



Ecology Awareness of Sustainable Green Development: Collaboration of  
Universities and Local Actors

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ROMANIA



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## COUNTRY-BASED LEGAL ANALYSES

The comparative legal analyses in respect of green economy, sustainable financing, social responsibility, , green environment and agrifood, sustainable urban development and smart cities and collaboration of universities and local actors is required for modern society and the environment.

This fostered cooperation between universities, local government, communities and citizens to achieve sustainable projects and promote environmentally friendly and economically responsible practices. Laws and regulations play a crucial role in how different countries implement policies and interdisciplinary cooperation. Their institutional systems may foster sustainability and innovation differently, and their comparison will help identify the positive and negative aspects and gaps that need to be mitigated for better intersectoral cooperation.

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Using comparative analysis, partners will examine the impact of laws and policy on the achievement or obstruction of goals such as sustainable green development. For example, understanding how laws facilitate and promote SGD is a starting point for developing networking strategies and action plans between universities and other local actors in a more productive way.

Legal comparison allows partners to appreciate the matters which need to improve in the policies of their countries. That target may translate to concrete proposals for legal changes or modifications that would render collaboration more effective. These proposals will assist the universities and local governments in ways that will research to the SGD Guide and Action Plan, allowing for greater coordination, efficiency, and impact of their activities towards global sustainability.

Universities can serve as an innovation engine and instruct communities on how to adopt less harmful practices. Under enabling legislation and regulations, the universities can help in facilitation of the transfer of information, support local actors to solve problems, and assist university students and citizens in active problem solving of the local environmental issues.



**GREEN ECONOMY**

## 1.1. Environmental Taxes

### EU Framework:

- a) Polluter Pays Principle (Article 191 TFEU): The EU's environmental policy is underpinned by the polluter pays principle, requiring that costs of pollution be borne by those responsible for causing it.
- b) Energy Taxation Directive (2003/96/EC): Sets minimum tax rates for energy products and electricity, aiming to align tax levels with environmental objectives. Potential updates under the European Green Deal envision stronger incentives for reducing carbon emissions.
- c) Emissions Trading System (EU ETS): While not a direct „tax,“ the ETS places a price on carbon by requiring certain industries to buy or receive emission allowances. This market-driven mechanism operates similarly to a tax by incentivizing lower emissions.

### Romanian Legislation and Practice:

- a) Environmental Fund (Law No. 105/2006 on the Environmental Fund): Introduces fees and contributions for activities with environmental impact (e.g., waste disposal, packaging). Revenue from these fees supports environmental projects and programs.
- b) Excise Duties on Energy Products and Electricity: Romania aligns its excise duties on fuels (e.g., petrol, diesel) with the EU's Energy Taxation Directive. While the rates comply with EU minima, calls for a greener overhaul to discourage fossil fuel consumption are ongoing.
- c) Other Local Environmental Taxes: Municipalities can impose specific taxes or fees to address local environmental challenges (e.g., waste management surcharges). These vary widely by region, reflecting different local priorities and administrative capacities.

### Analysis:

While Romania's taxation system conforms to EU directives, there is scope to further strengthen environmental tax policies, especially regarding greenhouse gas emissions or pollution-intensive industries. Simplifying administrative procedures, reinvesting tax revenues into green initiatives, and increasing public awareness could enhance the overall impact of these fiscal measures.

## 1.2. Other Regulations

### a) EU Regulations and Initiatives:

Circular Economy Action Plan: This EU strategy promotes reducing waste, improving resource efficiency, and extending product lifespans through ecodesign and recycling regulations.

b) Waste Framework Directive (2008/98/EC): Stipulates waste prevention, reuse, recycling, and recovery targets for Member States, encouraging them to reduce landfill dependency.

c) REACH Regulation (EC No 1907/2006): Governs the registration, evaluation, authorization, and restriction of chemicals, ensuring improved environmental and health standards.

Romanian Regulatory Framework:

a) Government Emergency Ordinance (GEO) No. 195/2005 on Environmental Protection: The cornerstone of Romania's environmental legislation, it establishes general principles and obligations aligned with EU regulations.

b) Law No. 211/2011 on Waste Regime (transposing Directive 2008/98/EC): Details obligations for waste producers, collection, and recycling targets. Amendments continuously aim to improve compliance with EU circular economy goals.

c) Chemical Safety and Management: Romanian authorities follow the EU's REACH and CLP (Classification, Labelling, and Packaging) Regulations, ensuring that hazardous substances are appropriately managed.

Analysis:

Although Romania has transposed core EU environmental regulations, enforcement remains a significant challenge. Strengthening institutional capacities, enhancing public-private collaboration, and implementing digital tools for monitoring can help bridge the gap between legal requirements and actual practice.

## 1.3. Incentives

EU Incentive Mechanisms:

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- a) European Green Deal Investment Plan: Provides financial incentives for Member States to transition to climate-neutral economies, including grants, loans, and technical support through the Just Transition Mechanism.
- b) EU Cohesion Policy and Recovery and Resilience Facility: Offers funding for projects that support sustainable development, innovation, and green technologies. Municipalities, universities, and private actors can leverage these instruments to drive environmentally responsible growth.

