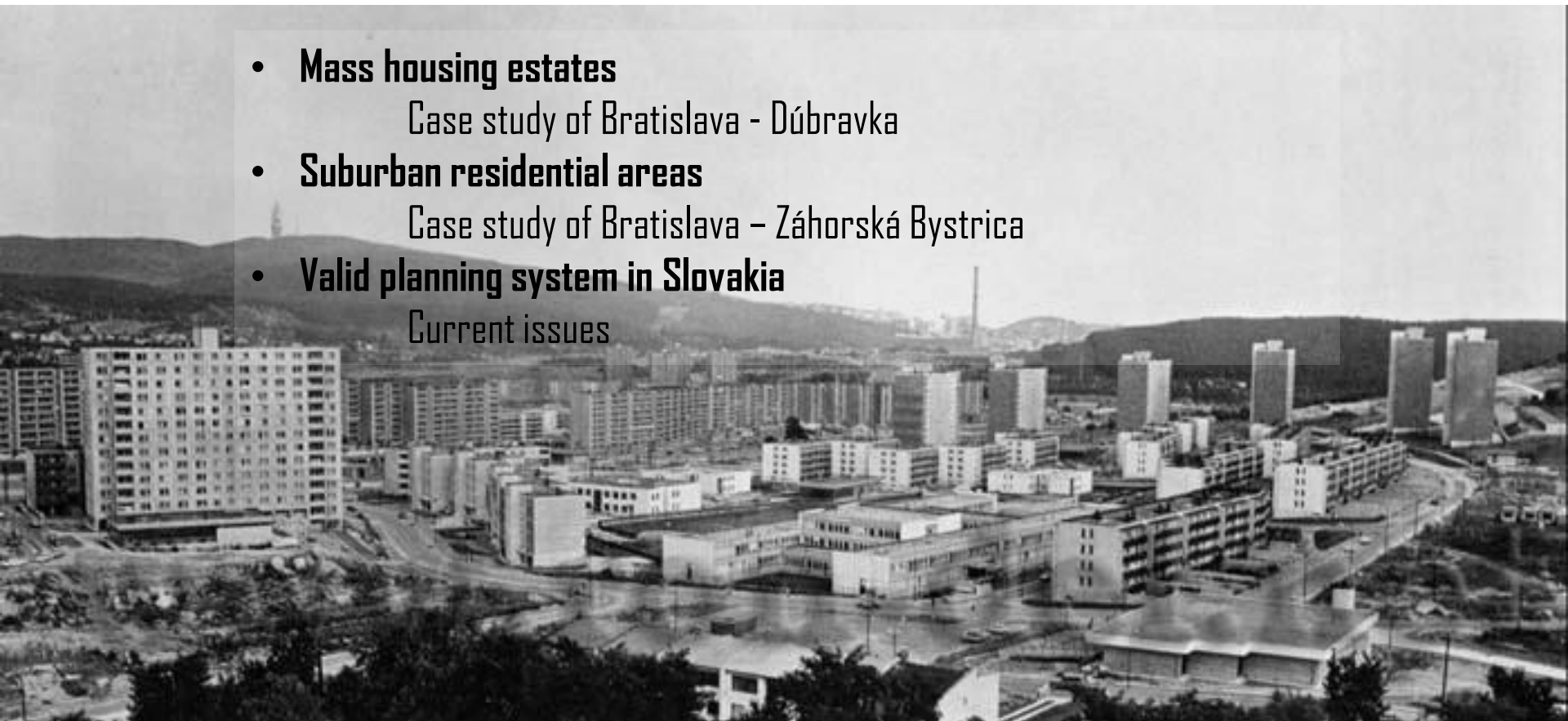


„Sleeping“ suburbs of Bratislava

How to support mixed use development in suburban residential areas

- **Mass housing estates**
Case study of Bratislava - Dúbravka
- **Suburban residential areas**
Case study of Bratislava – Záhorská Bystrica
- **Valid planning system in Slovakia**
Current issues



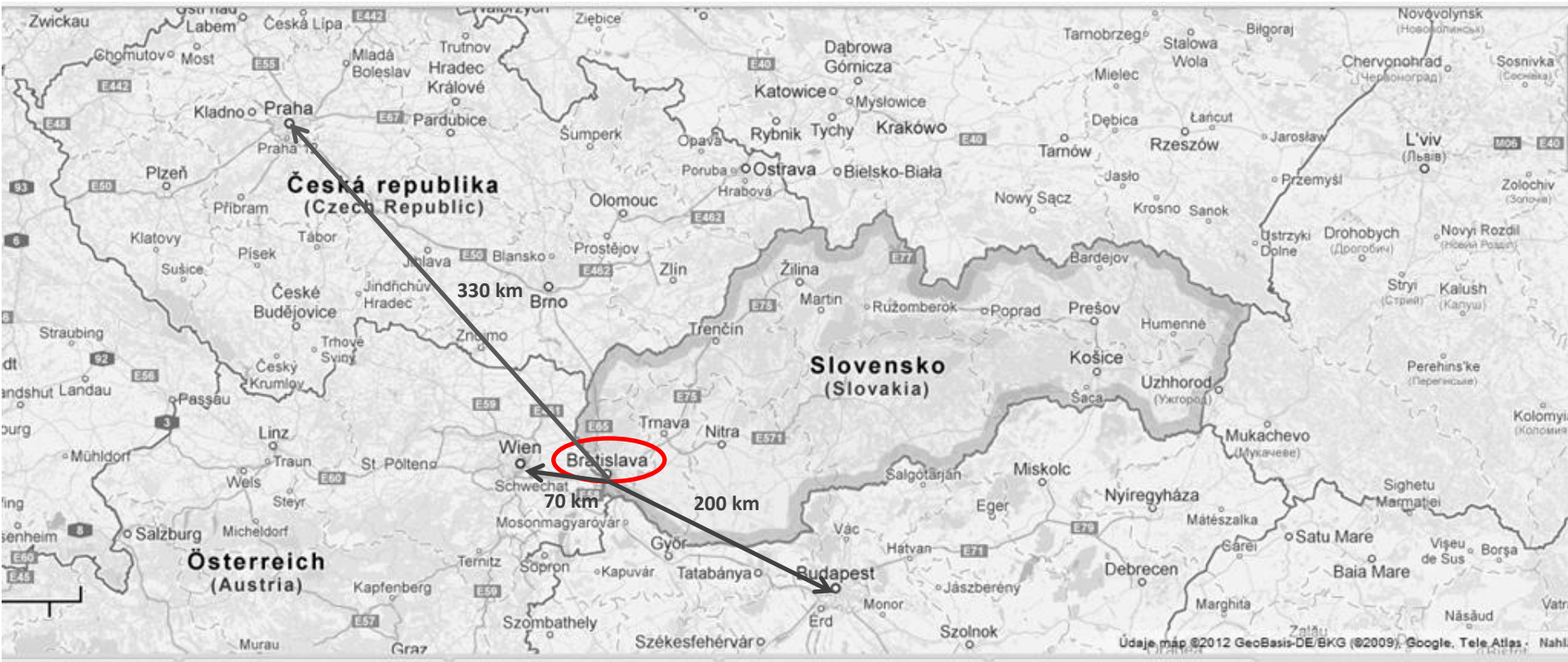
Location

Slovakia:

