

REGIONAL ANALYSIS ON GREEN AND BLUE INFRASTRUCTURE IN SOUTH MUNTENIA REGION, ROMANIA

WORKSHOP

9 September 2021

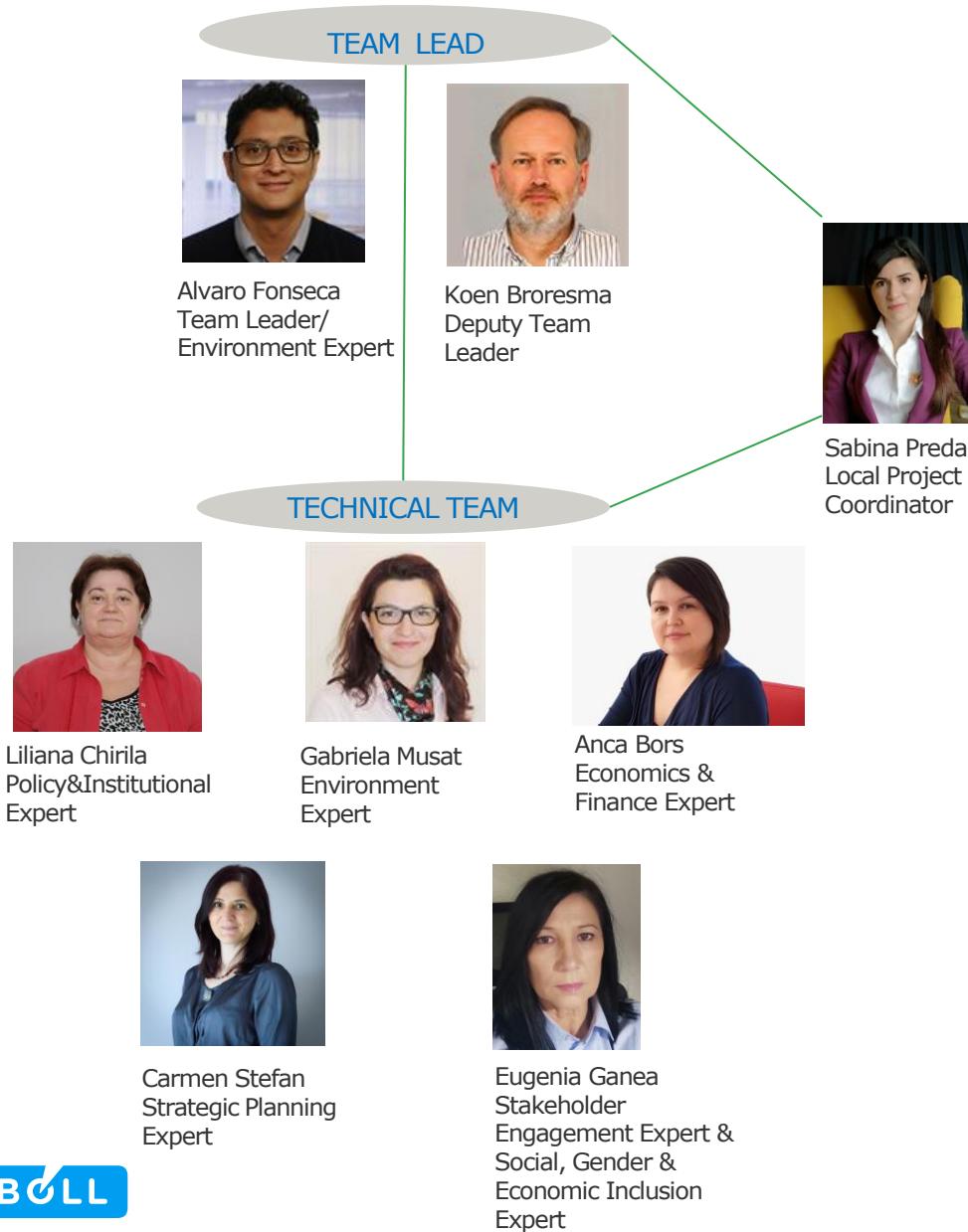


AGENDA ESTIMATED TIME: 2 HR 15 MIN.

- 01** Welcome; introduction of participants; agenda; and safety moment
- 02** Project overview; objectives and concretization of BGI
- 03** Key highlights of Inception Report - Baseline and Gaps
- 04** Breakout session: discuss environmental challenges on local scale
- 05** Return to main meeting to discuss results
- 06** Wrap-up; Next steps
- 07** Any Other Business



WELCOME AND INTRODUCTION - PROJECT TEAM



**EUROPEAN BANK FOR
RECONSTRUCTION AND
DEVELOPMENT**

**SOUTH MUNTEANIA
REGIONAL DEVELOPMENT
AGENCY**

STAKEHOLDERS

WELCOME AND INTRODUCTION

- South Muntenia Regional Development Agency – SM RDA
- European Bank for Reconstruction and Development
- Stakeholders: Municipalities, County Councils, Communes, etc



DANGERS TO AVOID WHEN SITTING AT YOUR DESK

What is it about?

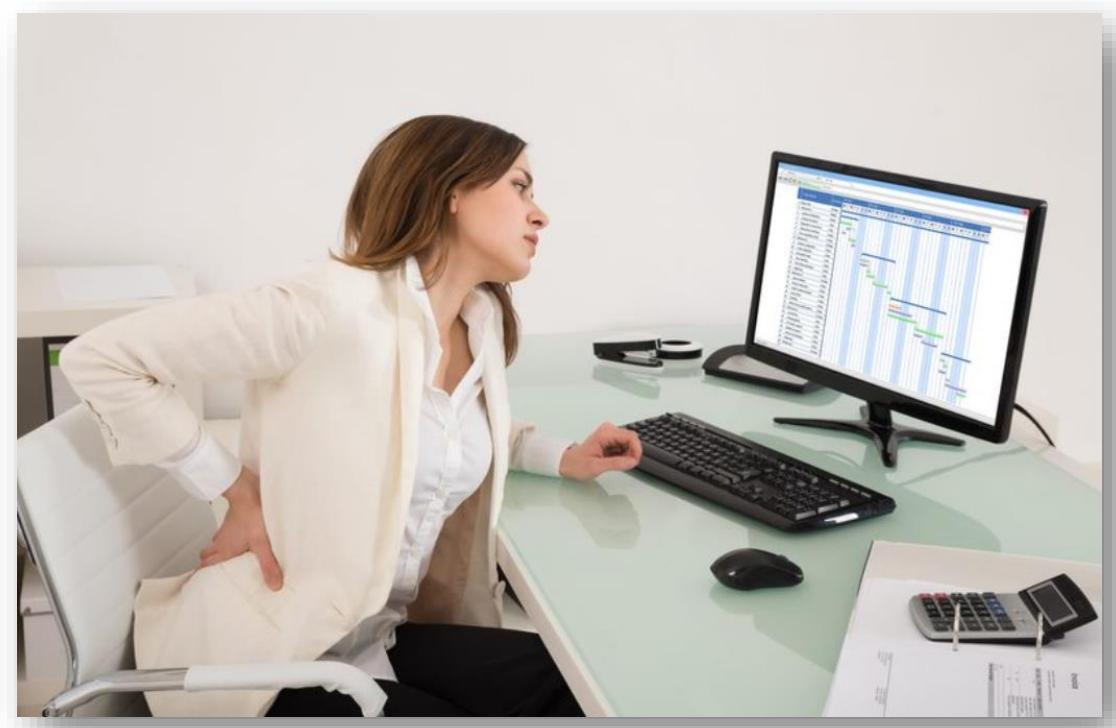
While working in front of the screen, most of us are not aware of our posture. The typical sitting positions which most people find themselves subconsciously are:

- Leaning forward with the neck towards the screen
- Crossing one's legs

These type of slouching positions can be bad for your back health and posture, especially when sitting like this for a long time.

What I can do?

- Get to know what a good sitting posture looks like and learn how to self-correct your posture.*
- Pay attention to how often you are standing and moving around at your work space.
- Take movement breaks throughout the day.





Mentimeter

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Type the digit code: **31299108**

Answer question no. 1

DICAIURUN CARIOF, CUM THAR PLACE ASAFI GATTI

If you were a potato, what way would you like to be cooked?

Press S to show image



Mentimeter

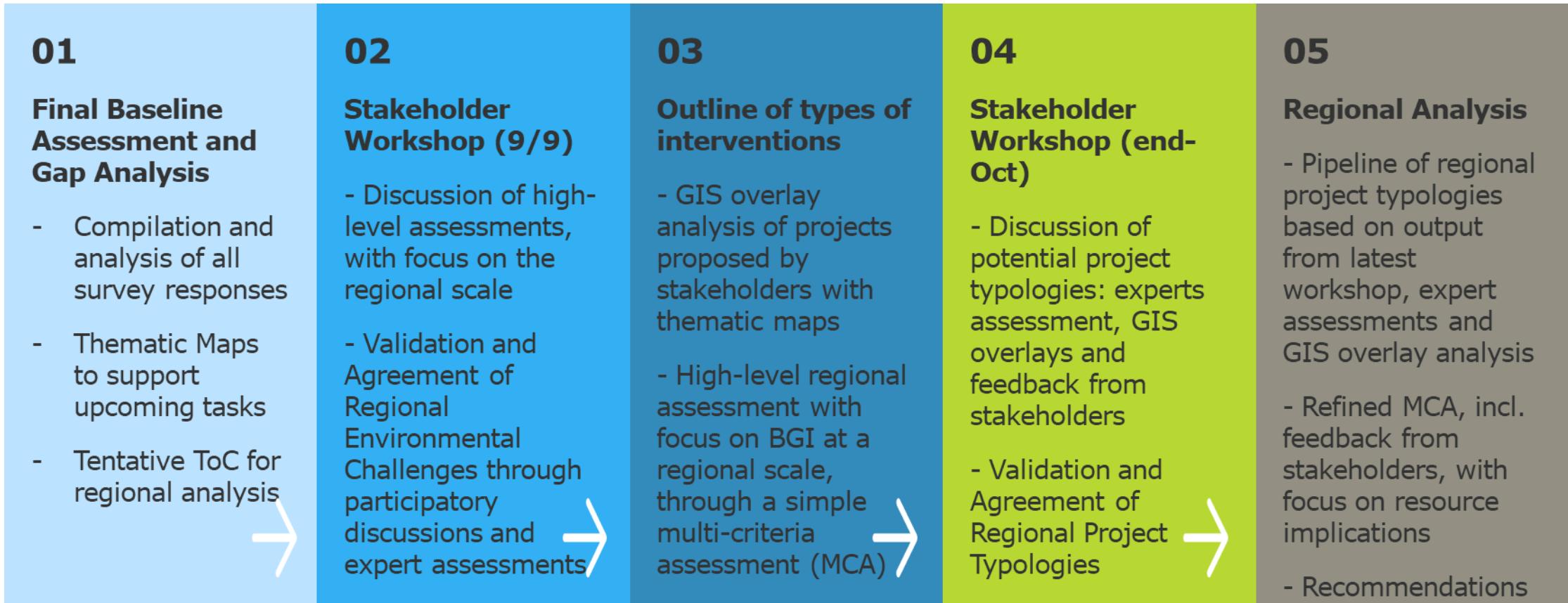
PROJECT OBJECTIVES

- *Regional analysis focusing on Green and Blue Infrastructure*
- Guide the SM RDA and the cities/counties to take a *broader strategic view of environmental challenges*

The result should

- Provide input to optimising the allocation of cities' and region's financial and personnel capacity to those *issues with the greatest environmental benefits.*
- Enhance the possibilities to *attract co-finance and support* when it is clear *how a specific project fits into the broader priorities* and road map for environmental improvement in a city and the region.

