (EEA, 2006).

Trans-European Transport Networks (TEN-T) are designed in order to solve problems related to the existing accessibility between EU-15 and the new Member States. They will influence the future spatial development of urban areas across Europe but it is important that TEN plans address all possible effects that new infrastructure will have not only on urban sprawl but also on the natural environment (EEA, 2006).

In addition, EU Structural and Cohesion Funds investments can support or drive sprawl throughout Europe. EU can help the containment of urban sprawl if the investments from the structural funds be used for investments in city centres. A more attractive city centre could help make cities more compact (EEA, 2006; Christiansen and Loftsgarden, 2011). On the other hand, the construction of new motorways attracts new development along them which exacerbating urban sprawl (EEA, 2006). Also, Christiansen and Loftsgarden (2011) claim that the increased development of infrastructure may contribute to urban sprawl due to the fact that the increased accessibility may contribute to new areas becoming attractive for people and companies.

- **Competition between municipalities**

One other cause behind urban sprawl is the competition between local authorities. Municipalities, throughout the European Union countries, are responsible for land use zoning. Therefore, their role is crucial in the protection of agricultural or natural land from housing or commercial development (EEA, 2006). Local authorities, in order to increase their tax revenues, try to attract new residents and businesses in their area (Christiansen and Loftsgarden, 2011). In order to attract new investments, many municipalities relax controls on the development of agricultural land. This kind of competition among local authorities creates urban sprawl (EEA, 2006).

- **Price of land**

Due to the fact that the land prices for housing and development of services are high in the city, the developers in order to find lower prices seek in the more peripheral areas. As result, agricultural land becomes more attractive for developers and investors. It is noteworthy that the price of land in the core urban areas is still higher even though the planning permission for non-agricultural development increases the value of agricultural land (EEA, 2006).

- **Inner city problems**

In contrast to the attraction of peripheral areas, the inner city cores have many problems including noise, poor air quality and unsafe environments. The centres of

cities are considered as more noisy, polluted and unsafe than the suburbs. In addition, social problems such as unemployment poverty, drug abuse and minorities drive many families with small children out of the city. Moreover because of poor urban planning with areas lacking green space and sport facilities, the built-up environment is perceived unattractive. All of these problems create drivers of urban sprawl (EEA, 2006).

- **Transportation**

Transportation related factors are also an important driving force of urban sprawl. According to Batty et al. (2003), better transportation from the core to the edge of cities makes possible expand of cities around their peripheries (Batty et al., 2003). The development of transport like the train, metro, buses and cars offer more freedom to the movements of people. For instance, many people live away from the city centre, but use daily the means of transportation in order to go to their workplace which is located in the centre (Christiansen and Loftsgarden, 2011).

- **Regulatory frameworks**

Christiansen and Loftsgarden (2011) claim that policy and regulatory frameworks play very important role as a driving force of urban sprawl. Also, they argue that the control of land development depends on many factors and there are many differences in Europe regarding the possibility for controlling land development. Their hypothesis is that countries with strong control over land use policy and also with a system of government which is not scattered and fragmented have better opportunities for management and planning of land development (Christiansen and Loftsgarden, 2011). Moreover, EEA (2006) points out that weak land use planning, poor enforcement of existing plans, lack of horizontal and vertical coordination as well as collaboration are factors that driving sprawl (EEA, 2006).

### **The effects of urban sprawl**

Sprawling is recognized as a growing problem that entails a wide range of social, economic and environmental impacts for both the cities and countryside (Bengston and Youn, 2006). In this section of research study, the impacts of urban sprawl will be presented. Through these impacts we can understand and also we can answer to the question of why the urban containment policies are important. The negative effects that sprawl can have on environment, on society and on economy help demonstrate why land-use planning is so important for countries' urban future.

Frequently mentioned effects of urban sprawl including: rural area consumption, consumption of natural resources, increased traffic congestion, energy consumption and air pollution. Furthermore, social disparities between the people

who leave in the centre and the people who leave in suburbs as well as higher costs for development of public infrastructure are associated with urban sprawl.

European Union Agency (2006) defines impacts of sprawl from environmental, social and economic perspective. From environmental perspective, the urban sprawl creates many problems to:

- Natural resources and energy: The urban development implies the consumption of natural resources. Therefore, the consumption of land and soil which are non-renewable resource are of great concern. Furthermore, the development of rural areas for the construction of new houses and roads tends to be permanent and reversible only at very high costs (EEA, 2006).
- b) Natural and protected areas: The impacts of expansion in natural and protected areas are very important. «Land sustains a number of ecosystems functions including the production of food, habitat for natural species, recreation, water retention and storage that are interconnected with adjacent land uses» (EEA, 2006). «The increased proximity and accessibility of urban activities to natural areas, imposing stress on ecosystems and species through noise and air pollution» (EEA, 2006).
- Rural environments: In recent years, the European cities have developed mainly in former farmland. Prices of agricultural land for new residential construction jumped to high and farmers gain significant economic benefits from this process. On the other hand, the soils are non-renewable resources and for this reason they have to be preserved. Also, the loss of agricultural land leads to loss of habitat for many animals and especially for birds. Moreover, the urban sprawl displaces agricultural activity in areas which are remote and less productive. So, there is greater demand for water and fertilizer consumption and there is the risk of soil erosion (EEA, 2006).
- Urban quality of life, hazards and health: Because of the fact that urban sprawl creates significant environmental problems, they have a direct impacts on quality of life and on the health of residents since air quality and noise levels exceed the safety limits (EEA, 2006).

Apart from environmental impacts, urban sprawl can also negatively affect social and economic conditions in cities in different ways. From social perspective, the urban sprawl creates a greater separation of urban development according to income. The majority of residents in suburban and regional areas belonging to middle and upper income groups who have the mobility and lifestyle and they are able to meet the requirements of these regions. However, for groups who lack mobility and resources, the suburban experience may be different and can reduce social interaction (EEA, 2006). From economic perspective urban sprawl is a costly form of urban development due to the expenses of households in order to reach their workplaces because of the greater distance that they need to travel and because of the business costs due to inadequate transportation systems (EEA, 2006). Furthermore, the economic costs of sprawl include higher costs for development of public infrastructure (Burchell et al. 1998; Bengston and Youn,

2006). In addition, Reid Ewing (1995) considers urban sprawl as a market failure. This opinion is echoed by economists at the St. Louis Federal Reserve Bank. They find that “the market has failed when it allows sprawl or uncontrolled development to continue despite the costs to local governments because of the public infrastructure generated by new development, the time costs associated with commuting, and the intangible benefits of open spaces that may be lost” (Akundi, 2005).

Furthermore, Batty et al. (2003) define the impacts of urban sprawl from two different perspectives. One perspective is that urban sprawl is unpleasant aesthetically. They support that sprawl, is considered as despoiling the countryside and also destroy the rural economy and idyll. The second perspective is the issue of efficiency. Sprawl, is an expensive form of urban development because the fact that it extends beyond the existing infrastructure and increased household expenditure on transport (Batty et al., 2003).

Last but not least, the Transportation Research Board (1998) defines the impacts of sprawl in the form of costs. According to the report the five types of costs are: public and private capital and operating costs, transportation and travel costs, land/natural habit preservation, quality of life, and social issues (Franz et al., nd).

On the other hand, Cahn (2003) supports that besides the negative impacts, urban sprawl has some advantages. For instance, the people who live far from the city have more free space; due to the fact that they are low density areas there is lack of traffic congestion around these areas as well as air pollution and noise do not exceed the limits. In addition, Kahn (2001) argues that low-density or sprawling development provides many private benefits to new residents, developers, and other stakeholders, as well as social benefits such as more affordable housing from building on cheaper land (land price in rural area is cheaper than in urban area) close to urban centres (Bengston and Youn, 2006). Furthermore, Wassmer (2005) mentions that some positive effects of sprawl are “the increased satisfaction of housing preferences, the convenience of car travel, the filling in of leapfrogging land, lower crime rates and better public schools in suburban local governments” (Franz et al., nd).

In conclusion, the expansion of cities into rural areas is a phenomenon that poses a significant challenge to sustainability (Bengston and Youn, 2006). Even though the urban sprawl provides some benefits, they are much less than the negative environmental, social and economic impacts of sprawl. Also the negative impacts influence the majority of population in comparison with the positive effects of sprawl which influence a small number of citizens. Therefore, the containment of urban sprawl is very important for achievement of sustainable development.

## 2.2 Urban containment policies

Across Europe there are many different approaches to urban containment as well as there are differences in the form of urban areas due to the fact that the land use planning is under the control of national and regional governments. Although that all the countries have tried to limit the loss of valued land resources to urban uses, there are significant differences in their legal systems, policy instruments and the degree to which aspirations in plans are implemented (Hague, 2007).

Urban containment strategies are one of the best known design tools which used to manage urban sprawl. According to Bengston and Youn (2006); Rowe (nd) for the control of urban sprawl have been made many steps and, policies have been applied in many areas for the reduction of sprawl. Nelson and Duncan (1995) argue that there are two basic purposes for urban containment planning. The first purpose is to promote compact, contiguous, and accessible development provided with efficient public services; and the second purpose is to preserve open space, agricultural land and environmentally sensitive areas that are not currently suitable for development (Nelson and Duncan, 1995).

H.W.E. Davies (1989) (In Planning Control in Western Europe) reports the efforts for the containment of urban sprawl in European countries such as The Netherlands, France, Denmark and Germany. There are many common themes in each country's approach. Each country has maps delimitation of urban and rural areas and these maps make clear the limits of urban expansion. Moreover, each country takes measures in order to restrict the entry of urban activities in rural areas. In addition, each country invests more in transport, walking and cycling in order to reduce car use (Nelson et al., 2007).

Many European countries apply the zoning system which has many similarities with the systems which were found in America. Detailed plans created for localised area. These plans define the form of development which is permitted in the specific area. The zoning is the main tool in order to limit urban sprawl because the zoning plan of a commune can map precisely the area in which construction activity is permitted or is prohibited. Moreover, in zonings the limits of urban development are clear and it is also clear the separation between urban / non-urban distinction. Furthermore, the zonings include "agriculture zones" and "protection zone" while applying strict restrictions which are specified in the national spatial planning law, within the agriculture zone (Hague, 2007).

The three major forms of urban containment policies are greenbelts, urban growth boundaries and urban service boundaries (Pendall et al. 2002; Rowe nd).

From the forms of urban containment policies, greenbelt is the most restrictive form (Bengston and Youn 2006; Rowe nd). Since the mid-1950s greenbelts have been one of the most significant planning policy instruments which is used for the preservation of agricultural land and undeveloped land. Where greenbelt policy have been applied it seems to has been effective in limiting sprawl (Couch and

Karecha 2006, p. 355; Rowe nd). A greenbelt is a strip of land that surrounds or is adjacent to the urban area and it is protected from development and manufacturing. The land which is located within the greenbelt can be used for farming or for the construction of urban wetlands. «Greenbelts are typically established through mandate in the form of a city plan, restrictive covenant, or land use designation». (Rowe nd). Greenbelts have been used more extensively in large cities throughout Europe and Asia than in the United States. In the late 1930s, London was the first major city that introduced a greenbelt system (Munton 1983; Bengston and Youn, 2006). Other European cities that adopted greenbelts are Berlin, Vienna, Barcelona, and Budapest (Kuhn 2003; Bengston and Youn, 2006).

There are many researchers, such as Millwood (2006); Landis (2006); Dawkins and Nelson (2002); Nelson and Sanchez (2005); and Nelson et al. (2004) who support green belts and urban containment policies. Moreover there are many organisations such as the Champaign to Protect Rural England<sup>2</sup> that run organised programmes in order to encourage the protection of rural lands and green belts (Rowe, nd). The most effective way in order to contain exurban sprawl is urban containment policies (Nelson and Sanchez, 2005).

On the other hand, many critics argue that in fact the greenbelts may encourage urban sprawl rather than prevent it «by forcing people to build out, rather than clustering construction» (Longley et al. 1992; Rowe, nd). Furthermore, the greenbelts have positive effects on property prices for those who own land along the green belt. Other criticism comes from the fact that greenbelts do not extend unlimited out of the city and this may result, the development of areas which are far from the city centre and thereby the urban sprawl. In Great Britain the green areas which used for the limitation of urban sprawl received many criticisms and considered one of the most important political and economic obstacles on the construction of buildings with significant negative impacts on cost, supply and quality of new dwellings. Critics argue that the greenbelts in fact failed to protect the open space and the outskirts of cities and also argue that preventing the physical expansion of cities will result in «more land extensive housing developments further out» (Rowe, nd).

The effectiveness of urban containment policies such as the greenbelts, differ and depend on each region and country in where they implemented. The development, often 'jumps' over the greenbelt area. This has the effect of creating 'satellite towns'. Although, the 'satellite towns' are separated from the city by the greenbelt usually work like suburbs and not as independent communities (Longley et al. 1992; Rowe nd).

The second form of containment policies is urban growth boundary (UGB) which is not a physical space as greenbelts. It is a line drawn around an urban area in order to separate the urban area from surrounding rural area. The area inside the boundary is zoned for urban use while the areas which are outside the boundary are zoned for rural use. Zoning is used for the implementation of urban growth

boundary. In contrast to greenbelts, urban growth boundaries are not intended to be permanent. An UGB boundary is reassessed and extended if is needed in order to accommodate the expected growth (Nelson, 1994; Bengston and Youn, 2006). Although the implementation of UGB is easy, there is great potential for misuse. More specifically, if the sources of market failure are not examined carefully, the policy makers cannot estimate the exact extent of urban overexpansion. Therefore a UGB may be too strict, restricting the city's size without reason and leading to no appropriate increase in housing costs and increases in density which unjustified (Brueckner, 2000).

The third type of urban containment policy is urban service boundaries which are more flexible than urban growth boundaries. An urban service boundary is defined as an area beyond which no city services such as sewer lines and water lines will be extended. The land outside the urban service boundary will not be served by specific public services and facilities (Dearborn and Gygi 1993, Poradek 1997, Bengston and Youn, 2006).

### **Urban containment from European Union perspective**

In Europe, the interest for the development of spatial development strategies and spatial planning frameworks increased during the 1990s for all levels of scale, from the EU to the regions. These kinds of instruments are intended to provide a common vision and strategy for the territory and for a particular time horizon. On the other hand, there is no generally accepted definition of what a spatial development strategy is and what it contains, neither how spatial development strategy influences the land use patterns and governance arrangements at different levels of scale. According to Kunzmann (2008:12-13) such spatial development frameworks are “well worded documents on the aims and processes of spatial development, decorated by persuasive narratives, success stories and “best practice” examples, [which] are written by highly qualified experts in international politico-administrative committees” (Dühr et al., 2010).

