



EDICITNET GLOBAL LUNCH TALKS : URBAN FOOD INNOVATION

### (Up)Scaling (Edible) Nature-Based Solutions: Experiences, Opportunities & Challenges

With EdiCitNet, URBiNAT, proGIreg & CLEVER Cities 16th Mai 2022 | 12.00-13.00 CET

#### www.edicitnet.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 776665









### **EdiCitNet Mission**

- Mainstream & Scale Edible City Solutions (ECS) to unlock their untapped potential for the development of socially inclusive, biodiversity friendly, resilient and healthy cities
- Edible City Solutions (ECS) deepen the social dimension of NBS
- ECS invite citizens to co-create the sustainable development of their society, to *proactively* change the urban environment to their benefit & to induce a paradigm shift of lifestyle

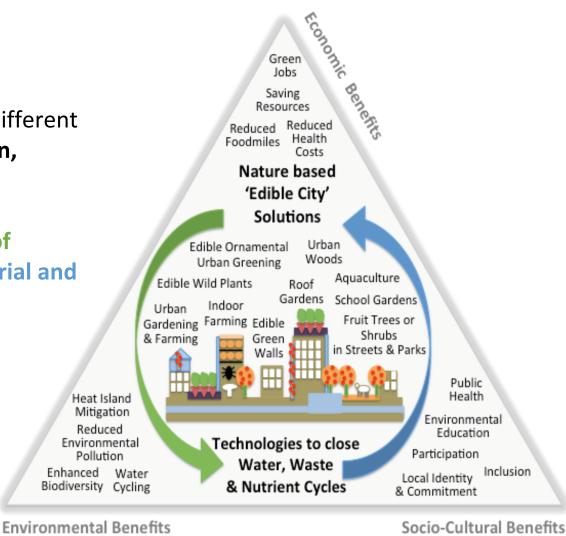


### What are Edible City Solutions? (ECS)

- ECS are 'edible NBS'
- ECS comprise a wide range of different forms of urban food production, distribution & consumption
- ECS use innovative principles of ecological design, closed material and energy flows

Säumel et al. 2019

10.3390/su11040972





### **Co-creation & Networking**

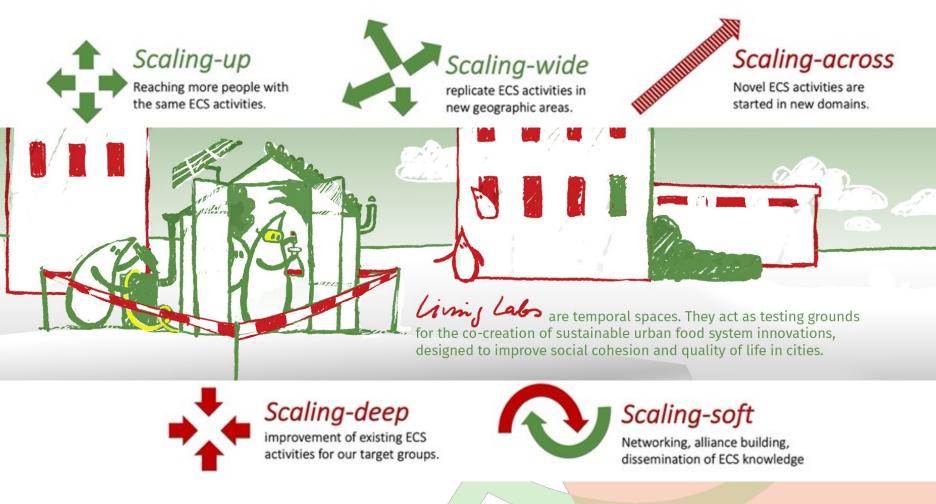


### **EdiCitNet Cities**

- Andernach (DE)
- Berlin (DE)
- Havana (CU)
- Oslo (NO)
- Rotterdam (NL)
- Carthage (TN)
- Guangzhou (CN)
  - Lomé (TG)
- Montevideo (UY)
- Sant Feliu de Llobregat (ES)
- Sempeter pri Gorici (SI)



### (Up)Scaling Pathways





## Living Lab Oslo (NO)

- **Piloting ECS** that provide social and economic value
- Running experiments that create opportunities for citizens and social entrepreneurs
- Facilitating knowledge transfer, networking and in to empower local citizens and utilize undervalued resources
- Building on the work of Oslo's Urban
   Renewal Program
- Using synergies emerging from Oslo's involvement in a green transformation





### Living Lab Rotterdam (NL)

- Set up a city-wide **umbrella organization** of (edible) green initiatives (more than 200 in the city)
- To enhance their organizational power and contribute to their empowerment, professionalisation, longevity and financial independence
- Focusing on the cooperation
   between initiatives as well as their relationships with the city
   government
- Objectives are organised according to working groups





### Living Lab Andernach (DE)

- Shift the dynamics of the local edible city movement from a "topdown" to a "bottom-up" approach
- Invite the general public to engage more intensively in the maintenance and development of Edible City Solutions
- Increase participation of specific
   types of people: displaced people,
   elderly people, young children





### Living Labs Berlin (DE)

#### Hellersdorf:

- Integrate edible landscaping into new apartment blocks
- Connect "old" and "new" locals
- Revive and develop existing community garden, attract more locals to participate and cocreate

### Neukölln:

- Integrate community garden into active cemetery
- Explore ideas for economic sustainability of community garden
- Encourage the participation of **more diverse** local communities





### Living Lab Havana (CU)

- Combine science, technology and innovation with traditional knowledge of local farmers
- Modular aquaculture system & water re-use system
- Fruit tree planting program
- Mini-industria program
- International exchange with the ECS community



# (Up)Scaling in Oslo









- Improvement of testbed system: space, beds, follow up
- Facilitate **connection** to surrounding area
- Construct meeting place accessible for limited mobility
- Increase offers for courses
- Establishing a nature path with insect hotels, houses for bats and bumblebees, a composting site and biotope\*
- Starting an education farm
- **Consultations** about sustainable ways to grow mushrooms
- Install **information signs** to spread awareness and knowledge, spread content on social media
- Map biodiversity and disseminate as publication
- Produce educational material, set up a teaching program\*





## Best Practice Scaling-wide in Oslo:

Scaling wide through Oslo's Strategy for Urban Agriculture



Bymiljøetaten

### Spirende Oslo

- Plass til alle i byens grønne rom

Strategi for urbant landbruk 2019–2030

Sak 336/19 - vedtatt av bystyret 13.11.2019



### "Sprouting Oslo" adopted in 2019

- for a greener city; local food production; green meeting places; green educational areas; collaborative city of knowledge
- transform disused spaces to places where citizens can cultivate together
- planting of pollinator friendly & edible plants
   i.e. berry bushes, fruit trees and flower
   meadows
- 30 allotment gardens, school gardens (93,000 m2) and temporary growing boxes have been established
- 20 meadows, 13 pastures managed by the city

# (Up)Scaling in Rotterdam







- Developing local website where initiatives can share knowledge and needs
- Producing a city-wide map visualising value of ECS in Rotterdam
- Making map accessible so everyone can contribute and learn
- **Consulting** with municipality and other stakeholders on how best to organise the network and integrate them
- Enhancing work of existing initiatives and also preparing fertile ground for development of ECS in new places and in new domains





### **Best practice: Scaling-soft** in Rotterdam Successful ECS Lobbying + Advocacy Work



KOM IN ACTIE Q

GROENLINKS BOTTERDAM



GROENMAKELAAR EN 1 GROENLOKET IN ROTTERDAM

06 feb 2020 · leestijd 2 minuter

- Creating a link between "official" authorities & practitioners on the ground
- Since 2016 worked to establish a Green Office:
- An entry point for green (food) initiatives + civil servant for support
- Bringing transparency into municipal machinery
- Enabling participation of green initiatives in development of new green policies
- Green Broker appointed in 2020, website being developed
- Communication is key!



