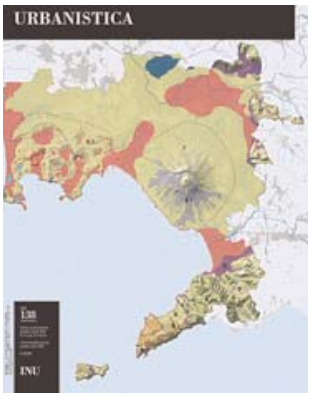

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Urban containment strategies in the Netherlands

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From the beginning of the nineteenth century, urban containment has always received a lot of attention in Dutch spatial planning debates. As one of the most densely populated countries worldwide, characterized by periods of a fast growing population and strong economic growth, well-thought strategies are indispensable. Since the built-up area still makes up only around 10% of the total surface, it can be argued that urban containment policies have been rather successful. However, in all parts of the country many examples can be found as well of undesired urban sprawl. The core urban containment issues in the present Dutch planning debate concern the preservation of the Randstad Green Heart, discussions with respect to the implementation of growth boundaries, the balance between greenfield and brownfield development (regarding residential and industrial developments) and problems with respect to landscape cluttering.
It is argued that the need to redevelop existing urban areas will define the decisions with respect to urban containment. A strict urban containment strategy, aiming to preserve the 'remaining' open space and even to extend it where possible, must go hand in hand with strategies to facilitate the redevelopment of existing urban areas. Strategies to prevent urban sprawl can only be successful when urban redevelopment is attractive to the property development industry. Since greenfield development is 'by definition' cheaper and easier to implement than brownfield development - property developers (and local governments) tend to find ways to develop at the fringes of existing urban areas. To increase the attractiveness of brownfield redevelopment, spatial planning must create the right conditions. Those conditions include the introduction of planning tools to deal with fragmented ownership situations and financial tools that are necessary to improve the profitability of brownfield redevelopment.

General urban containment principles

The Dictionary of Geography defines 'urban containment' as 'the policy of limiting sprawl by restricting out-of-town development' (Mayhew 1997). The strategies for containment of sprawl are various in their details, but similar in their essence (Millward 2006). Figure on this page, illustrates a variety of strategic options for urban containment, ranging from most restrictive (A) to least (E). Options A and B concern strong bounding strategies. In variant A, only the central city is allowed to expand; in variant B satellite towns may also develop. In both cases, there is strict development control outside the envelopes, of the greenbelt type (Millward 2006: p. 474). Options C and D show, respectively, moderate and weak bounding strategies. The size of the urban envelope is increased, while the development boundary is less strict. In option D, most of the countryside is available for large-lot developments, with only a few key areas (e.g. regional parks) preserved from development (Millward 2006: p. 475). Finally, option E is the do-nothing option: there is no development boundary and urban containment is absent.
In principle, three different strategies with respect to urban containment can be distinguished: the implementation of urban growth boundaries, the implementation of urban service areas and zoning regulations

