

The post-socialist cities from Central and Eastern Europe: Between spatial growth and demographic decline

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Spring Seminar 2025: Growing Cities vs. Shrinking
Countryside in Central Europe

Cities that GROW



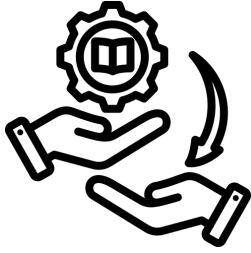
While they SHRINK



Source: UNDESA, World Population Prospects 2017.



HISTORICAL CONTEXT: A PERFECT STORM



The Communist Legacy



Centralised urban planning



Single-function industrial cities



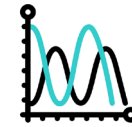
Forced population relocation



Post-Socialist Transformation



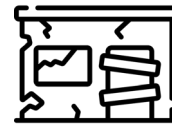
Sudden end to centralised urban planning



Market forces take control (land prices, privatization, real estate dynamics)



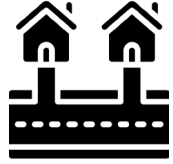
Intensification of urban sprawl



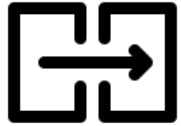
Brownfields

DRIVERS OF CHANGE

Urban Sprawl



Land price differences
(city center vs. outskirts)



Transition to market economy



Automobile Growth



Housing preferences



Weak regulatory frameworks

Population Decline



Declining birth rates



Economic restructuring / Deindustrialisation

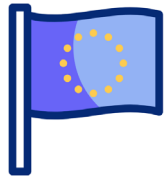
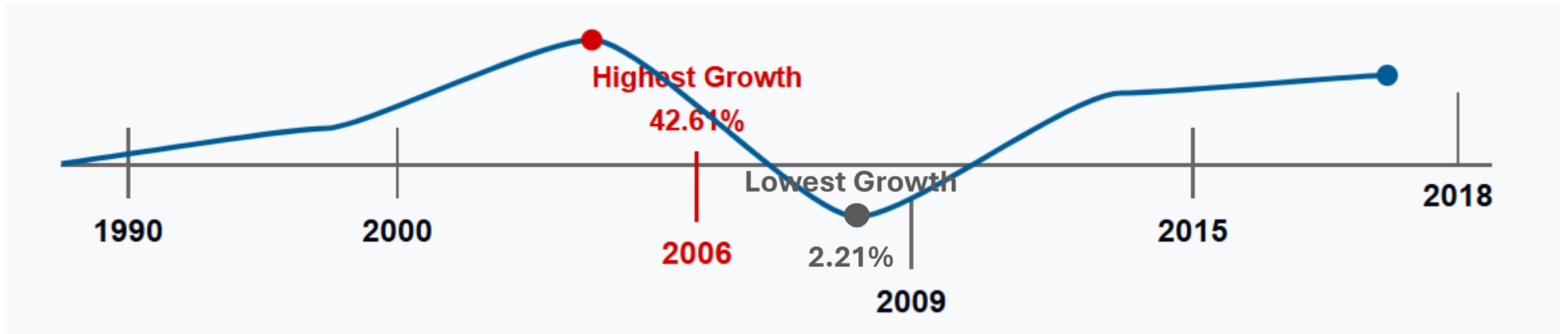