# (Up)Scaling in Andernach







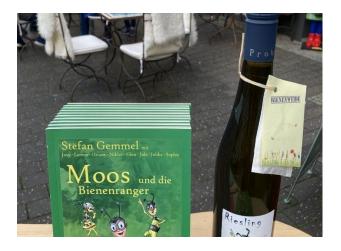


- Installing resource-saving **automatic watering** system
- Expanding collaboration with local fertilizer producer
- Renting out plots to locals for a small fee
- Cooperating with schools to set up internships with local youth
- Installing raised beds in schools and kindergartens
- Organising workshops on biodiversity for educators and general public
- Implementing new outreach activities (talks, social media, cookbook)





### **Best practice: Scaling across in Andernach** *From bee rangers to digital beehives*





- The corona crisis triggered an unexpected and original ECS... and then another one
- City Team member started a writing project connecting with authors, a teacher and youth
   about wild bees and the threats they face
- Fiction in "Moss and the Bee Ranger" turned into real-life impact: a digital beehive - able to measure temperature, humidity, honey production and bee movement
- Monitoring bee behaviour makes it possible to predict extreme weather events
- Beehive is simple and replicable



# (Up)Scaling in Berlin









- Planting and sale of **ornamental plants** for protection from pollution, to increase biodiversity and for additional income
- Free space to co-create with the neighbours (e.g. nature experience area with raised beds for children of neighbouring kindergartens; artist place)
- Collaboration with municipal housing company and other municipal stakeholders to showcase a best practice example of Edible Landscaping that can be used in future housing developments
- Installation of grey water recycling plant
- Organisation of pruning courses with locals
- Development of the rapeutic gardening sessions





### Best practice: Scaling-soft in Berlin

The ups and downs of being a figurehead of the urban gardening movement



 Next-gen urban farms: 10 innovative projects from around the world



In the shadow of the former Berlin walk, a wide range of vegetables grows in repurposed Tetra Paks, rice sacks and plastic crates. Photograph: Prinzessinnengarten Photograph: Prinzessinnengarten

The Prinzessinnengarten is an urban farm nestled in the shadow of the DER TACESSPIECEL

Streit um Gartenprojekt auf ehemaligem Friedhof

#### Umweltamt fordert Rückbau der Prinzessinnengärten

Vor rund einem Jahr zog das Gartenprojekt vom Kreuzberger Moritzplatz nach Neukölln. Nun sieht es sich in seiner Existenz bedroht. von <u>MaDLEN HAARBACH</u>

24.04.2020, 10:23 Uh



Robert Shaw von den Prinzessinnengärten steht vor dem Café, dass die Prinzessinnengärtner im Eingangsbereich des Friedhofs... Foro. Jorg CARSTENSENDIN

- an article in a local event magazine ensured that 150 volunteers helped the two initiators to clean the area from rubbish
- more than 700 articles about the Prinzessinnengarten have been published worldwide... gardeners felt like "zoo animals"
- becoming a sought-after partner in many projects, bringing income and funding as social entrepreneurs and political support, providing jobs for more than 20 people
- withstand against many multi-million-dollar investors, survive and expand despite political and economic resistance and headwinds



## (Up)Scaling in Havana



- Setting up markets to enhance the direct commercialisation of agricultural products
- direct provision to hospitals, schools and kindergartens
- Unlock potential of **building integrated forms** of urban agriculture with high-tech solutions
- Integration of modules of aquaculture/aquaponic systems into the urban farms and cooperatives to amplify the range of food products
- Innovation management via regular feedback loops across practitioners, knowledge managers and decisionmakers to adapt public policies and regulatory legal framework and teamwork





### Best Practice Scaling-deep in Havana:

ECS tools and best practice knowledge when shopping at your local farmers' market



- Turn every citizen into a clever farmer?
- agricultural store consultancies run by the Cuban Ministry of Agriculture
- started in 1995/96 as "shops de semillas" ("seed shops")
  - today provision of a broad range of products and services: offer technical advice from agronomists; seeds, seedlings, saplings, biofertilisers, biopesticides, soil conditioners, veterinary drugs, protective clothing, information leaflets, publications and tools for farming or gardening





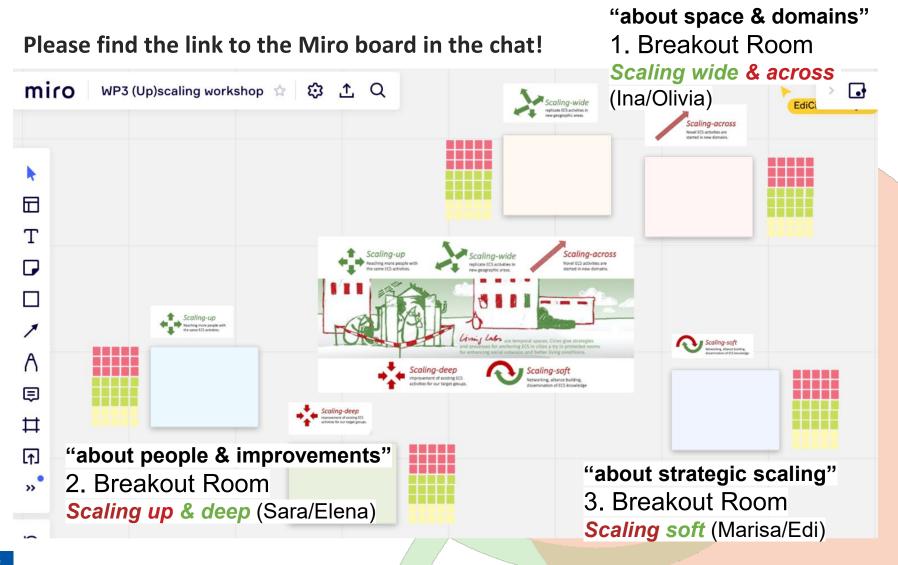
### **URBINAT**



M proGlreg



### 3 Breakout rooms + Miro board until 13.25





# Thank you for joining us!



www.edicitnet.com



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Gonçalo Canto Moniz | CES <u>gmoniz@ces.uc.pt</u>



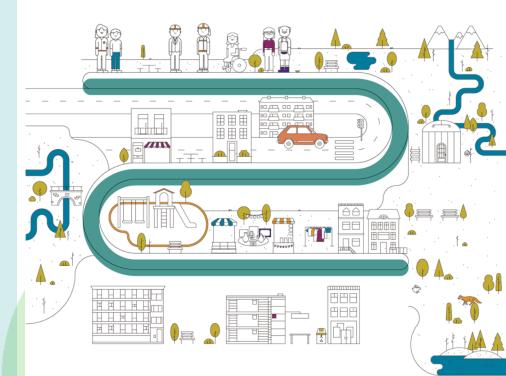






# NBS in the Living Labs | Healthy Corridor

Healthy corridor is a public space, both material and immaterial, that connects and links neighbourhoods as a pathway and as a social, cultural and educational platform. It integrates not only naturebased solutions but also human-centred ones, providing a double effect on the environment and people's health and wellbeing.