#### Romanian Incentive Schemes:

- a) State Aid for Green Projects: Certain government programs offer subsidies or tax breaks for installing renewable energy capacity, undertaking energy efficiency renovations, or adopting clean technologies.
- b) Rabla Program (Vehicle Scrappage Scheme): Encourages replacing older, high-emission vehicles with newer, lower-emission or electric models, featuring both financial and tax-related incentives.
- c) Eco-label and Certification: Romanian producers who comply with eco-friendly manufacturing standards can obtain labeling advantages (voluntary but market-differentiating), in line with EU Ecolabel criteria.

#### Analysis

Incentive frameworks in Romania increasingly mirror EU best practices, yet many local stakeholders underutilize available funding and programs. Simplifying the application process, building capacity in proposal development, and ensuring transparent criteria for selecting projects could further boost participation and environmental impact.

## 1.4. Green Public Procurements

#### EU Directives and Guidelines:

- a) Public Procurement Directive (2014/24/EU): Requires environmental considerations to be factored into procurement criteria, ensuring purchased goods and services meet sustainable standards.
- b) EU Green Public Procurement (GPP) Criteria: These voluntary criteria help contracting authorities integrate environmental requirements—such as energy efficiency, reduced emissions, or sustainable materials—into tender processes.

Romanian Legal Framework:

- a) Law No. 98/2016 on Public Procurement: Transposes EU procurement directives, granting public authorities the ability to include green criteria in tenders.
- b) Government Decision No. 642/2021 (on Green Public Procurement): Provides specific measures and methodologies for integrating environmental requirements into procurement processes, promoting the use of eco-friendly products and services in public contracts.

Analysis:

Romania's transposition of EU directives on green public procurement creates formal opportunities for reducing the environmental footprint of publicly funded projects. However, practical uptake can be slowed by limited training for procurement officers, insufficient market availability of green products, and occasional focus on cost-over-quality purchasing decisions. Enhancing capacity-building, clarifying technical specifications, and rewarding long-term cost savings can accelerate GPP adoption.

Conclusion:

Romania has broadly aligned with EU environmental directives across taxation, waste management, procurement, and incentives. Yet, proper enforcement and administrative consistency remain key to realizing these policies' full potential.

Significant EU funds and national incentive schemes are available, but bureaucratic hurdles and limited administrative know-how can hamper their effective use. Targeted capacity-building, simplified procedures, and transparent selection processes are essential for success.

Sustainable change requires cooperation among local authorities, private sector, universities, and communities. Partnerships for research, knowledge transfer, and co-financing can strengthen green policies and accelerate innovation in the circular and low-carbon economy.

Greater engagement with citizens, NGOs, and businesses is needed. Educating the public about environmental taxes, green incentives, and procurement criteria fosters a culture of accountability, prompting broader support and compliance.



**SUSTAINABLE GREEN  
FINANCING AND SOCIAL  
RESPONSIBILITY**

## 2.1. EU Taxonomy

EU Legislative Framework:

- a) EU Taxonomy Regulation (Regulation (EU) 2020/852): Establishes a classification system for environmentally sustainable economic activities. Its six environmental objectives include climate change mitigation/adaptation, water and marine resource protection, the transition to a circular economy, pollution prevention, and biodiversity preservation.
- b) Technical Screening Criteria: Provide detailed thresholds and requirements for determining whether specific economic activities contribute substantially to one or more of these objectives without significantly harming others.

Romanian Context:

- a) Integration into National Financial Policies: As an EU Member State, Romania must ensure that financial institutions and large companies comply with the EU Taxonomy, especially when issuing green bonds or sustainability-linked loans.
- b) Challenges and Opportunities: Romanian banks, asset managers, and public institutions face a learning curve in applying technical screening criteria and reporting obligations. However, adopting the EU Taxonomy can improve investor confidence in local green projects, attract foreign investment, and align financial flows with the country's sustainability priorities.

Analysis:

Although Romania aligns with the overarching EU framework, the level of readiness varies among financial actors. More targeted guidance, capacity-building, and sector-specific support (e.g., agriculture, manufacturing, energy) can facilitate broader adoption of the EU Taxonomy's principles, ultimately accelerating the transition to a greener economy.

## 2.2. Sustainability Reporting

EU Directives and Evolving Landscape:

- a) Non-Financial Reporting Directive (NFRD, Directive 2014/95/EU): Requires large public-interest entities (e.g., listed companies, banks, insurers) with over 500 employees to disclose

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information on environmental, social, and employee matters, respect for human rights, anti-corruption, and board diversity.

- b) Corporate Sustainability Reporting Directive (CSRD): Proposed to expand the scope and depth of non-financial reporting requirements, it aims to introduce mandatory EU sustainability reporting standards, improve data comparability, and include more companies under its purview.

#### Romanian Compliance and Practice:

- a) Transposition of NFRD: Romania has transposed the NFRD into national law, obliging large companies to report on sustainability issues. While many corporations comply in form, the quality of disclosures and the level of standardization can still vary significantly.
- b) Emerging Best Practices: Some Romanian companies have begun integrating frameworks such as the Global Reporting Initiative (GRI) or Sustainability Accounting Standards Board (SASB) to enhance transparency. Collaboration with universities and NGOs also helps firms refine their sustainability metrics and align efforts with global best practices.

#### Analysis:

As EU legislation on sustainability reporting evolves, Romanian businesses must adapt to more rigorous disclosure requirements. Strengthening audit and enforcement mechanisms, investing in data collection infrastructure, and developing internal sustainability expertise can help elevate the overall quality and reliability of corporate ESG (Environmental, Social, and Governance) reporting.