PROJECT APPROACH



PROJECT APPROACH: STAKEHOLDER ENGAGEMENT

Identifying environmental challenges in the region



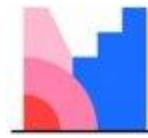
Inform further decisions and pipeline for regional projects

STAKEHOLDERS	CATEGORY AREA OF INTEREST / ROLE
County councils and the cities, representatives of cities and communes	Primary i. Members of the working group; ii. Provide inputs to identifying environmental challenges iii. Beneficiaries of future investments
Relevant governmental agencies (ex. the Agency for Environmental Protection or General Inspectorate for Emergency Situations under the Ministry of Interiors)	Secondary I. Provide inputs to identifying Environmental challenges; II. Other types of support
Relevant NGOs (ex. representing environmental protection, or stakeholders such as youth, women or other categories of populations)	Other I. Provide inputs to identifying Environmental challenges; II. Users of the future BGI infrastructure

ROP SUD - MUNTENIA 2021 – 2027

PRIORITY 2. A REGION WITH ENVIRONMENTALLY FRIENDLY CITIES

Specific Objective	Indicative Actions
b(vii) Intensify the actions to protect and conserve nature, biodiversity and green infrastructure, including in urban areas, and reduce all forms of pollution	<ul style="list-style-type: none">➤ Investments in green-blue infrastructure will target works, services and facilities for:<ul style="list-style-type: none">- Public parks and gardens, urban forests, botanical gardens;- Permeable Green spaces, fences, green roofs and walls;- Urban natural and semi-natural green spaces - arrangement of poorly used or abandoned lands, forests, bushes, meadows, wetlands (swamps), lakes and rivers / streams, rocky areas, etc.- Green corridors - rivers and canals, including their banks, street alignments with grass, trees and flowers, ecoducts, green pedestrian crossings, green spaces along: roads, railway corridors, tram lines, cycling routes, pedestrian paths, etc.➤ Bringing the land to its initial state in order to restore the ecosystem and creation, modernization and extension of existing green spaces;➤ Arranging the natural tourist objectives of public utility as well as the creation / modernization of the related infrastructures of public utility, including the facilities / berthing infrastructure for river tourist ships;➤ Strengthening the capacity of the Managing Authority, project developers and public authorities and institutions in the field of planning and development of green-blue infrastructure➤ Preparation of Plans for green-blue infrastructure



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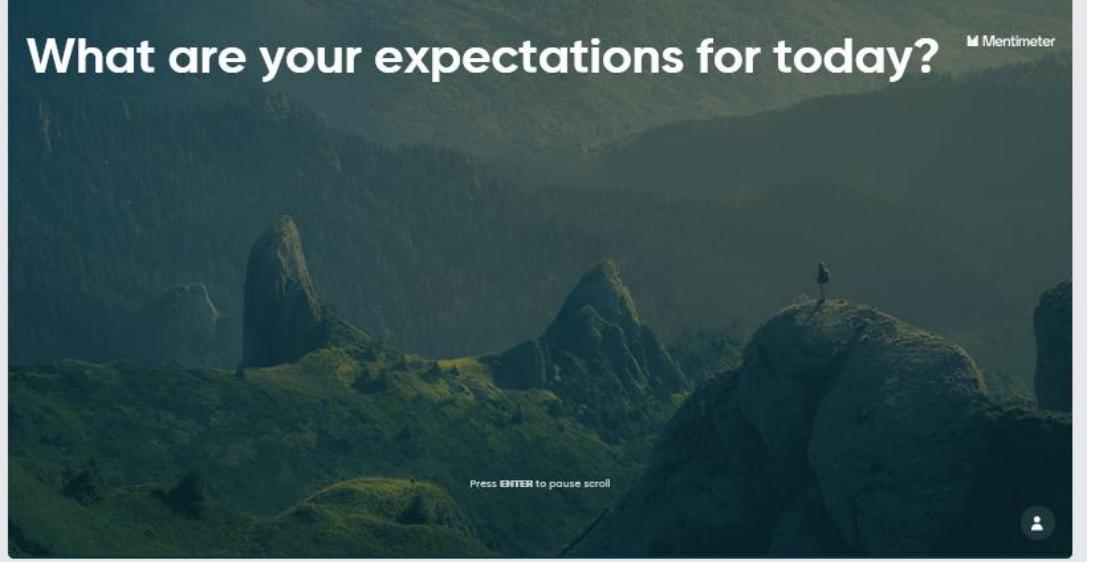
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Answer question no. 2 & 3

What are your expectations for today?

What words do you associate with BGI?

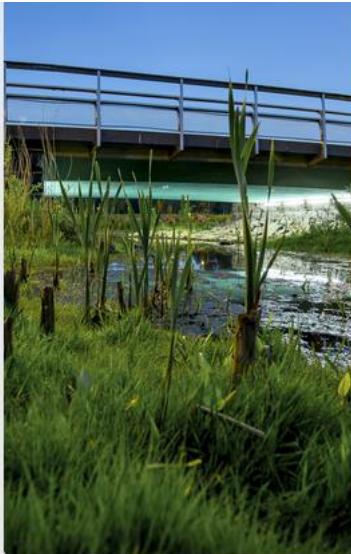
What are your expectations for today? Mentimeter



Press ⏎ to pause scroll

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What words do you associate with Blue-Green Infrastructure? Mentimeter



Press ⏎ to show image

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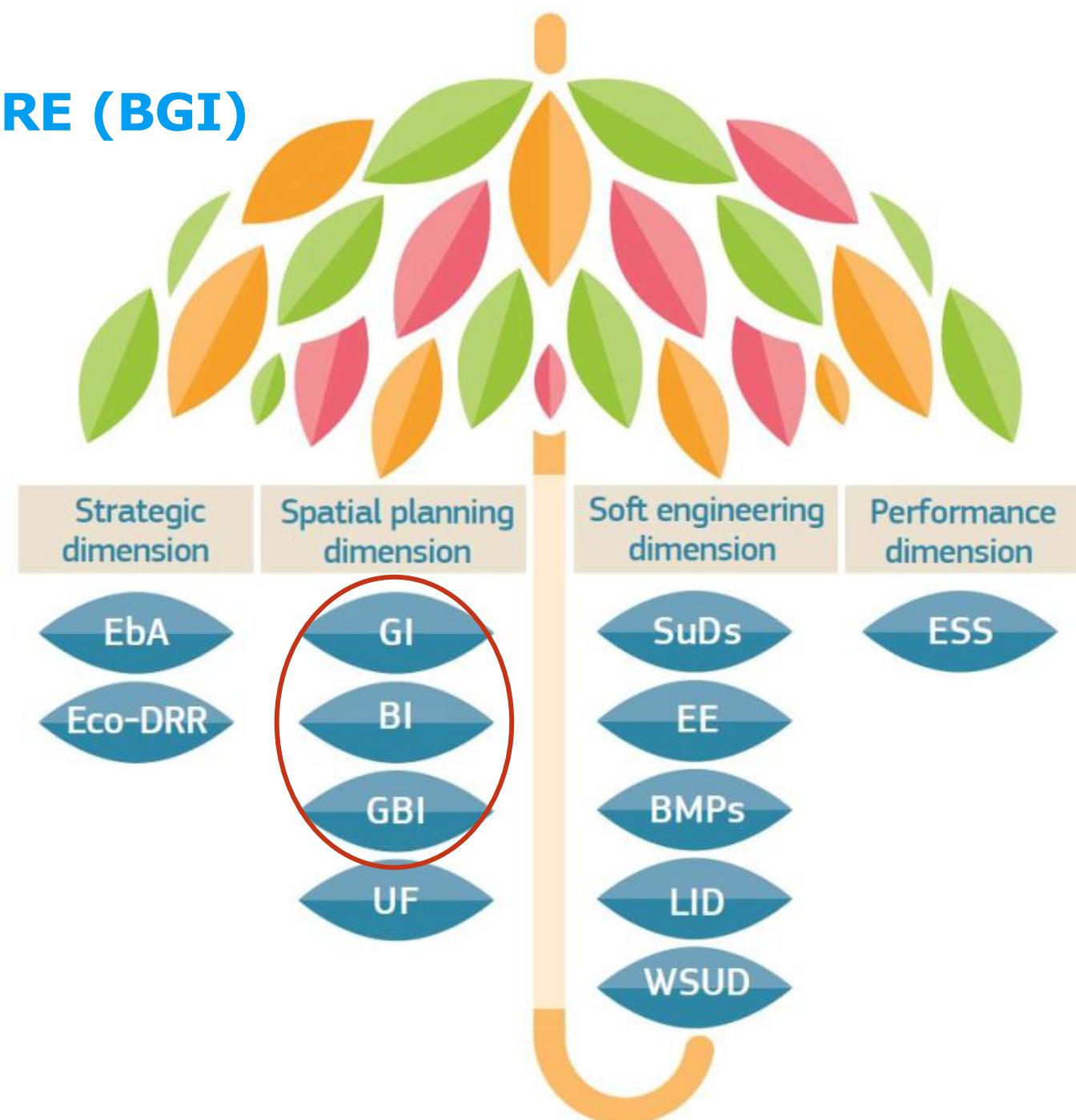
WHAT IS THE PURPOSE TODAY?

WORKSHOP EXPECTATIONS – WHAT WE WANT TO ACHIEVE

- 1. To create a **common understanding** of this project's scope, objectives and main tasks
- 2. To **obtain feedback** from participants on the key highlights from Baseline Assessment
- 3. To **discuss the main gaps** identified in this Task and to commonly identify ways to deal with them
- 4. To **align expectation** as to upcoming tasks and activities

BLUE-GREEN INFRASTRUCTURE (BGI)

- Part of the currently dominating paradigm of Nature-based Solutions (NbS)
- New ways to approach socio-ecological adaptation and resilience, with **equal reliance upon social, environmental and economic domains**
- NbS has been adopted by the European Commission as **the north to follow, the pathway, towards sustainable and resilient communities**



CLIMATE RESILIENCE AND WATER MANAGEMENT WITHIN THE EU



Floods directive

- ✓ Legal requirement to co-ordinate the implementation of the Floods Directive and the Water Framework Directive

Consider the introduction of **Nature-based solutions** that can be **cost-effective** in reducing damages caused by floods while being **beneficial** to the wider environment.