In 1990 the Green Paper on the Urban Environment was published by the European Commission (Commission of the European Communities, 1990). The Green Paper on the Urban Environment was a consultative document; however, it supported the idea of compact city in a period when the concern about environmental issues was growing and the idea of sustainable development began to appear in the political agenda. Although the EU supported and funded many urban environmental initiatives and networks, the Member States, in the decade and a half since 1990, have kept the EU out of any important role in urban policy. The issue of urban containment was reiterated in the European Spatial Development Perspective (ESDP) (Commission of the European Communities, 1999). This document was “strictly speaking the voluntary product of cooperation amongst the spatial planning Ministers of the Member States” (Hague, 2007). However, the Commission played a key role through the Directorate for Regional Policy, an area in which the EU has legal competence (Hague, 2007).

The European Spatial Development Perspective (ESDP) is the first EU spatial development framework. The ESDP was prepared for the territory of EU-15 by the EU member states in cooperation with the European Commission and over a period of ten years. The ESDP aims to insert a spatial dimension to EU policy through three main integrated policy guidelines for spatial development: Development of a balanced and polycentric urban system and a new urban-rural relationship; Securing parity of access to infrastructure and knowledge; and Sustainable development, prudent management and protection of nature and cultural heritage (Dühr et al., 2010).

According to EEA (2006) “The EU has an obligation in relation to the wide range of environmental, social and economic impacts of urban sprawl to define a clear and substantial responsibility, and a mandate to take an active lead in the development of new initiatives to counter the impacts of sprawl” (EEA, 2006).

The economic development and prosperity of Europe has put pressure on cities. The EU institutions, together with the regional and local authorities have examined extensively the role and contribution of cities to Europe’s growth, competitiveness and employment. (European Commission, 2005). Sustainable urban development appears in many European policy commitments. “To this end substantial EU Cohesion and Structural Funds budget transfers to Member States provide powerful drivers of macro-economic change to support EU integration. However, analysis shows that they can also create inadvertent socio-economic effects that have promoted the development of sprawl” (EEA, 2006). EEA (2006) argues that the key for the support of containment of urban sprawl is the coordination of land use policies and Structural and Cohesion Funds investments (EEA, 2006).

According to the principle of subsidiarity, the EU has no particular competence for urban affairs. Moreover, there are no direct provisions for urban policy in the Treaties; also it is argued that urban problems are best solved at the local or regional level. On the other hand, many EU sectoral policies such as Structural and Cohesion Fund programmes, transport policy and environmental legislation affect urban areas. The effects of structural funds on the economic and social context of the urban area are very strong and they cause changes in the quality of the urban environment and the accessibility of a place. There are four types of spatial effects of structural fund activities in urban areas which identified by the ESPON study (2006h): the effects on morphology (e.g. reduction of spatial disparities); the effects on functional or economic specialization (e.g. development of a new profile/niche); the effects on connectivity, accessibility and transport (e.g. improvement of links); and the strengthening of urban cooperation with other urban and rural areas (Dühr et al., 2010).

Although the interest for spatial development strategies and spatial planning frameworks increased in the European Union, the Member States, keep the EU out of any important role in urban policy. European Union has no regulatory power in the field of local or regional planning. We can say that European Union can influence spatial planning via other policy sectors. For instance, the European

Commission can influence via funding schemes, such as the Structural Funds. EU Structural and Cohesion Funds investments can support or drive sprawl throughout Europe. For instance, if the regions use the funds for infrastructure investments they encourage sprawl but if they invest in the city centre then could help make cities more compact.

### **2.3 Compact city policies for sustainable urban development**

The influence of the concept of sustainable development has increased considerably not only in national but also in international policy development, making it the main element of the policy documents of governments, international organizations as well as business organizations (Mebratu, 1998). The widely used definition of sustainable development is addressed by WCED in 1987, which referred the sustainable development as

“development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (WCED, 1987, p43).

The concern with sustainable urban development has grown significantly after the publication of “Our Common Future” (WCED, 1987) which introduced the idea of sustainable development. Some years later, the “Green Paper” of the Commission of the European Communities (CEC, 1990) and the United Nations “Earth Summit Agenda 21” (United Nations, 1993) gave more emphasis to the role of compact forms of urbanization as a basis for a more sustainable urban development. Recently, the “Charter of Leipzig” (European Urban Knowledge Network, 2007) and the publication “Cities of Tomorrow” (European Commission, 2011) give emphasis to the importance of compact urban developments as a significant sustainable policy for the future development of European cities (Nabielek, 2012).

The compact city model appeared in order to limit urban expansion and to protect urban suburbs (OECD, 2012). The implementation of this model required the design of «ABC Locations» for commercial or institutional uses. «A» locations, were for large numbers of workers or visitors, and little need for vehicle access; «C» locations, were for limited to turnover but for high demand of transport; while «B» locations, were for uses which would be accessible from employees, visitors and road transport. The purpose of this policy was that the offices, public administration, trade, education and health facilities to be located in «A» or «B» locations that will be served by a very good network transport and the parking of vehicles will be minimal. As a result, the reliance on the car and the dispersion will be decreased (Hague, 2007).

The aim of compact city policies is the achievement of sustainable urban development mainly in terms of environmental quality, social equity and economic viability. Urban containment policies such as greenbelt policy were developed as a planning concept (OECD, 2012).

According to OECD (2012) there are three key characteristics of compact cities.

- Dense and proximate development patterns. Density show how intensively urban land is utilised and proximity concerns the location that urban agglomerations has in an area. In a compact city model, urban land is intensively utilised, urban agglomerations are contiguous or close together and there is clear border between urban and rural land use at the urban fringe (OECD, 2012).
- Urban areas linked by public transport systems. This characteristic shows how effectively urban land is utilised. Public transport systems contribute to the facilitation of mobility as well as to the effectively function of urban areas (OECD, 2012).
- Accessibility to local services and jobs. This indicates how easily is the accessibility of citizens to local services such as shops, restaurants and clinics as well as to neighbourhood jobs. Due to the fact that in a compact city model land use is mixed, citizens have access to these services either using public transport or on foot (OECD, 2012).

Apart from the above characteristics OECD (2012) claims that the following six sub-characteristics are related directly with the contribution of compact cities policies to urban sustainability.

- shorter intra-urban travel distances;
- less automobile dependency;
- more district-wide energy utilisation and local energy generation;
- optimal use of land resources and more opportunity for urban-rural linkages;
- more efficient public services delivery;
- better access to a diversity of local services and jobs.

The above six sub-characteristics of the compact cities create environmental, social as well as economic benefits. Environmental benefits including fewer CO<sub>2</sub> emissions, less pollution from automobiles, less energy consumption per capita as well as conservation of farmlands and natural biodiversity. Moreover, the social benefits of compact policies are the lower transport costs, better accessibility because of the lower cost, higher mobility for people who do not have access to a car, better human health because of cycling and walking, better quality of life due to recreational activities and access to local services (shops, hospital etc.). Furthermore, economic benefits including higher productivity due to the fact that the workers need shorter time, development of green jobs technologies, rural economic development, and lower costs for infrastructure development (OECD, 2012).

Many cities recognize the role of sustainable urban development and they seek for policies in order to achieve high sustainability results. For example, some cities have managed to achieve very good results in some areas of sustainability such as

energy and mobility (Roorda et al., 2011). Furthermore, the governments at national, provincial and municipal levels impose environmental assessment or planning approval requirements for major private and public sector undertakings. Moreover, environmental assessment is applied at the strategic level of policies, plans and programmes, and also at the level of physical projects (Kemp et al., 2005).

The requirement of sustainable urban development is the prevention of uncontrolled urban sprawl. Urban sprawl results in problems such as increased use of undeveloped land. On the other hand, compact development reduces the use of new land for urban development. For instance, spatial planning contributes in the revitalization of old industrial or harbour districts by converting them to a new urban functions. Also, mixed use can promote the use of more environmentally sound modes of transport such as public transport. As a result, the volume of commuting transport will be reduced (ME, 2001).

Many countries in order to achieve sustainable development revise and reform systems and policies related to spatial planning. The primary role of spatial planning is to create more sustainable patterns of development (Nadin, 2001). By preventing environmental problems and at the same time protecting the natural and the cultural environment, spatial planning can be used as an instrument for the coordination of socioeconomic development (Valentin, 2012). Moreover “spatial planning contributes to achieving balance in urban development between using undeveloped land versus reusing old urban sites and promoting compact urban development” (ME, 2001). The main principles of sustainable development relevant to spatial planning are: “absolute protection of critical natural capital; maintenance of the stock of the substitutable capital; adoption of the precautionary principle; respecting environmental carrying capacity; improving efficiency of resource use and minimisation of waste; self-sufficiency of geographical units (negotiating outwards) and non-exportation of externalities; closure of resources loops, re-use and recycling; maintenance and biodiversity; and inter-generational equity and futurity” (EU Expert Group on the Urban Environment Sustainable Cities Project 1996; O’Riordan 1985; Blowers 1993; Nadin, 2001).

Many planners and researchers claim that a well-connected city is the most sustainable form. They support that a “compact city” concept preserves rural and natural areas by reducing land usage, reduces energy consumption, makes investments in public infrastructure more sustainable as well as is positively associated with economic and cultural development and social desegregation. The main supporters of the concept of the compact city include the CEC (1990), Jacobs (1961), Newman and Kenworthy (1989) and Elkin et al. (1991) (Nabielek, 2012).

On the other hand, there is group of researchers who argue that the concept of “compact city” contradicts the concept of “green city” (also promoted by the CEC, 1990) and that the compact city could cause congestion due to increased pollution, on the local scale (Knights, 1996; Nabielek, 2012). In addition, OECD (2012) mentions that compact city policies raise concerns such as potential adverse effects

(air pollution problems, traffic congestion, increased local energy demand due to high density built-up area etc.) as well as conflicting interests among geographical locations (one part of a metropolitan area may benefit substantially from a given policy while other parts may suffer).

Unfortunately for the supporters of the compact city concept, in-depth research has shown that policies for the stimulation of compact city model development will not always lead to achievement of sustainable urban development. Last but not least there seems to be an agreement that the compact city model even though is necessary, it is not sufficient for sustainable urban development (Nabielek, 2012).

## **2.4 Theoretical framework**

In order to answer the research questions, this chapter introduces the phenomenon of urban sprawl including its definitions, driving forces, impacts as well as policies and spatial concept which used in order to control this phenomenon. The theoretical framework is based on the relationship among three variables: the causes behind urban sprawl; urban containment policies and sustainable urban development.

The theories of urban sprawl explain the current situation of the modern cities and offer a helping hand in order to comprehend the core of problem. Driving forces behind urban sprawl differ between cities, regions and countries and are dependent on the political, social and economic conditions which exist in each city. Although this diversification, the drivers can be categorized in three categories environmental, economic and social factors.

The types of policies which are the second variable - used either to promote compact, contiguous, and accessible development or to preserve open space and agricultural land - are directly related to the driving forces of sprawl. Urban sprawl is caused by different factors therefore different types of policies are required to deal with these factors. For instance, now the situation has changed due to worldwide financial and economic crisis. The development stopped because of lack of finance as well as the market focuses on quality of houses and not on the quantity. Due to the fact that the causes of sprawl change, these policies should be flexible and should also change in order to deal with the changed circumstances. Otherwise these policies will not be effective. In the empirical case studies, we will focus on two types of policies. The first type is greenbelt policy and the second type is urban growth boundaries.

Last but not least, the compact city concept which is used for the containment of urban sprawl or for the description of the sustainable urban environment is related to the policy measures. The city will be extended if the policy measures which are implemented are not appropriate. This means that if the purpose of the policy measures that are taken is for instance, to promote more development in the centre of city or to improve public transport for less automobile dependency which, are two characteristics of compact city concept, then the city will become more compact.

## **Chapter 4 - Research strategy, design and methods**

### **4.1 Research strategy and selection of cases**

In order to do social science research there are many ways such as case study, experiments, surveys, archival information analysis and histories. According to Yin (2003) case study is the preferred strategy when the researcher tries to give answers to “how” and “why” questions, when the investigator has not much control over events and when the researcher focus on a phenomenon which is contemporary and has some real-life context. “How” and “Why” questions are more explanatory. Such questions, “deal with operational links needing to be traced over time, rather than mere frequencies or incidence” (Yin, 2003).

One of the reasons that the case research strategy was chosen for the present research is because it is a preferred strategy when researcher wants to answer “why” and “how” questions. As mentioned above, the main research question is "What factors affect the implementation, effectiveness and efficiency of urban containment policies", by identifying these factors in two European regions, for the region of Greater London and for the region of Randstad the present research answers to the question “Why” these policies which were implemented in order to limit urban sprawl in these two regions are successful.

The present research chooses multi-case study (two case studies) as research strategy. The main reason for me to choose multi-case study is because I want to explore if the factors that influence the implementation and the effectiveness of urban containment policies are similar between regions. In addition, I chose only two case studies because of the time limitation.

In order to analyse the factors which affect the implementation, the effectiveness and the efficiency of urban containment policies, many conditions should be considered when choosing a suitable case studies. Firstly, the case studies should be developed regions of European Union. Secondly, from 1990 until today their economic and population growth should have been increased considerably and there is high demand for new space for the accommodation of urban growth. Thirdly, in both of them have been implemented urban containment policies.

I chose the regions Greater London and Randstad as the case studies for empirical research for the following reasons: Randstad is a region where I live and I want to learn more about the problems that it faces. Also, I want to contribute my study results to region Randstad as a feedback for better implementation of policies. I chose Greater London due to the fact that is a region with the greater experience in the implementation of urban containment policies as well as there is a lot of literature related to the region of Greater London. In addition, the two regions use different forms of urban containment policies (Greater London uses greenbelt and Randstad uses urban growth boundaries) and therefore I can gather opinions and collect data from officials who implement different forms, for further analysis.

The phenomenon of urban sprawl and urban containment policies which have implemented in both regions, formed and evolved in the last decades through different strategies. Therefore these different strategies guide the researcher at different conclusions for each case study.

To answer the research questions, both case studies will be structured as follows: Initially, I want to know which the causes behind urban sprawl are. Due to the fact that the causes are different between each region, I will gather data about the driving forces of sprawl for each region separately in order to figure out the reasons of the pressure for new space both in the region of Randstad and Greater London. Apart from that, I will gather data about the type of policies which are being implemented not only at national but also at regional and local level and I will focus on the results of those policies. Moreover, I will find out the factors which influence the implementation and the effectiveness of urban containment policies in both regions. Therefore, after the data collection (for both regions) related to the causes of sprawl, to the policies which are being implemented in order to limit the phenomenon of sprawl and to the factors behind the effectiveness of those policies, I will be able to analyse why those policies are or not effective against the leading driving forces of sprawl.

#### **4.2 Research design-Data collection**

According to Yin (2003) “a research design is the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of study”. In addition, Saunders et al. (2009) argue that the research design is the general plan that the researcher will follow in order to answer his research question(s), it will contain clear objectives and the researcher specifies the sources from which he intends to collect data.

