

Tomasz Sławiński, Maciej Sulmicki

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The 3S Model of Urban Sprawl in the Warsaw Functional Area¹

Tomasz Sławiński, Maciej Sulmicki

ABSTRACT

Plans for the development of Warsaw have changed with time. The first Warsaw Metropolitan Area Plan (1911) consisted of an urban core surrounded by a green belt. The 1934 Spatial Plan of Functional Warsaw presented two linear structures crossing in the city center and based on rail and road networks.

The Warsaw Metropolitan Area (WMA) is the largest in Poland with a population of three million (of which 1.7 live in Warsaw) and an area of 6203 sq. km (of which Warsaw accounts for 517 sq. km). Although this is only 2% of the area of Poland, nearly 8% of the country's inhabitants live in the WMA. The functional area of Warsaw has to deal with the problem of suburbanization and urban sprawl. Peri-urban rural areas are successively being replaced by buildings, which are primarily residential. Developers often choose the locations for these investments according to availability and prices of land rather than the existing or even planned infrastructure, accessibility or spatial order. This process entails an increase in costs – both direct and external. The problems of the WMA can be summed up as a '3S' acronym. The first 'S' in fact combines two factors: shrink versus smart. Modern cities require smart solutions and smart management as well as diversification of functions. At the same time, the other two 'S's' – spread and sprawl – should be avoided.

These problems could be mitigated by a Warsaw Metropolitan Area Land-Use Plan. A study of such a plan has been prepared by the regional authorities. According to the document, areas of urban development intensification would primarily include those connected to Warsaw by rail. Less intense new urban development would be permitted in their surroundings, while areas further away from the main transport infrastructure would retain the current level of built-up land. Along with the development of urban structures and functions, clear spatial directions of development would be visible and the green belt of Warsaw easier to complete and protect.

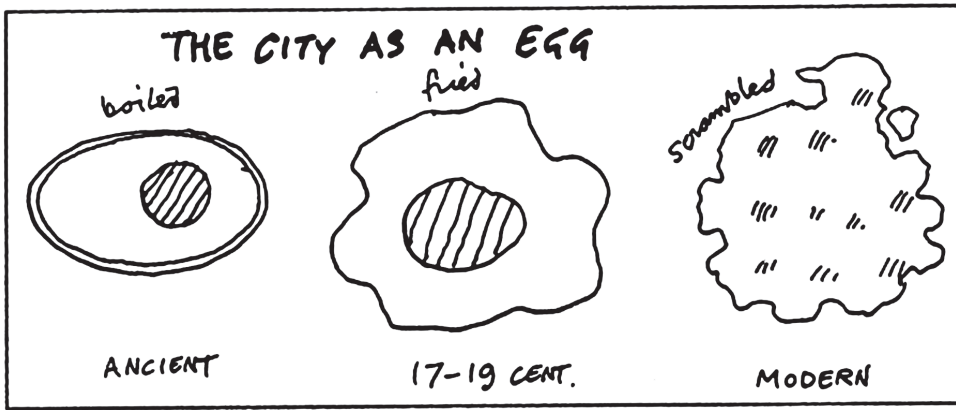
Economists sometimes consider land as a commodity just like any other. Specialists in land management point out that land differs from other products in that it is non-reproducible. Tadeusz Markowski noted that 'land-price signals do not entail optimal allocation in accordance with the classic rule of supply and demand as is the case with relatively effective commodity markets'.² The laws of economy alone are insufficient to define land prices and the value of space itself. Certain aspects of areas useful in terms of construction are often determined by factors independent of the landowner. Income from a property is determined primarily by its surroundings.

The three key factors of the price of land are sometimes referred to by real estate agents as the as "3 L's": location, location and location. The construction of buildings sometimes in-

¹ An earlier, shorter version of this article appeared in the materials of the COST Urban Agriculture Europe – 4 th Management Committee and Working Group Meeting in Warsaw University of Life Sciences, Faculty of Horticulture, Biotechnology and Landscape Architecture, Warsaw 2-4 April 2013 (http://www.urbanagricultureeurope.la.rwth-aachen.de/files/140805_warsaw_report_reduced.pdf)

² Tadeusz Markowski, *Ekonomiczny Wymiar Urbanizacji – skrót, główne tezy i wnioski* [The Economic Aspects of Urbanization – summary, main points and conclusions] – paper presented on 4.03.2014 at the I "Dobre Planowanie" seminar of the "Przestrzeń Życia Polaków" cycle of meetings at the Presidential Palace in Warsaw.

