

BUILDING CIRCULAR CITIES AND DESTINATIONS: AN INTEGRATED EU LEGAL MODEL FOR SUSTAINABILITY IN THE ALPINE–ADRIATIC REGION

Albert Korolenko^{a,*}

^{a,*}Faculty of Law, University of Maribor, Maribor, Slovenia
albert.korolenko@student.um.si

This paper develops an integrated EU legal model for circular urban and tourism transition in the Alpine–Adriatic region. The study links environmental law, sustainable finance, cohesion policy, and destination-governance tools in one operational pathway moving from legal obligations to financeable projects and then to measurable outcomes. The analysis is grounded in Treaty principles on environmental integration and prevention, the European Green Deal, the Taxonomy Regulation, the Sustainable Finance Disclosure Regulation, cohesion-policy instruments, and destination-monitoring frameworks. It argues that circular transition in cities and destinations becomes more effective when legal requirements are translated into project categories that can attract public and private capital, including revolving urban-development instruments. The paper further proposes a compact indicator architecture combining destination-management metrics with environmental and socio-economic measures relevant for residents and visitors. The Alpine–Adriatic space is used as an illustrative cross-border setting because it concentrates tourism intensity, urban mobility pressures and strong potential for coordinated circular investment. The main conclusion is that the EU already provides most of the legal and financial tools required for circular transition, but stronger integration between law, finance and measurement is needed to convert fragmented initiatives into durable regional sustainability outcomes.

1. Introduction

Rapid tourism growth and urban concentration have intensified pressure on air quality, mobility systems, housing affordability and public space across many European regions. These pressures are especially visible where medium-sized cities and destination economies are spatially interconnected, seasonal peaks are strong and local authorities must simultaneously respond to climate targets, competitiveness concerns and social cohesion demands (Streimikiene, 2023). The Alpine–Adriatic region fits this pattern. The topic presented at the AARC PhD Conference framed this challenge as a question of quality of life for the young generation and proposed the circular economy as a practical bridge between environmental ambition and everyday urban governance. In circular-economy terms, transition is not limited to waste management, but extends to buildings, mobility, hospitality services and the regeneration of public spaces and brownfields (European Commission, 2019).

The legal and policy context supports such a broader understanding. Article 11 TFEU requires environmental protection requirements to be integrated into the definition and implementation of Union policies, while Articles 191–193 TFEU frame EU environmental action around prevention, precaution and the pursuit of a high level of protection. The European Green Deal then translates those constitutional premises into a cross-sector transition agenda aimed at transforming climate and environmental challenges into growth opportunities (European Commission, 2019). The Green Deal is therefore not a single sectoral programme but a governance frame within which city policy, tourism policy and investment policy interact.

This paper argues that circular urban and tourism transition requires an integrated EU legal model built on three propositions. First, environmental duties and sustainability standards must be translated into concrete project categories such as energy retrofits, circular hospitality systems, repair and reuse hubs, zero-emission urban logistics and brownfield regeneration. Second, these project categories should be aligned with sustainable finance and cohesion-policy instruments so that cities and destinations can move from declaratory strategy to investable pipelines. Third, outcomes should be monitored through a small but repeatable set of indicators that capture environmental, economic and social effects. This structure reflects the pathway from law and policy to finance channels, city and destination actions, and measured outcomes.

The contribution of the paper lies in combining legal doctrine, financial-governance instruments and destination-management tools in one framework oriented toward sustainability. Existing work often separates these fields. Bąk et al. (2024) assess the implementation of EU environmental directives; Idczak and Musiałkowska (2022) analyse financial engineering and JESSICA in sustainable urban development; Quirici (2023) and Quirici and Giurlani (2023) discuss the regulatory evolution of sustainable investment and disclosure; Streimikiene (2023) focuses on tourism-destination sustainability in the context of green and digital transition. The present paper builds on these strands and connects them at the scale of regional urban and destination governance.

2. EU legal and policy baseline for circular transition

The first element of the model is the legal baseline. Circular transition in the EU is not governed by one autonomous “circular cities law”. It emerges from a set of interlocking Treaty principles, secondary legislation and strategic instruments. These provisions do not prescribe a municipal project list, but they justify integration of environmental requirements into urban development, tourism planning, infrastructure renewal and public procurement. In practice, this means that urban and destination strategies can no longer treat environmental compliance as an external constraint; sustainability becomes embedded in public decision-making’s legal logic, reinforced by the Green Deal (European Commission, 2019).