## 2.3. Guidelines in Sustainable Finance

#### EU Guidelines and Regulatory Bodies:

- a) European Commission's Action Plan on Sustainable Finance: Outlines measures to reorient capital flows towards sustainable activities, integrate sustainability in risk management, and promote transparency in financial services.
- b) European Supervisory Authorities (ESAs): Including the European Banking Authority (EBA), European Securities and Markets Authority (ESMA), and European Insurance and

Occupational Pensions Authority (EIOPA), which issue technical advice and guidelines on green finance, ESG risks, and disclosure requirements.

Romanian Regulatory and Policy Environment:

- a) National Bank of Romania (NBR) and Financial Supervisory Authority (ASF): Both institutions increasingly emphasize sustainability, encouraging credit institutions, insurers, and pension funds to integrate ESG criteria in their operations and risk assessments.
- b) Voluntary and Market-Driven Initiatives: Besides mandatory rules, several Romanian financial institutions have adopted voluntary guidelines for sustainable lending or responsible investment, sometimes in partnership with international bodies or under commitments like the UN Principles for Responsible Investment (PRI).

Analysis:

While EU guidelines set robust standards for sustainable finance, Romanian financial players vary in their capacity and willingness to adopt them fully. The integration of ESG considerations into traditional financial risk assessments is still maturing, and further policy incentives, such as favourable capital requirements for green loans, could stimulate broader uptake. Strengthening cooperation between regulators, academia, and private-sector players is also crucial for knowledge exchange and best-practice sharing.

Conclusion:

Romania is progressively aligning its financial sector regulations with EU sustainability initiatives, notably the EU Taxonomy and reporting directives. This alignment promotes a uniform framework that can boost investor confidence and drive economic growth grounded in responsible, sustainable principles.

Successful adoption of green finance and social responsibility standards hinges on practical guidance, technical training, and clear enforcement mechanisms. Both public and private stakeholders benefit from partnerships with universities and research centres, ensuring robust methodologies and data-driven implementation.

Beyond compliance, incentives, such as subsidies, tax breaks, or preferential regulatory treatment, can accelerate the growth of sustainable investments. Overcoming administrative barriers to

accessing EU funds or implementing national incentive programs can further embolden the market for green finance products.

Consistent sustainability reporting standards improve market transparency and help stakeholders, investors, consumers, and civil society, make informed decisions. By refining reporting rules and enhancing audit processes, Romania can elevate corporate accountability and align capital allocation with pressing environmental and social priorities.



## GREEN ENVIRONMENT AND AGRIFOOD

## 3.1. Water Management

EU Legislative Framework:

- a) Water Framework Directive (2000/60/EC): Establishes a comprehensive framework for protecting and enhancing Europe's water bodies, requiring Member States to achieve "good status" in surface and groundwater by defined deadlines.
- b) Nitrates Directive (91/676/EEC): Aims to protect water quality by preventing nitrate pollution from agricultural sources. Member States must identify vulnerable zones and implement action programs to reduce agricultural runoff.
- c) Drinking Water Directive (98/83/EC, recast 2020/2184/EU): Sets standards for the quality of drinking water across the EU. While primarily focused on human health, it incentivizes improved water resource management and pollution prevention.

Romanian Legislation and Implementation:

- a) Law No. 107/1996 (Water Law), as amended: Harmonizes national regulations with the EU Water Framework Directive. It defines management plans for river basins, lays out permitting procedures for water usage, and outlines pollution control measures.
- b) OUG No. 40/2010 on Nitrates Vulnerable Zones: Transposes the Nitrates Directive, identifying areas with high nitrate pollution risk. It establishes requirements for proper manure storage, fertilization plans, and monitoring systems.
- c) Administrative Structures: River Basin Administrations (e.g., for the Danube, Mureș, Someș-Tisa) oversee regional water resources. They are tasked with drafting and implementing River Basin Management Plans in line with EU objectives.

Analysis:

Romania has transposed core directives into national law, reflecting a commitment to improving water quality and reducing agricultural pollutants. However, enforcement capacity and compliance monitoring, especially in rural areas, remain ongoing challenges.

Upgrading wastewater treatment plants and introducing precision agriculture practices require significant investment. EU Cohesion Policy funds and other financial instruments present opportunities, but local and regional authorities often face administrative barriers in accessing these resources.

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Effective water management depends on active collaboration among farmers, local governments, water authorities, and universities. Educational programs focused on responsible fertilizer use and water conservation can bolster compliance and improve sustainability outcomes.

## 3.2. Agriculture and Diversity

### EU Policy and Directives

- a) Common Agricultural Policy (CAP): Integrates environmental considerations via “greening measures” and cross-compliance requirements. The new CAP (2023–2027) emphasizes eco-schemes, biodiversity conservation, and climate action in the agrifood sector.
- b) EU Biodiversity Strategy for 2030: Aims to protect and restore ecosystems, linking biodiversity targets to agricultural practices and emphasizing pollinator protection, organic farming expansion, and habitat preservation in rural areas.
- c) Habitat Directive (92/43/EEC): Ensures the conservation of natural habitats and of wild fauna and flora. Agricultural activities intersect with protected sites (Natura 2000), requiring specific land management measures.