There are many data collection techniques and commonly they are used in combination (Saunders et al., 2009). For case study strategy the evidence come from six most commonly used sources which are: documents, archival records, interviews, direct observation, participant observation and physical artifacts. There is no single source which has a complete advantage over all the others. Because the fact that many sources are highly complementary for a good case study recommended the use as many sources as possible (Yin, 2003). Furthermore Yin (2003) support that the researcher can maximize the benefits from these six sources of evidence if he follows the following principles, use Multiple Sources of Evidence; Create a Case Study Database; Maintain a chain of evidence.

According to Yin (2003) one of the most important sources which used in case study strategy is the interview. “The use of interviews can help you to gather valid and reliable data that are relevant to your research questions and objectives” (Saunders et al., 2009). “Interviews may be highly formalised and structured, using standardized questions for research participant or they may be informal and unstructured conversations” (Saunders et al., 2009).

According to Yin (2003) interviews as data collection techniques have strengths and weaknesses. Interviews are targeted and focus directly on case study topic. Moreover, they are insightful and provide perceived casual inferences. On the other hand, interviews are biased because of the fact that the constructed questions are poor; response bias; there are inaccuracies because of the poor recall; and reflexivity due to interviewee gives what interviewer wants to hear Yin (2003).

In this research for data collection two main data collection technique were used, archive analysis and semi-structured interviews. Archive reviews include related literature, policy plans and related website.

In addition, semi-structured interviews were used as a second method of data collection because the interviews focus directly on case study topic. The reasons that semi-structured interviews were used is because they give more control to the researcher over the people who answer the questions, in comparison with a questionnaire, which is normally passed from one person to another. The second reason is that the interviewees are more likely to agree to be interviewed rather than complete a questionnaire. One other reason is that through semi-structured interviews the interviewees may lead the discussion into areas that the researcher did not previously considered.

Initially, research took place in the municipalities and provinces of region Randstad and in boroughs and Greater London Authority of region Greater London for finding of competent officials who could give an interview. Furthermore, potential competent officials who could answer the research questions were recommended by the interviewees as well as one of them suggested by the supervisor.

A semi-structured interview guide was designed for data collection. The questions are related to the position and to the role that the interviewees have in the two regions. In total, eight interviews took place, five interviews for the region of Randstad and three interviews for the region of Greater London. All of them took place on January and February of 2013.

In the beginning, all the interviewees contacted via email and informed about the aim of the present research. In the region of Greater London, two of the interviewees asked for written questionnaire and the interview guide was send to them by the form of written questions via e-mail. The interviewees replied in writing to the interview guide and they send their answers via e-mail. The third interviewee gave face to face interview. In addition, in the region of Randstad all the interviewees gave face to face interviews.

## Chapter 5 - The case studies

### 5.1 The region Randstad

#### 5.1.1 Introduction

The region Randstad is located in Western Netherlands and it is a multi-central region (does not have one single dominant core). It includes four major cities, Amsterdam, Rotterdam, The Hague and Utrecht as well as several smaller towns (Cahn, 2003). The Randstad area is about 4.500 square kilometres and its population is about 6 million (Werff et al., 2005).



Figure 2: The Randstad and its major cities  
Source: Werff et al. (2005)

The region includes twelve cities which have population over than 100,000 and other ten cities which population is from 70.000 to 100.000. The largest cities are Amsterdam (736,000), Rotterdam (599,000), The Hague (458,000) and Utrecht (261,000) (Werff et al., 2005).

Even though Amsterdam is the largest city in the Randstad, the national government is located in The Hague. Actually, the Randstad is not a “daily urban system” because most of people commute, shop, move house and pursue leisure activities inside the more restricted areas of their city-region, such as Greater Amsterdam, Greater The Hague, Greater Rotterdam, and Greater Utrecht. There are not official boundaries for the Randstad and it does not fit into one of the three government levels in the Netherlands. Randstad is an abstract concept and it is not used as geographical basis for intervention for the implementation of government policies (OECD, 2007).

The four major cities constitute the urban heart of the country and surround an undeveloped area, the Green Heart (Cahn, 2003). The undeveloped area covers 182,677 hectares and represents 5% of the Netherlands’s whole area. The main land use categories of Green Heart are the agriculture which occupies 75% of the total area, the water occupies the 10% of the area, the built-up area occupies 10%

and the forest, nature and recreational area occupy the 5% of the whole area (RIVM, 2011). According to the RIVM (2011) the concept 'Green Heart' "implies an open area meant to serve as a large, central and agricultural land mass, where urbanisation is prevented as much as possible".

The Netherlands is a unitary state and has three levels of government, central, provincial and municipal (OECD, 2007). The Green Heart's policy comes from the national government (RIVM, 2011). The central government establishes the rules, norms and the general framework that the municipalities must follow. Moreover, the central government monitors policy implementation and control the funding for policy sectors (OECD, 2007). The role of the three provinces (Noord-Holland, Zuid-Holland and Utrecht) in which the Green Heart is located is to translate the policy from the national to regional level as well as the municipalities translate the policy from regional to local level and they are responsible for the implementation of spatial policies (RIVM, 2011).

Randstad has significant economic and social role for the whole country as 42% of the population lives there, and within its boundaries half of the national income is earned (OECD, 2007). It attracts companies because of its location, culture, infrastructure, as well as its employees are highly educated (RIVM, 2011). It hosts about 3,000,000 jobs in different types of services. The port of Rotterdam is the most important part of Europe from which entered and exited goods transported by sea. Furthermore, Schiphol airport located in south of Amsterdam and it is the fourth bigger European airport from passenger traffic perspective. The very dense road and rail network connects the cities of the region Randstad with the rest of the country as well as with the North West Europe. In addition, high-speed train connects Brussels with Randstad and South Paris (Werff et al., 2005).

The economic development of Randstad increases the pressure into the Green Heart mainly along the central highways due to the fact that the companies prefer these places because they are more accessible. On the other hand, the aim of national government is to preserve the Green Heart as an open and green area. In order to achieve this aim the government follows a policy according to which the new residential and industrial areas are limited and are concentrated near to the existing towns (RIVM, 2011). In general, Green Heart is protected by planning policy and according to Cahn (2003) the planning policy in the Netherlands is designed in order to manage development pressure in this area.

### **5.1.2 Spatial planning policies**

Nabielek (2012) mentions, that the concept of compact city has played a main role in The Netherlands since more than half a century. Moreover, in the European Spatial Development Perspective, The Netherlands reported, as example of country that managed to follow efficient policies in order to achieve compact cities (Hague 2007).

In Dutch national spatial policy documents there are included different concepts not only for urban compaction but also for urban densification. The concept of 'clustered dispersal' and 'growth centres' were introduced in the Second and Third National Policy Document on Spatial Planning (1966 and 1973). Moreover, in 1988 the Fourth National Policy Document on Spatial Planning was based on the concept of the 'compact city' and the general aim of this concept is the creation of more sustainable urban areas (Nabielek, 2012).

In 1988, compact city included in national planning strategy. According to Scheurer (2001) the objectives of this Dutch policy as being «to protect valuable open space in the existing cities' surrounds and locate new development to minimize transport needs, that is as urban infill or, where greenfield urbanization was necessary, immediately adjacent to existing settlement areas» (p.181).

In recent years, the regional planning, the development and the implementation is for Dutch politicians, policy makers and planners major issue and there have been many discussions (Dammers et al. 2004; Janssen-Jansena and Woltjerb, 2010). In 1998, the Netherlands' Scientific Council for Government Policy (WRR) concluded that there was need for a new kind of design. «Dutch planners have discussed an increased focus on projects, efforts to combine interests at the regional level in new ways, and a desire to establish a development-oriented approach to planning» (eg Korthals Altes 2006; Janssen-Jansena and Woltjerb, 2010 ).

According to the Netherlands Scientific Council for Government Policy (1998) the basic principles of national spatial planning in the Netherlands including:

- "Concentration of urbanization (the urban development should take place in or around existing towns and cities)" (Needham, 2006).
- "Spatial cohesion (that there should be a good geographic relation between the various activities)" (Needham, 2006).
- "Spatial differentiation (that there should be clear differences between different areas, e.g. between town and country)" (Needham, 2006).
- "Spatial hierarchy (a range of urban centres with the highest great facilities in the biggest centres)" (Needham, 2006).
- "Spatial justice (people should have access to good facilities and services wherever they live)" (Needham, 2006).

As a result, Dutch planning system shifted from "an emphasis on physical planning and regulation towards an emerging awareness of political decision making and implementation" (Janssen-Jansena and Woltjerb, 2010). Planning is now "perceived increasingly as action oriented" (Shaw and Sykes, 2007) and plans "are now strategic documents which serve as guides to project decisions, and they are

carried out by local and regional players in strategic alliances, with less national government control” (Janssen-Jansena and Woltjerb, 2010).

This change was not easy for the Dutch regional planning because regional plans such as Amsterdam Structure Plan (1996) «do not aim to actively shape investment, but function largely as a testing and legitimizing framework for project proposals by others» (Healey 2007; Janssen-Jansena and Woltjerb, 2010). «Dutch planning still reflects a strong awareness of the need for a more balanced and sustainable spatial development with open space for future development. But it increasingly assumes that it is the market, and not the state, that should resolve planning problems-either with or without minor public financial intervention» (Van der Valk 2002; Janssen-Jansena and Woltjerb, 2010).

### **Key spatial urban plans**

The starting point for the modern Dutch planning system was the implementation of the Dutch Housing Act in 1901. During the century the planning system was developed into the system as it is known in our days (Netsch and Kropman, 2011) and the key spatial urban plans including:

- General Extension Plan for Amsterdam (Algemeen Uitbreidingsplan voor Amsterdam (AUP))

In the Netherlands, the change in urban development from urban design to urban planning was marked in 1934 by “General Extension Plan for Amsterdam”. Therefore, AUP is one of the most significant urban plans in Dutch spatial planning’s history. It was part of international spatial movement at the centre of which was the Congres Internationaux d’Architecture Moderne (CIAM). The members of CIAM were advocacies “of the realization of the functional city”; they prepared the manifest of Athens; and they analyses the principles in order the city to be functional. The influence of CIAM and of manifest of Athens on AUP was strong. The expansion plan for Amsterdam for the calculation of future population (until 2000) was based on accurate statistical analyses as well as predictions. According to AUP the city was divided into neighbourhoods of about 10000 citizens. The inhabitants had their own private and public space as well as their needed school and other social functions (Netsch and Kropman, 2011).

- Fourth Report on Spatial Planning (Vierde Nota Ruimtelijke Ordening (VINE))

One other change in urban development was marked by VINE. The government’s desire was the more decentralised development and the reason for this change was the economic recession from 1979 until 1984. “The VINE identified the process of globalization and aimed to stimulate and facilitate the internationalization of the Dutch economy by identifying and developing opportunities and existing qualities”

(Netsch and Kropman, 2011). For the development and facilitation of new economic opportunities the cities as well as the regions “needed to be revitalized”. The aim of Vine is the development of regions to be according to their powers. Randstad is one of these regions. Due to elections, there was delay in the implementation of VINE. As a result, in 1991 is drafted the Fourth Report on Spatial Planning Extra (VINEX) (Netsch and Kropman, 2011).

- Fourth Report on Spatial Planning Extra (Vierde Nota Ruimtelijke Ordening Extra (VINEX))

In 1992 took place a guidance which is known as Vinex. The locations for the development of 634.800 dwellings between from 1990 to 2005 were defined in this guidance. Of the total of these dwellings, 46% will be at town expansion locations, 28% at sites outside the Randstad area and 26% will be at infill locations (Cahn, 2003). This is an extensive program for the expansion of major cities in the Netherlands. The new residential areas will be created in the perimeter of the city, known as sites VINEX in order to meet the needs of growing urban population and also to contain their existing urban tissue (Cahn, 2003).

VINEX is the subject of a semi-formal agreement, known as a covenant. This covenant was signed by the five relevant ministries and the authorities in the seven regions. Furthermore these covenants include agreements with the private partners and local authorities, and in the outside areas the agreements are signed with the provincial level of government which is able to identify locations that confirm priorities of the government (Cahn, 2003).

For the development of covenants the procedure is as follows. At the beginning the participants including the partners, the state, municipalities and provinces, express their commitment in a launch covenant. Subsequently, the launch covenant is used as the basis for the preparation of an implementation covenant. The implementation covenant covers various issues such as the exact location of the houses, the financial conditions and the government funds for land purchase and preparation, the construction of infrastructure and also the land decontamination. The Vinex areas can include infilling of the existing urban area and also extensions to the area. “Infilling was intended to integrate well into the existing city core and around public transport stations and so reduce the distance between living and working. Extensions were intended to be clustered and to strengthen the existing city by promote compact development and the use of sustainable means of transport” (Cahn, 2003).

Although the National Government provides financial assistance for the development of these areas this assistance is only received when the development starts. The main idea of guidance Vinex was to counteract the “suburbanisation” of The Netherlands and to promote the “compact city” “thereby reducing car kilometers and achieving a modal shift from the car to public transport and bicycle” (Cahn, 2003). The Government identified the sites with the objective of finding

areas that can be accessible to existing development. The central pillar of this policy which is the distance was criticized and the comment being made that the key should be accessibility rather than distance. It was supported that after 2005 there will be fewer locations suitably close to urban areas for development. This will limit the opportunity for new development and the development costs for the sites which are close to the centre will be prohibitive. Because of the fact that the Randstad ring closes, many activities will cross the borders between them (Cahn, 2003).

- National Spatial Strategy - Creating Space for Development (Nota Ruimte)

In 2006, the "National Spatial Strategy - Creating Space for Development" (Nota Ruimte) was formulated and is administered by the new Ministry of Infrastructure and Environment (OECD, 2012). In this National Spatial Plan is presented the strategy to 2020, and also the strategy for the period from 2020 to 2030. The aim of the National Spatial Strategy is to create space in order to “meet the economic and social demands for land sustainably and efficiently, and to safeguard and improve the living environment in urban and rural areas” (Government of the Netherlands, 2011). The national vision about the spatial planning as well as the implementation agenda, are presented by the National Spatial Strategy. The implementation agenda includes the framework in form and substance for implementation and the investment priorities for the central government. Moreover, in the Spatial Planning Act of 2008 are set out the roles and responsibilities of national, regional and municipal government. The Spatial Planning Act of 2008 offers the opportunity for the participation of non-government organisations, the private sector and the citizens. In addition, Act guarantees national planning goals and interests are taken into consideration in local land-use plans, zoning plans and structural visions which are prepared by the provinces (Government of the Netherlands, 2011).