Re-meandering



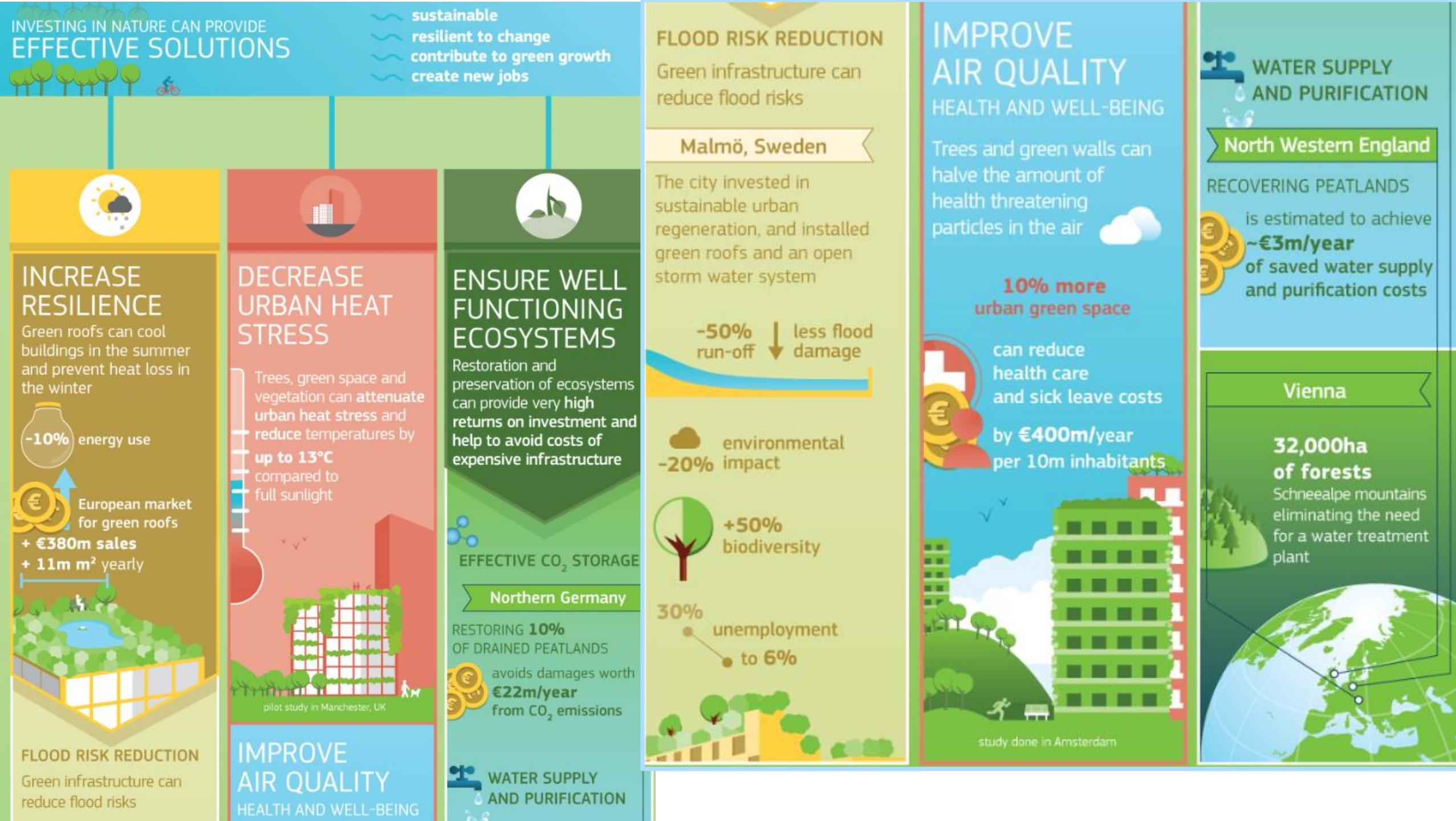
Wetland restoration

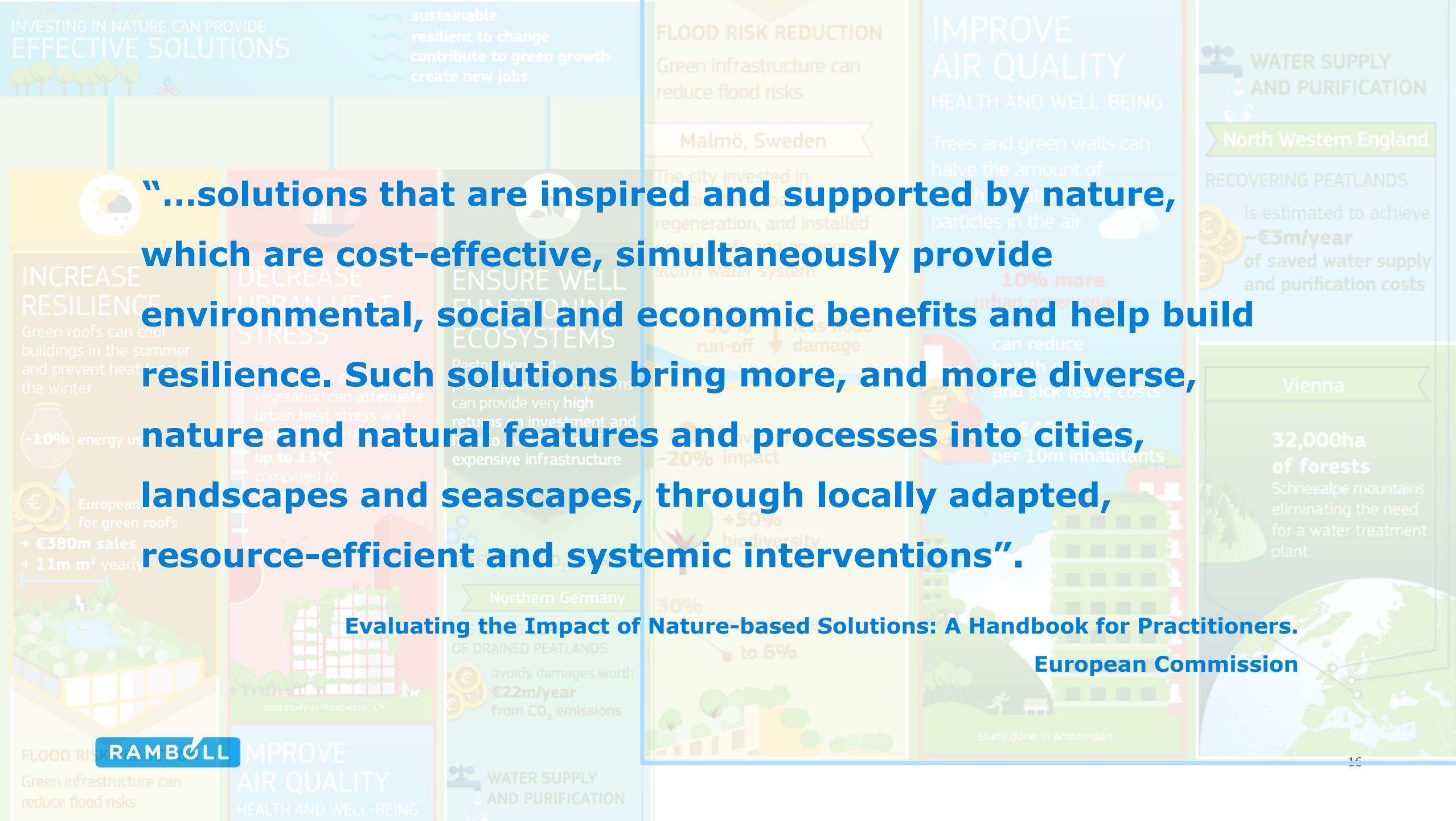


Floodplain restoration



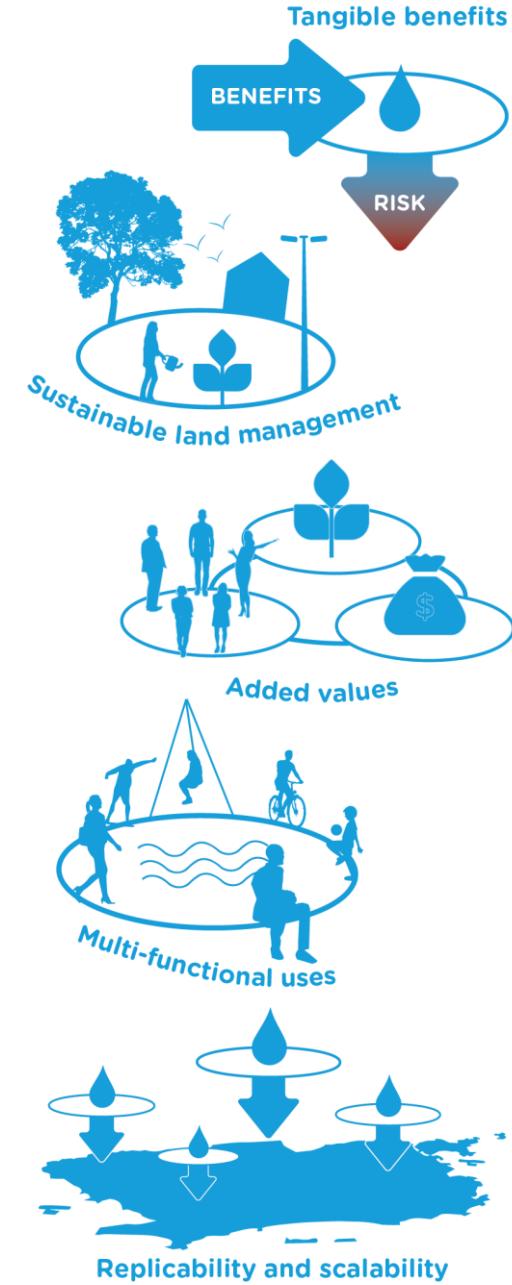
*Choosing the correct measures for flood prevention and protection will **support** the achievement of the WFD objectives*





BLUE-GREEN INFRASTRUCTURE (BGI)

*Blue-Green infrastructure (BGI) offers a **feasible and valuable solution** for urban areas facing the challenges of climate change. It complements, and in some cases replaces, the need for grey infrastructure. BGI connects **urban hydrological functions (blue infrastructure)** with **vegetation systems (green infrastructure)** in urban landscape design. It **provides overall socioeconomic benefits that are greater than the sum of its individual components***



BLUE-GREEN INFRASTRUCTURE (BGI)

- Increase the recreational area and create more quality of life for city dwellers
- Help make city dwellers more healthy
- Create synergy with business development
- Designing for the 99% of the time when flood protection is not needed.
- **The worst case scenario is that we get a more liveable city that is attractive to citizens and business.**





