



**CLEVER
Cities**



EdiCitNet – Edible Cities Network CLEVER Cities

Upscaling and inner city replication roadmaps

16/May/2022

www.clevercities.eu

NBS in the Living Labs

Hamburg's CLEVER Action Lab: Neugraben-Fischbek

Located in the South-West of Hamburg, Neugraben-Fischbek has a rich history: both Neugraben and Fischbek used to be independent villages and became part of Hamburg during the 1930s. Nowadays 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 high-rises of Sandbek.



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 implemented 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.

Green roofs

New green roofs will be constructed to test their potential 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/yards

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

Get in touch

Hamburg's CLEVER Cities participation platform
twitter.com/cleverlab
facebook.com/leapinamburg



<https://clevercities.eu/hamburg/>

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 Thames.

The history

Thamesmead is a neighbourhood, with a unique history and an exciting community of over 40,000 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 62% 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.



Aims

- 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 upskill and improve economic opportunities for residents of Thamesmead;
 - 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/>

The architecture

Thamesmead is an architecturally iconic public housing estate, designed and built by the Greater London Council in the 1960s. 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 housing with green spaces and lakes for residents to enjoy. As the 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 example of nature-based solutions in use.

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 terraces to encourage mobility and community 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.

Vision and Mission

The reason for CLEVER Cities Milan is a city that finds innovative solutions in nature to regenerate, face climate change and build its future together with its citizens.

By implementing innovative and natural interventions in Milan's neighbourhoods, buildings and infrastructure, the mission is for CLEVER Cities in Milan to demonstrate the feasibility and effectiveness of nature-based solutions, and become the voice for promoting them throughout the city.



Plans for the CLEVER Action Labs

CLEVER Cities Milan is starting by experimenting with green infrastructure and innovative nature-based solutions in the southern part of Milan, and intends to spread them throughout the city. Plans for three CLEVER Action Labs are currently being developed in Milan.



Green roofs and walls

'Rivordiamo Milano' (Let's re-green Milan)

The team is using results obtained from the [Rivordiamo](#) project, which has located potential buildings and areas suitable for green roofs in Milan. In partnership with new and existing roof and green wall stakeholders, the aim is to spread the development of green roofs and walls on buildings throughout Milan. A participatory promotional campaign will involve developing an effective mix of tailored actions and tools, awareness-raising sessions, training, exchange of good practices, co-design, technical support, funding, pilot projects and monitoring that demonstrate the environmental and social benefits of the interventions.



Development of public green areas

A new park for Giambellino 120

By working together with citizens and experimenting with new forms of co-creation, the team is planning to create a new public park within the Giambellino neighbourhood of Milan. Plans are to include nature-based solutions such as a green buffer area near the railway, a water management and monitoring system and user-friendly sensors that encourage users by citizens. The aim is to encourage shared management and use of spaces, by introducing equipment and vegetation that encourage community involvement.



A new green hub for Tibaldi station

CLEVER Cities Milan is planning to re-design the railway station through green and innovative elements, which will make the infrastructure not only responsive to the needs of mobility, but also fully harmonised with its urban environment. The innovative elements will include green walls, natural elements on embankments, noise barriers in the structure and surroundings of the station, controlled irrigation, temperature and humidity and external green space such as seating areas.

Be part of CLEVER Cities in Milan

CLEVER Cities Milan platform (Italian)
[@CLEVER_Milano](https://twitter.com/CLEVER_Milano)

<https://clevercities.eu/milan/>



NBS in the Living Labs / Fellow cities

Hamburg's CLEVER Action Lab: Neugraben-Fischbek
 Located on the South-West of Hamburg, Neugraben-Fischbek has a rich history; both Neugraben and Fischbek used to be independent villages and became part of Hamburg in 1937. Neugraben and Fischbek are growing areas.
 The CLEVER Neugraben-Fischbek Housing Development ranges from 1970s blocks to the new Neugraben-Fischbek.

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 experience made when realising the rest of the path through the urban fabric.

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 Thames.
 The architecture
 Thamesmead is an architecturally iconic public housing estate, designed and built by the Greater London Council in the 1960s. It was conceived to address the post-war housing crisis and tackle some of the 'urban blight' of the inner city. Through an iterative process, it is a series of 10 blocks housing over 10,000 people with a mix of housing types, including a mix of social, private and affordable housing. The estate is a mix of high-rise and low-rise blocks, with a mix of housing types, including a mix of social, private and affordable housing.

Vision and Mission
 The vision for CLEVER Cities Milan is a city that finds innovative solutions in nature to regenerate, face climate change and build its future together with its citizens.
 By implementing innovative and natural interventions in urban, semi-urban, suburban and peri-urban areas, CLEVER Cities Milan aims to contribute to the recovery and regeneration of the urban environment, and to the creation of a new urban fabric, more resilient to climate change and more sustainable.