Figure 1. Cedric Price's city models.

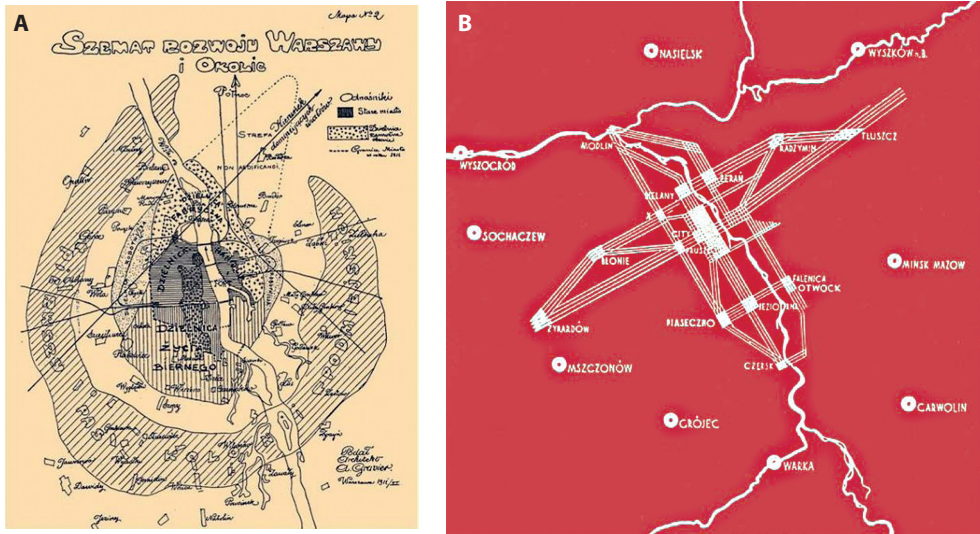


Source: Cited in "The Nature of Cities", <http://www.thenatureofcities.com/2013/03/13/intensiveness-and-extensiveness-in-our-urban-landscape/>.

volves considerable cost, in areas posing a difficulty as regards geological and topographical characteristics, in order to exploit these three factors determining value, i.e. to turn land into a commodity. The center of Warsaw is beginning to resemble Manhattan from a distance because here, too, the value of land is increasing due to similar processes which were not foreseen by the chieftains of the Manhattan tribe when they were selling a not-too-fertile island to Dutch settlers from Harlem. On the other hand, people are willing to wait patiently in traffic jams miles long, or snooze in suburban trains just so that they can spend the night in their own home with a backyard in suburbia. As you will see below, urban spatial management practice in Warsaw is often inconsistent with the natural laws described above, as it is based on defective laws. This is most evident in the characteristic persistent sprawl of urbanized areas in the Warsaw Metropolitan Area. But let's begin with some history and theory.

Cities have always been subject to expansion. In ancient times, when accessibility to means of transport other than one's own legs was limited, cities tended to be compact with a small center core and strictly delimited urban area around it (often limited physically by walls, as military aspects also influenced city planning). The English architect Cedric Price likened this type of model to a hard-boiled egg with the yolk as the center, the white as the surroundings and the city walls as the eggshell. He also had egg metaphors for successive types of cities. In the 17th-19th centuries with the advent of gunpowder, as a result of which city walls became increasingly obsolete, and it became more difficult to accommodate the growing city populations within such strictly delimited boundaries, urban areas became more akin to "fried eggs", with more spread out and less acutely delineated centers and surroundings. Modern cities in turn, due to significant changes in mobility with the invention of the automobile and public transport, as well as ongoing urbanization, rather resemble "scrambled eggs": with various local centers present throughout a city which spreads out

Figure 2. Warsaw Metropolitan Area development plans in: A – 1911 (Alfons Gravier) and B – 1934 (Szymon Syrkus, Jan Chmielewski).



Source: M. Sołtys, *Między miastem-ogrodem a letniskiem* [in:] Świdermajer – domy z duszą. Conference in Otwock, 28-29 May 2008.

over a larger area and is not as integrated territorially as in former models due to suburbs and satellite towns.

