Re-Value Urban Planning and Design Approaches Portfolio (Initial Version)

Re-Value Deliverable D6.3

Report information

Deliverable: D6.3: Re-Value Urban Planning and Design Approaches Portfolio (Initial Version)

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Authors: Allison Wildman, Anna Bernasconi, Fanny Chevalier (ICLEI Europe)

Report contributors: Pieter Bosmans (VITO), Alessandra Pesaresi (RIM), Tone-Lise Vilje (SU), Andreas Amundsen (AK), Keremcam Kirilmaz (İMM), Lies Debbaut (BRU), Jeroen Vansteenkiste (BRU), Katia Alarcon (ICLEI Europe), Sagnik Bhattacharjee (ECOTEN), Miloš Prokýšek (MP), Rita Marau (EMAC), Susana Viana (LNEG)

Task contributors: NTNU – Norwegian University of Science and Technology, Municipality of Ålesund, City of Bruges (Stad Brugge), Burgas Municipality, Municipality of Rimini, Cascais Ambiente, ADI-ZMC, İzmir Metropolitan Municipality, Písek Municipality, City of Rijeka, VITO, Alma Mater Studiorum-Università di Bologna, LNEG, IZTECH, University of Nova Gorica, IFLA Europe, Sørsida, Augment City, SU "St. Kliment Ohridski", JA Europe, Municipality of Constanța, Ecoten, Teatret Vårt, Sladovna Písek

Front page photo: Tanya Kanazir

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1. Introduction

1.1   The Portfolio

The Re-Value project involves nine European waterfront cities that are actively demonstrating how climate neutrality and urban quality can be aligned by re-valuing their connection to the waterfront, strengthening co-benefits, and mitigating potential adverse impacts of climate change. Using the New European Bauhaus-inspired Impact Model[1] as a guide, and experimenting within three Innovation Cycles focused on story-building, data-driven decision making, and implementation partnerships, Re-Value cities aim to make their climate transition irresistible for everyone in the community.

Each of the nine cities is working with long-term Territorial Transformation Plans (TTP) combined with place-based Waterfront Pilots. Four Leading Cities—**Ålesund, Bruges, Burgas,** and **Rimini**—are showcasing how integrated urban planning and design approaches can be implemented with the community in their Waterfront Pilots to help significantly reduce GHG emissions by 2030. The five Replication Cities—**Cascais, Constanța, İzmir, Písek,** and **Rijeka**—are learning from and exchanging with the Leading Cities, and all cities are involved in a Community of Practice[2]. They will develop their own participatory story-building, data-driven scenarios, and financial and partnership models to replicate integrated urban planning and design approaches to accelerate their progress toward climate neutrality.

The Re-Value Cities are not starting from scratch; each city has already experimented with or mainstreamed inclusive, sustainable urban planning and design approaches to support more ambitious climate targets. As such, this   initial version of the D6.3 Re-Value Urban Planning and Design Approaches Portfolio (Portfolio) aims to collect and present these approaches that align with Re-Value's core principles. Insights and lessons from the cities' Re-Value innovation journeys will be captured along the way and included in the final version of the Portfolio (D6.10 Re-Value Urban Design and Planning Approaches (final version) due in 2026).

The Portfolio is a living collection of good and emergent urban planning and design practices, approaches, methods and tools being implemented in Re-Value Cities. It aims to inform, inspire, and encourage collaborative learning within the Re-Value Community of Practice, and eventually with all European cities as they work to update their urban policies, processes, and practices to help achieve the European Green Deal's goal to become the first climate-neutral continent in the world.

The Portfolio is organised into six sections by the previously articulated principles. Specific tools, methods, approaches and case studies from Re-Value Cities (and others) are presented under the best-fit principle to illustrate how the principle can work in practice. The Re-Value Approach is optimised when **all** of the principles are engaged simultaneously and many of the examples include more than one principle. In these cases, the entry is noted with a hashtag (#) if it clearly includes elements of other principles.

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[1] D1.1: Re-Value Impact Model (initial version): https://re-value-cities.eu/documents/re-value-impact-model-initial-version
[2] D6.2 Re-Value Capacity Development and Exchange Programme, Version 2: https://re-value-cities.eu/sites/default/files/media/images/documents/D6.2%20Re-Value%20Capacity%20Development%20and%20Exchange%20Programme%2C%20Version%202.pdf

The tools, methods, approaches and case studies included in this document will also be available on the Re-Value Cities website[3], and tagged with the appropriate principle accordingly for easier browsing and querying functionalities.

1.2   The Re-Value Approach

What is the Re-Value Approach to urban planning and design? What does it mean to be "Re-Valued"? What about this approach to urban planning and design sets it apart from other approaches? How is it articulated as a theory in practice? How can the approach be effectively used and mainstreamed in different cultural / regulatory planning contexts so that communities can catalyse transformative change in sustainable, inclusive and beautiful ways? Is Re-Value only about waterfronts or can it be applied anywhere?

These are the questions that will hopefully have clearer answers to in the coming years, as the Re-Value Cities experiment with the approach in their real-world Waterfront Pilots and share their experiences within the Re-Value Community of Practice and the Cities Mission community for deeper discussion.

The first step is to generally define the Re-Value Approach and create a values-based framework for it to be put into practice. Defining a Re-Value Approach involved making sense of the project terminology, articulating the project's ambitions and aims with the innovations, and examining existing practices to define what "Re-Value" means within the Re-Value cities' local/regional urban planning and design frameworks. To this end, six terms were chosen to capture the essence of the Re-Value Approach, which were further developed into six guiding principles: **Visionary**, **Integrated**, **Informed**, **Inclusive**, **Regenerative / Circular**, and **Irresistible**.

The Re-Value Approach principles draw inspiration from the New European Bauhaus[4], the 100 Climate-neutral and Smart Cities Mission[5] (Cities Mission), the Re-Value Impact Model[6] (WP1), Re-Value's Innovation Cycles[7] (WP1), the Inclusiveness and Diversity Protocol (WP9), and from the Re-Value Cities' experiences shared to date with the Re-Value Community of Practice (WP2-WP6). As we learned during our discovery process in the first year of work, the principles manifest in a variety of ways, as illustrated in the following sections with real-life examples from the Re-Value Cities (and others).

Visionary: Re-Value encourages a mission-driven approach that goes beyond merely addressing current urban challenges; it's about engaging with the community to dream together and actively work towards a future where the community's needs and wishes are aligned with the Europe Commission's ambition to be the first climate neutral continent. Through a Story-building process, cities co-create narratives and design immersive experiences to inspire action and create a sense of shared purpose for achieving this ambitious mission together.

Integrated: Re-Value strives to optimise multiple co-benefits using a custom NEB-inspired Impact Model, to ensure that every intervention, every investment, and every engagement is part of an interconnected web of actions that generate positive outcomes across various planning and design areas simultaneously. The NEB Impact Model helps Re-Value cities engage with their community to better understand and integrate

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[3] https://re-value-cities.eu
[4] https://new-european-bauhaus.europa.eu/index_en
[5] https://netzerocities.eu/
[6] https://re-value-cities.eu/documents/re-value-impact-model-initial-version
[7] https://re-value-cities.eu/documents/re-value-innovation-cycles-experience-based-report-1

diverse indicators, perspectives and disciplines, to find systemic solutions for complex issues that look further than GHG emission inventories and city budgets.

Informed: Ideas and decisions are informed by quality data and practice-based research methods, ensuring that interventions are grounded in evidence, local knowledge, and best practices. Re-Value uses data and digital tools to visualise and make sense of complex systems, engage with stakeholders to co-create scenarios, anticipate trends, and make informed choices that maximise impact.

Inclusive: At the heart of Re-Value's approach is a commitment to inclusiveness, diversity, and collaboration. Re-Value cities actively engage with their local residents, stakeholders, and experts to co-create solutions that reflect the needs, aspirations, and values of the community. Re-Value particularly engages with youth through Junior Achievement Europe's Innovation Camp methodology, to deeply engage with and encourage creative solutions from the cities' future leaders. Transparency and inclusiveness are core principles guiding the Re-Value approach, ensuring that voices from all backgrounds are heard and respected.

Regenerative / Circular: Re-Value embraces a regenerative circular approach to urban planning and design, seeking to re-purpose, refurbish, renew, and regenerate the built environment to the greatest extent possible and establish circular practices in city governance. By transforming the built environment into flexible, adaptive spaces that regenerate natural systems and resources, Re-Value Cities will strive to minimise waste, enhance resilience and biodiversity, and encourage more sustainable economies.

Irresistible: Beyond mere functionality and efficiency, Re-Value uses urban planning and design to co-create urban spaces and places with people that inspire wonder, delight, and connection. By integrating elements of culture, art, beauty, and nature into Re-Value cities, they manifest urban environments that captivate the imagination and nurture human connection and well-being. In doing so, Re-Value aims to create spaces that are not only sustainable, but truly irresistible places to experience and call home.

1.3   Re-Value Cities Waterfront Pilots

Each of the nine Re-Value cities will prepare a public **Detailed Waterfront Pilot Roadmap** as part of the Re-Value project. The Roadmaps for Leading Cities are expected to be published in October 2024, while those for Replication Cities will follow later in the project. These Roadmaps are based on a comprehensive analysis of the pilot areas, covering key contextual factors such as the area's history, regulatory and policy framework, planning landscape, built environment, past planning efforts, and current opportunities and challenges.

The goal is to demonstrate how the Re-Value approach can transform existing planning and design processes to be more inclusive, integrated, and collaborative. By moving beyond "Business as Usual," the Roadmaps articulate experiments to accelerate climate action while creating new processes and solutions using a comprehensive co-benefit analysis that aims to benefit all stakeholders. Re-Value Cities are challenged to reassess existing plans, processes, regulations, and policies with more ambitious climate neutrality goals, while also finding ways to make the transition both inclusive and irresistible to the community.

A short summary of each Waterfront Pilot area has been provided here for a basic orientation to the site and key issues. The Leading Cities' Detailed Waterfront Pilot Roadmaps can be found under Publications on the Re-Value website for a more-comprehensive presentation of the site(s) and proposed actions.
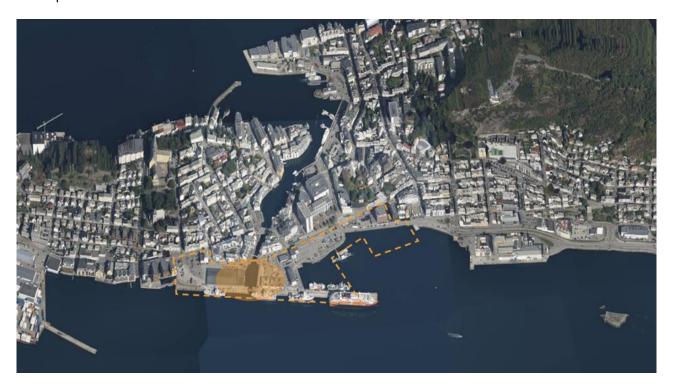
Ålesund, Norway: Kulturhavna (The Cultural Harbour)[8]

Sørsida (South Side) is the name of an underutilised waterfront port district located between the sea and Ålesund's city centre. Today, it consists of large surface parking areas, a public bus terminal, and a few mid-century industrial buildings related to port activities. The bus terminal is in the process of being relocated and modernised as a part of a new transport project adjacent to the site. Most of the port functions in Sørsida have been relocated to other locations in the city, however, the area is still home to Ålesund's cruise ship port, which was Norway's busiest in 2023 (receiving over 650,000 passengers). Even though Sørsida is optimally situated next to Ålesund's city centre, it lacks good connections to and along the waterfront due to the presence of E136 / Keiser Wilhelms arterial road, the city's main east-west thoroughfare.

With large development areas offering views of the sea and surrounding mountains, the site presents great opportunities for bringing new urban functions to the city centre. Previous planning efforts have envisioned this area as a new mixed-use waterfront neighbourhood, including a new cultural centre with a performing arts theatre, school, and other community functions - called Kulturhavna (The Cultural Harbour). Kulturhavna is the focus of the Re-Value project for Ålesund.

Kulturhavna has two development phases; one short-term (temporary) and one long-term (full build out). The Re-Value project focuses on the temporary development phase due to the project's time horizon and because it provides an innovative and creative engagement arena for Ålesund kommune and its municipal development agency, Sørsida Utvikling, to get input to help shape the outcome of Kulturhavna's long-term development.

Aerial map of Downtown, Sørsida development area and Kulturhavna (oval) (Source: Ålesund Kommune)

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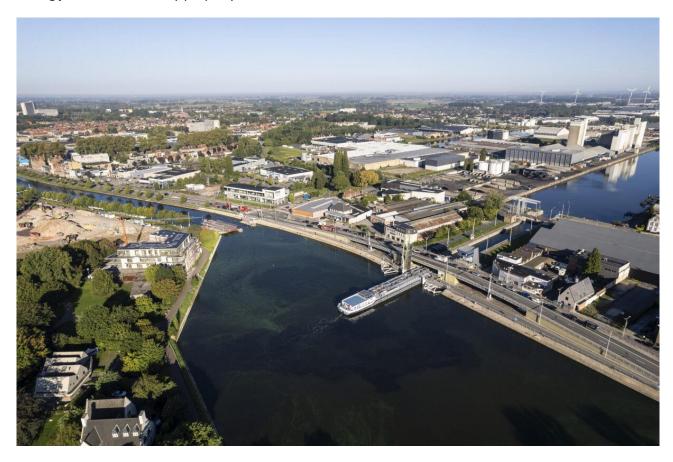
[8] D2.1 Detailed Roadmap for the Waterfront Pilot in Ålesund: https://re-value-cities.eu/documents/detailed-roadmap-waterfront-pilot-alesund

Bruges, Belgium: Kaaidistrict (Quay District)[9]

The Kaaidistrict is located along the northern bank of the Ghent-Ostend canal and serves as a transition district between the city's UNESCO World Heritage Centre and the inner port linked to Zeebrugge, the city's sea port, which is connected to the Kaaidistrict by the 12-kilometre Baudouin Canal. The Kaaidistrict is approximately 30 hectares and constitutes a strategic fringe zone with existing businesses, production, and trade. The monofunctional use, inefficient spatial utilisation, low quality architecture and environmental design, and auto-oriented development patterns could benefit from improvement.

Due to its strategic location next to the city centre, this area is under development pressure, presenting a significant opportunity for the city of Bruges to lead a collaboration process with Kaaidistrict stakeholders to drive the district's envisioned transformation. The Kaaidistrict has been identified in several key municipal plans, including the Spatial policy Plan and the Climate Plan (*Brugge Naar Morgen*), and concept development for the area has been done as part of the Kaaidistrict Concept Plan, a framework plan that details the long-term vision for the district in three discrete zones: Retail Cluster, Food Hub and Makers District. The city's goal through Re-Value is to experiment with different approaches to collaboratively encourage / enforce redevelopment efforts to align with the city's ambitious vision despite not owning or having jurisdiction over any property in the district.

Aerial photo of the Kaaidistrict taken from SE, city centre (Source: Stad Brugge)

[9] D3.1 Detailed Roadmap for the Waterfront Pilot in Bruges: https://re-value-cities.eu/documents/detailed-roadmap-waterfront-pilot-bruges

Burgas, Bulgaria: Sarafavo Sea Park

The Sarafovo Quarter is a neighbourhood situated along the Black Sea coast approximately 10 kilometres north of Burgas' central city and presents a promising area for urban development. With its proximity to major transportation routes like Republican Road I-9 and Burgas Airport, as well as its approximate population of 3,500 people, Sarafovo Quarter serves as a vital hub with significant potential for growth.

However, several key challenges have been identified within the area, including a high proportion of unoccupied seasonal residences in the colder months, a lack of public green spaces along the coastal corridor, and insufficient tree vegetation. Moreover, the Quarter faces noise and pollution issues from its proximity to the Burgas Airport and highway, and its marshy soils are not optimal for development. Additionally, while railway infrastructure exists, it is currently inactive / abandoned.

Despite these challenges, Sarafovo Quarter presents several opportunities to serve as a model for using nature-based solutions to enhance urban quality. Its unique geographical location, connecting the Black Sea to Lake Atanasovsko and Sarafovo Port, alongside nearby residential areas, offers a natural framework for such an approach. The Quarter is part of the municipality's planned Compact Zone for Integrated Intervention "Coastal Zone." This plan envisions creating a public green space (park) along the coastal edge of the Sarafovo neighbourhood, linking it to an existing park to form a cohesive natural area. Additionally, measures such as constructing a noise barrier between the neighbourhood and Burgas Airport, improving public transport with a fast bus line between Burgas and the airport, and enhancing environmental quality and amenities aim to attract a more permanent residential community. These interventions not only aim to improve urban quality but also demonstrate how nature-based solutions can create a more sustainable and liveable urban environment.

Sarafovo Neighbourhood and Pilot Study Area: Sarafovo Sea Park (Source: Burgas Municipality)

Rimini, Italy: Parco del Mare and Parco Marecchia

Rimini's destination waterfront consists of sandy beaches lined by private bathing establishments and restaurants, a road axis that runs parallel to the coastline, and dense adjacent urban development (mostly hotels and short-term residences). The two waterfront areas included in the Re-Value pilot are predominantly tourist areas. The **Parco del Mare** area is very large, but sparsely inhabited, mostly oriented towards beach tourism with many hotels and services directed to tourists. The **Parco Marecchia** area is small in size but very densely populated and is closely linked to the adjacent neighbourhood (Borgo San Giuliano) and the Rimini Marina.

Both areas are included in Rimini's larger strategy and planning documents for its waterfront redevelopment, including the 2007-2027 Strategic Plan, the city's Sustainable Development Action Plan (ATUSS), the Beach Plan, the Green Plan, PAESC - Sustainable Energy and Climate Action Plan, among others. The pilot areas will serve as a test bed for the city's new Green Plan, which will act as a further supplementary tool to the general urban planning able to establish the priorities and needs of the territory, the increase in ecosystem benefits, the development and enhancement of urban and peri-urban green areas in the long term, the economic resources to be invested, and the monitoring methods, also and above all through the involvement of the community.

Aerial maps of the Parco del mare and Parco Marecchia pilot areas in Rimini (Source: Rimini Municipality)

Cascais, Portugal: Guia, Ribeira das Vinhas and Carcavelos Beach

Three coastal areas are being re-valued by Cascais as a Replication City in the project. **Guia**, a 3 kilometre stretch of Cascais coastline, is highly popular throughout the year. A road, cycle lane and walking path run alongside it. There are many natural and cultural attractions along this cliffed coastline, the most famous are "Boca do Inferno" (Hell's mouth) rock formation, "Farol da Guia" (Guia Lighthouse) and "Casa da Guia" (Guia House) with their popular restaurants, terraces and commercial areas. The eight kilometre **Ribeira das Vinhas** green corridor helps reduce flood risk and heat island effect. It provides a trail for over 35,000 citizens to commute sustainably and for recreational activities. This allows for easy access to the city centre from the coastline, promoting active mobility and climate resilience. **Carcavelos** is a popular 1.25 kilometre beach with high use all year-round, but particularly in summer. It is also a popular surf destination. As a pilot, it can demonstrate how actions can be taken for the benefit of beach users while considering the seasonal use pattern. The beach also has easy access by train, with the nearby Carcavelos railway station at a walkable distance of about 10 minutes, by bus or by car using Marginal Road (EN6) that follows the coastline and using the available parking spaces.

Constanța, Romania: The Peninsula District

The Peninsula District is Constanța's historical city centre, with a surface area of approximately 0.9 square kilometres (approximately 0.01 % of the total city area) and a resident population of around 8,000 people (PUZ 2003). This area represents the heart of the city. Bordered by the Black Sea on the east and south, by the Constanța Port precincts on the west, and by the heavily-travelled Ferdinand Boulevard on the north, the Peninsula Area concentrates the most representative administrative, cultural and religious institutions of Constanța. The district currently consists of a mix of urban functions including housing, administrative services, businesses, public alimentation, and tourism (accommodation, bars, restaurants etc.). Due to its attractiveness, it is one of the most-visited areas in the city, especially during the summer. Access to and in the Peninsula area is provided through its street network, characterised by its hierarchical structure and its density.

One of the key challenges identified in the area is the advanced degradation of the buildings, with many at risk to seismic activity. The cultural heritage is also degraded and in a poor state, vulnerable to activity and with no capacity for major events, due to insufficient infrastructure in a continuous degradation state. As part of the Re-Value project, the municipality would like to explore ways to futureproof their inventory of cultural heritage buildings and monuments, as well as engage with the community to improve the Peninsula's urban quality throughout the entire district, which includes addressing sensitive issues such as parking, public open spaces and urban greening, and access / view corridors to the sea.

İzmir, Türkiye: Alsancak District

İzmir is Re-Value's only 100 Climate-Neutral and Smart Cities Mission City and has been awarded the Mission Label, recognising its efforts to reach climate neutrality by 2030. As a Re-Value Replication City, İzmir is taking a closer look at the waterfront in the Alsancak District. The district spans from Alsancak Port's entrance to the eastern end of the Gulf of İzmir and is a key landmark in the cityscape, flanked by Alsancak Train Station and expansive railways to the east, and the tranquil expanse of the İzmir Gulf to the west. Covering about 175 hectares, it comprises vibrant neighbourhoods like Alsancak, Kültür, and Mimar Sinan and embodies a blend of cultures, histories, and urban experiences, reflecting İzmir's maritime heritage, commerce, and community life. Serving as the eastern gateway to the Gulf of İzmir and the starting point of

the Port of İzmir, the pilot area holds significant importance in the city's urban fabric. Alsancak Kordon - located in the selected waterfront pilot area - was recently redeveloped to provide 150 hectares of greenery, pedestrian areas, cycling paths and a single-lane vehicle road.