- area 49 035 km²
- 5,40 mil. inhabitants (30.6.2012)

Bratislava:

- capital of Slovakia since 1993
- area 367 km²
- 465 327 inhabitants (1.6.2012)



Prefabricated housing estates

Slovakia

Mass housing estates: functionally and territorially autonomous residential areas of at least 300 flats

Statistics:

- construction in 50s-90s
 - large estates built in a short time
 - 1,2 mil. flats in prefabs = 1/3 of all flats
 - 2 mil. inhabitants in prefabs
- 1960 – 22 696 flats
1970 – 30 690 flats (91% in prefabs)
1980 – 8 215 flats
1995 – 6 209 flats

Prefabricated construction:

+ fast and rather cheap

- „crane urbanism“
- monotony, uniformity, bad orientation
- low technical quality

Technical – economic directions:

+ flats of good hygienic parameters

- „rabbit hutches“
- small rooms, missing pantry or storage

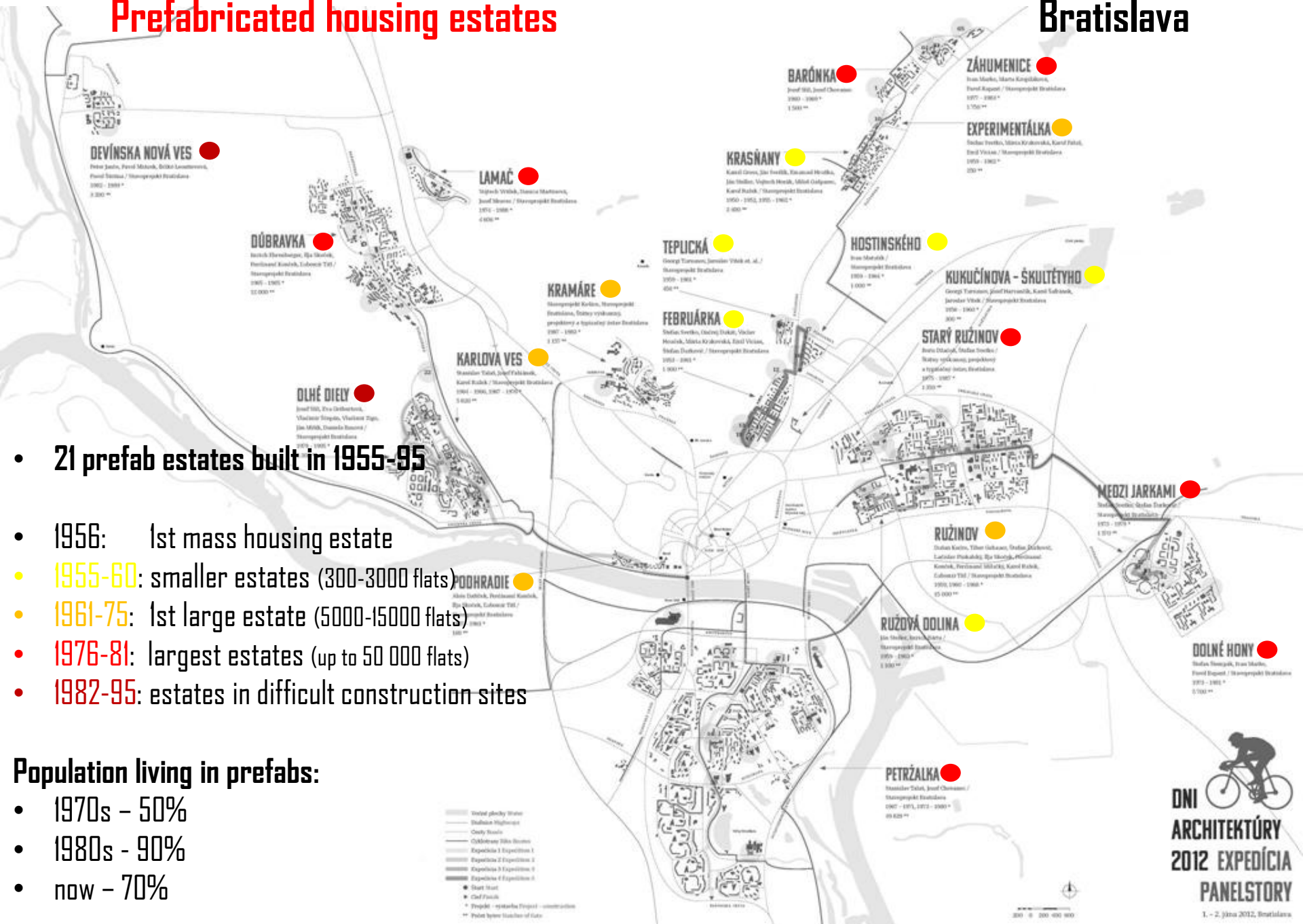
Complete housing construction:

+ planned public and sport facilities
+ lost of recreational greenery
+ good public transport connection

- late and reduced facilities construction
- missing work opportunities
- lack of parking places