Plans for the development of Warsaw have also changed with time. The first Warsaw Metropolitan Area Plan was drawn up in 1911 by Alfons Emil Gravier (1871-1953) and consisted of an urban core surrounded by a green belt. The 1934 Spatial Plan of Functional Warsaw by architect Jan Chmielewski (1895-1974) and Szymon Syrkus (1893-1964)³ contained a vision of two linear structures crossing in the city center and based on rail and road networks. The project was applauded by Le Corbusier and Walter Gropius and partly implemented in Warsaw by the mayor, Stefan Starzyński, before World War II. The basic elements of this structure still exist today, but urban sprawl and urban spread have transformed the clear and lucid city plan into an example of the ‘egg crushed on the wall’ model.

The Warsaw Metropolitan Area (WMA) is currently the largest in Poland with a population of three million (of which 1.7 live in Warsaw) and an area of 6203 sq. km (of which Warsaw accounts for 517 sq. km). Even though it takes up a mere 2% of the area of Poland, nearly 8% of the country’s inhabitants live in the WMA (and over 57% of Mazovia’s). It is also the most developed part of the country with a GDP per capita which is over twice the national average (in Warsaw, three-fold the average). It has 81 municipalities and 13 counties

³ Chmielewski J., Syrkus Sz., 2013 [1934], *Warszawa funkcjonalna. Przyczynek do urbanizacji regionu warszawskiego*, Fundacja Centrum Architektury, Warszawa.

Table 1. Basic data about the Warsaw Metropolitan Area.

	Area		Population		GDP per capita		Unemployment rate 2010
	km ²	%	million	%	PLN	Poland = 100	
Poland	321 685	100	38.17	100	39 692	100	12.3
Mazovia Region	35 567	11.4	5.24	13.8	64 790	163	9.4
WMA	6203	2.0	3	7.8	82 800	209	7.3
Warsaw	517	0.17	1.72	4.5	119 828	302	2.9
Mazovia Region		100		100		100	
WMA		17.4		57.3		128	
Warsaw		1.45		32.8		185	

Source: own work based on GUS (Central Statistical Office) data.

which go to make up Warsaw and its surroundings. The WMA has been acknowledged as a key element of spatial policy in the *National Spatial Development Concept 2030*, with strong links to surrounding cities, especially the nearest one – Łódź. On a more local, or rather metropolitan scale, however, the functional area of Warsaw has to deal with the problem of suburbanization and urban sprawl.

Since the 1990s, when capitalism replaced socialism, Warsaw has been an area of intense suburbanization. This process intensified in the 2000s when previous spatial development plans were abandoned and investments increased after accession to the European Union. Peri-urban rural areas are successively being replaced by buildings, which are primarily residential. The locations of these investments are often chosen by developers more or less at random, according to availability and prices of land rather than existing or even planned infrastructure, accessibility or spatial order. This process entails increased costs, both direct and external. These include valuable land assets such as fertile soils or open spaces (useful both for recreation and ensuring a supply of clean air) which are built up with housing developments more or less at random. At the same time, as long distance travel becomes more common this results in congestion, especially when areas lacking effective public transport are urbanized (e.g. outside rail corridors).

Such spatial planning is the result of local governments (which also use the space asset) having fallen into a social pitfall and assuming a populist stance towards the land-owning electorate which expects profits from their assets. In effect, not only do local governments allow for agricultural and forest areas to be built up but they also designate increasingly large areas in local spatial development plans for expansion of construction. City centers, often

characterized by a complex ownership structure, in turn, continue to be extensively' exploited. This problem is not only limited to Poland or Warsaw, although it is apparent in different countries at different levels of development, the reasons for similar phenomena often vary.

The problem of urban sprawl has been discussed in various analyses which have resulted in the use of several acronyms summing up the problems of and/or solutions to the expansion of (sub)urban areas. The World Bank's *World Development Report 2009* bore the subtitle 'Seeing Development in 3D: Density, Distance and Division'. 'The World Development Report argues that some places are thriving because they have promoted changes along the three dimensions of economic geography:

- Higher densities, as seen in the growth of cities.
- Shorter distances, as workers and businesses migrate closer to areas of density.
- Fewer divisions, as countries thin their economic borders and enter world markets to take advantage of scale and specialization.⁴

Two of the D's encourage more compact urban areas, allowing for shorter distances between travel departure locations and destinations due to higher population densities. To achieve such a result requires effective spatial planning, as well as coordination with other policies (e.g. taxes, road tolls, etc.), in order to motivate developers to invest in the designated area and construct adequately spacious buildings.