While the waterfront pilot area has its advantages, it is often impacted by flooding. İzmir's history is intertwined with flooding, dating back to ancient times, exacerbated by rapid urbanisation, inadequate infrastructure, and climate change. The catastrophic flood of 26 November 2023, highlighted the city's vulnerability, submerging key areas and prompting power outages. It emphasised the urgent need for resilient infrastructure, sustainable urban planning, and adaptation to climate change. This will be a key focus of the city's work in Re-Value.

Písek, Czechia: Portyč Neighborhood and Mezimostí Waterfront

Replication City Písek is re-valuing two districts close to their historic city centre: the Portyč Neighborhood and Mezimostí Waterfront. Both of Písek's waterfront pilot sites share a proximity to the Otava River, which divides the small Czech city in two. The Portyč neighbourhood is located on the left bank of the Otava River, stretching from the New Bridge to the former textile factory 'Fezovka'. It evolved as a commercially active suburb of Písek, surrounded by walls through which the Golden Trail passed. In the 1980s, the northern part of Portyč was transformed into a panel housing estate, originally known as the Dukla housing estate. Portyč is the largest housing estate in the city with a high concentration of residents and parked vehicles. The city has identified insecurity issues in the area and poor coexistence between communities. The entire housing estate underwent two phases of revitalization, focusing primarily on the restoration of greenery, sidewalk repairs, lighting replacement, and new playgrounds. Flood protection measures were also implemented in Portyč, with the construction of flood barriers on the left bank of the Otava River.

The Mezimosti waterfront area consists of a corridor that no longer has any relationship or access to the river and suffers from a lack of connectivity to the surrounding developed environment. The area of interest, located near Písek's centre, is delimited by the Old and New Bridge and extends along the banks of the Otava River. The left bank is equipped with flood protection measures, extending to the end of the Portyč housing estate. A residential complex is located there, and a waterfront promenade has been created allowing access to the river. On the right bank, Písek's Cultural House is located amongst a complex of buildings. A path directly by the water enables cyclists and pedestrians to travel along the river, however the nearest water access point is currently unused due to its steepness. Although the area is maintained and covered with grass, it does not provide space for recreation or other uses. Another issue is the high level of solar exposure during summer months, making the unshaded area inhospitable.

Rijeka, Croatia: Delta / ExportDrvo and Ivex

Rijeka seeks to benefit from the port's central location in the city centre, and work with stakeholders in the waterfront area to boost the implementation of its climate neutrality ambitions. In 2020, Rijeka was looking forward to a year as the European Capital of Culture and had prepared an impressive array of infrastructure in anticipation of the designation. The COVID-19 pandemic stopped this but, in Re-Value, the city will identify how this infrastructure can be re-used to support in increasing the local quality of life and in achieving climate neutrality. The city faces challenges including buildings and spaces that are protected as cultural and historical heritage (complicated and expensive renovation), private ownership of Port spaces and extremely deteriorated spaces.

Exportdrvo is a former lumber drying facility and warehouse, renovated to be a key site of the Rijeka 2020 – European Capital of Culture (ECC) programme, hosting world-class exhibitions. It is now planned to re-design the site, to establish its role as a key cultural destination in the city.

The Delta area, formerly part of the Port of Rijeka, will be developed into a new urban district and city park, with improved connections to the water edge of the Adriatic sea. It is located close to the city centre, connected to it by bridges and the large Brajdika and Delta roads for vehicle traffic. The new neighbourhood is mainly intended for tourism and recreation, with a central four-hectare city park in the area of North Delta and 10 hectares of various municipal facilities, including residential, business, trade, hospitality, entertainment, city multipurpose hall, and an aquarium.

IVEX is an industrial building that was adopted as headquarters for the Managing office of the European Capital of Culture 2020. The building was already used as a multifunctional space to host other organisations and creative industries, but its future is now under investigation, given the decision by the protection office to list it among the buildings that can be demolished. Its strategic position makes it interesting for waterfront redevelopments, either by implementing adaptive reuse projects or by demolishing to give room for re-naturalising the delta.

2. Visionary

Throughout history, the most notable urban achievements have been driven by bold decisions made in the face of uncertainty. These pivotal moments, though challenging at the time, become the foundation upon which future progress is built. In the face of climate change, it is more crucial than ever to adopt a visionary approach to urban planning. By making bold decisions today, cities can become resilient to the impacts of climate change and ensure a sustainable, adaptable future for generations to come. The courage and foresight demonstrated now will create a lasting legacy, enabling future communities to thrive in a changing world.

Re-Value encourages a mission-driven approach that transcends the immediate challenges facing urban environments. It is not just about solving today's problems, but about engaging with communities to envision a future where their needs and aspirations also align with the European Commission's bold goal of becoming the first climate-neutral continent. Through a Story-building process, cities work to co-create compelling narratives and design immersive experiences that inspire collective action. This process fosters a deep sense of shared purpose, empowering communities to take ownership of the journey toward this ambitious, transformative mission.

Ålesund: Special Purpose Vehicle - Sørsida Utvikling AS

#visionary #integrated #informed #inclusive

Why visionary?

- **A new implementation model** for cities to take an active part in urban development projects, without fully selling the land or developing the site themselves.

To implement the planned vision for Sørsida (South Side Plan), Ålesund created a Special Purpose Vehicle, Sørsida Utvikling AS (SUAS), to coordinate, negotiate and enter into legal agreements with external stakeholders to develop the new neighbourhood. The model is an innovative alternative to either fully retaining and developing the municipal land or selling it entirely to private developers. It allows the municipality to take an active part in the urban development of the area and capture value creation while enabling collaboration with the private sector to share the financial risks.

Following the creation of SUAS, an Overall Development Strategy was created to establish the practical implementation, construction of infrastructure, and distribution of tasks between the municipality, SUAS, and external partners. As a next step, subsidiaries will be created, each responsible for developing a sub-area of the South Side Plan, which will then be fully or partially handed over to partners.

The municipality will retain two key roles: (1) shareholder and participant in the subsidiaries and (2) the planning authority.

To be interesting to all parties, key organisational and cost sharing principles for the model include:

- **Dynamic overall business plan, established in collaboration with potential partners**: Partners will be involved early in the process to create the guiding principles. The business plan is intended to be

a dynamic document, meaning that it is subject to changes and on-going revisions, with room for adaptation and alternative or new solutions.

- **Fair and verifiable distribution of infrastructure costs**: A construction contribution model is envisaged for infrastructure work, with each private developer contributing to the cost, but not one developer alone ensuring the implementation of the infrastructure measures. The municipality envisions creating a joint infrastructure company to carry out the infrastructure work across the site.
- **Capture of value creation by the municipality**: The municipality will ensure that a large part of the value development takes place during its ownership period. The transfer of the sub-areas from the municipality to the subsidiaries will take place when the sub-areas have the highest possible value.

The following benefits of using this model are expected to be:

- **Facilitated human resource management**: Staff are recruited and hired through SUAS's structure and processes, which is more agile than the municipality. The human resource cost is lower for the municipality since they do not have to directly hire new staff as long-term employees. SUAS employs 2-3 permanent staff, and highly-qualified professionals can be hired on both long-term and short-term contracts to provide the relevant expertise and talent profiles.
- **Reduce financial risk**: the municipality contribution is initially limited to the value of the sub-area to build on; it is not liable for SUAS's obligations beyond the initial capital. Capital and investment is provided by external partners through the subsidiaries.
- **Financial gain**: the capture of value creation by the municipality is secured through the timing of property transfer.
- **Positive outcomes for the area**: Flexibility is retained to adjust the project as it progresses and ensure that the municipality's vision for the area is delivered with positive societal outcomes.

This model, in which a municipality or municipal enterprise sets up a company structure with a specific purpose, has been tried and tested elsewhere. An early example is the development of the Bjørvika area in Oslo, Norway, which has been proven to work over time. The model provides the possibility for flexibility and changes over time, which will be essential to realise Sørsida's vision.

Sørsida Utvikling AS has provided the financial and creative capital being deployed in Sørsida to realise the temporary Kulturhavna - a key engagement vehicle for the long-term development of Sørsida.

Bruges: Municipal Spatial Structure Plan

#visionary #inclusive

Why visionary?

- An action-oriented alternative to conventional regulatory planning, replicated across Flanders' five provinces and 308 municipalities, that provides the foundation of an integrated planning approach in Bruges today.

In the 1970s, Bruges, Belgium, underwent a significant urban renewal transformation aimed at revitalising the city's historic core while modernising its infrastructure, amenities, and liveability appeal. This period marked a turning point for the city renowned for its mediaeval architecture and picturesque canals. The urban renewal efforts were driven by a desire to preserve Bruges' rich heritage while addressing the challenges of modernisation and urban decay, including a visible imbalance in city centre land uses, especially housing, services, and touristic functions, more vehicular traffic and congestion, and the degradation and demolition of built cultural heritage.

One of the primary objectives of the urban renewal project was to restore and preserve the city's historic buildings and landmarks. This involved extensive renovation work on centuries-old structures, ensuring that they met contemporary safety standards without compromising their historical integrity. The initiative also focused on enhancing the aesthetic appeal of the city, with efforts to clean and repair the iconic canals and bridges, which are a central feature of Bruges' charm. The restoration work was meticulous, often involving traditional craftsmanship techniques to maintain authenticity.

In addition to preserving the historical aspects, the urban renewal project aimed to improve the quality of life for residents and attract more tourists. This included upgrading public services and amenities such as roads, public transportation, and sanitation systems. Efforts were made to reduce traffic congestion in the city centre by implementing pedestrian-friendly zones and improving public transport options. These changes not only made the city more accessible and enjoyable for residents but also enhanced the experience for visitors, boosting tourism—a vital part of Bruges' economy.

In 1972, Bruges was one of a handful of Belgian cities to pioneer a new spatial planning approach: structure planning. Structure planning emerged as a dynamic, action-oriented, flexible, and adaptive alternative to conventional regulatory planning at the time. This new method introduced a three-track approach, which included **visioning, short-term projects,** and **stakeholder involvement**, replacing the traditional Geddesian[10] "survey-analysis-plan" model.

The Bruges Structure Plan was the first document in Belgium where this urban planning approach was employed to create a coherent framework for urban revitalisation. In contrast, the Flanders Structure Plan was approved in 1997 and structure planning became the institutionalised planning model for Flanders' five provinces and 308 municipalities - 25 years after Bruges started working with the approach.

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[10] https://en.wikipedia.org/wiki/Patrick_Geddes

Bruges: Spatial Policy Plan & the City Atelier

#visionary #integrated

Why visionary?

- **Flexible planning document** - policy frameworks are short-term elaboration and new policy frameworks can be added.
- **Integrated approach** - Climate, mobility, energy, liveability, and economic targets (amongst others) are interwoven
- **City Atelier,** a **hub for city's departments to collaborate on transformational spots**: This new governance mechanism is being tested during Re-Value to see if it can reduce silo working on specific projects and improve efficiency in order to assess complex projects in the Kaaidistrict.

The 2023 Spatial Policy Plan for Bruges - the successor to the Municipal Spatial Structure Plan - is an inclusive visioning and strategic plan that guides how space and the built environment in Bruges should be organised and managed in the coming decades. The Spatial Policy Plan Bruges is the result of many stakeholders coming together to help make the city a good place to live, work, and do business; to be an attractive city to invest in, a city worth visiting, and a city where there is room for nature and land for farming. The Spatial Policy Plan Bruges contains a number of strategic pathways that reflects what the City of Bruges really wants to focus on. These ambitions are anchored in its new 2050 strategic vision:

In 2050, Bruges is a city that…

- respects open space in all its forms and uses... (theme 'central open space')
- goes hand in hand with qualitative growth... (theme 'growing in quality')
- continues a versatile heritage story... (theme 'living and diverse heritage')
- is connected, where residents meet each other... (theme 'neighbourhood network') and
- converges in a dynamic city to the sea... (theme 'magnet for the region')

Climate, mobility, energy, liveability, and economic targets (amongst others) are interwoven throughout the entire strategic vision. The ambitions are interlinked to form five parts of one story. Not just a strategic document, the Spatial Policy Plan is designed to be flexible and implementation-oriented. Policy frameworks are each a short-term elaboration (2035 perspective) of a specific part of the strategic vision. They can be modified or replaced when realised, and new policy frameworks can be added to help realise the strategic vision.

Currently, the policy frameworks address five spatial themes: open space, the neighbourhood, the residential fabric, specialised campuses, and places where the city is in transition. This is where broader debates on the built environment (particularly with circular construction and climate-adaptive renovation practices at the neighbourhood scale), spatial efficiency, new economic models, open space preservation, and strengthening the green-blue network takes place. Re-Value touches on each of these themes, but focuses specifically on "Directing Transformation Areas" with the city's project work in the Kaaidistrict.

Directing Transformation Areas is about recognising opportunities and taking a visionary, proactive, and collaborative approach to realise the new strategic vision for Bruges. Transformation areas are promising zones where the city estimates that a lot of change will concentrate in the coming years, and offer significant opportunities to realise the strategic vision in a holistic manner. The city will use these areas to

gain expertise and experience with process management in the coming years. The areas include the station area, Zeebrugge (coastal port area), and the Kaaidistrict, Bruges' Re-Value Waterfront Pilot.

The Spatial Policy Plan mentions a "City Atelier" as a hub to guide those transformation spots. In early 2024, the city of Bruges started testing the City Atelier approach as part of Re-Value - a new governance mechanism for the city - to more efficiently and quickly align project developer's plans with the city's policies and regulations on climate, spatial planning, public domain, and other relevant areas.

The **City Atelier** has several objectives:

- To work together to anchor ambitions in the Kaaidistrict: the City Atelier determines the direction in which the transformation site moves and adjusts where necessary;
- To review and assess complex development proposals qualitatively and consistently across different municipal departments in one concerted process;
- To act as an active supervisory body, overseeing large projects across departmental boundaries, e.g. negotiating sharply on investments in public space (clearly mapping costs), on mobility, on the makerspace with developers;
- To support developers with a predictable and time efficient process;
- To encourage a solution-oriented and co-creative working environment between different city departments and competencies;
- To present a clear vision and united consensus (unambiguous and internally supported position) as one city front. The consensus of the consultation within the City Atelier largely replaces the request for advice for the development permit;
- To simplify and streamline the administrative process for both investors and city staff, avoiding long requests for advice, reading into files, and ensuring continuity in the urban development / transformation project.

To learn more about how the City Atelier is being operationalised for the Kaaidistrict, please see Bruges: City Atelier Kaaidistrict under the Integrated principle.

Rimini: The Endurance of Collaborative Strategic Planning

#visionary #informed #inclusive #irresistible

Why visionary?

- **Multi-year and multi-actor Strategic Plan** setting the **collective vision** for the long-term wellbeing of Rimini's residents and visitors
- **Establishes a clear narrative and storytelling element**: "Sea Wellness" as a city-brand, at the intersection of health, quality and connection
- **Uses social innovation** through the Rimini Blue Lab, a laboratory that works with the community throughout the territory to promote a new relationship with the sea

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Rimini Municipality initiated a multi-year, multi-actor participatory process in 2007 to create a long-term Strategic Plan that would collectively set the vision and propose specific interventions to guide Rimini's future as it grappled with an ageing "Rimini Machine" and fading international image after decades of low-quality speculative development and mass tourism.

Unanimously approved in 2011 by the Municipality, Provincial Councils, and the governing bodies of the Chamber of Commerce and the Bank Foundation, the 2007-2027 Strategic Plan elevated the status of the sea to make it a central element of a new tourism and development approach. Conceptually branded as "sea wellness", the sea became the heart of an urban development concept that focused on the principles of health, quality and connection. These principles helped manifest the first implementation phases of the Parco del Mare project, which has started to radically transform Rimini's 15 km waterfront into a world class linear park and sea protection barrier.

Guided by the vision established during the planning process, the Municipality and its partners have successfully transformed the city's urban development model to better serve the needs of both residents and visitors. This shift has also accelerated an urban regeneration process based on blue and green principles, which has continued for nearly 20 years.

In 2011, an implementation-oriented Strategic Urban Master Plan helped transform the Strategic Plan's objectives into four spatial dimensions: new mobility regulating development and projects; the historic centre transforming places and containers into "cultural engines"; the waterfront strengthened by the quality of the environment, the clean sea, the change of function of 300 hectares of urban space; and connecting the suburbs safely with the city. A Strategic Plan Agency Ltd (in conjunction with the original Promoter Committee and the Rimini Venture Forum) was created to coordinate the implementation of the Strategic and Urban Plans. The transformation of the Ltd into a participatory foundation, Piano Strategico Rimini Venture, was finalised in July 2023.

The 2007 - 2027 Strategic Plan's legacy continues today in Rimini's *Agenda trasformativa urbana per lo sviluppo sostenibile* (ATUSS) or Transformative Urban Agenda for Sustainable Development, the municipality's urban investment programme for 2021-2027, of which 80% will be financed with European resources from the ERDF and ESF+ 2021-2027 Regional Programme of the Emilia-Romagna Region. The ATUSS is aligned with the 2030 Agenda in all economic, social and environmental sustainability dimensions, and uses an inclusive governance model that actively engages residents of all ages - especially youth. Thanks to the opportunity to allocate ESF+ resources within ATUSS funding, the Municipality was able to

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supplement ATUSS's infrastructure investments with green and blue educational activities and promoting sea culture for young children. This programme is being realised by the Rimini Blue Lab, a social innovation laboratory that works throughout the territory to promote a new relationship with the sea, to redefine the educational and cultural assets of the Rimini's community, and helps foster new values, behaviours, responsibilities, and professions oriented to the blue economy.

3. Integrated

Cities are inherently complex, and their challenges are equally multifaceted. Integrated urban planning and design have never been more critical. While technology offers powerful tools to address these challenges and solve complex problems, it also introduces an unprecedented level of complexity into urban systems. The more cities know, the more they need to understand, requiring continuous adaptation to new data and innovations, and better cooperative governance models. Yet, addressing these intricate issues cannot be achieved through siloed or short-term approaches. The increasing trend of *projectification*—where initiatives are treated as isolated tasks—often leads to fragmented outcomes that overlook broader systemic needs.

Re-Value, through its NEB-inspired Impact Model and Innovation Cycles, works to counter this fragmentation by optimising co-benefits across various planning and design domains. Every intervention, investment, and engagement becomes part of an interconnected framework that generates positive, long-term outcomes. By integrating diverse perspectives, disciplines, and emerging technologies, Re-Value helps cities find holistic solutions that extend beyond reducing greenhouse gas emissions and balancing municipal budgets. The goal is to create adaptive, future-ready urban systems that can meet the evolving demands of a more complex, tech-driven world.

Bruges: City Atelier

#integrated #informed

Why Integrated?

- Cross-departmental governance approach (no politicians) to planning permit approval, reducing silo working and asymmetric planning feedback to developers
- Collaborative approach facilitating co-creation between the city and private developers

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The City of Bruges is piloting a local governance innovation called the City Atelier to improve the planning application process for large development projects in the Kaaidistrict. Enabled through the Re-Value project, the City Atelier is designed as collaborative workshops between the city and private developers, aiming to reduce fragmented procedures and improve communication. This integrated approach addresses the city's current challenges with planning applications, which are often long and siloed processes that often result in inconsistent feedback and long processes. The City Atelier encourages co-creation and cross-departmental collaboration to streamline and improve the process.

Key features of the City Atelier

Cross-Departmental Coordination: The initiative brings together various departments including Environmental and Building Permits, Climate and Environment, Policy & Planning, Housing (Cluster Environment), Mobility, Project Coordination, Design & Management of Public Domain, Work & Entrepreneurship, and the Strategic Cell. By aligning these departments early in the planning process, the city can offer more cohesive and coordinated advice to developers. This prevents the typical issue of receiving fragmented feedback from different departments, which can extend the time frame of complex projects.

Three-Step Planning Process:

The City Atelier is structured around three phases:

1. **Preliminary Consultation**: Developers submit documents, and the city's departments begin internal discussions.
2. **Guidance Phase**: Developers present their initial designs and receive feedback through multiple sessions. Collaboration helps refine the project before it is submitted for political review.
3. **Assessment Phase**: The permit officer assesses the final proposal independently. While the City Atelier offers guidance, it does not guarantee planning approval, which is still subject to the city's formal permitting process.

Specific Development Criteria for the Kaaidistrict

The City Atelier is initially focused on large-scale projects, defined as those involving at least ten housing units, four floors, and 1,000m². A concept study was conducted early on (2022) for the Kaaidistrict to design a future sustainable image of the area, with circularity as a common thread. An additional mobility study was carried out to ensure the area can absorb the projected population growth. This study led to a roadmap with 37 measures to improve mobility and infrastructure, ensuring the district is equipped for new developments as proposed in the concept study. The Kaaidistrict development follows key principles derived from the Concept Plan, including:

- **Economic Space for Makers:** Approximately 30% of the floor area in the Makers District must be dedicated to economic activities to preserve the area's identity, with flexibility on the remaining space for residential uses.