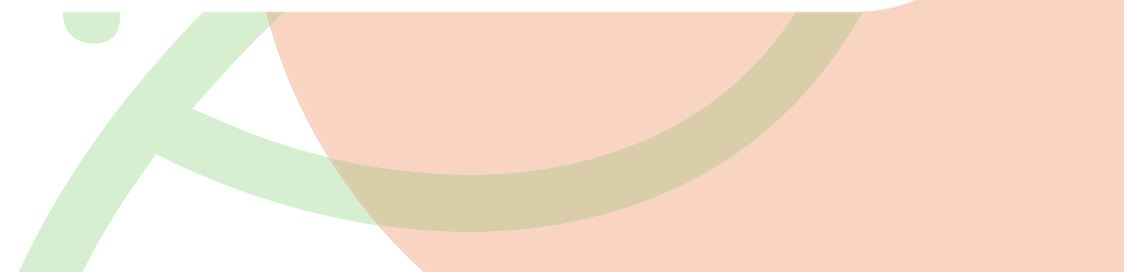
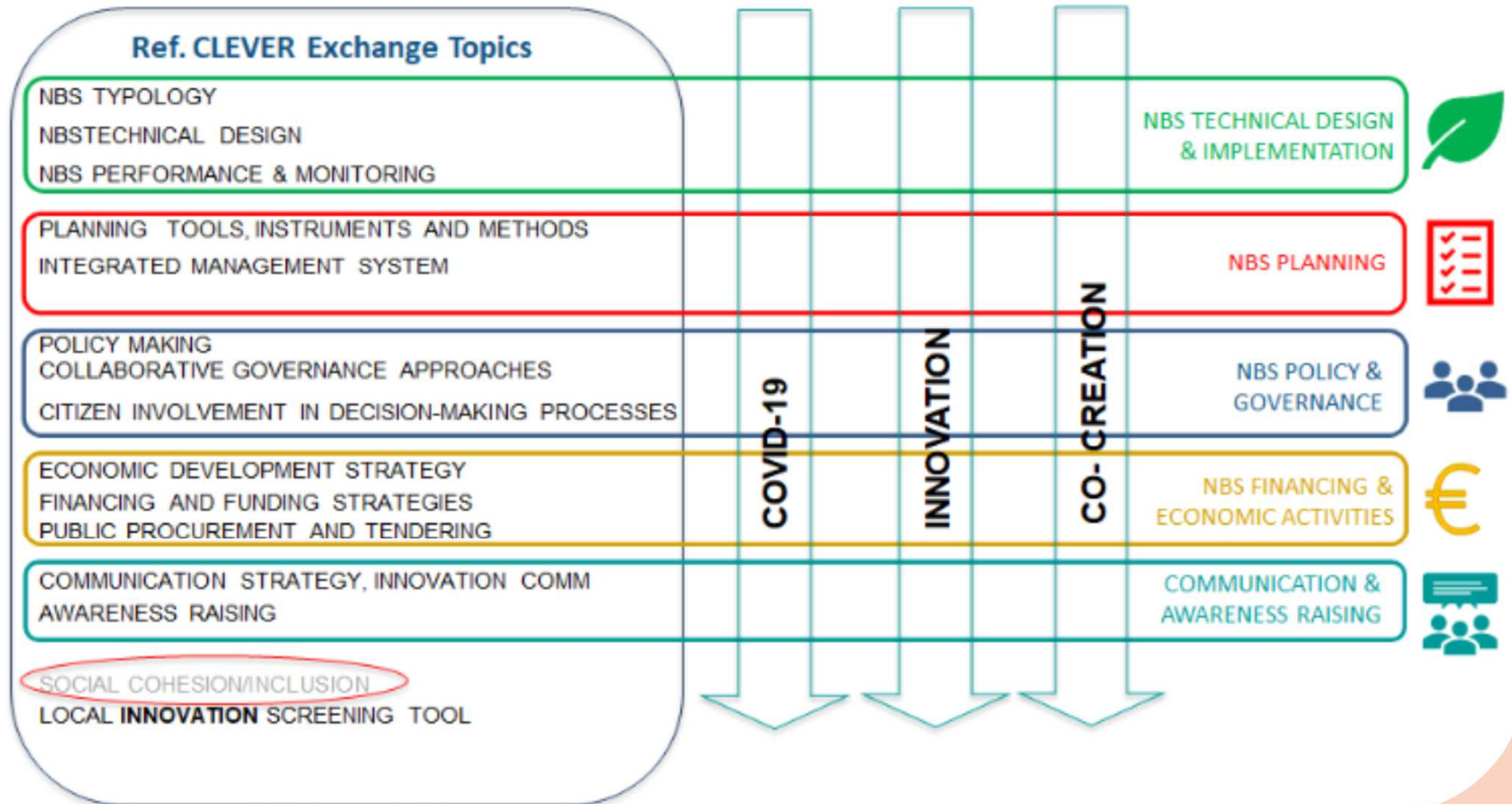
Plans for the CLEVER Action Labs
 CLEVER Cities Milan is a city that finds innovative solutions in nature to regenerate, face climate change and build its future together with its citizens. The plans for the CLEVER Action Labs include: green roofs and walls, 'wardame Milano' (Let's re-green Milan), and a new green hub for Tibaldi station.