Persistent emigration to Western Europe/US



Aging population structure

THE ROLLERCOASTER OF CEE SPATIAL URBAN GROWTH

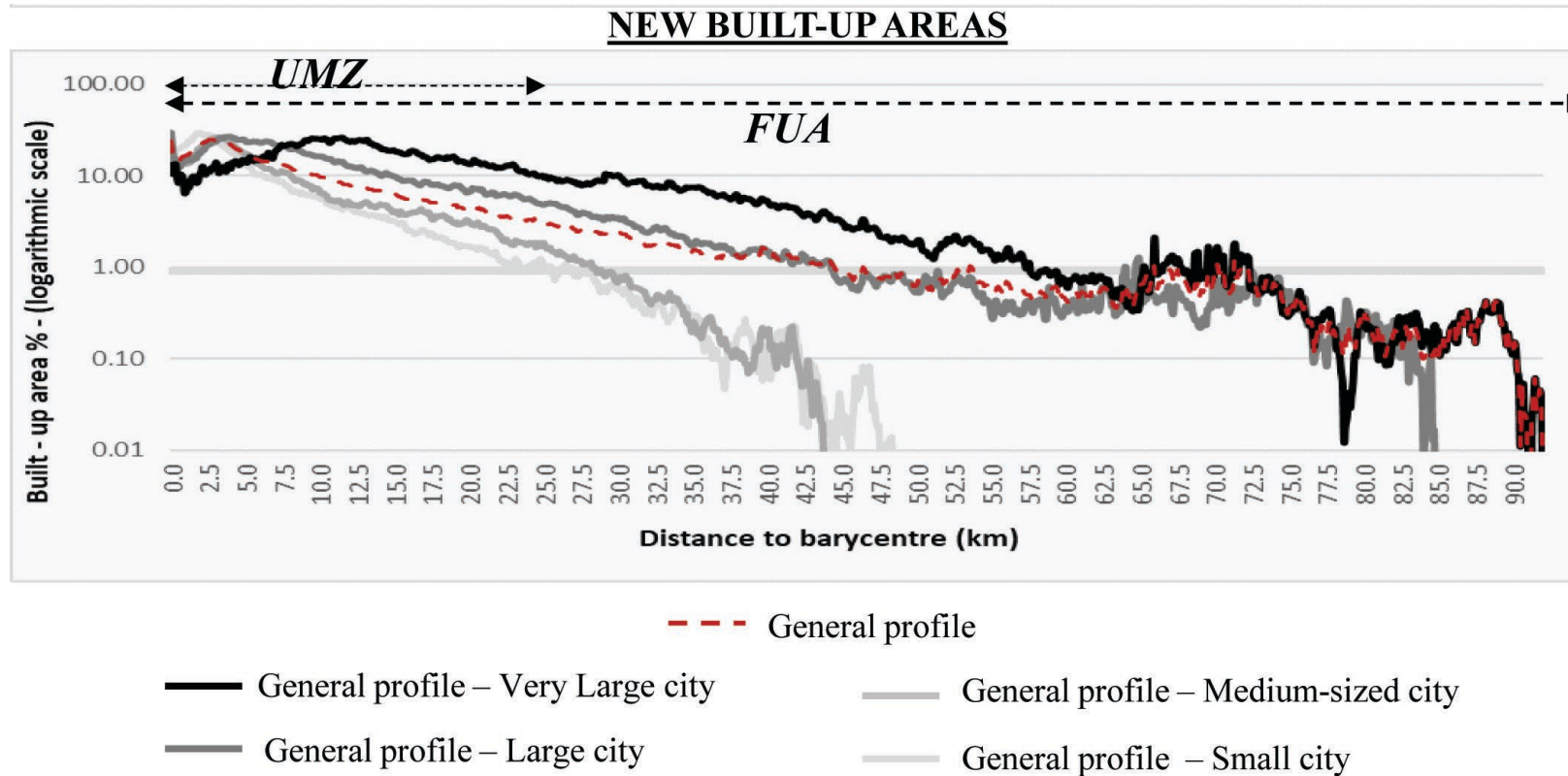


EU ACCESSION CATALYST ?



ECONOMIC CRISIS SHOCK...

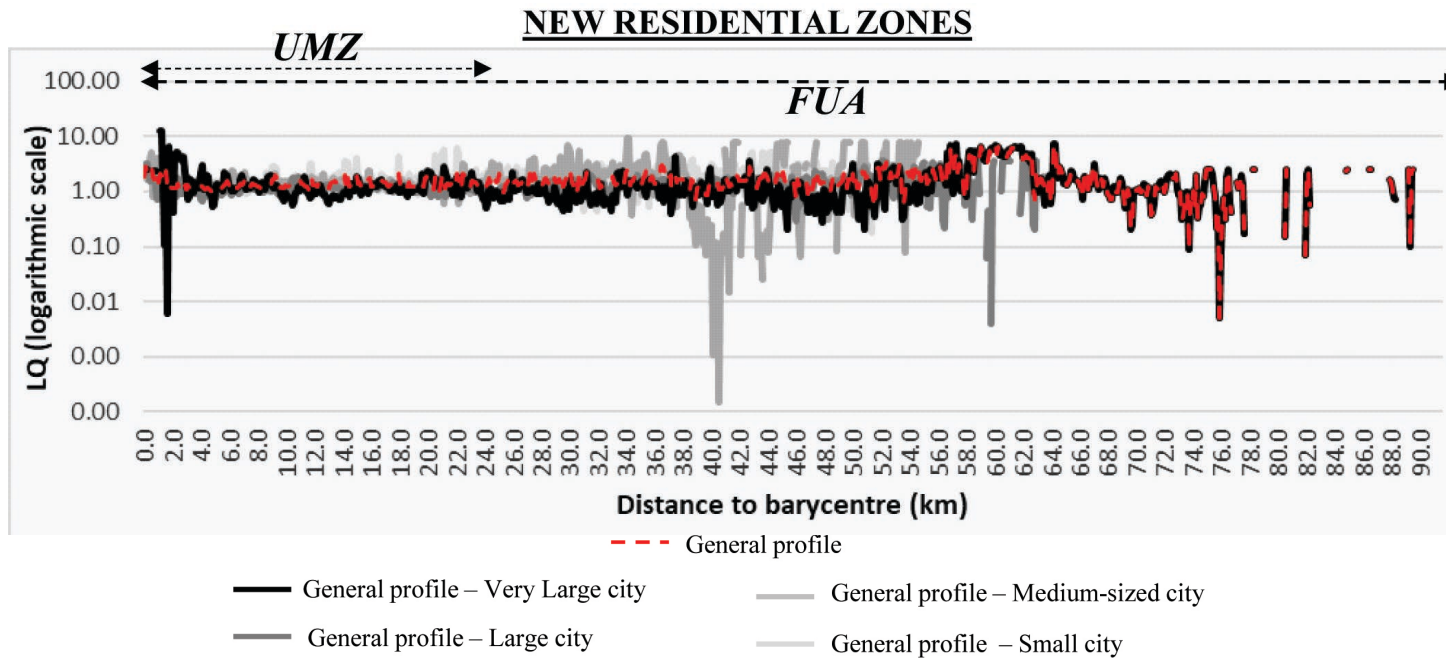
SPRAWL WITH NO STRINGS ATTACHED: TRACING POST-SOCIALIST URBAN GROWTH



Sources : GHSL, 1990; GHSL, 2000; IMD, 2006; IMD, 2009; IMD, 2015; IMD, 2018;

Fragmentation and spikes in the outskirts reflect leapfrogging development and uncoordinated land use, typical of post-socialist urban peripheries - an expansion not necessarily driven by density and demand, but by the path of least resistance.