- **Climate-Proof Development**: Projects must align with the Climate Plan's policies and regulations, ensuring sustainability.

- **Public Domain Contributions**: Developers are expected to invest in public infrastructure in the district, such as cycling lanes or urban furniture around their parcels.

Key Objectives of the City Atelier:

Co-Creation and Flexibility: The City Atelier enables a productive collaboration arena between the city and developers. The process allows for flexibility, especially regarding the allocation of commercial and residential uses. The work is solution-oriented, with a strong focus on preparation so the City Atelier can focus on decision-making. Developers are required to send their plan three weeks in advance of the next City Atelier assembly. The members of the City Atelier get two weeks to review the plans and submit constructive remarks and questions.

Qualitative Project Assessment: By involving multiple departments in discussions from the start, the city can assess complex projects more consistently and with a unified approach. This is particularly important for negotiations pertaining to private investments in public space and mobility infrastructure.

Support for Developers: The City Atelier aims to save time and avoid conflict by providing clear, consistent guidance to developers, which ensures a predictable and efficient process that saves investors time and money.

Administrative Streamlining: The City Atelier aims to reduce administrative burdens and resources by minimising long feedback loops and providing continuity in urban development projects. The consensus reached within the City Atelier substitutes traditional departmental requests for advice.

Lessons Learned and Future Outlook

Although the City Atelier is still in its early stages, one key lesson has emerged: clear and consistent communication between the city and developers is crucial. Miscommunications in early sessions revealed the need for clearer and more structured exchanges. To address this, the city proposed an intense planning period, known as a "charette," for two developers working on a site. Over one month, the developers will collaborate closely, spending four working days together to finalise their vision. An experienced external facilitator has been appointed to guide the process, which frees the developers to work collaboratively to find productive outcomes. If proven successful, the City Atelier model could be integrated into Bruges' standard planning process for large-scale developments, helping to modernise and improve urban development in the city.

İzmir: Climate City Contract

#integrated #visionary #inclusive #informed

Why integrated?

- **Core contract co-created with local, regional and national stakeholders -** ambitious climate neutrality commitments, actions from stakeholders, and a investment plan
- **Living document**: revised periodically to add new stakeholders and information

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The Climate City Contract (CCC) is a planning and governance innovation that has emerged from the European Commission's 100 Climate-Neutral and Smart Cities Mission[11] that is used to help 112 selected "Mission Cities" collaboratively address their barriers to reaching climate neutrality by 2030. The CCC is intended to be a co-creation process and document of the outcomes that include three integrated components: Commitments, Actions, and Investments.

The Commitments (CCC Core Contract) capture the outcomes of a co-creation process with local, regional, and national stakeholders to establish new ways of working together to achieve climate neutrality faster. It includes a shared 2030 vision and ambition, and a strategy to achieve it, as well as the specific commitment(s) to action from stakeholders in the contract. The **2030 Action Plan** acts as an umbrella framework for all of the planning sectors to identify the strengths and gaps of existing strategies, policies, and plans, and use all levers of change to create a coordinated portfolio of interventions to achieve the 2030 ambition. The **2030 Investments Plan** strategically mobilises and organises public resources and addresses how to attract private capital for funding and financing cities' pathways to climate neutrality.

The Climate City Contract is designed to be a transparent, living digital document that should be revised periodically to add new stakeholders, concrete commitments, actions and/or investments, and to reflect on what is working and not working. Mission Cities can submit their Climate City Contract for validation by the

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[11] https://netzerocities.eu/

European Commission to receive the "Mission Label", a quality assurance certification that is envisioned to unlock synergies with other EU funding programmes and other funding and financing resources.[12]

In late 2021, İzmir Municipality (IMM) authorised İZENERJİ[13], a municipal subsidiary company that is responsible for - amongst other things - energy and renewable energy production in the city, to apply to the 100 Climate-Neutral and Smart Cities Mission to become one of the 112 selected Mission Cities. In April 2022, İzmir was successfully selected from over 360 applicants to participate in the programme and co-create a Climate City Contract with support from NetZeroCities, the Cities Mission implementation platform.

The CCC process prompted İzmir to establish a city-wide alliance (a new governance mechanism for the region) using an innovative, fair, transparent, and participatory governance model. The origins of the new alliance evolved from Cities Mission awareness meetings that, as a first step, brought together many different sectors to provide information about the EU Cities Mission concept and to invite the city's stakeholders in an inclusive engagement process. Participating organisations included the İzmir Governorship, İzmir District Municipalities, IMM subsidiary companies, İzmir Development Agency, chambers of commerce, industry and professions, academics, electricity distribution company, non-governmental and media organisations and banks, etc.

Küresel İklim Topluluğu İzmir (**Global Climate Community İzmir**, or GCC İzmir) emerged from this outreach process. Under the coordination of İZENERJİ, the GCC İzmir's ambition is to plan and coordinate İzmir's 100 Climate Neutral and Smart Cities Mission journey. GCC İzmir includes experts from the energy, transportation, circular economy, and industrial sectors, as well as representatives from the general public, private sector, academia, and non-governmental organisations. Its aim is to use the CCC Climate Transition Map[14] process, together with the citizens of İzmir and city leaders, to create a climate-neutral future and a more liveable city.

As noted in the public İzmir Climate City Contract[15], "GCC İzmir aims to be a flexible model to make the participatory process sustainable while moving towards climate neutrality. It is shaped according to current needs within the framework of the principled attitude determined by the society regarding sustainability. In this context, it is possible to add new institutions and stakeholders and to implement the necessary changes in the governance structure over time. GCC İzmir has six principles under two main headings: process design and output design.

Three process design principles ensure procedural quality:

1. **Inclusiveness** to bring together different actors and multiple types of knowledge on an equal basis
2. **Openness** to adopting, integrating and sharing knowledge
3. **Legitimacy** to ensure that the process contains legitimate and reliable information and is trusted by participants and wider urban actors.

Three output design principles indicate what types of results should be produced due to co-production:

1. **Actionable information** for policy and planning ensures that co-produced knowledge is immediately relevant and translated into policy and planning

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[12] https://netzerocities.app/QR-CCC
[13] https://www.izenerji.com.tr/tr/icerik/hakkimizda
[14] https://netzerocities.app/ClimateTransitionMap
[15] https://netzerocities.app/_content/files/knowledge/4184/izmir_nzc_ccc_ok.pdf

2. **Usable knowledge** and **empowerment** ensure that co-produced knowledge outcomes are valuable to and adopted by many actors
3. **Expanding institutions** to provide synergy enables co-produced knowledge to be linked to multiple goals, strategies and agendas within the city. This helps create synergies across sectors."

GCC İzmir is composed of a 16-member Steering Board and six thematic Working Groups. The Steering Board is the most representative advisory of GCC İzmir. It is envisaged that İzmir's high-level administration and public institutions, chambers of industry and commerce, associations, unions, non-governmental organisations and private sector representatives will serve on the Steering Board, and represent the development and implementation of the Mission strategies in coordination with NetZeroCities.

The GCC Coordination Office consists of the persons/institutions authorised by the Mayor of IMM for the Mission, and the responsibility for the implementation of the Mission has been given to İZENERJİ. The Coordination Office receives the support of all stakeholders of İzmir, manages training, workshops, monitoring, evolution, coordination and all other operational activities, and reports to the EC, determines implementation projects and works with EU relevant institutions for the development of the project finance.

Six thematic Working Groups provide expertise and data for İzmir's Climate City Contract Action Plan and Investment Plan, which was initially submitted to the European Commission during the September 2023 submission cycle. The municipality was awarded its Mission Label in March 2024.

Local Green Deals

#integrated #visionary #inclusive #regenerative/circular

Why integrated?

- Opportunity to implement the European Green Deal locally and align the local planning framework with EU ambitions
- LGDs promote cross-departmental cooperation within cities, addressing systemic issues such as climate change and social inclusion through interconnected strategies.
- Legislation and strategies are mapped and integrated into a coherent approach.

The EU Green Deal represents a strategic shift toward sustainability, aiming for systemic change across all Member States. Recognising that policy changes must resonate locally, ICLEI's Local Green Deals (LGDs)[16] initiative was launched to enable cities to act as focal points for the Green Deal's implementation. They were first introduced through the Mannheim Message at the 9th European Conference on Sustainable Cities & Towns in 2020.

LGDs are an innovative governance and action-orientated approach to accelerate and scale-up a city's sustainable transformation. They build on and aim to integrate a city's existing strategies, legislation, market and financial incentives into a coherent approach to advance the EU green transition policy framework (currently EU Green Deal) locally. A key part of the approach is implementing action agreements (i.e. "Deals") between stakeholders needed to achieve the integrated sustainability goals set by the local government.

Local Green Deal principles:

- **A multi-level approach:** Engage with a multi-level, vertical governance processes (local, regional, national and international) ensuring that cities and national governments collaborate where needed and cities can provide input into the development of relevant legislation, initiatives and in particular financing programmes that directly impact on cities. Connects European Green Deal goals to local action.
- **An integrated approach**: a move away from silo-based governance to an integrated approach between different municipal departments and stakeholders across the city. Cross-cutting systemic issues such as climate, circular economy, and social exclusion are embedded in the process.
- **A multi-stakeholder approach:** governance through collaboration, co-production, co-design, and co-innovation and a credible commitment to long-term change through continuous collaboration between stakeholders. Fosters community-based sustainable transformation.
- **An action-oriented approach:** implementing agreements or deals that establish a framework for delivering collaborative action, where needed through improved regulation, financing and innovation. This can range from bottom-up initiatives led by citizens in urban districts to comprehensive system innovations and digital transformations in mobility, energy, construction, and circular economy development.

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[16] https://iclei-europe.org/topics/governance-innovation/local-green-deals

Example Initiatives and Partnerships:

- ALLIANCE Local Green Deals[17]: Cities such as Espoo, Mannheim, and Umeå collaborate on accelerating the transformation towards sustainability through the Local Green Deals.
- CLIMAA Local Green Deals[18]: Brings together the cities of Aalborg and Amsterdam and the Network for Sustainable Business Development (Aalborg), MKB Amsterdam and ICLEI to co-create a working methodology to engage and onboard local SMEs regarding Local Green Deals; co-design a Local Green Deal template, and implement Local Green Deals.
- Fair Local Green Deals[19] project: The cities of Valencia, Vitoria-Gasteiz, Wrocław, Łódź and Ghent are working to find tailored approaches for involving citizens (with special attention on minorities and marginalised groups) and other local stakeholders to develop Local Green Deals.

Under the CLIMAA Local Green Deals, Aalborg Municipality established a Local Green Deal with BK Nord, a consulting firm specialising in architectural and engineering solutions. BK Nord provides advisory services for residential, industrial, and commercial construction and is dedicated to promoting sustainable practices across the entire supply chain. Through the agreement, BK Nord committed to prioritise sustainability in its consulting services, reduce its internal carbon footprint, and lead the development of a framework to lower the climate impact of large-scale projects, especially in agriculture and food production, by capitalising on expertise, supporting innovative research, and making sustainable materials and solutions more accessible.

In return, Aalborg Municipality pledged to support these initiatives by offering statements of support for funding applications, enhancing skills in sustainable agricultural construction, facilitating cross-industry networking events, and showcasing the outcomes of these efforts. Together, these commitments exemplify the synergy that can be achieved when public and private sectors collaborate, ultimately fostering innovation and enhancing community resilience.

İzmir: Circular Culture - İzmirSea Design

#integrated #inclusive

Why integrated?

- A holistic framework concept and storytelling approach to improve exchanges with citizens
- Basis for İzmir's waterfront sustainable urban design

The development of İzmir's waterfront is guided by the İzmir Regional Plan 2014-2023 and the İzmirSea Design Strategy, both created by the İzmir Metropolitan Municipality (IMM). These plans focus on enhancing citizens' connection to the waterfront while improving overall quality of life and promoting ecological sustainability. Key priorities include preserving İzmir's relaxed lifestyle and strengthening the daily interaction between citizens and the sea.

The project encompasses several sites and neighbourhoods, including:

- Karşıyaka, primarily a residential area featuring the Mavişehir waterfront reclamation project,

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[17] https://alliance.localgreendeals.eu/
[18] https://climaa.localgreendeals.eu/
[19] https://sustainablejustcities.eu/fair-local-green-deals

- Bayraklı
- Alsancak-Konak, where a planned six-lane road was replaced by green space due to successful environmental advocacy.
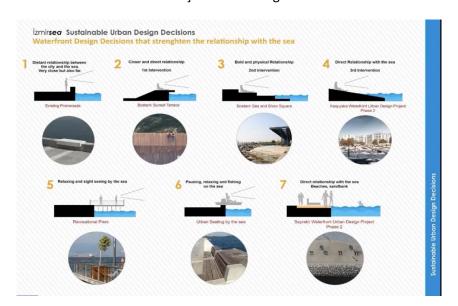
The waterfront urban design projects incorporate urban furniture, shading elements, local plants, and porous pavement to improve visual identity and harmonise the area with its natural surroundings. These developments are complemented by citywide urban greening and re-naturing efforts, including in peri-urban areas. Rain gardens and ecological corridors intersect with İzmirSea and Sponge City initiatives to enhance climate resilience.

IMM's framework for these efforts is its "Circular Culture" concept, which emphasises a holistic approach to the climate crisis and urban challenges. It rests on four pillars:

- Harmony with nature: redefining human and urban relationships with the natural world,
- Harmony with each other: fostering social democracy to reduce inequality,
- Harmony with the past: leveraging traditional knowledge and diverse cultural histories to shape the future city, and
- Harmony with change: creating a more equitable city that collaborates with others globally.

This approach, along with IMM's strategic documents, has been vital, especially in light of recent climate-related disasters. Over the past two years, İzmir has faced severe challenges, including a major forest fire, tsunami, drought, and flood, underscoring the urgent need for comprehensive climate adaptation throughout the region.

The waterfront design decisions to strengthen the relationship with the sea include developments creating a closer and more direct relationship between the city and the sea. Key developments include the Bostanlı Sunset Terrace, Bostanlı Sea and Show Square and Karşıyaka Waterfront Path. Recreational piers are also provided for relaxing and sightseeing by the sea. Finally, urban seating is strategically provided across the waterfront, for instance with the Konak-Karataş coastal arrangement.

Selected images from İzmir's presentation during the Re-Value Round on Landscape Transformation (Source: Prof. Dr. Koray Velibeyoglu, IZTECH)

Selected images from İzmir's presentation during the Re-Value Round on Landscape Transformation (Source: Prof. Dr. Koray Velibeyoglu, IZTECH)

4. Informed

Integrated and informed decision-making is essential to navigate complexity and drive meaningful change in cities. Re-Value's approach ensures that decisions are not made in isolation but are informed by high-quality data, local knowledge, and practice-based research. By leveraging data and digital tools, Re-Value helps cities visualise and make sense of complex systems, engaging stakeholders in the co-creation of scenarios that anticipate future trends. This evidence-driven process empowers cities to make informed choices that maximise impact, ensuring that every decision contributes to a broader, interconnected strategy for sustainable, climate-neutral urban development.

Ålesund: Digital Twin

#informed #inclusive

Why informed?

- Sophisticated digital tool for experimenting with solutions in a virtual environment and predicting their impacts without costly or disruptive physical interventions
- Immersive visualisation helps city leaders better understand and quickly see potential outcomes for faster, more informed decision making

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Ålesund's Digital Twin journey started with the Offshore Simulator Center's experience and technology related to the ship simulator. At the Norwegian Maritime Competence Center, its spin-off AugmentCity runs simulations connected to urban development to predict and test the transforming urban phenomena from micro to macro scale. By collecting a range of big data, this can be immersively visualised with the use of the simulator as a Digital Twin via the Internet of Things (IoT), e.g. traffic, people's movements, energy systems, streetlights and the weather, to make more accurate and efficient predictions and experiment with solutions without costly and potentially disruptive real-life tests.

For example, potential future sea level rise remains not merely an abstract number but can be digitally experienced through visual projections. Hence, the Digital Twin can enable more effective decision making for planners and policy makers, ultimately helping create better places to live for citizens. It is also intended as a platform for different stakeholders to rethink the city's planning systems with inclusive participation, and to initiate ideas for making changes in society, the economy and the environment in real-time cases with decision-making approaches in a co-creative manner. Ålesund municipality has explored the use of digital twins and other digital tools in a series of research-projects. One such example is work to integrate data from multiple platforms in the local national protected area of Geiranger Fjord through the "Twin Fjord" project for land use management planning.

Visualisations from the Ålesund Digital Twin (Source: Augment City[20])

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[20] https://augmentcity.no/

Ålesund: GENOR

#informed

Why informed?

- GENOR: a Generic Platform for Indicator Assessment in City Planning
- A flexible modelling and visualisation platform that can define, store, process and visualise indicators associated with urban development domains using 2D and 3D map-based views
- Walkability / bus service: User-friendly, data-rich applications help make better decisions, from identifying underserved areas for strategic infrastructure investments to improving and encouraging pedestrian and public transport travel in the city

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The Genor Platform

Ålesund provided real-life test cases to illustrate how the GENOR platform can provide clear indicator visualisations to better support planners and policy-makers in decision-making and urban planning. The platform handles the definition, storage, processing and visualisation of indicators associated with areas using 2D and 3D map-based views. The platform was used to assess the walkability of the pedestrian network and to compare bus services in different city districts.

The platform is divided into two entities: an open source client to handle the user interaction and visualisation (VizPlan[21]); and a web server that handles data storage and processing. VizPlan includes a visualisation scheme based on a radial visual structure that allows the direct comparison of indicator values over time, a search tool to support the identification of entities whose indicators are similar to each other, and a clustering tool to group entities according to their indicator scores. VizPlan was designed and implemented to be flexible; it can be easily tailored to the visualisation and analysis of any multidimensional temporal data.

Walkability

Using the GENOR platform, NTNU Ålesund co-developed innovative web and mobile applications[22] for spatial walkability assessment as part of their Smart Plan[23] and Twin Fjord[24] projects. The prototypes can support various user needs, from land use planning to route optimisation. They are a useful tool to support pedestrians in planning their journey and familiarise themselves with the city's environment. This aspect is key to support walkable cities and the promotion of pedestrian activities.

The initiative includes two key applications:

- The **Walkability Score Map**: this tool allows users to assess the walkability of an area based on their individual preferences. Criteria can be selected and ranked to visualise the walkability scores for road links in a map-based view. These criteria include elevation, average speed limit, number of intersections, or crossing distance.

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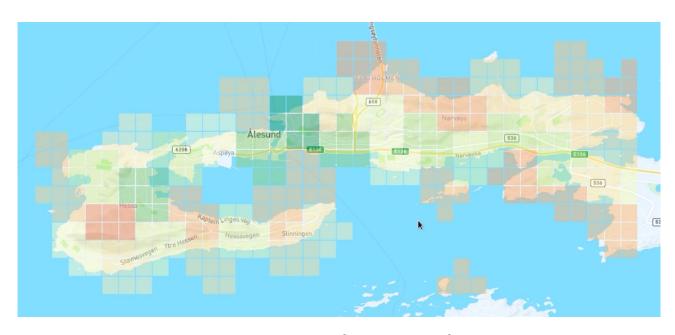
[21] https://github.com/Rylern/VizPlan
[22] https://sustainabilityanalytics.no/walkability/
[23] https://sustainabilityanalytics.no/smartplan/
[24] https://www.twinfjord.no/

General indications of walkability in Ålesund (Source: Ålesund Kommune)

- The **Walkability Navigator** is a mobile application that generates optimal walking paths based on user preferences. A multi-criteria model is used to aggregate walkability scores for pathway links between origin and destination, and the app returns the ideal path with maximum walkability.

In addition, a bus availability tool was also developed to help planners visualise and analyse the availability and accessibility of bus services across different districts of the city. The tool provides a comprehensive view of bus routes, frequency of service, and coverage areas. Urban planners can use this tool to identify gaps in the network, assess whether certain neighbourhoods have adequate access to public transportation, and compare service levels between different areas.

Both applications highlight the platform's flexibility in adapting to different urban challenges. By offering intuitive visualisations, GENOR supports more informed decision-making in urban design and mobility planning.

Bruges: Digital Twin Neighbourhood Renovation Tool and Energy Modelling Tools (VITO)

#informed #integrated

Why informed?