green roofs and walls
 'wardame Milano' (Let's re-green Milan)
 A team is using results obtained from the 'wardame Milano' project, which has located potential buildings and areas suitable for green roofs in Milan, in partnership with the local authorities. The project aims to spread the development of green roofs and the use of buildings throughout Milan. A participatory editorial campaign will involve developing an initiative of citizen actions and tools, awareness-raising sessions, training, exchange of good practice, design, technical support, funding, pilot projects and actions that demonstrate the environmental and social benefits of the interventions.

A new green hub for Tibaldi station
 CLEVER Cities Milan is planning to re-design the railway station through green and innovative elements, which will make the infrastructure not only responsive to the needs of mobility, but also fully harmonised with the urban environment. The innovative elements will include: green walls, natural elements on embankments, noise barriers in the structures and embankments of the station, controlled irrigation, temperature and humidity of external green spaces such as walking areas.

- ❖ BELGRADE , SERBIA
- ❖ LARISSA, GREECE
- ❖ MADRID , SPAIN
- ❖ MALMÖ, SWEDEN
- ❖ QUITO ,ECUADOR
- ❖ SFÂNTU GHEORGHE, ROMANIA

NBS in Living Labs / Mapping Lessons Learned

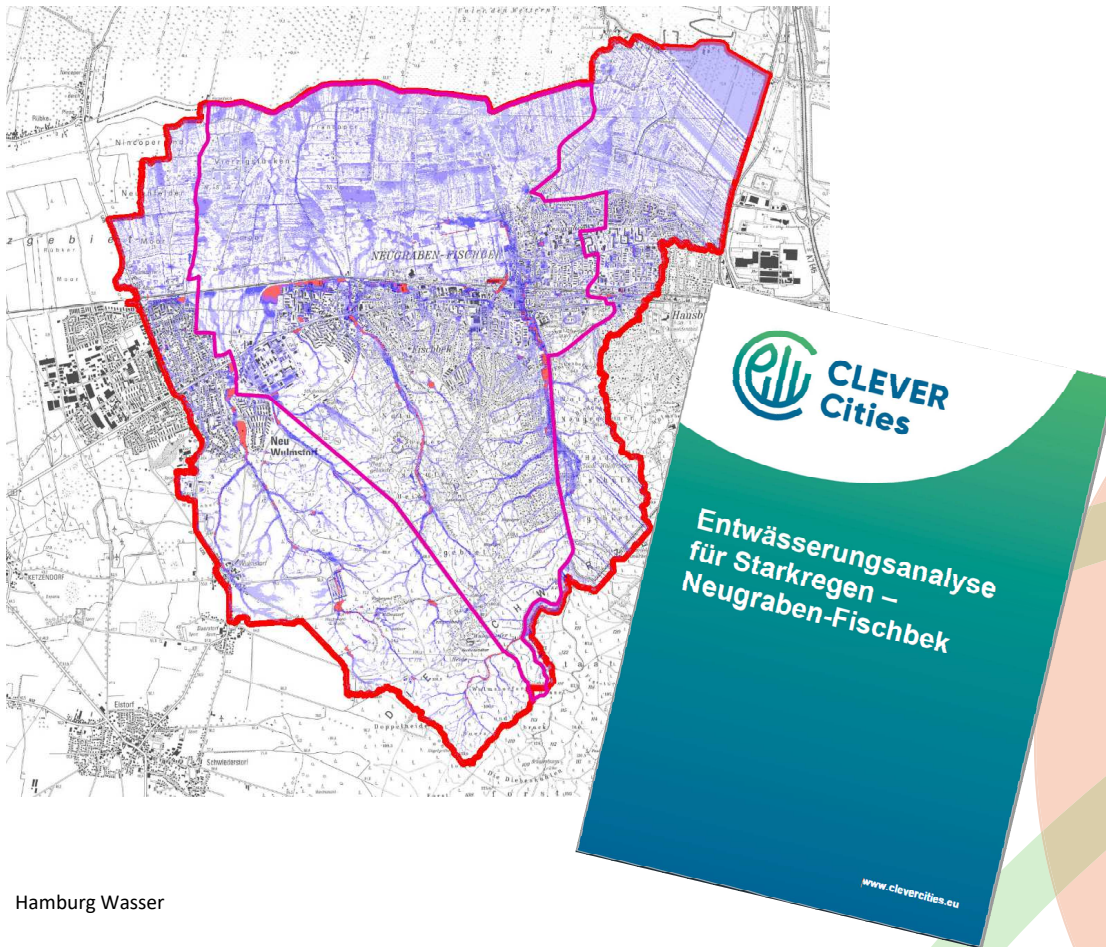


Upscale Pathways for Projects in Hamburg