On the other side of the Atlantic, the European Commission's *Green Paper on Territorial Cohesion* (2008) ('Turning territorial diversity into strength') refers to the World Bank report stating:

The EU faces mutatis mutandis similar questions [as those indicated by the World Development Report 2009]. Policy responses to these may lie in action on three fronts: concentration, connection and cooperation (...)

Concentration: overcoming differences in density

As noted above, economic activity is more concentrated across the EU than population. There are advantages of such concentration in terms of the increasing returns from agglomeration and from the clustering of particular activities in specific locations, including the wide availability of health care services and relatively easy access to higher education institutions and training facilities. This is reflected in the high level of GDP per capita, productivity, employment and research and innovation relative to the national average in capital cities and in most other densely populated conurbations. (...)

Connecting territories: overcoming distance

Connecting territories today means more than just ensuring good intermodal transport connections. It also requires adequate access to services such as health care, education and sustainable energy, broadband internet access, reliable connections to

⁴ World Bank, 'WDR 2009: Seeing Development in 3D: Density, Distance, and Division', <http://go.worldbank.org/Y1BL5L2XC0>

energy networks and strong links between business and research centers. This is also essential to address the special needs of disadvantaged groups. (...)

Cooperation: overcoming division'

(...) In a number of Member States metropolitan bodies have been created to bring together several authorities at different levels to tackle issues, such as economic development, public transport, access to healthcare and higher education and training facilities, air quality and waste, which span regional borders.⁵

The Green Paper, by its very nature, poses questions rather than providing answers (as opposed to white papers). Its most general question, however, that of what exactly territorial cohesion is and how to achieve it, is relevant to metropolitan areas, including the WMA. Even on the sub-regional scale, a disparity is visible in terms of accessibility to various services, facilities and areas. One of the reasons for such imbalance is suburbanization and urban sprawl.

A third acronym can be posited as summing up the problems of the Warsaw Metropolitan Area: the 3S⁶. The first 'S' in fact consists of two elements: shrink versus smart. Modern cities require smart solutions and smart management as well as diversification of functions (as in Cedric's scrambled egg model). The cities' central parts should therefore be developed so as to form 'smart cities' with a sustainable balance in terms of functions, density, social solutions and architectural expression. A smart city is the opposite of a shrinking city in which the process of disintegration spreads out from the center whilst the suburbs are developing. Steps taken contributing to the construction of a smart city can to some extent compensate for suburbanization and serve as a way to limit traffic intensity. At the same time, the other two 'S's' – spread and sprawl – should be avoided. Built-up areas spread when new investments appear in areas which have not been built-up before rather than fill gaps in already urbanized parts of the metropolitan area. Sprawl is a parallel phenomenon: the built-up area around the city becoming larger which results in poorer access to infrastructure and services and less effective use of existing ones. These problems are visible in various metropolitan areas, including the WMA.

The most difficult problem in the WMA is urban spread. Controlled sprawl can often be integrated into spatial design in terms of architectural design providing attractive areas near green spaces and landscape diversity, although the process is economically ineffective and involves problems in terms of transport and infrastructure. Meanwhile, urban spread is destructive both in economic and natural terms. In times of prosperity and expansion, urban spread involves rising transport costs (both internal and external), infrastructure, results in fragmentation of space and limitation of the spatial continuity of natural links. In times of

⁵ Commission of the European Communities, 'Green Paper on Territorial Cohesion: Turning territorial diversity into strength', Brussels, 6.10.2008, COM(2008) 616 final.

⁶ The 3S acronym was first presented by Tomasz Sławiński at the PLUREL (Peri-Urban Land Use Relationships) Conference in Copenhagen in October 2010 as part of a presentation on integrated approaches for metropolitan areas under pressure.

economic recession, derelict buildings are left to stand unused, resulting ultimately in wasted energy and materials and a landscape worse for wear for many years to come.