- Powerful tool that aggregates data to plan, monitor and implement renovation strategies for the residential sector in Flanders
- Impact can be measured and inform decisions

To accelerate the building renovation pace in Flanders and provide a clear renovation pathway for residents, a Digital Twin Neighbourhood Renovation Tool[25] ('*Wijkrenovatietool*') is being made available to local authorities and their partners. The tool grants access to accurate and reliable data sources on the built

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[25] Digital Twin Wijkrenovatietool | VITO: https://vito.be/en/digital-twin-wijkrenovatietool
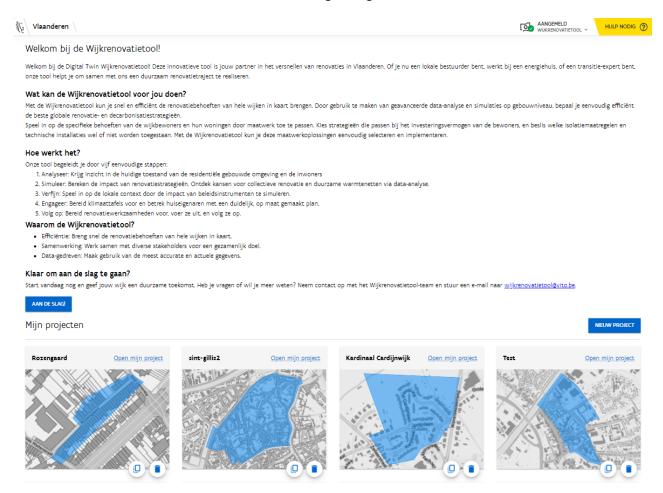
environment, focusing on energy efficiency and renewable energy in the residential sector. It integrates insights with advanced tools and analyses to plan, monitor and implement data-driven collective renovation strategies. By utilising simulation tools and algorithms from VITO/EnergyVille this tool helps determine optimal renovation and decarbonisation strategies.

The data and algorithms of the Digital Twin Neighbourhood Renovation Tool are accessible through three distinct tools, each tailored to the needs of a specific application area:

1. **Local Governments**: Neighbourhood Renovation Tool (*'Wijkrenovatietool'*) offers district-level insights, identifying optimal renovation pathways and potential collective strategies for heating and insulation on a larger scale.
2. **Energy Centre ('*Energiehuizen*')**: House Renovation Tool (*'Woonrenovatietool'*) to assist individual citizens in determining the optimal renovation strategy for their home, in line with the neighbourhood strategy.
3. **Wider Transition Ecosystem**: Bi-Directional API makes the data in the Digital Twin accessible to the broader ecosystem in a GDPR-compliant manner.

As the Re-Value project emphasises the neighbourhood level, that aspect will be elaborated further. Information on the latter two tools is available through the general website.
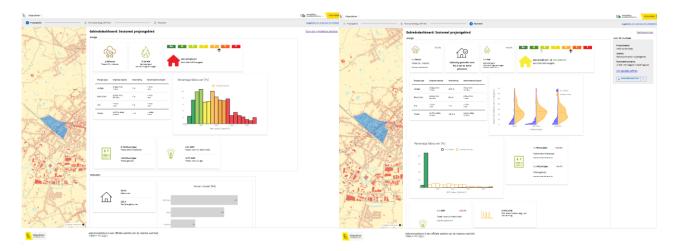
Homepage of the Neighbourhood Renovation Tool, with most recently created projects (Source: VITO)

The Neighbourhood Renovation Tool is a comprehensive tool designed to facilitate the initial phase of a neighbourhood renovation strategy. It allows selection of areas of interest on a map, from entire regions to specific streets or neighbourhoods, enabling thorough area-wide analysis to pinpoint which areas would benefit most from attention, depending on factors such as collective heating solutions or energy poverty challenges.

The tool provides detailed information on the current situation, including average energy performance of buildings, the use of various energy sources and the level of consumption, carbon emissions as well as insights in the demographics of the selected area. Based on this information, the most appropriate renovation strategy (i.e. that best caters to the needs and possibilities of the district) can be selected.
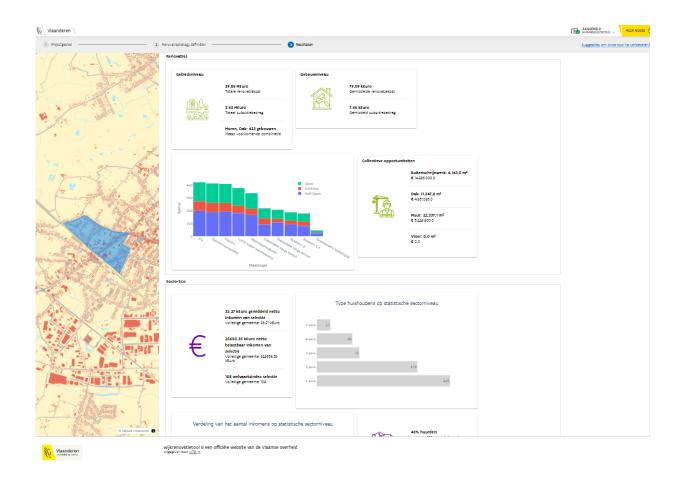
Users can choose from predefined strategies or create custom scenarios tailored to specific needs, which is particularly useful in areas with additional constraints like noise pollution or heritage values. The tool calculates the impact of the selected strategy across various metrics, including necessary investments, available subsidies, carbon reduction, energy savings, and changes in energy flows, thus providing insight into the total societal transition costs and potential savings.

Dashboard (energy section) of selected area, current situation (left) and the renovated situation (right). In this example the selected strategy is the A label with lowest investment cost. (Source: VITO)

Dashboard (renovation section) with detail on investment cost both for the entire area and average cost per dwelling. Types of renovations and their respective quantities to facilitate identifying collective opportunities. (Source: VITO)

Policymakers can refine the selected strategies by adjusting parameters and simulating the impact of interventions on renovation affordability. The tool supports active use in simulating and analysing the impact of policy measures, offering a valuable starting point for dialogue with residents. Through an optimization algorithm, the tool identifies the most optimal renovation package for each home based on selected KPIs and optimization choices, ensuring a more accurate and reliable assessment of renovation potential. It also allows for filtering results to develop specific follow-up plans for municipal services, intercommunal entities, or energy houses. Periodic updates will ensure the tool reflects completed renovation projects, facilitating ongoing renovation tracking and KPI monitoring. Future updates from VITO/EnergyVille aim to include calculations for additional benefits, such as building value increases and improvements in air quality, comfort, and health.

The interconnected steps of the Digital Twin Neighbourhood Renovation Tool form a comprehensive solution for collective renovation projects. In the first phase, the tool primarily uses open data from government authorities to assess the current state of Flemish homes at district, neighbourhood, and city levels. In the subsequent phase, energy houses will enhance and refine data at the individual home level and maintain it post-renovation. This detailed data facilitates the creation of a long-term renovation plan for Flanders' residential building stock.

The Flemish government is rapidly digitising, making additional data points available to relevant parties through digital platforms while ensuring GDPR compliance. The Digital Twin Neighbourhood Renovation

Tool project aims to utilise these advancements to better map the residential sector and potentially expand to other areas and use cases such as circularity, green-blue levels, heat stress, and more precise building dimension estimations. Expanding to include the non-residential sector and covering the entire built environment is also a goal. Achieving this requires significant coordination among involved parties and support from various government departments to ensure the project's success and broad acceptance.

Burgas: Smart Burgas

#informed #inclusive

Why integrated?

- Smart Burgas is a publicly accessible integrated urban platform that provides real-time info about various aspects of the city, including public services, to inform the general public and provide support for municipal experts.
- A Traffic Management Center monitors, simulates and helps plan mobility at the city scale. Priority can be given to public transportation in real-time.
- GoToBurgas tourist portal

Burgas is one of Bulgaria's leading cities in developing and implementing smart city systems. The potential to upgrade these systems is significant, and leveraging time-accumulated data is essential for more accurate modelling and access to integrated services. The Municipality of Burgas manages numerous intelligent systems that monitor and manage city subsystems to enhance public service delivery, including its digital urban platform, SmartBurgas[26], along with a Geographic Information System (GIS), municipal optical and IoT communication infrastructure, and a data centre dedicated to hosting and processing big data. Various web-based and mobile applications provide targeted city data for both citizens and experts.

SmartBurgas serves as the main operational tool for city monitoring. It collects real-time data from intelligent systems and integrates various aspects of urban life into a single, highly synthesised dashboard. This data is accessible through web and mobile interfaces for residents, visitors, and municipal experts via user-specific interfaces.

The platform is continuously evolving and currently features over 20 thematic functional modules. Interactive maps, based on municipal GIS data, illustrate different aspects of city life, providing users with both static information and dynamically updated real-time data from various IoT devices. User adoption of the SmartBurgas platform is steadily increasing, and as functionalities expand and content enriches, platform traffic is expected to rise.

Feedback from users indicates that mobility-related data is particularly popular, with high interest in sections on parking, city traffic, video surveillance, and repairs. Analysis shows potential for increasing requests by enhancing access to payment functionalities and integrating more thematic applications to improve user interaction. A new version of the platform is currently under development, featuring a redesigned user interface and additional functionalities, including a chatbot and tools for online payments of municipal services, checking obligations, and fines.

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[26] https://smartburgas.eu/en

Burgas also hosts a Centre for Video Surveillance and Traffic Management (CVSTM), which operates the city's Integrated Traffic Management System. The CVSTM monitors data from the local bus operator, Burgasbus, and manages parking and bicycle mobility. It serves as the city's emergency call point, coordinating national emergency calls for better response in critical situations.

Within the CVSTM, a Traffic Management Centre coordinates activities related to intelligent systems, ensuring 24-hour monitoring by qualified personnel. Most intelligent systems operate locally within Burgas's digital data management environment. The hardware supporting the city's data systems is co-located in the High Capacity Technical Centre (HCTC). There is ongoing exploration of cloud-based services to enhance system functionality, particularly in processing and storing video streams, which play a crucial role in the city's digital infrastructure development.

Video surveillance is increasingly important as part of the city's integrated systems, with cameras from a single manufacturer used for various functions, including overview, number recognition, and built-in analytics. Approximately 50% of the cameras have been operational for over five years. The annual installation rate of new cameras is outpacing the capacity for recording and archiving video data. Priorities include integrating additional sensors and upgrading the software and server systems of existing integrated systems, necessitating the expansion of the municipality's optical infrastructure and server capacity at the Central Data Centre.

The traffic management system gathers data from controllers, cameras, and motion detectors at 24 smart intersections and 15 additional locations along key thoroughfares. It offers capabilities such as vehicle classification and counting, licence plate recognition, and adaptive traffic light control, including green wave coordination for public transport priority. The SmartBurgas platform features 2D maps with real-time mobility data. Currently, the municipality is developing a 3D Digital Twin to represent mobility and climate-related data. AI is being utilised to optimise processes and make predictions in data processing.

Cascais: There's An App For That

#informed #inclusive

Why informed:

- Cascais Municipality has developed multiple apps and web platforms targeting specific areas of urban life that provide key information to residents and engage with them via the apps on how to improve the city, including **DataCascais**, **GeoCascais**, **FixCascais** and **MobiCascais**

Cascais employs several digital tools to improve transparency and communication with its residents. The central access point for this is the online data portal DataCascais[27], which is managed by a multidisciplinary team from the city's Marketing & Innovation division. With projects like Digital Academy[28] and Data Hub[29], DataCascais aims to combine information, innovation and technology to create participative-collaborative models and intelligent management of the territory under a Smart City approach that shares information and engages citizens to find solutions to the city's challenges.

One such offering is GeoCascais[30], a comprehensive Geographic Information System (GIS) open-access platform that aggregates and visualises data across a wide range of domains. GeoCascais provides detailed, real-time insights into key areas such as demography, territory, health, mobility, education, economy, and culture, making it an essential tool for informed urban planning and decision-making. The platform allows users—ranging from local authorities and researchers to citizens—to access and analyse complex data sets, enhancing transparency and community engagement. By offering open access to vital spatial and non-spatial data, GeoCascais supports the city's efforts to promote sustainable development, optimise resource allocation, and foster collaboration across different sectors. It is a vital resource for addressing urban challenges, enabling more efficient management of infrastructure, services, and the environment. The platform's user-friendly interface and mapping tools empower stakeholders to explore trends, identify opportunities, and implement data-driven strategies.

Another example is FixCascais[31] in which citizens are invited to help the municipality improve its territory, as part of the city's responsible citizenship policy. Different issues - ranging from the cleanliness of public areas to damaged sidewalks to misplaced traffic signage - can be reported directly to the municipality via an app, allowing for direct engagement between residents and the city administration. People can also report via a website, in case they do not own a smartphone.

Lastly, MobiCascais[32] is a comprehensive mobility management platform that integrates various transport service operators and a network of infrastructures and equipment to enable users to make sustainable transportation choices. The platform connects various transportation options—including public buses, bicycles, scooters, car-sharing services, and electric vehicle charging—into a seamless, user-friendly system. MobiCascais aims to reduce traffic congestion, lower carbon emissions, and encourage residents and visitors to adopt greener modes of transportation by offering real-time schedules, integrated ticketing, and

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[27] https://data.cascais.pt/en
[28] https://data.cascais.pt/en/geral/digital-academy
[29] https://data.cascais.pt/en/geral/data-hub
[30] https://geocascais.cascais.pt/
[31] https://www.cascais.pt/fixcascais
[32] https://mobi.cascais.pt/

payment solutions. Additionally, the platform allows users to plan multimodal trips and track their carbon footprint, incentivizing eco-friendly travel choices through rewards like CityPoints and the virtual currency "Cashcais". After seven years of active use by citizens and 28 partners, the CityPoints app was discontinued on July 31, 2024. However, Cascais' commitment to the well-being and quality of life of its residents, workers and students remains strong. The municipality has decided to centralise the CityPoints app in Viver Cascais[33], which offers a wide range of exclusive benefits, from free transport, to general and paediatric medicine teleconsultations, to discounts on tickets to events, reinforcing the commitment to providing concrete advantages to the entire Cascais community.

Through a partnership with Ubirider's Pick Platform[34], MobiCascais also enables users to book tickets for public transport both locally and across the wider Lisbon Metropolitan Area. The system even integrates services like finding parking spaces and purchasing tickets to local attractions, making it more than just a transportation tool—it is a holistic urban mobility and lifestyle platform. Moreover, city planners use data from the platform to optimise transportation networks and services, making it a key asset in the city's efforts to meet sustainability and climate goals.

MobiCascais exemplifies how digital platforms can simplify urban mobility, offering Cascais residents and visitors a seamless experience while also supporting the city's broader goals of reducing emissions, improving public transport, and enhancing overall quality of life.

Various applications in Cascais to improve urban services, reduce carbon impacts, and engage with residents (Source: Cascais Municipality)

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[33] https://data.cascais.pt/en/governacao/viver-cascais
[34] https://www.ubirider.com/en/products/providers

Cascais: SmartBin

#informed

Why informed?

- Real-time monitoring municipal waste management enables Cascais Municipality to optimise collection routes, saving time, money and resources.

- Smart systems enable organic waste to be collected in bags and co-mingled with regular household waste, which are automatically sorted and redirected at the waste treatment plant to be converted into compost and bio-based energy.

Another data-driven solution in Cascais is SmartBin, a Smart Waste Management System for the automated municipal waste management monitoring. By placing solar-powered sensors in 400 collection containers, filling levels can be live-monitored, which enables more efficient collection, as collectors prioritise the collection points that are 80% full or more.

This smart waste management approach already produces some tangible results, allowing carbon emissions to be reduced by around 350 tonnes/year and reducing the mileage driven by collection trucks by 180,000 km per year. This provides a yearly savings of around €800,000 in the waste management system, without any service compromise by enhancing response capacity. Additionally, underground waste containers reduce visual impacts for residents and maximise the use of urban space.

In early 2023, Cascais became one of the first Portuguese municipalities to invest in organic waste collection. Implementing an innovative optical detection system that uses sensors to recognise and separate special green bags (the organic waste) that are co-collected with other household waste, to divert organic waste from landfill and incineration, and turn it into compost and energy at Tratolixo's waste treatment plant. This system was piloted in 2018 with 5,000 families, and proved so successful that it was extended to the entire municipality in 2023.

Underground Smart Bins and waste management services in Cascais (Source: Cascais Municipality)

Rijeka: Digital Applications and Competence Centre for Smart Cities

#informed #inclusive

Why informed?

- Digital applications acting both as information and citizen engagement platforms
- CEKOM - a testing ground and active contributor for smart cities technology

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The city of Rijeka developed several initiatives as part of its broader strategy to use technology to provide efficient public services, encourage sustainable living, and foster a stronger connection between citizens and the local administration. These include:

- MojaRijeka[35]: A key platform for civic engagement, Moja Rijeka allows citizens to stay informed on local news, cultural events, and community activities. It also supports two-way communication between citizens and the local government, enhancing public participation.
- RiCikleta[36]: Rijeka's e-bike rental system, designed to promote sustainable urban mobility. Citizens can rent e-bikes from various locations using a dedicated mobile app.
- e-Usuge[37]: This portal provides various online services, including the ability to access parking information and even check the weather forecast. Additionally, the Rijeka Plus platform offers real-time information on parking availability throughout the city.
- Entrepreneurial e-Services: Entrepreneurs in Rijeka can take advantage of several e-services to assist with business registration, subsidies, and financing options. The city's website offers access to platforms such as Hitro.hr and e-Obrt for simplified procedures related to establishing a new business.

The City of Rijeka is also a key partner and host of the Competence Centre for Smart Cities (CEKOM) innovation cluster, where 20 partners cooperate to improve the activities of public administration, utility companies, transport infrastructure and mobility, ecology and city security through 36 innovative digital solutions. The city of Rijeka acts both as a testing ground for the various smart city technologies and as a participant in CEKOM's strategic initiatives to promote sustainability and innovation.

As an acknowledgment of these efforts, Rijeka was declared the "Smartest Large City in Croatia" according to the Composite Index of Digital Readiness of Croatian Cities multiple times. This was to acknowledge particular achievements in the field of Availability and quality of e-Services to citizens, and in the field of Service Information and Unified Payment Systems.

Rimini & Constanța: SPOTLOG – Last Mile Logistics

#informed

Why informed?

- Digital platform to support urban planning for zero-carbon, socially-responsible last mile logistics

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[35] http://MojaRijeka.hr
[36] https://ricikleta.rijeka.hr/hr/index.php
[37] https://gov.rijeka.hr/eusluge/12

Urban planning and design processes are critical for last-mile logistics because they can enable efficient and environmentally-friendly last-mile deliveries. By incorporating considerations such as delivery hubs, designated loading zones, and pedestrian-bike friendly infrastructure into plans and development regulations, cities can shape more sustainable and liveable communities. Efficient last mile logistics can reduce traffic congestion, lower emissions, and improve delivery speed.

Rimini Municipality and Constanța Metropolitan Area are currently participating in the INTERREG SPOTLOG[38] project to explore how to develop sustainable, efficient, and innovative solutions for last mile logistics in their cities. The main vision of SPOTLOG is to involve local communities in creating socially responsible logistics systems, based wherever possible on zero-carbon modes, through the intelligent use of all available resources and taking advantage of the digitalisation of goods and passenger transport services. SPOTLOG partners will co-create a platform focused on sharing knowledge and spotting good practices regarding innovative ways of efficient logistical distribution and zero-carbon modes.

Rimini Municipality plans to implement a consolidation strategy for storing goods and using cargo bikes and/or electric vehicles for their delivery near the Parco del Mare, an area of regeneration and redevelopment that is radically transforming Rimini's coastline away from an "autocentric" model. Companies would apply to store goods in their existing warehouses and deliver them via cargo bikes. The consolidation hub should be in place by December 2024.

İzmir: Citizen Science

#informed #inclusive #irresistible

Why informed?

- Harnessing local knowledge through collaborative data collection platforms.
- Engaging with and informing citizens about the environmental impact of their actions.

İzmir hosts several initiatives that use a citizen science approach to increase citizen participation and democratic governance in urban planning. One of those initiatives for increased citizen involvement is **Biyoatlas** under which citizens can help reveal the biodiversity of the city. Under the guidance of the İzmir Metropolitan Municipality's Mediterranean Academy, the goals are to document and raise awareness of the city's natural richness and flora.
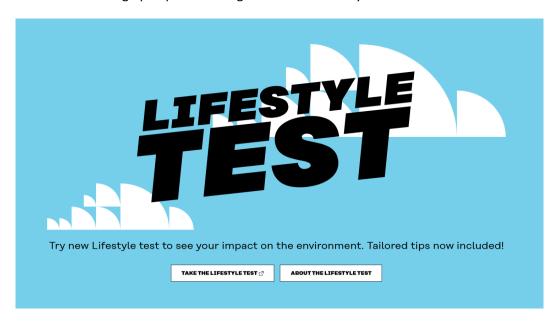
Citizens are invited to record the location of the plant and take a photo. This basic data is then collected and archived in a digital database for verification by academic experts; and to match local, national and Latin names. Eventually, the verified info is publicly shared on the internet through the Project of Creating and Sharing the Biodiversity Atlas of the Province of İzmir. Biyoatlas is complemented by the Bioblitz Peninsula Citizen Science Practice initiative, whose name is derived from the activity of species counting which is known as *bioblitz*. Aiming to spur the public's interest in nature, experts assist citizens to identify animals and plants in a workshop format.

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[38] https://www.interregeurope.eu/spotlog

Another example of citizen science is being explored in the Horizon 2020 PSLifestyle Living Labs[39] project which aims to close the action gap between individual action and climate awareness. In partnership with Zeytince Ecological Life Supporting Association (ZEYDD), a non-profit membership-based organisation in İzmir, the main objective is to promote sustainable lifestyles that are in harmony with the ecological principles and limits of the planet. Thereby, the initiative's co-creative Citizen Science Lab methodology[40] promotes citizens' engagement in localised sustainability challenges to foster data-driven momentum for lasting habit change.