HAMBURG UPSCALING	CAL 1 / GREEN CORRIDOR 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 (BUE)		RELEVANT STAKEHOLDER TO GATHER THIS EXPERIENCE WILL BE THE GMH
URBAN PLANNING	NATURE PLAYGROUND: <ul style="list-style-type: none"> • CLIMATE TREES • FLOWER MEADOWS WITH INSECT HOTELS • BEDS AND MULTI-FUNCTIONAL ISLANDS 	GREEN FACADE AT THE SAGA DWELLING IN NEUGRABEN-FISCHBEK HOLDS A POTENTIAL FOR UPSCALING	
FINANCE SCHEMMES		(BUE) EXTENDED HIS GREEN ROOF FUNDING PROGRAM BY THE OPTION TO FUND GREEN FACADES TOO	POTENTIAL TOOLS FOR UPSCALING ARE THE ATTENDANCE IN CONTESTS THAT HONOR SHOOLS
NBS DECISION MAKING	VARIETY 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 NETWORK OF SCHOOLS THAT COPY THE IDEA REALISED IN NEUGRABEN-FISCHBEK.
MONITORING	--	--	---



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	CAL 3 / TRAIN STATION THERE ARE REASONS THAT MADE IMPRACTICAL THE APPLICATION IN OTHERS RAILWAY ENVIRONMENT
GOVERNANCE	CO-MAPPING OF GREEN ROOFS AND WALLS, GIVING VISIBILITY TO THE EXISTING REALIZATION	INVOLVEMENT OF DIFFERENT SH WORKING IN PUBLIC GARDENS MANAGEMENT VALUE CHAIN 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 (PGT) AND RELATED OPERATIVE RULES AND TOOLS (RUE/RII) 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 AWARDDING WITH NEW TYPES OF SUPPLIES	A “BARRIER” WOULD BECOME “ AN INTEGRATED SURFACE ” IN THE URBAN CENTER” THE ACOUSTIC BARRIER 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 BINDING AND ENRICHING ELEMENT OF THE URBAN ENVIRONMENT



