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DeCrises

D1.3 Report on appropriated MLG framework for climate and digital transitions

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Key takeaway messages

- Twin transition involves complex, cross-sector and multilevel governance (MLG) challenges that cannot be addressed through hierarchical, state-centric models alone.
- The report develops an integrated MLG framework structured around six interrelated pillars (vertical coordination, horizontal coordination, network governance, private actors as agents, polycentric and experimentalist governance, and coordination–contestation), capturing governance as a dynamic and relational process.
- Applying this framework shows that governance operates through hybrid arrangements in which private actors and networks function as constitutive elements of coordination and decision-making rather than as external participants.
- Within these arrangements, governance outcomes emerge from the interaction between coordination mechanisms and contestation dynamics, reflecting uneven influence, fragmented coordination, and continuous negotiation across levels and actors.
- The main governance challenge lies in persistent misalignments between authority, exposure, and participation, which can be addressed not by creating new institutions, but by re-orienting existing MLG arrangements, including through social innovation.

Executive summary

Objectives and approach

This report develops and empirically applies an integrated MLG framework for the analysis of twin climate and digital transitions in the European Union (EU). These transitions involve systemic transformations across sectors, governance levels, and public–private boundaries, requiring coordination under conditions of uncertainty, complexity, and rapid technological change. Classical, state-centric approaches to governance are insufficient to capture these dynamics.

To address this limitation, the report advances a dynamic, actor-inclusive and process-oriented MLG framework, structured around six analytical pillars: vertical coordination across governance levels; horizontal and inter-sectoral coordination; network governance; private actors as governance agents; polycentric and experimentalist governance; and the interplay of coordination and contestation.

The framework is applied to empirical evidence from climate and digital transition case studies in Finland, Latvia, Norway, and Poland. The analysis synthesises findings from previous project deliverables and examines how governance operates in practice across levels, sectors, and actor constellations, with particular attention to processes of coordination, participation, and influence.

Key findings

Governance of twin transition operates through hybrid, multilevel arrangements rather than hierarchical, state-centric systems. Governance outcomes emerge from the interaction of public institutions, private actors, and networked coordination mechanisms, reflecting a relational and process-oriented form of MLG.

A central finding is the constitutive role of private actors as governance agents. In both transitions, private actors control critical infrastructures, technologies, and investments, and therefore co-produce policy outcomes alongside public authorities. However, their influence is uneven and capacity-dependent, privileging larger and well-connected actors.

Governance is further structured by networked and informal coordination, which functions as an operational infrastructure compensating for fragmented formal arrangements. These networks enhance flexibility and learning but also introduce opacity and unequal access.

Governance dynamics are shaped by the interplay of coordination and contestation. Policy conflicts arise from distributive effects and institutional fragmentation, but contestation frequently triggers adaptation, renegotiation, and institutional learning rather than simply obstructing governance.

The most persistent challenge is the misalignment between authority, exposure, and participation. Strategic decision-making remains concentrated at EU and national levels,

while implementation responsibilities and societal impacts are localised. This creates legitimacy gaps, coordination failures, and uneven participation across actors and levels.

Main recommendations

Improving governance of the twin transition requires re-orienting existing MLG arrangements rather than creating new institutions. This re-orientation should prioritise stronger coordination and alignment within current structures, particularly by addressing persistent gaps between decision-making authority, implementation responsibilities, and societal exposure. Greater emphasis is needed on enhancing participation and feedback loops, ensuring that perspectives from subnational actors and affected communities are more effectively integrated into governance processes.

At the same time, governance should make more effective use of existing networked and informal coordination mechanisms, while mitigating their selective and opaque nature by improving inclusiveness and transparency.

The findings also highlight the importance of embedding social innovation within existing governance arrangements as an enabling mechanism. By strengthening mediation across levels, improving feedback, and supporting more meaningful participation, social innovation can help address structural misalignments and contribute to more inclusive and effective transition governance

Non-technical summary

Climate change and digital transformation are among the most significant challenges facing Europe today. Both require major changes in how societies function, affecting energy systems, industries, public services, and everyday life. These changes cannot be managed by governments alone. Instead, they involve many actors – public institutions, businesses, experts, and communities – working across different levels, from the EU to local municipalities.

This report explains how these complex transformations are governed and proposes a new way of understanding governance called an integrated MLG framework. Rather than focusing only on formal institutions, the framework highlights how decisions are shaped through interactions between different actors, including private companies and informal networks.

