



AGENDA

Intro: Future-proof cities – integrating stakeholders, themes and scales

1. Urban regeneration and development

Impulse / One Question to the audience / Discussion

2. Revitalization of Public spaces

Impulse / One Question to the audience / Discussion

3. Green and circular buildings

Impulse / One Question to the audience / Discussion

RE-BUILDING EUROPE

TOWARDS A FUTURE
SHAPING ECOSYSTEM

**RECOVERY AND DEVELOPMENT PLANS FOR
BUILDING BETTER CITIES**

WARSAW, 09.05.2023

DR. HARIS PIPLAS, LYDIA CHYZHEVSKA, MICHAEL BECKERT

A background graphic consisting of black contour lines on a white field, resembling a topographic map. The lines are irregular and wavy, with some forming closed loops, suggesting a landscape with varying elevations. The lines are more densely packed in some areas and more spread out in others, creating a sense of depth and movement.

ABOUT WORKSHOP

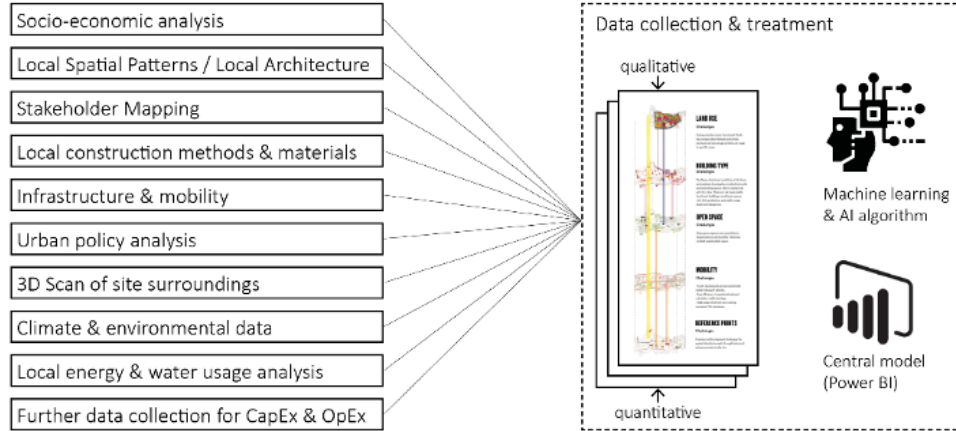
Intro:

**Future-proof cities – integrating
stakeholders, themes and scales**

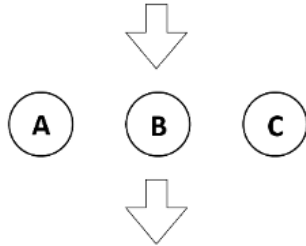


INTEGRATED URBAN SOLUTIONS METHOD

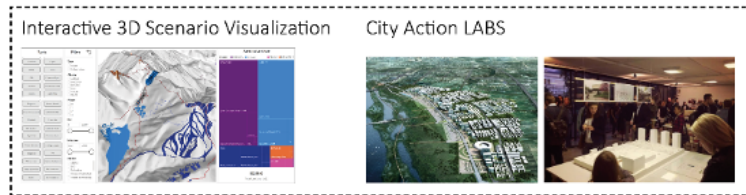
RESEARCH OF LOCAL
CONTEXT
&
DIGITAL MODEL
DEVELOPMENT



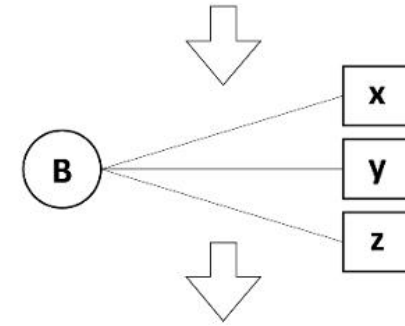
SCENARIO BUILDING:
3 district-scale urban
design scenarios: A, B, C



LAB #1:
Scenario Assessment
and collaborative
decision-making
(district-scale)



SCENARIO BUILDING:
3 building-scale
architectural
scenarios: x, y, z



LAB #2:
Scenario Assessment
and collaborative
decision-making
(building-scale)



USE CASE:
Integrated Urban
Solution

Holistically elaborated, inclusive & accountable urban design & development solution, incl.:

- Stakeholder Engagement Plan
- Monitoring Concept
- Architectural Design
- Long-term proof of bankability through our Tool incl. CapEx & OpEx, precise construction duration planning, Energy & water consumption, GFA, BUA, FAR.





