

CITY OF ZAGREB

RE-GREENING ZAGREB

Inclusive Planning of Nature Based Solutions

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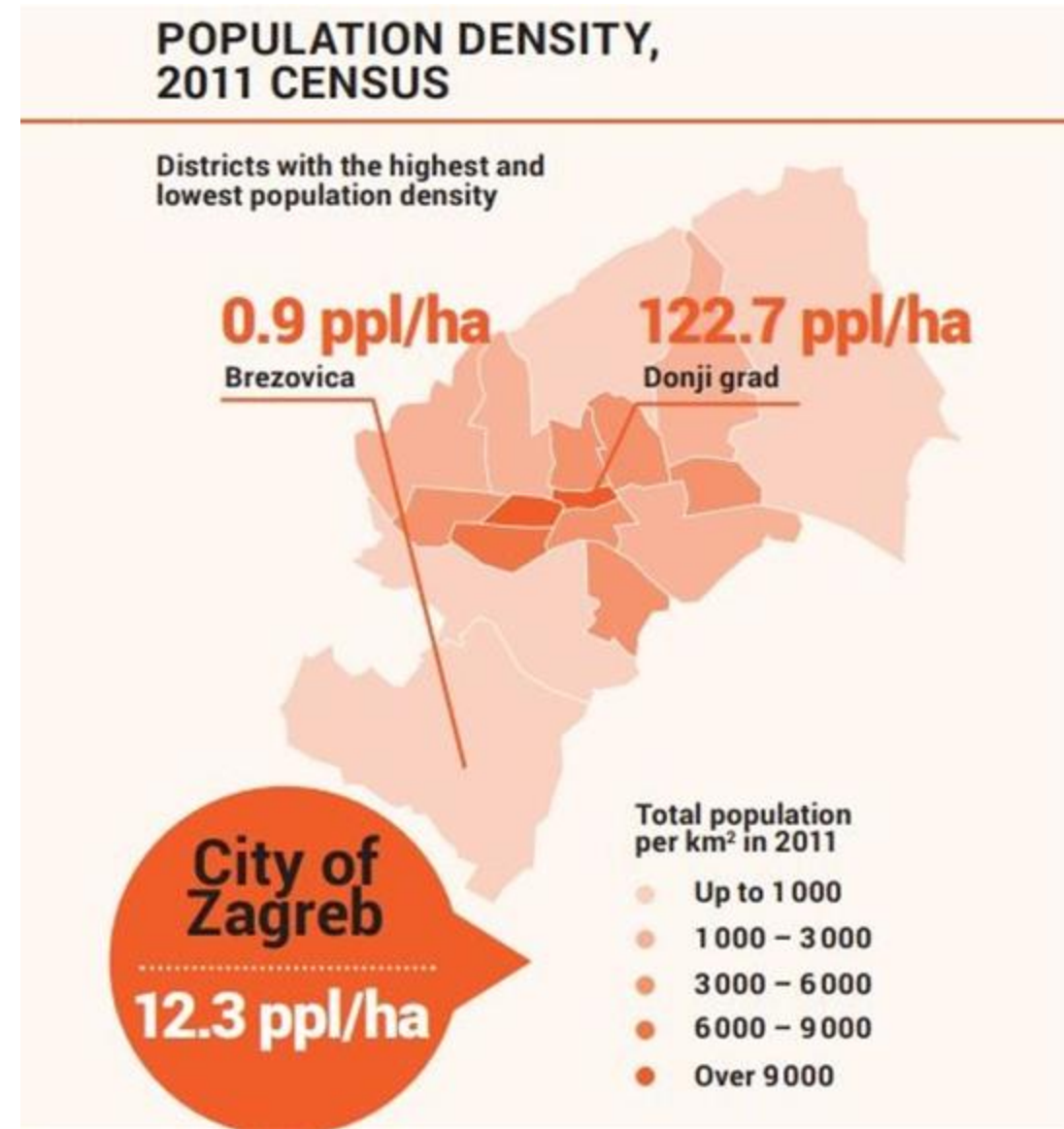
WUF 11 – GREEN FUTURE OF CITIES, 27th June 2022