The Warsaw Metropolitan Area includes Warsaw and 36 other cities, of which 2 have over 50 thousand inhabitants, 11 between 20 and 40 thousand, 12 between 10 and 20 thousand and 11 below 10 thousand. Suburbanization is visible not so much in the sizes of the cities, however, but in the changes which took place during the previous decade. Between 2002 and 2011, the population of Warsaw has remained fairly stable (growth under 3%) while the majority of the remaining counties in the WMA grew much more quickly, up to 59%. In effect, an increasing share of the functional area's population lives outside the capital city.

Warsaw remains the most densely populated part of the WMA (approx. 3,300 inhabitants/sq. km), but there are several other municipalities with over 600 inhabitants per square kilometer. Naturally, the highest population density is visible in cities. Fortunately, for the most part, these are municipalities with access to rail transport. One exception is the municipality of Łomianki, which has been an area of intense suburbanization, partly due to its proximity to Warsaw, the Vistula river and the Kampinos Forest National Park. The lack of rail transport creates intense congestion on the Warsaw-Łomianki road, which is at the same time a national road linking Warsaw and the Baltic Sea. Such sprawl of built-up areas also has its negative effects on valuable natural areas which have the potential of supplying Warsaw with a green belt, important for both natural, health and wellness, and recreational reasons. Łomianki, for example, is in the buffer zone of the Kampinos Park and borders the Vistula River Valley Natura 2000 site.

Historical changes in land use are illustrated in the Metronamica model prepared in the PLUREL project (Peri-urban Land Use Relationships – Strategies and Sustainability Assessment Tools for Urban – Rural Linkages). PLUREL was a large research project funded within the 6th Research Framework Program of the European Union. 31 partner organizations from 14 European countries and China participated in the project. One of the outcomes was a map demonstrating how an increasing portion of the WMA was built up and how the process is expected to continue if the trends remain constant, with the built-up area spreading over time outside Warsaw⁷. This process is not likely to be halted by municipal land-use plans due to extensive areas being dedicated in them for new built-up areas. In effect, although the preparation of individual plans by municipalities can have positive effects on a local scale in terms of organization of buildings and their architecture, it does not prevent urban sprawl or spread.

Theoretically, a Warsaw Metropolitan Area Land-Use Plan could resolve the problem. Due to the lack of a legal basis to implement such a legally binding plan, a study of such plan was prepared by the regional authorities⁸. The plan could serve a number of functions:

⁷ Grochowski Mirosław, Korcelli Piotr, Kozubek Elżbieta, Sławiński Tomasz, Werner Piotr: *Warsaw: spatial growth with limited control*, (in:) Kjell Nilsson, Stephan Pauleit, Simon Bell, Carmen Aalbers, Thomas Sick Nielsen (eds.), *Peri-urban futures: Scenarios and models for land use change in Europe*, Berlin; Heidelberg: Springer, 2013, pp. 131-167.

⁸ T. Sławiński (head author and general planner), *Studium planu zagospodarowania przestrzennego Obszaru Metropolitalnego Warszawy [Study of the spatial development plan of the Warsaw Metropolitan Area]*, Mazovian Office of Regional Planning, Warsaw 2010.

- **regulatory** – providing binding regulations for units subordinate to the Mazovian Regional Government;
- **coordinative** – coordinating supra-local programs and public undertakings, influencing the behavior of other participants in spatial policy;
- **in negotiations and offers** – making use of the Plan as a tool in establishing a common ground in spatial policy negotiations with municipalities and counties;
- **educational and promotional** – a basis for establishing the desired strategic vision of the area and its directions of development.