Prefabricated housing estates

Bratislava



21 prefab estates built in 1955-95

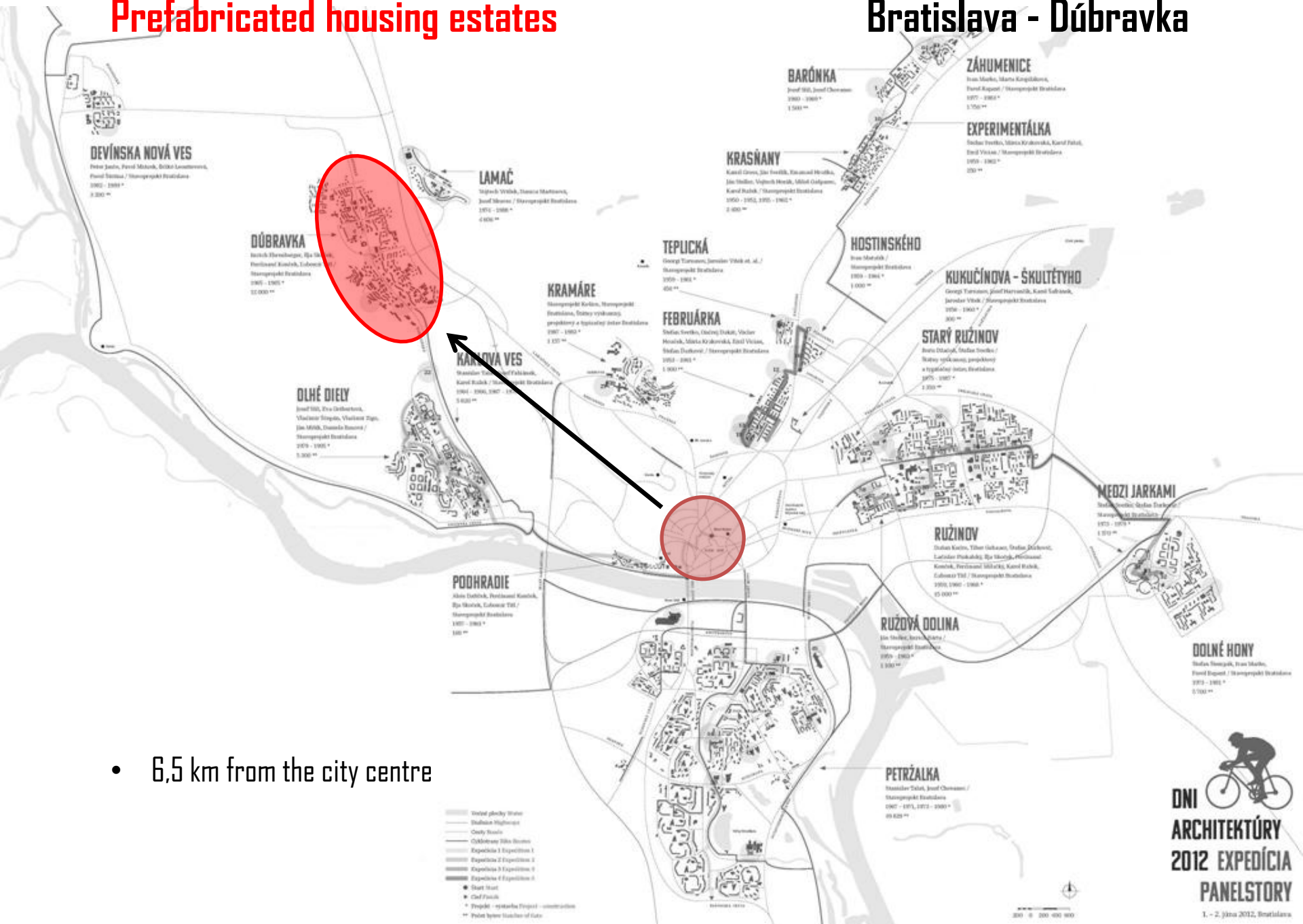
- 1956: 1st mass housing estate
- 1955-60: smaller estates (300-3000 flats)
- 1961-75: 1st large estate (5000-15000 flats)
- 1976-81: largest estates (up to 50 000 flats)
- 1982-95: estates in difficult construction sites

Population living in prefabs:

- 1970s - 50%
- 1980s - 90%
- now - 70%

Prefabricated housing estates

Bratislava - Dúbravka

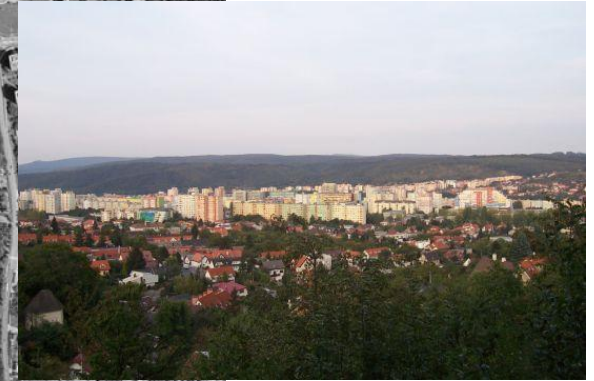


• 6,5 km from the city centre

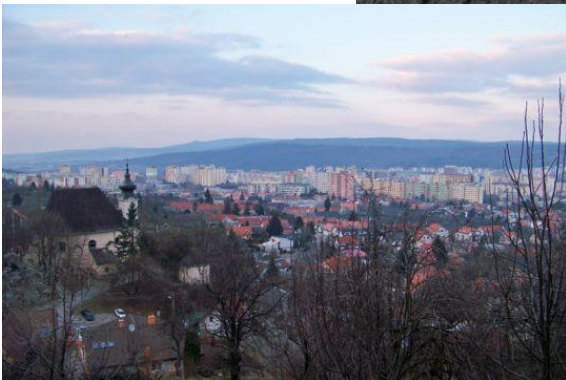
Prefabricated housing estates

Bratislava - Dúbravka

Former village
1 500 inhabitants



Housing estate
40 000 inhabitants



Prefabricated housing estates

Bratislava – Dúbravka plan

Facts:

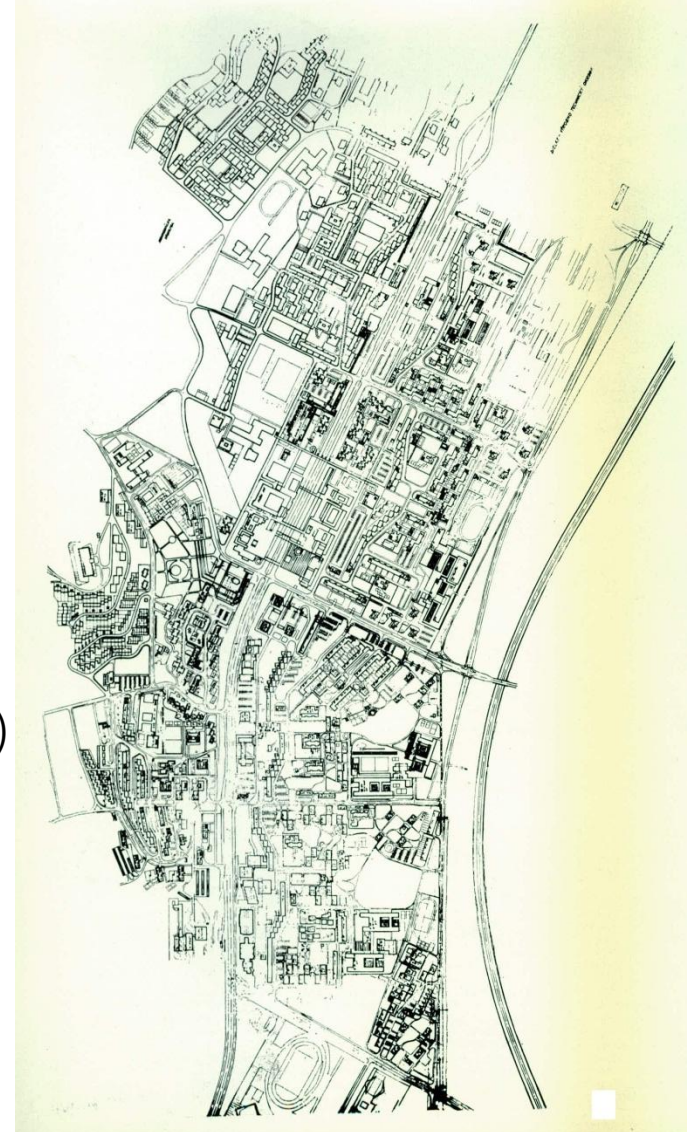
| | |
|---------------------|--------------------|
| Total area: | 179,31 ha |
| Built area: | 29,93 ha |
| Number of flats: | 12 000 flats |
| Housing density: | 67 dwellings/ha |
| Population density: | 223 inhabitants/ha |