# NBS in the Living Labs

#### PORTO

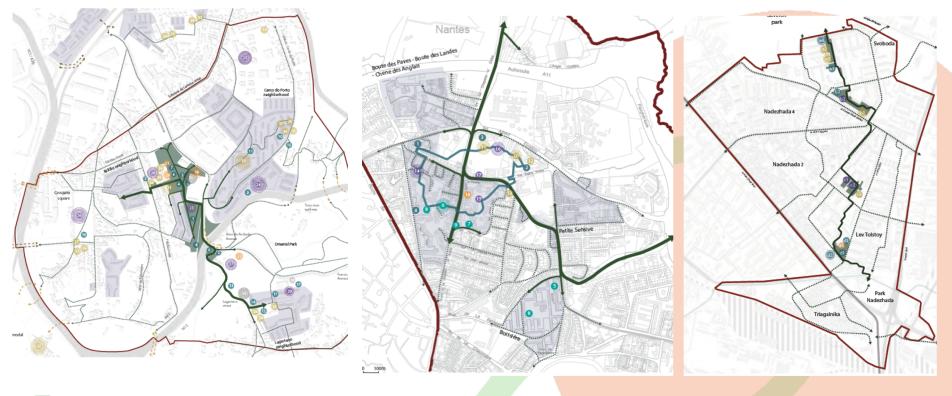
In-between neighbourhoods

#### NANTES

CLEVER Cities

Around neighbourhoods

### **SOFIA** Across neighbourhoods





# NBS in the Living Labs

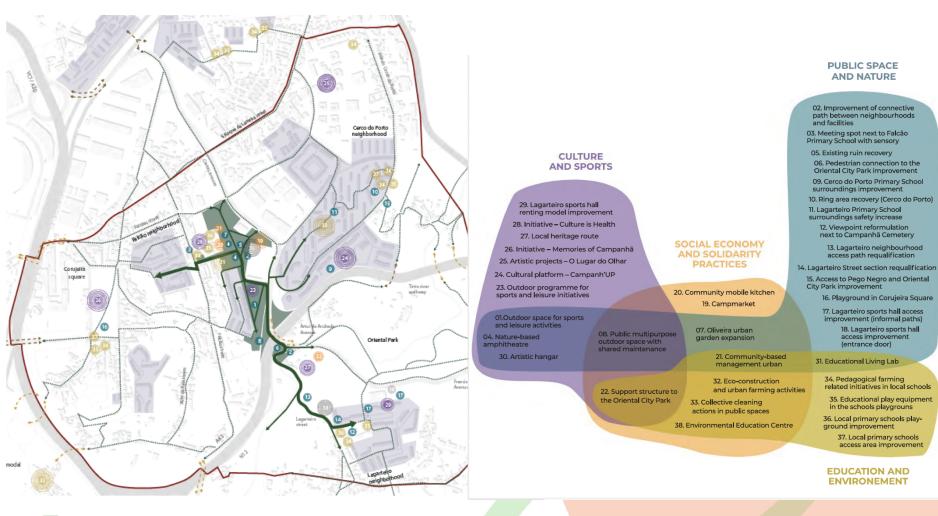
Porto NBS	Nantes NBS	Sofia NBS
Public space and Nature (Ter)	Public space (Ter)	Public space   Climate Adapt (Ter)
Education and environment (Part + Ter + Tech)	Education (Part + Ter + Tech)	Education (Part + Ter + Tech)
Culture and Sport (Part + Ter)	Physical activity & Sport (Part + Ter)	Culture   Sport & Recreation (Part + Ter)
Socio-economy and solidarity practices (SSE)	Social and Solidarity Economy   Nature and food production	Social and Solidarity Economy (SSE)



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# NBS in the Living Labs - PORTO











### **Community gardens**

- From private associations to municipal urban gardens

Solidarity Markets

- Campmarket as an informal market with vegetables, crafts, food, games, music, sports (rugby, yoga). Every month, last saturday

Pedagogical gardens

- Scale the same proposal in 6 primary schools to replicate the same prototype

Water management (BIOPOLIS)

- Develop the same design solution in different projects to expand the water management network

Heritage route and yoga

- Every month, different routes, different social groups







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Janatina sinis Maria

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# Challenges

- Adapt to different physical context of the city
- Create diversity and relevance for each edition (campmarket, heritage route)
- Continuous engagement of the community and stakeholders
- Financial sustainability of the NBS services as Campmarket
- Municipalisation of the activities
- Engage local community versus stakeholder
- Integration of lessons learnt with other experiences
- Evaluation in order to progress
- Long-term sustainability based on public policies
- Investment from private initiatives



# Relevance of (up)scaling in context of the project

- To experiment and revise the methodology
- To prepare guidelines for future replication
- Learn from each city / promotor (each case is unique)
- Transfer (adaptation, adequacy and integration) of knowledge
- Improves networking between cities
- Role and effect of different local/regional governance contexts where NBS are implemented - tools and guidelines for a sustainable implementation of NBS in the URBiNAT cities





### Lessons Learned / Conclusion

- Learning from other experiences to know mistakes
- Urban gardens have a strong interest for the community
- Engage people with experience
- Important to dialogue with municipal technicians that are responsible by the area (education, environment, markets)
- Adapt the methodology and functioning according with the local experience (no copy-paste)





# Upscaling in proGlreg







### Project in a nutshell

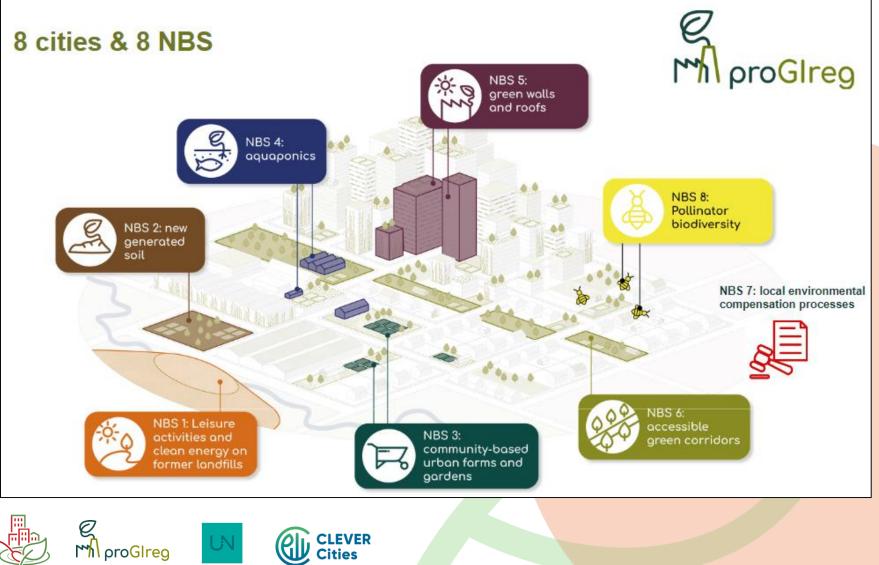




### Project in a nutshell

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## Upscaling in proGIreg



- 3 WPs dealing with upscaling
- 58 nominations in the GA
  - Upscaling from FRC to FC (WP2, RWTH)
  - Benefit assessment and monitoring (WP4, CNR)
  - Business models (WP5, SWUAS)
- Upscaling work still mainly ahead (2022/2023)