At secondary-law level, the most relevant obligations arise from sectoral environmental acquis. Waste law is central because circularity depends on prevention, separate collection, preparation for re-use and higher-quality recycling. Directive (EU) 2018/851 (EUR-Lex, 2018) reinforces the Waste Framework Directive and updates the legal architecture for municipal waste, food waste and recovery systems. For cities and destinations with strong hospitality sectors, this directly matters for hotel, restaurant and event-related waste streams. Water, buildings, air quality and nature protection rules perform a similar enabling function by defining local duties and performance thresholds that can be translated into investment needs. Rather

than treating these directives as fragmented compliance silos, the integrated model reads them as legal project hooks for circular interventions.

The European Green Deal strengthens this interpretation because it expressly links climate neutrality, resource efficiency, renovation, clean mobility and biodiversity to economic modernisation (European Commission, 2019). It supports the view that urban and tourism transition should be analysed as a system of mutually reinforcing measures rather than separate environmental files. This approach is particularly suitable for destinations where a cleaner transport mix, renovation of buildings, improved waste systems and higher-quality public space affect both resident welfare and visitor experience. Cleaner air, lower operational expenditure and more inclusive public spaces can all be tied to existing EU sustainability objectives.

A second legal layer concerns sustainable finance regulation. Regulation (EU) 2020/852 (EUR-Lex, 2020), the Taxonomy Regulation, establishes a framework for determining when an economic activity is environmentally sustainable. Regulation (EU) 2019/2088 (EUR-Lex, 2019), the SFDR, introduces disclosure duties for financial market participants and advisers, with the explicit aim of reducing information asymmetries and limiting greenwashing. In doctrinal terms, these instruments do not replace environmental regulation. Their role is different: they convert sustainability objectives into categories legible to investors, lenders and asset managers. That function is decisive for urban and destination transition because many circular projects require blended finance and long investment horizons. Taxonomy alignment can therefore operate as a bridge between environmental obligations and capital-market credibility.

The literature from the project supports this reading. Quirici (2023) shows that sustainable and responsible investment in the EU has evolved from a voluntary ethical niche toward a denser regulatory field. Quirici and Giurlani (2023) explain that the SFDR affects how sustainability characteristics are communicated and assessed in investment products. Although these studies are not about tourism governance as such, they help explain why cities and destinations increasingly need projects that are not only environmentally useful but also disclosure-ready, comparable and defensible under EU sustainability criteria. In short, law now shapes the investability of sustainability.

3. Financing circular cities and destinations

The second element of the model is delivery through finance. Municipal climate plans, tourism strategies, waste plans and real-estate decisions are frequently prepared by different units and financed through different channels. An integrated legal model must therefore explain how EU funding and investment tools can be organised into a coherent implementation pathway. The most relevant instruments here are cohesion-policy resources and revolving urban-development structures derived from the JESSICA approach, which was specifically designed to connect sustainable urban policy with recyclable financial support (Idczak and Musiałkowska, 2024).

Within this framework, ERDF-supported urban investment remains important because it links sustainability projects to broader territorial strategies rather than to isolated expenditures. For circular cities and destinations, the legal significance of this financing is not merely budgetary. It creates a programmable framework within which renovation, mobility, urban regeneration and environmental infrastructure can be linked to regional development objectives. That integrated territorial logic is consistent with the Green Deal's insistence that climate and environmental measures should be embedded in a wider economic-modernisation agenda (European Commission, 2019).

Revolving mechanisms are even more important for the circularity logic. Idczak and Musiałkowska (2024) show that the JESSICA mechanism was developed to support sustainable urban development through financial engineering and urban development funds capable of recycling repayments into new projects. This matters conceptually because, when public resources are structured through financial instruments rather than one-off grants, successful projects can generate a cumulative investment effect over time. This is well-suited to energy retrofits, district-level mobility systems, brownfield reuse and service infrastructure that either save costs or produce stable revenues.

For destinations, the revolving-finance perspective changes project selection. Circular interventions should be prioritised not only for their environmental merit but also for their capacity to create measurable savings, fee income or avoided costs. Energy-efficiency upgrades in public buildings and tourism facilities can reduce operational expenditure; food-waste prevention and biowaste systems can lower disposal costs; repair and reuse hubs can extend asset lifetimes; integrated mobility solutions can reduce congestion and improve destination accessibility. This operational logic becomes stronger when eligible activities can also be described in Taxonomy terms, because classification clarity improves the credibility of blended-finance structures (EUR-Lex, 2020).

The sustainable finance literature developed in the broader project also helps clarify why this bankability question matters. ECB supervisory guidance explains that climate-related and environmental risks increasingly affect governance, risk management and disclosure expectations within the financial sector (European Central Bank, 2020). Smoleńska (2022) explains how climate considerations are embedded in the microprudential framework, while Ioannidis and Zilioli (2022) analyse the mandate-based conditions under which climate concerns can enter ECB action. These debates do not directly regulate municipal circular projects, but they reinforce the paper's central claim: sustainability is progressively becoming part of the legal infrastructure of finance in the EU.