PSLifestyle partners developed a web-based carbon footprint calculator **- The Lifestyle Test**[41] - to inform citizens about the environmental impacts of their daily activities and consumption activities, hoping to inspire them to rethink and acquire more meaningful habits. In place-based co-creation labs, a local version of this online tool was created, allowing citizens of İzmir to develop personalised plans and follow their progress. Through workshops, participants receive the opportunity to interact with the people in their neighbourhood and exchange perspectives on good life and healthy environment.

Lifestyle Test for Helping People Make Positive Sustainable Lifestyle Choices (Source: PSLifestyle)

Lastly, in collaboration with Karşıyaka Municipality, Citizen Design Science (CDS) workshops are held under the guidance of the researchers Özden and Velibeyoglu. The goal was to transform selected parks, green areas, and leftover spaces in Karşıyaka district into green public spaces according to the needs and wishes of local citizens. Citizens are even given the opportunity to input their ideas for a new physical space layout in a platform that combines urban design and citizen science.

The workshops used digital and analogue design tools in four selected leftover urban spaces in the district: Atakent (Car)Park, Cemal Gürsel Caddesi-Climate Sensitive Street, Primary School interior garden design, and Bahar Park- elderly-friendly public space. Atakent (Car)Park, previously a leftover and irregular public space was transformed into a multifunctional public space application with CDS, a collaborative urban design method based on democratic and active participation.

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[39] https://pslifestyle.eu/
[40] https://pslifestyle.eu/resource?t=Report:%20The%20PSLifestyle%20Citizen%20Science%20Labs%20Manual
[41] https://www.sitra.fi/en/projects/lifestyle-test-2/

The approach, which will continue in throughout İzmir, offers a new participatory model and data-driven form of governance and participation through practices for local governments responsible for the design and implementation of public spaces.

Citizen Design Science Workshops (Source: Özden & Velibeyoglu)

Písek: ECOTEN Urban Heat Vulnerability Assessment Tool

#informed #integrated

Why informed?

- A data-driven approach to improve people's quality of life through greener, cooler, healthier urban design.

The heat vulnerability of a city is measured using the vulnerability framework proposed by the Intergovernmental Panel for Climate Change (IPCC). According to the IPCC, the vulnerability of a given system is defined as "the propensity or predisposition to be adversely affected by climate change impact." According to the reports published by the IPCC, as well as existing studies, the majority of researchers define vulnerability as a function of exposure, sensitivity and adaptive capacity.

Urban Heat Vulnerability Assessment and Microclimate Assessment for Vienna, Austria (Source: ECOTEN)

They are defined as the following:

- **Exposure**: It refers to the direct danger of urban heat that affects the considered area. It manifests as the prevalence of very high temperatures across the whole city area hereby referred to as "hot spots". It can vary based on various factors of the given area and its built environment.

- **Sensitivity**: It refers to the strength of a human's reaction to high temperatures and depends on individual characteristics such as age, existing health problems, etc. Sensitivity is assessed by identifying the people within a given area who are most affected by extreme heat.

- **Adaptive Capacity**: It refers to the ability of urban systems to cope with, recover and adjust to the impacts of extreme heat events.

For measuring cities' vulnerability to the impacts of extreme heat events, Re-Value partner ECOTEN urban comfort, uses a wide range of earth observation (EO) satellite data as well as socio-demographic open data to analyse each of the components of vulnerability.

An urban microclimate is the climate of any urban area that is different to its surrounding area. An urban heat island is one type of microclimate that is created when an urban area becomes warmer than the surrounding area. It is common in larger urban areas such as Tokyo, New York City and Paris.

Having a good outdoor comfort level in an urban area enhances the pedestrian experience in that area which encourages social connection, healthier lifestyles and provides more opportunities for small commercial businesses to thrive and be more productive. The urban heat island phenomenon exacerbates the impacts of extreme heat events in cities in terms of outdoor comfort levels. Heat resilience in urban areas can help improve the outdoor comfort during extreme heat events through effective urban design.

The objective of simulating the urban microclimate is to study the impact of extreme heat events and the urban heat island phenomena in neighbourhoods. It is important to understand the cause-effect relationship between the built environment and extreme heat impact. Urban microclimate simulations produce scientific data for a 3D urban environment which can be applied for the following purposes:

- Enable and inform urban planners and urban policy makers to make building and urban design standards that can help the neighbourhood to be more heat resilient.

- Provide data and guidelines on urban development to help reduce the impact of extreme heat events on the urban environment of the neighbourhood.

- Develop new or adding value to existing urban design by validating them in terms of heat resiliency.

From the resulting data, heat resilient urban design strategies to improve the outdoor thermal comfort for new or existing neighbourhoods can be validated such as:

- Effective usage and placement of blue-green infrastructure which includes the correct placement of green areas, trees, green walls, green roofs and urban water bodies like fountains or artificial ponds in an urban area.

- Increase the albedo of outer walls of buildings and streets by applying light coloured paint which is capable of reflecting solar energy from the urban microclimate during the day in order to reduce the urban heat island effect, which is observed in the night hours.

- Design unique urban morphology for the neighbourhood to encourage natural ventilation through the neighbourhood to help reduce overheating during extreme days.

- Improve outdoor comfort using the assessment of felt temperatures measured by Universal Thermal Climate Index to compare the impact of different design strategies upon the urban environment. Having a good outdoor comfort level in an urban area enhances the pedestrian experience in that area which encourages social cohesion, healthier lifestyle and provides more opportunities for small commercial businesses to thrive and be more productive.

ECOTEN urban comfort is providing urban heat vulnerability assessment and urban microclimate simulations to selected Re-Value Cities to support the urban heat resiliency in the city as part of the project's Innovation Cycles. The scenarios will consider nature-based urban design strategies through the effective implementation of blue-green and white strategies (e.g., trees, green areas, green roofs, green walls and reflective urban surface materials) to optimise cooling during extreme heat events and to support outdoor comfort using a data-driven approach. The results of this work will be presented in D6.10 Re-Value Urban Design and Planning Approaches (Final Version).

5. Inclusive

Inclusive urban planning and design approaches are crucial for creating cities that truly serve the people living and working in, and visiting them. At the heart of Re-Value's approach is a commitment to inclusiveness, diversity, and collaboration. By actively engaging local residents, stakeholders, and experts, Re-Value ensures that the solutions it co-creates reflect the diverse needs, aspirations, and values of the entire community. A particular focus is placed on youth engagement through Junior Achievement Europe's Innovation Camp methodology, empowering future leaders to contribute creative solutions to help meet cities' ambitious climate goals. Guided by principles of transparency and inclusiveness, Re-Value ensures that voices from all backgrounds are heard and respected, fostering a sense of ownership and shared purpose in shaping urban futures.

Ålesund: Dugnad at Kulturhavna

#inclusive #integrated #informed #regenerative/circular

Why inclusive?

- Residents and visitors provide ideas for temporary installations on the waterfront pilot site. An experimental approach is used to test these ideas and collect regular feedback from site users.

Ålesund Kommune and its municipal company, Sørsida Utvikling, has been transforming surface parking lots into an active urban space composed of temporary installations called the Kulturhavna until the major development works have started. Examples range from a constructed hill / park area with grass, trees and shrubs; a sauna and public bathing area; a playground; adaptively reusing the industrial Devold building as an indoor skatepark and painting its facade in bright orange; open air stages for loan, and potentially even a library in the near future. The idea is to adopt an experimental approach to identify what works to achieve universal usage of the area with people of different ages and with preferences for diverging activities.

Under time pressure and budget constraints, a choice was made to include the area's future users in its design and programming. Advertised as *Dugnad* - a Norwegian tradition of local voluntary work - an event to construct Kulturhavna's site components brought together almost 40 people, ranging from students to craftsmen to local residents. Guided by the theme "a place shaped by, with and for the people of Ålesund", the project team mobilised many people to help, especially young people, as they sensed that they could contribute to delivering what they would want for themselves in the district.

Composite illustration from Trondheim.works showing the amenities Ålesund's residents would like to see as temporary installations in the Kulturhavna (Source: Trondheim.works)

Sørsida project manager, Tone-Lise Vilje, described this Dugnad as the most inspiring day in her 25 years of professional work in social sustainability, as it brought her into direct collaborative contact with local youth who offered help to construct pieces of furniture. They are now connected on Snapchat and regularly share suggestions for Kulturhavna through the app. This less conventional communication channel removed "language barriers" between the municipality and resident youths and has generated more ideas and positive outcomes.

There were similar engagements at the other end of the age spectrum as well. During the April 2024 event, the project team learned that a 93 year old wheelchair-bound resident was watching the Dugnad activities from her residence window nearby. She was curious about what was happening, so she sent her son to ask. The project team invited her to the opening party with a hand-written note, and offered supportive hands to lift her wheelchair down to the site, as it is currently only accessible by stairs.

In addition to deep hands-on resident engagement, there has also been extensive cooperation with local businesses through donations and in-kind support for expertise (e.g., which local trees to plant for green oasis), construction materials, and additional hands (employees are given paid leave to help). Without direct financial gain or profit, many businesses still contributed to the efforts to boost their reputation with good social media content and to network with youth, their potential future employees and customers.

Early construction phases of the temporary installations in the Kulturhavna (Source: Ålesund Kommune)

Enjoying the temporary urban greenspace "Urban Oasis" in the Kulturhavna (Source: Ålesund Kommune)

Bruges: Circular Festival

#inclusive #regenerative / circular

Why inclusive?

- Empowering future residents and helping them connect by orchestrating small urban creation activities to shape the future of the site.

It was acknowledged early in the engagement process that community building was critical for realising the future vision of the [Kaaidistrict](#). Small exploratory activities were held as a first step to shape a community of *Kaaiklappers* (*klapper* is a colloquial term for someone who likes to talk), including an interactive urban furniture making workshop during the Circular Festival Bruges[42], a brainstorming session about how to transform a greenfield in the Food Hub, and outreach activities during the Fun Fair carnival in Sint-Pieters.

The 2024 Circular Festival provided the first opportunity to activate an urban space in the Kaaidistrict using circular economy principles. On 24 February 2024, interested citizens, neighbours and volunteers were invited to help the House of Time[43] (a non-profit organisation engaged with different associations working with wood) construct urban furniture for the Kaaidistrict, including wooden benches, games for children and sculptures.

Wooden furniture created during the 2024 Circular Festival, inspired by a similar initiative in Ålesund (Source: Stad Brugge)

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[42] https://circulairfestivalbrugge.be/
[43] https://raumlabor.net/house-of-time/

Burgas: Chengene Skele

#inclusive

Why inclusive?

- Cultural tourism strategy developed with local fishermen to preserve the site's history and to celebrate the sea and the ways of working with it

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Chengene Skele is the name of a fishing port located in a small village 15 kilometres south of Burgas. The bay takes its name from the village of Chengene Skele (meaning "Gypsy port"), which has been situated in this area since Ottoman times. In 1972, local fishermen were relocated here from the Port of Burgas, due to modernization and expansion of the city's main port. Over the years, professional fishing in this area has sharply declined. To preserve this important cultural heritage before it disappears entirely, the municipality, with support from regional partners, took steps to capture and protect it as part of the Chengene Skele Cultural and Tourist Complex.

The Chengene Skele Cultural and Tourist Complex is an ethnographic complex of three exhibition houses designed to take visitors on an adventure through the history and ecology of the Black Sea, as well as the fishermen's customs and working life. The exhibit houses are oriented to and visually adapted in their design to the traditional houses nearby, following the guiding theme of unity in diversity. Local fishermen were included in the entire design process, local sustainable materials were used for construction and the houses are oriented towards the sea.

Inside the exhibition houses, interactive exhibits enable visitors to experience fishermen crafts, tools and customs, including net knitting, learning ropes and sea knots, eating a traditional meal, and hearing stories about the fishermen's beliefs and legends. The complex also includes a small restaurant and a coffee club, where visitors can refresh themselves, as well as try traditional recipes from the region. A multifunctional building and amphitheatre can host a variety of indoor and outdoor events, and a sea-themed playground is available for children. Visitors can also enjoy the small beach next to the complex or take on a sea adventure with a boat from the nearby dock, enjoying the sunsets in the Burgas Bay.

Chengene Skele Cultural and Tourist Complex (Source: Burgas Municipality)

Cascais: CityPoints / Viver Cascais

#inclusive #informed #integrated

Why inclusive?

- Gamification approach to raise awareness and empower citizens to act sustainably through playful reward-schemes

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CityPoints was an award-winning experimental citizen reward programme deployed by Cascais municipality from 2018 - 2024 to promote and reward sustainable practices among local residents. In this programme, residents could collect points for performing predefined civic actions, like recycling, taking public transport, volunteering, or donating blood. These points could then be redeemed for rewards, like free tickets to cultural events, concerts or museums, books, plants, or for product / service vouchers offered by local partners.

Based on gamification and acknowledgment, the app actively promoted good citizenship practices and recognised citizens, or super-citizens, who actively contributed to local sustainability practices. The app was discontinued in July 2024 and was replaced by Viver Cascais (Live Cascais)[44]. Anyone living, working or studying in Cascais can participate in Viver Cascais.

How CityPoints worked (Image source: https://wsa-global.org/winner/city-points-cascais/)

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[44] https://my.cascais.pt/Viver/Index/#/Welcome

Cascais: Smart Pole by NOVA SBE

#inclusive #visionary #informed #regenerative/circular #irresistible

Why inclusive?

- Locally-anchored Living Lab: creating a collaboration space for businesses, residents and students to co-create innovative solutions for climate neutrality
- Public-private partnerships for local renewable energy generation and other sustainability challenges

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The Cascais Smart Pole at NOVA SBE[45] is a collaborative effort between the municipality of Cascais, Nova School of Business and Economics (NOVA SBE), and various municipal, national, and international companies. Its mission is to promote sustainable development and work toward a climate-neutral future. Funded by the Environment, Climate Change, and Low Carbon Economy Program of the EEA Grants, the Smart Pole is located on the Nova SBE campus adjacent to the Cascais Waterfront Pilot, serving as a hub for innovation and research while enhancing the student experience.

A key feature of the Cascais Smart Pole is the Living Lab for Urban Innovation, an experimental platform where researchers, students, and private companies can develop and test urban technologies in real-world settings. The Living Lab is being implemented in a multifunctional area that blends residential, commercial, and campus spaces with public facilities. Adopting a co-creation approach, it involves businesses, students, and local residents as active partners in the process. The Living Lab aims to foster a new generation of changemakers focused on mission-driven innovation to achieve climate neutrality, aligning with both municipal decarbonization goals and national targets for 2050.

Cascais Smart Pole Living Lab will host the city's first Renewable Energy Community (REC), a collaborative project where residents, businesses, and NOVA SBE can invest in photovoltaic (PV) modules to share renewable energy. These modules will be installed on the roofs of NOVA SBE and nearby residential buildings. Participants in the REC can choose to invest, purchase energy, or offer their roofs for PV modules to the initiative. This effort aims to help residents lower their electricity costs, gain social and financial benefits, and support local decarbonization efforts. The Living Lab is also hosting digital and in-person initiatives to educate the population about energy savings and energy efficiency. The initiative is targeting 10,000 residents, 10 companies, 5 partner organisations, 2 universities and research centres, and 1,500 students to increase environmental awareness and reduce Cascais' carbon footprint through a reduced domestic energy consumption.

The Living Lab is also taking on used cooking oils with the community, such as those from cooking or food preserved in oil, which can cause significant issues when improperly disposed of in drains or toilets. To support the circular economy and improve collection rates, smart bins will be installed to streamline the process. The goal is to engage families and businesses through a Pay As You Throw (PAYT) system enhanced by gamification. This PAYT system rewards participants with incentives based on their waste disposal efforts. Once collected, the oil will be stored and transported by certified operators to pre-processing facilities to ensure it meets quality standards. After pre-treatment, the oils will be sent to Prio Bio's Biodiesel Plant, where they will be converted into ZERO Diesel (B100) through a transesterification process.

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[45] https://cascaissmartpole.pt/en/

This environmentally friendly biofuel helps reduce greenhouse gas emissions. The biodiesel produced from oil recycling will be used to power the Cascais Ambiente municipal fleet, contributing to cleaner, more sustainable operations.

More importantly, Cascais Smart Pole goes beyond reducing emissions by fostering a strong community connection through cultural projects like Sustent'Arte, developed by Mar de Experiências (Sea of Experiences). This approach merges activism and art—known as "artivism"—to turn waste collected from the sea and beaches into artwork, highlighting the efforts of those who champion the fight against climate change. Artivism empowers artists to convey powerful messages through their work, reaching and inspiring people to take action. As a cultural expression, it emphasises that culture itself is a vital pillar of sustainable development.

Artivism: popular environmentalists Leonardo DiCaprio and Greta Thunberg rendered in sea waste by Mar de Experiências (Source: EEA Grants [46])

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[46] https://www.eeagrants.gov.pt/en/programmes/environment/news/cascais-smart-pole-by-nova-sbe-sustentarte/

Písek: Initiatives against social exclusion

#inclusive

Why inclusive?

- City-scale initiative to help vulnerable groups integrate through a spatial approach targeting hostels and other isolated living situations
- Support centres located in the city covering wide range of topics, from addiction to insolvency

Several organisations in Písek have implemented initiatives with the goal to mitigate social exclusion. The Place in Society [Místo ve Společnosti] project by Charity Písek, helped people from socially excluded locations from April to December 2022. While the project is now over, the charity's aim was to support the social inclusion of people living in hostels and other excluded locations, in order to prevent the social alienation of individuals already in a vulnerable social position. The support relied on providing professional work; a human approach; and the motivation of the project workers to the individuals. The project claimed it aided individuals in numbers of ways. Successes ranged from helping fundamental changes happen in the client's way of life to smaller steps being achieved, which are also very important in social work. All this under the motto "Every person is important to us".

The Arkáda project consists of a social psychological centre offering crisis assistance as part of the services. The project targets a reduction in drug dependence to integrate individuals back into society. Romodrom, another project, provides social rehabilitation to socially excluded and disadvantaged individuals in the city. The social services comprises counselling on a range of areas including housing, social benefits, employment, debts and criminal law. Lastly, THEIA is a crisis centre created to support residents facing financial difficulties and debt. The counselling centre is located in the city and provides advice on financial and budgetary issues, debts and debt relief, family and interpersonal relationships, discrimination, property law and employment law relations. It is an accredited service provided, with the ability to directly support the tasks, for instance filling a proposal for debt relief.

Rijeka: Green Zone

#inclusive #regenerative/circular

Why inclusive?

- Urban gardening initiative for residents

The 'Green Zone' in Rijeka is the city's first urban garden. The project comes from a cooperation between the municipality and the Association for the promotion of family quality, "Šarolija". Urban land is leased free of charge to citizens for agricultural production. Citizens are assigned garden beds through a public invitation and have to respect several conditions: vegetable beds should be used for organic / ecological / biological gardening; synthetic fertilisers along with chemical preparations for suppressing weeds, pests, etc. are prohibited. Within the Rijeka urban garden, kindergarten "Dolčić" has been refurbished and conceived in accordance with the permaculture principles with the aim of gathering children and parents in joint activities that promote ecology, sustainable living and healthy nutrition.

Rijeka: Citizen Assembly and Local Partnership Programme

#inclusive #informed

Why inclusive?

- Creation of a citizen assembly for direct dialogue with the Mayor and City Council
- Opportunity for citizens to allocate funding to improve public spaces and enable projects
- Partnership between the city, citizens and local associations, with mutual responsibility and engagement

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In Rijeka, the Citizens' Assembly and the Local Partnership Programme are both initiatives aimed at fostering civic engagement, serving different but complementary roles within local governance.

The Citizen Assembly, created in November 2023 by the City and the SMART Association for the Development of Civil Society, engages citizens in discussing significant civic issues. Composed of 33 citizens, the purpose of the assembly was to give citizens an opportunity to learn about self-governance and citizen participation, and shape the future of citizen participation in Rijeka.

To select the members of the assembly, 1,000 households were invited to participate and visited at home to inform them about the assembly and encourage them to take part. Interested individuals were then randomly selected so that they represented the city's population in terms of gender, age and place of residence. Each member had to attend at least five of the seven meeting sessions between November and December 2022, and participants were given a small participation stipend. The assembly sparked a lot of enthusiasm among participants, with one rearranging his work schedule to attend.

A set of 90 recommendations were developed and shared with the mayor to improve local administration and citizen participation. All that were approved by more than 75% of the participants were adopted. Key recommendations included:

- Providing more information to citizens: on their civic rights and the usefulness of participation, but also on programmes before elections
- Creating instances for direct dialogue: a citizen forum / assembly and a children and youth council
- Setting out clear rules for the assembly, which should be set out by a dedicated project-oriented assembly
- Setting up participatory budgets: allow citizens to allocate public funding
- Create other punctual mediums for action: petitions, citizens applications.

The Local Partnership Programme (RPLP) involves citizens, local boards, and organisations in direct, project-based participation. Since 2005, RPLP has supported community-led projects, such as playground construction and green space improvement, through annual funding competitions. Annually, in October, a public call is issued for proposals, and projects are selected based on available budget and alignment with community needs. The city provides financial assistance, while citizens actively contribute to the execution of the projects.