# WP2: FRC $\rightarrow$ Follower Cities

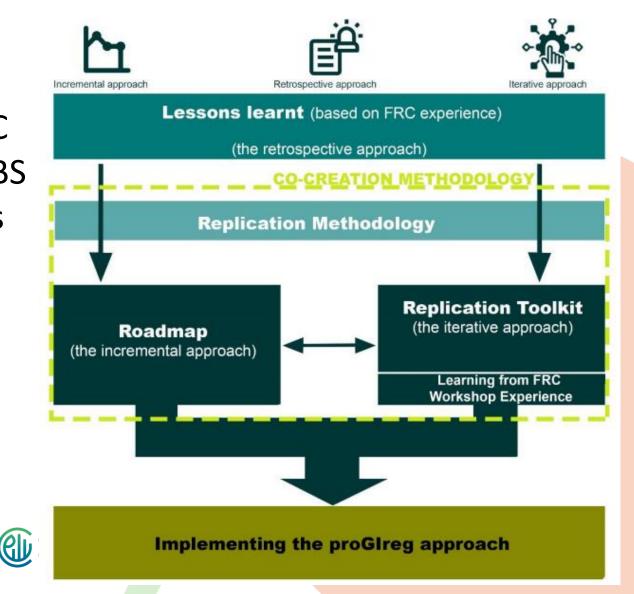


Goal:

- urban plans in FC
- for innovative NBS implementations

oroGlreo

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### Benefit assessment



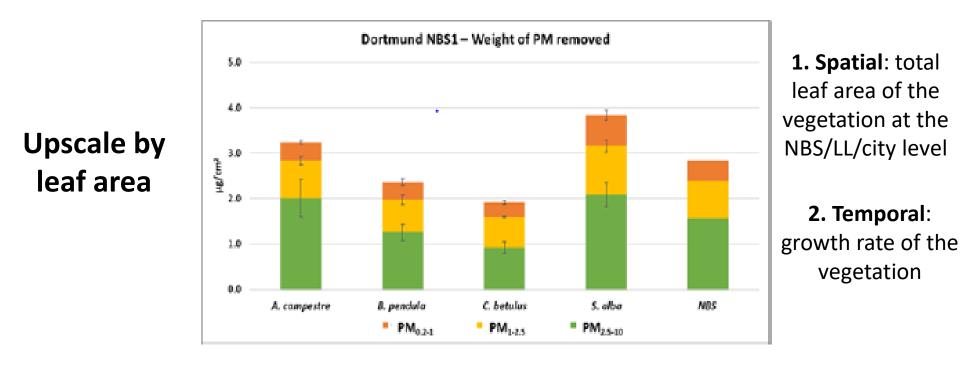


Figure 10. Weight of PM removed (µg cm+), as obtained from SEM/EDX, through the combination of PM density and chemical composition results. Results averaged over the four species are also reported as mean NBS values. Standard deviations are given for each size fraction and each species.



### Benefit assessment

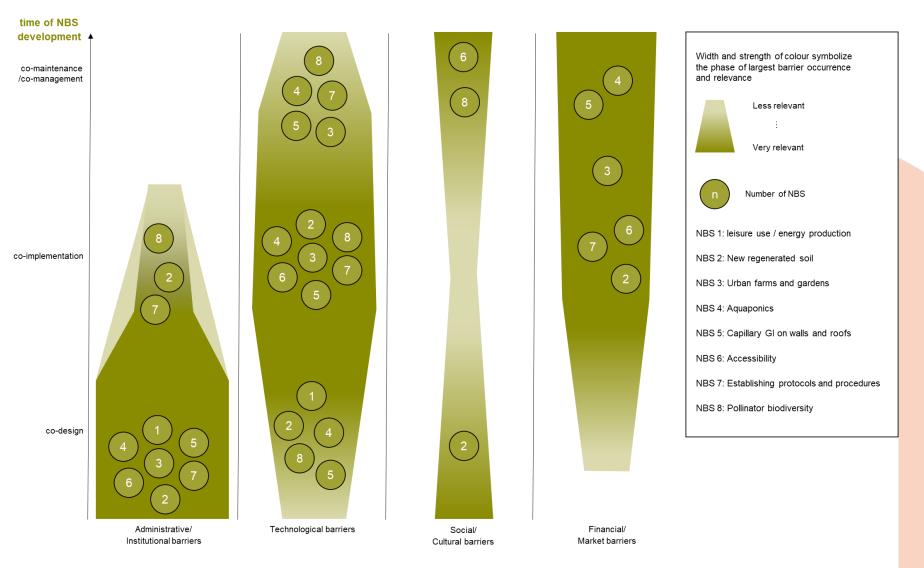


- crucial to continue with benefit assessment and monitoring after the project lifetime
- "spatial and temporal upscaling of assessment"
- "cities should be able to monitor effectiveness of NBS also after the end of the project and when NBS are realized on large areas"