Upscale Pathways for Projects in MILAN

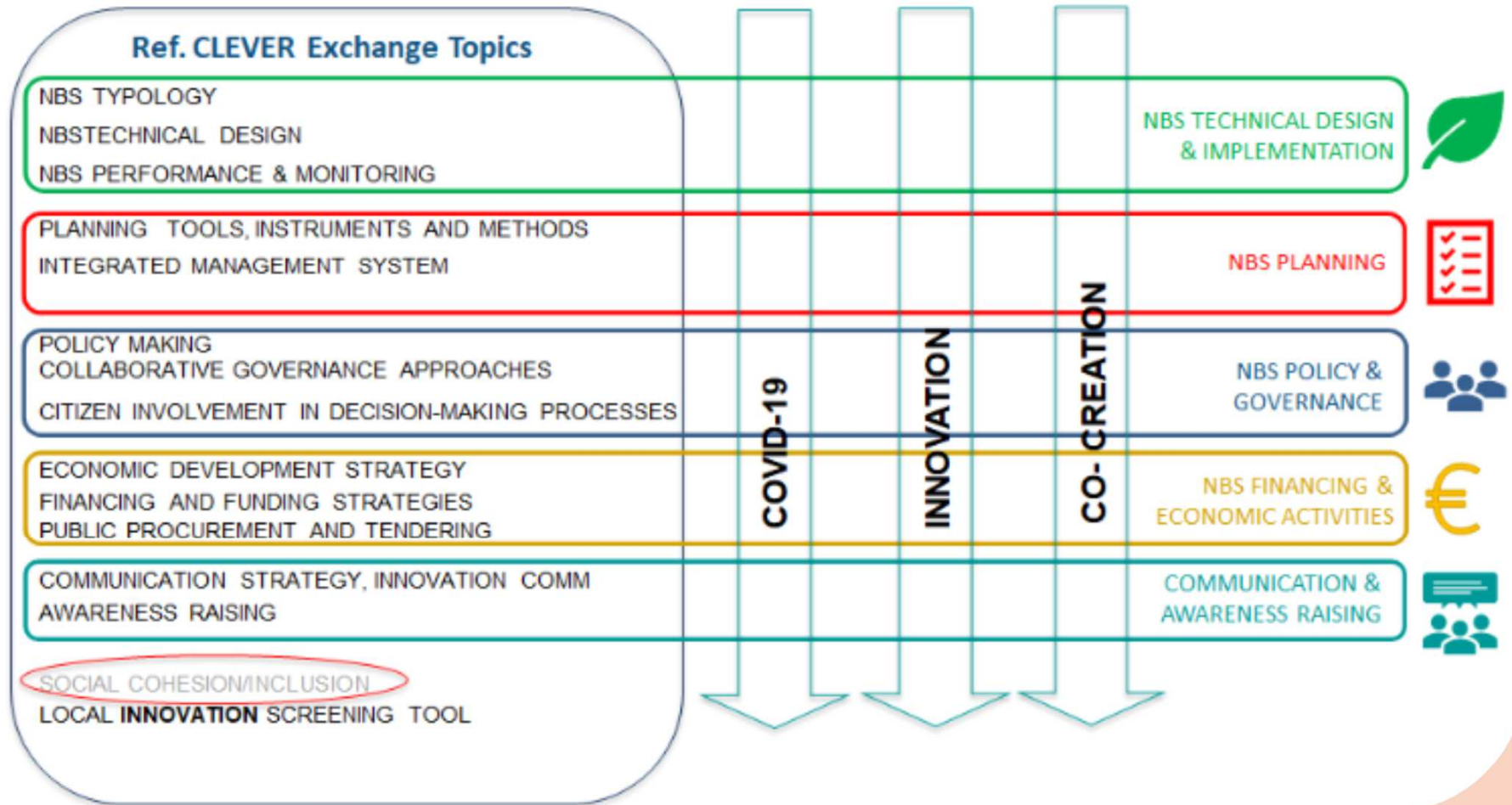
MILAN UPSCALING	CAL 1 / GREEN ROOFS POTENTIAL REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	CAL 2 / COMMUNITY GARDEN REPLICATION OF CLEVER ROOFS AND WALLS ALL OVER THE CITY AND THE METROPOLITAN AREA	CAL 3 / TRAIN STATION THERE ARE REASONS THAT MADE IMPRACTICAL THE APPLICATION IN OTHERS RAILWAY ENVIRONMENT
FINANCE SCHEMMES	INVOLVE PRIVATE SPONSORSHIPS 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 TRAINING COURSES AT UNIVERSITY AND PROFESSIONAL ASSOCIATONS		NATIVE SPECIES OF VEGETATION WAS PLANNED ON THE SUGGESTIONS OF TRADE ASSOCIATIONS IN THE CO-DESIGN PHASE
MONITORING	CERTIFICATION SCHEMES (LEED, BREAMS, ETC.) HAVE TO BE BETTER PROMOTED AND COMMUNICATED	GUIDED TOURS 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			



Upscale Pathways for Projects in LONDON

LONDON UPSCALING	CAL 1 / HEALTHY STREETS APPROACH OPPORTUNITY FOR UPSCALING THE USE OF CO-PRODUCTION IS SIGNIFICANT	CAL 2 / SOUTHMERE LAKE 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
GOVERNANCE	CO-PRODUCTION AND HOW WE WORK COLLABORATIVELY WITH COMMUNITY STAKEHOLDERS IS PRESENTLY THE AMBITION OF MANY REGENERATION PROJECTS	NATURE FORUM – MEETINGS AND STRATEGIC MAPPING PARTNERING WITH PROVIDERS OF NB	
		RECREATION REPLICATION OUTSIDE OF THAMESMEAD E.G. PARK RUN	PARTNER WITH SPONSOR FOR ROLL OUT OF GOOD EXAMPLES
URBAN PLANNING	SHEER NUMBER OF LIVE AND PRE-PLANNING REGENERATION 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 BUSINESS CASE FOR CO-PRODUCTION AND INFLUENCE DECISION MAKERS		
MONITORING	TYPES OF BENEFITS AND COSTS OF CO-PRODUCTION AND HOW TO EFFECTIVELY MEASURE THESE		HUMAN INTEREST STORIES ABOUT EMOTIONAL IMPACT