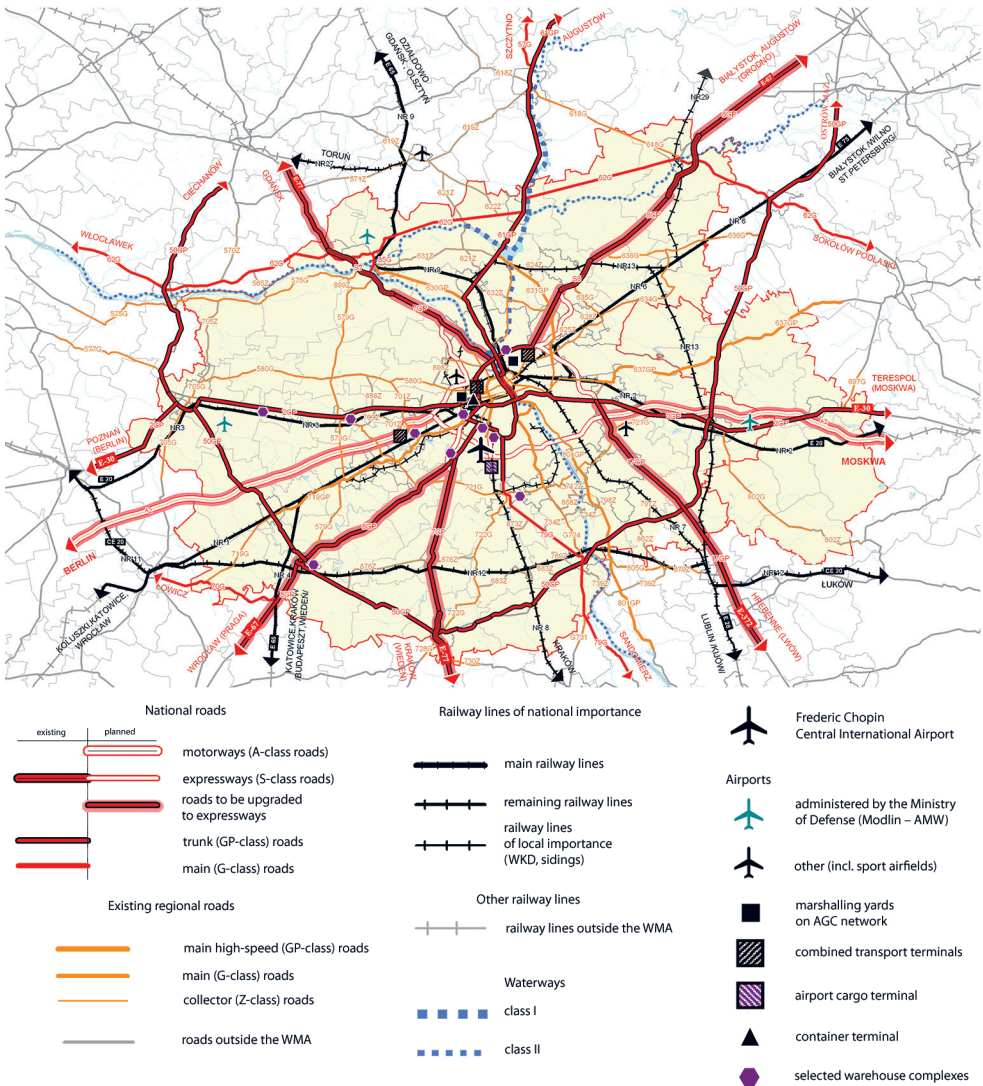
In effect, development in the WMA would be much more likely to contribute to common goals of all the participants in the area rather than individual short-term interests. Buildings should be situated successively in areas available near the center. New investments should initially be encouraged in the urbanized zone, filling in all available brownfields (the area of urban intensification). Only when there is no more space available in this area should new investments be located in the zone of urban development so as to ensure a coherent and dense city structure. The third zone (of urban retainment) should not allow for new investments. Previously existing buildings could remain but new ones would not be built. Instead, the zone of urban retainment should gradually be transformed into the fourth zone: natural and open areas.

Below are listed several of the directions of development indicated in the study of the WMA Land-Use Plan.

- Spatial development should continue along existing communication corridors, in accordance with the existing trends,
- Development corridors should include areas urbanized in the past along railway lines, as well as recently urbanized areas along roads,
- Development corridors should be separated by green areas of extensive use forming wedges cutting into the center of Warsaw,
- The radial series of development corridors should be linked by circular communication corridors which would allow travel between the corridors without entering the city center,
- The metropolitan area as a whole should be enclosed by a natural green belt, directly linked to the areas of extensive use,
- The WMA should develop in coordination with the Łódź Metropolitan Area with a particular focus on spatial links between the appropriate corridors both of urbanized land and open space.

Areas of urban development intensification would primarily include those connected to Warsaw by rail. Less intense new urban development would be permitted in their surroundings, while areas further away from the main transport infrastructure would retain the current level of built-up areas rather than undergo further development. Along with the development of urban structures and functions, clear spatial directions of development would be visible and the green belt of Warsaw easier to complete and protect. This demonstrates the importance of planning metropolitan areas at the regional (rather than municipal) level. Only then can individual actions and plans contribute to the sustained development of the entire area.