Planning and projects:

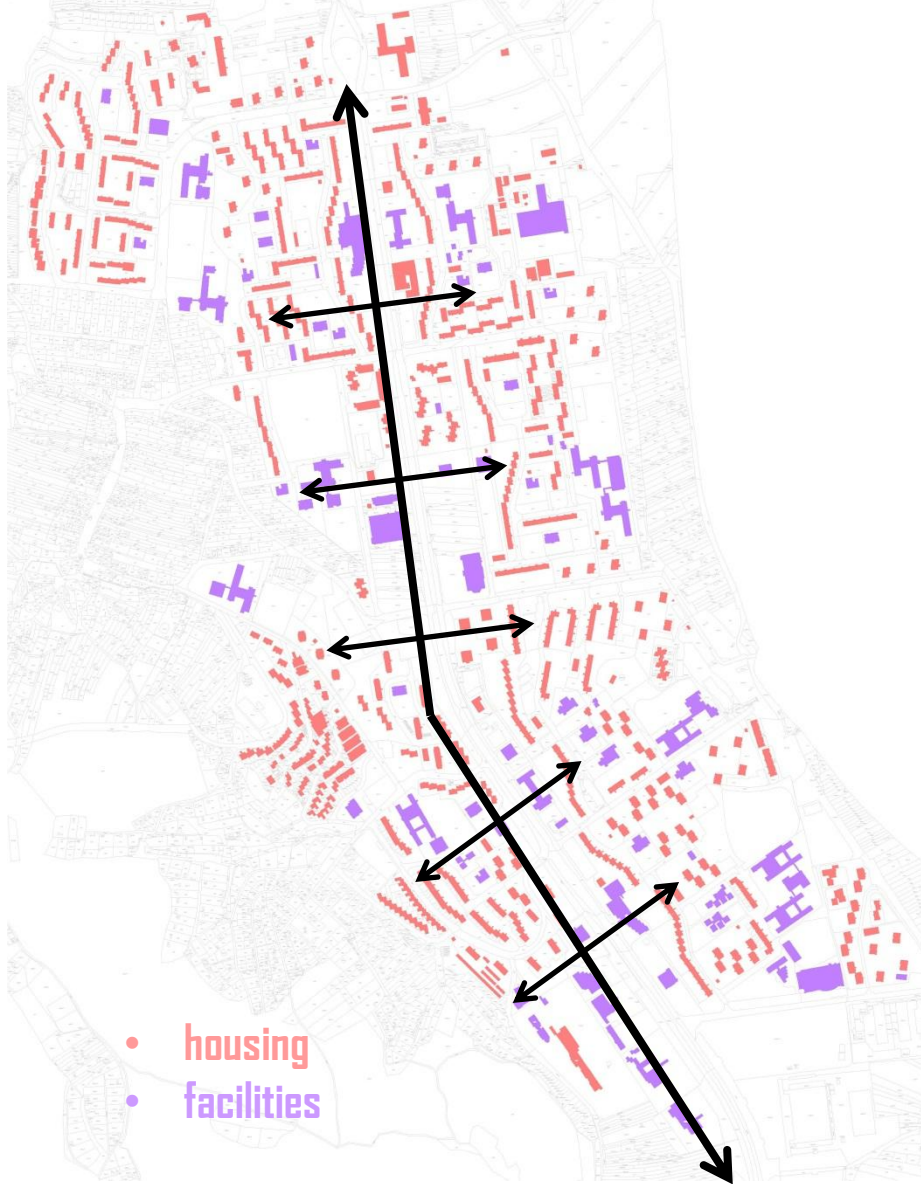
- 1965: city development plan of Dúbravka – Lamac
- 1966: masterplan of housing estate (Konček, Skoček, Titl)
project of Záluhy I. (Konček, Skoček, Titl)
- 1969-72: projects of Záluhy II. and Podvornice I.-IV. (Ehrenberger)

Construction:

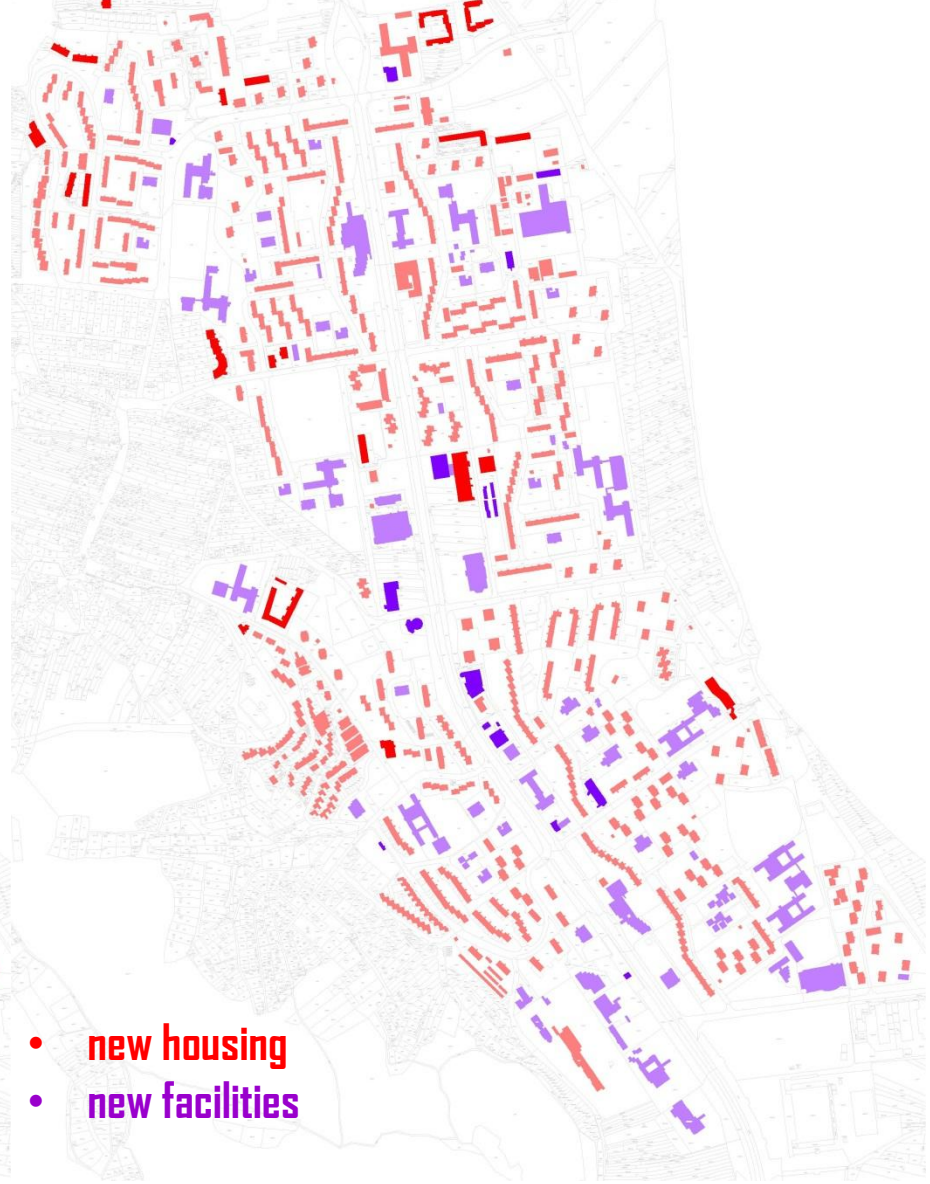
- 1965-85: housing estate
- 1986: „House of culture“ as only building of planned center