DRY



WET

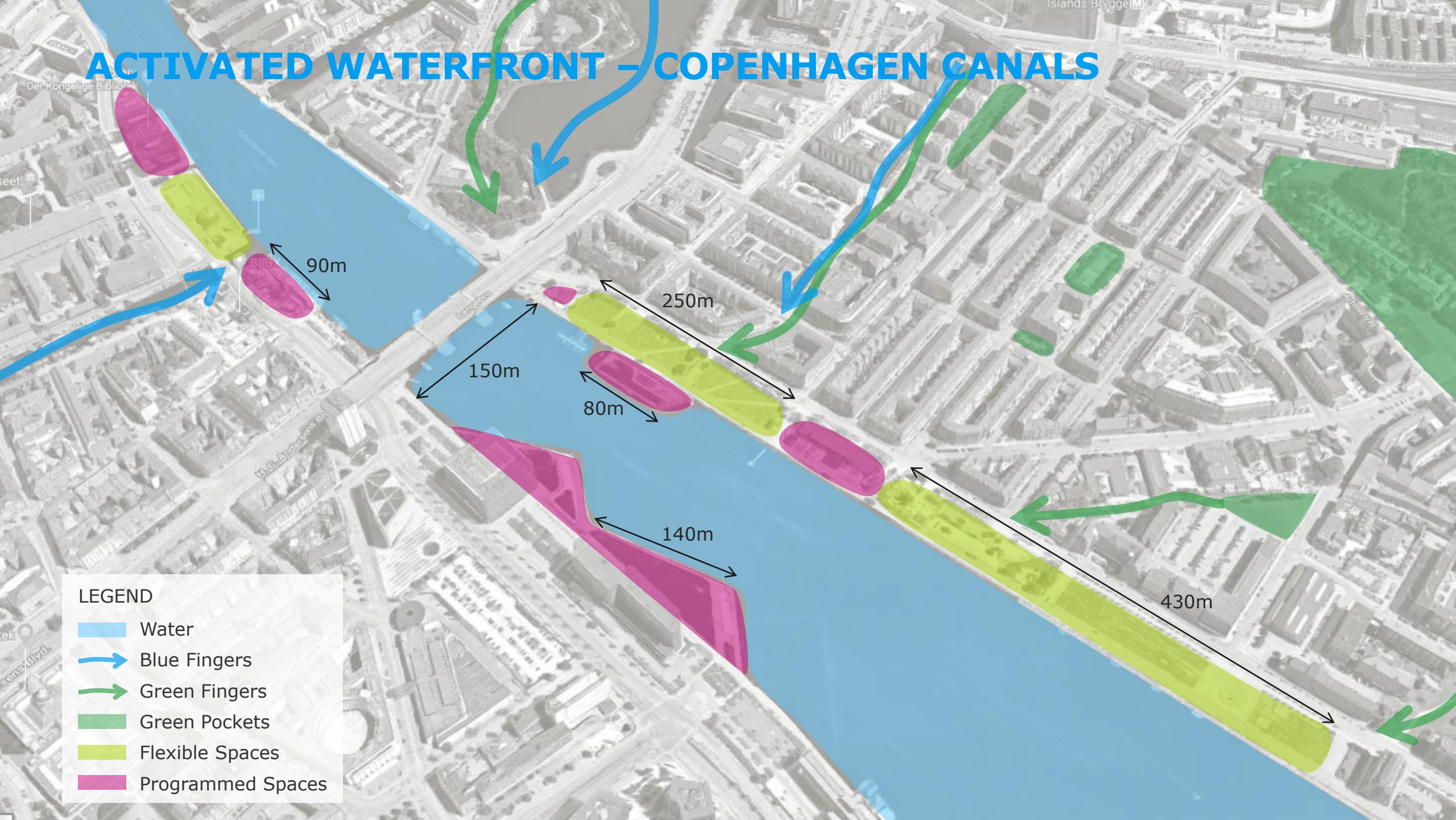


DRY



WET

ACTIVATED WATERFRONT – COPENHAGEN CANALS



ACTIVATED WATERFRONT – ACTIVITIES IN WATER



Boat Rental



Harbour Swimming



Kayak Rental



Kayak Polo



Paddle Boat Rental



ACTIVATED WATERFRONT – ACTIVITIES IN THE INTERFACE



ACTIVATED WATERFRONT – ACTIVITIES ON LAND



ACTIVATED WATERFRONT – AMENITIES (ACTIVE GROUND FLOOR)



BGI APPLICATION: URBAN FARMING

- Activating spaces through urban farming
- Integration with existing and new buildings
- Rainwater harvesting to be utilized in vertical and rooftop farming
- Raingardens, bio-ponds and cleansing facilities can be integrated as blue-green infrastructure
- Social benefits of community spaces created



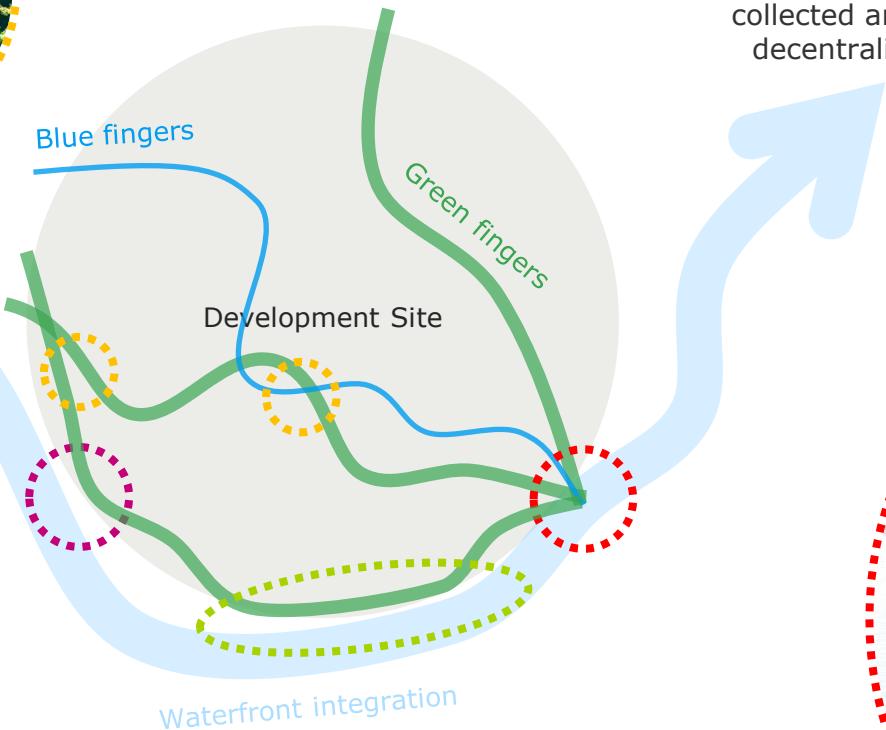
ACTIVATING SPACES THROUGH URBAN FARMING



Urban farming adjacent to a waterbody that is fed from urban runoff



Waterfront living with blue-green infrastructure at your doorstep



Blue-green integration allows urban runoff from site to be cleansed through WSUD tools, collected and enjoyed in decentralized locations



Integrated natural swimming pool as part of an activated waterfront

BLUE-GREEN INFRASTRUCTURE (BGI) SOCIO-ECONOMIC VALUES

BENEFITS	AVOIDED COSTS			CREATED VALUES	
	ECONOMIC RISKS	SOCIAL	ENVIRONMENTAL	SOCIAL	ENVIRONMENTAL
Physical damages	Injuries		Improved water quality control	Health benefits	Pollutant removal
Output loss	Mental stress and anxiety			Recreational value	Carbon sequestration
				Aesthetic value	

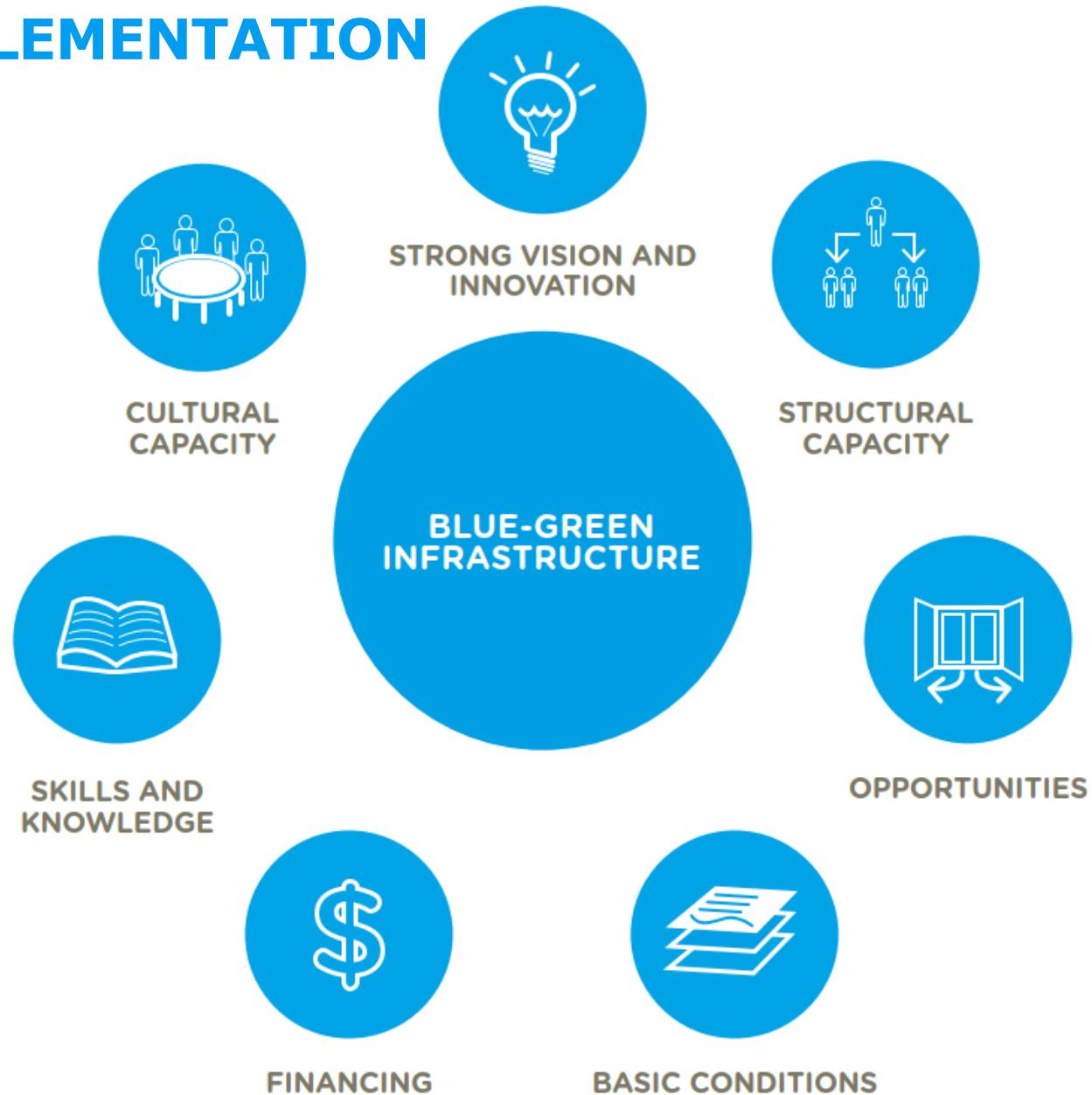
BLUE-GREEN INFRASTRUCTURE (BGI)

THE BUSINESS CASE AS THE KEY TO DECISION-MAKING



KEY CONDITIONS FOR BGI IMPLEMENTATION

1. Political entrepreneurship with grassroots support at local level
2. Integrated Approach
3. Risk Aversion and Risk-taking
4. Land Availability and Ownership
5. Know-how and Expertise
6. Governance: Institutional and Political Support
7. Business Case: Economics and Funding
8. Taxes, Fees and Honoraria



BLUE-GREEN INFRASTRUCTURE (BGI)

Important components of BGI to consider are:

- a strategically planned (interconnected) network;
- biodiversity-rich natural and semi-natural areas with other environmental features, including water bodies and green & open space; and
- designed and managed to deliver a wide range of ecosystem services*.

In this (EBRD) framework they should fulfil the following cumulative criteria:

- Conservation and/or enhancement of multiple ecosystems services at a significant scale;
- Contribution to the goals of the Nature Directives;
- Strategic approach with an EU-level impact.