### Romanian Legislative Framework:

- a) Law No. 18/1991 on Land Resources, as amended: Governs agricultural land use, lease arrangements, and ownership. Although not explicitly an environmental law, it influences how farms operate and manage soil and biodiversity.
- b) National Rural Development Program (PNDR): Aligns with the CAP by providing funding, technical support, and guidance for farmers who adopt environmentally friendly practices, such as crop diversification, organic production, and agro-forestry systems.
- c) Biodiversity and Protected Areas: Specific ordinances detail protected areas management (e.g., Danube Delta Biosphere Reserve). Farmers operating near or within these zones must adhere to special guidelines to preserve local ecosystems.

### Analysis:

Romania has rich agricultural traditions and considerable biodiversity, yet intensive practices can threaten soil fertility, water quality, and local habitats. CAP-aligned programs encourage sustainable methods, but their uptake varies by region and farm size.

Rural communities depend on agricultural livelihoods, making the shift toward more eco-conscious practices a potential economic challenge. Policy instruments—like subsidies for organic conversion or agro-ecological measures—can bridge this gap if effectively implemented and administered.

Collaboration with universities and research institutes is key to developing high-yield, low-impact techniques. Encouraging technology transfer and knowledge-sharing can drive innovation in agro-ecological systems, benefiting both productivity and biodiversity protection.

Conclusions:

Romania has broadly transposed EU directives on water quality, agricultural practices, and biodiversity protection into national laws. Continuous updates ensure compliance with evolving EU targets, particularly under the Common Agricultural Policy and the Water Framework Directive.

While the legal framework is robust, consistent enforcement remains a challenge. Building strong local administrative capacities, improving monitoring systems, and raising awareness among farmers are essential steps toward better compliance.

Access to EU and national funding streams can stimulate investment in eco-innovations—such as precision irrigation and organic farming—provided application and reporting procedures are streamlined. Targeted subsidies, training, and infrastructure development can bolster long-term sustainability in the agrifood sector.

Effective water management and biodiversity conservation depend on coordinated actions among government agencies, farmers' associations, NGOs, and universities. Encouraging shared research projects, policy dialogue, and technical assistance fosters a more integrated approach to environmental stewardship in agriculture.



**SUSTAINABLE URBAN  
DEVELOPMENT AND  
SMART CITIES**

## 4.1. Regulatory Framework for Sustainable Urban Development and Smart Cities

Sustainable urban development and the transition to smart cities are becoming increasingly critical in the context of global environmental challenges and rapid technological advancements. Effective legislation at both the European Union (EU) and national levels underpins the successful integration of green infrastructure, energy-efficient transportation, and data-driven city management systems. In Romania, aligning municipal regulations with overarching EU directives, such as the European Green Deal and other sector-specific policies, strengthens compliance and unlocks opportunities for innovation, funding, and collaborative projects.

This module examines how EU and Romanian legislative frameworks interact to shape urban environments that are resilient, resource-efficient, and people-centred. By exploring the regulations that govern the creation of eco-friendly infrastructure, sustainable transport networks, and municipal planning processes, we identify key strengths, gaps, and potential avenues for improvement. Equally important is the role of universities, local authorities, and civil society in fostering holistic, interdisciplinary solutions that contribute to a greener and more inclusive urban future.

### 4.1.1. *Integration of Green Infrastructure in Urban Development Laws*

Green infrastructure has become a cornerstone of contemporary urban planning, as it boosts environmental resilience and biodiversity, enhancing citizens' quality of life. At the EU level, policy initiatives and directives promote the preservation and expansion of natural and semi-natural spaces, encouraging member states to embed nature-based solutions into their local and regional development strategies. In Romania, national laws similarly support the integration of parks, green belts, and ecological corridors into city layouts, though practical implementation can vary across municipalities.

Our purpose is to explore how European and Romanian legislation collectively shape the creation and management of green infrastructure in urban areas. We will highlight the importance of aligning policy, funding, and stakeholder engagement, particularly collaborations between universities, local authorities, and private entities, to ensure sustainable and cohesive implementation. By examining

legal frameworks and their on-the-ground application, we can better understand both the progress made and the challenges that remain in fostering green, liveable, and future-proof cities.

The main EU Legislative Framework identified on this topic is:

- a) European Green Deal (2020): A strategic roadmap aiming to make the EU climate neutral by 2050. It underlines the importance of green infrastructure, nature-based solutions, and preserving biodiversity in urban spaces.
- b) EU Urban Agenda: While not a single legislative act, the Urban Agenda provides a framework for improving the quality of life in urban areas. It supports the integration of green infrastructure into local planning and encourages multi-level governance cooperation.
- c) Strategic Environmental Assessment (SEA) Directive (2001/42/EC): Requires environmental assessments of certain plans and programs, ensuring that urban development strategies incorporate an evaluation of green infrastructure impacts.
- d) Environmental Impact Assessment (EIA) Directive (2011/92/EU, amended by 2014/52/EU): Mandates assessments for specific types of public and private projects. In the context of green infrastructure, EIA helps integrate environmental considerations into urban development projects, encouraging ecosystem services protection.
- e) Habitat and Birds Directives (92/43/EEC and 2009/147/EC): Protect valuable habitats and bird species. In urban contexts, these directives ensure that certain green areas and migratory pathways are preserved and integrated into local planning.

The Romanian Legislative Framework identified is:

- a) Law No. 350/2001 on Territorial Planning and Urbanism: This law regulates territorial development and urban planning in Romania. It provides the legal foundation for local authorities to integrate green infrastructure, parks, green belts, and ecological corridors into urban plans. Amendments in recent years have increasingly emphasized sustainable development principles.
- b) Government Emergency Ordinance (OUG) No. 195/2005 on Environmental Protection: Lays out the overarching environmental protection framework, providing mechanisms for the protection of green spaces, biodiversity, and natural resources. It also stipulates environmental impact assessment procedures in line with EU directives.