DeCrises research shows that in practice, governance of climate and digital transitions is highly interconnected and collaborative. Private companies play a major role because they control key technologies, infrastructures, and investments. Networks of stakeholders – such as partnerships, advisory groups, and expert communities – are essential for coordination and problem-solving, especially in situations where formal rules are not enough.

However, the findings also reveal important challenges. Decision-making power is often concentrated at higher – EU and national - levels, while local authorities and communities are responsible for implementation and are more directly affected by the outcomes. This creates a mismatch between who decides, who implements, and who is affected, which can lead to tensions and conflicts, especially when people feel excluded from decisions that affect them. At the same time, conflict can play a role in shaping better solutions.

The report concludes that improving governance does not require creating new institutions. Instead, it is important to use existing structures more effectively, ensuring better coordination, stronger participation, and more balanced distribution of influence. In this context, social innovation – new ways of organising and cooperating – can help bridge gaps between policies and real-life needs, making transitions more inclusive and effective.



List of abbreviations

AI	Artificial intelligence
EU	European Union
MLG	Multilevel governance
NGO	Non-governmental organisation
WP	Work Package

1. Introduction

Climate transition and digital transition represent two of the most transformative governance challenges of the EU in the twenty-first century. Both involve systemic restructuring that cuts across sectors, territorial levels, and public-private boundaries, while both demand policy coordination under conditions of uncertainty, complexity, and rapid technological change. Decarbonisation requires integrated governance spanning energy, transport, industry, waste management, agriculture, forestry, and land use, while digital transformation implicates infrastructure, data governance, and cybersecurity. Both intersect with industrial policy, competition regulation, and social rights, and both require adequate funding. Neither transition can be effectively governed through hierarchical state-centric models alone. Rather, both are characterised by overlapping competences, interdependence among actors, and significant roles for non-state entities, making them particularly suitable objects of analysis through multilevel governance (MLG) framework.

Originally formulated to explain the dispersion of authority in European integration (Marks, 1993; Hooghe & Marks, 2001), MLG has evolved into a broader analytical framework for understanding how decision-making authority is distributed across territorial levels and shared among multiple actors. Yet the contemporary demands of climate and digital transitions expose limitations in classical MLG formulations. Traditional models often emphasise institutional dispersion of authority but under-specify informal networks, private actor influence, experimentation, and cross-sector interdependencies that increasingly define transition governance. For this reason, DeCrises argues that an appropriated MLG framework for climate and digital transitions must move beyond static institutional mapping toward a dynamic, process-oriented, and actor-inclusive model.

This report synthesises and systematises theoretical and empirical findings of DeCrises Deliverables D1.1 and D1.2.[1] Methodologically, it adopts a qualitative, theory-informed approach to develop and apply an integrated MLG framework for climate and digital transitions. The framework is structured around six analytical pillars derived from the literature review on MLG: vertical coordination, horizontal coordination, network governance, private actors as governance agents, polycentric and experimentalist governance, and the interplay between coordination and contestation. The framework is applied to empirical evidence from climate and digital transition case studies in Finland, Latvia, Norway, and Poland to identify governance dynamics and challenges across different national contexts.

The report is divided into two chapters. Chapter 2 identifies the conceptual limitations of classical MLG and formulates six analytical pillars for an integrated MLG framework for twin transition. Chapter 3 applies the integrated MLG framework to empirical evidence from climate and digital transition case studies in Finland, Latvia, Norway and Poland. It provides cross‑sectoral empirical findings on private actor agency, networked coordination, and the interplay of coordination and contestation, and then applies the six-pillar framework to analysis. The chapter further explores how community‑based social innovation can function within existing MLG arrangements as an enabling mechanism. Central to this report's analytical framework is the distinction between actors and agents in MLG. An actor is an entity formally or informally present within a governance arrangement, recognised, consulted, or affected by policy decisions. An agent, by contrast, is an entity that shapes governance outcomes through the exercise of influence, whether via formal

[1] Available on DeCrises website: https://decrises.eu/

authority, resource leverage, knowledge production, or network centrality. The transition from actor to agent is therefore not a fixed institutional status but a capacity-dependent process, shaped by the resources, access, and strategies available to a given entity within a specific governance context. This distinction is analytically significant, as classical MLG scholarship has largely focused on mapping participation in governance while giving comparatively less attention to who influences the outcomes. As a result, influential presence is often conflated with actual decision-making power. Recovering and operationalising this distinction constitutes one of the central analytical contributions of this report.