Prefabricated housing estates past



Bratislava - Dúbravka present



Prefabricated housing estates

past



- retail, services – daily use
- retail, services – other
- schools / preschools

Bratislava – Dúbravka

present



- culture
- administration / offices
- health / social care
- sport

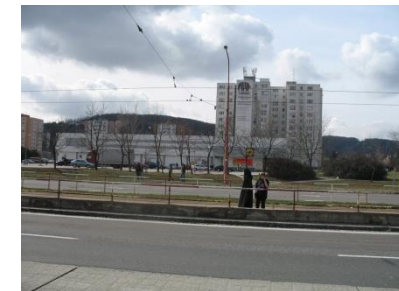
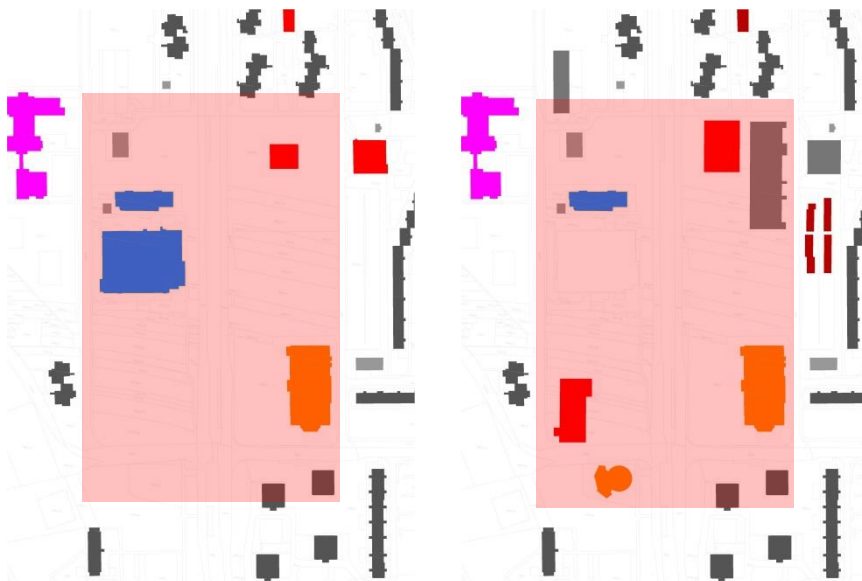
Prefabricated housing estates

Bratislava – Dúbravka

Number of facilities:

- retail, services – daily use: 25 / 5
- retail, services – other: - / 18
- schools: 9 / 9
- preschools: 31 / 25
- culture: 1 / 6
- administration and offices: 9 / 12
- health and social care: 5 / 8
- sport: 2 / 4