Challenges // Mapping Lessons Learned



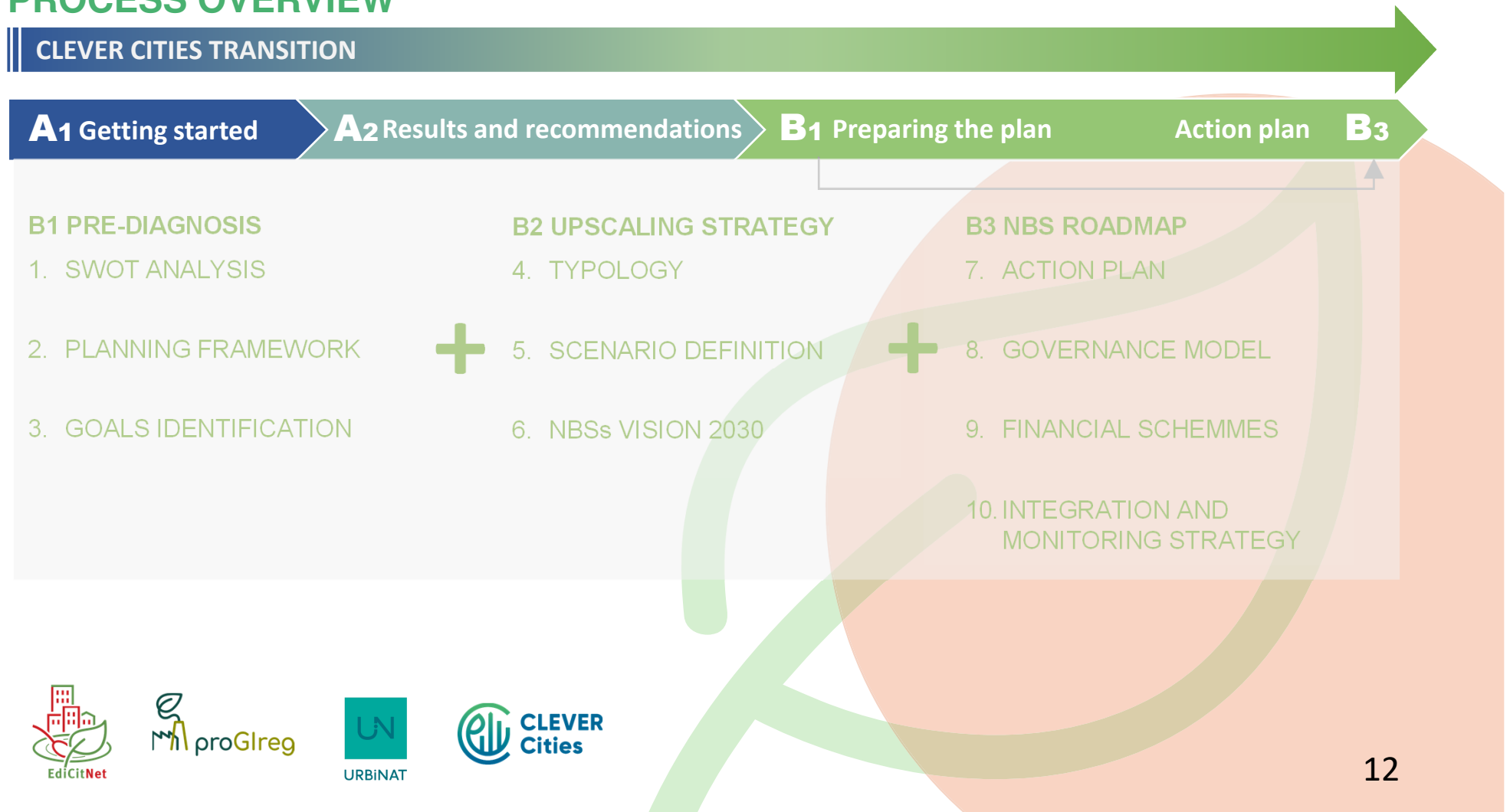
Challenges // Upcaling planning process

PROCESS OVERVIEW



Challenges // Upcaling planning process

PROCESS OVERVIEW



Challenges // Upcaling planning process

Getting started

LESSON LEARNED DESCRIPTION

A1 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		
DESCRIPTION		
SIGNIFICANT LESSONS		
LL1	description	
LL2	description	
LL3	description	
...		
LLn	description	
MAIN BARRIERS		
Br1	name	description
Br2	name	description
Br3	name	description
...		
Brn	name	description
STATUS OF TE ACTION		
description		
PERFORMANCE INDICATORS		
Ind1	description	data
Ind2	description	data
Ind3	description	data
...		
Indn	description	data