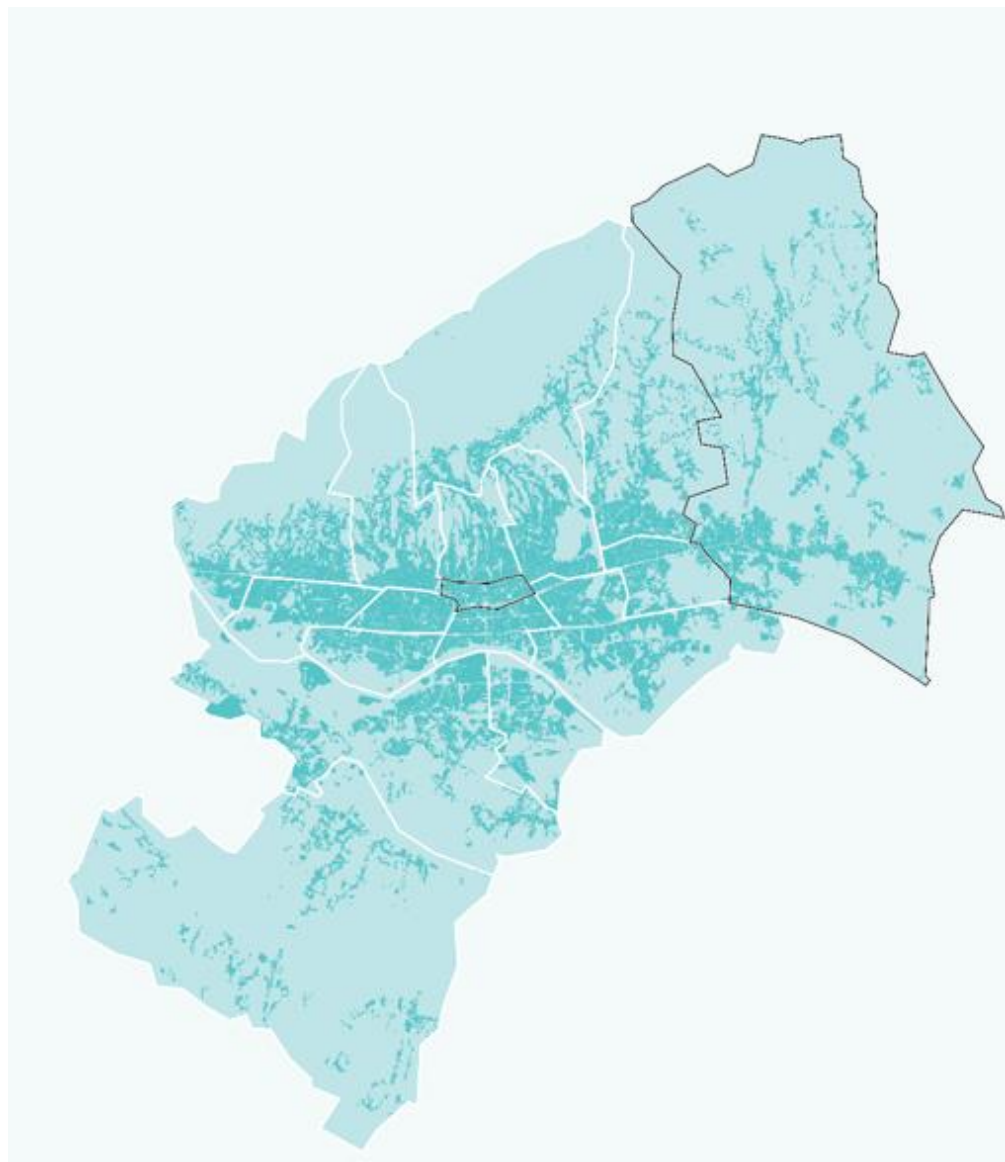


**City of Zagreb
City Office for Economy,
Ecological Sustainability
and Strategic Planning**

City of Zagreb facts and figures:

- urban area 220 km²
- population 802,762 (2017)
- the City Assembly as representative body
- the Mayor as executive body





Total surface area of the City of Zagreb:

- 64 124 ha, or 641,24 km²

Number of settlements: 68

Number of city districts: 17

Number of local boards in City districts: 218

- **Donji Grad** 301,6 ha, 4.7% of the city population lives on an area of 0.5% of the city's total surface area.
- **Sesvete** 16.524,5 ha 8.9% of the city population lives on an area of 25.8% of the city's total surface area.