Urban containment principles in the Netherlands

The urban containment principles can not easily be positioned in the overview of strategic options for urban containment (this page), because of the dynamic character of the Dutch planning regime in the past 60 years (after WWII). In the 1950s, urban containment policies were directed to the implementation of green belts for the large Randstad cities (Type A strategy): it was decided that 'the diameter of cities must not exceed 8 km […]. If existing cities approached this size then new towns would have to be built' (Zonneveld 2007, p. 662). Moreover the Randstad Green Heart concept was introduced. Instead of a green belt surrounding the city, here it was decided to preserve a large open area in between the Randstad cities (Amsterdam, Utrecht, Rotterdam and The Hague) Urban containment strategies in the 1970s are an example of Type B (strong bounding, city with satellites): 'At the start of the 1970s the Dutch government finally decided to establish new towns (…). This became officially known as concentrated deconcentration with the emphasis on concentration (ibid: p. 665). In the 1980s national urban containment policy was again renewed and can now be characterized as a Type C strategy (moderate bounding). Then, urban containment policy in the 1990s returned again to the Type A strategy (strong bounding, compact city). Additionally, large areas were designated, mainly on the edge of existing urban areas for residential developments (the so-called Vinex locations). Since the 1990s, the larger part of all residential development has taken place on these locations.
Finally, in the first decade of the present century, national urban containment policy has followed a rather confusing path. First, the national government decided to implement very strict urban growth boundaries, surrounding all cities (MinVrom 2001). However, after the Dutch Cabinet at that time suddenly resigned in 2002, the new Cabinet soon eased those restrictions (MinVrom 2004). The present government structure is characterized by a strong decentralisation tendency. The national government decided to leave it to the twelve provinces to implement regional urban containment strategies. The result is confusing for many. Very recently, after the installment of again a new Cabinet with a different political color in 2007, it seems that the national government aims somehow to take control again of urban containment policy, by introducing new initiatives to prevent urban sprawl.
Although arbitrarily, it seems that at present the main topics on the national political urban containment agenda concern: (1) the preservation of the Randstad Green Heart; (2) problems with landscape cluttering along motorways, mainly due to the strong growth of greenfield industrial estate developments; and (3) the aim to shift spatial development from greenfield to brownfield (at least 40% of all new developments should take place in the existing urban area). In the next sections, these issues will be discussed in more detail.

Urban sprawl in the Netherlands: facts and figures

The effects of the constant

shifts in national urban containment strategies are clearly visible in the patterns of urban sprawl in the Netherlands: current urban sprawl is in fact the result of a mixture of strict urban growth boundary principles and periods of less-strict policies.
The Netherlands is the most densely populated country in Europe. Together with Belgium is the Netherlands, on top, regarding the space that is in use for residential and economic functions (around 10% of the total surface).
The Netherlands belongs at the same time to the countries with the highest amount of space in use for agriculture (around 65% of the total surface).
The fact that the Netherlands is the most densely populated country of the EU does not necessarily result into densely built areas. International differences with respect to the use of space per habitant are mainly the result of differences in planning regimes. The average m2 of built area in use per inhabitant - is lowest in Spain, Portugal and Greece (100-150 m2 per inhabitant) and highest in Belgium, Lithuania and Hungary (500-550 m2 per inhabitant). The built environment in the Netherlands (163 m2 per inhabitant) is, relatively compressed.
The area in use for industrial and residential functions has increased substantially in this period (respectively 12.9% and 8.0%), compared to the area in use for other functions.
The space in use per inhabitant varies enormously by region (fig. p. 93) in cities like. The Hague, inhabitants have an average of less than 200 m2 space to their disposal, while in some other, smaller municipalities inhabitant have an average of more than 30,000 m2 space to their disposal.
The Dutch average in 2000 was 2,100 m2 per inhabitant; a reduction of 300 m2 since 1980.
The preservation of the Randstad Holland Green Heart has been one of the most significant topics of urban containment policies. Though building construction in the Green Heart has been restricted since the 1950s, the original Green Heart area has by no means been preserved. Both the boundaries of the Green Heart have been shifted inwards and developments have taken place along the main infrastructure in the Green Heart. Between 1958 (the start from the Green Heart policy) and 2000 the Green Heart total area has been reduced with 25%. The built-up area in the Randstad Green Heart in 2000 was more than four times larger than in 1958. The development of the built-up area was, until the mid-1990s, took place at an even greater pace than in other parts of the country. Open space in the Green Heart is today a relative concept as it is very fragmented, despite continuous attempts to protect the open spaces (fig. p. 92). One of the developments that must be held guilty for this fragmentation process is the development of industrial estates. (fig. p. 92). The increase of industrial estates in the Green Heart between 1996 and 2002 has been substantially lower than in other parts of the Randstad and in the Netherlands as a whole. Finally, figure p. 93 shows the greenfield residential developments (the so-called Vinex locations) between 1995 and 2020 in and close to the Green Heart. Each of the locations in figure p. 93 will, after completion, consist of 5,000 to sometimes even 25,000 new houses (mainly single family).
Recently, problems with landscape cluttering along motorways have started to dominate. The surface that is in use for economic functions has increased in the Netherlands between 1993 and 2000 with 15%, while it has been 40 to 60% along the motorways (fig. on this page). The problems with respect to landscape cluttering are, finally, confirmed by an overview of all development plans, mainly for economic functions. It is expected that the implementation of these development plans will further increase the problems with landscape cluttering, despite recent initiatives to reduce this.
Though in the past twenty years total population growth in the Netherlands has been relatively low, urban sprawl has continued to take place. This is mainly due to residential, economic and infrastructure development. The strong demand for new housing on greenfield locations has been particularly fuelled by the continuous reduction of average household size and the Dutch tradition to build mainly single family housing. Strong national economic growth figures, particularly in the 1990s, must be held responsible for the increase of the surface of land that is in use for economic functions. This development has been supported by local government industrial land policies. Local governments in the Netherlands compete each other to attract new companies by incessantly developing new industrial estates. The consequence of this policy is that in many regions industrial land is available in abundance on greenfield locations, resulting in low industrial land prices. In this situation, companies can relatively easily move from existing industrial estates to new industrial estates at the urban fringe. Finally, the strong increase of (car) mobility must also be held responsible for urban sprawl.