2. Developing an integrated MLG framework for climate and digital transitions

2.1. Private actors in governance

One of the most significant adaptations required for an appropriated MLG framework for climate and digital transitions is the systematic integration of private actors as agents rather than treating them merely as external stakeholders or lobbying interests. As MLG recognises, authority and power are fragmented and dispersed both vertically across levels of government and horizontally across public and private actors, making decision-making a matter of negotiation, coordination, and network-based interaction rather than hierarchical command and control. While classical MLG scholarship focused primarily on the vertical dispersion of authority among supranational, national, and subnational public institutions (Marks,1993; Hooghe & Marks, 2001), contemporary transition governance increasingly demonstrates that many regulatory functions, implementation capacities, and even agenda-setting processes are shaped jointly by public and private actors. In climate and digital transitions in particular, governance outcomes are often co-produced through interactions between governments, firms, industry associations, investors, technological innovators, and transnational private networks. This requires moving beyond state-centric conceptualisations of governance toward a more actor-inclusive understanding of distributed authority.

DeCrises does this by appropriating private actors and agents into the MLG framework. Private actors matter in transition governance not only because they possess resources, but because they often hold capacities that public institutions do not. A central argument in this report is that influence in multilevel systems should not be equated solely with formal institutional authority (Table 1). Rather, private actors may exercise governance power through expertise, innovation, investment, network centrality, and proximity to decision-makers. In this sense, power becomes relational and process-based rather than exclusively territorial or formal. This perspective aligns with broader governance scholarship emphasising that authority can be exercised through non-hierarchical means and by actors beyond the state (Rhodes, 1997; Hall & Biersteker, 2002).

Table 1. Actor vs agent distinction

Dimension	Actor	Agent
Role in MLG	Present in governance processes	Shapes governance outcomes
Basis of involvement	Formal inclusion or participation	Capacity-based participation
Influence	Limited or indirect	Active and outcome-shaping
Analytical focus	Who is involved	Who actually matters

Climate transition governance offers clear examples of this shift. Decarbonisation strategies depend heavily on private actors because critical infrastructure, investment flows, technological innovation, and energy market operations are often controlled by business sector rather than governments. Utilities shape renewable deployment pathways; industrial actors influence decarbonisation trajectories in heavy industry; financial institutions increasingly affect climate governance through green finance and investment criteria; and technology companies play major roles in innovation ecosystems. These actors do not merely respond to policy incentives but frequently shape policy design itself. Regulatory frameworks in areas such as emissions markets,

energy efficiency standards, hydrogen development, and smart grids are often produced through negotiation between public institutions and organised private actors. As Braithwaite (2008) argues, contemporary regulatory capitalism increasingly relies on hybrid arrangements in which regulation is produced through interdependence between states and markets rather than state regulation alone.

Climate governance literature has increasingly recognised these dynamics. Hale (2020) demonstrates that transnational climate governance has become populated by non-state and hybrid initiatives that complement or sometimes compensate for limitations in intergovernmental cooperation. Similarly, Bulkeley and Betsill (2005) show that urban climate governance often depends on partnerships involving municipalities, firms, and civil society actors. These studies suggest that private actors are not peripheral participants in climate governance but embedded components of MLG arrangements.

Digital transitions make the importance of private actors even more pronounced. In many respects, digital transformation cannot be understood without placing private authority at the centre of governance analysis. Digital infrastructures are often privately owned, technological standards are frequently shaped through hybrid public-private processes, and large platform companies exercise forms of quasi-regulatory authority over markets, information flows, and even public discourse. In this context, companies are not simply regulated entities but actors involved in shaping governance itself.

The rise of platform capitalism has intensified this dynamic. Srnicek (2017) argues that digital platforms increasingly function as infrastructural actors with systemic influence over economic and social coordination. Their governance significance extends beyond market power into questions traditionally associated with public authority, including data governance, content moderation, competition regulation, and algorithmic accountability. This creates governance arrangements in which public regulators and private actors often jointly shape rules rather than occupying clearly separated roles of the regulator and the regulated.