INTEGRATED URBAN SOLUTIONS MULTI-LAYERED APPROACH

Overlapping of the layers

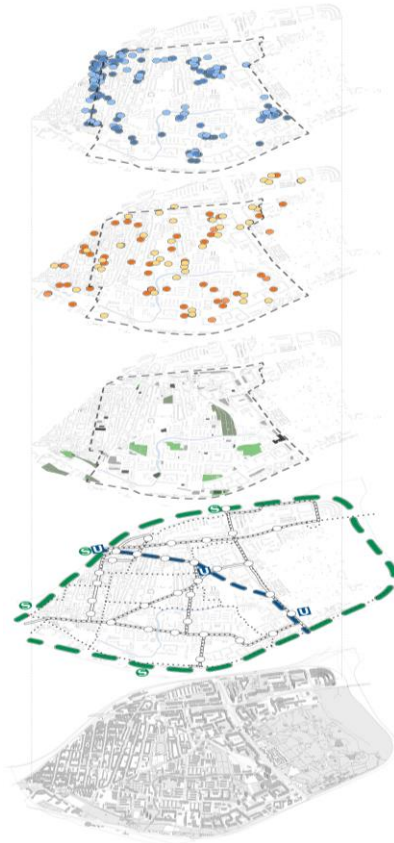
COMMERCE AND ECONOMY

SOCIAL INFRASTRUCTURE

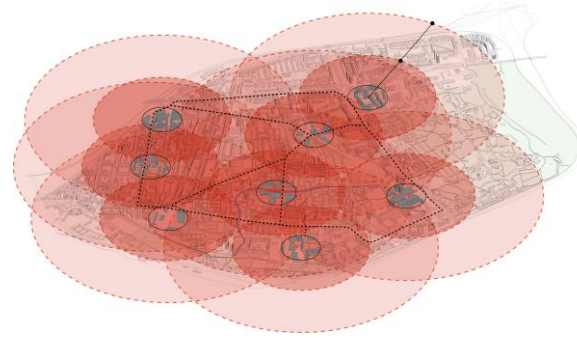
PUBLIC SPACE

MOBILITY

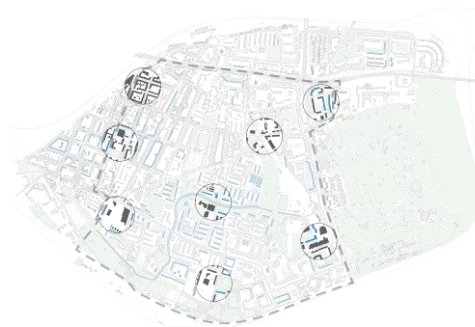
URBAN FORM



15-minute neighbourhood idea

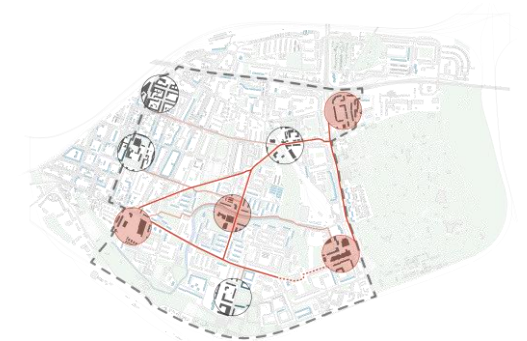
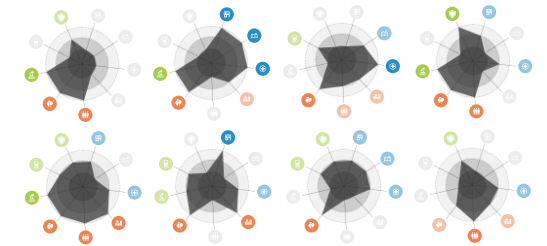


Identification of spatial foci



Need-for-Action of the spatial foci

Thematic foci





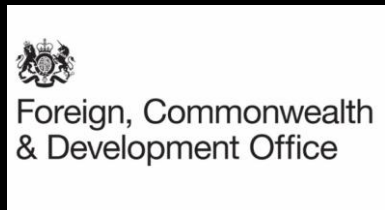
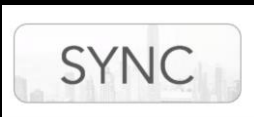
DREES & SOMMER INNOVATION CENTER & START-UP HUB



BILDUNGS- UND FORSCHUNGSEINRICHTUNGEN, BÜROGEBÄUDE
HAMMERBROOKLYN DIGITAL-CAMPUS



Participating organisations





PROJECT MANAGEMENT EXCELLENCE



Strategy Consulting

Our Business & Strategy Consulting advises our clients on the development of their strategic direction for a long-term and sustainable success story.



Organisation & Process Design

Our organizational and process consulting services help clients structure and organize their businesses by combining lean, agile, and conventional methodologies focused on people, projects, and processes.



Project Management Office (pmo)

Our pmo manages our clients' projects to deliver on time, on budget and on quality in accordance with policies, strategy, values and objectives.



Data Management / Tools

We are firmly convinced that data-based decisions help shape the future.

The right data at the right time is the key to success. In the area of data management / science, we support our customers in making targeted decisions.



Transformation & Change Management

We are in the midst of permanent change processes in which the cycles are becoming shorter and shorter. In order to ensure performance, the focus must be on people in particular.

With our integrative approach, we support our customers in successfully shaping their change processes.



FROM CONSULTING TO IMPLEMENTATION



Consulting

Mix of Competence

Management

We provide the right expertise for every phase of the project:

At the beginning of the project, the focus is on consulting – as the project progresses towards implementation, the management part increases.



TAKING PART IN THE GLOBAL DISCOURSE ON URBAN INNOVATION

WEBINAR



Webinar

May 20, 2021 | 3:00 PM - 5:00 PM

Green Spaces and urban Densification – Planning strategies for the sustainability of built habitats

56th ISOCARP Virtual World Planning Congress
Post-Oil City
PLANNING FOR URBAN GREEN SPACES
November 2020 - February 2021

MAIN HOST: ISOCARP
CO-HOSTS: UN-HABITAT URBAN ECONOMY FORUM

The 'Real' Smart City

Special Session - 3 February 2021, 16:00 - 17:30 CET

Moderators / Session Chairs:

- Milena Ivkovic, ISOCARP
- Haris Piplas, Drees & Sommer Switzerland

Speakers & Panelists:

- Pietro Elisei, ISOCARP
- Anna-Vera Deinhammer, City of Vienna
- Sinisa Trkulja, Ministry of Construction, Transport and Infrastructure, Serbia
- Gordana Memisevic, Planning Institute of Sarajevo Canton
- Gulnara Roll, UNECE
- Anna Schindler, City of Zurich
- Pontus Westerberg, UN-Habitat
- Paola Deda, UNECE

wuf¹⁰ Climate and Disaster Risk Assessments in Data-Scarce Cities
Wednesday, 17 February 2020: 12:30-13:30
Hall 2, Room 9

Organized by: AECOM Imagine it. Delivered.

Cities of Opportunities: Connecting Culture and Innovation

#WUFI0 wuf.unhabitat.org



UN-HABITAT FOR A BETTER URBAN FUTURE

wuf¹⁰ المدن الحضرية العالمية World Urban Forum

Cities of Opportunities: Connecting Culture



mgj MORDENSTÄDT GLOBAL SMART CITIES INITIATIVE

University of Stuttgart Fraunhofer

On behalf of Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany

MGI WEBINAR ON JUNE 11 (15:00-17:00 CEST): INTEGRATED PLANNING

OPENING AND MODERATION
Sophie Mok, Fraunhofer IAQ, Stuttgart

INTEGRATED PLANNING FOR CLIMATE RESILIENCE - EXPERIENCES FROM MILAN
Ilaria Giuliani, City Resilience Department, Milan

CO-CREATION AND LIVING LABS IN HOLISTIC PLANNING
Dr. Francesca Spagnoli, The European Network of Living Labs, Belgium

INTEGRATED APPROACHES TOWARDS CLIMATE-RESILIENT AND INCLUSIVE CITIES
Dr. Christiane Gebhardt, Drees & Sommer Switzerland, Zürich

DIGITAL URBAN TWINS - URBAN SIMULATION AND VISUALIZATION IN PLANNING PROCESSES
Leyla Kern, High-Performance Computing Center, Stuttgart

Dr. Haris Piplas, Drees & Sommer Switzerland, Zürich

CRITICAL URBAN INFRASTRUCTURES

Actual issues of disaster risk and critical infrastructure management in selected countries of Global South

May 27 2021 | 2:00 - 4:00 PM CEST

Presenters:

- Prof. Dr. Sophie Schramm, International Planning Studies, TU Dortmund University
- Prof. Dr. Ally Hassan Namangaya, School of Spatial Planning and Social Sciences, Ardhi University, Tanzania
- Dr. Haris Piplas, Drees&Sommer Integrated Urban Solutions, Switzerland