- c) Law No. 24/2007 on Regulating and Managing Green Spaces in Urban Areas (subsequently amended): Focuses specifically on protecting, preserving, and expanding urban green spaces. It aligns with EU biodiversity objectives and helps local governments allocate and maintain g  
Analysis:

Romania has progressively harmonized its legislative framework (e.g., Law No. 350/2001 on Territorial Planning and Urbanism; OUG No. 195/2005 on Environmental Protection; Law No. 24/2007 on Regulating and Managing Green Spaces) with key EU directives and strategies, such as the Strategic Environmental Assessment (SEA) Directive (2001/42/EC), the Environmental Impact Assessment (EIA) Directive (2011/92/EU, amended by 2014/52/EU), and the European Green Deal. This alignment has encouraged Romanian municipalities to integrate natural elements (e.g., parks, ecological corridors, and other green spaces) into their urban development strategies.

While Romanian laws largely match EU directives, significant disparities can be seen in practical implementation and enforcement at the local level. Resource constraints, administrative fragmentation, and limited capacity for rigorous environmental assessments often slow down or dilute the integration of green infrastructure. Although EU funding is available to support sustainable urban planning, effectively accessing and managing these funds remains challenging for many Romanian local authorities.

Both EU policies and Romanian legislation emphasize stakeholder involvement—particularly with universities, research institutions, and local communities—to foster innovation and sustainable practices. In practice, however, partnerships between municipalities and academic or private-sector entities have been inconsistent. Strengthening these collaborations could lead to more robust solutions for preserving biodiversity and creating community-centred green infrastructure.

EU directives encourage meaningful public consultation and transparency in land-use decisions. In Romania, although mandatory public consultations are in place, their effectiveness can vary from region to region. Improving outreach and engagement tools at the local level can bridge information gaps and ensure that community needs are properly considered in urban planning decisions.

A more coordinated approach involving national agencies, local authorities, universities, and citizens is needed to close enforcement gaps. Emphasizing integrated planning, where green infrastructure is viewed as essential for climate resilience, health, and economic development, can help Romania fully leverage EU directives and funding. This approach would align with broader EU efforts to mainstream nature-based solutions in cities, thereby enhancing ecosystem services and urban liveability.

#### *4.1.2. Sustainable urban transportation regulations and legislation*

Sustainable urban transportation is a key component in creating greener, more liveable cities, directly influencing air quality, energy consumption, and the overall well-being of citizens. At the EU level, legislative directives such as the Clean Vehicles Directive and the Alternative Fuels Infrastructure Directive set standards for reducing emissions, encouraging the adoption of low- and zero-emission vehicles, and developing supporting infrastructure. Romania, in turn, has introduced national strategies and laws aligned with these directives, aiming to modernize public transport systems and promote cleaner mobility options.

This analysis explores the interplay between EU regulations and Romanian legislation in shaping urban transport initiatives. It highlights the significance of coherent planning, adequate funding, and effective stakeholder collaboration, particularly among universities, local governments, and private operators. By comparing legislative frameworks and their on-the-ground outcomes, we can identify best practices and ongoing challenges to ensure the successful transition toward more sustainable transportation networks.

The main EU Legislative Framework identified:

- a) Clean Vehicles Directive (2009/33/EC, amended by 2019/1161): Encourages public procurement of low- and zero-emission vehicles, pushing cities to adopt greener transportation options such as electric buses, trams, and other sustainable fleets.
- b) Alternative Fuels Infrastructure Directive (2014/94/EU): Requires Member States to develop national policy frameworks for electric vehicle charging stations, natural gas (LNG/CNG) stations, and hydrogen refuelling points, particularly in urban areas.
- c) EU Strategy for Sustainable and Smart Mobility (part of the European Green Deal): Sets targets for reducing emissions in the transport sector and enhancing multimodal connectivity in cities.

- d) TEN-T Regulation (Trans-European Transport Network): Focuses on improving and developing integrated transport infrastructure across the EU. While it targets larger-scale projects, it also influences local sustainable mobility strategies.

Romanian Legislative Framework:

- a) Law No. 215/2001 on Local Public Administration (relevant amendments): Outlines competencies of local authorities, including the organization of public transportation and the development of local transport policies. This provides the legal basis for municipalities to promote sustainable mobility projects.
- b) Romanian National Strategy for Sustainable Transport (encompasses various Government Decisions): Sets national objectives to develop efficient and environmentally friendly transportation systems, including investments in infrastructure for electric mobility, public transit upgrades, and congestion reduction measures.
- c) Government Ordinances on Low-Emission Zones: Some cities (e.g., Bucharest) have experimented with regulations for restricting polluting vehicles. While not a single national ordinance, various legislative initiatives have been introduced to reduce air pollution and encourage sustainable modes of transport (e.g. Local Council Decision No. 539/2019 in Bucharest).

### Comparative Observations on Sustainable Urban Transportation Regulations and Legislation (4.1.2)

Analysis:

Romania's legislative framework for sustainable urban transportation reflects alignment with key European Union directives and strategies, including the Clean Vehicles Directive (2009/33/EC, amended by 2019/1161) and the Alternative Fuels Infrastructure Directive (2014/94/EU). In principle, these directives mandate the adoption of low- and zero-emission public transport fleets, as well as the development of supporting infrastructures such as charging stations and refuelling points for alternative fuels. Although Romania's national strategies and legislation conform to these requirements, the degree of implementation varies by region. Larger cities like Bucharest and Cluj-Napoca have started to incorporate electric buses or hybrid vehicles into their public transport fleets,

yet broader nationwide application remains uneven, underscoring a continued need for harmonized policy enforcement and consistent funding at multiple levels of government.