This blurring of boundaries challenges traditional MLG assumptions. Classical models tended to analyse authority distribution among governmental levels, sometimes including societal actors as participants but not as co-constitutive sources of governance authority. Yet in digital governance, private actors often exercise regulatory functions directly. Hall and Biersteker's (2002) concept of private authority is particularly relevant here, showing how non-state actors may perform governance functions historically associated with states. Similarly, Cutler, Haufler, and Porter (1999) demonstrate that private authority can emerge through rule-making, standard-setting, and implementation processes beyond formal state structures.

Recognising private actors as agents does not imply that states have become irrelevant. Rather, it reflects the increasingly hybrid character of governance in transition domains. Public institutions remain central, but they govern through interaction with actors possessing specialised capacities. MLG frameworks must therefore account not only for vertical authority dispersion but for public-private co-governance arrangements.

This requires moving beyond broad categories such as "business actors" or "stakeholders" toward more systematic classification of private actors based on influence mechanisms. One important innovation in this respect is a capacity-based classification approach (see DeCrises deliverable D1.2 for a more expanded analysis). Rather than categorising actors solely by organisational form, actors can be classified according to how they influence or are influenced within governance

processes. Some derive influence through epistemic authority, such as expert communities and technical consultants. Others derive influence through entrepreneurial activity, particularly innovators capable of creating or scaling transition technologies. Others exercise influence through financial leverage, market coordination, lobbying proximity, or network brokerage across governance levels. Such a classification model strengthens MLG analytically because it links actor diversity to governance mechanisms. Rather than simply adding private actors into MLG descriptively, it provides a basis for explaining how different forms of private agency shape outcomes. This also helps address longstanding critiques that MLG under-theorises informal power and neglects asymmetries of influence (Papadopoulos, 2010; Piattoni, 2010).

Private actors also play important roles as intermediaries across governance levels. In both climate and digital transitions, many private entities function as brokers connecting supranational agendas, national regulation, regional implementation, and local experimentation. Industry associations may mediate between regulatory institutions and sectoral actors; technology companies may connect policy design with implementation infrastructures; financial actors may link global sustainability frameworks with national investment strategies. These brokerage roles make private actors particularly relevant in multilevel systems, where coordination challenges often revolve around connecting levels rather than merely distributing competences.

Their role is especially visible in innovation-driven transitions. Transition governance often depends less on top-down compliance than on enabling experimentation, diffusion, and scaling. Private actors frequently drive these processes. Renewable deployment, digital innovation ecosystems, smart infrastructure, and industrial decarbonisation all rely heavily on private initiative. Governance in these areas often consists not simply of regulating markets but shaping innovation systems jointly with private actors.

At the same time, integrating private actors into MLG raises important normative and analytical questions. Greater recognition of private authority should not obscure concerns about accountability, legitimacy, and power asymmetries. Some private actors may contribute to governance capacity; others may exercise disproportionate influence or regulatory capture. Indeed, one reason systematic classification is needed is precisely to distinguish forms of productive co-governance from problematic concentrations of influence. Papadopoulos (2010) and Schmidt (2006) emphasise that governance involving dispersed and hybrid authority raises significant democratic accountability challenges. An appropriated MLG framework must therefore incorporate private actors without romanticising their role.

Methodologically, recognising private actors as agents also reinforces the need for process-oriented approaches. Their influence often operates through informal channels, network interactions, and sequencing effects not visible through institutional mapping alone. Process-tracing and case analysis become particularly important for identifying whether and how private actors shape outcomes (Beach & Pedersen, 2013; George & Bennett, 2005). This further supports the argument that transition-oriented MLG must be both actor-inclusive and methodologically equipped to trace influence empirically.

Ultimately, treating private actors as agents represents not a marginal adjustment to MLG but a meaningful extension of the framework. Climate and digital transitions increasingly unfold through hybrid governance systems in which public and private authority intersect, overlap, and co-produce outcomes. An MLG framework that neglects this reality risks underestimating both how transitions are governed and where influence resides. For this reason, incorporating private actors

systematically is essential to an appropriated MLG framework for transition governance. It expands MLG beyond territorial authority mapping, reconceptualises power as relational and capacity-based, addresses informal and hybrid governance arrangements, and strengthens the framework's explanatory power in domains where public-private interdependence is foundational. In the context of climate and digital transitions, private actors are not peripheral participants in governance; they are increasingly among its constitutive actors.