RESIDENTIAL SPRAWL: FROM BLOCKS TO BACKYARDS



Sources : GMES, 2018; GMES,2012; GMES,2006;



MOBILITY



LIFESTYLE

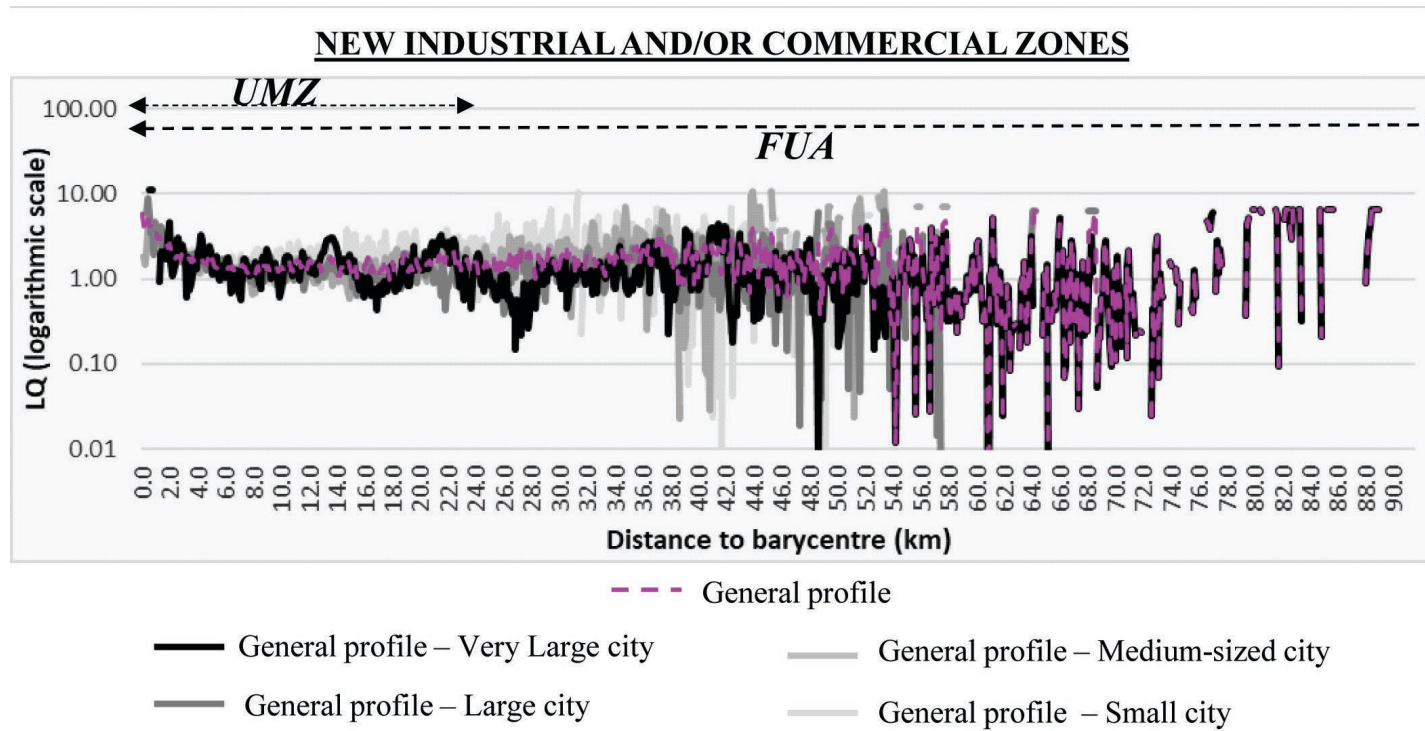


LAND PRICES
& INCOME

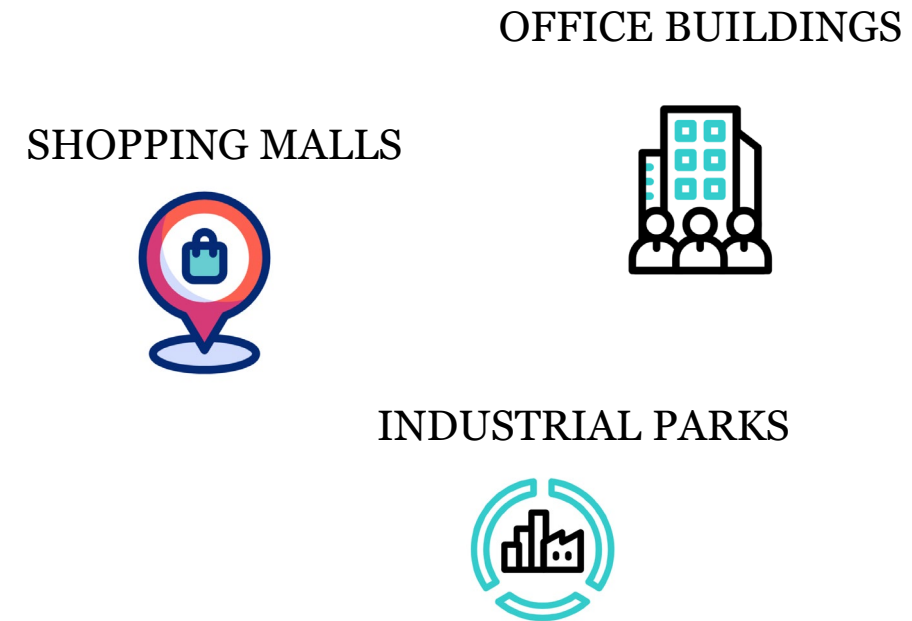
*New Urban Reality =>
preference, speculation ,
possibility.*

*A shift– from dense centralised block-based housing of
the socialist period to a more dispersed and fragmented
growth towards the outskirts;
Distance stopped being a barrier– living at 10, 15, 20km
from the urban core became normalised ;*