EXISTING LAND USE

75.3%

Green areas

21.0%

Constructed areas

3.7%

Transport



GREEN AREAS

75.3%

City of
Zagreb

92.5%

Brezovica

Largest share in
green areas on
the total surface
area of the city
district

3.6%

Trešnjevka –
North

Smallest share in
green areas on the
total surface area
of the city district

NATURAL ASSETS



Nature Park
Medvednica

8 438.13 ha

(total surface area 17 938 ha)

- 7 special nature reserves of forest vegetation within Medvednica Nature Park

773.12 ha

- Maksimir Park
202.91 ha

- 3 distinctive landscapes
823.56 ha



- Sava River
29 km
(total length 945 km)

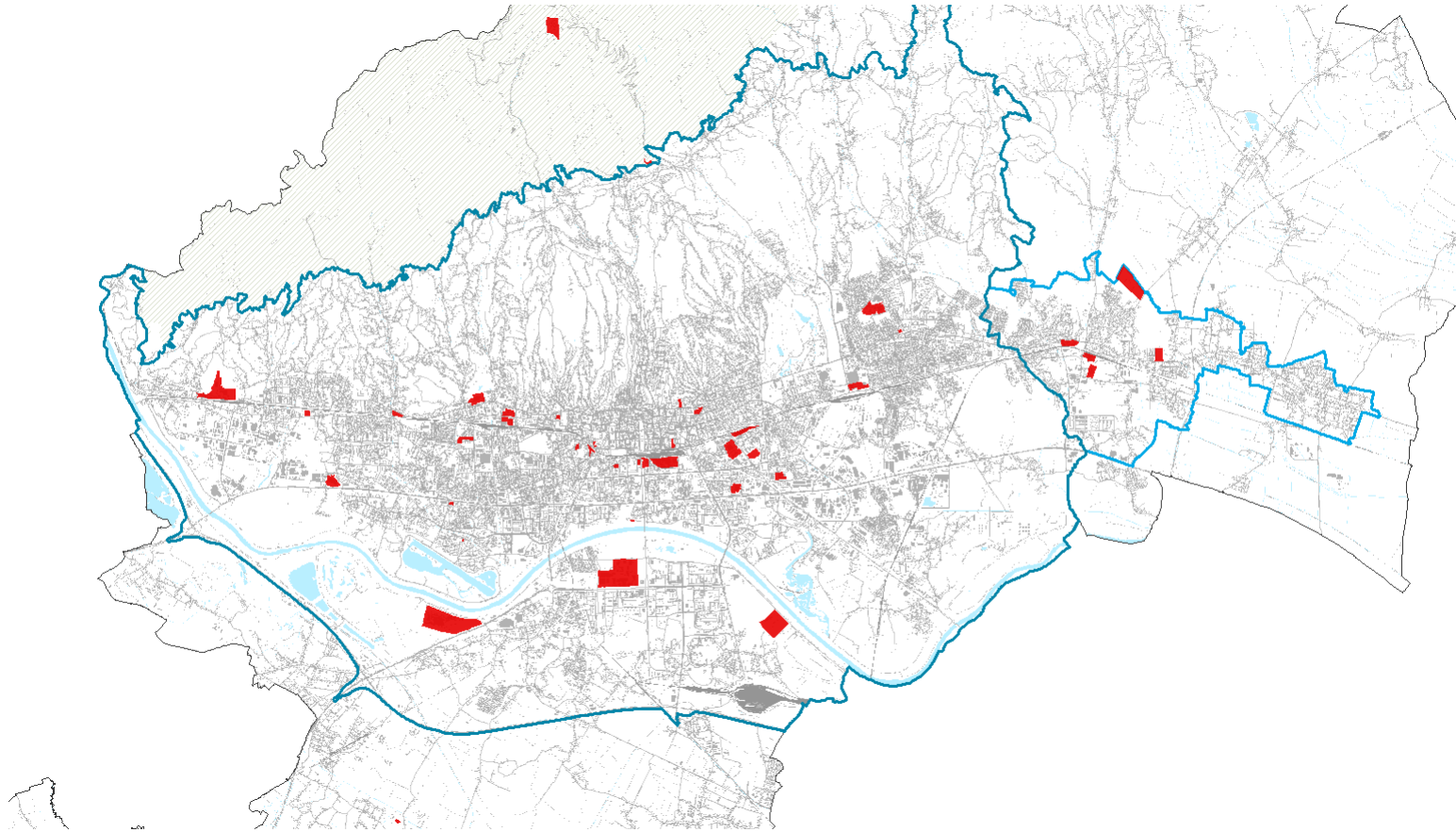




Finding "urban voids"
- possible green oasis
inside the city



CITY OF ZAGREB ATLAS OF ABANDONED SURFACES



European Commission defines nature-based solutions as:

„Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.”



City of Zagreb in Urban Agenda Partnership for Sustainable Use of Land and Nature Based Solutions

Action Plan for Sustainable Use of Land and Nature Based Solutions developed

- Zagreb as Action leader for Action 7. Better financing on NBS solutions

Other partners: Bologna, Poland, Antwerp, Cork, Lille, Stavanger, Stuttgart, Cyprus, Lithuania, Luxembourg, Portugal, Slovenia, DG REGIO, DG ENV, Eurocities, Urbact.



ZAGREB AFTER UA PARTNERSHIP – PLANNING THE APPLICATION OF NBS

1. NBS HANDBOOK FOR CITY DISCRITS AND LOCAL BOARDS with examples of applicable solutions;
2. Survey of city districts and local boards(17 city districts, 218 local boards) to suggest locations for solutions– online survey;
3. Analysis of the survey results (GiS);
4. Development of the NBS implementation Action Plan.



NBS HANDBOOK FOR CITY DISCRITS AND LOCAL BOARDS

1. Landscaping green public areas
2. Neighborhood parks
3. Formation of green oasis
4. Planting trees
5. Green roads and pavements
6. Remodeling of grey infrastructure areas
7. Revitalization of city creeks
8. Ecosystem services - pollinators
9. Urban agriculture
10. Green walls and roofs
11. Sustainable urban drainage systems
12. Surface shading



RJEŠENJA
UTEMELJENA NA PRIRODI



Landscaping green public areas



New city park suggestion – Z1 North from Jurkovičeva street



Neighborhood parks



Park suggestion - Knežija

Park suggestion Dubrava, Park malina



Planting new trees



EU project proGgreg: new tree plan in Sesvete



Remodeling of grey infrastructure areas



REMIZA
tram
terminal –
VITA
projekt
d.o.o.



CITIZEN SURVEY

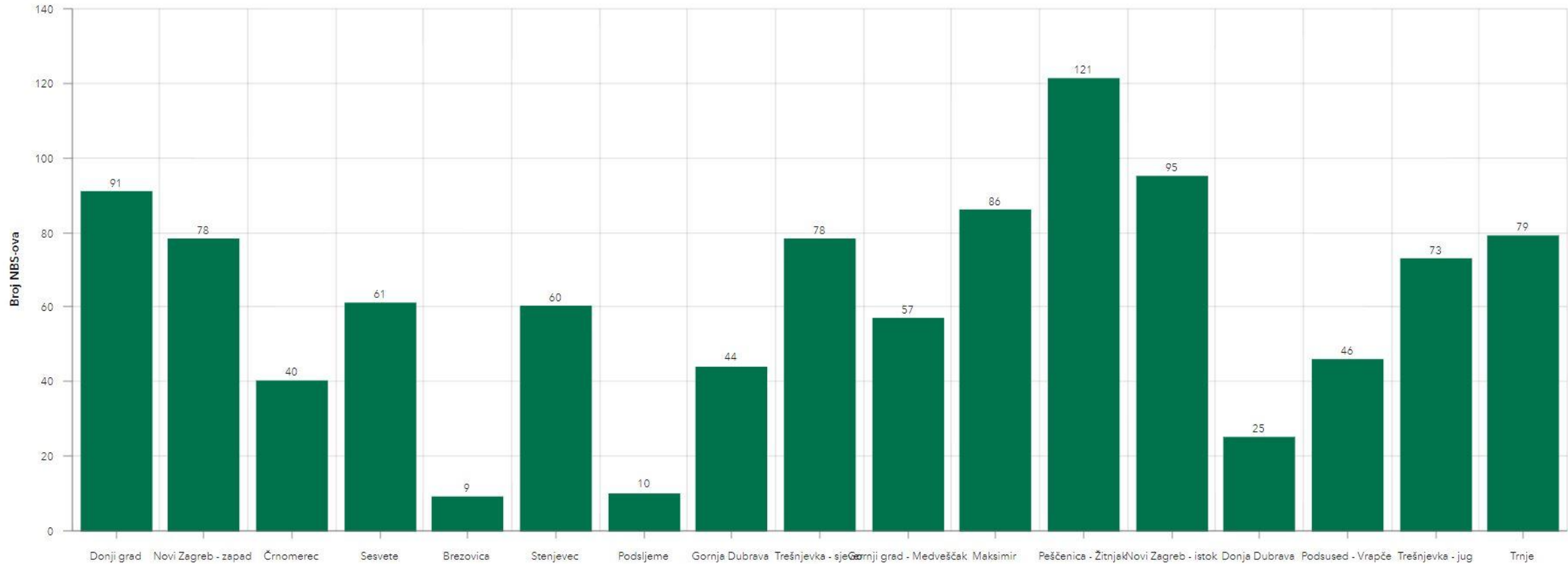
- suggesting new urban green solutions survey in November 2021.;
 - Do you see any possible locations in your city district for new public green spaces, neighbourhood parks or revitalisation of space around city creeks?
 - Do you see any possible locations in your city district for planting new trees?
 - Do you see any grey infrastructure areas in your city district that could be re activated with green infrastructure and NBS?
 - Do you see any extra space in your city district for urban agriculture or encouraging ecosystem services with less mowing?
 - Any other suggestions for using space inside your city district differently?
- Suggestions of the citizen initiative platform 1POSTOZAGRAD related to NBS solutions were also analysed;