2.2. Network governance and informal coordination

A key requirement for an appropriated MLG framework for climate and digital transitions is the systematic incorporation of network governance and informal coordination as core explanatory dimensions rather than peripheral supplements to formal institutional analysis. One of the longstanding criticisms of classical MLG has been that while it successfully maps the vertical dispersion of authority across territorial levels, it often under-theorises the informal, relational, and networked dimensions through which governance frequently operates in practice (Christiansen & Piattoni, 2003; Piattoni, 2010). This limitation becomes particularly significant in the governance of complex transitions, where coordination often emerges not solely through formal hierarchical institutions but through dense webs of negotiation, partnerships, epistemic exchange, and strategic interaction among public and private actors. In climate and digital transitions especially, governance increasingly occurs through formal and informal networks that connect actors across jurisdictions, sectors, and institutional arenas.

The intellectual foundations for integrating network governance into MLG can be traced to broader governance scholarship that challenged traditional hierarchical conceptions of the state. Rhodes (1997) argued that governance increasingly operates through self-organising interdependent networks rather than top-down state control. In this perspective, governing does not primarily occur through command but through negotiated coordination among mutually dependent actors. This insight has had profound implications for MLG, because authority dispersion across levels often generates coordination challenges that cannot be resolved solely through formal institutional rules. Networks frequently emerge as mechanisms for managing these coordination problems.

Policy network approaches contributed importantly to this perspective. Börzel (1998) conceptualised policy networks as relatively stable sets of public and private actors linked through resource dependencies and shared problem-solving. Her work was especially influential in connecting network governance to European governance and MLG scholarship. Rather than seeing governance structures simply as layered institutions, Börzel demonstrated that policy outcomes often emerge through relational structures linking actors horizontally and vertically. This insight remains highly relevant for transition governance, where networked interactions often shape both policy formulation and implementation.

Climate transition offer especially clear illustrations of governance through networks. Climate policy is often characterised by fragmented authority, cross-sector interdependence, and high uncertainty, conditions under which networks become particularly important. Formal institutions remain central, but many crucial governance functions occur through collaborative arrangements that cut across jurisdictional boundaries. Transnational municipal networks such as climate city alliances, public-private energy partnerships, innovation platforms, and trans-governmental regulatory networks often play major roles in agenda-setting, policy diffusion, and implementation coordination (Betsill & Bulkeley, 2006; Bulkeley & Betsill, 2005).

One of the major contributions of climate governance scholarship has been to show that cities and other subnational actors often do not simply implement policies designed elsewhere, but actively shape governance through network participation. Betsill and Bulkeley (2006) argue that city networks have become important arenas of multilevel climate governance in their own right. Such networks facilitate knowledge exchange, policy experimentation, norm diffusion, and coordination beyond traditional state structures. In many instances, they compensate for limitations in formal intergovernmental coordination.

Polycentric climate governance also depends heavily on network structures. Ostrom's (2010) conception of polycentric governance assumes multiple interacting centres of decision-making whose coordination often occurs through relational and networked mechanisms. This makes network governance not merely complementary to polycentricity but constitutive of how polycentric systems function.

Energy transition governance further demonstrates the importance of networked coordination. Dobravec et al. (2021) show that local energy initiatives frequently rely on collaborative governance arrangements involving municipalities, citizens, businesses, and intermediary organisations. These arrangements often function less through hierarchical control than through network coordination, illustrating how transition governance increasingly depends upon relational infrastructures.

Digital transition is similarly shaped by networks, although often in even more complex forms. Digital governance frequently operates through hybrid constellations involving states, supranational regulators, standards' organisations, private firms, technical communities, and transnational policy networks. Much digital governance occurs not solely through legislation but through standards-setting processes, technical governance communities, and multi-stakeholder arrangements. Slaughter (2004) highlighted how trans-governmental networks increasingly shape global governance, an insight especially relevant for digital regulation.

In digital transition, governance networks often perform functions of coordination under conditions where territorial jurisdiction alone is insufficient. Cybersecurity cooperation, data governance, artificial intelligence (AI) regulation, and internet governance frequently rely on networked forms of coordination because no single actor possesses full authority or expertise. Governance thus occurs through relational architectures linking multiple actors. This points to a broader theoretical implication: networks in MLG should not be understood merely as channels connecting actors within governance structures, but as governance structures themselves. Networks are not simply supplementary mechanisms operating around formal institutions; they often constitute core sites where governance is produced. This perspective also helps address longstanding critiques that classical MLG insufficiently incorporates informal governance. Christiansen and Piattoni (2003) emphasised that informal coordination often plays a major role in European governance yet remains difficult to capture through institutional mapping alone. Informal governance may involve elite bargaining, unofficial coordination channels, personal relationships, epistemic communities, or negotiated practices that shape outcomes without formal codification.