### From barriers to upscaling

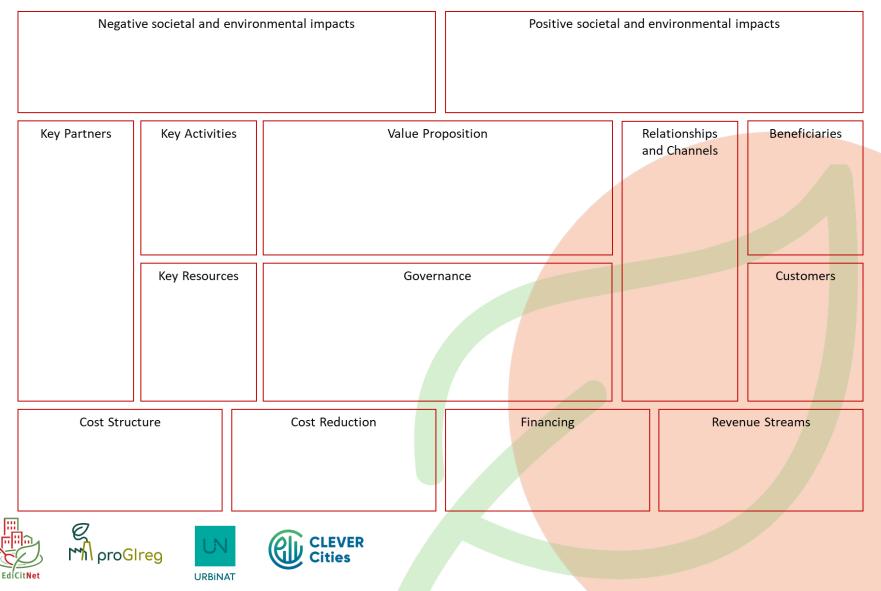


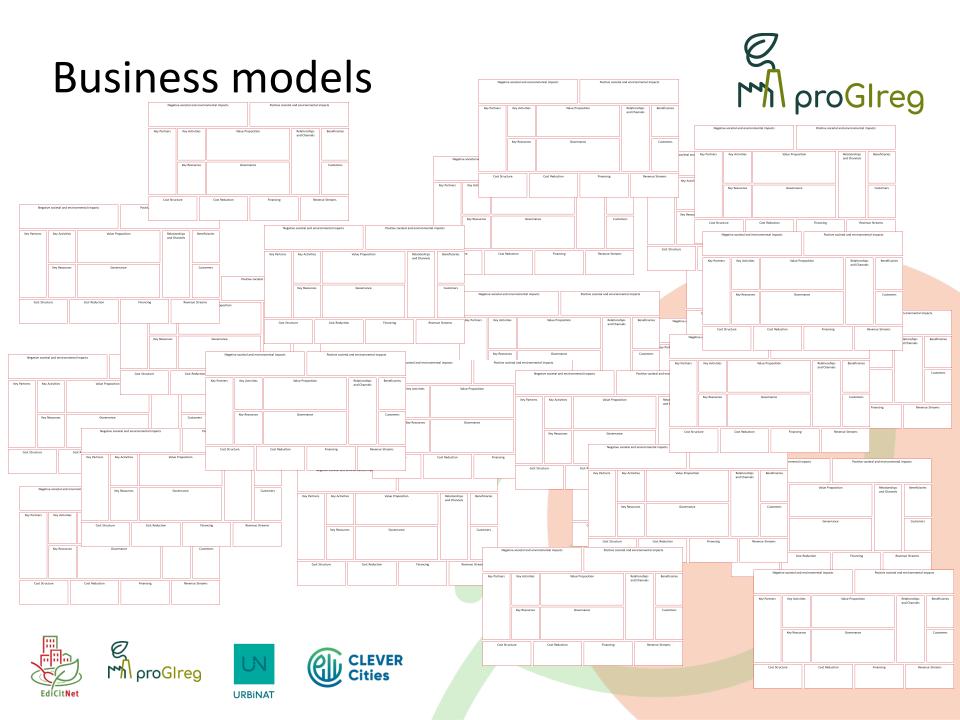


Category of barrier

### **Business models**

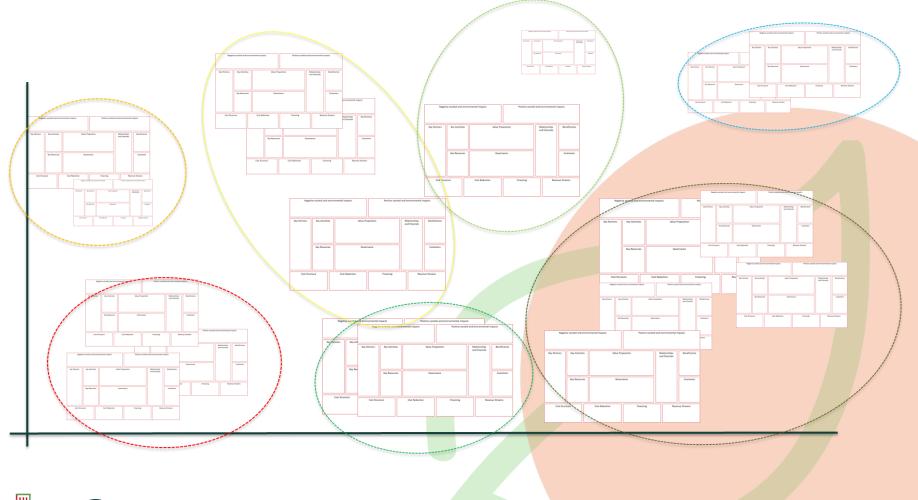






### **Business models**











### Upscaling in proGIreg



Dimensions of upscaling of sustainability experiments	Empirical indicators
Quantitative	Number of beneficiaries/people
Organizational	Organizational growth, improvement in technical and managerial capacity, development of infrastructure and resources, development of knowledge base and management systems, diversifying funding sources and becoming financially self-sustainable, upgrading in the external value chain, dissemination of knowledge and ideas, research and development activities
Geographical	Expansion to new geographical locations (local communities, villages, municipalities, cities, states, and countries)
Deep	Reaching extremely poor and vulnerable sections of the population, and/or greater impact in the same location where the enterprise was started
Functional	Increase in the number and type of project activities, new products, and services
Replication	Creating, incubating, or supporting new entrepreneurs; creating new affiliates; developing new branches; franchising
Institutional	Modification in public policy and regulations at national and international levels, transformation of existing institutions (regulative, normative, and cognitive)

Table 1 Indicators for assessing the upscaling performance of sustainability experiments along different dimensions



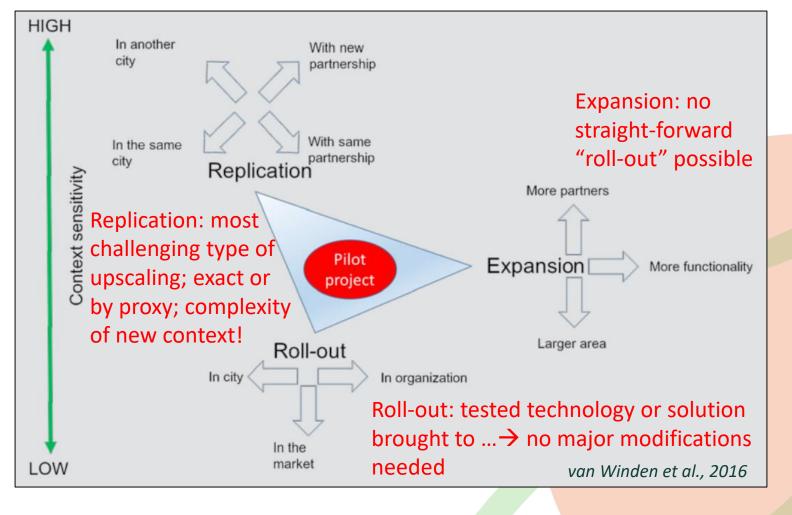




Jolly et al., 2011

### Upscaling in proGIreg

₽ m proGlreg







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### EdiCitNet – Edible Cities Network CLEVER Cities

Upscaling and inner city replication roadmaps

www.clevercities.eu

16/May/2022

### **NBS** in the Living Labs

### Hamburg's CLEVER Action Lab: Neugraben-Fischbek

Veugraben-FSCHDerk Located in Nes Suth-West of Hamburg, Neugraben-Fischbeik has a rich history: beth Neugraben and Fischbeik used to be independent villages and became part of Famburg during the 1930s. Novadays the area is growing even faster than the rest of city and new housing areas are under construction.