Figure 3. Transport infrastructure in the WMA.



Source: MBPR, *Studium Planu Zagospodarowania Przestrzennego Obszaru Metropolitalnego Warszawy*, Warszawa 2010.

However, the Polish spatial planning system is not conducive to spatial planning on a metropolitan level, as this would require part of the costs of preparing spatial development plans to be borne by the regional government and local governments to relinquish some of their planning prerogatives. An additional problem is the lack of an *ad valorem* property tax.

Table 2. Smart city characteristics and the situation in the Warsaw Metropolitan Area

Trait	Desired value/ characteristic	Notes	Situation in the WMA
Distance	Short distances	Development should be based on a spider web-like transport network based on radial railway lines and a sustainable road network, including bicycle lanes. A reasonable parking and transport policy in the city encouraging the use of an integrated urban transport system whilst not preventing use of individual cars.	A significant part of suburbanization is taking place in areas at a significant distance from railway lines. This is a problem visible even within Warsaw's boundaries due to its large area. Investments in road infrastructure often discourage from use of sustainable modes of transport, focusing on individual cars.
Division	No division	Striving towards a spatially open and accessible city. Avoiding fenced in and separated residential enclaves. Preventing division of the city into "old" and "young" districts, striving towards a mixed age structure of residents.	New housing investments tend to be separated from their surroundings. Some new investments are breaking out of this mold, but it is still the dominant tendency.
Density	Proper density	Sustaining an urban population density through urban regeneration, preventing investments on greenfields and providing attractive living conditions in the urban center.	Brownfields are beginning to be used for new housing investments, but greenfields are still the most often preferred type of site.
Connection	Good connections	Good intra-urban connections, nearby and accessible services, easy access between districts, lack of bottlenecks.	The Warsaw public transport system is extensive and fairly effective, as shown by the high proportion of public transport travel. Bicycle infrastructure is improving. Local services are trying to regain their position after being to some extent replaced by those situated in large, car-oriented shopping centers.
Cooperation	Easy cooperation	Good cooperation between the authorities and inhabitants, public participation in decisions on the use of space based on awareness of the value of space, both in material and non-materialistic terms.	Public participation is evolving, however decisions concerning space zoning and development investments are usually made more for the benefit of developers or land sellers than for inhabitants (farmers – developers alliance)*
Concentration	Proper concentration	Concentration of the population on a relatively small area. Spatial expansion only in case of lack of possibility of investing inside the city.	Urban sprawl is taking place – more people are moving into areas around the city than within it despite available brownfields and other investment zones. Investments in these areas, closer to the city center are recently becoming more popular.

Smart/shrink	Smart development	Preventing degeneration of the city. Implementing intelligent management solutions, sustainable urban landscape planning.	Some initiatives concerning sustainable use of space have been voiced, but few have so far been implemented. Some urban regeneration projects are being carried out.
Spread	No spread	Completely preventing the possibility of urban spread (i.e. isolated buildings being built in areas without proper infrastructure).	The legal situation and permissive/extensive approach to planning on the local level favors chaotic urban spread.
Sprawl	Limited sprawl	Urban sprawl limited to previously designated areas, based on a polycentric vision of development and already existing urban areas.	The legal situation and permissive/extensive approach to planning on the local level favors chaotic urban sprawl.

*Bartłomiej Koliński, *Kilka uwag o niekontrolowanej urbanizacji* [in:] *Kongres Budownictwa. Fundacja Rozwoju Demokracji Lokalnej – opinie i ekspertyzy na konferencję „O ekonomicznych stratach i społecznych kosztach niekontrolowanej urbanizacji w Polsce”*, Sejm, Sala Kolumnowa, 30 czerwca 2014, s. 59: Ironically – in parallel to „farmers – Workers alliance” from 20th century communist propaganda newspeak.

However, in city centers, it would be feasible to introduce a zero-expansion option and prevent urban spread and sprawl through spatial planning and financial instruments encouraging the effective use of land inside the city, especially promoting building on brownfields (previous industrial, military, airport and rail areas).