These informal dimensions are often particularly important in transition governance. Climate and digital transitions involve high uncertainty and evolving policy problems, conditions under which informal coordination can facilitate flexibility, trust-building, and experimentation where rigid institutional procedures may be inadequate. Informal networks may enable actors to coordinate

in advance of formal agreements, diffuse innovations, or broker compromises across fragmented governance arenas.

Epistemic communities represent one especially important network form in this context. Haas (1992) showed how expert networks can shape policy coordination through shared causal beliefs and authoritative knowledge. In climate and digital governance, epistemic communities often influence problem framing, policy design, and norm development. Their role underscores that network governance involves not only organisational linkages but also cognitive and knowledge-based coordination.

Advocacy coalition approaches also enrich understanding of network governance in MLG. Sabatier and Jenkins-Smith (1993) emphasise that policy change often occurs through coalitions of actors linked by shared beliefs operating across institutional venues. This is highly relevant for transition governance, where coalitions frequently span governance levels and sectors. Climate coalitions, digital rights networks, and innovation alliances often function as important drivers of governance change. Influence in multilevel systems may derive not only from formal authority but from network centrality and bridging capacity. Actors positioned at intersections of governance networks may exercise disproportionate influence by brokering information, coordinating actors, or linking otherwise disconnected arenas.

Network governance is also crucial for understanding policy coordination in conditions of fragmentation. Twin transition often involves overlapping competencies and fragmented jurisdictions that generate coordination problems. Networks can function as coordination mechanisms where hierarchical integration is absent or incomplete. Schout and Jordan (2005), for example, analyse European governance as involving important elements of self-organisation alongside central steering, highlighting tensions central to transition governance.

Yet network governance should not be romanticised. Networks may facilitate coordination, but they may also generate exclusion, opacity, or unequal influence. Informal coordination can privilege well-connected actors, obscure accountability, or reinforce power asymmetries. Papadopoulos (2010) raises these concerns regarding governance legitimacy in multilevel settings. Therefore, incorporating networks into MLG also requires attention to accountability and democratic implications. This is particularly important where private actors participate heavily in governance networks. As discussed in the previous section, transition governance often involves hybrid public-private networks. While these may enhance capacity and innovation, they may also raise concerns about capture or imbalance. Network governance analysis therefore must address not only effectiveness but also legitimacy.

Methodologically, integrating network governance into MLG also implies broader methodological pluralism. Traditional institutional analysis alone is insufficient for studying relational governance. Social network analysis provides one set of tools for mapping actor relations and influence structures (Borgatti, Everett, & Johnson, 2013). Process tracing can help identify how network interactions shape outcomes (Beach & Pedersen, 2013). Comparative case studies can examine variation in networked governance arrangements across contexts (George & Bennett, 2005). These methods reinforce the argument that network governance strengthens MLG not simply conceptually but explanatory.

Twin transition involves uncertainty that makes adaptive governance crucial. This points to experimentalist governance as another essential component of an appropriated MLG framework. Sabel and Zeitlin (2010) describe experimentalist governance as recursive problem-solving

through framework goals, decentralised implementation, peer review, and iterative revision. This model aligns closely with transition governance needs. Climate transition requires experimentation in renewable deployment, local adaptation, green industrial strategies, and governance innovation. Digital transition likewise involves regulatory experimentation, sandboxes, and adaptive responses to rapidly evolving technologies. An MLG framework incorporating experimentalism recognises governance not as fixed authority structures but as adaptive learning processes. This is particularly important because transitions are not governed once but continuously adjusted.

2.3. Coordination and contestation

Coordination in MLG refers to the capacity of actors across different levels to align policies, share information, and collectively solve problems that exceed the capacity of any single level of governance. In climate governance, for example, coordination is essential because emission reduction targets set at supranational or national levels require implementation by regional authorities, municipalities, and private actors. Similarly, digital governance depends on coordination between supranational regulators, national governments, and transnational companies operating across jurisdictions. Jordan (2001) highlights that the EU functions as an evolving system of MLG in which coordination is necessary but not automatic, as actors must continuously negotiate alignment across institutional boundaries. Coordination failures can lead to policy incoherence, regulatory gaps, or implementation deficits, all of which are particularly problematic in transition contexts.