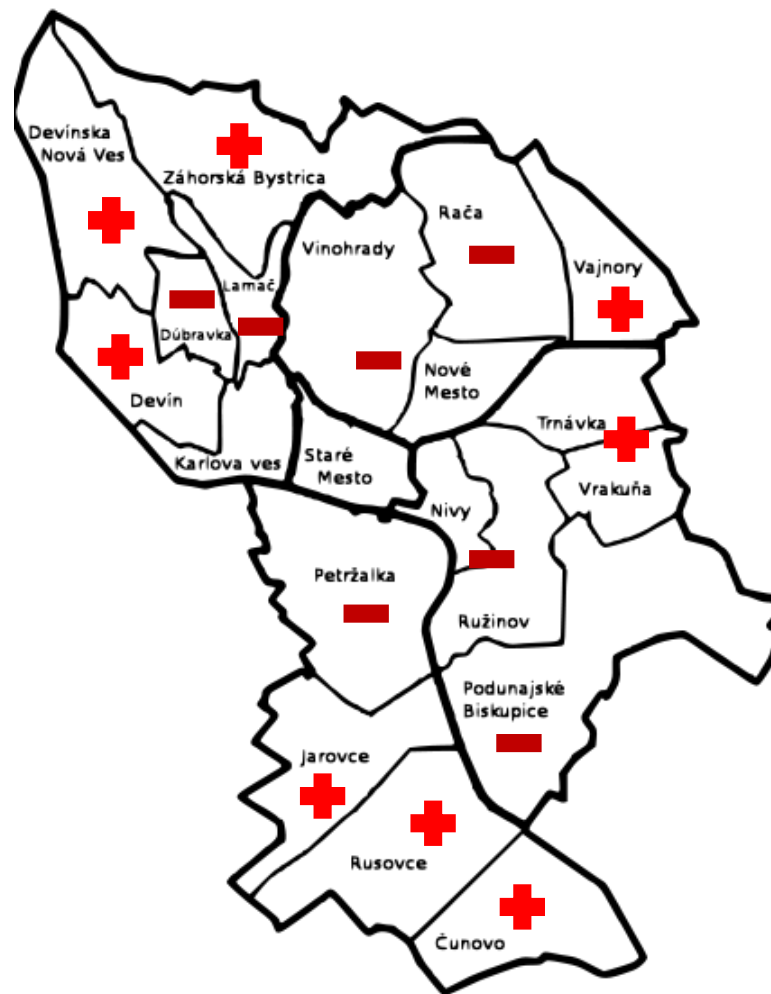
Center – past / center – present



Migration since 1991

Bratislava

| District no. | Borough | Population | | | |
|--------------|----------------------|------------|---------|------------|-----------------------------|
| | | 1991 | 2001 | 31.12.2009 | Growth / decline since 1991 |
| I. | Staré mesto | 49 018 | 44 798 | 40 828 | - 16.7 % |
| II. | Ružinov | 73 131 | 70 004 | 71 802 | - 1.8 % |
| | Vrakuňa | 18 201 | 18 386 | 19 866 | + 9.1 % |
| | Podunajské Biskupice | 21 087 | 19 749 | 21 207 | + 0.6 % |
| III. | Nové Mesto | 40 317 | 37 418 | 37 778 | - 6.3 % |
| | Rača | 20 784 | 20 172 | 20 548 | - 1.1 % |
| | Vajnory | 3 384 | 3 828 | 5 057 | + 49.4 % |
| IV. | Karlova Ves | 22 154 | 32 843 | 34 510 | + 55.8 % |
| | Dúbravka | 37 442 | 35 199 | 34 725 | - 7.3 % |
| | Lamač | 7 004 | 6 544 | 6 722 | - 4.0 % |
| | Devín | 771 | 884 | 1 099 | + 42.5 % |
| | Devínska Nová Ves | 15 233 | 15 502 | 16 153 | + 6.0 % |
| | Záhorská Bystrica | 1 731 | 2 086 | 3 194 | + 84.5 % |
| | Petržalka | 128 251 | 117 227 | 112 545 | - 12.2 % |
| V. | Jarovce | 1 124 | 1 199 | 1 388 | + 23.5 % |
| | Rusovce | 1 759 | 1 922 | 2 669 | + 51.7 % |
| | Čunovo | 816 | 911 | 970 | + 18.9 % |
| | Total | 442 197 | 428 672 | 431 061 | - 2.5 % |



Suburban residential zones

Location:

- 15 km from city center

History:

- agricultural village founded in the 13th century
- part of Bratislava since 1972

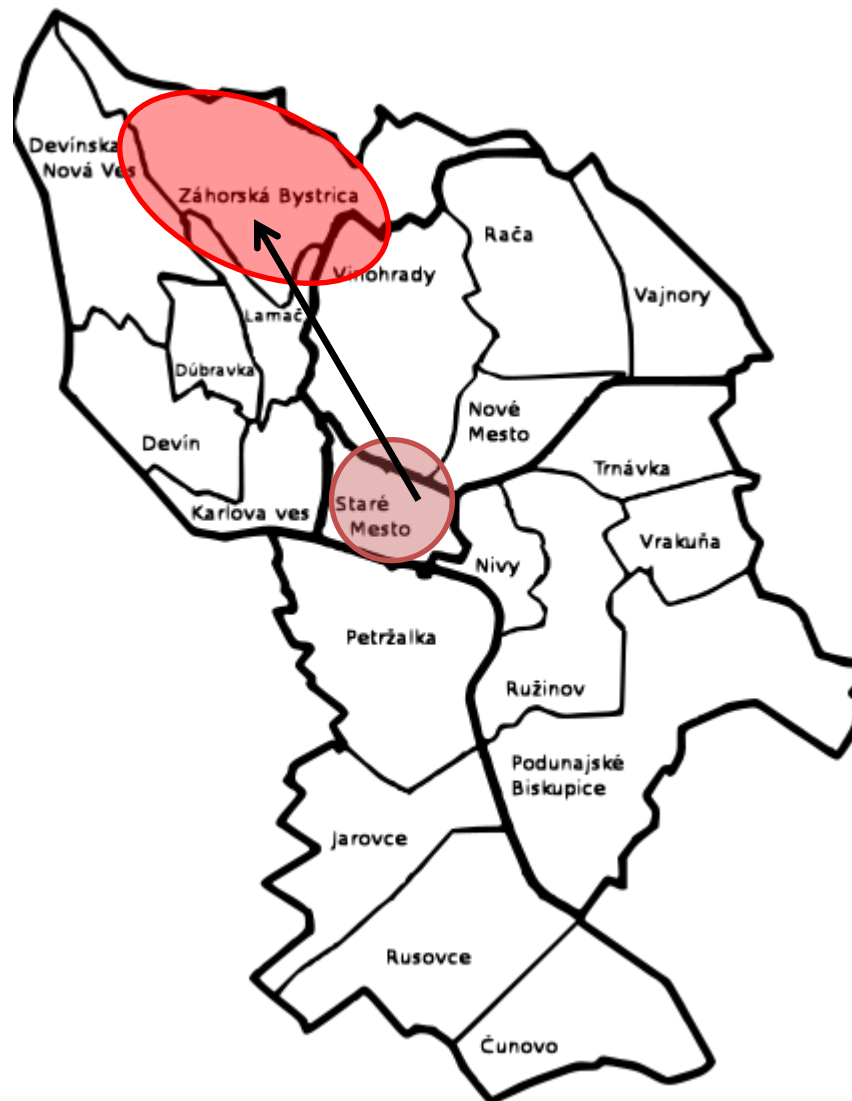
Population:

| | |
|-------|-------------------------|
| 1991: | 1731 inhabitants |
| 2001: | 2086 inhabitants / +21% |
| 2011: | 4034 inhabitants / +93% |