Challenges // Upcycling planning process

LESSON LEARNED SIGNIFICANCE

A2 Results and recommendations

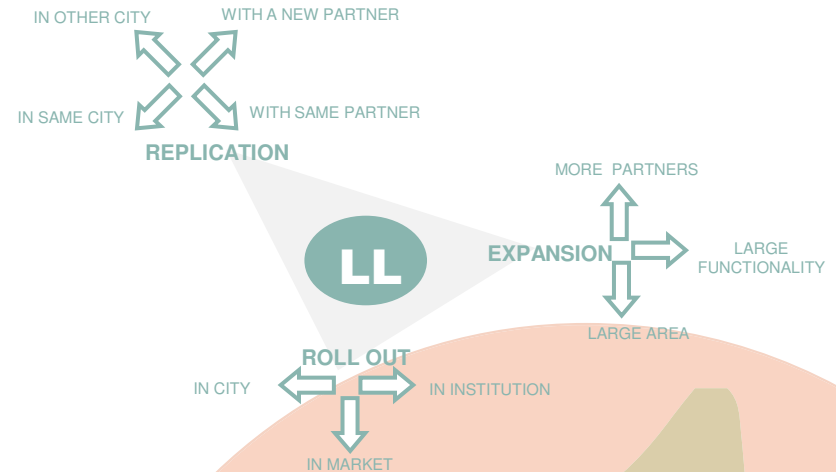
EXCHANGE TOPIC ANALYSIS

- GOVERNANCE
- URBAN PLANNING
- NBSs DECISION MAKING
- FINANCE SCHEMES
- MONITORING

WHERE + WHAT + HOW + WHO + WHEN



A2.1 WKS with relevant stakeholders



HOW THAT ACTION MEETS THE OBJECTIVES OF YOUR OWN AND OTHERS URBAN REGENERATION GOALS?

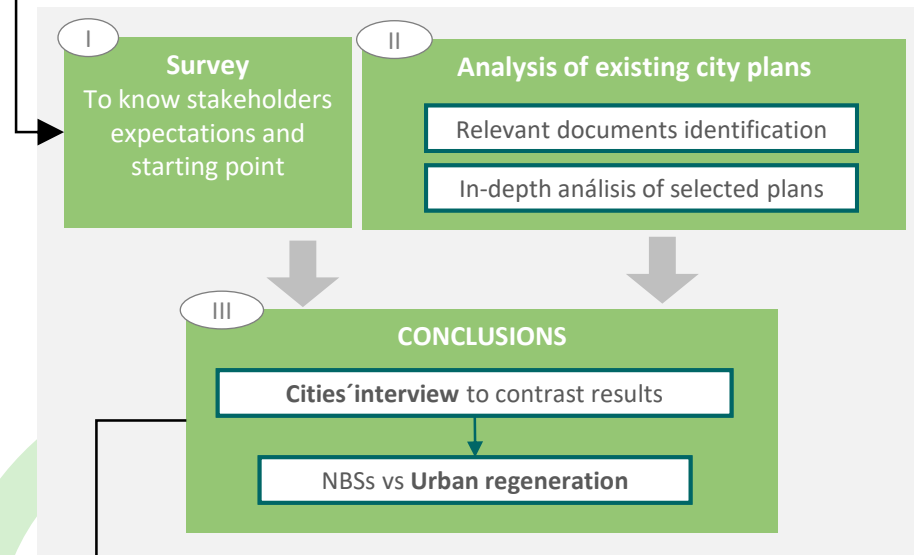
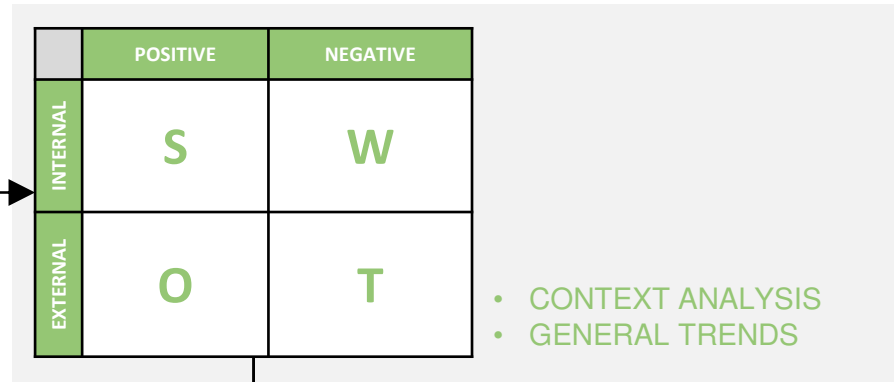
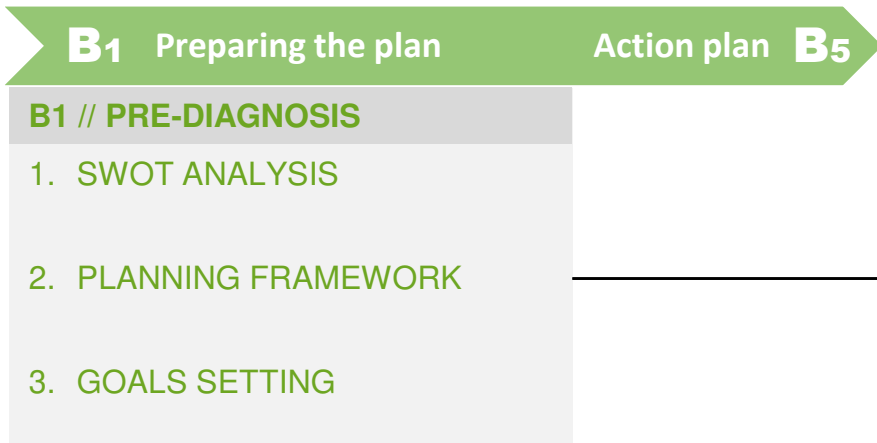
A2.2 Qualitative analysis