WHERE THE CITY BUILDS, THE ECONOMY FOLLOWS



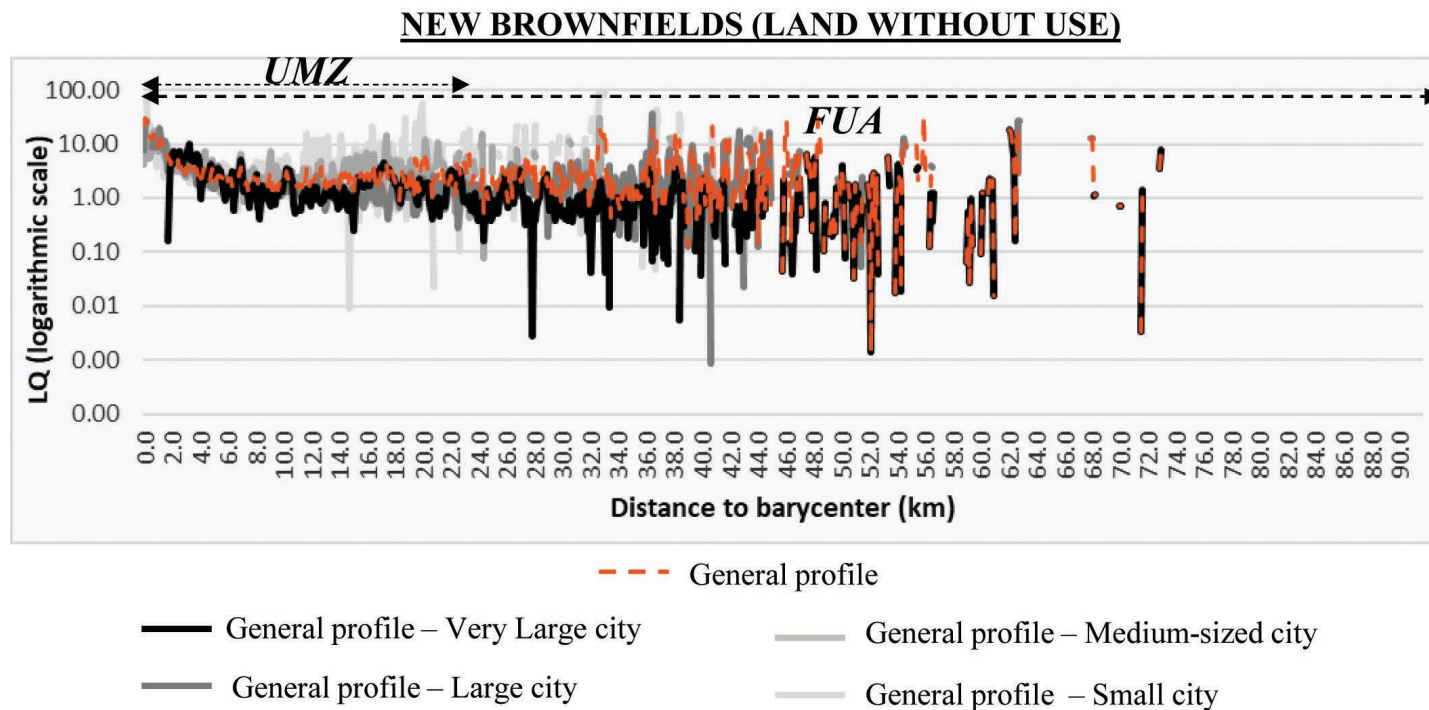
Sources : GMES, 2018; GMES,2012; GMES,2006;



Commercial-industrial zones have relocated outward, enabled by cheaper land, and low planning constraints : a clear shift to peri-urban logistics => double decentralisation ≠ coordination => more fragmentation than integration with increased traffic jams and connectivity gaps.

URBAN PROGRESS IS UNEVEN – BROWNFIELDS TELL ANOTHER STORY

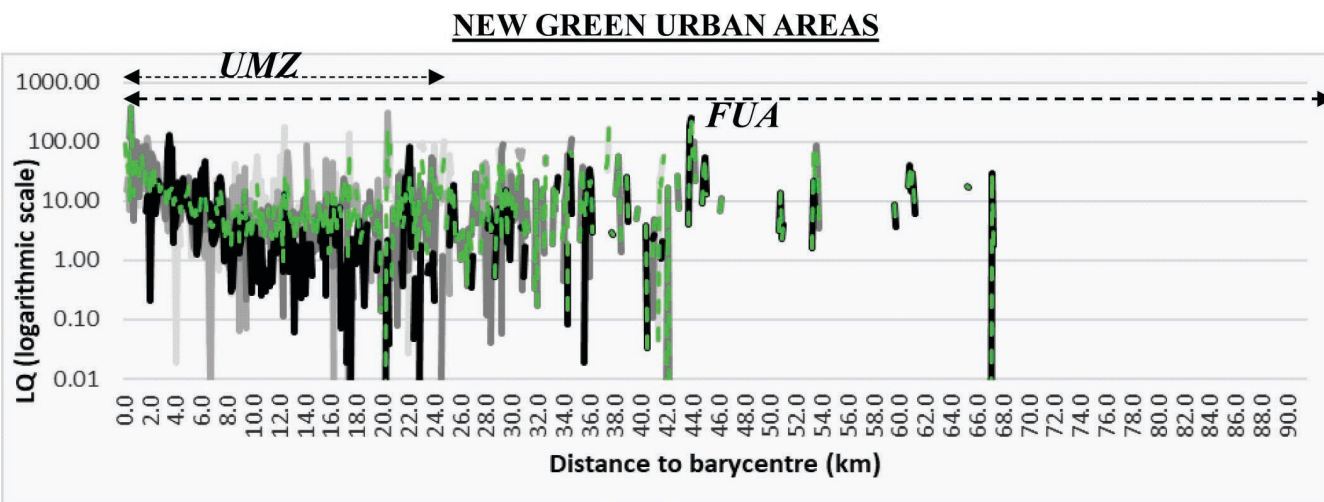
Brownfields aren't going away – they're spreading with the city, leaving behind a fractured urban fabric.