This policy document provides “more compact building, less urban sprawl and restructuring of brownfield areas rather than creating new ones”. Also, attention is paid to climate change and energy. According to the policy, should be maintained a distinction between red (urban) and green/blue (climate, recreation, open spaces) zones. Due to the fact that this policy paper gives emphasis to the concept of “urban network”, six urban networks in the Netherlands are identified: Randstad Holland, Brabantstad, Zuid-Limburg, Twente, Arnhem-Nijmegen and Groningen-Assen. This document mentions that for the achievement of sustainable development of those urban networks it is necessary a spatial strategy of more compact construction and less urban sprawl. Several compact city principles are mapped out: “urban development, infrastructure and economic activities will be subject to a location policy and a compact city policy under which new residential and commercial development must be located, wherever possible, in or adjacent to existing built-up areas and infrastructure” (OECD, 2012). The spatial plans of provinces and cities based on this framework and the big Dutch cities such as

Amsterdam, Rotterdam, The Hague and Utrecht have compact city policies (OECD, 2012).

The role of NR is to stimulate development rather than to set rules and limitations and the local governments as well as the market need to take more decisions. In comparison with VINEX there is no map for the visualization of sites which are designed for housing development. Also, the decentralization of the government is increased and, housing agencies and private companies take the lead in housing development. According to Nota Ruimte the realization of large scale housing development it is not possible. In the development process the different levels of government work together with the housing agencies and private companies in order to improve the spatial quality and also to receive better spatial possibilities (Netsch and Kropman, 2011).

- Structural Vision on Infrastructure and Space (Structuurvisie Infrastructuur en Ruimte (SVIR))

In 2011-after the revision of National Spatial Strategy- the draft of Structural Vision on Infrastructure and Space (Structuurvisie Infrastructuur en Ruimte (SVIR)) was published. The aim of Government is to achieve “competitive, accessible, liveable and safe Netherlands”. In order to achieve this aim the Central government intends to change tack in Dutch spatial planning and mobility policy. The Government aims to bring spatial planning as close as possible to people and businesses due to the fact that they are directly affected. Moreover, it intends to give more responsibilities to local and provincial authorities. These changes mean “less focus on national interests and simpler regulations” (I&M, 2011). For instance, the local authorities will be responsible for the implementation of urban plans as well as for the municipal and interlocal coordination. “Central government will no longer be involved in determining percentages of built land in inner city areas, or defining National Buffer Zones and objectives for restructuring”. National government agree the programming of urbanisation with local as well as regional authorities only in the urban regions which are around the main transport nodes and ports such as the ‘mainports’ of Amsterdam and Rotterdam. Policy related to mobility will focus more on users. The cohesion between the various means of transport will be increased and the coordination of spatial development and mobility will be improved (I&M, 2011).

### **5.1.3 Policies for Randstad**

The urban accumulation of Randstad is significant element in the National Spatial Structure because the development in this area is complicated and there are different parts of the National Spatial Structure which intersect. Therefore, the guidance from the national government as well as the cooperation and the coordination with local and regional governments, the international organisations and other parties, are necessary (I&M, 2006).

- National Spatial Strategy - Creating Space for Development

In the region Randstad, the spatial and administrative needs are complex. There are many pressures not only on the available space but also for new space. The aim of "National Spatial Strategy - Creating Space for Development" (Nota Ruimte) is to strengthen its position due to the fact that Randstad faces international competition. In order to achieve this goal and Randstad to become more competitive in international environment the national government focuses on the stimulation of economy, an increase of the strength and dynamics of the cities and on development of unusual qualities as well as on the vitality of the Green Heart (I&M, 2006).

The aim of development perspective is to preserve and strengthen the spatial, cultural and economic diversity of Randstad. According to the calculations from 2010 until 2030 in the region will be demand for more than 8000 hectares for business estates and space for 360,000 to 440,000 dwellings. For the accommodation of this demand "some of the dwellings can be realised by compact building in existing urban areas. Old and declining city districts in particular could become more attractive due to restructuring and renewal activities" (I&M, 2006). But sometimes transformation into new residential and business areas may be a realistic option. This happen when the original function for instance obsolete railway yards, ports and industrial parks has been lost. The aim is the realization of 40% of the dwellings and business areas in existing urban areas. For the increase of construction in the existing cities the application of the safety regulations will be more flexible if it possible. Moreover, the national government will give additional support in 56 obsolete urban districts in order the urban renewal to be accelerated. Furthermore, the housing as well as the living environments in and around the existing cities will be improved by providing opportunities for sports, recreation and leisure. Due to the fact that the built of dwellings outside the existing areas is inevitable, the new urban areas will be linked as much as possible to the existing cities and to existing transport services and facilities (I&M, 2006).

The Green Heart in order to preserve its vitality needs some space to develop. The improvement of the landscape quality in the Green Heart is necessary and large-scale development would not be appropriate. The programme for the development of Green Heart will be based on different zones. Some places will contain green/blue development with restrictions on construction activities and some other places will contain fragmented or devalued areas which can also provide space for new development. The Administrative Platform for the Green Heart (Bestuurlijk Platform Groene Hart) has published a possible plan for these zones. The national government in order to allow urbanization in some places has changed the borders of the Green Heart. Such places are Rijnenburg, in the Bloemendalerpolder between Muiden and Weesp, and in the Zuidplaspolder (I&M, 2006).

The Holland-Utrecht peat areas, the South Holland Waarden and the Lake District (plassengebied) are included in the areas that have been designed for green/blue

development. Along the A2 motorway and among other places on the western side of the Green Heart are located zones with opportunities for small-scale functions. The quality zones pay attention on the agricultural sector's future. Preservation of economic vitality is it possible by combination of functions, for instance recreation and water. The provinces of South Holland, North Holland, and Utrecht will draw up a Green Heart Development Programme. This programme will provide a framework for all the necessary investments and the national government will be involved, both in the details and the funding (I&M, 2006).

The northern wing of the Randstad is an area with the highest demand for new housing locations. Also is the area which has the highest economic dynamics and greatest diversity due to the Amsterdam Schiphol airport which is significant economic monitor. In the northern wing the space for new residential areas is limited and space for urbanisation will have to be found in the region of Haarlemmermeer- Amsterdam-Almere. On the other hand, in the southern wing of the Randstad, construction is taking place in the existing cities. The aim of local and regional governments is to utilise better the existing infrastructure both rail and road in order to concentrate the urbanization close to the existing stations and infrastructure. In addition, the national government is creating space for large-scale urbanisation in the triangle between Rotterdam- Zoetermeer-Gouda (mainly in and around the Zuidplaspolder near Gouda). The province of Utrecht is working on urban expansion projects, such as Rijnenburg, within the restrictions of the National Spatial Strategy. Such kind of construction needs to pay attention to water management. Furthermore, suggested urban development is not permitted to cause bottlenecks on the Oudenrijn traffic junction (I&M, 2006).

- Randstad 2040 Structural Vision

In 2008 the National government announced the “Randstad 2040 Structural Vision” for the future of Randstad with a view to 2040, given more importance to the region.

In the Structure Vision, the compact city concept is flanked by a set of urban development policies including mixed-use urban land and more diverse neighbourhoods in the cities, natural conservation as well as upgrading transport. The aim of Randstad is to cover the 40% of the demand for new houses within the existing urban areas through “restructuring and transformation” as well as “concentration and consolidation” (OECD, 2012). In addition, it intends to convert unused industrial areas into new urban areas with employment and residential functions. Moreover, Randstad encourages the development of high rise buildings for the achievement of higher density in the existing urban areas. These high rise buildings can be in locations such as the station districts of The Hague Central and Amsterdam Zuidas where the housing and employment densities coincide with infrastructure interchanges. Furthermore, Structural Vision gives emphasis in investments that are concentrated in or around the main transport axes in the region Randstad as well as its side-shoots. The urban growth boundary expands in

order to form buffer zones that include large-scale green structure which provides entertaining and leisure space (OECD, 2012).

#### 5.1.4 Spatial patterns of densification areas in four Dutch cities

The PBL Netherlands Environmental Assessment Agency in order to have a more comprehensive view into developments within the existing urban areas has conducted a study on urban densification and analyses the developments of dwellings, inhabitants and jobs from 1996 to 2008 (Nabielek et al., 2012; Nabielek, 2012). In the figures 4-7 are presented the main developments in the four big cities of region Randstad. According to the maps of densification areas there are not the same spatial patterns for the densification of inhabitants and jobs (Nabielek, 2012).

In the city of Amsterdam (see Fig. 3) the main densification areas of inhabitants can be found in the district of the central city area (Nabielek, 2012).

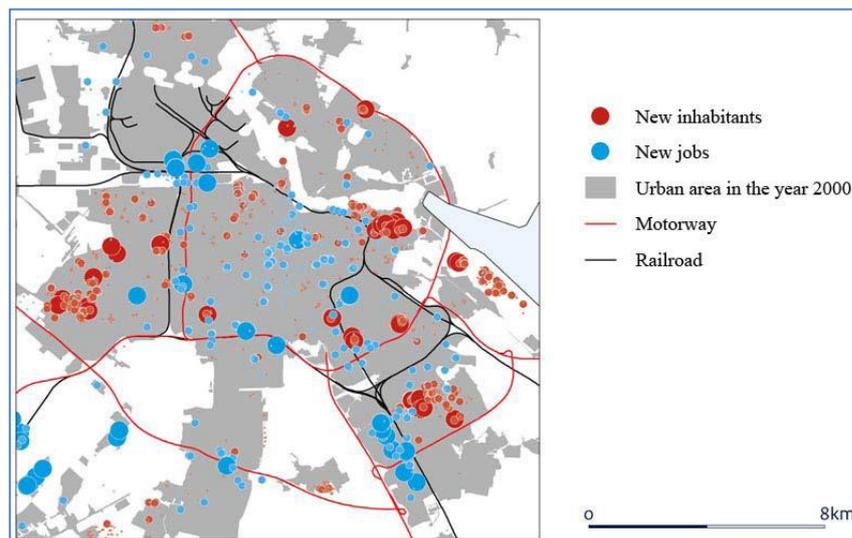


Figure 3: Densification areas in Amsterdam 1996-2005 (PBL)  
Source: Nabielek, 2012

Moreover, densification areas of inhabitants can be found in peripheral areas where urban renewal has taken place. Development areas of jobs can be found along the motorway ring and in the area in the centre of city (Nabielek, 2012).

In the map of The Hague (see Fig. 4) the development areas take place around the central city area, close the two central railway stations. Densification areas of jobs are mostly located north of the city centre and densification areas of inhabitants are located south of the city centre. Large developments cannot be found in the existing urban area but in the urban fringe (Nabielek, 2012).

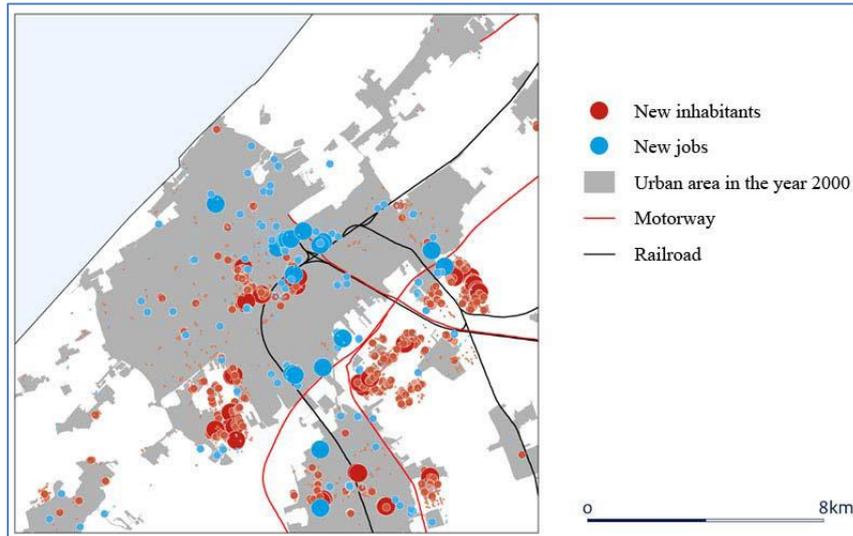


Figure 4: Densification areas in The Hague 1996-2008 (PBL)  
Source: Nabielek, 2012

In the city of Rotterdam (see Fig.5) the development areas of inhabitants and jobs can be found in the central city area because of the location of urban renewal areas in the city centre of Rotterdam and also because there is lack of an historic centre (Nabielek, 2012).

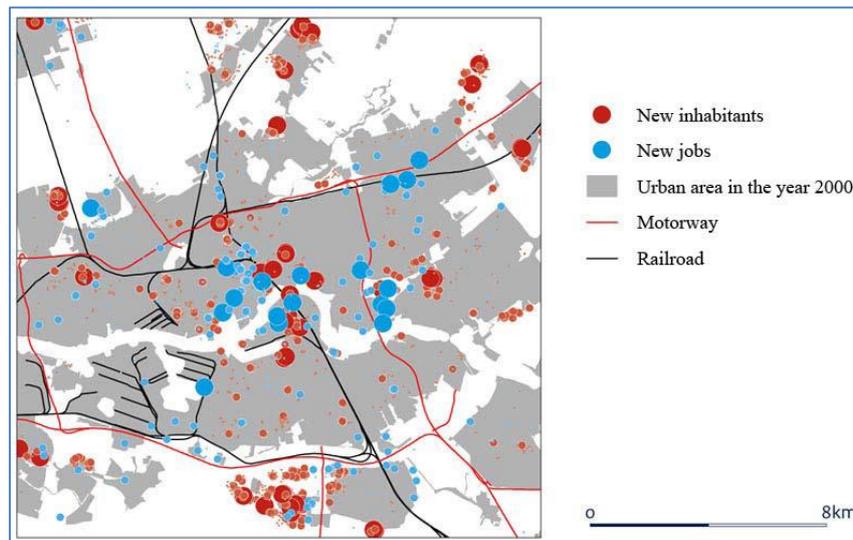


Figure 5: Densification areas in Rotterdam 1996-2008 (PBL)  
Source: Nabielek, 2012

According to the map of Utrecht (see Fig. 6) the densification areas of jobs are within the city boundaries. The densification areas of inhabitants are small in existing urban area and the major developments can be found in the urban fringe (Nabielek, 2012).