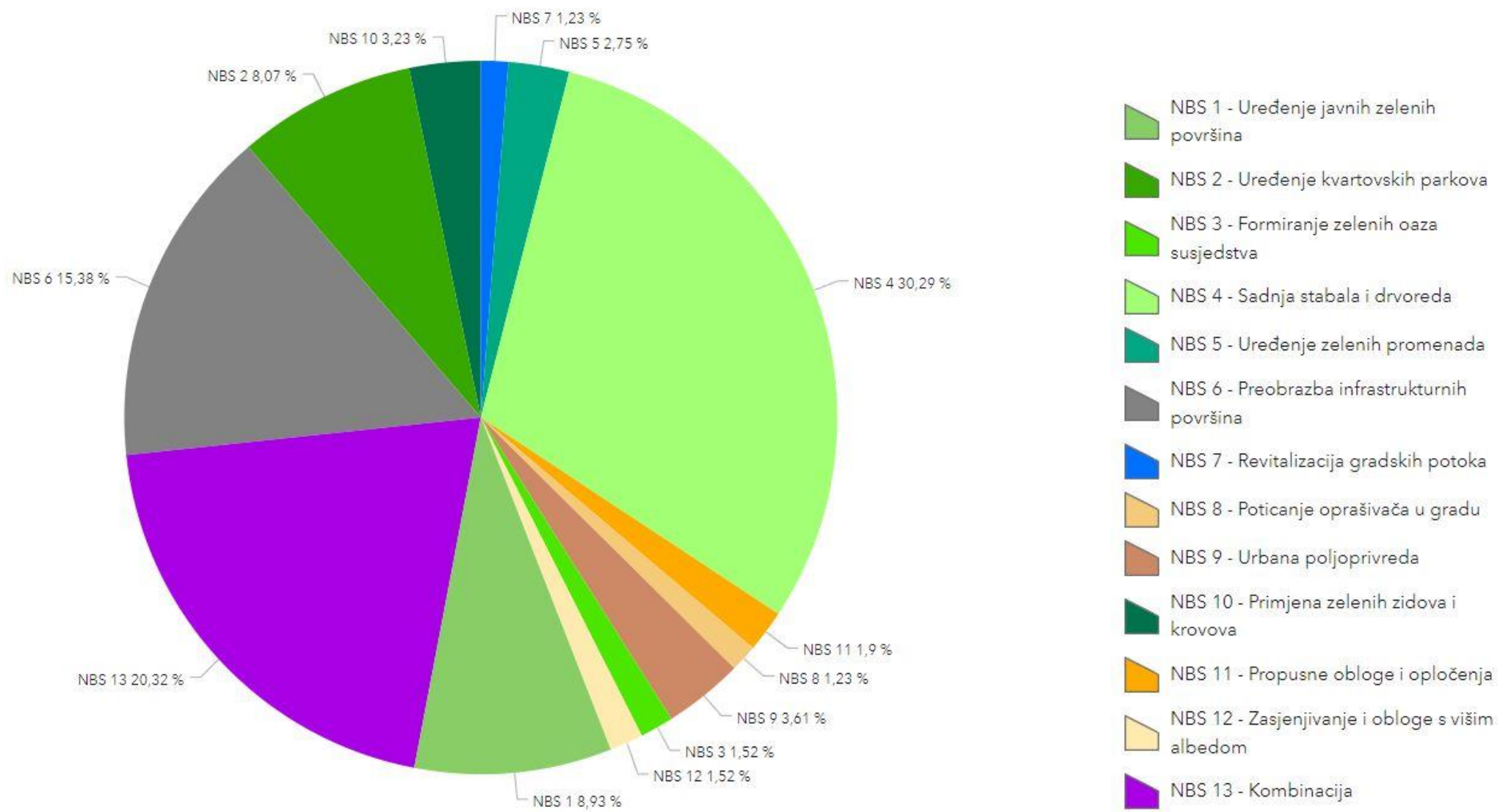
CITIZEN SURVEY RESULTS

480 suggestions

1053 locations



NBS TYPES



CITIZEN SURVEY RESULTS - NBS DASHBOARD

- Full geo spatial analysis of suggestions was conducted made in ESRI programme ArcGIS Pro;
- All suggestions entered according to their NBS type with different symbology for each NBS type;
- Map was implented on online servers and an interface was developed for ArcGIS Online platform for easy viewing of each locations and its data;
- Total of 1053 suggested intervventions.