Sources : GMES, 2018; GMES,2012; GMES,2006;

- Patterns may differ, but no city escapes the spread of brownfields;
- Physical traces of speculative cycles and planning hiccups => a symptom but also a signal => urban development has been selective & fragmented.

GREEN SPACES OVERLOOKED IN THE RUSH TO BUILD



— General profile

— General profile – Very Large city

— General profile – Medium-sized city

— General profile – Large city

— General profile – Small city

Sources : GMES, 2018; GMES,2012; GMES,2006;

Green Areas are not a priority, only a leftover – failing to keep up with the urban sprawl.



The main point here is not about where green areas were built but rather where they weren't ...

Green Areas shouldn't be what comes after growth , but rather it's what makes growth sustainable.





IS IT ABOUT CITY SIZE OR COUNTRY?



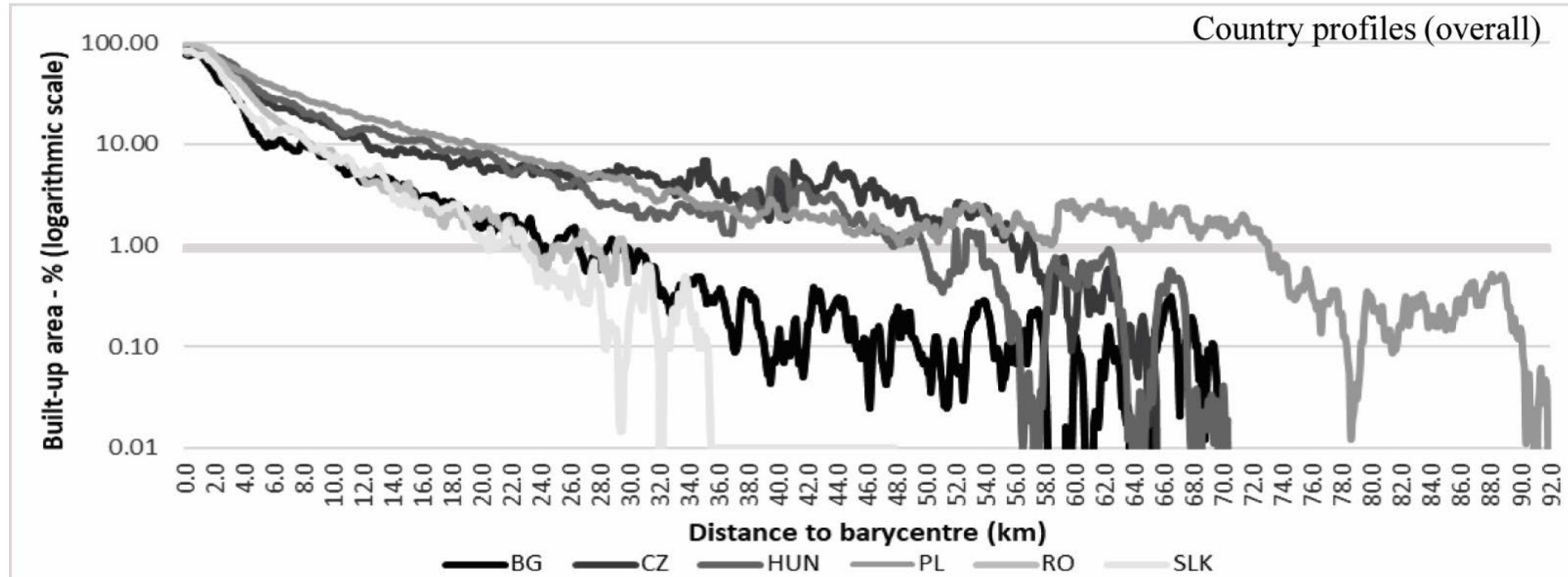
Table 1. One-way ANOVA hypothesis testing results.

	Level of analysis	Source of variation	Sum of squares	df	MS	F	p-Value
Built-up area growth rates 1990–2000	By country level	Between groups	353.241	8	44.155	2.070	0.05*
		Within groups	1706.505	80	21.331		
		Total	2059.746	88			
Built-up area growth rates 2000–2006	By country level	Between groups	128,859.208	8	16,107.401	11.545	0.000***
		Within groups	111,616.094	80	1395.201		
		Total	240,475.302	88			
Built-up area growth rates 2006–2009	By city size	Between groups	13.759	3	4.586	2.887	0.04*
		Within groups	141.392	89	1.589		
		Total	155.152	92			
Built-up area growth rates 2009–2015	By country level	Between groups	119.107	8	14.888	3.780	0.001***
		Within groups	315.089	80	3.939		
		Total	434.196	88			
Built-up area growth rates 2015–2018	By country level	Between groups	2361.433	8	295.179	9.422	0.000***
		Within groups	2506.349	80	31.329		
		Total	4867.782	88			
Built-up area growth rates 1990–2018	By country level	Between groups	259,057.092	8	32,382.136	14.016	0.000***
		Within groups	184,829.121	80	2310.364		
		Total	443,886.213	88			

City size plays a role => larger cities acted as proxies for investments opportunities, BUT national context also played a big role.

Notes: * $p < 0.1$; *** $p < 0.01$.