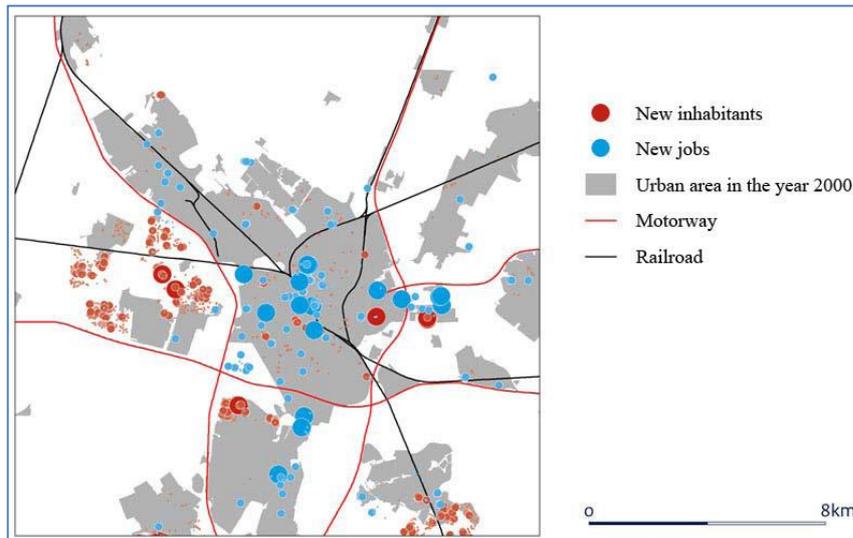


Figure 6: Densification areas in Utrecht 1996-2008 (PBL)  
Source: Nabielek, 2012

Last but not least, there is different spatial pattern of densification areas for every city. The densification areas of inhabitants can be found around train stations, at the edge of the city centre and also in urban regeneration areas. On the other hand, densification areas of jobs can be found in central city areas and along motorways. Apart from the city of Rotterdam, the functional separation between development areas for jobs and development areas for inhabitants is clear (Nabielek, 2012).

### 5.1.5 Randstad's outcomes analysis

In this research's section the data which collected through the interviews for the region Randstad in The Netherlands are presented and analysed.

Due to the fact that the driving forces behind the urban sprawl vary between countries and cities, in the question **“Which are the driving forces of urban sprawl?”** the interviewees (A1, A2, A3) answered that the driving forces in the region of Randstad are mostly the population and economic growth. The high concentration of population and economic activities in Amsterdam, Rotterdam, The Hague and Utrecht led to the need for new area for the location of residents and companies. The region Randstad is an attractive choice for both people and companies. The companies find the region Randstad an attractive environment due to infrastructure, location and the highly educated employees. For instance, the businessmen want to establish their companies in the region Randstad due to the fact that they want to be close to the airport of Amsterdam, to the port of Rotterdam and because of the dense road and rail network which connects the cities of Randstad with the rest of the country as well as with other European countries such as Belgium. But, the companies want to settle in the rural areas because of the lower land prices and along the main motorways due to the fact that the accessibility is easier. As a result the economic growth of the Randstad has extended in to the Green Heart area. In addition, people want to live in four big

cities in order to be close to their work environment or it is easier for someone to find a job if he lives in region Randstad. As a result of the above reasons there is high concentration of population mostly in the four big cities. The increase of population is result in an increase in urbanization and due to the high density of the Netherlands, the pressure in Green Heart area is increased (interviewees A1, A2, A3).

Moreover, economic factors like land prices. The concentration of population in the region Randstad increases the demand for housing and therefore the high demand for housing in the region increases the property prices. The prices are already higher in the city centre of Amsterdam, Rotterdam, Utrecht and The Hague than the suburbs of cities. As a result the people – as companies- prefer areas far from the city centres where the land prices are lower (interviewees, A1).

Furthermore, social factors are one more driving force for the region Randstad. Families with medium and high income prefer to live in the house with garden, but it is not possible to find this kind of house in the cities centre. As a result, mostly young couples with children choose to leave the city centre of big cities and they prefer rural areas in Green Heart because of easier access to green space. Also, many Dutch people after their retirement abandon the cities centre and they live in small villages in Green Heart where the quality of life is better (interviewees, A1).

In addition, the interviewee (A4) supports that the infrastructure such as highroads and railways is very important driving force due to the fact that it increases the accessibility in areas which are not close to the existing big cities. The development of transport network such as the train, metro, buses and cars gives more freedom to the movements of people. For instance, many people live in the region Randstad but they live away from the city centre of cities. They can live in the small cities or villages in the Green Heart and they use daily the means of transportation in order to go to their workplace which most of the times is located in the centre of Amsterdam, Rotterdam, Utrecht and The Hague (interviewee, A4).

Although the Dutch government tries to preserve the Green Heart as an open and green area, the pressure for new developments focuses on Green Heart. The Dutch government implements compact policies (they mentioned in the previous section) in order to prevent urban sprawl into open areas which is prerequisite for the achievement of sustainable urban development. As the current research examines the factors which affect the implementation and effectiveness of those policies, in the research question **“What factors affect the implementation, the effectiveness and the efficiency of urban containment policies?”** the answers are different among officials from provinces, officials from municipalities and academic. According to the interviews, the factors which affect the implementation, the effectiveness and the efficiency of urban containment policies in the region Randstad including:

- **The role of local authorities**

One of the factors which, is significant in the implementation, effectiveness and efficiency of urban containment policies is the role of local authorities. Last years the national government of the Netherlands for issues which are related to spatial planning gave more responsibilities to municipalities. As a result, the local authorities are responsible for the implementation of those policies and they have the power to decide where to build or not.

According to the interviewee (B3), the problem in the region Randstad is that the local authorities in the Green Heart want new buildings in their area. The municipalities want to attract new residents and businesses in order to increase their population. Therefore the local authorities will have more power as well as they will increase their tax revenues. Furthermore, the same interviewee argues that, also the people who leave in these municipalities want new buildings, for example they want to expand their farms. The people who leave in this area vote politicians for local level who want new buildings in the Green Heart and the elected politicians make plans with building possibilities. Also, he mentioned that even though the National government says that for the next 50 years there is no demand for new houses in the Green Heart the local authorities have enough power to build against the national government (interviewee, B3).

In addition, interviewees (A1) argue that it is easier for the municipalities, to be influenced for someone who wants to build in its area. For instance, it is easier for the politicians in province level to say that you can not built in this area but for the politicians in local level is more difficult to deny due to the fact that they are in daily contact with the stakeholders. "This is not bad because the municipalities are near to their citizens and makes policy closer to them, but they care only for their municipality and not for the whole region" (interviewees, A1). Furthermore, according to the interviewee (B3) the market and the private sector can influence the local authorities due to the fact that the local authorities before make the plans they discuss with them and the developers can say if something is good or not. They can influence the making of plans but the final decision is from politicians and the politicians are chose by the people who leave in these areas (interviewee, B3).

On the other hand, the interviewee (A2) from the big municipalities mentioned that in order to accommodate the demand for new buildings in their area they want to invest in the existing city because it is good solution for the cities. For example, they convert the uses of buildings (from office to housing). He told me that they buy land in small municipalities in order to protect the land from development. Moreover, they mentioned that the provinces want new houses but the municipalities believe that this extension is not good for their city because their city will be poorer (interviewee, A2).

- **The gap between policy and practice**

One other factor which affects those policies is the gap between policy and practice. It is different to make a policy than implement a policy in the field. The interviewees (A1) argue that the role of National Government is very important but it has to give responsibilities and to the other parties. They mention that if there is not participation of other stakeholders, there is gap between policy and practice. For instance, before VINEX period (until 1988) and during VINEX period (1988-2005) the government was the “dominant party”, it decided the areas for building and paid for their development. Before VINEX period there was not participation of private sectors. In the VINEX period the government designed the VINEX locations which were areas for large scale development and the participation of other stakeholders such as market, private sectors etc. was small. The interviewee (A2) characterized the VINEX period as the “last episode of sprawl”. The interviewees (A1) at regional level argue that “if the national government makes policy (draw map) the development never happens because nobody really wants it so the policy will never be implemented”. For instance the problem with VINEX was that the national government said that you can build in these areas but it did not take in to account the other parties. The government decided where to build and it gained money from this. The local authorities in order to get money from the national government and to develop their areas they tried to attract new investments. During the interview, the interviewees (A1) at regional level mentioned many times that it is very important for the regional level to work together with the other parties. At provincial level in the region of Randstad the cooperation among provinces, municipalities and other stakeholders plays important role for the implementation, effectiveness and efficiency of urban containment policies. For instance, in the province before the creation of provincial policy they discuss with other parties such as municipalities, other provinces, private sectors and stakeholders in the region. They discuss what has to be done, chances as well as solutions that the others parties can see for the future of their province. They mentioned that “it’s our policy but we do it with other parties. It’s an interactive project”. They support that if you make a policy you would like to know if it works in practice that’s why they have interaction with private sectors and stakeholders. In addition, they told me that if you make policies when you know what the stakeholders want you make better policies. For instance, the market drives the build in the Netherlands and many houses were built without policy. Also, the market influences the quality and the type of housing because the market does not want to build somewhere where it is difficult to sell. The participation of other parties the last years contributes significantly in the implementation and effectiveness of those policies because it covers the gap between theory and practice (interviewees, A1).

- **New social trends**

Since 2007, the things in the Netherlands have changed due to economic crisis. The interviewees (A1, A2, A3) stressed out that last years there is problem with the

buildings due to economic crisis. The development has stopped because of lack in finance and the people in the Netherlands do not move to a new house as often as they did in the previous years. The market for building houses has collapsed. Moreover, the groups of people for whom the region built are different. For instance before 2008 there were building projects with high prices but at the moment the most new buyers for houses are single people, old or young with fewer budgets. The VINEX policy which implemented in order to accommodate the demand for new development close to the existing cities is not effective anymore because all the Vinex locations are the same and there is not life quality. Now the things have changed, the market does not want VINEX locations, it focuses on quality and not on quantity. Also, the people now stay in the cities and they do not change so often houses as they did in previous years. The large scale developments are not preferable any more (interviewees, A1, A2, A3).

### **5.1.6 Conclusion**

The results of this research show that behind sprawl in region Randstad there are vary causes such as economic and population growth, land prices, social factors as well as the infrastructure network. Furthermore, according to the research's results there are vary factors which influence the implementation and effectiveness of urban containment policies. This research shows that the role of local authorities in the implementation and effectiveness of the urban containment policies is crucial. The local authorities in the Green Heart want to grow and they make plans with building possibilities. Moreover, the gap between policy and practice which existed because there was not participation of private sectors and stakeholders was very important factor for the implementation, effectiveness and efficiency of urban containment policies. Last decades, the implementation of spatial planning policies was difficult because the national government did not take in to account the other parties. Last but not least, since 2007, the social trends in the Netherlands have changed due to economic crisis. The VINEX policy is not effective anymore because all the Vinex locations are the same and there is not life quality. Now the things have changed, the market does not want VINEX locations, it focuses on quality and not on quantity. Also, the people now stay in the cities and they do not change so often houses as they did in previous years.

## 5.2 The region Greater London

### 5.2.1 Introduction

Greater London region - which is the second case study of current research - is one of the nine England's official regions but it is administered differently from the other eight regions (England, nd). The region of Greater London has 33 boroughs including the City of London Corporation (see figure 7) (GLA, nd).

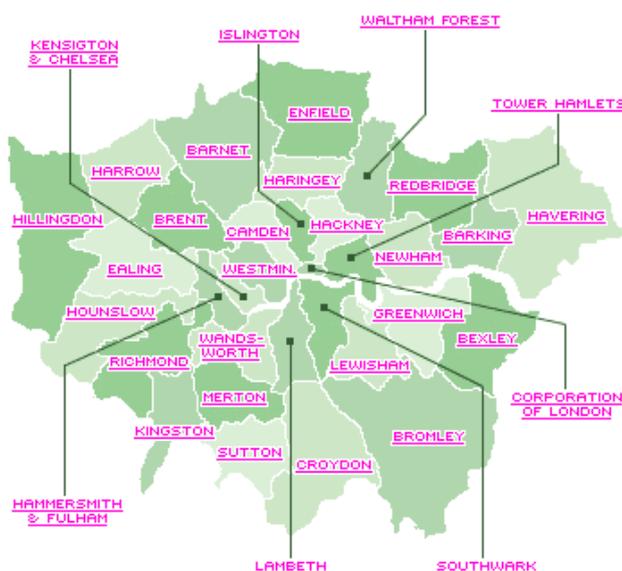


Figure 7: The region of Greater London  
Source: [www.schoolswebdirectory.co.uk](http://www.schoolswebdirectory.co.uk)

London consists of the City of London and from the Greater London which represents a greater area than the city of London. The creation of the Greater London administrative area took place in 1965 due to the fact that the city of London grew and began to absorb the settlements which surrounded the city. This absorption made the administration more complicated and the merger of smaller areas in a larger area, was necessary (England, nd).

Greater London was governed by the Greater London Council (GLC), by the City of London Corporation and by the councils of each of the 32 boroughs. In 1994, the regions of England were formalised and four years later through a referendum, the public expressed their need for a regional authority. As a result of this referendum, were the creation and the implementation of the Greater London Authority, London Assembly and the Mayor of London (England, nd).

The Greater London Authority (GLA) is an organisation which have strategic citywide role. It was created by the GLA Act of 1999 and formally established on 3 July 2000. In addition, the GLA Act of 2007 introduced additional and enhanced powers both for the Mayor of London and the London Assembly in several areas such as planning, climate change, housing, culture etc. The main three areas of its responsibility are: economic development and wealth creation; social development;

and environmental improvement. Moreover the Greater London Authority works closely with the boroughs in order to deliver the Mayor's long-term strategy for London, ensuring that the capital's picture is taken into account at the local level. The local council manages each borough. Also it is responsible for both the borough's administration, and for delivering public services (GLA, nd).

The region of Greater London is economically and industrially advanced on both national and international level (England, nd). Moreover, London is Europe's financial capital and one of the three world financial centres (Mayor of London, 2004).

Last decades London has changed significantly. London's attractiveness and dynamism in the new era of economic globalisation, lead to the rapid expansion of population and jobs (Mayor of London, 2004). This expansion does not pose only opportunities but also challenges due to the fact that quality of life, city's environment and historic character, have to be preserved (Mayor of London, 2004). According to the Mayor of London (2004), in order to sustain London's environment, the population increase must be "absorbed without expansion into the existing green belt or encroaching on London's internal green spaces" (Mayor of London, 2004). In addition, to sustain the quality of life and character of London, rapid economic growth must be achieved "without destroying the historic heritage of the city" (Mayor of London, 2004).

In the United Kingdom for many decades, the reduction of urban sprawl and the revitalization of towns and cities are the main aims for planning system and urban policy (Healey,1997; Jenks et al.,1996). England has the biggest story on the urban containment than the other Western countries. In 1580, Queen Elizabeth I issued a decree under which the building prohibited within three miles of the London city gates. The aim was to provide a safety net in the spread of plague and to maintain agricultural land near to the city. The Queen Elizabeth I with this decision created the first greenbelt. Early in the twentieth century Ebenezer Howard (1899) supported the creation of «garden cities». According to Howard's the solution for «concentrated, congested and unhealthy urban condition at the turn of century was decentralization into compact new towns of 30.000 people on sites of one thousand acres, each confined by an agricultural greenbelt of five thousand acres» (Nelson et al., 2007).

The first modern attempt upon the idea of Howard became in 1938 with the Green Belt Act and expanded in the Greater London Plan 1944 which suggested a continuous green belt ten miles around the city (Nelson et al., 2007). According to the Green Belt Act 1938, the Local Authorities had the power to buy land and to keep it open as Green Belt. But, the Local Authorities in order to sale the piece of land which they acquired under the Act they should had permission from the Secretary of State (London Green Belt Council, nd).