IRPUD DREES & SOMMER





3 FOCUS TOPICS FOR TODAY'S WORKSHOP



Urban regeneration and development



Revitalization of Public spaces



Green and circular buildings

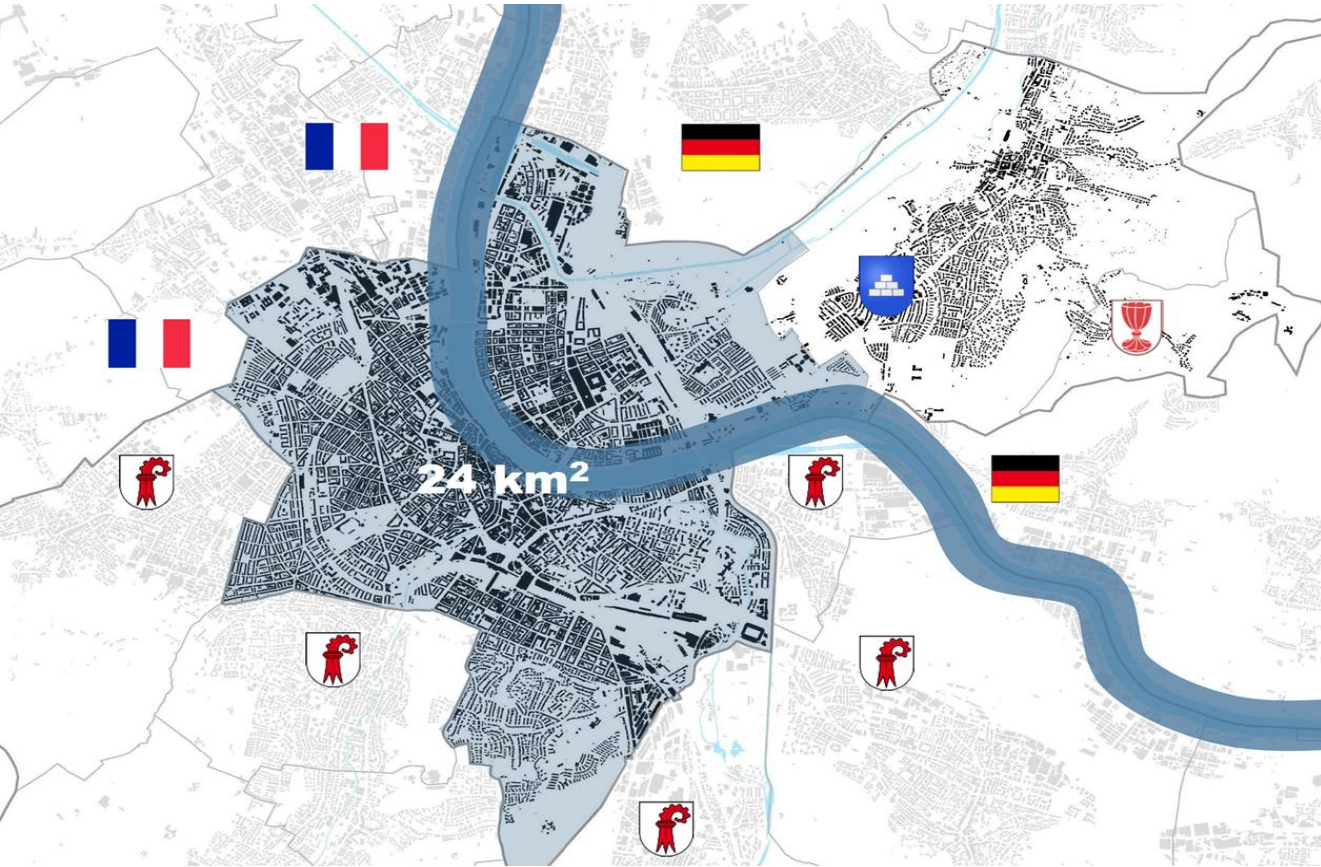
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ABOUT WORKSHOP

Urban regeneration and development



NEW TRANSNATIONAL COLLABORATION MODELS





APPLICATIVE GOVERNANCE TOOLBOX FOR URBAN CLIMATE ADAPTATION

Urban Governance Toolbox

TOOLS MENU

URBAN GOVERNANCE TOOLBOX

Hier finden Mitarbeiter:innen von Kommunen hilfreiche Hinweise und Anregungen zur Ausgestaltung von Umsetzungsprozessen für Klimaschutz und Anpassung.

TOOLS SUCHEN

Herausforderungen

Mit welchen Herausforderungen muss ich als Kommune im Zusammenhang mit dem Klimawandel umgehen?

[Mehr erfahren](#)

Lösungsansätze

Welche Möglichkeiten habe ich als Kommune, um Klimaschutz und Anpassung voranzubringen?

[Mehr erfahren](#)

Wirkungen

Wie wirken meine kommunalen Aktivitäten zu Klimaschutz und Anpassung?

[Mehr erfahren](#)