ALL SPRAWL, BUT NOT EQUALLY: NATIONAL PROFILES OF BUILT-UP SPACE

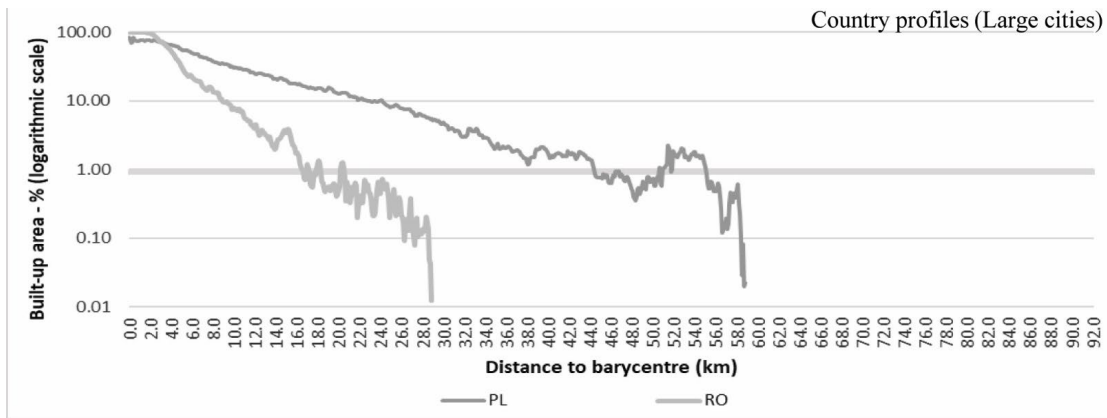


Post-socialist sprawl isn't one-size-fits-all — its scale and shape also reflect national context => planning policies and tools that acknowledge that.