BLUE-GREEN INFRASTRUCTURE (BGI)



RAMBOLL

BLUE-GREEN INFRASTRUCTURE (BGI)



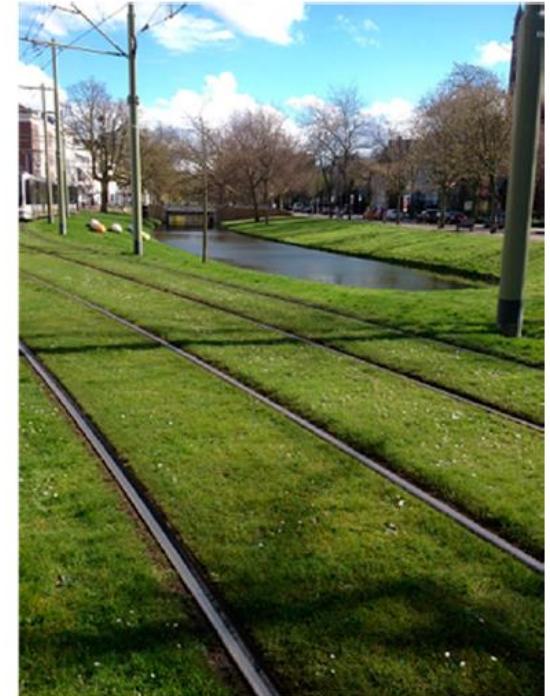
(a) Newcastle, UK



(b) Ningbo, China



(c) Portland, USA



(d) Rotterdam, Netherlands

BLUE-GREEN INFRASTRUCTURE (BGI)

Bucharest's Lost River

Bringing the People
to the Water



BASELINE ASSESSMENT

CHARACTERISATION OF SOUTH MUNTENIA REGION

Due to its geographical position, the South Muntenia region presents a series of specific conditions that influence its development relevant for this assessment

1. *Proximity to Bucharest* - which prevented the establishment of other cities around it as poles of attraction and absorbed most of the development resources from the neighbouring territories, which led to the phenomenon of hypertrophy of the urban network in the South Muntenia region;
2. *Brașov-Ploiești-Bucharest-Giurgiu development axis* which crosses the region from north to south - is the main development corridor of Romania, concentrating about 30% of the country's urban population and a large part of industrial activity;
3. *Prahova Valley conurbation* - a linear agglomeration of cities of similar size (small) - Azuga, Busteni, Sinaia, Comarnic, Breaza - with a similar economic profile, dominated by the tourism sector, common development needs and challenges: reduced accessibility (lack of a highway), deficient tourist infrastructure, insufficient promotion of the tourist potential, uncontrolled expansion of residential (secondary) areas, demographic aging, integrated management of protected areas, public transport, etc.

BASELINE ASSESSMENT

SUMMARY OF CURRENT ENVIRONMENTAL CONDITIONS

Air quality issues

- In the northern part of the region due to the oil industry, the machine building industry, the construction materials industry and the metallurgical industry
- In the south of the region due to agricultural activities (intensive breeding of birds and pigs and the use of chemical fertilizers on agricultural land) and activities of the chemical industry, mineral industry and food industry.

Water quality issues

- Water quality is affected by the lack of sewerage networks and inappropriate water treatment

BASELINE ASSESSMENT

SUMMARY OF CURRENT ENVIRONMENTAL CONDITIONS

Soil and land degradation – loss of biodiversity

- In the western counties there are several localities with risks of landslides, especially in rural areas
- The critical areas in terms of soil quality are located in: Argeș, Dambovita, Prahova
- The main cause of biodiversity loss is land conversion.
- Other threats are related to infrastructure development, expansion, and development of human settlements, hydrotechnical works, invasive species, climate change, pollution, and overexploitation of natural resources
- Green space is below the European standard (26 sqm / inhabitant)

BASELINE ASSESSMENT

SUMMARY OF CURRENT ENVIRONMENTAL CONDITIONS

Main types of natural hazards that occur in the South Muntenia region¹

- Prolonged droughts with effects on agriculture,
- General trend of increasing temperatures with an impact on the winter tourist season,
- Increasing frequency of torrential rains with flash flooding,
- Land degradation with soil erosion, pollution and landslides.

At the level of the South Muntenia region, the counties most exposed to natural hazards are Prahova and Argeș.

¹ REGIONAL DEVELOPMENT PLAN 2021 - 2027

KEY HIGHLIGHTS

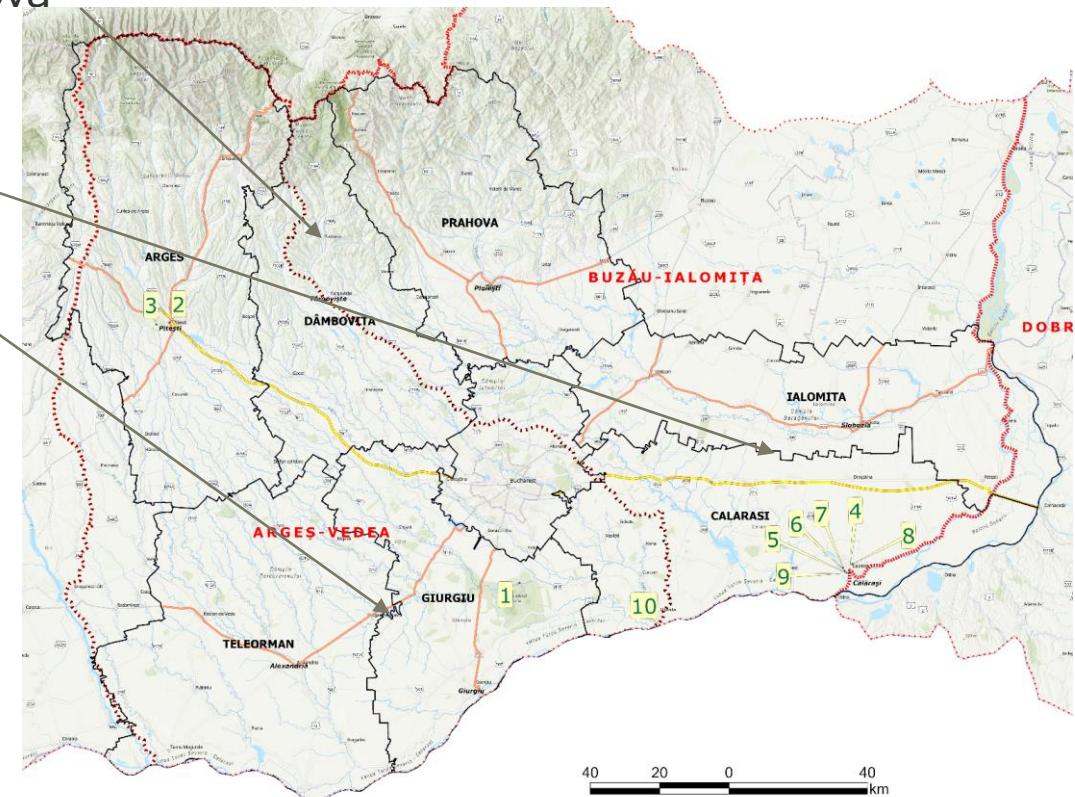
QUESTIONNAIRE ON ENVIRONMENTAL & SOCIAL CHALLENGES

- 17 Respondent processed up to now
- Divided into 3 groups:
 1. Northern mountains (7) - Arges, Dambovita and Prahova
 2. Eastern plains (5) - Calarasi, Ialomita
 3. Southern plains (5) - Teleorman and Giurgiu