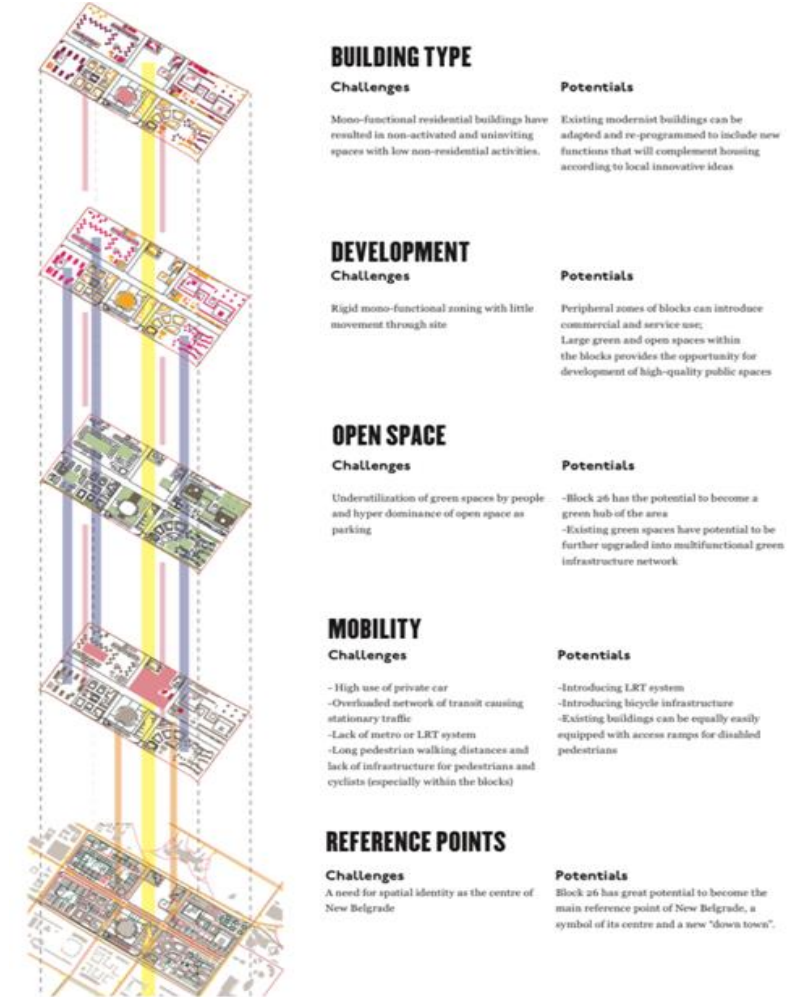
Partner

Die Urban Governance Toolbox ist im Rahmen des vom BMBF geförderten Forschungsprojektes SMARTilience und somit in Zusammenarbeit folgender Projektpartner:innen entstanden:





EVIDENCE-BASED SMART & SUSTAINABLE CITY PLANNING





02.03.2023 - 15:20 | Views: 1867

How not to lose the chance. The comprehensive recovery program is a road map of the priority steps for the recovery of Ukraine

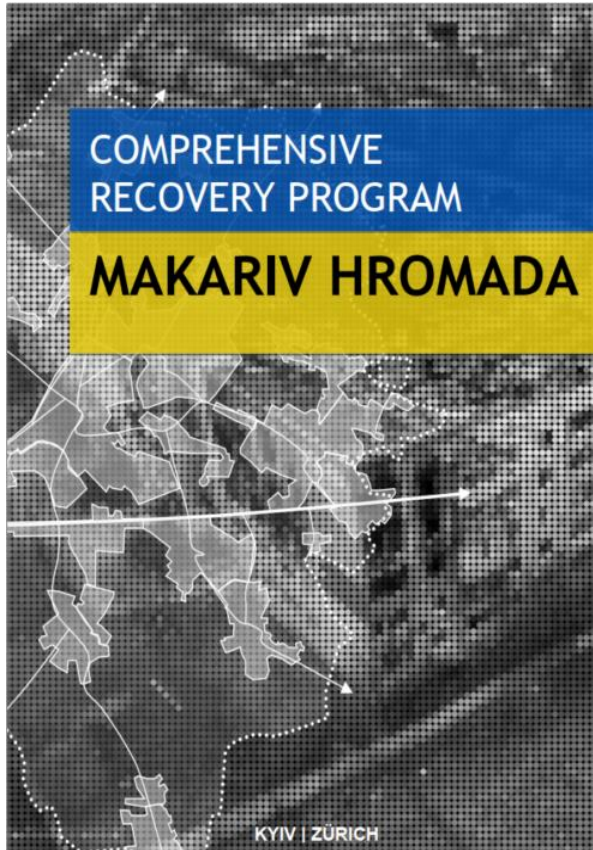


Despite the uncertainty and risks of a protracted conflict, some municipalities, such as Makariv, in cooperation with the international architecture, planning and consulting company Drees & Sommer – Integrated Urban Solutions and the Union of Architects of Ukraine and the Architectural Chamber of NSAU, are already taking active measures to recover the life of the Municipality and revive the economy and development of the territory.





THE FIRST STEPS IN THE DEVELOPMENT OF MAKARIV COMPREHENSIVE RECOVERY PROGRAM



Makariv town council
architecture_mtg@ukr.net

Vadym Tokar - head of the Makariv Township Council - Makariv Mayor.

Yevhen Pochupailo - Head of the Department of Urban Planning, Architecture and Spatial Planning - Chief Architect of the Makariv Township Council.

Natalia Kruk - the chief specialist of the Department of Urban Planning, Architecture and Spatial Planning



National Union of Ukrainian Architects
nsau_peboard@gmail.com
arhitektoz@gmail.com

Oleksandr Chyzhevskiy - the President of the National Union of Architects of Ukraine.

Tetiana Kryshchop - assistant to the President of the National Union of Architects of Ukraine.

Borys Yerofalov - chief editor of the architectural and construction magazine A+C.

DREES & SOMMER

International architecture urban consulting company
haris.piplas@dreeso.com haris.piplas@mail.ch

Dr. Haris Piplas - Co-Directing Urban Design, Planning and Development in Integrated Urban Solutions

Michael Beckert - Leading consultant in Project Management

Lidiia Chyzhevska - Urban planner in Integrated Urban Solutions



Міські виклики та потенціали

Чому Макарія?

Макарієська селищна територіальна громада — найбільша громада Київської області, розташована в Бучанському районі. Адміністративний центр — селище міського типу Макарія.

Площа громади — 1012,3 км.
Населення — 27 352 чоловік.
До складу громади входить 2 селища та 47 сіл.

Макарія розташовані на 50 км на захід від Києва по автомобільній поблизу автомобільної дороги державного значення М-06 Київ-Чоп.

Після широкомасштабного вторгнення 24.02.2022 росії в Україну, Макарія та села Макарієської територіальної громади стали епіцентром бойових дій та кровопролиття. Макарія та села Макарієської громади півтора місяці жили під російською окупацією. Окупанти вбили понад 200 мирних жителів.

Внаслідок щоденних масованих обстрілів з боку росії зруйновано та пошкоджено 3332 об'єкти соціальної, житлової та критичної інфраструктури. Найбільших руйнувань зазнав житловий фонд. Погіршилась доступність населення до соціальних послуг, інфраструктури та ринку праці. Значно зріс рівень безробіття.

Попри ризик затяжного конфлікту, вже сьогодні необхідно вжити дієвих заходів для відновлення життєдіяльності громади, відновлення економіки та розвитку територій громади.

Так пошкоджено та зруйновано 64 багатоквартирні житлові будинки, 2 з них підірвано лінійний, 2396 індивідуальні житлові будинки, 595 з них повністю зруйновано та підірвано лінійний. Збиток об'єктів соціальної інфраструктури та критичної інфраструктури становить 23 школи, 22 дитячі садочки, 24 заклади охорони здоров'я та 23 заклади культури. Зруйновано та пошкоджено підприємств підприємств, величезні проблеми з лінійними. Так, пошкоджено та зруйновано 173 об'єкти мережевого магістрального, що вимагає негайних заходів для відновлення. Також, 3 млн 100 тисяч об'єктів загальної житлової інфраструктури та комунікацій, повномасштабної мережевої інфраструктури, а також збиток на підтримку пенсійного забезпечення.