Conditions for a successful urban containment strategy?
Moreover in the Netherlands, changes in political color of the national government seem to have played an important role as well, particularly in the last decade. This paper argues that in the next decades a new driving force must be added, namely the need to improve and redevelop existing urban areas. Future building construction will increasingly concern the replacement of existing properties that do not meet anymore with the demands of households and companies. This strategy is, from a spatial planning point of view, clearly the most desirable strategy. However, it is probably also the most difficult way to proceed, mainly because of two reasons: (1) brownfield redevelopment is, from a financial perspective, less attractive to the property development industry than greenfield redevelopment; and (2) brownfield redevelopment is often much more complicated to achieve, because of the fragmented land and property ownership fragmentation.

Starting points
A number of (general) starting points can be defined that are relevant to urban containment strategies:
1) Many studies have shown that strict urban growth boundaries lead to increasing land and property prices (see for an overview: Dawkins and Nelson 2002). To prevent unacceptable increases of, for instance, house prices, urban containment strategies must aim to make sufficient amounts of land available within the growth boundaries.
2) Strict urban growth boundaries will reduce the possibilities to build on green field locations and, at the same time, will put more pressure on the

(re)development of the existing urban areas (depending on the amount of development land that is still available between the urban fringe and the growth boundary).
3) Urban containment will always involve a certain tension between the collective interest and the interest of individuals. Policy makers should take account of this tension.
4) When urban containment policies allow increased greenfield development, outside the existing urban area, this will probably add to the 'ageing' of property in existing urban areas. Relatively cheap development opportunities on greenfield locations will attract households and economic activities that used to be located in the existing urban area. Consequently, the demand for the second-handed properties in existing urban areas quite often diminishes.
5) Urban containment strategies by the national, regional or local government is able to define the boundaries to urban development, but do not implement it.
6). Urban containment policy can only be successful when it guarantees the active involvement of the property development industry in the way that fits with the policy objectives.

Conditions for a successful urban containment strategy
Taking the above starting points into consideration, now the conditions for a successful urban containment strategy outlined:
1) National urban containment policy is often strongly influenced by politics. For a successful policy, it is probably more useful to have a more stable, depoliticized strategy that is able to survive changes in political preferences.
2) One way to achieve this is to involve a certain level of flexibility in urban containment strategies. Instead of implementing strict urban growth boundaries, alternative strategies can be considered as well. More moderate bounding (Type C, figure p. 90), combined with certain minimum percentages of the area that must be left 'open', may offer for example more flexibility to the property development industry to implement new plans.
3) For a successful urban containment strategy, the right government level must be chosen to define this strategy. Usually, this is a choice between national or provincial/regional government level, depending on, among other things, national planning traditions, the scale on which spatial developments take place and country size. Local governments can be made responsible for the implementation of this strategy, but usually not for defining the strategy (because urban containment usually takes place on a regional level).
4) Urban containment strategies to prevent urban sprawl must go hand-in-hand with strate.