In England, plans for green belts made possible with the Town and Country Act of 1947 and this Act introduced non-compensable land use regulations as the main

tool for limiting urban sprawl (Nelson et al., 2007). The need for Society to have the control of land development recognized after the World War II and as a result of this recognition was the Town and Country Planning Act 1947. Although the Act 1947 “laid the foundation of modern planning system” this Act did not alter the Green Belt Act 1938 because the fact that the issue of Green Belt did not addressed directly in it. However, it was realised that it was not possible for local authorities to buy all the land needed in order to retain a good Green Belt, but for the control of development it was needed a way which will not interfere with the ownership and with the existing use of land. Furthermore, many local planning authorities “started writing into their local plans belts of restricted development to stop the uncontrolled spread of London” (London Green Belt Council, nd). On August 1955 the Government approved this idea and the Ministry of Housing and Local Government issued a circular according to which the Local Planning Authorities could establish Green Belt in their Development Plans (London Green Belt Council, nd).

In 1965, after the merger of local authorities in the London borough, into the Greater London Council, the Council supported the idea of containing cities within their current boundaries. In order to achieve this idea they used greenbelts around existing settlements in combine with the reinstalling of urban population in the existing cities (Nelson et al., 2007).



Figure 8: London's Green Belt

Source: The Telegraph,

<http://www.telegraph.co.uk/earth/greenpolitics/planning/9708387/Interactive-map-Englands-green-belt.html>

London's Green Belt is the most extensive and covers 486,000 hectares (DCLG, 1995).

Since the late 1980s, to the reduction of urban sprawl and to the revitalization of towns and cities “have been given a new language: that of sustainability”. In English spatial planning the ‘sustainable city’ is characterised by the idea of the “compact city”. This idea in physical terms can be translated to cities and towns

which are contained, built at higher densities than current averages, and have a mix of uses (Jenks et al., 1996). The achievement of 'compact city' idea for the reduction of urban sprawl implies development processes "by using urban, preferably brownfield land rather than greenfield or edge sites" (Williams, 2004). For the accommodation of growth in a sustainable way and within London's own boundaries as well as without encroaching on London's own green spaces (Mayor of London, 2004), policies were set out at national, regional and local level.

### **5.2.2 Spatial planning policies**

In England the structure of guidance and plans covering national, regional and local planning is hierarchical and includes: National Planning and Minerals Policy Statements and Guidance Notes; Regional Spatial Strategies; and Local Development Frameworks. At national level the Government determines the national policies of planning and also the rules which govern system's operation. National planning policies are defined in Planning Policy Statements (PPS) and Planning Policy Guidance notes (PPG), Minerals Policy Statements (MPS) and Minerals Planning Guidance Notes (MPG), Circulars and Parliamentary Statements. At regional level Regional Planning Bodies (in London, the Mayor) is responsible for the preparation and production of a Regional Spatial Strategy (RSS) (in London, the Spatial Development Strategy) which reflects the needs and aspirations for development and land use for a ten to fifteen year period. Each Regional Spatial Strategy should reflect, and build on, the policies which set out at national level. At local level Local planning authorities must prepare a Local Development Framework (LDF). An LDF will include a Local Development Scheme, Local Development Documents and a Statement of Community Involvement (DCLG, 1995).

Because the fact that the labour government came into power in 1997, more attention has been given to regional governance and to regional planning. The regional development agencies and other statutory and non-statutory stakeholders made the main instrument which is the regional guidance (RPG). When development plans are made regional planning guidelines have to be taken into account. Moreover these guidelines influence (not directly) the granting of planning permissions. In addition regional planning guidelines provide a development strategy for the region for fifteen to twenty years and identify the scale and distribution of provision for new housing and priorities for the environment, infrastructure, transport, agriculture, economic development, minerals and waste treatment and disposal (Needham, 2006).

## **Key spatial urban plans**

The key spatial urban plans including:

- Planning Policy Guidelines Note 2: Green Belts (PPG2)

In 1988 Green Belt's Principles were integrated in Planning Policy Guidance Note No. 2 (PPG2) which was issued by the Government. In 1995, the PPG2 was replaced by a new Planning Policy Guidance Note (DCLG, 1995) and amended in 2001 (OECD, 2012). In the Planning Policy Guidance notes (PPGs), the Government's policies on different aspects of planning are set out (DCLG, 1995). PPG2 establishes a presumption against the development which is not appropriate in greenbelts such as new constructions in greenbelts. This kind of development should not be approved due to the fact that it is harmful to the greenbelts. On the other hand, there are some exceptions (e.g. extensions of the existing dwellings, agricultural buildings or facilities for outdoor sports), but only when the harm would be outweighed by other considerations and the permission is justified by special circumstances (OECD, 2012).

Last but not least, according to PPG2, the boundaries of greenbelts once they established in development plans, may be altered only under exceptional circumstances (OECD, 2012). In March 2012 the Planning Policy Guidance 2: Green Belts (24 January 1995) has been replaced by the National Planning Policy Framework 2012.

- Planning Policy Guidelines Note 3: Housing (PPG3)

PPG3 on Housing of 2000 gives advices to local planning authorities for accommodation of demand for housing without extension on the greenbelts and suburbs. The main aim of PPG3 was to encourage higher density development on underused or abandoned industrial and commercial facilities or urban sites (brownfield sites) and to direct policy away from residential development on greenfield sites. For the achievement of these aim the national government introduced not only the brownfield target of 60% for new developments but also the minimum net residential density guidelines of 30 dwellings per hectare. By 2005 “the density of new residential development had risen to 40 dwellings per hectare and the share of development on brownfield sites to 70%” (UTF, 2005: 12; OECD, 2012); (OECD, 2012).

- National Planning Policy Framework (2012)

The National Planning Policy Framework (2012) defines the planning policies of Government for England as well as how these policies are expected to be applied (DCLG, 2012).

According to the National Planning Policy Framework (2012) the Green Belts are a great of importance for the National Government (DCLG, 1995). As set out in National Planning Policy Framework (2012), Green Belt exists for five purposes which are:

1. “to check the unrestricted sprawl of large built-up areas”;
2. “to prevent neighbouring towns from merging into one another”;
3. “to assist in safeguarding the countryside from encroachment”;
4. “to preserve the setting and special character of historic towns”;
5. “to assist in urban regeneration, by encouraging the recycling of derelict and other urban land”.

According to the National Planning Policy Framework (2012), the construction of new buildings inside a Green Belt is inappropriate unless the new constructions are for the following five purposes:

1. “buildings for agriculture and forestry”;
2. “provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it”;
3. “the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building”;
4. “the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces”;
5. “limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan”; or
6. “limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development”.

- PPS12: Local Spatial Planning

Planning Policy Statement 12: Creating Strong Safe and Prosperous Communities through Local Spatial Planning, was published in 2008 by Department for Communities and Local Government. PPS12 sets out the national policy for how authorities at local level should prepare plans as well as sustainable communities’ strategies for their area. The aim is to shape local areas in order to deliver positive social, economic and environmental results according to national and local policy objectives such as objectives that “may help form compact cities, inform the specific policies of local authority development plans, the basis for decisions on individual applications for planning permission” (OECD, 2012).

### 5.2.3 Compact policies for London

According to the Greater London Authority Act 1999 the Mayor of London is responsible for strategic planning in London. The Mayor has to produce a Spatial Development Strategy for London which called the London Plan and he has to keep it under review (Mayor of London, 2004).

According to the law the Mayor has to produce and other strategies for London. Each of these strategies must be consistent with the others and “the London Plan acts as the integrating framework for all” (Mayor of London, 2004). Furthermore, each strategy must take into consideration the national policies and international obligations. These strategies are: Transport, Economic Development, Biodiversity, Air Quality, Municipal Waste Management, Ambient Noise and Culture. Furthermore, the London Plan should take into account the European Spatial Development Perspective (ESDP) and other EU directives. “The ESDP sets a framework for the planning system to operate in the wider European context and supports the principle of sustainable development and the creation of balanced urban systems” (Mayor of London, 2004). In addition, it is the Mayor’s duty to promote equality of opportunity in London and to ensure that the proposals and policies in the London Plan are implemented take in to account the Race Relations Amendment Act 2000, the Disability Discrimination Act 1995 and other relevant government policy advice (Mayor of London, 2004).

The London Plan replaced the strategic guidance (PPG3) (Mayor of London, 2004).

- London plan 2004

The first London plan published in 2004 and looked forward to 2026. In the London Plan 2004 the Mayor Ken Livingstone believes that “London’s future will be significantly shaped by a number of factors driving change. The most significant of these, at least for a spatial development strategy, is the projected rapid growth of people and jobs, driven by powerful market and demographic forces” (Mayor of London, 2004). According to the Mayor there are six driving forces which are responsible for London’s change: the population growth, the economic growth, environmental issues, lifestyle, technological changes as well as social justice and all of them have their roots in global changes. The London Plan 2004 set out policies for accommodation of that growth in a sustainable way, “within London’s own boundaries and without encroaching on London’s own precious green spaces” (Mayor of London, 2004).

According to the Mayor the accommodation of London’s growth has four key implications for future policy. The first key implication is that London must become a more compact city. This means that development will take place more intensively, with higher densities and plot ratios on existing brownfield sites. The second key is that the future development should be integrated not only with the capacity of the public transport system but also with the accessibility of different locations. “Thirdly, this level of growth will be inhibited unless a range of supply side issues is

dealt with to match the demand. These include the supply of commercial floor space, housing, relevant skills, adequate transport and a high quality environment” (Mayor of London, 2004). Fourthly, there is need for clear spatial priorities. For examples, areas of London (in parts of the east) which have not benefited from recent development should be prioritised for future development. All the policies which are set out in the Chapter 2 of London Plan 2004 are set within the context of sustainable development. A more compact city will enable the more effective use of scarce resources such as land, energy, and transport infrastructure, water as well as construction materials (Mayor of London, 2004).

- London plan 2011

As mentioned above, the Mayor has to keep the London Plan under review. When the Mayor decides that the London Plan should be modified or replaced, the government determines the procedure that is going to be implemented. In the first London Plan took place “two sets of alteration and an updated version which bringing these alteration together and was published in 2008” (Mayor of London, 2011). In a shortly time after the election of a new Mayor (Boris Johnson) in May of 2008 he consulted on ‘Planning for a Better London’ (July 2008) according to which the Mayor outlined his intended approach to planning. The consultants argued strongly that he should move straight to a full review leading to a replacement London Plan. The new London Plan published on July of 2011 and its formal end date is the year 2031. The publication of a new London Plan does not mean that the London planning will stop. The effectiveness of Plan policies as well as the assumptions on which those policies are based will be monitored and if circumstances change for example change to the economy then the Plan will be altered or replaced (Mayor of London, 2011).

According to the London Plan 2011 “the most efficient use will have to be made of London’s limited reserves of land, identifying places with the potential for development on a strategic scale, and ensuring policies are in place to enable this to happen”. From spatial perspective this means that will be given attention to the areas of land in the East London which are not used and where there are the need and the possibility not only for development but also for the regeneration of these areas (Mayor of London, 2011).

For the accommodation of London’s growth in the London Plan 2011 are identified opportunity and intensification areas. Opportunity areas have significant capacity to accommodate new housing and other development (commercial) which linked to the existing or possible improvements to public transport accessibility. Intensification areas are built up areas with good existing public transport accessibility. These areas can support the redevelopment in higher densities as well as have significant capacity for new homes and jobs (Mayor of London, 2011).

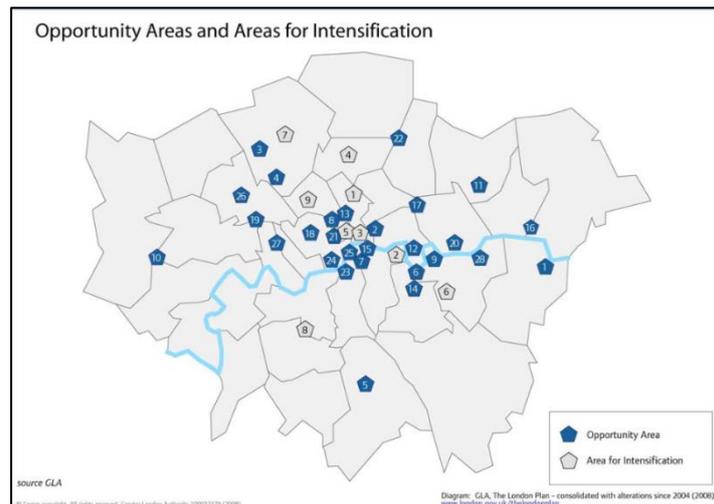


Figure 9: Greater London opportunity and intensification areas  
Source: Greater London Authority, <http://www.london.gov.uk>

For the achievement of the above goals all the parts of London are going to contribute to this. The relationship of Central Activities Zone with inner and outer London is supplementary, supporting the achievement of social, economic and environmental objectives for wide area of London. In addition the homes and the companies of outer London contribute to the functioning of central London. Moreover, due to the location of inner London, its problems and opportunities are influenced by Central Activities Zone and by the Outer London (Mayor of London, 2011).

#### 5.2.4 Greater London's outcomes analysis

In this research's section the data which collected through the interviews for the region Greater London in Great Britain are presented and analysed.

Since the driving forces of urban sprawl are different between cities and countries, in the question **"Which are the driving forces of urban sprawl"** the interviewees (B1, B2) answered that the driving forces which are behind the pressure on the green belt boundary are population and economic growth. According to the interviewee (B1) the population growth is due to the natural population growth, which means that in the region of Greater London there is increase of births over deaths because more people of childbearing age have moved to the city of London. Furthermore, the second interviewee (B2) supports that the population and economic growth of Greater London consistent with the role of London as a world City. In the central London including the City of London the main driving force is its long-term attractiveness due to the fact that it is a place that many people choose it for living, work and invest at a time of global uncertainty. According to him, the reason for population growth in the London is the migration between London and the other parts of United Kingdom or between London and other countries of the world. Also, the economic growth is due to the finance and business services sector have concentrated in the London (interviewee, B2).