Urban challenges & potentials

Why Makariv?

The Makariv Hromada (Municipality) is the largest Hromada (Municipality) of the Kyiv oblast (region), located in Bucha rayon (district). The administrative centre is the town of Makariv.

The area of the Hromada (Municipality) is 1012.3 km.
The population is 27,352 people.
The Hromada (Municipality) includes two towns and 47 villages.

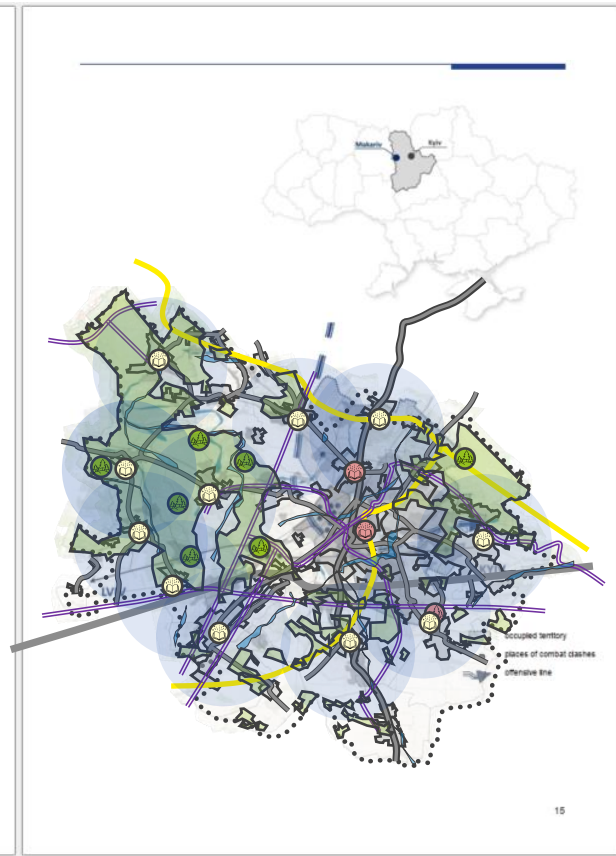
Makariv is located 50 km west of Kyiv near the state road M-06 Kyiv-Chop.



After the large-scale russian invasion of Ukraine on February 24, 2022, Makariv and the villages of the Makariv Hromada (Municipality) became the epicentre of hostilities and bloodshed. Makariv and the villages of the Makariv Hromada (Municipality) lived under russian occupation for a month and a half. The occupiers killed more than 200 civilians.

As a result of massive daily shelling by the russians, 3,332 objects of social, residential and critical infrastructure were destroyed and damaged. The accessibility of the population to communal services, infrastructure and the labour market has worsened. The unemployment rate has increased significantly.

Despite the risk of a protracted conflict, it is already necessary to take adequate measures to restore the life of the Hromada (Municipality), revive the economy and develop the Hromada's (Municipality's) territories.

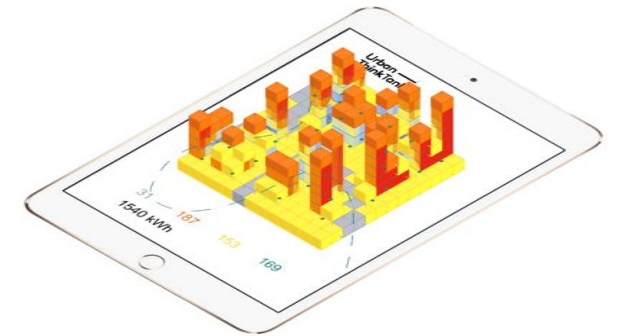
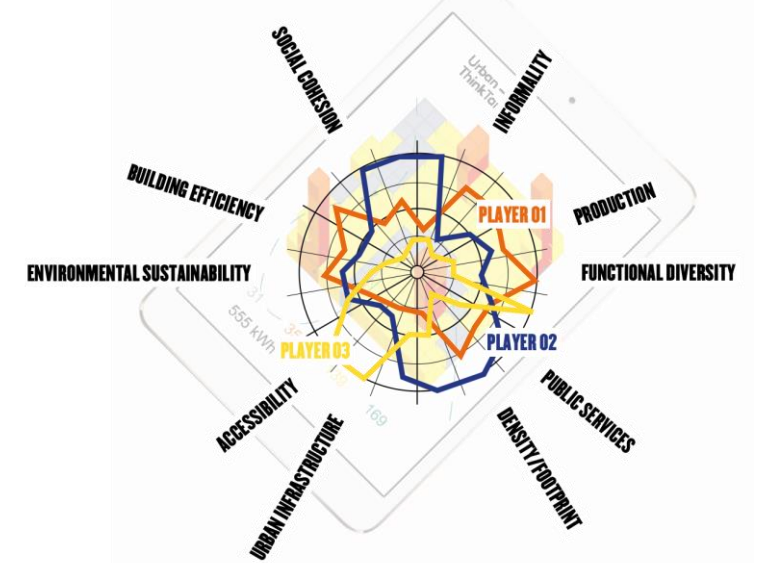




REALLABORE - PARTICIPATORY AND INCLUSIVE CITIES & NEIGHBOURHOODS



COMPARISON OF THE RESULTS OF EACH INDIVIDUAL PLAYER: MULTI CRITERION EVALUATION





SUSTAINABLE TRANSFORMATION OF UKRAINIAN CITIES AFTER 2014

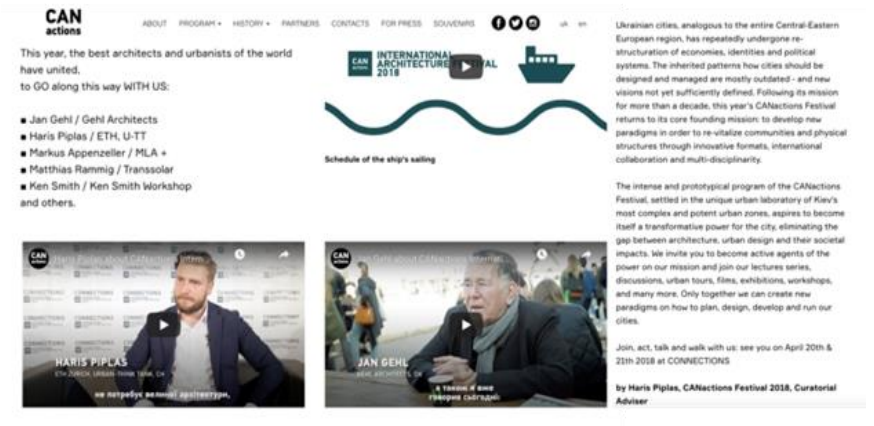


Written by Sebastian Jordana

March 05, 2014

The recently announced 'User-Generated Kyiv Ideas Competition' is searching for creative ideas and architectural solutions on building a better city. In nowadays circumstances, where citizens arise and understand that a city should be built by its citizens, the competition aims to convert the maximum energy generated by the revolutionary wave into urban ideas and new functions of public space.