The key goals of this programme are to:

- Encourage local board councils, associations and citizen groups to contribute to problem solving in the public realm
- Improve the relationship between the City and citizens through a project-oriented partnership, with mutual responsibility
- Enable faster solving of municipal infrastructure problems, thanks to citizens and local boards support and insights
- Achieve better social and economic effects by pooling the resources of the public and private sectors with strong support from the local community.

Two important criteria also need to be taken into account:

- The project should take place on an area owned by the City of Rijeka
- 10% of the total project value should come from the local community's contributions through volunteer time, donations, support-in-kind, etc.

As part of the programme's ongoing improvement, a design experiment was undertaken in 2022 to improve citizen involvement in the Local Partnership Programme. Key objectives included better access to information about previous projects, citizen participation in selecting projects, and co-creating an evaluation framework. One of the key achievements of this design experiment was the creation of an online repository[47] and GIS map, providing citizens with up-to-date and accurate information about local projects funded by the city, and allowing them to visualise their spatial distribution. To improve the evaluation process, citizens were also added to the project selection committee.

To date, a variety of projects were made possible including street and public square improvements, including public seating, children's playground equipment, and landscaping / urban greening, sometimes with educational purposes.

Together, the Citizen Assembly and Local Partnership Programme reflect Rijeka's efforts to enable broader civic participation both through structured deliberative bodies (like the assembly) and through hands-on local development projects, making Rijeka a model for participatory governance in Croatia.

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[47] https://gov.rijeka.hr/zahtjevi-i-obrasci/mjesna-samouprava/rijecki-program-lokalnog-partnerstva/repozitorij-rplp-projekata/679

Rimini: Giardino BIMBY

#inclusive #regenerative / circular #irresistible

Why inclusive?

- Local renewable energy community involved in the design and rehabilitation of a garden in front of an abandoned and dilapidated hotel in San Giuliano Mare
- Facilitates story-telling as a communication tool to involve residents and tourists in climate neutrality and sustainability goals
- Actively uses concepts like the Time Bank and other voluntary methods to programme the garden throughout the year

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The Giardino BIMBY opened in May 2023, on the site of the abandoned and dilapidated *Hotel delle Nazioni*. The garden's motto is a positive reinterpretation of the famous slogan NIMBY ('not in my backyard'), instead embracing BIMBY ("best in my back yard") to highlight the power of committed and supportive communities. The garden was initiated by the Renewable Energy Community of the San Giuliano Mare neighbourhood. In addition to providing residents with a 700m² green space for congregating, the project is a strong communication tool for a variety of public and local information that promotes the city and wider territory. The communication relies on effective story-telling, with the creation of a book starring Bimby, presenting the genesis of the park and leading residents and visitors on a journey towards the new world created by the European Green Deal and Fit for 55 plan. The path is composed of seven thematic islands, each linked to a topic of the 2030 Agenda Goals. During its opening period in the summer, the garden hosts a variety of events on topics related to the thematic islands.

Giardino BIMBY in Rimini

Rimini: Renewable Energy Community (CER)

#inclusive #regenerative/circular #irresistible

Why inclusive?

- A public-private partnership that promotes social cohesion and democratises access to clean energy for over 2,000 families through Rimini's first Renewable Energy Community (CER).

The Municipality of Rimini's Renewable Energy Community (CER) is an innovative initiative aimed at generating environmental, social, and economic benefits by creating a shared energy ecosystem. Launched in collaboration with private companies, this project seeks to enhance local renewable energy production by utilising municipal building rooftops and providing energy savings to residents, particularly those facing energy poverty.

Through the CER, families, small businesses, and local entities will share renewable electricity generated by photovoltaic systems installed on municipality-owned properties. This collective effort encourages engagement from public, private, and individual stakeholders, uniting them around a common goal of sustainability and energy equity.

Six photovoltaic plants with a total capacity of 1.75 Megawatts will be installed on various municipal buildings, including schools and sports facilities (e.g., Parco Marecchia association, Casa del Volley gymnasium, Polisportiva Celle building, Sara Brancia Sports Centre, and Madre Teresa di Calcutta Primary School). Over 20 years, the energy produced will be shared virtually among CER members through the national electricity grid, facilitating a collaborative model that enables surplus energy to benefit all community members.

Key features of this project include:

- Public-private partnership: The Municipality of Rimini has partnered with private companies to install photovoltaic systems on municipal buildings, ensuring renewable energy production without additional land use. Private sector partners cover the project costs and manage operational risks, while the public sector facilitates the use of municipal spaces.
- Addressing energy poverty: The public will have ongoing access to the energy produced at no additional cost. Financial benefits extend to CER participants through shared energy incentives valued at approximately €331,000 annually. Members, particularly low-income families, can save an estimated €143 per year on electricity bills due to the renewable energy generated within the community.
- Inclusive membership: Membership in the CER is free, with no fees or binding commitments, ensuring equitable access for all eligible households.

Additional expected benefits include:

- Environmental sustainability: By utilising rooftops and canopies of municipal buildings, the project minimises land consumption while increasing the production of clean energy.
- Strengthening social fabric: By involving diverse stakeholders, from families to businesses, the CER fosters a stronger sense of community ownership over the energy transition.

The Rimini Renewable Energy Community is a transformative project that serves as a model for future public-private energy partnerships, showcasing the potential of collective action to drive local and global sustainability goals. By emphasising the crucial role of municipalities in the energy transition, the CER demonstrates the value of joint public-private initiatives and strengthens social cohesion by involving citizens, SMEs, and public institutions in a unified effort to address the energy transition. It fosters collective responsibility for environmental sustainability.

Sofia: Rivers of Sofia

#inclusive #integrated #visionary #irresistible

Why inclusive?

- Space turned public thanks to a broad alliance of citizens, public institutions, private businesses and civil society organisations
- Workshop held with architects, urbanists, students, and citizens to develop proposals for the river bed's long-term integration into the city's urban fabric
- Inclusive festival with a diversity of social groups, offering activities for all

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The Rivers of Sofia (Bulgaria) initiative by the Collective Foundation[48] aims to revitalise the constructed water channels of the Perlovska and Vladayska rivers in Bulgaria's capital city with pop-up architectural interventions and cultural-educational programming. Made of hand-cut masonry in the 1930s and 1940s, the water channels have been listed as national cultural heritage since 1988; still, they were largely neglected for decades due to overbuilding and poor accessibility from the street. After 80 years, these spaces are now publicly accessible, thanks to a broad alliance of citizens, public institutions, private businesses, and civil society organisations that advocated for the municipality to permanently restore the rivers as green public spaces. This effort has finally brought the recognition they deserve as part of the city's urban heritage.

The Rivers of Sofia core event is a festival with cultural, educational and sports programmes. Sponsored by socially responsible businesses and Sofia Municipality, 40 local volunteers help to install temporary stages and pavilions with a light ecological footprint and to decorate the space with lights, fabric and art installations. With an inclusive set-up to be welcoming to diverse social groups (e.g. different ages or neurodiverse status) and offering activities for different interests, the first festival in September 2020 attracted 6,000 visitors. Seamless extension of the traditional market Zhenski Pazar to the venue managed to draw local Roma, Arab and Bulgarian populations to the festival. This success of temporary transformations induced the municipality to approve permanent interventions like access stairs, vertical gardens and seating, and enter into cooperation with schools to involve youth for further projects.

Inspiration is also continuously drawn from a workshop held with architects, urbanists, students, and citizens to develop proposals for the river bed's long-term integration into the city's urban fabric. With all measures combined, Sofia was rewarded by the New European Bauhaus Jury 2022 for setting an example regarding community involvement and social participation with a relatively small budget. Via the expansion

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[48] https://kolektiv.bg/

into other cities, the work by the Collective Foundation aspires to serve as a role model, having already inspired the establishment of the Festival Upside Down in Troyan.

"Rivers of Bulgaria" by Ani Kodjabasheva, licensed under CC BY-NC-SA 2.0 (Europa Nostra Awards[49])

[49] https://www.flickr.com/photos/europanostra/52164802513/in/photostream/

6. Regenerative / Circular

Re-Value embraces a regenerative, circular approach to urban planning and design, aiming to maximise the re-purposing, refurbishment, renewal, and regeneration of the built environment. This strategy not only seeks to reduce waste but also redefines urban spaces as flexible and adaptive environments that align with the needs of both nature and society. By promoting the transformation of existing infrastructure, the Re-Value approach emphasises multifunctional, modular design that supports resilience, enhances local biodiversity, and integrates green spaces, helping to restore ecological systems within the built environment.

In practice, Re-Value's approach to circular city governance involves adopting sustainable construction methods that prioritise the use of durable, renewable materials and encourage a lifecycle approach to building. This perspective extends beyond individual projects to a broader vision that incorporates shared spaces and resources, ensuring that cities evolve with climate adaptation in mind. By fostering adaptable land use and promoting community-driven initiatives, the Re-Value approach strives to enable urban ecosystems that support sustainable economies and contribute to a resilient, self-sufficient society.

Urban design under Re-Value's model also includes enhanced walkability, sustainable mobility solutions, and green-blue infrastructure that integrates waterways, green roofs, and rain gardens to improve stormwater management and foster urban biodiversity. By embedding these elements into urban landscapes, the Re-Value approach aims to transform cities into regenerative spaces that contribute positively to environmental health and well-being of their inhabitants.

Bruges: Bruges Circular 2030 and the Kaaidistrict Concept Plan

#regenerative/circular #visionary #integrated #inclusive

Why Regenerative / Circular?

- Circularity plays a central role in the city's Climate Plan 2030 and is a driving concept for an urban redevelopment area that is built on circular food, water and energy flows.
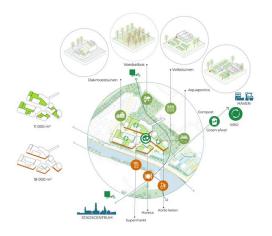

Bruges Circular 2030 is part of the city's ambitious Climate Plan 2030, which aims for a 49% reduction in CO_2 emissions by 2030, setting the stage for climate neutrality by 2050. This plan emphasises sustainable development across various domains, including energy efficiency, sustainable mobility, climate resilience, and circularity in urban infrastructure. Key initiatives include advancing renewable energy, fostering climate-friendly business practices, and developing circular strategies to reduce waste in construction, resource use, and everyday consumption patterns.

A unique aspect of the plan is the "7 bridges" approach, each representing a key area of action—ranging from fossil-free heating and renewable electricity to climate adaptation measures like improved water management and green spaces. The Kaaidistrict is spotlighted in Bruges Circular 2030, where the city is exploring ways to regenerate an industrial zone into a multifunctional, sustainable neighbourhood. The transformation involves circular urban planning principles, such as adapting building reuse, flexible urban layouts, and biodiversity enhancements.

The 2022 Kaaidistrict Concept Study[50] in Bruges aims to create a sustainable, climate-resilient, and economically vibrant neighbourhood, with a focus on integrating circular economy principles. As part of the larger Makers District initiative, the concept encourages urban regeneration by transforming the underutilised industrial zone into a multifunctional hub where living, working, and green spaces coexist. Circularity plays a central role, focusing on reducing waste, supporting local production, and reusing materials across various projects to lower environmental impact. The study also highlights the area's strategic location at the intersection of Bruges and its port, leveraging this connectivity to support sustainable logistics and mobility solutions.

Key principles of circularity in the Kaaidistrict include eco-design for new structures, sustainable materials, and the facilitation of repair and reuse activities. Urban manufacturing and green spaces are planned as focal points to connect the area with Bruges' wider environmental and economic goals, ultimately contributing to a "green-blue" infrastructure that supports biodiversity and climate adaptation. The plan actively involved local stakeholders in a participatory design process, fostering community ownership and ensuring that the development aligns with residents' aspirations and ecological targets.

Circular food flows

Circular water flows

Circular energy flows

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[50] https://circularports.vlaanderen-circulair.be/publication/kaaidistrict-brugge-be/

Bruges: Circular Hub Brugge

#regenerative/circular #integrated #inclusive

Why Regenerative / Circular?

- Regional initiative aimed at fostering a circular economy in Bruges

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The Circular Hub Brugge[51] is a regional initiative aimed at fostering a circular economy in Bruges by supporting local businesses, organisations, and individuals in adopting sustainable practices. As part of the larger network of 12 circular hubs across Flanders, Circular Hub Brugge focuses on transforming waste into resources, encouraging circular innovation, and enhancing social and economic value through reuse and recycling. The Hub provides tools, workshops, and partnerships for businesses to transition to circular methods and supports local networks that connect companies working on waste reduction and sustainable resource use.

Through the Hub, Bruges works alongside other cities like Antwerp, which emphasises the use of bio-based and recycled materials in industry, particularly in large sectors like chemicals and logistics. This cooperative model seeks to not only reduce waste but also establish Bruges and similar hubs as leaders in circular economic development, contributing to Flanders' broader goals for climate resilience and sustainability by 2030.

Circular Hub Brugge serves as the network platform and experimental laboratory for socio-circular collaboration in the city-region. The city of Bruges collaborates with ambitious businesses, engaged educational institutions, social economy organisations, and enthusiastic citizens to bring the concepts of a circular economy into practice. In 2022, the city, along with stakeholders, defined a comprehensive vision for Bruges Circular 2030. Circular Hub Brugge plays a leading role in implementing the action plan. Collaborating with partners, it inspires, activates, and facilitates citizens, entrepreneurs, visitors, and other authorities to maximise their efforts in promoting circularity. Promising value chains include construction, food and organic waste, consumer goods (including furniture, textiles, bicycles, and electronic devices), (residential) healthcare, and the hospitality sector.

Bruges Climate Plan- Bruges Circular City

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[51] https://www.circularhubbrugge.be/nl

Burgas: Healing Island Demonstration Garden

#regenerative/circular #inclusive

Why Regenerative / Circular?

- Demonstration biophilic garden designed with fully recyclable and local materials to show how the underutilised spaces between residential blocks could be regenerated and activated

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Burgas Municipality created a Healing Island park[52] in the city centre as part of their wider framework to develop a series of connected urban greenspaces to improve the physical and mental health of residents. The park also serves to showcase different biophilic design treatments and inspire others to imagine how common spaces could be regenerated to better serve the people who live nearby, as part of the "my city, my neighbourhood, my street" programme.

In addition to a conceptual focus on wellness and healing, the park also embraces circular design with fully recyclable materials, with no plastic and concrete. The walkways are constructed of granite paving blocks recycled from other parts of the city, and the playground equipment is constructed of solid wood harvested from trees on-site. The landscaping has been selected for urban environments, and includes two drought-tolerant green walls to improve air quality. The new landscaping, water feature, and pergolas create a cool, sociable atmosphere for residents and visitors with a modern touch - the benches also provide charging points for mobile devices and free wifi. New energy-saving luminaires have been installed, which provide the necessary comfort during the night. The park is also equipped with a photovoltaic system, which supplies renewable energy to two electric car charging stations. Eight parking spaces have been designated in the renovated area: five spaces for disabled people and three for electric vehicles.

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[52] https://archello.com/fr/project/healing-island

Healing Garden in Burgas using fully-recyclable and local materials as part of its biophilic design (Source: Burgas Municipality)

Constanța: REAbilităm Constanța IStorică (REACTIS)

#regenerative/circular #irresistible

Why Regenerative / Circular?

- Funding programme that embodies *circular heritage* by restoring and repurposing historic buildings to preserve cultural value while aligning with sustainable urban development goals

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REAbilităm Constanța IStorică (REACTIS) is an initiative led by Constanța's local government to preserve and revitalise the city's historic and architectural heritage. It focuses on the historic centre, with priority areas identified for restoration, such as the urban block bounded by Tomis Boulevard and streets like Vasile Alecsandri and Ecaterina Varga. The program involves comprehensive assessments of building conditions and structural integrity, aiming to bring historical buildings up to current architectural and safety standards while preserving their unique aesthetic and cultural value.

Through REACTIS, building owners in protected areas can access financial support for renovations, designed to improve environmental and visual quality in alignment with local urban planning regulations. The program also includes the development of technical reports for each building, conducted by specialists certified by the Ministry of Culture, to guide the restoration process. The local administration will pay the costs of the technical documentation which represents the basis of the works and 20% of their value. The municipality will also loan the remaining 80% to the owners with a five year payback period. Beyond private properties, the municipality engaged in the refurbishment, restoration and capitalization of the Roman Baths, the Roman edifice with mosaic, the Big Citadel Gate, and Archbishop Park.

Cascais: Rewilding the Ribeira das Vinhas Green Corridor

#regenerative/circular #visionary #integrated #irresistible

Why Regenerative / Circular?

- Rewilding an urban river corridor to tackle a variety of sustainability challenges

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As part of its 2017 Action Plan for Climate Change Adaptation - Cascais 2030[53] Cascais established a vision to use Nature-based Solutions (NbS) as a basis for climate action measures to capitalise on the multiple co-benefits the approach offers. This second-generation action plan – after the Cascais Strategic Plan compared to Climate Change (PECAC) of 2010 – updated the city's expected climate scenarios, and reduced the uncertainties associated with natural phenomena, which was fundamental to guide the strategies and services of the Municipality for effective results.

The Action Plan for Climate Change Adaptation – Cascais 2030 was based on a long advisory process with citizens and experts from various institutions to identify the project priorities and actions to be implemented. The plan follows the methodological principles of the UN Intergovernmental Panel on

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53 https://ambiente.cascais.pt/sites/default/files/anexos/relatorio_adaptacao_final_low_0.pdf

Climate Change (IPCC), so it was expected to be one of the first at international level to meet the 2030 Sustainable Development Goals (in particular of Objective 13: Climate Action) guidelines.

One of the Action Plan's 13 key measures was to transform the degraded Ribeira das Vinhas stream corridor into an ecological greenway to demonstrate how Nature-based Solutions and rewilding[54] can help address multiple challenges at once, including flooding, poor water quality, erosion, biodiversity loss, as well as traffic congestion and parking demand. The Ribeira das Vinhas has benefited from many projects and local initiatives since the Plan's acceptance (including the invest4nature project[55]), which have enabled the municipality to make consistent and coordinated progress with demonstrated impact over the years. Some of the key improvements made within the framework of the Action Plan were to:

- Remove invasive species and trash to establish native perennial herbaceous species whose branching root systems help with sediment retention;
- Create ponds and meanders in the streambed to create new habitat, as well as detain and slow down the water before it reaches the sea, which in turn helps reduce erosion and improve water quality;
- Develop a paved pathway system in the corridor to connect the city centre and Sintra Cascais National Park, offering over 7 kms of active mobility access to work, shopping, and recreational opportunities in the heart of Cascais;
- Activate and educate the local community about an ecosystems approach to planning and design, and engage with action-oriented community groups Like Natura Observa[56] to help make physical improvements in the corridor, as well as foster a sense of ownership and service to the community in this "commons corridor".

Rewilding and access measures in the Ribeira das Vinhas Green Corridor (Source: invest4nature.eu)

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54 https://rewildingeurope.com/what-is-rewilding/
55 https://invest4nature.eu/living-labs/portugal/
56 https://ambiente.cascais.pt/pt/projetos/natura-observa

İzmir: Sponge City

#regenerative/circular #visionary #integrated

Why Regenerative / Circular?

- Use urban stormwater to provide additional serves through a water-responsive design

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The Sponge City concept advocates for using Nature-based Solutions to detain, treat, and absorb urban stormwater so that it recharges the groundwater system and mitigates flooding. Based on its Nature-Based Living Strategy[57], Green City Action Plan[58], and Green Transformation and Blue Opportunities Perspective for İzmir, the İzmir Strategy for Living in Harmony with Nature (2011-2030), the city adopted this green infrastructure concept for water-responsive design to create ecological benefits and increase resilience.

Through its waterfront location, İzmir experiences sea level rises because of storm surges that flood the coastline; flooding from sudden weather events, as well as the reverse extreme of water scarcity and droughts. Hence, the goal is to build İzmir as a sponge city within five years from 2022 onwards and reduce stormwater flow in the urban area by 70%. For this reason, the municipality of İzmir has entered into a partnership with the İzmir Institute of Technology (IZTECH) to examine the hydrology of İzmir and evaluate the potential for reducing flood risks in a pilot study conducted in co-work with Netherlands-based H+N+S Landscape architects. The overall objective of the Sponge City projects is to increase the permeability of the ground plane, thereby remodelling hydrological mechanisms.

Architecturally, different design elements can provide such water absorption capacity. In İzmir, the two main components of the programme are rainwater harvesting and rain gardens. Rainwater harvesting has three targets: using water resources efficiently, preventing floods and protecting the bay from the flow of polluted stormwater. Each year, 75 million tonnes of stormwater fall on building roofs in İzmir, equal to one-third of İzmir's annual water consumption. In this context, the municipality provides an incentive to citizens by offering 5,000 free stormwater tanks to 5,000 buildings. Tanks are also provided at Işıkkent Cemetery and have transformed bus stops into nature-friendly green stops, e.g. at YKM-Konak, used for raising awareness through colourful stormwater harvesting.

The second aim of the Sponge City programme is to create 10,000 bioretention basins (rain gardens) designed to collect, store, filter, and treat stormwater runoff throughout the city. When citizens apply to join this initiative, the municipality provides them with the plants and necessary materials so that they can create their own rain gardens, including porous soil mixtures, native plants, and some hyperaccumulator plants capable of phytoremediation. This way, stormwater is being restored within nature. Moreover, the scheme prevents rainwater from going into the sewage system and protects the city against floods.