NBS LOKACIJE

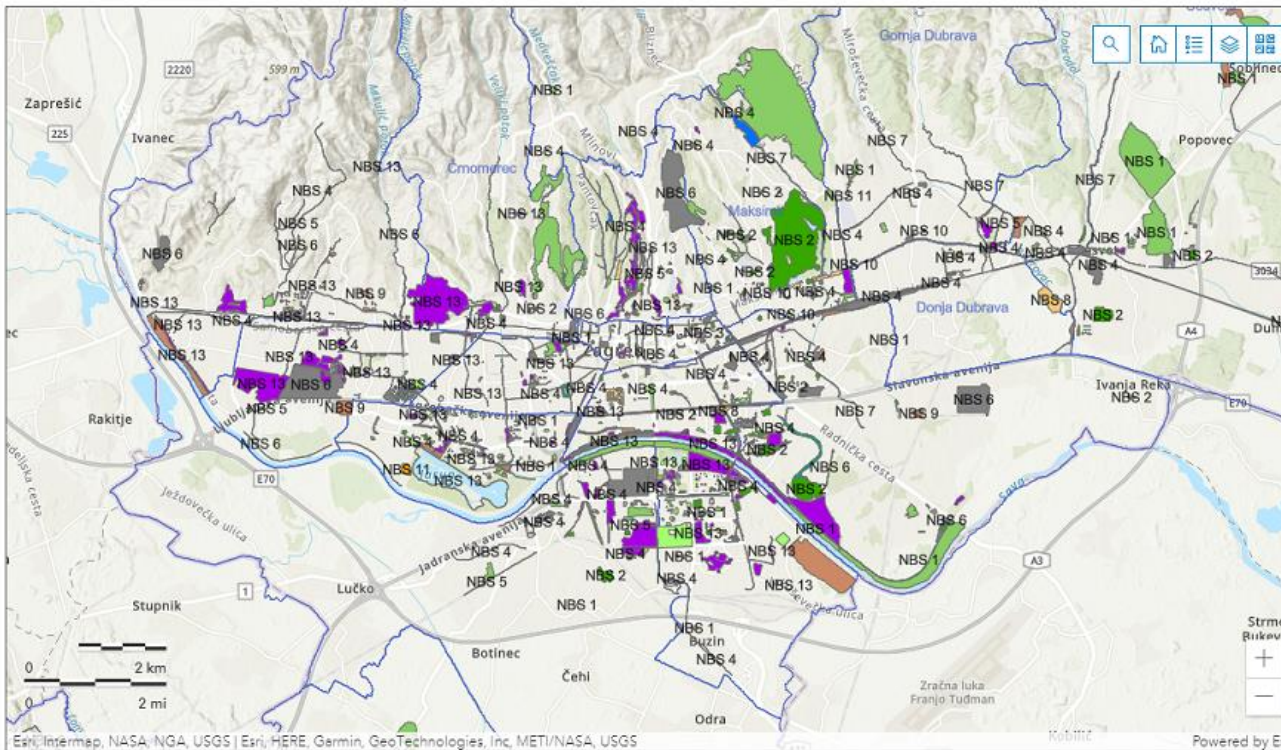
TIPOVI NBS-a
Odaberi tip NBS-a

GRADSKA ČETVRT
Odaberi gradsku četvrt

POPIS NBS LOKACIJA

-  Tržnica Dubrava - aktivirati zelenom infrastrukturom

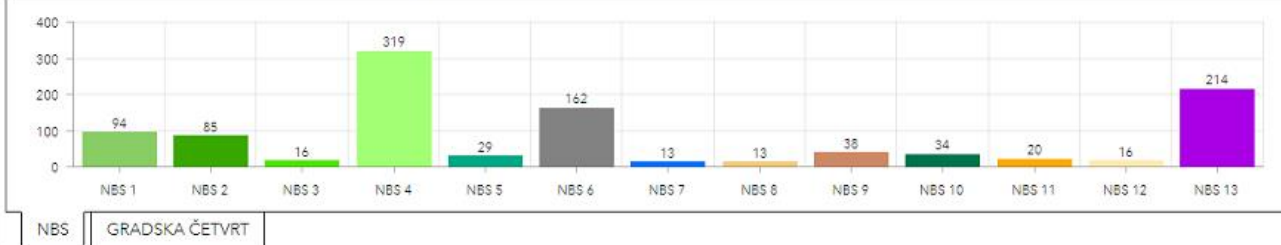
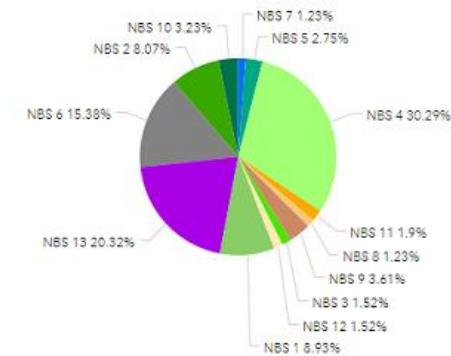
Molim Vas inicirajte sadnju drveća pored tramvajskih/autobusnih stajališta. Po ljetu kada je temperatura iznad 30 stupnjeva i kada su linije javnog prijevoza obično prorijeđene, ljudi čekaju na vrućini po dvadesetak minuta. Staklene kućice (čekaonice) služe samo za vjetar i kišu, no ne zaklanjaju od sunca.
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UKUPAN BROJ NBS LOKACIJA

1053

TIPOVI NBS LOKACIJA



Izvor:
Online anketa za predlaganje novih urbanih zelenih rješenja Gradskog ureda za gospodarstvo, ekološku održivost i strategijsko planiranje, i prijedlog Inicijative IPOSTOZAGRAD

Izradio:
Gradski ured za gospodarstvo, ekološku održivost i strategijsko planiranje
zibivanj, 2022.



NBS ACTION PLAN FOR THE CITY OF ZAGREB AREA 2023-2025

Working group for application of NBS in City of Zagreb spatial development formed in March 2022. by the City of Zagreb Mayor.

- **Affirmation of GI and NBS in cities urban plans;**
- **Selection of pilot projects;**
- **Classification of interventions for the Action Plan:**
 - L – capital investments related to NBS on the city level (new city parks, revitalisation of city creeks, remodelling of grey infrastructure areas...),
 - M – projects for city district level (neighbourhood parks, urban gardens, tree planting, green oasis, permeable pavements...),
 - S – individual public and private building projects (green walls and roofs, supporting pollinators, planting vegetation...).



THE END

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