The jury includes Ai Weiwei, Haris Piplas, Heribert Wolfmayer, Stefano Regazzo and Marc Jay.



THE TECH AND DESIGN ISSUE

Architects Plan a City for the Future in Ukraine, While Bombs Still Fall

Irpin was one of the first Ukrainian cities to be destroyed and liberated. Now it's becoming a laboratory for rebuilding.



A black and white topographic map background with contour lines of varying thickness and spacing, creating a sense of depth and terrain. The lines are more densely packed in some areas, indicating steeper slopes, and more widely spaced in others, indicating flatter ground. The map covers the entire right side and top of the page, with the text overlaid on the white space on the left.

ABOUT WORKSHOP

Revitalization of Public spaces



METROPOLITAN PLANNING





MAPPING SOCIAL AND ECOLOGICAL VULNERABILITY



Generation 65+

Säuglinge und Kleinkinder

Schwangere Frauen

Menschen mit Übergewicht

Menschen mit Unterernährung



Personen, die körperlich schwer arbeiten oder intensiv Sport treiben



Obdachlose

Menschen mit bestimmten chronischen Erkrankungen

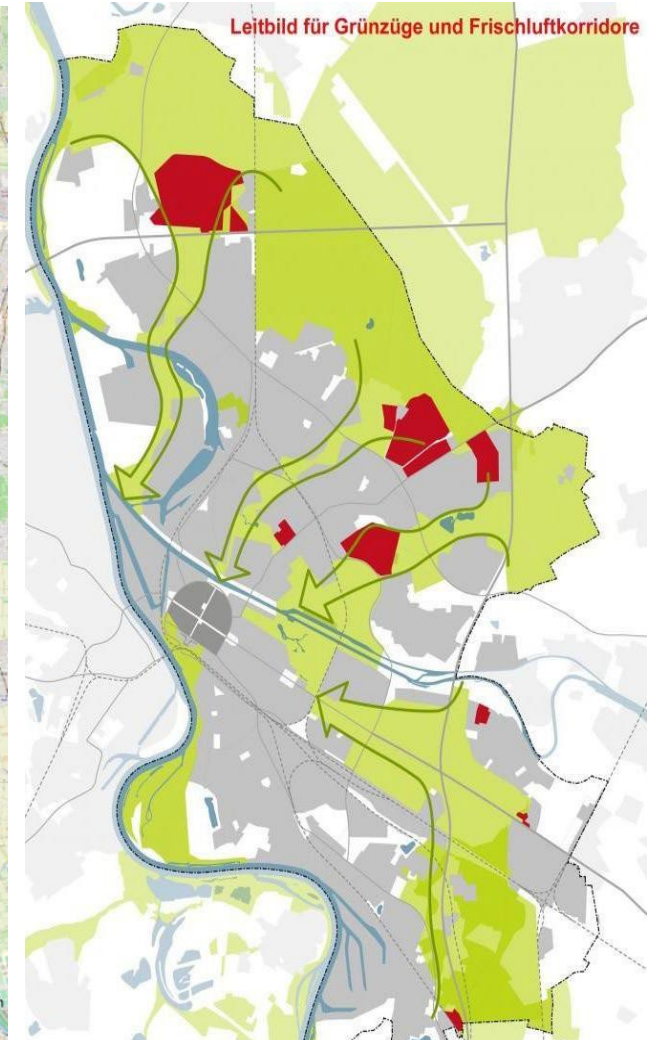
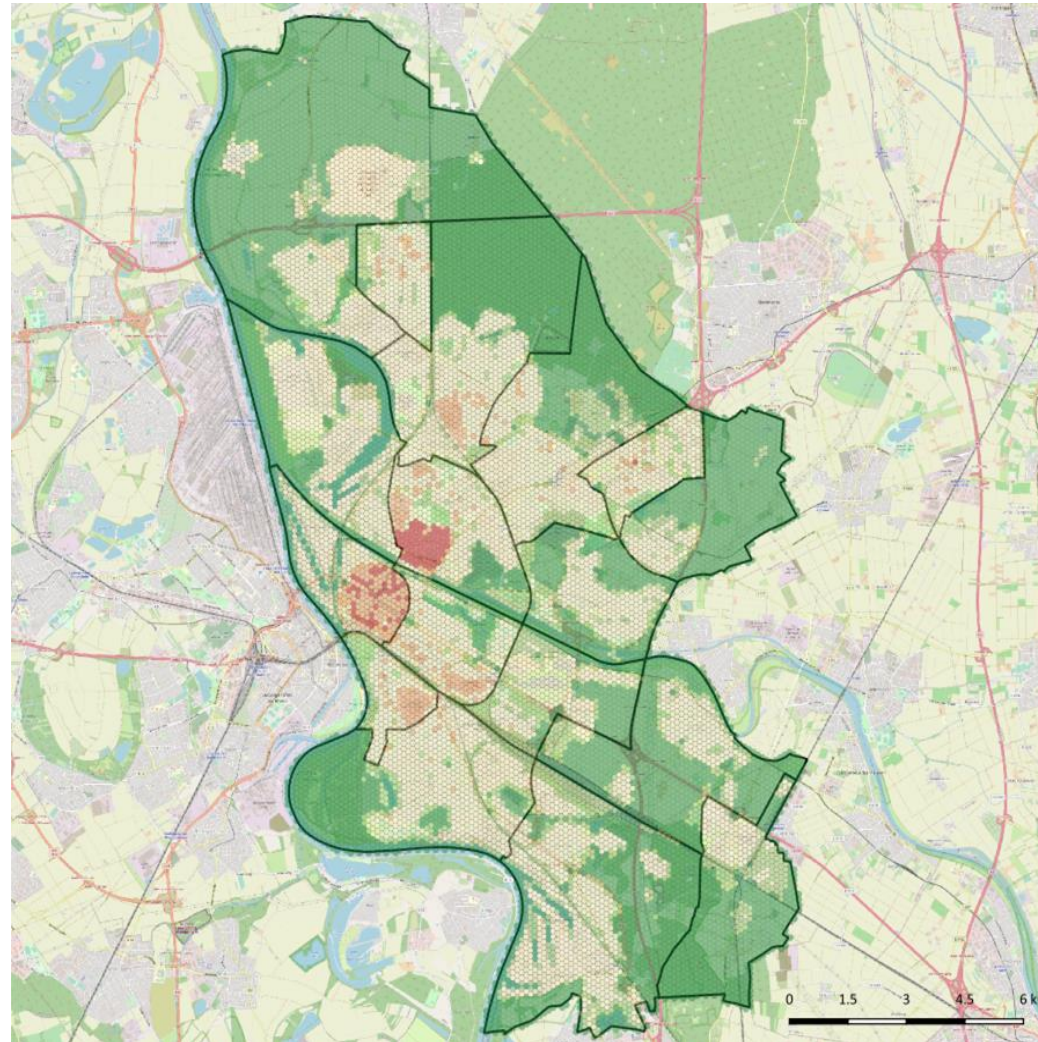
z. B. von Herz/Kreislauf, Atemwegen/Lunge, Nervensystem/Psyché, Nieren