The CLEVER Action Lab reaches from central Neugraben, via the Fischbek public school and the Sandbek housing estate, towards new housing development areas in the West. Architecture in the area ranges from old village-style houses to the 1960s highrises of Sandhey



### Aims A green corridor

The aim is to have a pilot project on one part of the East-West walking/cycling path in order to use the experiences made when redesigning the rest of the path. Along the corridor, nature-based solutions will be d to increase biodiversity and connect nature with the city. A guiding tool will be developed telling the story of local history and identity through creative ways along the path.

New green roofs will be constructed to test their ontential to retain rainwater, and also to serve as recreational green spaces, leading to reduced temperatures in summer and improved well-being of local residents

School playgrounds will be redesigned using naturebased solutions to improve the rainwater retention (a key element throughout the CLEVER Action Lab) and the Ith of local school children. Later on in the project, urban school gardens will also be developed.



### London's CLEVER Action Lab

Thamesmead Located 15km from the City Centre, Thamesmead is in south-east London on the south bank of the river.

### The history

Thamesmead is a neighbourhood, with a unique history and an existing community of over 45,000 people. It has a vibrant and multi-cultural population and has seen significant change in demographics in the last thirty years. Thamesmead, once a predominately white working class new town, now has 63% of its residents from black and minority ethnic groups, compared to the London average of 55%. The population in Thamesmead is expected to double in the next 50 years with new housing being built and improved transport connections underway. There is a recognition that this growth will. bring further demographic changes and social integration challenges.

Thamesmead is an architecturally iconic public-housing estate, designed and built by the Greater London Council in the 1960's. It was conceived to address the post war housing crisis and tackle some of the problems associated with tenement living. It had an ambitious plan to be a utopia of affordable bousing with estate is situated on the Thames floodplain, these open spaces were also designed to hold flood water in the event of extensive tidal flooding, which prior to the introduction of the Thames Barrier in 1984 was a significant risk. In many ways the estate is an early

The first swath of development created concrete towers and low-rise homes, elevated from the ground to protect from flooding, and connected by walkways and interaction. Other parts of Thamesmead, built in the 1970s and 1980s, moved away from this model and focused on building more typical suburban street layout of cul-de-sacs.

example of nature-based solutions in use.

### Vision and Mission

The source for CLEVER Course Miller to a city that finds movative actualizing in nature to regenerate, face climate change and build its future insettier with its citizatia.

Do emplamanting encoding and matural interpertures or Miante regitionartemple, buildings, and infrastructure, the mission is for CLEVER Clies in Miler to demonstrate the waithing and effectiveness of nature-based solutions, and become the voice for promoting them the advantation the adv

CLEVER Office Milan is starting by experimenting with

ablutions in the abulthern part of Milan, and intends to

CLOVER Action Labs are surrantly being developed in

Development of public green areas A next mark for Giamballion 175 By working inglether with citizenic and exp with new forms of op-creation, the team is planning to meate a new public park within the Gambelline neithbourhood of Milen. Flame are to include netwo-

based adjutions such as a great buffet area mean the

radies, a water management and monitorine eastern

citizens. The arr is to encourses shared improvement

and use of spaces, by introducing equipment and

analytics that accounts are converted by in-

and user-friendly sensors that encourage use by

elsen Efrastructure and introvative natura-based

stoward there increations the city Bians for titles.

Miller



10000

### Plans for the CLEVER Action Labs

'Rinverdiamo Milano" (Let's re-green Milan)

The later is using results obtained from the Departments project, which has located potential buildings and areas suitable for steen totals in Milan. In partnersten with new and soluting roof and given wall stakeholders, the aim is to apread the development of green route and walls in buildings throughout Wiler. A participatory promotional campilan will montys dassioneral an effective related tables and acture and tools, assesses reactive execution, therated, watheriese of ecod practice. its-dewyn, technical aupport, funding, pilut projects and monitorine that demonstrate the environmental and and a benefits of the interventions.



### A new green hub for Tibaldi station

CULTURE Owner Milan to planning to ra-danch the radiuse atation through great and invocative elements, which will train the infraction and which represents to the wda of mobility, but also fully harmonized with the urban environment. The innocative elements will include green wells, natural elements on embandments, noise barriers in the attractures and embanisments of the station, controlled impation, temperature and humility, and activitial abaset spinces such as waiting atalas.



https://clevercities.eu/hamburg/







- Through CLEVER Cities, the Action Labs in Thamesmead intends to:
- provide more opportunities for the residents to connect with, and learn about their natural landscapes · use nature based solutions as a means to unskill and improve economic opportunities for residents of Thamesmeart
- develop and implement new ways of community engagement, built on the principles of co-design;
- · demonstrate that nature-based solutions can contribute to improving wellbeing for citizens;
- progress the research on valuing the benefits of nature-based solutions in urban regeneration projects; and
   contribute to the evidence base that supports the business case for more nature-based solutions in future regeneration and development projects

### https://clevercities.eu/london/



### Be part of CLEVER Cities in Milan

\* CLEVER Crise Milan platform (Italian) dill'UTIT, Milates

https://clevercities.eu/milan/



### NBS in the Living Labs / Fellow cities

### Hamburg's CLEVER Action Lab: Aims Neugraben-Fischbek ✤ BELGRADE , SERBIA

✤ LARISSA, GREECE

MADRID , SPAIN

MALMÖ, SWEDEN

QUITO , ECUADOR

### London's CLEVER Action Lab: Thamesmead









### SFÂNTU GHEORGHE, ROMANIA

CLEVER Cities



https





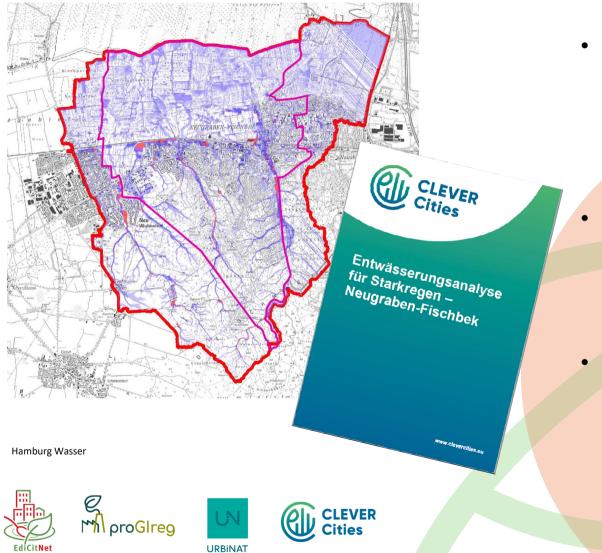
## NBS in Living Labs / Mapping Lessons Learned

Ref. CLEVER Exchange Topics						
NBS TYPOLOGY NBSTECHNICAL DESIGN NBS PERFORMANCE & MONITORING						NBS TECHNICAL DESIGN & IMPLEMENTATION
PLANNING TOOLS, INSTRUMENTS AND METHODS INTEGRATED MANAGEMENT SYSTEM					z	NBS PLANNING
POLICY MAKING COLLABORATIVE GOVERNANCE APPROACHES CITIZEN INVOLVEMENT IN DECISION-MAKING PROCESSES		0-19	VATION		CREATIO	NBS POLICY & GOVERNANCE
ECONOMIC DEVELOPMENT STRATEGY FINANCING AND FUNDING STRATEGIES PUBLIC PROCUREMENT AND TENDERING		COVID	NONNI		ģ	NBS FINANCING & ECONOMIC ACTIVITIES
COMMUNICATION STRATEGY, INNOVATION COMM AWARENESS RAISING						COMMUNICATION & AWARENESS RAISING
SOCIAL COHESION/INCLUSION LOCAL INNOVATION SCREENING TOOL	V			~~	$\checkmark$	
CitNet OroGireg URBINAT						