4. Governance and measurement

The third element of the model is measurement. Circular transition fails when local authorities cannot demonstrate whether legal compliance, financial effort and policy action have improved real conditions on the ground. A compact indicator architecture combining the EU Tourism Dashboard, ETIS, destination-governance criteria and selected city-level data is methodologically sound because sustainable tourism indicators alone are too narrow, while macro-level urban metrics alone miss the visitor-economy dimension. A circular destination must be assessed as both a place to live and a place to visit, which is also the logic underlying the tourism transition pathway and related dashboard work (European Commission, 2022). ETIS remains useful because it was specifically designed as a management, information and monitoring tool for tourism destinations and was intended to support locally owned processes of data collection and analysis (European Commission, 2017). Its value in the present model is practical rather than theoretical. It helps destinations organise data on environmental pressure, seasonality, local benefits and governance quality. Recent research on destination sustainability assessment reaches a similar conclusion: indicators are most effective when they connect environmental, socio-economic and governance dimensions without overwhelming local administrations (Streimikiene, 2023).

The emerging EU Tourism Dashboard strengthens this architecture by supplying an EU-level comparative instrument linked to the tourism transition agenda. The Commission's transition pathway materials explain that dashboard development is intended to monitor green, digital and socio-economic aspects of tourism ecosystem transformation (European Commission, 2022). This is valuable for the integrated model because it allows destination indicators to be tied to a wider EU policy frame, rather than remaining purely

local metrics with weak strategic relevance. A region that seeks circular transition can therefore combine dashboard data with city proxies, energy data, modal-share data and resident-satisfaction evidence.

The governance implications are significant. Measurement should not be designed as a league table but as a decision tool. ETIS was expressly conceived as a management instrument for locally owned monitoring rather than as a reputational ranking device (European Commission, 2017). More recent destination-sustainability scholarship likewise supports staged monitoring cycles that connect short-term organisational changes with medium-term environmental performance and longer-term social outcomes (Streimikiene, 2023). The legal model thus embeds accountability without creating unrealistic performance expectations.

5. The Alpine–Adriatic application

The Alpine–Adriatic region provides a useful illustration because it combines cross-border mobility, medium-sized urban nodes, tourism dependence, ecological sensitivity and strong EU integration. Such a region is suitable for an integrated model because many problems exceed municipal boundaries. Visitor flows, labour mobility, transport corridors and supply chains are regionally networked, while financing opportunities often depend on inter-municipal or cross-border scale.

In this setting, the most promising project families are retrofitting public and social buildings, reusing brownfields for cultural, educational or creative functions, creating zero-emission urban logistics and low-emission visitor mobility, building hotel and restaurant reuse systems, and introducing food-waste prevention and biowaste collection. These interventions are circular because they preserve asset value, reduce resource throughput and improve urban liveability. They are also legally and financially plausible because each can be connected to an existing EU policy objective and, in many cases, to a fundable or financeable activity type under the broader sustainability framework shaped by EU environmental and finance law (European Commission, 2019).

The regional perspective also helps resolve a recurrent weakness of sustainability policy: fragmentation of demand. Joint procurement for circular hospitality services, coordinated clean-mobility corridors and replicable urban-development-fund templates can create economies of scale and improve transaction readiness. This matters because many circular interventions are too small to attract serious financing when treated as isolated municipal experiments. When structured as replicable regional product types, however, they become more legible to managing authorities, development banks and private co-investors. The integrated model is therefore not only normative but also organisational. It recommends institutional forms that make sustainability investable across a wider territorial platform.

At the same time, the model must remain attentive to distributional concerns. Circular transition can fail politically if costs are shifted onto low-income residents, if tourism branding displaces housing needs, or if environmental gains are pursued without social inclusion. A legally mature circular model should therefore connect financing conditions and project appraisal to social safeguards, especially when public assets, urban regeneration or mobility pricing are involved. Sustainability in EU law is increasingly understood as a transition problem that must reconcile climate and environmental objectives with fairness and social cohesion, a theme already visible in the Green Deal's policy design (European Commission, 2019).