London is an attractive place both for people and companies. The region of Greater London is economically and industrially advanced on both national and international level and London is Europe's financial capital and one of the three world financial centres. Therefore, the attractiveness and the dynamism of London lead to the rapid expansion of population and jobs. As a result the population and economic growth, pressure for new space and most of the times this demand is outside the boundaries of existing cities, in the Green Belt. The aim of Green Belt which surrounds the region Greater London is to limit the urban development in the existing boundaries of region. According to the interviewees (B1, B2, B3), the effectiveness of Green Belt as a policy for containment of urban sprawl is commonly accepted (just over 95% of development in London is on brownfield land). Furthermore, the answers in the question **“What factors affect the implementation, the effectiveness and the efficiency of urban containment policies?”** vary among officials from provinces, officials from municipalities and academic. There is no common answer in the question why London's Green Belt is effective. According to the informants (B1, B2, B3), the factors which affect the implementation, the effectiveness and the efficiency of urban containment policies in the region Greater London are:

- **The role of local authorities in Green Belt (political pressure)**

Interviewee (B3) argues that the green belt which surrounds the area of Greater London is effective as urban containment policy (that is to say that the green belt is protected from new buildings) due to the influence of people who live in green belt. They do not want new houses in their area not only because they want to keep it green but also because they are afraid of the building of new houses will reduce the price of their house and in this way they protect the value of their property. The success of Green Belt is due to the people who live in this area vote politicians for local level who do not want new buildings in the Green Belt. The local authorities make the plans and they are responsible for the implementation of those policies. They have the power to decide if they are going to allow or not the building. The interviewee (B3) argues that the politicians who are elected in the local authorities in the Green Belt do not want new buildings in their area and they make plans without building possibilities. Even though the national government says that “I want to build in Green Belt” the people who live there start political pressure in order to prevent the area. He explained to me that the people who live in Green Belt of London constitute a very powerful pressure group which wants to keep it green. They are rich, strong enough and very influential. For instance, in order to keep the Green Belt green they bought a piece of land in order to prevent it from the change. If a developer wants to build in Green Belt the local authorities will refuse. The only solution is the developer to appeal against the refusal but this is expensive and long procedure. The only new buildings in Green Belt are because the developer won the court. On one hand the Green Belt is effective urban containment policies due to the fact that there are not new buildings in this area, but according to interviewee (B3) the policy not built in Green Belt it is not good for London because in the London there is high demand for new buildings and there

are not new buildings, the prices are high or the people have to travel long way in order to go from home to work. Also there is social exclusion; the people who have money can leave in Green Belt area, but not the poor people (interviewee, B3).

- **The role of national government**

One other factor for the implementation, effectiveness and efficiency of urban containment policies is the influence of national government. According to the interviewee (B1) the role of central Government not only in the implementation of these policies but also on their effectiveness and efficiency is very important. He mentions that the clear advice that Government gives on when to allow or refuse development in the Green Belt makes it much easier for the boroughs to determine planning applications. The interviewee (B1) says that if the “Green Belt should be protected more then central Government would need to issue stricter advice than it does”. If the government relaxes its advice then should be more development in the Green Belt. Therefore, the role of national government can be positive or negative factor.

- **Long term view of policy**

One of the informants (B2) mentions that one other factor is the long term view of policy .The duration of plan (London Plan until 2031) can affect the implementation and the effectiveness of urban containment policies. The interviewee (B2) argues that the end date is not important because the London Plan will need to be reviewed and replaced many times until 2031 but the important is that the policies which are applied in the short and medium term are consistent with the current long term objectives which are set out in the Plan. Concerning urban containment policy it is very important that it is applied consistently over the long term. As a result there is both public and market confidence in the durability of the approach. For instance, if the developers think that it is possible the relaxation of existing containment policy then this possibility will affect their behaviour and may some of them leave land idle and they will wait for policy circumstances which will become more beneficial (interviewee, B2). Moreover, according to the interviewee (B1) the long term-view (until 2031) of London Plan is important because “by setting the boundaries until 2031 this gives certainty and discourages people putting in applications in the hope that the boundary might change next year or the year after” (interviewee, B1).

- **Cooperation among the stakeholders**

Last but not least, the interviewee (B2) mentions that the cooperation among the neighbour boroughs and among government, region and borough for successful implementation of local plans is needed. Also, he says that the importance of cooperation has been recognised by the Government’s introduction of a legal

requirement called the 'duty to cooperate' when plans are prepared. For instance The London Plan was prepared by the strategic planning authority but in cooperation with the 33 local boroughs within London.

### **5.2.5 Conclusion**

The results of this research show that the causes behind sprawl in region Greater London are economic and population growth. These causes were expected due to the fact that London is very attractive place both for people and companies. Furthermore, according to the research's results there are vary factors which influence the implementation and effectiveness of urban containment policies. This research shows that the urban containment policies in the region of Greater London are effective due to the fact that the people who live in the Green Belt have enough power to prevent their area from building. They choose politicians for the local authorities who are against to the building in Green Belt. As a result the local authorities in the Green Belt make plans without building possibilities. Moreover, the national government have power to allow or not the development in the Green Belt. Also, the long term view of policy and the cooperation among the stakeholders are two other important factors that can affect the implementation and the effectiveness of containment policies.

## **Chapter 6 – Conclusions**

### **6.1 Conclusions**

There is no doubt that the containment of urban sprawl and therefore the conversion of rural areas to residential areas in order to satisfy the demand for new space are very important issues due to the fact that they have significant impacts on the environment and on the quality of life. The countries such as Great Britain and The Netherlands, in order to address the problems that are caused by urban development, create a wide range of policy instruments for the limitation of urban sprawl. Unfortunately, the restriction of urban sprawl is a policy which is very difficult to implement and consequently there are factors which affect implementation and effectiveness of policy.

The results of this research-based on two European regions- show that in both regions (Randstad and Greater London) there are common and uncommon factors which can affect the implementation and effectiveness of those policies.

A common factor is the role of local authorities. The role of municipalities in urban development and in the implementation of spatial planning for both regions is crucial. This happens due to the fact that the implementation of national policy which is related to spatial planning is decentralised to municipal government. The people who live in the Green Belt and in the Green Heart have the power to prevent or not their area. This research shows that the urban containment policies in the region of Greater London are effective due to the fact that the people who live in the Green Belt have enough power to prevent their area from building. They choose politicians for the local authorities who are against to the building in Green Belt. As a result the local authorities in the Green Belt make plans without building possibilities. On the other hand, the people who live in the Green Heart choose politicians for local authorities in Green Heart who want new buildings in their area. The local authorities in the Green Heart want to grow and they make plans with building possibilities.

In the Greater London another factor is the role of national government. If the Government gives clear advice on when to allow or to refuse the development in the Green Belt, it will be easier for the boroughs to determine planning applications. The success of Green Belt policy is determined by the advice given by central Government. If the Government's advice is strict then the development in the Green Belt will be difficult. Furthermore, the pressure for urban sprawl in the fringes of Greater London region and also in the Green Belt can be reduced if there is strong encouragement for the intensification of uses in publically accessible and sustainable locations in the city centre. Two other factors concerning urban containment policy are the long term view of policy and the cooperation between the stakeholders. If the policy is applied consistently over the long term there is both public and market confidence in the durability of the approach. Furthermore, the cooperation among the neighbour boroughs and among government, region and borough for successful implementation of local plans is needed. This importance of

cooperation has been recognised by the Government's introduction of a legal requirement called the 'duty to cooperate' when plans are prepared. For instance The London Plan was prepared by the strategic planning authority but in cooperation with the 33 local boroughs within London.

In the Randstad the gap between policy and practice which existed because there was not participation of private sectors and stakeholders was very important factor for the implementation, effectiveness and efficiency of urban containment policies. Last decades, the implementation of spatial planning policies was difficult because the national government did not take in to account the other parties. The government just designed the areas for the development but this development never happened because nobody really wanted it so the policy was not implemented. The problem was that the government did not know if the policy worked or not in practice. There was gap between policy and practice. But now the things have changed. The decentralization plays very important role and through the interaction with private sectors and stakeholders they know if the policy will work in practice. Furthermore, since 2007, the social trends in the Netherlands have changed due to economic crisis. Before 2008 there were building projects with high prices but at the moment the most new buyers for houses are single people, old or young with fewer budgets. The VINEX policy which implemented in order to accommodate the demand for new development close to the existing cities is not effective anymore because all the Vinex locations are the same and there is not life quality. Now the things have changed, the market does not want VINEX locations, it focuses on quality and not on quantity. Also, the people now stay in the cities and they do not change so often houses as they did in previous years.

We can conclude that the implementation of those policies in both regions, have been successful in containing urban sprawl and preserve open agricultural areas and natural environments. The effectiveness of London's Green Belt as a policy for containment of urban sprawl is commonly accepted. Green Belt limits the urban development within London's own boundaries and without encroaching on London's own green spaces. Ninety five per cent (95%) of development in London is on brownfield land. In addition, the policy as implemented in the period 1990-2010 in the region Randstad has contributed to the limitation of urban sprawl. The new residential areas were created in the perimeter of the city, known as sites VINEX or within the existing boundaries of cities. Moreover, the effectiveness of Dutch policies, were recognized by European Spatial Development Perspective and The Netherlands reported, as example of country that managed to follow efficient policies in order to achieve compact cities. But, due to the fact that social trends have change because of economic crisis, VINEX policy is not effective anymore.

In the future, the success of implementation of urban containment policies in the region Randstad and in the region Greater London will depend on decisions of local authorities because the national governments have given more responsibilities and power to municipalities. Since 2007 in the region Randstad due to the economic crises there is no demand for urban development. As a result, there are no plans for large scale development but the municipalities have the power and if they find

someone to fund their plans they will allow small scale developments outside the existing urban areas. On the other hand, in the region of Greater London the local authorities in the Green Belt are strong enough and they have the power to prevent their area from new buildings.

## **6.2 Limitations of research and further research**

Although the research has reached its aim, I am still aware of its limitations. Firstly, because of limited time, this research examined only two European regions. Therefore, to generalize the results for more regions, the study should have involved greater number of regions. Secondly, the small number of interviews (only seven interviews for both regions) due to time limitations might not represent the opinion of majority of officials at regional and local authorities. Moreover, this research conducted during the period of economic crisis and the development has stopped because of lack in finance. It would be better if it was done in different period of time.

In the future, it would be interesting to extend the research to other regions that implement policies for the containment of sprawl in order to have a deeper view about the factors which affect the implementation of those policies. Furthermore, it would be better the future research to be conducted beyond the period of economic crisis in order to attain more objectively results. For instance, since 2007 in the region Randstad due to the economic crisis there is no demand for urban development. The VINEX policy is not effective anymore due to the fact that the social trends have changed because of crisis.

## References

Akundi, K. M. (2005). "Urban Growth. A perspective on Suburban Expansion and Metropolitan Development" in Wagner, F.W., Joder, T. E., Mumphery Jr., A. J., Akundi K. M. and Artibise A. F.J. (eds) "Revitalizing the city. Strategies to Contain Sprawl and Revive the Core". USA: Published in cooperation with the Maxine Goodman Levin College of Urban Affairs, Cleveland State University

Batty, M., Bessussi, E., Chin N. (2003). "Traffic, urban growth and suburban sprawl". Paper 70 Centre for Advanced Spatial Analysis

Bengston, D. and Youn, Y-C. (2006). "Urban Containment Policies and the Protection of Natural Areas: The Case of Seoul's Greenbelt". *Ecology and society: a journal of integrative science for resilience and sustainability*. 11(1): 3  
Available from: [www.ecologyandsociety.org/vol11/iss1/art3/](http://www.ecologyandsociety.org/vol11/iss1/art3/)

Bhatta, B. (2010). "Analysis of Urban Growth and Sprawl from Remote Sensing Data". Berlin: Springer-Verlag.

Brueckner, J. (2000). "Urban Sprawl, Diagnosis and Remedies". *International Regional Science Review* 23 (2), pp. 160-171.

Cahn, M. (2003). "Combating Urban Sprawl". ADEME/ Energie-Cities  
Available from: [www.energycities.eu/IMG/pdf/eda\\_etalement\\_urbain\\_en.pdf](http://www.energycities.eu/IMG/pdf/eda_etalement_urbain_en.pdf)

Chin, N. (2002). "Unearthing the roots of urban sprawl: a critical analysis of form, function and methodology". London: Centre for Advanced Spatial Analysis

Christiansen, P. and Loftsgarden, T. (2011). "Drivers behind urban sprawl in Europe". Institute of Transport Economics, Norwegian Centre for Transport Research. TØI Report 1136/2011, pp. 1-29

Department for Communities and Local Government (DCLG) (2012). National Planning Policy Framework. London  
Available from:  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

Department for Communities and Local Government (DCLG) (2005). "The Planning System: General Principles". Office of the Deputy Prime Minister, UK.  
Available from: [http://www.eastdevon.gov.uk/general\\_principles.pdf](http://www.eastdevon.gov.uk/general_principles.pdf)

Department for Communities and Local Government (DCLG) (1995). Planning Policy Guidance 2: Green belts (PPG2), The Stationery Office for the Department for Communities and Local Government, London. Available from:  
<http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/planningandbuilding/pdf/155499.pdf>

Dühr, S., Colomb, C., Nadin, V. (2010). "European spatial planning and territorial cooperation". London: Routledge

England (nd). Available from: [www.england.org.za/greater-london.php](http://www.england.org.za/greater-london.php), accessed on 17-05-2013

ESPON (2006h). ESPON Project 2.2.3: Territorial effects of Structural Funds in Urban Areas. Final Report, Esch-sur-Alzette, Luxembourg: ESPON

European Commission (EC).

Available from: [www.ec.europa.eu/regional\\_policy/activity/urban/index\\_en.cfm](http://www.ec.europa.eu/regional_policy/activity/urban/index_en.cfm), accessed on 10<sup>th</sup> January 2013

European Environment Agency (EEA), (2011). "Analysing and managing urban growth". Available from: [www.eea.europa.eu/articles/analysing-and-managing-urban-growth](http://www.eea.europa.eu/articles/analysing-and-managing-urban-growth), accessed on 5<sup>th</sup> January 2013

European Environment Agency (EEA), (2006). "Urban sprawl in Europe – The ignored challenge". Office for Official Publications of the European Communities, Luxembourg. Available from:

[http://www.eea.europa.eu/publications/eea\\_report\\_2006\\_10/eea\\_report\\_10\\_2006.pdf/view](http://www.eea.europa.eu/publications/eea_report_2006_10/eea_report_10_2006.pdf/view)

Ewing, H. (1994). "Characteristics, Causes and Effects of Sprawl: A Literature Review". *Environmental and Urban issues* 21(2): 1-15

Faludi, A. (2000). "The Performance of Spatial Planning". *Planning Practice & Research* 15 (4): 299–318.

Fox, D. (2010). "Halting Urban Sprawl: Smart Growth in Vancouver and Seattle". *Boston College International and Comparative Law Review*, 33(1): 43-59

Franz, G., Maier, G. and Schröck, P. (nd). "Urban Sprawl. How useful is this concept?". Vienna University of Economics and Business Administration, Vienna, Austria.

Available from: [www.sre.wu-wien.ac.at/ersa/ersaconfs/ersa06/papers/105.pdf](http://www.sre.wu-wien.ac.at/ersa/ersaconfs/ersa06/papers/105.pdf)

Galster, G., Hanson, R., Ratcliffe, M. R., Wolman, H., Coleman, S., and Freihage, J. (2001). "Wrestling Sprawl to the Ground: Defining and Measuring an Elusive Concept", *Housing Policy Debate*, 12: 681-717.