Menschen mit akuten Erkrankungen
z. B. mit Durchfall, Fieber



Menschen, die regelmäßig Alkohol oder Drogen konsumieren

Menschen, die bestimmte Medikamente einnehmen, die dem Körper Flüssigkeit entziehen oder die Temperaturregulation stören, z. B. Schlafmittel, Entwässerungstabletten, blutdrucksenkende Mittel





URBAN TRANSFORMATION VISUALISATION OF EXISTING SPACES



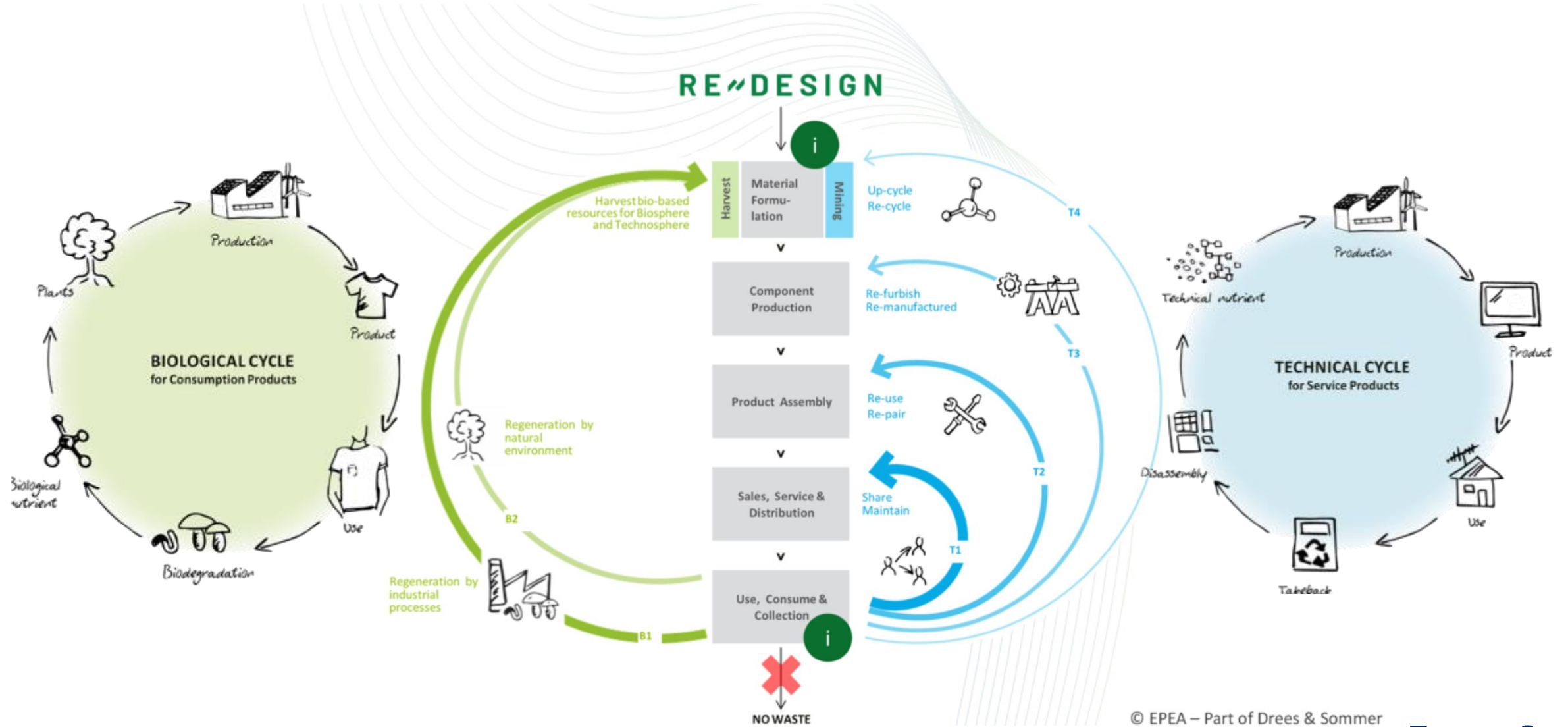
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ABOUT WORKSHOP

Green and circular buildings



CRADLE TO CRADLE – BUILDING BACK BETTER



© EPEA – Part of Drees & Sommer



DEMOLISHING WORK – WASTE DUMP





HEIDELBERG CITY SCALE

Out of sight, out of mind – that is probably the best description of the way we usually treat waste. This also applies to the largest current source of waste materials: the demolition of buildings. **About half of the waste which is currently disposed of in Germany is construction and demolition waste.** Only a small part is recycled, and that is usually in an inferior form compared with the original use. Materials which are disposed of in construction or demolition work – such as concrete, steel, timber or plastics – usually land on waste tips or as landfill in road construction, although they are bitterly needed in new construction projects and are prohibitively expensive. The **German city of Heidelberg** now wants to change this. **It is the first city in Europe to apply the urban mining principle** in a pilot project with the title Circular City – ‘construction materials cadaster for the city of Heidelberg’. The project is supported by the local company **Heidelberg Cement AG**, which is one of the largest building materials enterprises in the world.

Moreover the city uses the materials **platform Madaster**, designed by the environmental advisors of **EPEA**, a subsidiary of the consulting company **Drees & Sommer SE**.

[Urban Mining – Heidelberg on the Way to Becoming Europe’s First Circular Municipality \(dreso.com\)](https://www.dreso.com)





CIRCULAR BUILDINGS IN PRACTICE

Benefits

- Improvement of indoor and outdoor air quality
- Continuous material cycles with leasing and take-back programmes with manufacturers
- Usage of renewable sources of energy
- Improvement water quality
- Increase of user's health & well-being

BUILDING CIRCULARITY PASSPORT®

EPEA
PART OF DREES & SOMMER

Issue #00001
Issued Date: XX.XX.2020
Planning Stage: As-Built

COMPANY **EXAMPLE PROJECT**

_ CRADLE TO CRADLE® STORY
The Cradle to Cradle® principle mimics nature: most materials used can be reused. Virtually no waste is produced during demolition, as much of it is recycled and made usable again in another form. And the ecological idea goes one step further: a Cradle to Cradle® building uses ecologically generated energy and also looks at the environmentally friendly production of the building materials.