The Region's area is occupied by

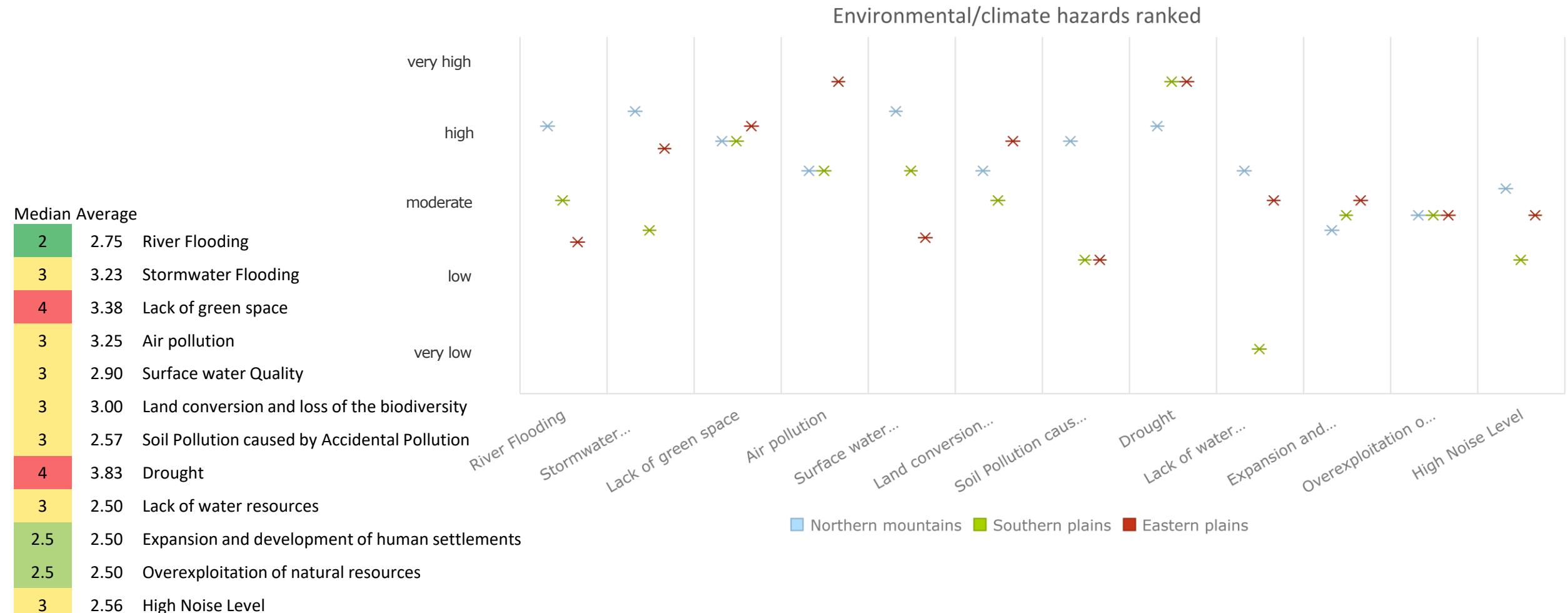
Plains and meadows: 70.7%,

Hills (19.8%) and mountains (9.5%): 29.3%



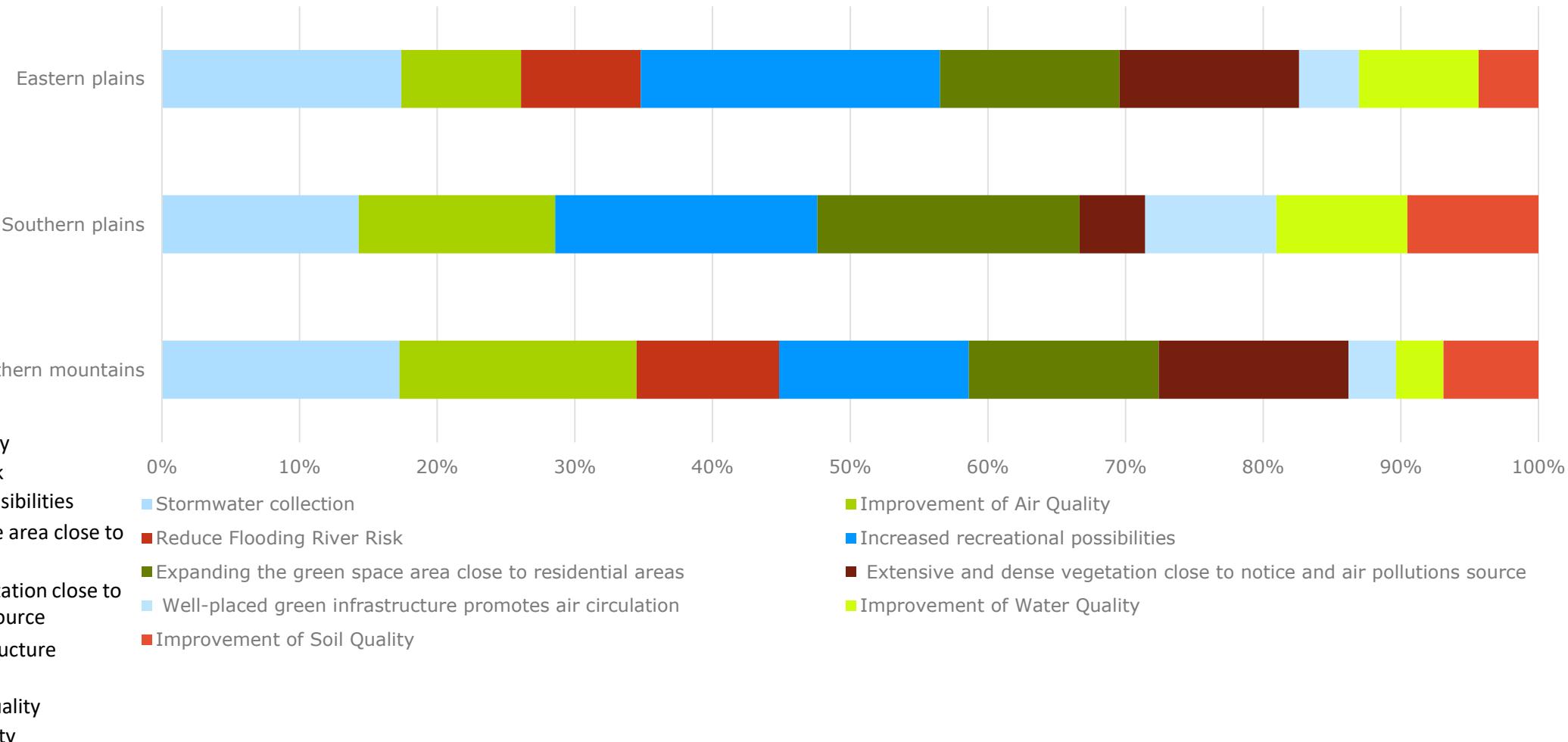
KEY HIGHLIGHTS

ENVIRONMENTAL/CLIMATE HAZARDS RANKED



KEY HIGHLIGHTS

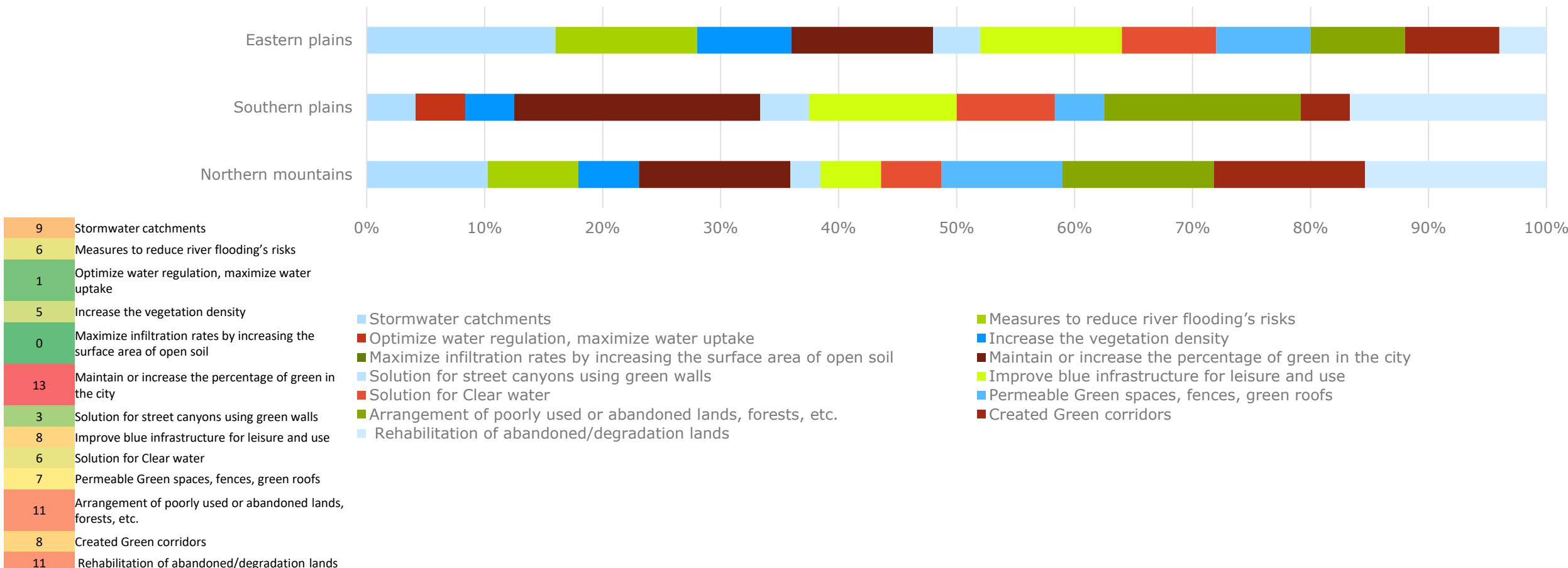
MOST IMPORTANT IMPROVING THE URBAN ENVIRONMENT



KEY HIGHLIGHTS

MOST IMPORTANT MEASURES

Most important measures to achieve green cities and reduce the emissions of greenhouse gases

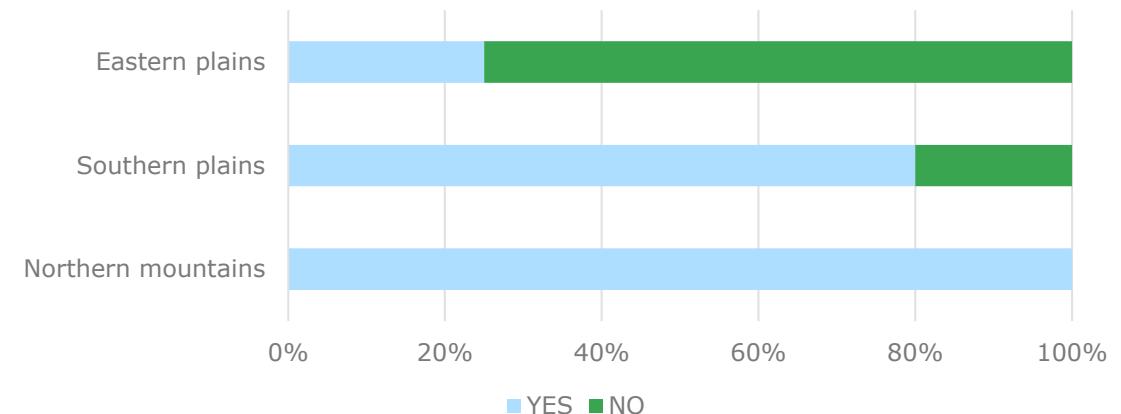


KEY HIGHLIGHTS

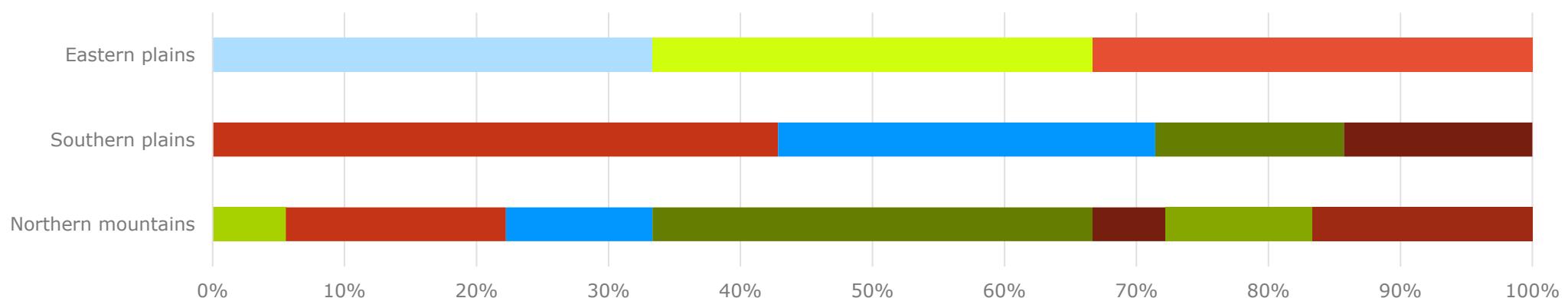
ONGOING PROJECTS

1	River Flooding
1	Stormwater Flooding
6	Lack of green space
4	Land conversion and loss of the biodiversity
7	Air pollution
2	Surface water Quality
0	Soil Pollution caused by Accidental Pollution
1	Drought
1	Lack of water resources
0	Expansion and development of human settlements
2	Overexploitation of natural resources
3	Noise Level

Do you know if there are ongoing projects in your city/county for environmental protection projects?



Environmental challenges current plans help in solving

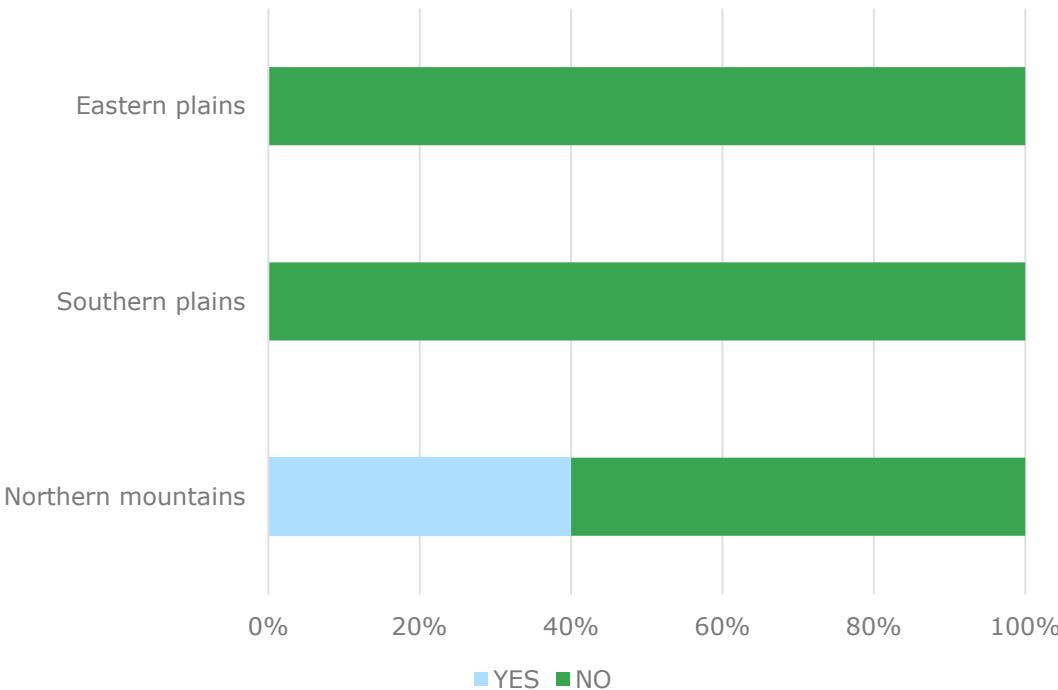


- River Flooding
- Stormwater Flooding
- Lack of green space
- Land conversion and loss of the biodiversity
- Surface water Quality
- Drought
- Expansion and development of human settlements
- Overexploitation of natural resources
- Noise Level