Despite the formal transposition of EU directives into Romanian law, tangible implementation of sustainable transport measures encounters challenges in practice. For instance, while local ordinances can create Low-Emission Zones and encourage cleaner vehicles, enforcement mechanisms are often weak or fragmented, leading to limited effectiveness. Administrative hurdles, budgetary constraints, and varying local governance capacities further complicate the roll-out of green transportation initiatives, particularly in small or under-resourced municipalities. This implementation gap highlights the importance of investing not only in sustainable technologies but also in administrative capacity-building, stronger institutional coordination, and public information campaigns that reinforce compliance with new transportation regulations.

Romanian legislation permits and, in some instances, explicitly encourages cooperation between local authorities, universities, and private stakeholders to develop and scale sustainable transport projects. Academic institutions, especially, can offer research expertise and technical guidance for pilot programs on electric mobility or smart traffic management. Meanwhile, private companies—including automotive and tech firms—can introduce innovative solutions for emissions reduction and data-driven transport services. By fostering public-private partnerships and leveraging the specialized resources within universities, municipalities can design comprehensive and evidence-based strategies that align with EU sustainability goals. Strengthening these collaborations is essential for accelerating the shift toward cleaner mobility options and meeting the EU's broader climate commitments.

Public acceptance is a critical factor influencing the success of sustainable transportation initiatives. While initiatives such as Bucharest's „Oxygen” vignette or proposals for other Low-Emission Zones align with EU directives on air quality, they have sometimes met with public scepticism or outright resistance, partly due to concerns about fairness, costs to drivers, and the availability of reliable public transport alternatives. EU funding instruments, including Cohesion Policy funds and the Recovery and Resilience Facility, present significant opportunities for financing more advanced infrastructure and cleaner vehicle fleets. However, effectively accessing and managing these funds can be challenging due to administrative complexities and the need for well-prepared

projects. Enhanced transparency, community engagement, and robust project planning can help secure both public trust and the necessary financial resources to implement transformative mobility solutions.

Ensuring ongoing alignment with EU targets for reducing greenhouse gas emissions and improving air quality will require Romania to further refine its legislative framework and strengthen its capacity to enforce sustainable transport measures. Municipalities could benefit from a more standardized national approach to Low-Emission Zones, complemented by locally tailored rules that address specific urban conditions. In parallel, expanding the charging infrastructure network for electric vehicles and improving the overall quality of public transportation will be crucial steps in promoting greener mobility. Enhanced collaboration among national policymakers, local authorities, academic experts, and private-sector innovators can foster a shared understanding of best practices and amplify the impact of sustainable urban transportation initiatives across the country.

#### *4.1.3. Regulations in Municipal Legislation*

Local governance plays a pivotal role in translating broader sustainability policies into on-the-ground action, shaping community development through zoning, infrastructure projects, and public services. While European Union directives set overarching goals and standards, municipalities hold the authority to implement specific rules and ordinances that adapt these requirements to local contexts. In Romania, the legal framework grants local councils and mayors the power to introduce localized regulations, ranging from waste management and air quality controls to green space protection and urban design guidelines.

This section explores the intersection of EU policy aims and Romanian municipal legislation, focusing on how cities and towns can deploy tailored strategies to foster sustainable urban development and smarter, more liveable communities. It underscores both the opportunities and the challenges local administrations face in navigating regulatory mandates, securing adequate funding, and engaging diverse stakeholders. Ultimately, strong and coherent municipal governance (underpinned by effective legislation and civic participation) is essential to realizing the vision of greener, more inclusive cities across Romania.

#### EU Context for Municipal Governance

- a) Subsidiarity Principle (Article 5(3) TEU): Encourages decisions to be taken as close to citizens as possible, giving local authorities a significant role in implementing EU sustainable urban development policies.
- b) EU Cohesion Policy (2021–2027): Directs structural funds (ERDF, Cohesion Fund) toward green transition, digital transformation, and integrated territorial development strategies. Municipalities can tap into these funds to address local sustainability challenges.
- c) Urban Agenda Partnerships: The EU Urban Agenda promotes partnerships that include cities, Member States, the European Commission, NGOs, and businesses to jointly develop solutions for urban challenges—covering topics like housing, circular economy, and energy transition.

#### Romanian Municipal Legislation and Regulations

- a) Law No. 215/2001 on Local Public Administration: Provides the overarching framework for the powers and responsibilities of local councils and mayors. It allows municipalities to create regulations tailored to their sustainability priorities (e.g., zoning rules, public transport policies, local taxes or incentives for eco-friendly activities).
- b) Local Urbanism Regulations (Romanian: Regulamentul Local de Urbanism – RLU): Municipalities develop RLUs to complement national urban planning laws, dictating local building standards, land use, and environmental protection measures, including the maintenance of green corridors and public spaces.
- c) Municipal Environmental Protection Regulations: Cities can enact ordinances to manage waste, regulate air quality, control noise pollution, and preserve local green areas, building on the framework set by OUG No. 195/2005.