6. Implementation risks and doctrinal implications

A final point concerns doctrinal coherence. The integrated model does not propose a new autonomous competence for the Union in urban or tourism planning. It remains within the existing architecture of shared competences, financial governance and internal-market coordination. This is important because the model must be legally persuasive to public authorities and investors. It relies on the combination of environmental integration, sustainable investment classification, cohesion programming and destination-management instruments, not on a claim that Brussels directly governs local tourism development. In that respect, the approach is consistent with broader debates in EU financial governance, where scholarship has shown that strong practical effects can arise through indirect legal mechanisms rather than explicit sectoral command (Ioannidis and Zilioli, 2022; Smoleńska, 2022). The same logic can be applied to circular urban transition: EU law structures incentives, categories and funding conditions, while local and regional actors retain implementation responsibility.

This indirect-governance perspective also helps explain why project design must address greenwashing risk. Taxonomy alignment is useful only if the substantial contribution and do no significant harm conditions are treated seriously rather than used as branding language (EUR-Lex, 2020). SFDR-related transparency pressures reinforce this point because weakly evidenced sustainability claims can undermine both investor trust and public legitimacy, especially where sustainability characteristics are marketed without robust substantiation (Quirici and Giurlani, 2023). Every major circular intervention should therefore specify the legal hook, the financing instrument, the expected environmental effect and the metric by which success will be tested. This transforms sustainability from a rhetorical ambition into an auditable governance process.

There is also a clear institutional lesson for universities, regional authorities and destination managers. Recent work in sustainable finance and destination governance shows that sustainability problems are no longer contained within one discipline. Urban transition requires legal analysis, financial structuring, policy design and data governance at the same time (Quirici, 2023). The tourism transition agenda points in the same direction by linking green, digital and socio-economic transformation within one governance framework (European Commission, 2022). A circular city or destination strategy, therefore, should not be treated as a purely environmental plan. It should be understood as a governance document that coordinates legal compliance, investment readiness and territorial development.

7. Policy design principles for regional deployment

Several design principles follow from the integrated model. The first is sequencing. Destinations should begin with a legal and asset-mapping exercise that identifies existing building stock, brownfield sites, mobility bottlenecks, waste streams and tourism pressure points, and then match each category with the relevant EU legal hook and financing option. This avoids the common practice of selecting projects solely because grants happen to be available. A legally sequenced pipeline is more robust because it starts from durable obligations and structural needs. It can also improve administrative coordination, since environmental, tourism, public works, and finance departments work from one common matrix rather than separate sectoral plans.

The second principle is standardisation without rigidity. Circular transition benefits from templates, especially for feasibility studies, procurement clauses, indicator sets and financing structures. Yet strict uniformity would be counterproductive because Alpine, Adriatic, urban and coastal destinations face different pressures and seasonality patterns. The appropriate solution is a modular system. Core project

types can be standardised at the regional level, while site-specific environmental and social variables are adjusted locally. Such modularity is likely to lower transaction costs for public authorities and investors alike. It also supports cross-border learning, because one city's retrofit or circular-hospitality package can be adapted by another city without repeating the entire legal and financial design process from the beginning.

The third principle is institutional continuity. Many sustainability initiatives fail because project governance is tied to one political cycle or one temporary funding call. Revolving instruments, annual indicator updates and shared regional templates all help counter that problem by creating routines that survive leadership changes. For the present model, continuity also depends on knowledge institutions. Universities, development agencies and destination-management organisations can function as repositories of legal interpretation, data methodology and project documentation. This role is especially important for younger professionals and doctoral researchers, because circular transition requires a new generation able to move between law, finance and territorial governance.

8. Conclusions

An integrated EU legal model for circular cities and destinations can be constructed from legal tools that already exist. Treaty principles, environmental directives, the European Green Deal, the Taxonomy Regulation, the SFDR, cohesion policy and revolving urban-development instruments together provide a workable architecture for circular transition in the Alpine-Adriatic region.

The central operational move is to convert legal obligations and sustainability standards into clearly defined project families that can be financed, replicated and monitored. Energy retrofits, brownfield regeneration, circular hospitality systems and clean-mobility packages illustrate how environmental objectives can be translated into investments with visible territorial effects.

The model is strongest when finance and measurement are treated as integral parts of legal implementation. Revolving instruments can extend the impact of public resources over time, while a compact set of annual indicators can connect project activity with environmental, economic and social outcomes. This combination reduces fragmentation and improves strategic discipline.

For the Alpine-Adriatic region, the main practical implication is that cross-border and inter-municipal coordination should be treated as a condition of scale, not as an optional add-on. Circular transition becomes more credible when cities and destinations share project templates, procurement approaches and data practices.

The broader conclusion is that sustainability in urban and tourism governance should no longer be framed as a collection of isolated green initiatives. It should be treated as a structured legal and financial pathway capable of improving public space, lowering resource use, supporting more resilient destination economies and enhancing the quality of life of the young generation.

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