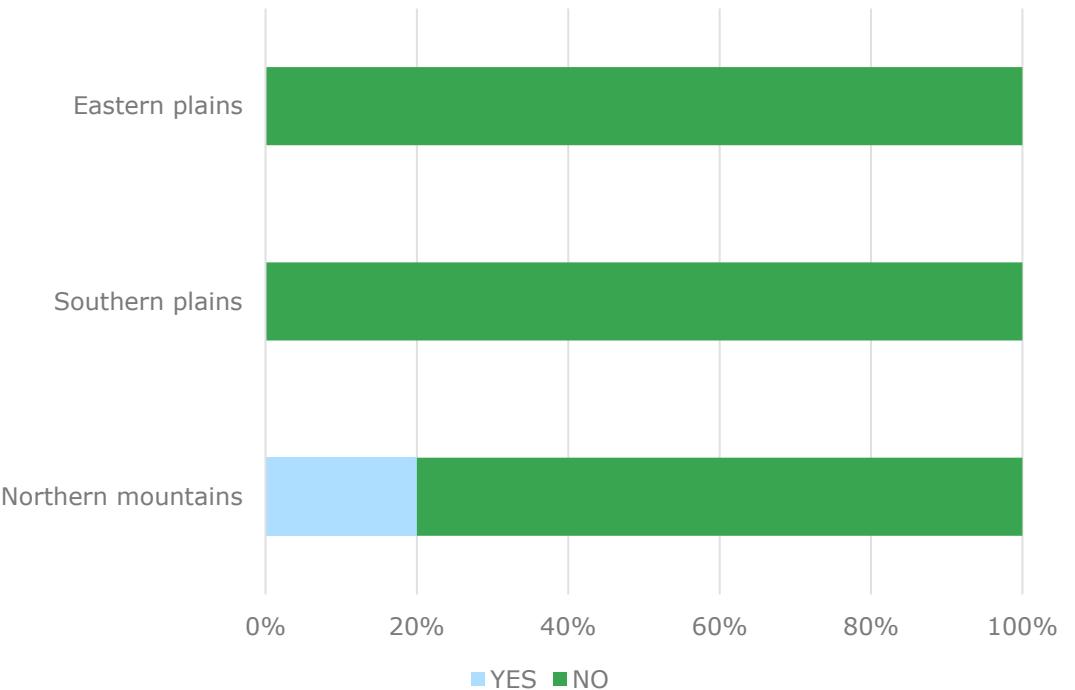
KEY HIGHLIGHTS

WATER SCARCITY & POLLUTION

Are you facing water scarcity or water pollution?



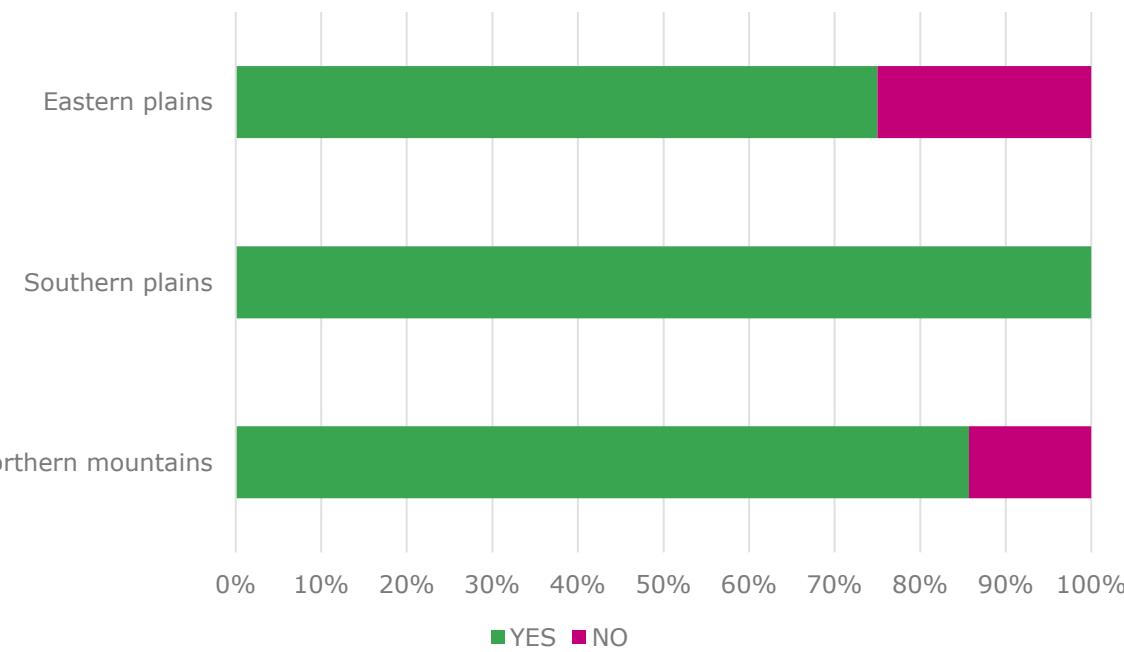
Is this leading to challenges in ensuring a safe drinking water supply?



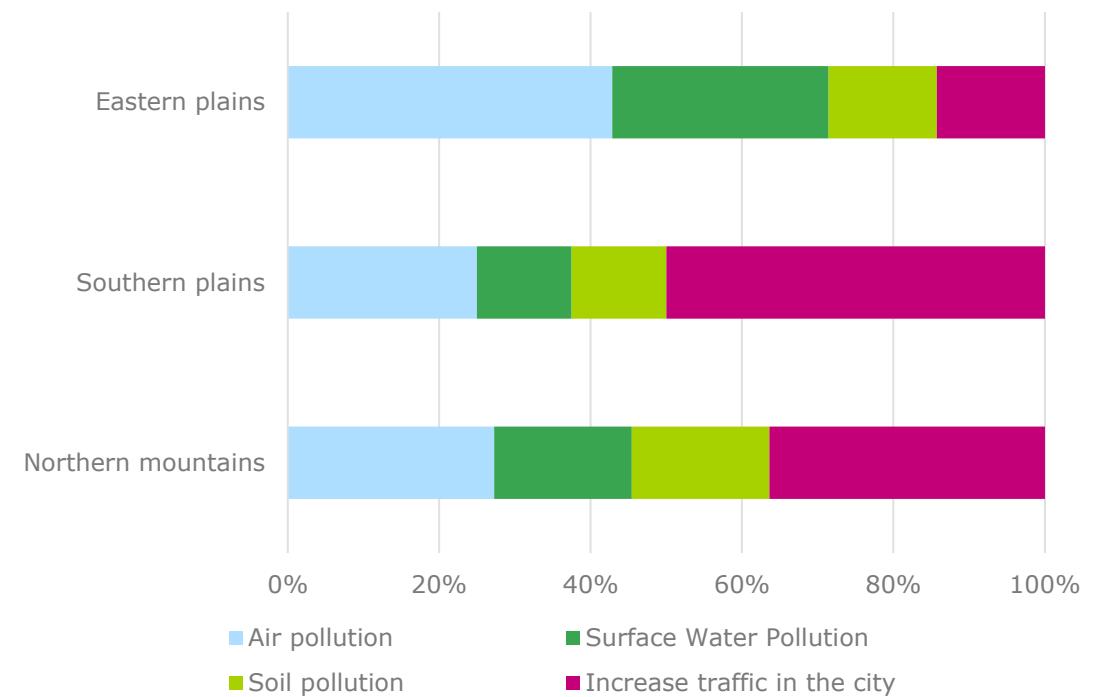
KEY HIGHLIGHTS

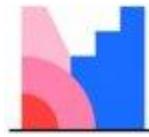
CROSS COUNTY ENVIRONMENTAL ISSUES

Are there environmental issues caused by activities carried out in neighboring cities / counties?



Cross county environmental issues





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Answer question no. 4

Please provide feedback and comments to our survey findings

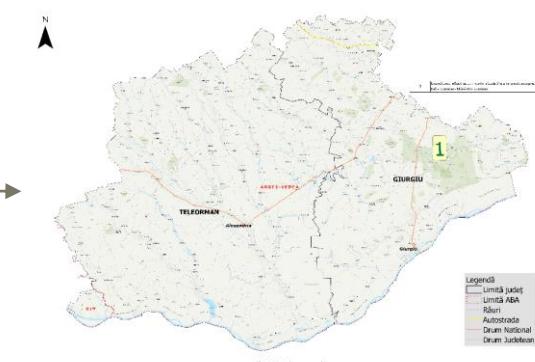
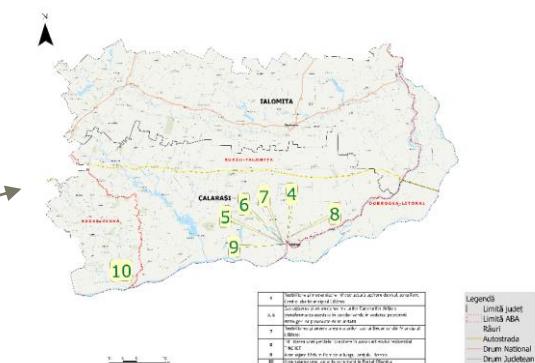
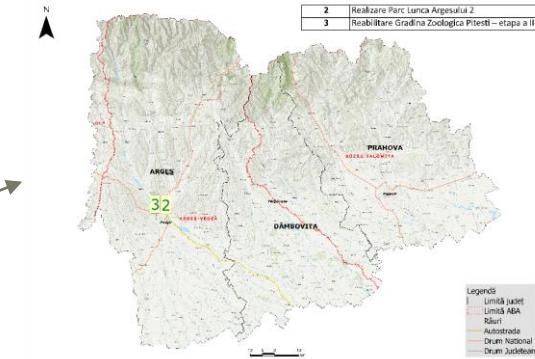
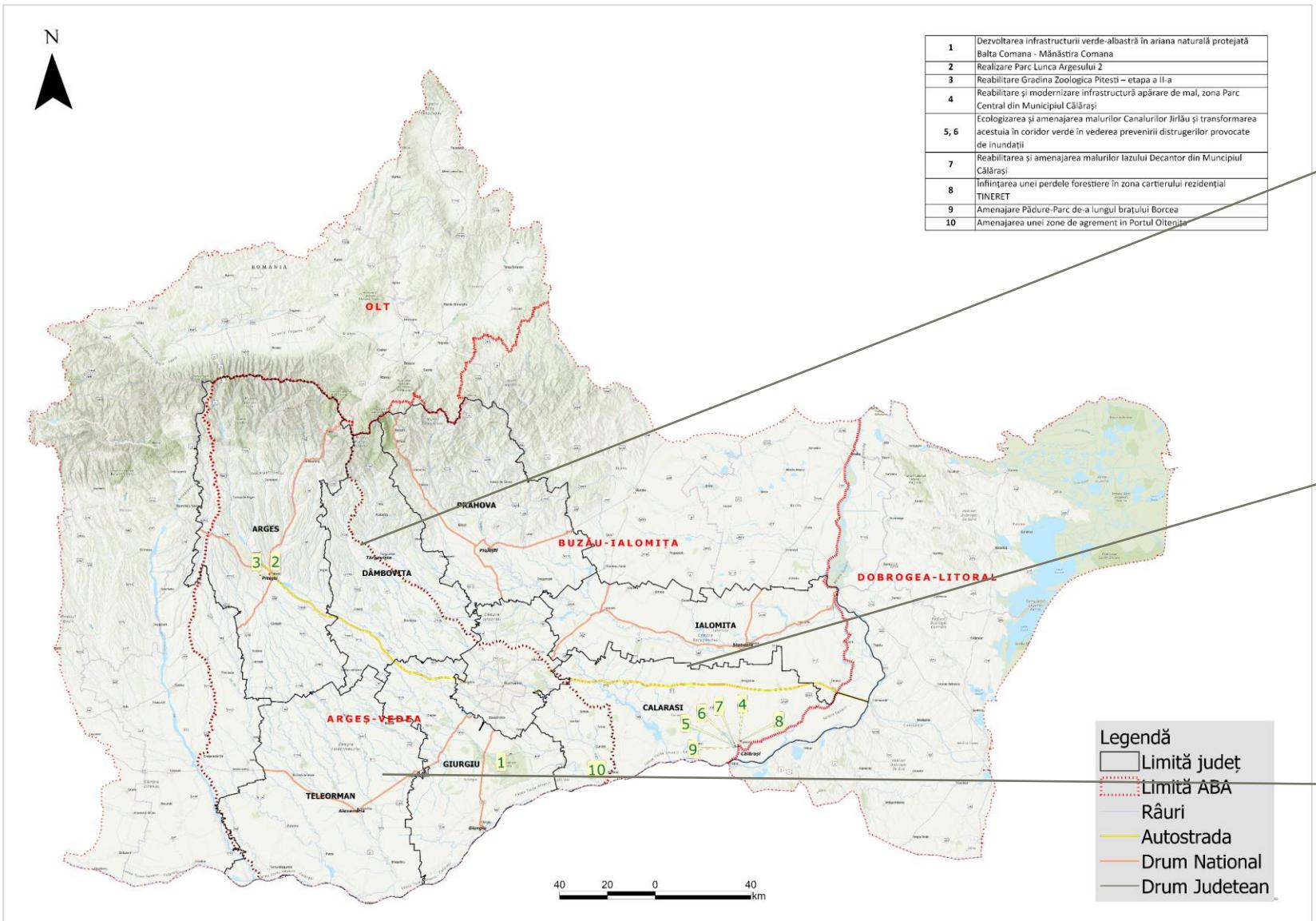
Mentimeter