#### Analysis:

Under EU principles like subsidiarity, local authorities are empowered to implement sustainable urban development policies tailored to their specific needs. In Romania, the legal framework (most notably Law No. 215/2001 on Local Public Administration) allocates various responsibilities to municipalities, including zoning, infrastructure development, and environmental management. This decentralization mirrors EU objectives of bringing decision-making closer to citizens. However, while larger cities such as Bucharest, Cluj-Napoca, and Timișoara demonstrate a

capacity to enact progressive local regulations, smaller municipalities often grapple with limited resources and expertise, resulting in uneven implementation of sustainability measures nationwide.

Municipal regulations in Romania must align with national laws, such as OUG No. 195/2005 on Environmental Protection, and with EU directives mandating environmental impact assessments and territorial planning. This multilevel governance framework offers synergy when local initiatives reinforce broader policy goals, especially regarding climate action, air quality, and circular economy principles. Conversely, discrepancies can arise when local regulations are less stringent or lack the enforcement mechanisms required by EU directives. A robust, well-coordinated approach between local, national, and EU institutions is therefore vital to ensure consistent policy enforcement and the efficient use of resources.

Both EU regulations and Romanian legislation encourage active community involvement in shaping local urban development policies. Public consultations are formally required in municipal decision-making processes, providing citizens and civil society with an avenue to influence proposals ranging from zoning changes to waste management. In practice, however, the effectiveness of these participatory mechanisms can vary significantly. Some Romanian municipalities have adopted more transparent and inclusive procedures (often in collaboration with academic institutions) while others conduct consultations with minimal outreach. Strengthening public participation tools and ensuring that feedback meaningfully informs policy decisions can boost community buy-in and lead to more effective, widely supported regulations.

Municipal legislation alone is not sufficient to achieve ambitious urban sustainability targets; it must be supported by adequate financing and administrative expertise. EU Cohesion Policy funds, the Recovery and Resilience Facility, and other financial instruments offer municipalities opportunities to invest in sustainable infrastructure and pilot programs. Yet effectively accessing these resources requires specialized knowledge of grant-writing, project management, and compliance with EU guidelines. Larger Romanian cities typically possess more robust administrative structures to secure and administer EU funding, while smaller communities may require capacity-building initiatives, potentially in partnership with universities or national authorities, to fully realize local sustainability projects.

Municipal legislation can serve as a catalyst for broad-based partnerships by explicitly promoting collaboration among local government agencies, universities, private businesses, and non-governmental organizations. Such partnerships can accelerate sustainable urban development by pooling resources, expertise, and innovative solutions. In Romania, some cities have already adopted measures encouraging public-private cooperation for smart city initiatives, renewable energy projects, and green space development. However, to scale these efforts and bridge institutional silos, municipalities may need additional legislative guidance or incentives. By integrating cooperation clauses into local regulatory frameworks, cities can pave the way for more inclusive, research-driven, and community-centred approaches to sustainable development.

#### Conclusion:

The comparative analysis of Romanian and EU legislation in the realm of sustainable urban development and smart cities underscores both significant progress and persistent challenges. Across the three key areas, green infrastructure (4.1.1), sustainable urban transportation (4.1.2), and local regulatory frameworks (4.1.3), Romania has aligned its legal instruments with overarching EU directives, reflecting a commitment to achieving cleaner, greener, and more resource-efficient urban environments.

In terms of **green infrastructure**, Romania's incorporation of EU directives related to environmental impact assessments and strategic environmental assessments has laid a solid foundation for integrating parks, ecological corridors, and other nature-based solutions in urban planning. Nonetheless, many municipalities continue to face hurdles in translating policy into practice due to administrative constraints, funding limitations, and insufficient inter-agency coordination. Addressing these gaps through capacity-building, clearer enforcement mechanisms, and greater stakeholder engagement will be crucial to fully realize the potential of green infrastructure.

With respect to **sustainable urban transportation**, national strategies and local ordinances in Romania echo EU ambitions for low-emission mobility, alternative fuel infrastructure, and modernized public transit. Cities like Bucharest, Cluj-Napoca, and Timișoara are pioneering initiatives, including electric bus fleets and low-emission zones, which demonstrate the feasibility and benefits of cleaner transport systems. However, the lack of consistent nationwide standards and the uneven distribution of resources hinder widespread adoption. Continued policy refinements, enhanced

collaboration with universities and private-sector innovators, and improved funding mechanisms can help scale up these localized successes.

Finally, **local regulations** constitute the linchpin for implementing sustainable urban development on the ground. Romanian municipalities possess the legal autonomy to enact and enforce localized policies, yet variations in administrative capacity, stakeholder participation, and financial resources lead to inconsistent outcomes. Municipalities that leverage EU funding and forge strategic partnerships, particularly with academic institutions, tend to showcase more innovative, data-driven solutions. Strengthening legal provisions that facilitate cooperation across sectors and levels of government will better equip local authorities to respond effectively to rapidly evolving urban challenges.

Overall, while Romania has made notable strides in aligning its legislation with EU mandates, further progress depends on closing the implementation gap, fostering cross-sector collaboration, and ensuring equitable access to resources. By building on existing legal frameworks and empowering local actors, especially universities, to catalyse research, innovation, and community engagement, Romanian cities can advance toward the shared European vision of smart, sustainable, and inclusive urban development.