### Upscale Pathways for Projects in Hamburg

HAMBURG UPSCALING	<b>CAL 1 / GREEN CORRIDOR</b> WOULD BE NOT THE RIGHT CHOICE TO DISCUSS IN THE CONTEXT OF THE UPSCALE PLANNING	CAL 2 / GREEN WALLS & ROOFS UPSCALING INTO THE ENTIRE CITY AND BEYOND	CAL 3 / RESTRUCTURING OF SCHOOL YARDS POTENTIAL TOOLS FOR UPSCALING ARE THE ATTENDANCE IN CONTESTS
GOVERNANCE	INVOLVEMENT OF MINISTRY OF ENVIRONMENT AND ENERGY ( <b>BUE</b> )		RELEVANT STAKEHOLDER TO GATHER THIS EXPERIENCE WILL BE <b>THE GMH</b>
URBAN PLANNING	<ul> <li>NATURE PLAYGROUND:</li> <li>CLIMATE TREES</li> <li>FLOWER MEADOWS WITH INSECT HOTELS</li> <li>BEDS AND MULTI-FUNCTIONAL ISLANDS</li> </ul>	<b>GREEN FACADE</b> AT THE SAGA DWELLING IN NEUGRABEN-FISCHBEK HOLDS A POTENTIAL FOR UPSCALING	
FINANCE SCHEMMES		(BUE) EXTENDED HIS <b>GREEN ROOF</b> <b>FUNDING PROGRAM</b> BY THE OPTION TO FUND GREEN FACADES TOO	POTENTIAL TOOLS FOR UPSCALING ARE THE ATTENDANCE IN <b>CONTESTS</b> THAT HONOR SHOOLS
NBS DECISION MAKINGVARIETY OF ENABLING TOOLS THOUGHT AT THE EARLY STAGES OF CO- DESIGN, CO-IMPLEMENTATION OF THE INTERVENTIONS			KNOWLEDGE TRANSFER CAN BE INSPIRED OUTCOME FOR THE UPSCALING SHOULD BE A <b>NETWORK OF</b> <b>SCHOOLS</b> THAT COPY THE IDEA REALISED IN NEUGRABEN-FISCHBEK.
MONITORING			
	reg URBINAT		5

## Upscale Pathways for Drainage Analysis for Heavy Rainfall



- Collaborative work of many administrative bodies, agencies, communal water supply and sewage disposal company, and academia representatives
- Led to currently ongoing works on upscaling the methodology incl. the simulation model in other parts of Hamburg
- Upscale guaranteed already at another location in Harburg

### Upscale Pathways for Projects in MILAN

MILAN UPSCALING	CAL 1 / GREEN ROOFS POTENTIAL REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	CAL 2 / COMMUNITY GARDEN REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	<b>CAL 3 / TRAIN STATION</b> THERE ARE REASONS THAT MADE IMPRACTICAL THE APPLICATION IN OTHERS RAILWAY ENVIRONMENT
GOVERNANCE	<b>CO-MAPPING</b> OF GREEN ROOFS AND WALLS, GIVING VISIBILITY TO THE EXISTING REALIZATION	INVOLVEMENT OF DIFFERENT SH WORKING IN PUBLIC GARDENS <b>MANAGEMENT VALUE CHAIN</b> IS A KEY ASPECT FOR UPSCALING	PEOPLE IDENTIFIED AND INVOLVED IN THE CO-DESIGN PHASE, THAT ARE INTERESTED IN MANAGING THE GREEN AREA FOR NO-PROFIT
URBAN PLANNING	NEW URBAN PLAN <b>(PGT)</b> AND RELATED OPERATIVE RULES AND TOOLS <b>(RUE/RII</b> ) WILL ENHANCE THE DEVELOPMENT OF GREEN ROOFS AND WALLS	ECOLOGICAL-NATURALISTIC CRITERIA IN THE DESIGN OF URBAN GREEN AREAS INSIGHTS ON NEW PROCEDURAL METHODS FOR THE ASSIGNMENT AND MANAGEMENT OF GREEN SPACES INCLUSION IN THE PREPARATION OF TENDER INNOVATIVE SPECIFICATIONS THE AWARDING WITH NEW TYPES OF SUPPLIES	A "BARRIER" WOULD BECOME " <b>AN</b> <b>INTEGRATED SURFACE</b> IN THE URBAN CENTER" THE <b>ACOUSTIC BARRIER</b> WOULD BECOME AN OPPORTUNITY FOR THE AREA AND NOT A LAW OBLIGATION FOR THE LAND PROTECTION. BARRIER WOULDN'T BE FELT AS A DIVIDING ELEMENT BUT AS A <b>BINDING AND ENRICHING</b> ELEMENT OF THE URBAN ENVIRONMENT









### Upscale Pathways for Projects in MILAN

MILAN UPSCALING	CAL 1 / GREEN ROOFS POTENTIAL REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	CAL 2 / COMMUNITY GARDEN REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	<b>CAL 3 / TRAIN STATION</b> THERE ARE REASONS THAT MADE IMPRACTICAL THE APPLICATION IN OTHERS RAILWAY ENVIRONMENT				
FINANCE SCHEMMES	INVOLVE <b>PRIVATE</b> <b>SPONSORSHIPS</b> AWARDING THE MOST INTERESTING PROJECTS		EXTERNAL SPACE COULD BECOME A CO-SHARED COMMITMENT FOR THE ENTIRE COMMUNITY: RFI AND THE CITY OF MILAN ARE WORKING ON THE POSSIBILITY OF AN AGREEMENT WHICH WOULD ENSURE THE MAINTENANCE				
NBS DECISION MAKING	STANDARD THEME IN <b>TRAINING</b> <b>COURSES</b> AT UNIVERSITY AND PROFESSIONAL ASSOCIATONS		NATIVE SPECIES OF VEGETATION WAS PLANNED ON THE SUGGESTIONS OF <b>TRADE ASSOCIATIONS</b> IN THE CO-DESIGN PHASE				
	<b>CO-MAPPING</b> OF GREEN ROOFS AND WALLS, GIVING VISIBILITY TO THE EXISTING REALIZATION COULD REPRESEN AN OPPORTUNITY, PROBABLY EXPANDING TO THE ENTIRE METROPOLITAN CITY OF MILAN						
MONITORING	<b>CERTIFICATION SCHEMES</b> (LEED, BREAMS, ETC.) HAVE TO BE BETTER PROMOTED AND COMMUNICATED	<b>GUIDED TOURS</b> HAVE DEMONSTRATED AS AN EFFICIENT WAY TO ENGAGE DIFFERENT STAKEHOLDERS AND RAISE THE LATTER AWARENESS SIGNIFICANTLY.	CONTRIBUTE TO LOWER THE TEMPERATURE AND TO REDUCE CO2 EMISSIONS IN THE URBAN AREA.				
	LONG-TERM DIGITAL CO-MONITORING LEADING TO NEW INSIGHTS INTO NBS FUNCTIONING AND ACTIVE LEARNING						