_ ESTIMATED MATERIAL VALUE XX MIO € **_ CIRCULARITY INDEX XX %**

_ CIRCULARITY VALUES

 MATERIAL HEALTH 10% 1% Optimized 9% Improved 90% Regular 0% Problematic	 EMBODIED CARBON FOOTPRINT 37% Improved compared to a standard office Building
 MATERIAL SOURCING 26% 13% Secondary 4% Responsible Renewable 83% Virgin	 MATERIAL RECOVERY 4% 5% Recycling/Upcycling 90% Downcycling 2,5% Thermal recovery 2,5% Disposal / Thermal treatment
 DISMOUNTABILITY 26% 15% Maximum flexible 12% Flexible 48% Partially flexible 25% Not flexible	 SEPARABILITY 68% 30% Dismountable connection 30% Partially dismountable connection 30% Non dismountable connection

_ SOURCES







BUILDING BACK BETTER - URBAN RECONSTRUCTION PLAN - MAKARIV, BUCHA REGION



MAKARIV VILLAGE COUNCIL

St. Dimitria Rostovskiyi, 30, Makariv village, Buchansky district, Kyiv region, 08001
phone/fax (04578) 5-28-43 e-mail: info@makariv-rada.gov.ua, www.makariv-rada.gov.ua
EDRPOU code: 04362183

Number: 03-24/715
Makariv, Kyiv region, 22 July 2022

Dr. Haris Piplas
Co-Director Integrated Urban Solutions International, Drees & Sommer
Oleksandr Chyzhevskiyi,
President of the National Union of Architects of Ukraine (NSAU)

*Dear Dr Piplas,
Dear Mr Chyzhevskiyi,*

The city of Makariv would like to use this opportunity to express support and readiness to establish a plan for the comprehensive recovery and sustainable development of the Makivska Community

With this letter, we express our interest and consent to creating a future project coalition.

Since the current action plan of the city authorities is aimed at restoring the critical infrastructure that suffered significant destruction during the Russian occupation and achieving sustainable urban and socio-economic development of the city of Makariv and the community as a whole, we support and fully approve the development of a comprehensive recovery program, as a priority and guarantee our full participation, as a basis for joint future cooperation.

We are particularly pleased with the cooperation between the city of Makariv and National Union of Architects of Ukraine (NSAU) established through the signed Memorandum of Understanding between our City Government and the NSAU.

Therefore, we are particularly interested in the proposal to create a future project coalition and cooperation with the Integrated Urban Solutions department of Drees&Sommer. We are convinced that Makariv should become an example of the best urban practices and innovations so that our city becomes a symbolic center of the region.

Therefore, we fully endorse the creation of the first step - the Makariv Urban Recovery Program - as preliminary research. With the help of this format and in this coalition project, we intend to develop a joint Strategic Plan for the city's urban development, as well as innovative pilot

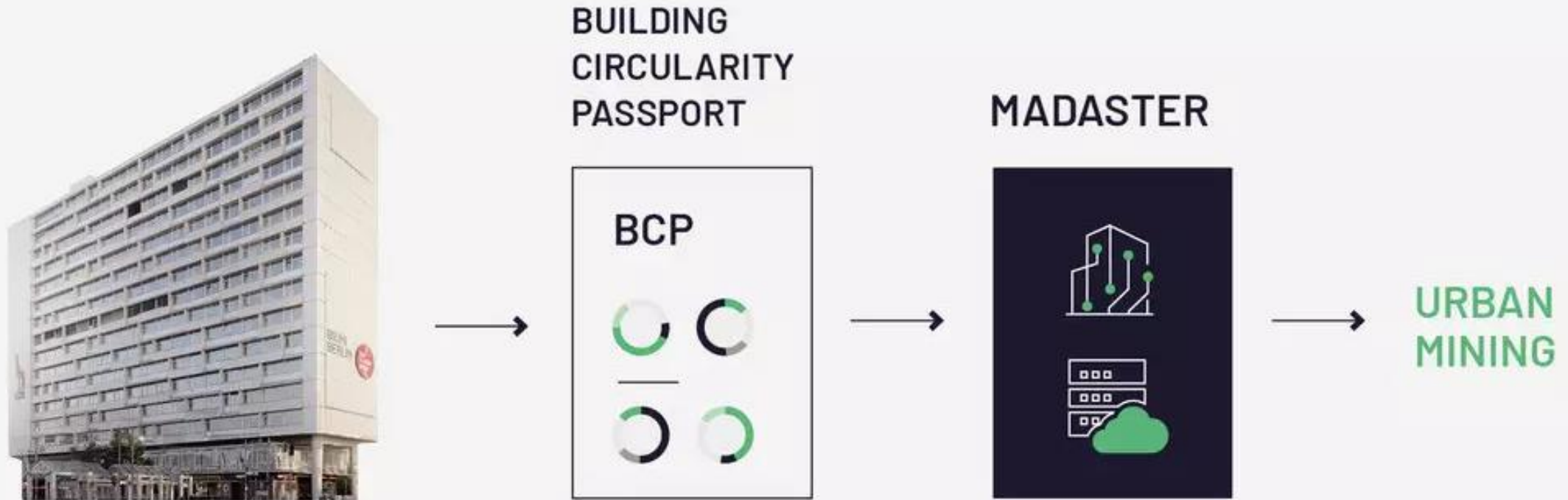




SUSTAINABLE REFURBISHMENT – AN UPGRADE FOR ESTABLISHED BUILDINGS

Modular construction and circular economy

Recovering secondary raw materials from existing buildings and reusing them in the next step makes sense, and not only for ecological reasons. The scarcity and rising cost of raw materials, increasing disposal costs and dependence on third countries make the use of secondary raw materials essential.



Thanks to urban mining:

Negative impacts resulting from raw material extraction, such as water stress and biodiversity loss, can be avoided.

Established buildings become valuable raw material repositories and part of valuable material cycles — if the building's ingredients and their quality are known.



BLUE MODULARITY - BUILDING SCALE

The aim is to increase productivity, avoid waste, act transparently and sustainably, and incorporate all aspects of high-level networking into construction processes.

To this end, we have founded our Blue Modularity Hub. Our vision is that Blue Buildings – buildings that are future-proof in every respect – will be designed, engineered and produced like modern products.