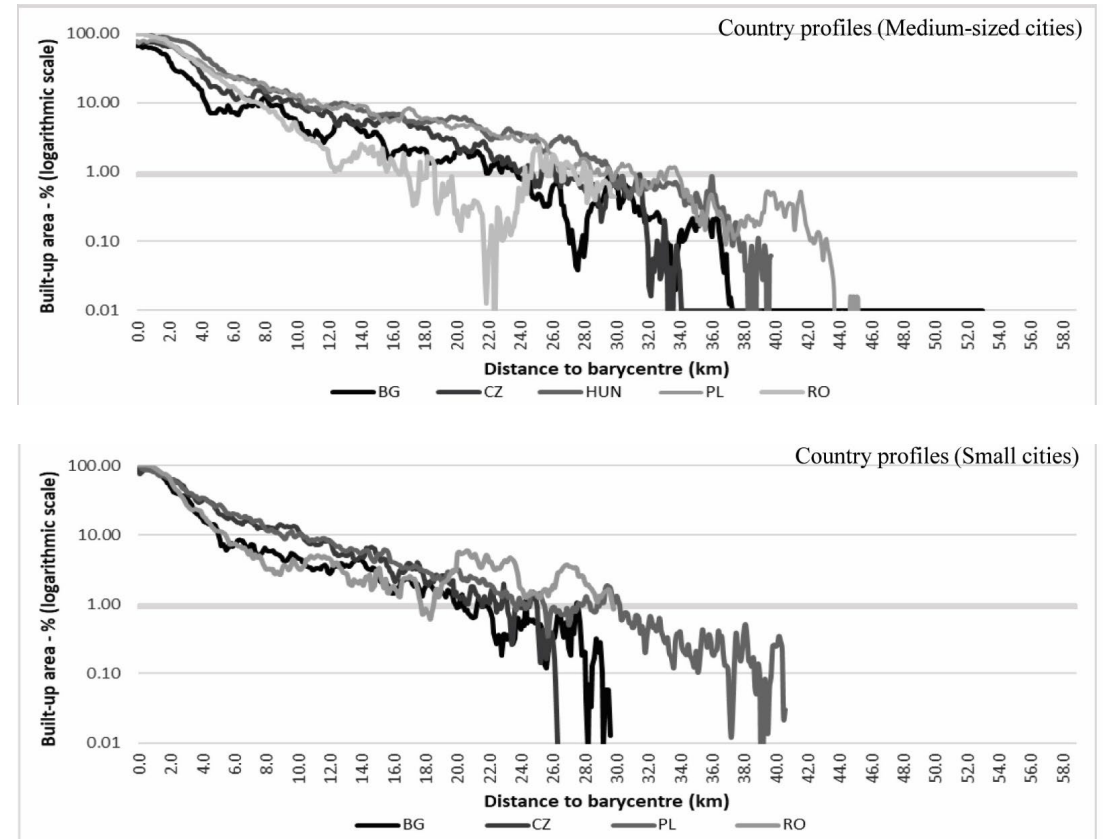


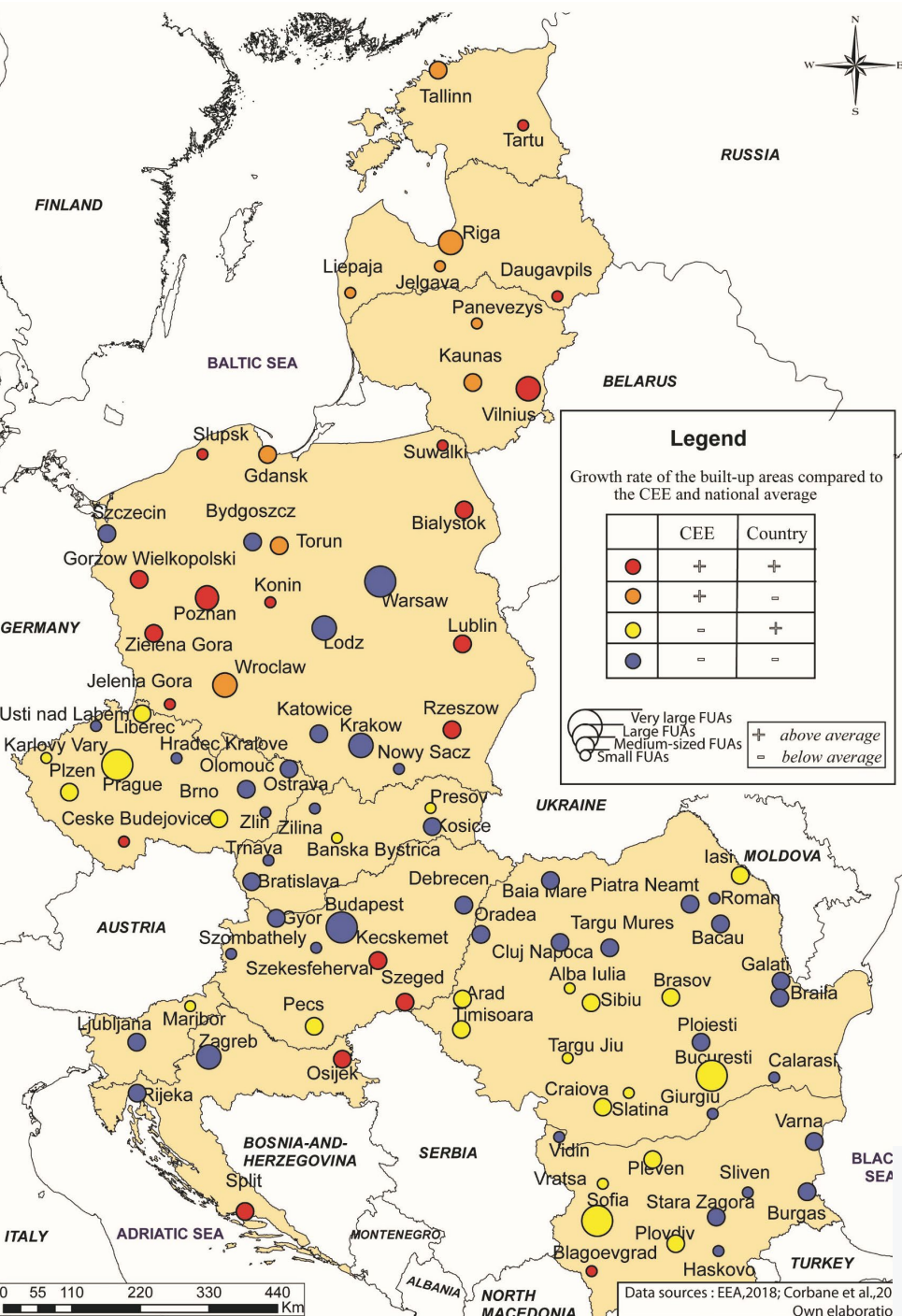
CITY SIZE ISN'T THE WHOLE STORY ... THE NATIONAL CONTEXT ANCHORS THE FORM

Urban sprawl follows a national script — even cities of similar size sprawl differently depending on where they are;



*City size => might explain the pressure, but not always the form
=> dependent on national context.*





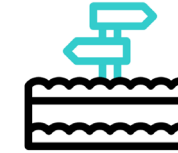
SAME COUNTRY, DIFFERENT PATHS

*Built-up expansion is uneven — but not random =>
a region that no longer moves at one speed,
deepening inequalities within it, leaving some
cities behind while others race ahead.*

❑ The Capital/Large Cities Effect



❑ Path dependencies



❑ Socialist Industrial Legacy



❑ Central/Western Europe Borders' Proximity



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GROWING CITIES, SHRINKING STORIES

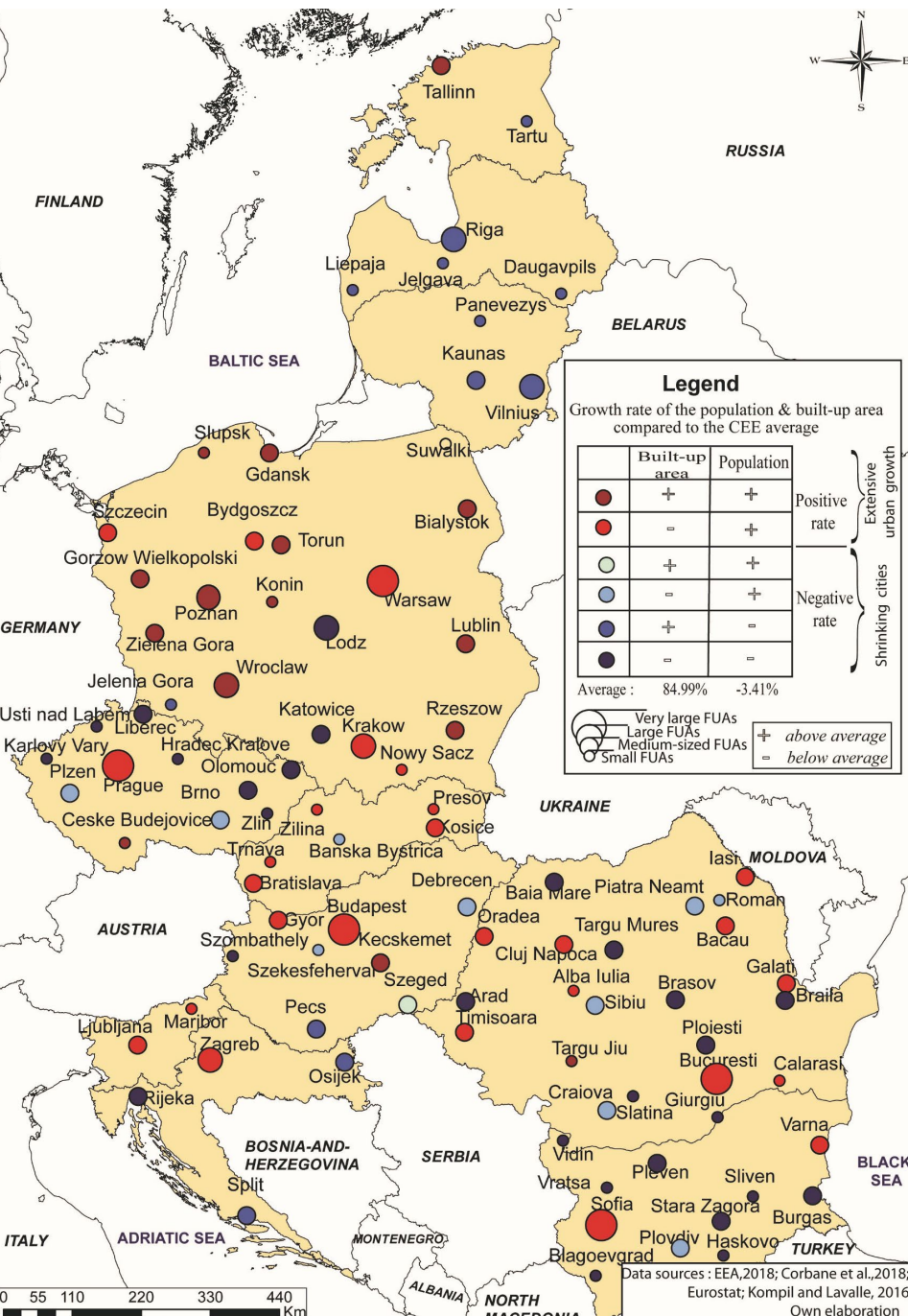
Most cities expanded their urban form between 1990 and 2018, even as many experienced population decline — a hallmark of post-socialist urban development;