Finished projects: Strmé vršky
Rezidencia Záhorská

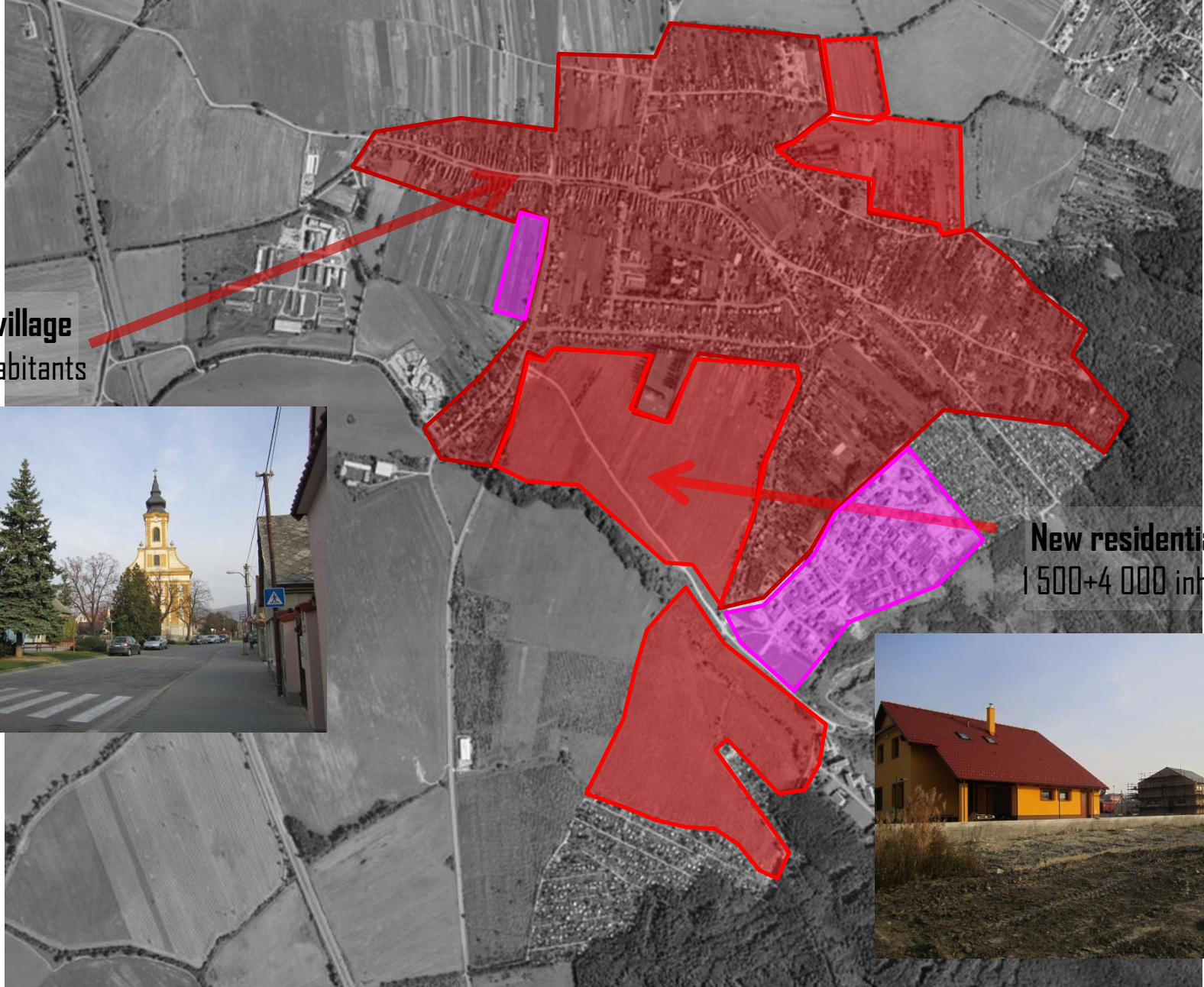
Planned projects: Pod vrškami
Záhorské sady
Átriá Vlčkovka
Pod cintorínom

Bratislava – Záhorská Bystrica



Suburban residential zones

Bratislava - Záhorská Bystrica



Former village
1 700 inhabitants

New residential areas
1 500+4 000 inhabitants



Suburban residential zones

Bratislava – Záhorská Bystrica

- large number of new inhabitants
- underestimated public and sport facilities
- no sufficient public transport connection
- execution of planned facilities postponed to later project stages or not done at all
- quality and capacities of existing facilities insufficient considering increased number of inhabitants

| Development project | Number of housing units | | | Population growth |
|---------------------|-------------------------|---------------------|----------|-------------------|
| | In family houses | In apartment blocks | In total | |
| Pod vŕškami | 110 | 1 000 | 1 110 | 3 330* |
| Záhorské sady | 106 | - | 106 | 318* |
| Atriá Vlkovka | 42 | - | 42 | 126* |
| Pod cintorínom | 99 | - | 99 | 297* |
| Total | 357 | 1 000 | 1 357 | 4 071 |

* - calculated 3 inhabitants per housing unit



Suburban residential zones

Bratislava – Záhorská Bystrica

| | Project | | Realization | |
|-------------------------------|--|------------------------------|--------------------|------------------------------|
| | Type of facilities | Floor area (m ²) | Type of facilities | Floor area (m ²) |
| Commercial segment | | | | |
| Pod Vřškami | RETAIL: - shopping center | 8000 | - | - |
| Záhorské sady | OFFICES: 200 m ² RETAIL: 800 m ² SERVICES: - services – 1000 m ² - hobby center – 1000 m ² - gadrencraft - 800 m ² - veterinary – 200 m ² | 4000 | - | - |
| Átriá Vlkovka | OFFICES + RETAIL + SERVICES | 1470 | 0 | 174 |
| Pod cintorínom | RETAIL + SERVICES | 200 | - | - |
| Non-commercial segment | | | | |
| Pod Vřškami | EDUCATION: - kindergarden and primary school | 0 | - | - |
| Záhorské sady | HEALTH CARE: - dentist – 100 m ² SOCIAL CARE: - club – 500 m ² | 600 | - | - |
| Átriá Vlkovka | HEALTH CARE | 0 | - | - |
| Pod cintorínom | - | - | - | - |
| Leisure segment | | | | |
| Pod Vřškami | - sport hall - playgrounds - relax center | 0 | - | - |
| Záhorské sady | - fitness – 300 m ² - wellness – 300 m ² - Indoor tennis courts – 300 m ² | 900 | - | - |
| Átriá Vlkovka | - playgrounds | 0 | - | - |
| Pod cintorínom | - | - | - | - |

Prefab housing estate



Suburban residential zones

Monofunctionality

- housing + basic facilities

- only housing

- hierarchy, unfinished centers

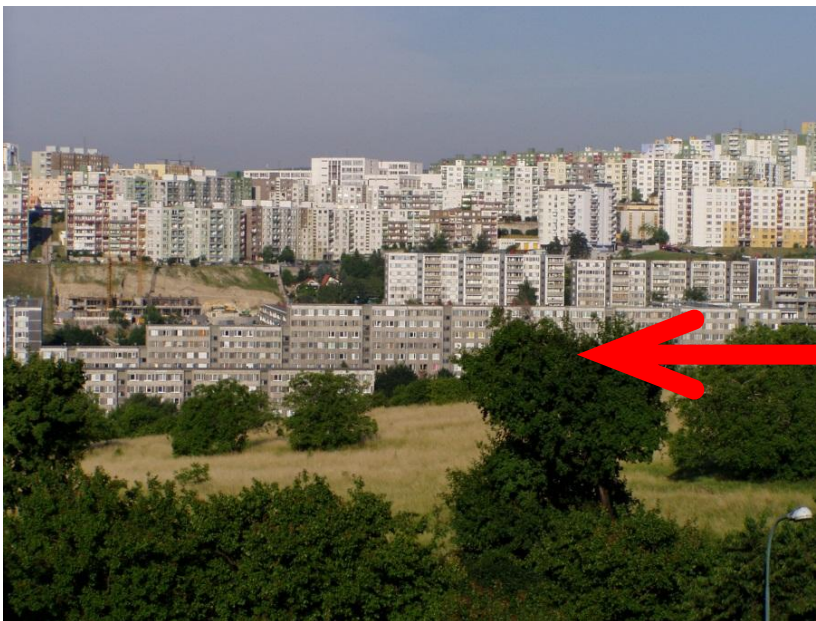
Physical structure - centrality

- homogeneity, no centers

Transport

- public transport

- car transport



Valid planning system

Slovakia

Law on spatial planning and building regulation (building act) no. 50/1976

- 29 changes (1982, 1990, 1992, 1995/2x, 1996, 1997, 1999, 2000/2x, 2001/2x, 2002, 2003/4x, 2004, 2005/2x, 2006, 2007, 2008, 2009/2x, 2010/3x, 2011)