Please provide feedback and comments to our survey findings.

[Confirmation of survey answers. Any outliers we have identified, which should be discussed.
Did we miss something?]

BREAKOUT ROOMS – INTRODUCTION TO THE EXERCISE



QUESTIONS FOR THE BREAKOUT ROOM

- Challenges
 - What environmental issue should be the main focus?
 - What other issues (economic, social) should be addressed?
 - Where on the map are these most pressing?
 - What are main barriers for implementing BGI?
- Opportunities
 - Where could “biodiversity-rich natural and semi-natural areas, including water bodies and green & open space” be developed to address these challenges?
 - What ecosystem services (such as food and water, regulation of floods, soil erosion and disease outbreaks, and non-material benefits such as recreational and spiritual benefits in natural areas) can be associated?
 - Can they be part of a planned (interconnected) network?
 - What other economic and social benefits can be generated?

BREAKOUT ROOMS

- Breakout room 1: northern counties (Arges, Dambovita and Prahova)

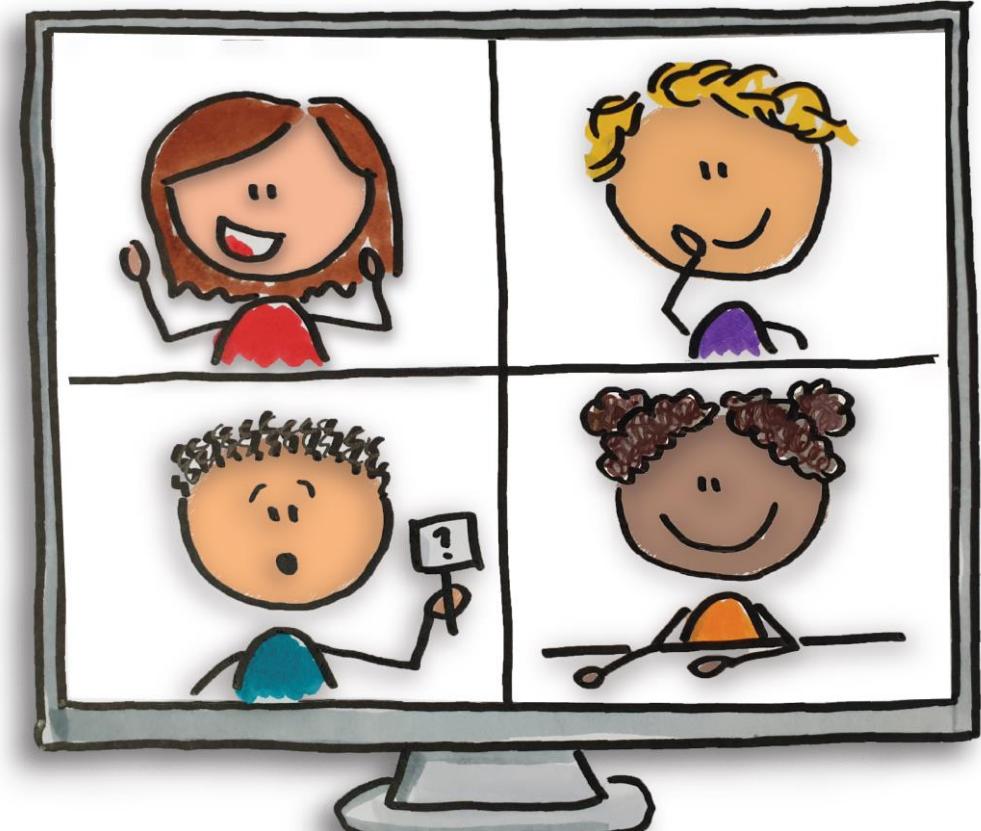
Moderator: Sabina

- Breakout room 2: eastern counties (Calarasi, Ialomita)

Moderator: Eugenia

- Breakout room 3: southern counties (Teleorman and Giurgiu)

Moderator: Carmen



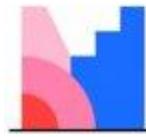
BREAKOUT ROOMS

Room nr.	Stakeholders	EBRD	SM RDA	Ramboll
1. Northern counties (Arges, Dambovita and Prahova)	County Councils: Arges, Dambovita, Prahova County Capitals: Pitesti Cities and Communes: Azuga, Albesti, Paleologu, Topoloveni Territorial Services: Arges, Dambovita, Prahova	Dana Ionescu	Luminita Zezeanu	Sabina Preda; Koen Broersma
2. Eastern counties (Calarasi, Ialomita)	County Councils: Calarasi, Ialomita County Capitals: Calarasi, Slobozia Cities and Communes: Amara National Agency for Protected Natural Area: ANANP Territorial Services: Calarasi, Ialomita	Patrick Carter	Gilda Niculescu	Eugenia Ganea; Alvaro Fonseca; Andreea Florea
3. Southern counties (Teleorman and Giurgiu)	County Councils: Teleorman, Giurgiu County Capitals: Giurgiu, Alexandria Cities and Communes: Bolintin Vale, Zimnicea Environmental protection agencies: APM Teleorman Territorial Services: Giurgiu, Teleorman	David Tyler	Nicoleta Topirceanu Madalina Gurianu	Carmen Stefan; Constantinescu Teodor

BREAKOUT ROOM 1: NORTHERN COUNTIES (ARGES, DAMBOVITA AND PRAHOVA)

BREAKOUT ROOM 2: EASTERN COUNTIES (CALARASI, IALOMITA)

BREAKOUT ROOM 3: SOUTHERN COUNTIES (TELEORMAN AND GIURGIU)



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Answer question no. 5 & 6

Rate on a scale from 1-5

- My expectations from the start of the WS were met
- I have a clear understanding of the environmental challenges in the region
- I have a clear understanding of what BGI is
- I have a clear understanding of the type of BGI projects that can be applied in the region

Any feedback or questions?

RAMBOLL

Rate on a scale from 1 to 5

Mentimeter

My expectations from the start of the WS were met

I have a clear understanding of the environmental challenges in the region

I have a clear understanding of what BGI is

I have a clear understanding of the type of BGI projects that can be applied in the region

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Any feedback or questions?

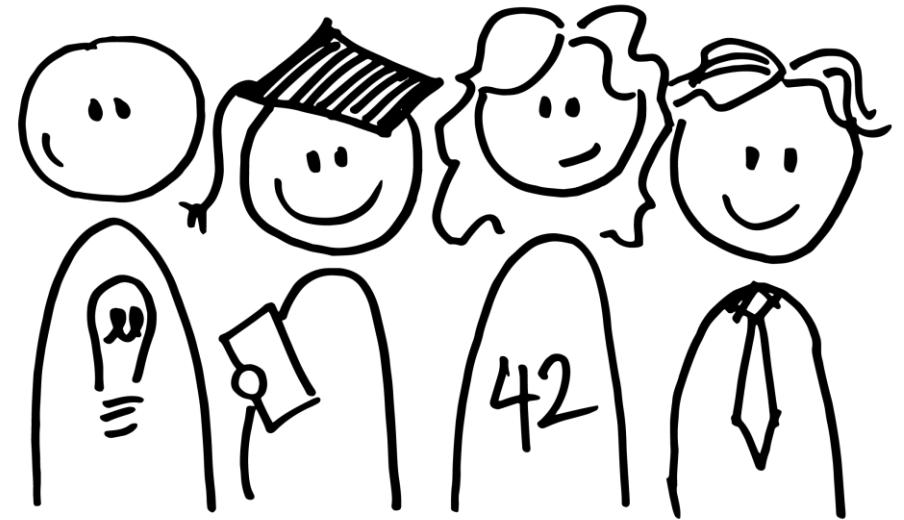
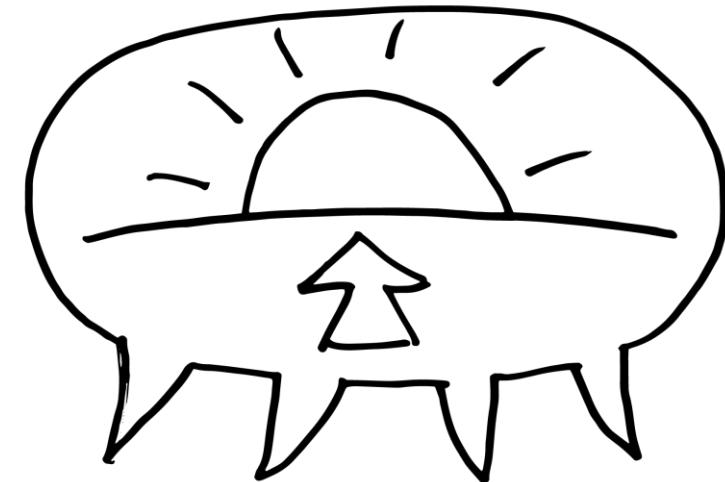
Mentimeter



Press ENTER to pause scroll Press S to show image

NEXT STEPS

AOB



Bright ideas. Sustainable change.

RAMBOLL



Bright ideas. Sustainable change.