The Warsaw Metropolitan Area should strive to implement smart city solutions, taking into account the social situation and especially the ageing society, the need to sustain interpersonal relations, preventing the problems which have appeared, for example, in Helsinki (thousands of elderly inhabitants living solitary lives in their apartments) while ensuring accessibility to schools for the decreasing number of children, effectively integrating immigrants into society and limiting the proportion of individual car use in the modal split. 2) The rules listed in Table 2 should come in useful when striving to face these problems and challenges.

However, the key to new development lies not so much in legal provisions as in people's consciousness and awareness. Until we, as a society, learn to consider space as both a public and an individual good, we will not be able to implement laws effectively protecting it from abuse. Ultimately, people need to be aware of the value of space and its elements both on a macro (metropolitan, urban) and a micro scale.

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Obszar Metropolitalny Warszawy a zjawisko rozlewania się miast według modelu 3R (różnicowanie, rozpraszanie, rozlewianie)

STRESZCZENIE

W ciągu ostatniego stulecia zmieniały się plany rozwoju Warszawy i jej otoczenia. Pierwszy plan zagospodarowania Obszaru Metropolitalnego Warszawy z 1911 r. przewidywał miejski rdzeń otoczony zielonym pierścieniem. Plany dotyczące „Warszawy funkcjonalnej” z 1934 r. przedstawiały dwa korytarze liniowe oparte na sieci komunikacji drogowej i szynowej, krzyżujące się w centrum miasta.

Obszar Metropolitalny Warszawy (OMW) jest największym takim obszarem w Polsce – jego populacja wynosi 3 miliony osób (z czego 1,7 mln mieszka w Warszawie), a powierzchnia 6,2 tys. km² (z czego 0,5 tys. km² zajmuje Warszawa). Choć OMW zajmuje jedynie 2% powierzchni Polskiej, mieszka w nim niemal 8% ludności kraju. Obszar funkcjonalny Warszawy stoi przed problemem suburbanizacji i rozlewania się miasta. Tereny miejskie wokół miasta są sukcesywnie zabudowywane, przede wszystkim budynkami mieszkalnymi. Deweloperzy przy wyborze lokalizacji inwestycji często kierują się dostępnością i ceną ziemi, pomijając kwestie istniejącej czy nawet planowanej infrastruktury, dostępności oraz ładunku przestrzennego. Pociąga to za sobą wzrost kosztów, zarówno bezpośrednich jak i zewnętrznych. Problemy OMW można podsumować akronimem „3R”: potrzeba różnicowania funkcji oraz przeciwdziałania rozlewaniu i rozpraszaniu się zabudowy.

Skala problemów OMW mogłaby zostać ograniczona poprzez przyjęcie planu zagospodarowania przestrzennego Obszaru Metropolitalnego Warszawy. Studium takiego dokumentu zostało przygotowane przez władze regionalne. Zgodnie z nim, obszary intensyfikacji zabudowy skupiałyby się wokół korytarzy transporty szynowego. Mniej intensywne nowa zabudowa byłaby dopuszczona w ich otoczeniu, zaś na obszarach bardziej oddalonych od korytarzy transportowych zachowana zostałaby istniejąca intensywność zabudowy. Ustalenie wyraźnych kierunków rozwoju przestrzennego ułatwiłoby też uzupełnienie i ochronę zielonego pierścienia wokół Warszawy.

Tomasz Sławiński, Ph.D., is an architect and urban and regional planner who specializes in plans for metropolitan areas. He has drafted spatial development plans and compiled studies, including a study of the Warsaw Metropolitan Area plan / jest autorem ponad pięćdziesięciu planów zagospodarowania przestrzennego oraz studiów uwarunkowań i kierunków zagospodarowania przestrzennego. Jako główny projektant przygotował wraz z zespołem wstępny projekt planu zagospodarowania przestrzennego Obszaru Metropolitalnego Warszawy.

Maciej Sulmicki, Ph.D., is a senior specialist at the Mazovian Office of Regional Planning where he was responsible for the 'space and transport' section of the regional development strategy. He is also the author of a study on the transport system of the WMA / jest głównym specjalistą w Mazowieckim Biurze Planowania Regionalnego, gdzie odpowiadał m.in. za tematykę przestrzenno-transportową w Strategii rozwoju województwa mazowieckiego do 2030 roku. Jest również autorem monografii nt. systemu transportowego Obszaru Metropolitalnego Warszawy.