Built-up area and population growth haven't always moved in the same direction;



Nearly half of CEE cities expanded in terms of built-up area, while shrinking demographically.



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URBAN GROWTH OR SHRINKAGE? IT DEPENDS ON CITY SIZE AND LOCATION

Table 1. One-way ANOVA hypothesis testing results.

	Level of analysis	Source of variation	Sum of squares	df	MS	F	p-Value
Population growth rates 1990–2018	By city size	Between groups	3532.680	3	1177.560	6.220	0.001***
		Within groups	16,849.663	89	189.322		
		Total	20,382.343	92			
	By country level	Between groups	8367.052	8	1045.881	7.208	0.000***
		Within groups	11,608.211	80	145.103		
		Total	19,975.263	88			

Notes: * $p < 0.1$; *** $p < 0.01$.

City size matters: Larger cities perform better demographically — small and medium cities are most vulnerable to population decline.



Country-level differences also matter: National context has a powerful effect on demographic trajectories.

Urban Shrinkage requires looking both upward at the country policies and downward at local conditions.

CONCLUSIONS: Urban Sprawl - Patchwork urban form?

Spatial expansion happened — but coherence didn't always follow => sprawl often happened without a structure;

Residential Sprawl & Economic Development: *peripheries that are car dependant and difficult to service => lack of tools to manage all the fast spatial urban growth;*

A consequence of what happened when land-use dynamics followed market forces and urban governance struggled to keep up.

CONCLUSIONS : Urban Sprawl – what was left behind?

Spatial fragmentation isn't only about what was built; it's also about what was left behind...

The Brownfield Challenge: *underused and not reintegrated into the urban fabric;*

Green Afterthoughts: *While built-up areas expanded, green space planning didn't always keep up – fragmented, peripheral, and often inherited rather than planned;*

What we see it's a pattern without a plan that could have turned built-up area expansion into a sustainable growth.

CONCLUSIONS

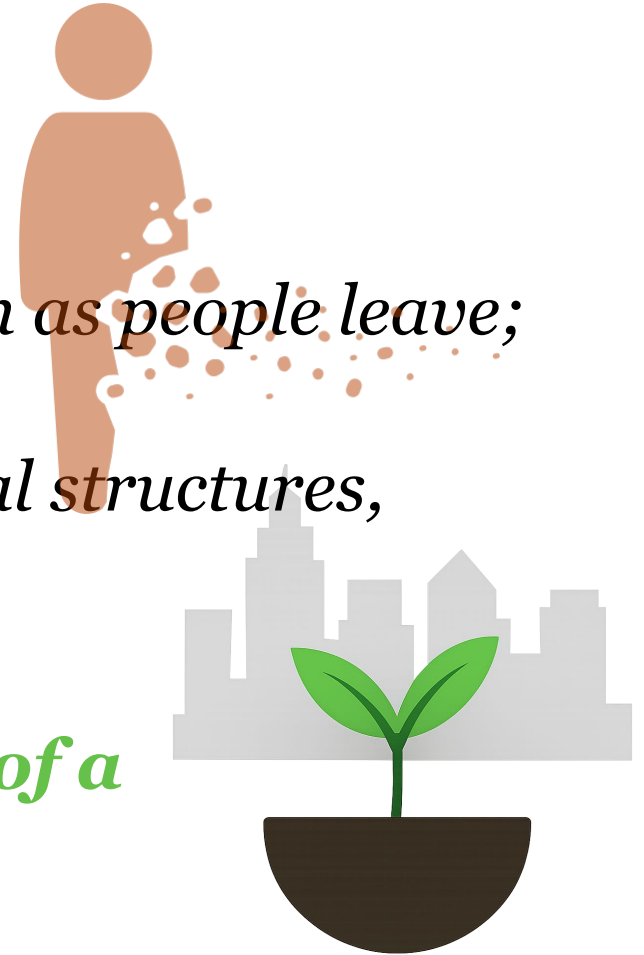
Shrinking Cities Aren't a Failure — But Ignoring Them Might Be

Spatial growth used to follow population...

But in CEE, that link appears broken — cities expand, even as people leave;

Decline is uneven, but not random — it reflects deep spatial structures, mapping onto borders and urban hierarchies;

Demographic Decline isn't the end — it's the start of a different kind of planning...



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*Urban Studies
Paper*

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Thank you !



*Town Planning Review
Paper*

Spring Seminar 2025: Growing Cities vs. Shrinking
Countryside in Central Europe