SIGNIFICANCE EVALUATION IN EACH EXCHANGE TOPIC

GOVERNANCE		SIGNIFICANCE		PLANNING		SIGNIFICANCE	
		++	--			++	--
BARRIERS	‡	3	1	‡	3	1	
	:	2	0	:	2	0	

Challenges // Upcaling planning process

LESSON LEARNED SIGNIFICANCE



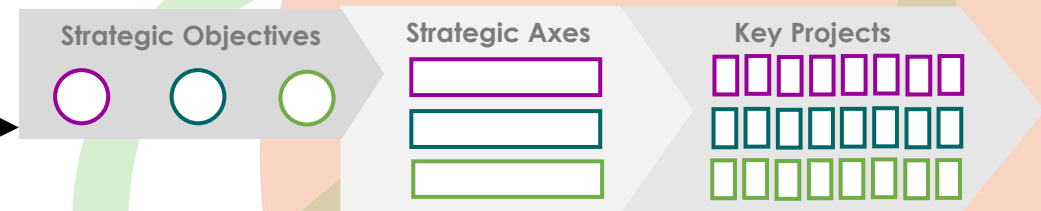
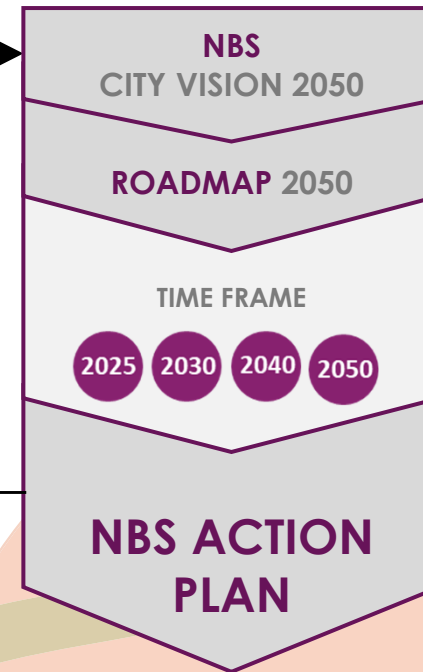
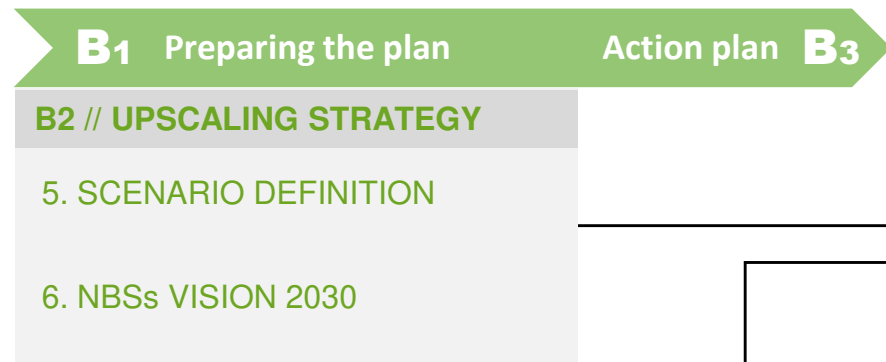
GOALS CUANTIFICATION

4. UPSCALING TYPOLOGY



Challenges // Upcaling planning process

LESSON LEARNED SIGNIFICANCE



STRATEGIC PLANNING

INTEGRATION of key projects into City Administration