Government of the Netherlands (Rijksoverheid) (2011). "Roles and responsibilities of central government".

Available from: [www.government.nl/issues/spatial-planning/roles-and-responsibilities-of-central-government](http://www.government.nl/issues/spatial-planning/roles-and-responsibilities-of-central-government), accessed on 4<sup>th</sup> March 2013.

Government of the Netherlands (Rijksoverheid) (2011). "Roles and responsibilities of other authorities"

Available from: [www.government.nl/issues/spatial-planning/roles-and-responsibilities-of-other-authorities](http://www.government.nl/issues/spatial-planning/roles-and-responsibilities-of-other-authorities), accessed on 4<sup>th</sup> March 2013.

Greater London Authority (GLA) (nd). Available from: [www.london.gov.uk/who-runs-london/london-boroughs](http://www.london.gov.uk/who-runs-london/london-boroughs), accessed on 20 February 2013.

Hague, C. (2007). "Urban containment: European experience of planning for the compact cities", in Knaap, G.-J., Haccou, H. A., Clifton, K.J., Frece, J.W. (eds) "Incentives, Regulations and Plans. The Role of States and Nation-states in Smart Growth Planning". United Kingdom: Edward Elgar Publishing Limited

Janssen-Jansena, B. L. and Woltjer, J. (2010). "British discretion in Dutch planning: Establishing a comparative perspective for regional planning and local development in the Netherlands and the United Kingdom". *Land Use Policy* (27): 906-916

Kemp, R., Parto, S. and Gibson, R.B. (2005) "Governance for sustainable development: moving from theory to practice", *Int. J. Sustainable Development*, Vol. 8, Nos. 1/2, pp. 12-30

Knaap, G.-J., Haccou, H. A., Clifton, K.J., Frece, J.W. (2007). "Incentives, Regulations and Plans. The Role of States and Nation-states in Smart Growth Planning". United Kingdom: Edward Elgar Publishing Limited

London Green Belt Council (nd). "The history of the London Green Belt"

Available from:

[www.londongreenbeltcouncil.org.uk/lgbc%20website/pdf/THE%20HISTORY%20OF%20THE%20LONDON%20GREEN%20BELT.pdf](http://www.londongreenbeltcouncil.org.uk/lgbc%20website/pdf/THE%20HISTORY%20OF%20THE%20LONDON%20GREEN%20BELT.pdf), accessed 17-05-2013

Ludlow, D. 2009. "Urban Sprawl: New Challenges for City-region Governance" in Cooper, I. and Symes, M. (eds) "Sustainable Urban Development, Volume 4. Changing Professional Practice". London and New York: Routledge

Mayor of London (2011), *The London Plan: Spatial Development Strategy for Greater London*. Published by Greater London Authority

Available from: [www.london.gov.uk/publication/londonplan](http://www.london.gov.uk/publication/londonplan)

Mayor of London (2004), *The London Plan: Spatial Development Strategy for Greater London*. Published by Greater London Authority

Available from:

[http://static.london.gov.uk/mayor/strategies/sds/london\\_plan/lon\\_plan\\_Oprelims.pdf](http://static.london.gov.uk/mayor/strategies/sds/london_plan/lon_plan_Oprelims.pdf)

Mebratu, D. (1998). "Sustainability and Sustainable development: Historical and Conceptual Review". ENVIRON IMPACT ASSES REV 1998; 18:493–520

Millward, H. (2006). "Urban containment strategies: A case-study appraisal of plans and policies in Japanese, British and Canadian cities". Land Use Policy, 23: 473-485

Ministry of Environment, Denmark (ME) (2001). Spatial planning as an instrument for promoting sustainable development in the Nordic countries.

Ministry of Infrastructure and the Environment (I&M) (2011). "Summary Draft National Policy Strategy for Infrastructure and Spatial Planning with the Strategic Environmental Impact Assessment". Available from:

<http://www.government.nl/issues/mobility-public-transport-and-road-safety/documents-and-publications/reports/2011/08/04/summary-draft-national-policy-strategy-for-infrastructure-and-spatial-planning.html>

Ministry of Infrastructure and the Environment (I&M) (2006). "National Spatial Strategy (Nota Ruimte) - Creating Space for Development" Summary National Spatial Strategy.

Available from: [www.rijksoverheid.nl/documenten-en-publicaties/brochures/2010/11/23/summary-national-spatial-strategy-creating-space-for-development.html](http://www.rijksoverheid.nl/documenten-en-publicaties/brochures/2010/11/23/summary-national-spatial-strategy-creating-space-for-development.html)

Munoz, F. (2003). "Lock living: Urban Sprawl in Mediterranean Cities", Cities 2003

Nabielek, K. (2012). "The Compact City: Planning Strategies, Recent Developments and Future Prospects in the Netherlands", AESOP 26<sup>th</sup> Annual Congress, METU, Ankara.

Available from:

[www.pbl.nl/sites/default/files/cms/.../AESOP2012\\_PBL\\_nabielek.pdf](http://www.pbl.nl/sites/default/files/cms/.../AESOP2012_PBL_nabielek.pdf)

Nadin, V. (2001) "Sustainability from national spatial planning perspective", in OECD (edition) "Towards a New Role for Spatial Planning", OECD Publishing, pp. 77-94

Nadin, V. and Stead, D. (2008). "European Spatial Planning Systems", Social Models and Learning. disP 172, pp. 35-47

National Institute for Public Health and the Environment (Rijksinstituut voor Volksgezondheid en Milieu) (RIVM) (2011). "The Green Heart Region up to 2050. Three scenarios for the Green Heart Region"

Available from: [www.rivm.nl/bibliotheek/digitaaldepot/greenheartregion.pdf](http://www.rivm.nl/bibliotheek/digitaaldepot/greenheartregion.pdf)

Needham, B. (2006). "Planning, Law and Economics. The rules we make for using land". London and New York: Routledge

Nelson, A. C. (2000). "Effects of Urban Containment on Housing Prices and Landowner Behaviour" (Land Lines Article). Volume 12, Number 3. Available from: [www.lincolninst.edu/pubs/298\\_Effects-of-Urban-Containment-on-Housing-Prices-and-Landowner-Behavior](http://www.lincolninst.edu/pubs/298_Effects-of-Urban-Containment-on-Housing-Prices-and-Landowner-Behavior)

Nelson, A. C., Dawkins, C. J., Sanchez, T. W. (2007). "The Social Impacts of Urban Containment". England: Ashgate Publishing Limited

Nelson, A. and Sanchez, T. (2005). "The Effectiveness of Urban Containment Regimes in Reducing Exurban Sprawl". DISP, 160:pp. 42-47

Netsch, S. and Kropman, N. (nd). "What is Next after VINEX?" Available from: [www.corp.at/archive/CORP2011\\_160.pdf](http://www.corp.at/archive/CORP2011_160.pdf)

OECD (2012), Compact City Policies: A Comparative Assessment, OECD Green Growth Studies, OECD Publishing. Available from: <http://dx.doi.org/10.1787/9789264167865-en>

OECD (2007), Territorial Reviews: Randstad Holland, Netherlands OECD Publishing. Available from: [www.oecd.org/netherlands/oecdterritorialreviewsrandstadhollandnetherlands.htm](http://www.oecd.org/netherlands/oecdterritorialreviewsrandstadhollandnetherlands.htm)

Peiser, R. (2001). "Decomposing Urban Sprawl", Town Planning Review Roorda, C., Buitter, M., Rotmans, J., Bentvelzen, M., Tillie, N., Keeton, R. (2011) "Urban Development: the State of the Sustainable Art, an international benchmark of sustainable urban development". DRIFT, Rotterdam

Rowe, J. E. (nd). "Greenbelts". Available from: [www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/advisorypanel/ruraladvisorypanel/meetings/ruraladvisorypanelminatt20110325.pdf](http://www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/advisorypanel/ruraladvisorypanel/meetings/ruraladvisorypanelminatt20110325.pdf)

Saunders, M., Lewis, P., Thornhill, A. (2009). "Research methods for Business students". Fifth edition. Harlow: Pearson Education Ltd

Schoolswebdirectory.co.uk, Available from: [www.schoolswebdirectory.co.uk/maps.php?region=lo](http://www.schoolswebdirectory.co.uk/maps.php?region=lo), Accessed on 15-12-2012

Squires, G.D. (2002). "Urban Sprawl and the Uneven Development of Metropolitan America", in Squires, G.D. (eds) "Urban Sprawl. Causes, consequences and policy responses". USA: The Urban Institute Press

Transportation Research Board, National Research Council (1998). "The Costs of Sprawl – Revisited", National Academy Press, Washington D.C.

Valentin, N. (2012). "Spatial planning as an instrument for promoting sustainable development in Romania", Vol. XIX.

Van der Werff, M., Lambregts, B., Kapoen, L., Kloosterman, R. (2005). "The Randstad. Commuting & the Definition of Functional Urban Regions". POLYNET Action 1.1. Institute of Community Studies/The Young Foundation & Polynet Partners

Wassmer, R.W. (2005). Causes of Urban Sprawl (Decentralization) in the United States: Natural Evolution, Flight from Blight, and the Fiscalization of Land Use, Working Paper, 1-34.

Williams, K. (2004). "Reducing sprawl and delivering an urban renaissance in England: are these aims possible given current attitudes to urban living?" In: Richardson, H. and Bae, C., eds. (2004) "Urban Sprawl in Western Europe and North America". London: Ashgate Publishers

World Commission on Environment and Development (WCED) (1987). Our common future. London: Oxford University Press.

Yin, R.K. (2003). "Case Study Research: Design and Methods", 3<sup>rd</sup> edition, Applied social research methods series; volume 5. Thousand Oaks-London-New Delhi: Sage Publications

## Appendix I: Codes of semi - structured interviews

<b>Region: Randstad</b>				
No.	Codes	Interviewees	Date	Form of interview
1	A1	Officials (2) in province of Zuid Holland	17/01/2013	Group face to face semi-structured interview
2	A2	Official in municipality of Rotterdam	20/02/2013	Face to face semi-structured interview
3	A3	Official in municipality of The Hague	26/02/2013	Face to face semi-structured interview
4	A4	Official in municipality of Utrecht	27/02/2013	Face to face semi-structured interview
5	B3	Academic Professor	28/02/2013	Face to face semi-structured interview

<b>Region: Greater London</b>				
No.	Codes	Interviewees	Date	Form of interview
1	B1	Official in Greater London Authority	16/01/2013	Written questionnaire
2	B2	Official in borough of City of London Corporation	25/01/2013	Written questionnaire
3	B3	Academic Professor	28/02/2013	Face to face semi-structured interview

## **Appendix II: Guiding questions for semi-structured interviews**

### a) Interview guide for Greater London Authority

- 1) Which is your role in the implementation of urban containment policies?
- 2) Since, the driving forces of urban sprawl are different between cities and countries, which are the forces that could lead to the spread of Greater London region?
- 3) According to the London Plan 2011 in Greater London are implemented brownfield reuse policies for the containment of sprawl. Who is responsible for the implementation of these policies?
- 4) Do the government and national legislation influence the process of implementation, the effectiveness, the efficiency of brownfield reuse policies in your region? What are the influences?
- 5) Which is the role of region, sub-regions, boroughs, and other stakeholders in the process of implementation of urban containment strategies? Do they cooperate in order to deliver the London Plan?
- 6) What is the market's attitude? What is its influence?
- 7) Since the London Plan is a long-term view (until 2031). In your opinion, is this important for the implementation effectiveness and efficiency of urban containment policies? Why?
- 8) London Plan promotes a polycentric approach. Do you think that this approach influence the implementation and the effectiveness of these policies? How?
- 9) Do you think that the implementation/effectiveness of these policies could be influenced by European Union directives such as European Spatial Development Perspective?
- 10) What kind of difficulties do you face during the implementation? Are the same in all sub-regions/boroughs?
- 11) What figures do you use in order to indicate that the brownfield reuse policies in region of Greater London both in terms of their efficiency and effectiveness are or are not successful?
- 12) Do these figures indicate that the brownfield reuse policies are successful or not?
- 13) In your opinion, the better implementation/effectiveness/efficiency of containment policies are depend on the kind of policy which is implemented in each region?

14) In your opinion, which factors could influence positively or negatively the implementation, the effectiveness as well as the efficiency of urban containment policies in the region of Greater London?

15) What is your suggestion for better implementation, effectiveness and efficiency of these policies in your region?

b) Interview guide for City of London Corporation

1) Which is your role in the implementation of urban containment policies?

2) Since, the driving forces of urban sprawl are different between cities which are the forces in your borough?

3) What kind of policies do you use in your borough in order to accommodate the demand for new development and to preserve the green areas?

4) What kind of difficulties do you face during the implementation of these policies in your borough?

5) In your opinion do the government and national legislation influence the process of implementation, the effectiveness, the efficiency of these policies in your borough? What are the influences?

6) How important is the cooperation among the neighbour boroughs and among government, region and borough for the implementation of local plan?

7) What is the market's attitude in your borough? What is its influence?

8) Since the London Plan is a long-term view (until 2031) and the boroughs' local plans should be "in general conformity" with the London Plan, in your opinion, is the duration important for the implementation effectiveness and efficiency of urban containment policies? Why?

9) In your opinion, which factors could influence positively or negatively the implementation, the effectiveness as well as the efficiency of urban containment policies in your borough?

10) What is your suggestion for better implementation, effectiveness and efficiency of these policies in your borough?

c) Interview guide for province and municipalities in region Randstad

1) Which is your role in the implementation of urban containment policies?

2) The driving forces of urban sprawl in the region Randstad.

- 3) In order to accommodate the demand of urban growth you implement urban containment policies. Who is responsible for the implementation of these policies?
- 4) The role in the implementation and effectiveness of national government, provinces and local authorities. Do the government and national legislation influence this process? What are the influences? Do they cooperate in order to deliver the National Spatial Strategy?
- 5) The role of market and other stakeholders (neighbourhoods, private sectors). Do they influence the implementation and the efficiency?
- 6) The implementation and the effectiveness of National Spatial Strategy for accommodation of growth in Randstad. Which is the duration? Is a long-term view (until 2020)? In your opinion, is the duration important? Why?
- 7) Do you think that the implementation/effectiveness of these policies could be influenced by European Union directives such as European Spatial Development Perspective?
- 8) The process of decentralizing the government is even more increased. Do you think that this approach influence the implementation and the effectiveness of these policies? How?
- 9) In your opinion, the better implementation/effectiveness/efficiency of containment policies are depend on the kind of policy which is implemented in each region?
- 10) The difficulties that you face during the implementation of these policies. Are the same?
- 11) The factors that influence positively or negatively the implementation, the effectiveness as well as the efficiency of urban containment policies in Randstad.
- 12) Your suggestions for better implementation, effectiveness and efficiency.