Current issues:

- long terms preparation (Bratislava: 1993-2007)
- obstacles with changes (appr. 2 years)
- inappropriate scale for development and regulation plan
- absence of detailed development plans
- ownership of land not taken into account
- limited public participation (official board / public hearing)
- no discussion between city, developer and local community
- no flexibility – no space for negotiation
- ambiguous definition of parameters
- difficult professional language – obscure for ordinary people
- worked out by individual planners not planning authority



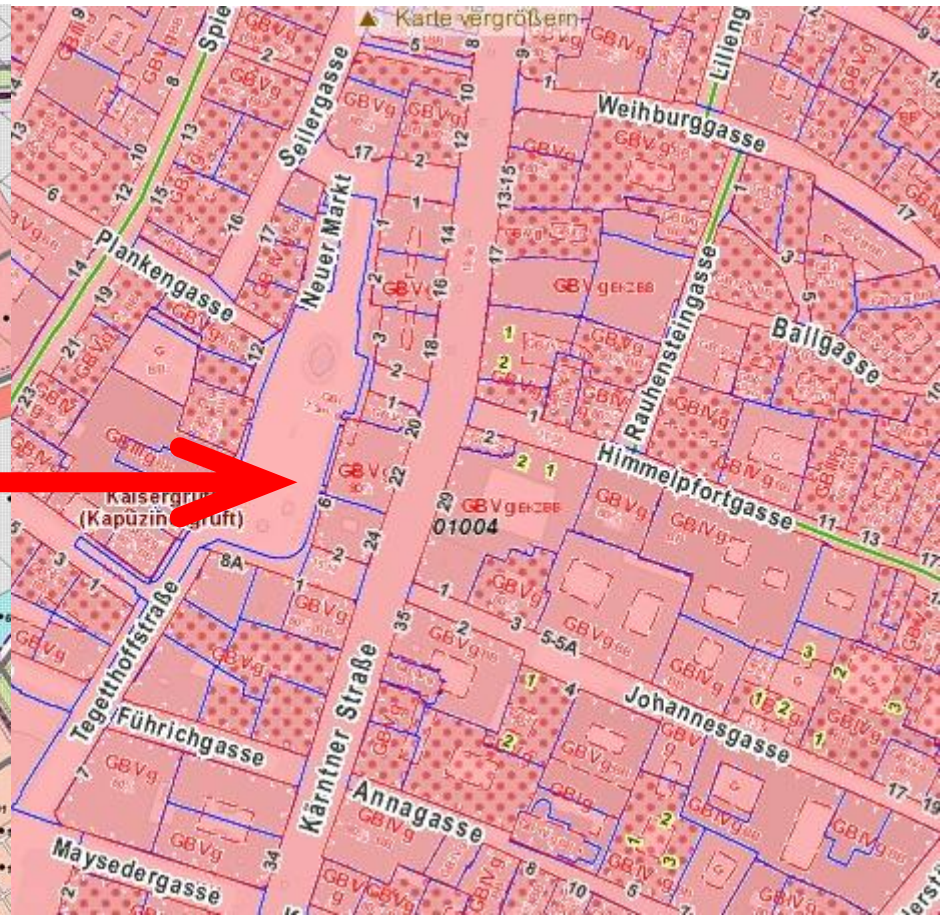
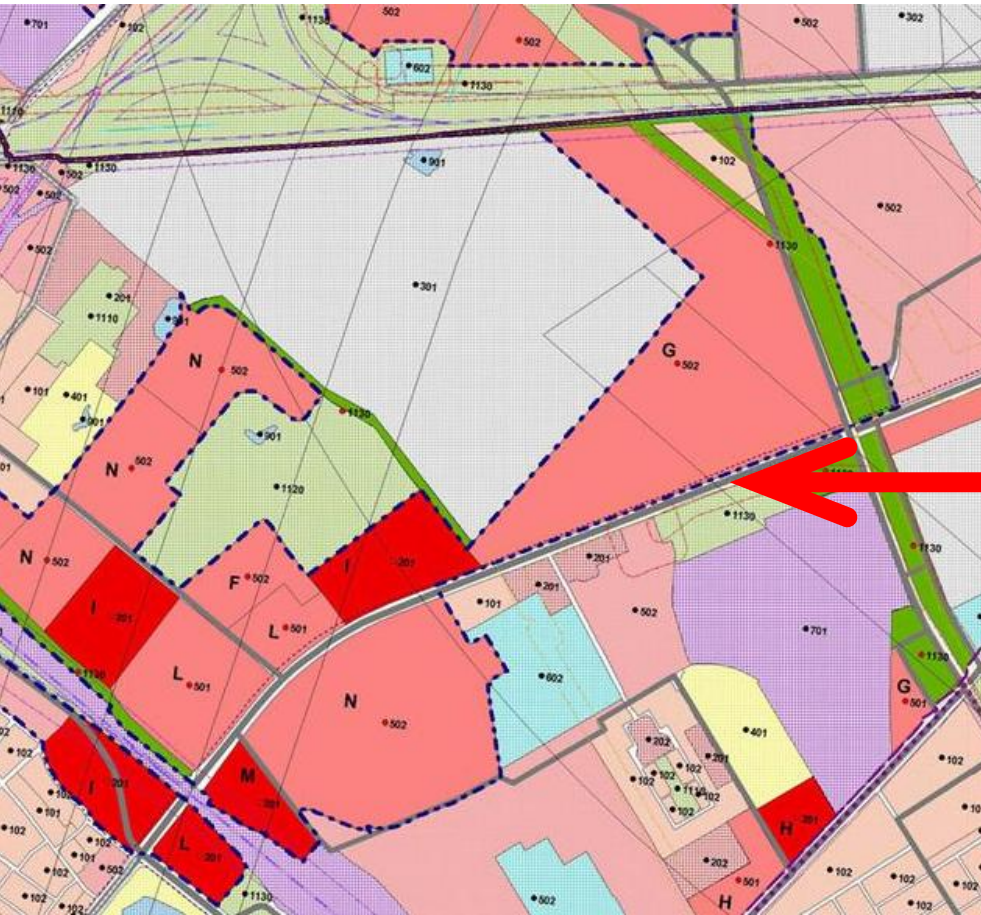
Current planning system

- complicated
- obligatory
- approved in advance
- detailed in city scale



New planning system

- simple
- flexible
- approved for planned development
- detailed in building scale



„Sleeping“ suburbs of Bratislava

How to support mixed use development in suburban residential areas

Thank you for your attention



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