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### Upscale Pathways for Projects in LONDON

LONDON UPSCALING	CAL 1 / HEALTHY STREETS APPROACH OPPORTUNITY FOR UPSCALING THE USE OF CO-PRODUCTION IS SIGNIFICANT	<b>CAL 2 / SOUTHMERE LAKE</b> THERE ARE SIGNIFICANT OPPORTUNITIES FOR UPSCALING THE NATURE-BASED RECREATION	CAL 3 / GREENING UNUSUAL AND UNDERUSED SPACES SIGNIFICANT OPPORTUNITY TO UPSCALE IN SIMILAR POST WAR ESTATES ACROSS EUROPE				
CO-PRODUCTION AND HOW WE WORK COLLABORATIVELY WITH COMMUNITY STAKEHOLDERS IS		<b>NATURE FORUM</b> – MEETINGS AND STRATEGIC MAPPING PARTNERING WITH PROVIDERS OF <b>NB</b>					
	PRESENTLY THE AMBITION OF MANY REGENERATION PROJECTS	<b>RECREATION</b> REPLICATION OUTSIDE OF THAMESMEAD E.G. PARK RUN	PARTNER WITH SPONSOR FOR ROLL OUT OF GOOD EXAMPLES				
URBAN PLANNING	SHEER NUMBER OF LIVE AND <b>PRE-</b> <b>PLANNING REGENERATION</b> PROJECTS IN LONDON		MODULAR 'IKEA STYLE' INTERVENTIONS TECHNICAL GUIDANCE OF INSTALLATIONS				
FINANCE SCHEMMES		GRANTS FOR REPLICATION NATURAL CAPITAL ACCOUNT OF INCREASED USE OF SOUTHMERE BUSINESS CASE FOR COMMERCIAL VALUE	COMMUNITY GRANTS AND KITS				
NBS DECISION MAKING	BUILD THE <b>BUSINESS CASE</b> FOR CO-PRODUCTION AND INFLUENCE DECISION MAKERS						
MONITORING	TYPES OF <b>BENEFITS AND COSTS</b> <b>OF CO-PRODUCTION</b> AND HOW TO EFFECTIVELY MEASURE THESE		HUMAN INTEREST STORIES ABOUT EMOTIONAL IMPACT				
EdiCitNet	roGlreg URBINAT		9				

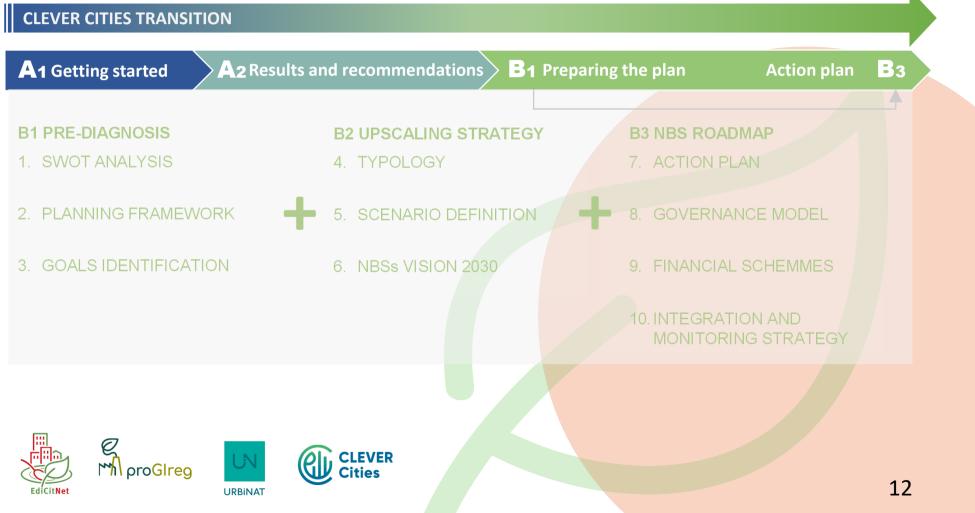
# Challenges // Mapping Lessons Learned

Ref. CLEVER Exchange Topics						
NBS TYPOLOGY NBSTECHNICAL DESIGN NBS PERFORMANCE & MONITORING						NBS TECHNICAL DESIGN & IMPLEMENTATION
PLANNING TOOLS, INSTRUMENTS AND METHODS INTEGRATED MANAGEMENT SYSTEM					z	
POLICY MAKING COLLABORATIVE GOVERNANCE APPROACHES CITIZEN INVOLVEMENT IN DECISION-MAKING PROCESSES		0-19	VATION		CREATIO	NBS POLICY & GOVERNANCE
ECONOMIC DEVELOPMENT STRATEGY FINANCING AND FUNDING STRATEGIES PUBLIC PROCUREMENT AND TENDERING		COVID	NONNI		ģ	NBS FINANCING & ECONOMIC ACTIVITIES
COMMUNICATION STRATEGY, INNOVATION COMM AWARENESS RAISING						COMMUNICATION & AWARENESS RAISING
SOCIAL COHESION/INCLUSION	1			~~		
CLEVER Cities						10

### **PROCESS OVERVIEW**

<b>CLEVER CITIES TRANSITION</b>		
A1 Getting started A2	Kacilite and recommendations () - 14	S ROADMAP EGIC PLANNING
A1. LESSON LEARNED DESCRIPTIO		
1. TITLE	GOVERNANCE	
2. DESCRIPTION	URBAN PLANNING	
3. KEY ASPECTS	NBSs DECISION MAKING	
4. MAIN BARRIERS	FINANCE SCHEMES	
5. STATUS OF TE ACTION	MONITORING	
6. PERFORMANCE INDICATORS	WHERE + WHAT + HOW + WHO + WHEN	
proGlreg	CLEVER	
EdiCitNet URBINAT	Cities	11

### PROCESS OVERVIEW



### **Getting started**

### **LESSON LEARNED DESCRIPTION**

### **A**1

Getting started

**LESSON LEARNED DESCRIPTION** 

- 1. TITLE
- 2. DESCRIPTION
- 3. KEY ASPECTS

### 4. MAIN BARRIERS

- 5. STATUS OF TE ACTION
- 6. PERFORMANCE PROCES (existing ones to evaluate the upscaling itself)









	TITLE								
		ESCRIPTION							
	D	ESCRIFTION							
	SIGNIF	FICANT LESSONS							
LL1		descrpition							
LL2		descrpition							
LL3		descrpition							
LLn	descrpition								
		IN BARRIERS	_						
Br1	name	descrpition							
Br2	name	descrpition							
Br3	name	descrpition							
		1							
Brn	name	descrpition							
	STATI	IS OF TE ACTION							
	5	descrpition							
	PERFORMANCE INDICATORS								
Ind1	description data								
Ind2	description data								
Ind3	description data								
	description Idate 13								
Indn		description	data 15						