## COLLABORATION OF UNIVERSITIES WITH LOCAL ACTORS

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## 5.1. Municipality Law (Cooperation with the municipality regarding NGOs)

EU Context and Principles:

- a) **Subsidiarity and Multi-Level Governance:** The EU encourages decision-making at the closest level to citizens, supporting local authorities in engaging with non-governmental organizations (NGOs) and higher education institutions.
- b) **EU Urban Agenda and Cohesion Policy:** Policies emphasize cross-sectoral partnerships to promote sustainable urban development, underscoring the role of local governments in working with academic and civil society entities.

Romanian Legislative Framework:

- a) **Law No. 215/2001 on Local Public Administration (subsequently amended):** Outlines the duties and responsibilities of local government bodies (municipalities, county councils, mayors) and provides legal grounds for collaboration with external actors, including NGOs and universities. Encourages local authorities to engage in partnerships and to co-finance or support initiatives that serve the public interest, such as research projects, community service programs, and cultural events.
- b) **Law No. 350/2005 on Local Public Finance:** Governs the allocation and use of public funds at the local level. Municipalities can use budgetary provisions to support NGO activities or academic research when aligned with community development objectives.

Analysis:

Romanian law grants municipalities the autonomy to collaborate with NGOs and universities, but the extent of this cooperation often depends on local leadership, financial resources, and the perceived value of academic input.

Administrative complexities and limited budgets can hinder sustained engagement. Streamlined procedures and transparent criteria for project selection can help strengthen partnerships between local authorities, universities, and NGOs.

## 5.2. Legislation on NGOs

EU Guidelines and Good Practices:

- a) **European Civil Society Engagement:** The EU promotes an active civil society sector, recognizing NGOs as key stakeholders in policymaking, service delivery, and community development. Various EU-funded programs (e.g., Erasmus+, Horizon Europe) allocate grants to NGOs that collaborate with academic institutions.
- b) **Principle of Participatory Governance:** Encourages local authorities and national governments to include NGOs in decision-making processes, reinforcing transparency, inclusivity, and broader community representation.

Romanian Legal Framework:

- a) **Government Ordinance No. 26/2000 on Associations and Foundations:** Defines how NGOs (associations and foundations) are established, registered, and governed in Romania. Provides mechanisms for NGOs to receive funding (both public and private) and partner with public institutions, including universities and municipalities, to carry out projects with societal impact.
- b) **Fiscal Incentives and Sponsorship Law (Law No. 32/1994):** Offers certain tax deductions for corporate or individual donations to NGOs, which can strengthen resource mobilization for joint initiatives with universities (e.g., research, community outreach).

Analysis:

NGOs in Romania increasingly partner with universities on community-driven projects, such as environmental protection, social inclusion, and youth engagement. This collaboration benefits from a legal framework that offers relative freedom for NGO operations and funding.

### Capacity-Building Needs

Although NGOs are legally recognized and actively involved in local initiatives, many still face capacity challenges: financial, administrative, and technical. Increased support and training can enhance their collaboration with academic institutions.

## 5.3. Higher Education Law

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## EU Framework and Initiatives

- a) European Higher Education Area (EHEA) and Bologna Process: Encourages cooperation among universities, standardizing degree structures and promoting student/staff mobility. Collaboration with local communities and businesses aligns with EHEA's emphasis on societal engagement and knowledge transfer.
- b) Horizon Europe: The EU's main research and innovation program (2021–2027) encourages universities to partner with public authorities, private companies, and NGOs to address societal challenges.

## Romanian Legislative Framework

- a) National Education Law No. 1/2011: Governs Romania's higher education sector, setting standards for university autonomy, governance, and quality assurance. Encourages research, innovation, and community outreach as part of the universities' mission. Universities may establish partnerships with local governments and NGOs for project-based initiatives, shared research, or service-learning programs.
- b) Strategic Funding and Accreditation: Universities seeking accreditation or additional state funding are incentivized to demonstrate the societal impact of their programs, including collaboration with local stakeholders. Joint programs with municipalities and civil society can fulfil criteria related to „third mission” activities, beyond education and research, focusing on community engagement and economic development.

## Analysis:

The National Education Law grants universities a degree of autonomy to initiate and manage partnerships with local actors. However, public accountability requirements (e.g., quality assurance evaluations) create an impetus for demonstrating tangible outcomes from such collaborations.

By formalizing ties with municipalities and NGOs, universities can serve as hubs for applied research, workforce training, and social innovation. Developing technology transfer centers, incubators, and collaborative research labs fosters regional development and addresses community needs.

## Conclusions:

Romanian legislation—particularly concerning local administration (Law No. 215/2001), NGO regulation (GO 26/2000), and higher education (Law No. 1/2011)—provides a foundational framework encouraging universities, local authorities, and civil society to collaborate on projects that benefit the broader community.

Although legal mechanisms exist for intersectoral partnerships, securing sustainable funding and navigating administrative procedures remain significant challenges. Streamlining grant processes, offering technical assistance, and encouraging co-financing models can bolster collaborative efforts.

When effectively implemented, these collaborations yield multiple benefits: municipalities gain access to research-based solutions, NGOs tap into academic expertise, and universities can enhance their societal relevance. This synergy can stimulate local development, improve public services, and enrich educational experiences.

Further legislative refinement, such as clearer guidelines for public-private partnerships, expanded incentives for university engagement, and capacity-building for NGOs, could strengthen Romania's innovation ecosystem. By integrating EU guidance, national priorities, and local resources, Romania can solidify the role of universities as catalysts for sustainable and inclusive community growth.