In addition to stormwater harvesting tanks and rain gardens, another sponge element is floodable parks. These are communal recreational spaces that are intentionally designed to be flooded with minimal damage during storm or flood events. Existing examples in İzmir are Buca Garden Sponge Park in the

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https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://skpo.izmir.bel.tr/Upload_Files/FckFiles/file/%25C4%25B0zmirinDogaileUyumluStratejiPlani-EN.pdf
58

https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://ebrdgreencities.com/assets/Uploads/PDF/GCAP-EN_Optimized.pdf

Yaylacık Neighborhood with its three Taşkın drainage wells, and Buca Atatürk Neighborhood Sponge Park collecting 470 tons of stormwater per day in ditch areas, which filter the water underground.

Further, the programme includes replacing sealed surfaces in the public right-of-way (including roads, parking lots, and public spaces) with permeable pavement to absorb and return the water to the natural water cycle. An example of such porous pavements is shown in the Gaziemir Sakarya İzelman A.Ş. parking lot, which also incorporates infiltration bioswales. Other planned measures include green roofs; coastal marshes to absorb wave energy during coastal storms; seagrasses to slow water currents along floodbreaking hedgerows and buffer strips; living breakwaters following model experiments by the National Research Council of Canada; and bioswales, which are an aesthetically-pleasing alternative to concrete gutters and storm sewers.

Stormwater harvesting in İzmir (source: European Union, 2024)

Gaziemir İzelman Sakarya Sponge Car Park design treatments[59]

Küçük Menderes Plain Rainwater Harvesting is the rural leg of İzmir's Sponge City project with the aim to combat drought. Its core result is the creation of Turkey's first biological seepage pond, Bademli Pond. The pond can harvest and store 60,000 m³ of water underground - the equivalent of approximately 24 Olympic pools - per year. Stormwater from the Bademli Cooperative's greenhouse roofs, surrounding agricultural areas, and water runoff from summer irrigation will be directed to the percolation pond via drainage channels and pipelines. Eventually, the water needs of 196,000m² of agricultural land and the Bademli Cooperative will be met with the water stored underground in the pond. For this reason, the pond is being described as the "fountain of abundance of the Küçük Menderes Basin" to restore groundwater levels and protect the region's status as "food warehouse of Turkey". In addition, other measures to achieve this goal

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[59] Source: https://sungerkent.izmir.bel.tr/tr/Project/Detail/47641876-904a-11ee-b659-00505601c158

include phasing out local wheat cultivation with its high irrigation needs and reintroducing a variety of crops, vegetables and fruits that are suited to the existing conditions.

Projects closely related to the Sponge City programme are Living Parks and Ecological Corridors: places where people can interact with wildlife, see biodiversity, and experience agriculture. They protect the ecosystem, re-establish urban-rural connection and offer green spaces with multiple usages. So far, five living parks have been completed, and the municipality plans to create 30 more. To embed nature in the city, these Living Park areas are connected to each other by seven ecological corridors, so that residents and visitors can access natural areas more easily.

One example is the Gediz Delta, in the Mavisehir-Karsiyaka neighbourhood, where 10% of the world's flamingo population lives. In this highly urbanised district below sea level, the Peynircioglu Stream Ecological Restoration Project is located which led to the creation of one of five ecological corridors. The Bostanlı Stream in the north of the bay is additionally also part of the "İzMiras" İzmir heritage route. Another example is Olivelo Living Park in Güzelbahçe Yelki, which, despite its closeness to the city, comprises over 13,000 trees. This park hosts a youth camp to re-establish the connection between people and nature through outdoor activities like mountaineering and hiking as well as music concerts and camping games.

Peynircioglu Stream Ecological Restoration Project (Photo by Sinan Alper[60])

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[60] https://aiph.org/green-city-case-studies/izmir-turkiye/

Písek: ZEVO Waste-to-Energy Facility

#regenerative/circular

Why Regenerative / Circular?

- Diverting municipal solid waste away from landfills to produce local electricity and heat

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According to European Union plans, solid waste landfills will either be very costly post-2030 or entirely banned. Therefore, Písek is planning to build a waste-to-energy facility (ZEVO[61]) to transform the municipal solid waste from the towns of Písek and Strakonice and their vicinity, into electricity and heat. Eventually, this ZEVO is expected to produce 14.55 MWt and 1.6-2.5 MWel fuelled by 50,000 tons of non-recyclable solid waste per year. The idea is to recover the maximum amount of energy from otherwise unusable products and put it to further use.

It was often thought that ZEVOs needed to be large in order to be viable, which comes with some serious environmental and financial downsides. First, due to their size, large plants release more pollutants at a single location. Second, the waste has to be transported from far away - often hundreds of kilometres – and this transportation itself results in additional environmental impacts and infrastructure needs. Lastly, the shortage of options for rational use of the energy produced by waste incineration may also be a problem. In other words, if a large waste-to-energy plant is not close to a big town or city, it will not have enough district heating customers, and the energy produced will not be used in an ecologically-sound way.

Architectural rendering of the future ZEVO Písek (Source: Smart Pisek)

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[61] https://zevo.zevopisek.cz/

However, with advances in technology, a better option is to build smaller-scale waste-to-energy plants closer to waste sources. Waste is then processed as near as possible to its point of origin with no need to transport it anywhere, with lower construction costs, and a simplified rational use of the energy produced. Further advantages of ZEVOs include phasing out non-ecological waste disposal in landfills; substituting fossil and conventional fuels; and lowering municipal waste management costs. The local population itself benefits from a stable heat supply, stable prices for heat and hot water, and the possibility to consume locally-produced electricity at a discounted price.

For these reasons, the Waste Management Policy of the South Bohemian Region[62] foresees České Budějovice, Planá nad Lužnicí and Písek as sites for waste-to-energy plant construction. All three are not yet finished; however, the architectural design of ZEVO Vráto in České Budějovice has been set since March 2024; and Planá nad Lužnicí's ZEVO is expected to be operational in 2026.

Písek began its journey towards a ZEVO with a 2021 feasibility study, which identified a site next to the existing Teplárna Písek Heating Plant to take advantage of its synergistic connections to the existing operation, including media, technologies and physical connections to the city. This option is also most financially viable. For the design, Písek is drawing inspiration from the Swiss waste-to-energy plant ZEVO KVA Horgen near Zürich, one of the most modern in the world, and from the Czech ZEVO Plzeň in Chotíkov. In 2023, Písek was granted €53.8 million from the European Innovation Bank's Modernization Fund to improve energy efficiency and modernise the energy plant. In November 2024, ZEVO Písek received a positive Environmental Impact Assessment (EIA) from the Ministry of the Environment for the site near the Písek heating plant. The construction of the facility was given the green light.

Rijeka: Cultural Corridor

#regenerative/circular #inclusive #integrated

Why Regenerative / Circular?

- Adaptive reuse of cultural heritage buildings to create a cultural corridor, enhancing the historical architecture

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The core idea behind the Cultural Corridor is to utilise Rijeka's Rječina River to conceptually connect several heritage assets leading toward the Rijeka waterfront for cultural (re)creation. The idea originates from the Horizon Europe 2020 project, Circular Models Leveraging Investments in Cultural Heritage Adaptive Reuse (CLIC)[63], to demonstrate the direct connection between urban circular economy and cultural heritage enhancement.

Through a concept called "urban seeding", the Cultural Corridor model enables a higher quality of life through heritage preservation, whereby the transformation is achieved via adaptive reuse of cultural heritage buildings and regenerating depleted areas. Identified regeneration areas are entirely dedicated to citizens' cultural life, characterised by co-design, co-creation and integrated uses. Implementing the

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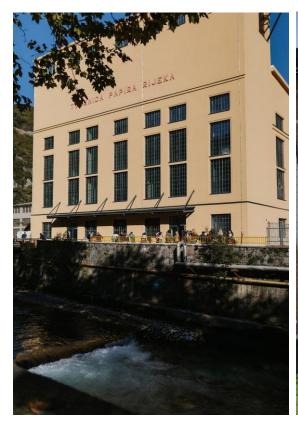[62] https://zevo.zevopisek.cz/wp-content/uploads/simple-file-list/poh_jck_final.pdf
[63] https://www.clicproject.eu/

Cultural Corridor enables citizens to reappropriate dismissed parts of the city by highlighting the need for multiple-layer intervention, including strategic planning and applied bottom-up acting through a situated learning process.

A diverse set of cultural assets was chosen. RiHub, for example, is a multi-use collaborative space in a former tissue factory, now transformed into an creative city incubator and startup accelerator, integrating the programmes by empowering a community through civil initiatives. Second, the Energana electric power plant located in the paper mill factory Hartera in industrial district Školjić Area is now simultaneously used as a cultural and creative industries incubator and the ICT industry with support from European Cohesion funds. Third, the Galeb Ship is a national monument, as it has been used as a diplomatic residence by the former Yugoslavian president, Tito. It has been restored and refurbished to serve as a museum, restaurant and hostel for regular visits.

The biggest addition to the list of the "circular city" was Exportdrvo's expansive industrial warehouse, which is used for indoor festivals, concerts, and expositions. Along with other amazing industrial assets like the Ivex Building, Exportdrvo is part of the list of upcoming redevelopments anticipated by the Cultural Corridor around the Delta, within the Mrtvi Kanal and the Rijecina up to the north canyon where Energana is located. The Cultural Corridor Concept, fed by the Urban Seeding workshop, extended in 2020 and 2021 the attention to an horizontal axis of the city, parallel to the waterfront and the main pedestrian street (the Korzo) reaching a new cultural-museum quartet, the Benčić Complex.

The nearly-complete Energana ICT incubator building and the Children's House complex

Rijeka: Adaptive Re-Use of Cultural Heritage - The Children's House

#regenerative/circular #inclusive #irresistible

Why Regenerative / Circular?

- Landmark project blending cultural development with sustainability by repurposing an old industrial building, incorporating energy-efficient design, and creating a space that serves the community. It stands as a model of how urban development can be both culturally enriching and environmentally responsible.

The Children's House in Rijeka, Croatia, is a prominent cultural facility dedicated to children, located in the former industrial zone known as the "Benčić Complex." This development is part of Rijeka's urban transformation, particularly tied to its designation as the European Capital of Culture in 2020. The project repurposed a former tobacco curing barn and factory, reflecting a broader trend in Rijeka of adapting historical industrial structures for new culturally significant uses. It is a key part of Rijeka's cultural infrastructure, supporting the city's vision of becoming a hub of creativity and learning. It's not just a building, but a symbol of Rijeka's cultural regeneration.

The Children's House serves as a multidisciplinary centre for children with facilities for various forms of artistic expression, including a cinema, theatre, music, and library. The building is designed to be a creative space where children can engage in workshops, educational programmes, and cultural activities, fostering creativity and learning. The structure maintains its historical identity while serving contemporary needs, embodying a fusion of the old and new.
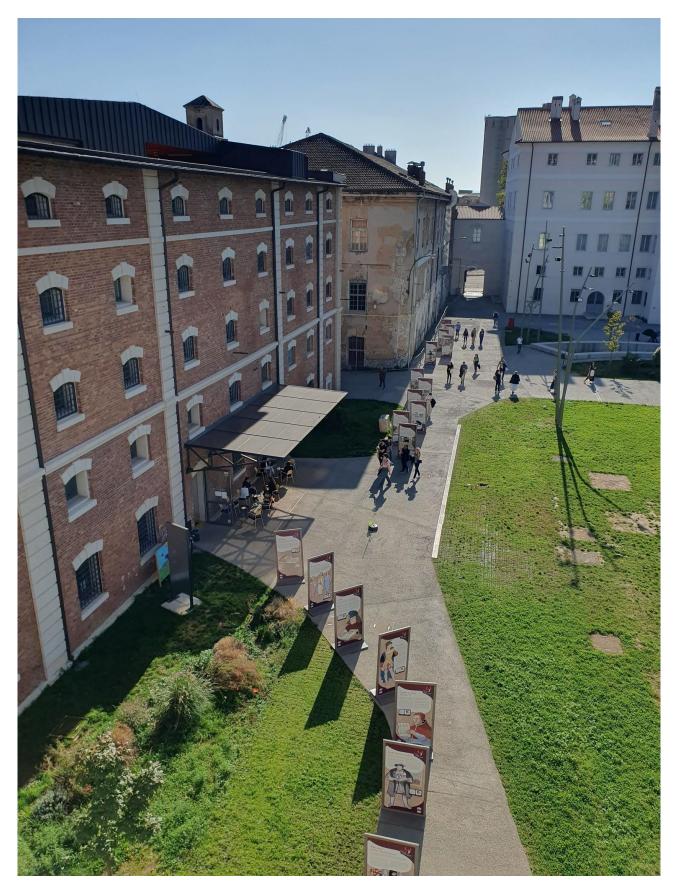
The renovation was done by the architectural firm Dinko Peračić, who retained many of the original architectural elements of the industrial building, integrating them with modern design elements. The brick building was built in the late 19th century as part of what was then the Royal Hungarian Tobacco Factory on the site of two older buildings. After World War II, the brick building became part of the newly established marine machinery factory "Rikard Benčić". After the business failed, the building was abandoned in the 1990s. Its architectural and historical value lies in the fact that it represents the industrial architecture of the late 19th century and the typology of warehouse buildings of that time.

The Children's House incorporates several sustainable features, both in terms of its design and the broader goals of urban regeneration:

The very concept of the Children's House is rooted in sustainability through adaptive reuse. By repurposing an existing industrial building rather than constructing a new one, the project conserves resources, reduces waste, and maintains the cultural heritage of Rijeka. This approach minimises the environmental impact compared to new construction. The building is designed with energy efficiency in mind, using modern insulation, energy-efficient windows, and lighting systems to reduce energy consumption. This is crucial in a building that hosts numerous activities and is frequented by many visitors.

Sustainable materials were prioritised in the renovation process. The project utilised recycled materials and focused on sourcing locally where possible, reducing the carbon footprint associated with transportation and promoting local industries.

The Children's House (left) in the Benčić Complex (including the Museum of Modern and Contemporary Art, Rijeka Civic Museum and Rijeka Civic Library)

The Benčić Complex, where the Children's House is located, also houses the newly-refurbished Museum of Modern and Contemporary Art, Rijeka Civic Library, and Rijeka Civic Museum. In addition, it includes plans for green spaces that contribute to the urban ecosystem, providing areas for outdoor activities and helping to improve the overall environmental quality of the area. This is particularly beneficial in an urban setting where green space is often limited.

Beyond environmental sustainability, the Children's House also plays a role in social sustainability. It contributes to the community by providing a space where children from different backgrounds can interact, learn, and engage in cultural activities, fostering a sense of community and belonging. All programmes, workshops and activities carried out in the Children's House are jointly designed, organised and implemented by four Rijeka cultural institutions: Art-kino, Rijeka City Library, Rijeka City Puppet Theatre and the Museum of Modern and Contemporary Art. Two fundamental principles of the Rijeka Children's House are synergy and multidisciplinary, which means that all of the institutions are intertwined and connected not only in mutual cooperation, but also in programme content.

Rimini: E borg urban gardening

#regenerative/circular #inclusive

Why Regenerative / Circular?

- A community-driven initiative that redefines urban space use, promotes civic engagement, environmental stewardship, and collaborative urban regeneration.

The Farm Borg initiative was launched in 2015 by a group of local residents to improve vacant open spaces in Borgo San Giuliano, a historic neighbourhood in Rimini. The project aimed to revitalise neglected green areas in the neighbourhood while fostering a sense of community ownership and environmental awareness. Partnering with the municipal 'CI.VI.VO.' (Neighbourhood Civic Volunteering) programme, the volunteers collaborated with local schools, Scouts, and other civic groups to re-design and maintain public squares, streets, and courtyards.

The project was an innovative blend of local activism and municipal support, providing tools, insurance, and guidance while allowing residents to take the lead in urban space maintenance. This approach allowed the municipality to delegate responsibility for public green space care while promoting civic participation and educational outreach.

Key green areas developed include: Piazzetta Gabena, Piazzetta Trai, Piazzetta Tiberio, and Piazzale Vannoni. Educational green modules were also created at the Decio Raggi Primary School and Parco dei Cervi.

The initiative includes the following features:

- Civic engagement and social capital: Farm Borg volunteers contributed to a stronger community bond and urban pride through shared green space projects.
- Partnership-based development: The municipality supported the volunteers with tools and insurance but left the development decisions to the community. This decentralised structure enabled greater flexibility and adaptation to local needs.

- Educational outreach: Collaborating with local schools and Scouts, the project educated younger generations on gardening, environmental care, and civic responsibility.

Nevertheless, some additional benefits of this initiative are:

- Low-cost urban regeneration: Green spaces were maintained with minimal municipal investment, relying on volunteers and community partnerships.
- Environmental and social sustainability: The project not only revitalised public spaces but also contributed to a stronger local identity and environmental responsibility.

Despite encountering challenges in sustaining momentum (such as volunteer burnout and difficulties in maintaining long-term engagement) initiatives like the Rimini eBorg Gardening Initiative exemplify a scalable, community-centred approach to urban green space management. By blending grassroots activism with municipal support, this initiative fosters vibrant and sustainable public spaces.

7. Irresistible

Urban planning and design should do more than meet functional needs—they should inspire wonder, delight, and connection. Re-Value embraces this philosophy by co-creating spaces with people that blend culture, art, beauty, and nature into the urban fabric. These elements come together to craft environments that captivate the imagination while fostering human connection and well-being. By focusing on more than sustainability alone, Re-Value helps cities create places that are not just liveable but truly irresistible— spaces that residents are proud to call home and visitors are eager to experience.

Ålesund: Adaptive–Reuse with Temporary Uses

#irresistible #visionary #inclusive #circular

Why irresistible?

● When people get together to create, build and shape, they also come together in use of the spaces they have created.

Ålesund has a history of deploying tactical urbanism in a variety of urban spaces to create engaging places for children, youth, and the elderly, with the goal of establishing year-round, socially interactive, and lively spaces. As part of the Sørsida development process, Sørsida Utvikling (SUAS) wanted to see how they could activate a "no place" with low-cost activities and hang-out places to give Ålesund's residents access to the harbour, the sea, and the amazing scenery surrounding the city. The need for urban playgrounds, free event spaces for start-ups, stages for independent artists, etc. was highlighted in the sociocultural analysis SUAS carried out at the beginning of the engagement process.

SUAS' burning question was "how can we make use of all the empty urban spaces, worn-down buildings and abandoned sheds to make it attractive for socialising and recreation?"

Until recently, "Kulturhavna" did not exist - neither as a place, nor a SUAS brand. It was a collection of surface parking lots and a couple of shabby buildings. In 2023, SUAS made a plan to use temporary functions to create the Kulturhavna brand and secure use of the area from Day 1. SUAS collaborated with local students between ages 16-18 to design the area's outdoor furniture as a school assignment; inmates from the local prison were responsible for its construction. The playground is designed by four kindergartens and drawn by a student's masters in urban design. Local carpenters brought young apprentices on *dugnad* (a Norwegian term and cultural practice of voluntary work) to learn AND to teach other participants while building racks for hammocks, a wooden terrace for the sauna and other functions.

SUAS acquired the buildings and equipment - and creative talent for branding Kulturhavna - for a reasonable price. But the unexpected added-value was in the process of coming together to find new networks, ideas, and opinions as the Kulturhavna site transformed from a parking lot to a place where barriers were removed and everyone participated on equal terms. Suddenly, the bold orange and black iconography wasn't the Kulturhavna brand; but rather this feeling of inclusion and the collaborative vibe became the brand. When people get together to create, build and shape, they also come together in use of the spaces they have created.

Composite illustration from Trondheim.works showing the amenities Ålesund's residents would like to see as temporary installations in the Kulturhavna (Source: Trondheim.works)

The concrete results of all these collaborations have emerged since Spring 2024:

- An ageing 1960s concrete warehouse is now remodelled partly on *dugnad* to be the new home for the local skating club, inviting anyone to skateboard / inline skate indoors. No need to drive the kids to practise anymore, as the public bus terminal is only a few metres away!
- Three micro houses are rented for workshops, small round-table meetings, art exhibitions, and training studios for dance and theatre.
- A sea-side playground where kids can play, borrow games, and be noisy. The area also contains hangout areas for the parents, with plans to establish a coffee/cocoa cafe for the rainy, windy days.
- Street basketball court in summer and ice skating in winter.
- A green lounge with lawn, trees, and plants

SUAS is in the early development stages of the Kulturhavna, but they have already registered over 1,500 ideas and tips from people of all ages, ethnicities, and genders about what they would like to arrange or have on the premises. Phases 2 and 3 are about finishing the physical area, establishing proper wayfinding, and putting a lot of the ideas they have received into life.

Bruges: Canal Swimmer's Club / Canal Swimming in the Coupure

#irresistible #regenerative / circular #inclusive

Why irresistible:

- A playful – and popular - urban summer destination inspired by an art exhibition

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The Triennale Brugge[64] is a contemporary art and architecture exhibition that takes place every three years in Bruges, Belgium. This event transforms the city into an open-air gallery, showcasing installations, sculptures, and architectural projects from international artists that engage with Bruge's urban environment. The artworks are often site-specific, fitting the unique context of the city's medieval architecture and canals. Beyond its cultural and artistic significance, the Triennale often sparks dialogue about the future of Bruges as a city. Each edition is centred around a specific theme that reflects current global issues or challenges. Past themes have explored topics like urbanisation, the role of water in cities, and the concept of "liquid city," which considers how cities evolve and adapt over time. The event raises questions about how a historic city like Bruges can remain vibrant and relevant in a modern world.

In 2015, after a 41-year break from its initial events, the Triennale Brugge was rebirthed with the theme "Bruges as megalopolis". Eighteen international artists were invited to create new works that could be viewed on an art trail through the centre of Bruges. The artists posed questions and reflected on the future and potential of the city, of urbanisation, citizenship, lifestyle, community, economics, energy, space, sound and the values that guide us. One of the exhibitions was entitled *Canal Swimmer's Club*, created by the Japanese design office Atelier Bow-Wow[65], which "used the recent Bruges canal clean-up and the resulting opportunity for swimming as inspiration for its Bruges Triennial project. The architects designed a multifunctional floating platform that provided a venue for a variety of social activities. Members of Bruges' swimming clubs could use the sculpture's pontoons as starting and finishing points for competitions. But the platform also offered opportunities for lectures, exhibitions and recreation. In short, a multipurpose space in the heart of the city that rocks to the rhythm of the waters."[66]

The popularity of temporary installation inspired the city of Bruges to create its own seasonal public swimming area on the Coupure canal in 2019, growing each year. The 110-metre long swimming area now consists of two areas: a recreational area for casual waterplay and a sporty area of 70 metres for lap swimming, Stand-Up Paddleboarding, water polo or learning how to swim. Activities and initiation sessions are not held simultaneously; but managed during different times of the day. The floating swimming pontoon and swimming areas are accessible free of charge; toilets, showers, a first-aid station, and a lifeguard are available during opening hours (13:00 - 20:00 every day during the summer season). The water quality is monitored closely, also bringing more public attention to Bruges' efforts to clean and sustainable manage its historic urban canal system.
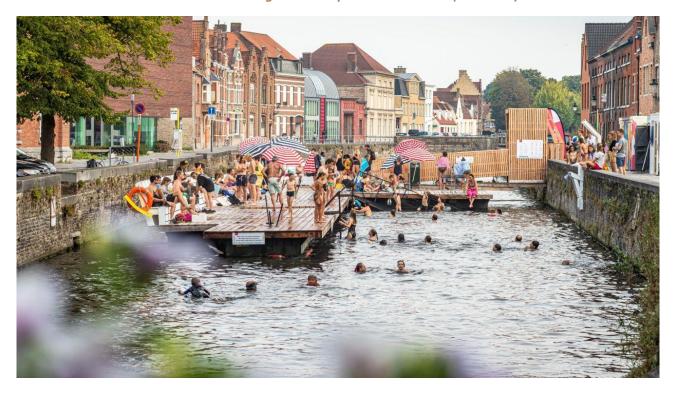
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[64] https://triennalebrugge.be/en/
[65] http://www.bow-wow.jp/
[66] https://triennalebrugge.be/en/installations/canal-swimmers-club

Summer swimming in the Coupure canal in 2018 (Triennale)

Summer swimming in the Coupure canal in 2019 (Source: Stad Brugge)

Summer swimming in the Coupure canal in 2023 (Source: Stad Brugge)

Burgas: Valuing protected natural areas and preservation of (community connection with) cultural heritage

#irresistible #integrated

Why irresistible?

- Nature-embedded cultural heritage preservation - a tool to connect residents to nature

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As part of its plan to establish land connections between the Black Sea and Lake Atanasovsko, along with Sarafovo Port and surrounding residential areas, the municipality pushed forward the protection and enhancement of the natural areas through appropriate landscaping.

The planning framework for the area mainly consists of the General Development Plan and Master Plan, which state that the future development of the coastal areas should preserve the cultural heritage and create a unified image for the area, harmoniously connecting the old urban core and the new urban structure. Cultural landscapes should be created to support this vision. For instance, one of the five identified urban areas for the preservation of the cultural heritage will emphasise and enhance cultural landscapes of the "man-sea" relationship - with the salt pans of Burgas. In addition, community is presented as central to the success of the development. The connection between the local community and the urban cultural heritage should be maintained and activated.

The site itself does not comprise protected areas but is located close to Natura 2000, especially the Atanasovsko Lake Protected Area which serves as a migratory route for birds Via Pontica. The project was therefore expected to also contribute positively to the high value natural surroundings. This will be done through preserving and showcasing natural habitats, improving accessibility and raising awareness among the population about the natural riches.

Constanța: Cultural Strategy for the Tomis Marina area

#irresistible #regenerative/circular

Why irresistible?

● Celebrating a rich cultural history through inclusive programming and urban design

Constanța's Cultural Strategy evolves around seven strategic axes: peninsula, infrastructure, multiculturalism, administration, local cultural cohesion, citadel, and creativity. Representing the city's integrated standardised system for conservation, refurbishment and restoration, lighting, marking and capitalization of the main objectives in the Peninsula area, the strategy has led to the creation of multiple projects and initiatives. One example is Tomis Ancient Citadel, an integrated touristic – cultural route, accompanied by the "Tomis Citadel" programme around the ruins of the Histria citadel from the 7th century BC.

A second project of the Cultural Strategy is the De Historia Urbis initiative. Since 2022, Constanța belongs to the tourist cities where visitors can witness a ceremonial changing of the honour guards. Daily every two hours in July and August, a changing of the guard takes place as artistic-performative acts of the living history type or Roman inspiration. All personnel assigned to the event (legionaries, centurions, auxiliary troops, poets - orators) wear Roman-type equipment and are under the command of a centurion. All commands are spoken in Latin.

Roman enactments and ruins (Source: https://www.ct100.ro)

A third example is the REACTIS program with waterfront projects in the Tomis Marina, including the transformation of the pier into a pop-up gallery for urban art, street art festivals, and contests, and the refurbishment of the touristic port to include leisure and promenade areas. Similarly, the Casino seafront was refurbished for pedestrians only, including the rearrangement of green spaces, new urban furniture and leisure areas.

Casino seafront promenade renewal (Source: Constanța Municipality)

Písek: I, the City

#irresistible #visionary #inclusive

Why irresistible?

- Interactive exhibitions to explore cities differently - creating a space for visitors to create their own narrative on their relationship to the city

Já město or "I, the City," was an interactive exhibition held from May 2023 to March 2024 in the largest exhibition hall of the Sladovna Museum in Písek. The exhibition was designed to showcase how people can experience a city as a multifaceted space filled with hidden meanings and challenges waiting to be discovered. Created through the collaboration of the Sixth Sense of the City exhibition's creators, visitors to the Laboratory of the City's Sense, and the Sladovna team, the exhibition aimed to offer each visitor a unique and personal narrative. Key questions guiding the experience included: What does the city mean to

me? What is the purpose of a city? What does the city need? Where is my place in the city? How can I make my city a better place to live?

In collectively searching for answers, visitors were invited to discover the traces of others but also leave their own input. Hence, the experience in the exhibition was advertised as follows: "You can get lost, sway, rest, dance, wonder, get carried away, build and tear down, transform, ascend and look down, search, compare and contrast, draw information, reflect or play... and you can also find yourself". Practically, the city of many perspectives was spread out with several distinctive places to discover and a number of playful habitats. The approach took the form of a creative laboratory: children and adults entered the unfinished spaces with the authors of the project and joined in devising the final form of the exhibition. In the words of Klára Mathieu, one of the exhibit's creators: "Young and old alike will find themselves outside of normal time and space. From the scenes of nightlife, they climb the tower, get lost in the labyrinth of mysterious alleys, dive under the surface of the river, discuss with artificial intelligence... and thanks to these experiences, the visitors and the lecturer then reflect on the meaning of the city and our role in it.".

Experiences from I, the City (Source: Sladovna Písek)

Rijeka: September in the Riječina Nature Park - Urbani Separe

#inclusive #informed #visionary

Why irresistible?

- Activated spaces creating opportunities for meaningful interactions and sensory experiences
- Playful learning, with games and exploration to discover local assets
- Beautiful installations, enhancing spaces along the river

To strengthen the bond between Rijeka's residents and their environment, Urbani Separe conceived the Ričina Nature Park[67]—a fictional yet immersive space that traces the Ričina River from rural villages down to the urban waterfront and the sea. This imaginary park gives coherence to the landscape, connecting natural, urban, and coastal elements through a unified experience. Urbani Separe brought the space to life with a series of free activities that stretched from the villages of Kukuljan and Martinovo all the way to the Rijeka Delta, transforming it into a multi-sensory exploration of place.

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[67] https://www.urbanisepare.org/pp-ricina/

Activities were tailored to distinct sections of the river, with nature-based experiences in the upper reaches, urban-focused events in the lower sections, and a beach experience near the delta. This approach invited participants to learn about local ecology, experience sensory installations, and engage with the environment in new ways. In the upper river, for example, visitors participated in walks, workshops, and "expeditions" that encouraged them to take on the role of rangers, learning how to monitor, research, and document the river's biodiversity. Another activity invited participants to collect plants and prepare them using traditional recipes, connecting them to Rijeka's culinary heritage.

Ričina Nature Park project by Urbani Separe (Source: Urbani Separe[68])

In the urban areas, events such as guided walks, music performances, workshops, and film screenings encouraged residents to explore the city with fresh perspectives. One popular activity was a "green oasis" created for Mobility Week, featuring fragrant herbs, canopy installations, and soundscapes to bring nature into the city.

At the river's delta, an event transformed the riverbank into a temporary beach with installations designed to foster close interaction with the water. Thematic walks focused on urban scents, inviting participants to extract fragrances from materials like soil, herbs, and dust using natural techniques, which deepened the sensory connection to the urban flow. A mosaic of the Danube trout, an emblematic species, is also underway, further enriching the park's ecological narrative.

This fictional park conceptually unifies diverse parts of Rijeka, making them legible as a cohesive space. It's a powerful model for urban planning, showing how imaginative, event-driven approaches can reconnect people with their history, natural surroundings, and each other. By combining learning, sensory

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[68] https://www.urbanisepare.org/homepage/

engagement, and cultural reflection, Ričina Nature Park not only celebrates Rijeka's landscape but also fosters a sense of shared stewardship among its residents.

Rimini: Rimini Blue Lab

#irresistible #inclusive #integrated #regenerative / circular

Why irresistible?

● Building the relationship between the residents and the sea through playful and committed activities

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The Rimini Blue Lab is a central initiative in Rimini dedicated to advancing marine environmental sustainability and promoting the blue economy within the Adriatic region. Acting as a hub for research, education, and social innovation, the Lab focuses on protecting and sustainably managing marine resources by tackling critical challenges such as pollution, overfishing, climate change, and biodiversity loss.

The Lab is instrumental in redefining the Rimini community's relationship with the sea, fostering new values, behaviours, and responsibilities oriented toward the blue economy. Through a variety of activities—ranging from educational programmes and cultural initiatives to research and business development—the Lab aims to empower individuals and organisations to engage with and contribute to the sustainable use of ocean resources. This broad approach includes not only local but also regional and national collaborations, ensuring that Rimini's efforts align with wider initiatives in marine conservation and sustainability.

By involving a wide socio-economic partnership, the Rimini Blue Lab facilitates the development of ideas, projects, and events that explore all aspects of the blue economy. These system actions and functional activities are designed to promote comprehensive experimentation and innovation, with the Lab serving as a guiding force in transforming Rimini into a model of sustainable marine practices. The Lab's commitment to community engagement and policy influence ensures that these efforts have a lasting impact, supporting a sustainable future for marine environments while also enhancing the educational and cultural assets of the Rimini area.

Experiences of the Rimini Blue Lab (Source: Rimini Blue Lab[69])

Rimini: Parco del Mare

#irresistible #visionary #integrated #inclusive #circular #informed

Why irresistible?

- Beautiful (and functional) place to stay and enjoy, co-developed and restoring a strong connection between the urban core and the sea
- Focuses on health and wellness, with fitness installations and appropriate active mobility infrastructure
- Innovative Piazzale Kennedy, fulfilling several roles as a wastewater and stormwater storage facility, urban activity node, and coastline viewpoint

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[69] https://www.riminibluelab.it/

Rimini is one of the nine main urban areas (provincial capitals) of Emilia-Romagna in Italy, and one of the most significant coastal tourism destinations in Europe, thanks to the services and attractions the city offers. Rimini is at the centre of a wider tourist district, recently named 'Romagna Destination', running from Ferrara to Cattolica, which attracts more than five million tourists every year, contributing to more than 26 million tourist overnight stays per year. The Municipality of Rimini on its own, with a total population of about 150,000 inhabitants, represents a little more than 3% of the territory of the Emilia-Romagna region, but hosts more than one-third of the total tourists visiting the regional territory.

Management and services must be updated to be able to keep up with increasingly aggressive and expanding competition for visitors. Moreover, the need for regeneration, physical and functional, of the outdated industrial infrastructure is one of the most important challenges that all of Italy is facing currently. Here, Rimini stands out as a "pioneer" of innovation. So far, this need has been associated with traditional industrial zones, but today the same need also affects ageing tourist districts. Rimini wants to play a forerunner role in this specific challenge by working with a fundamental concept: a focus on quality of life.

Since the Strategic Plan (2010) and the Strategic Masterplan (2012) adoptions – both built on a strong public participation processes – Rimini has been implementing a massive integrated public works and urban regeneration process that has embraced its historical city centre, its waterfront, and other peripheral areas, and has defined a new redevelopment approach where the city regains social, urban and environmental quality by re-establishing a strong relationship with the sea.

Completed Parco del mare section (Source: Ceyhun Çubukcu)

Rimini's Parco del mare (Sea Park) is one of the main urban redevelopment projects from Rimini's Strategic Plan and within the framework of the Strategic Masterplan. The project regenerates 16 kilometres of Rimini's seafront, from Torre Pedrera to Miramare, and also included Italy's most significant storm and wastewater upgrade in the last 50 years. Rimini is replacing the seafront's existing grey infrastructure, dominated by paved parking lots and roads, with a new 'Sea Park' in front of the beaches that will include green infrastructure, bicycle and pedestrian facilities, open-air gyms, and other amenities that provide
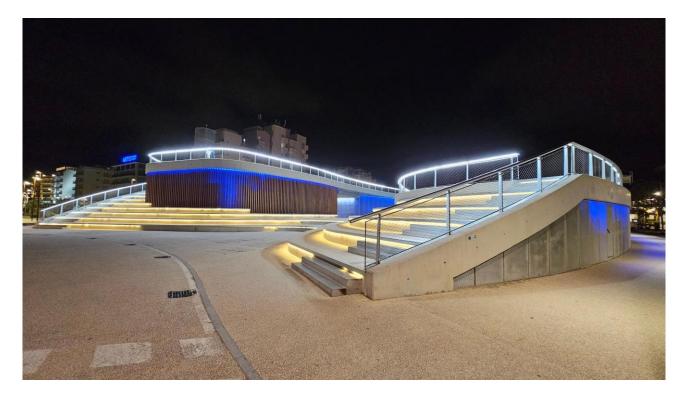
year-round opportunities for health, wellness, and relaxation. It has transformed grey infrastructure serving cars into an environmental and functional green infrastructure dedicated to people to provide opportunities for wellness, fitness, quality of life, and healthy eating.

The project aims to create a large natural park - an infrastructure that qualifies under the category of Nature-Based Solutions (NBS) - that will not only help reconnect the city to the sea, but also celebrate the natural marine environment as a feature attraction to encourage new urban attractiveness 365 days a year. This year-round attractiveness would include new types of tourist offers, and new prerequisites for development opportunities of socio-economic value, that are also capable of translating into a potential attraction for national and international capital.

A key impetus for realising the first phases of the Parco del Mare project was the critical need to replace failing wastewater infrastructure. During "medium-intensity" rainfall events, raw sewage was discharged into the sea at the coastline due to undersized storage tanks and a failing pump system. As part of the "Safe Bathing Master Plan" (PSBO) interventions, a new lamination tank and stormwater tank (total volume 39,000 m^3) were constructed in Piazzale Kennedy to help solve this problem. The water captured in the new facility is sent to the wastewater treatment plant with a new pumping system and pressurised pipeline. In addition, in the case of very heavy rainfall events (and when the tanks are completely full) the system is equipped with a water drainage system connected to three underwater pipelines capable of discharging excess stormwater from the tanks into the sea, at a distance of 1 km from the coast, thus guaranteeing bathing and hydraulic safety in the urban area.

Piazzale Kennedy is more than just a wastewater and stormwater storage facility. It also serves as an important node, "green" connection point to the city centre and the sea along the Ausa River, and promenade overlook as part of the larger Parco del mare urban design concept. The Parco del mare is a waterfront spine that replaces streets and parking lots with a new urban park that serves as a new "Agora" for the city with welcoming, attractive, and intentionally designed public spaces. It is now a place for residents and visitors to meet and interact, play, exercise, rest, enjoy access to the sea without having to pay money, and attend various outdoor events - simply irresistible!

Piazzale Kennedy Wastewater Treatment Plant and Urban Design Node (Source: Ceyhun Çubukcu)

One key challenge related to the project was a failure to attract private investment in the project. The reasons cited were high costs to be paid to the municipality, high costs of construction, economic uncertainty (Covid-19 pandemic period), heavy impact on waterfront landscape, late involvement of public key stakeholders (e.g., *Soprintendenza Archeologia, Belle Arti e Paesaggio per le province di Ravenna, Forlì-Cesena e Rimini*, or the regional branch of the Ministry of Culture and Heritage). The project also daylighted the challenge of how to work in an integrated way in such a complex environment and the city's dominant culture of working in silos, as well as the lack of an internal system and tools to improve inter-sectoral coordination between the different departments/sectors of the Municipality.

The value of Rimini's Parco del Mare project was acknowledged by the National Strategic Plan for Tourism 2017-2022 drawn up by the Italian Ministry of Cultural Heritage and Tourism (MIBACT), which mentioned it, along with very few others, as a good operational practice being implemented.

8. Next Steps

The re-value-ing journey of the Re-Value Cities has only started, and their collaborative efforts will continue to grow and adapt as the project evolves. Moving forward, the following key actions will guide the next phase of the Re-Value project:

Portfolio Updates and Integration

- ✓ Continue developing the Re-Value Urban Planning and Design Approaches Portfolio as a dynamic and living document.
- ✓ Regularly update the Portfolio with new tools, methods, case studies, and processes, reflecting ongoing insights and developments from the Re-Value Cities.
- ✓ Migrate existing and new content from the Portfolio to the Re-Value website to enhance accessibility to the knowledge and support real-time learning and collaboration.

Advancing Innovation Cycles and Links to the NEB Impact Model

- ✓ Deepen experimentation within the three Innovation Cycles (WP1): story-building, data-driven decision-making, and implementation partnerships.
- ✓ Leverage these cycles to refine the Re-Value Approach and further explore how the principles can be integrated with the NEB Impact Model and manifest in real-world contexts.

Collaborative Community of Practice

- ✓ Continue to foster close collaboration among Re-Value Cities through the Community of Practice to exchange knowledge, share lessons, and co-create solutions.
- ✓ Extend this engagement to the broader Cities Mission ecosystem to amplify learning and promote the adoption of the Re-Value approach across Europe.

Local and Regional Engagement

- ✓ Support Re-Value Cities to experiment in their Waterfront Pilots to identify the systemic policy, regulatory, financial, social and behavioural barriers that need to be addressed in their Territorial Transformation Plans to ensuring alignment with the project's core principles and climate neutrality ambitions.
- ✓ Encourage active and inclusive engagement within the local communities and stakeholders utilising the Re-Value Inclusiveness Protocol (D9.1) to co-design and implement sustainable, beautiful, and equitable urban solutions.

Monitoring and Iterative Learning

- ✓ Monitor progress and document insights and lessons learned as the cities experiment with the Innovation Cycles to inform their Waterfront Pilot Roadmaps and Territorial Transformation Plans, as well as to inform future updates to the Portfolio.

By focusing on these next steps, Re-Value Cities will not only continue to advance their climate neutrality goals but also serve as models of how inclusive, innovative, and inspiring urban planning and design can create a sustainable and irresistible future for all.

About Re-Value – Re-Valuing Urban Quality & Climate Neutrality in European Waterfront Cities

The Re-Value partnership consists of nine European waterfront cities and selected European organisations that work to make the urban transition irresistible for everyone. This is done by demonstrating how climate neutrality and urban quality can be aligned, by re-valuing the cities' connection to their waterfronts, strengthening co-benefits and mitigating potential adverse impacts.

Ålesund (Norway), Bruges (Belgium), Burgas (Bulgaria), and Rimini (Italy) demonstrate how integrated urban planning and design can be optimally deployed to achieve climate neutrality and significantly reduce GHG emissions by 2030. In addition, Cascais (Portugal), Constanța (Romania), İzmir (Türkiye), Písek (Czechia), and Rijeka (Croatia) learn, replicate and develop their own participatory story-building, data-driven scenarios, and financial and partnership models on integrated urban planning and design to accelerate their journeys to climate neutrality.

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Learn more about the partnership and the outcomes on re-value-cities.eu.

Partners