Yet coordination alone is insufficient to capture the political dynamics of multilevel systems. One of the most important developments in MLG framework has been the recognition that governance structures are also arenas of contestation. Rather than assuming functional cooperation among levels, scholars have increasingly emphasised conflict, bargaining, and political struggle over authority, resources, and policy direction. Hooghe and Marks (2009; 2018), for instance, argue that European integration has become increasingly politicised, with conflicts over authority distribution, identity, and policy substance shaping multilevel dynamics. This post-functionalist turn in MLG framework highlights that governance is not merely a technical coordination problem but also a deeply political process.

Contestation in MLG arises from several sources. First, there are vertical conflicts over authority between governance levels. National governments may resist supranational intervention, while regional or local authorities may seek greater autonomy in policy implementation. Second, there are horizontal conflicts among actors operating at the same level, such as competition between cities, municipalities or businesses for resources, regulatory advantage, or political influence. Third, there are cross-sectoral conflicts between public and private actors, particularly in areas where private companies hold significant governance capacity, such as energy systems or digital platforms. These forms of contestation are not anomalies within MLG systems but constitutive features of them.

The coexistence of coordination and contestation in MLG systems creates a dual dynamic that is essential for understanding governance outcomes. Coordination enables collective action in complex systems, while contestation shapes the direction, content, and legitimacy of that action. Rather than being opposites, coordination and contestation are interdependent. Contestation often triggers new coordination mechanisms, while coordination arrangements can reshape the

terms of conflict. For example, disagreements over climate policy may lead to the creation of new governance forums, experimental policy instruments, or multi-stakeholder platforms designed to reconcile competing interests.

This duality has important implications for how MLG should be conceptualised. Classical MLG often leaned toward a relatively functionalist interpretation, emphasising problem-solving and interdependence. However, later scholarship has increasingly integrated insights from political sociology and critical governance studies, recognising that power asymmetries, conflict, and strategic behaviour are central to multilevel systems (Scharpf, 1997; Papadopoulos, 2010). In this view, MLG is not a neutral coordination mechanism but a contested governance space in which actors seek to shape outcomes according to their interests, resources, and institutional positions. Jessop (2002) further contributes to this perspective by conceptualising governance as a "strategic-relational" process, in which institutions provide structurally selective contexts that enable and constrain strategic action. Applied to MLG, this means that different governance levels are not neutral containers of authority but strategically selective environments that shape actor behaviour. This reinforces the idea that coordination and contestation are embedded in structural contexts that both enable and constrain political action.

Importantly, recognising MLG as a framework for both coordination and contestation also has normative implications. While coordination is often associated with efficiency and problem-solving, contestation is closely linked to democratic legitimacy, accountability, and pluralism. Papadopoulos (2010) emphasises that multilevel systems face persistent accountability challenges precisely because authority is dispersed across multiple levels and actors. Contestation, in this sense, is not merely disruptive but can be essential for ensuring responsiveness and legitimacy in governance systems.

In the twin transition, this normative dimension is particularly salient. Transition governance involves profound distributive consequences, affecting industries, employment, consumption patterns, and technological trajectories. As a result, contestation is not incidental but intrinsic to the political nature of transitions. Governance arrangements that suppress contestation may risk legitimacy deficits, while those that ignore coordination may fail to produce effective outcomes.

2.4. Integrated MLG framework for twin transition

The governance challenges of the twin transition expose both the strengths and limitations of classical MLG framework. An integrated MLG framework for twin transition must begin from the recognition that governance in transition contexts is fundamentally multi-dimensional. The framework thus has to move beyond a purely vertical understanding of governance toward a multi-dimensional conception that includes vertical, horizontal, and diagonal relations, which analytically can be captured through six pillars (Figure 1):

1) **The first pillar is vertical coordination across governance levels**. This remains a key focus because neither climate nor digital transitions can be governed effectively at a single level. EU climate targets require national implementation strategies, regional adaptation measures, and local execution. Digital regulation involves supranational rule-making (e.g., digital market regulation), national enforcement, and local infrastructure adaptation. However, unlike classical MLG, the integrated MLG framework treats vertical coordination not as a stable institutional arrangement but as **a continuously negotiated process**.

Coordination is dynamic, often contested, and subject to revision as policy goals, technologies, and political conditions evolve.

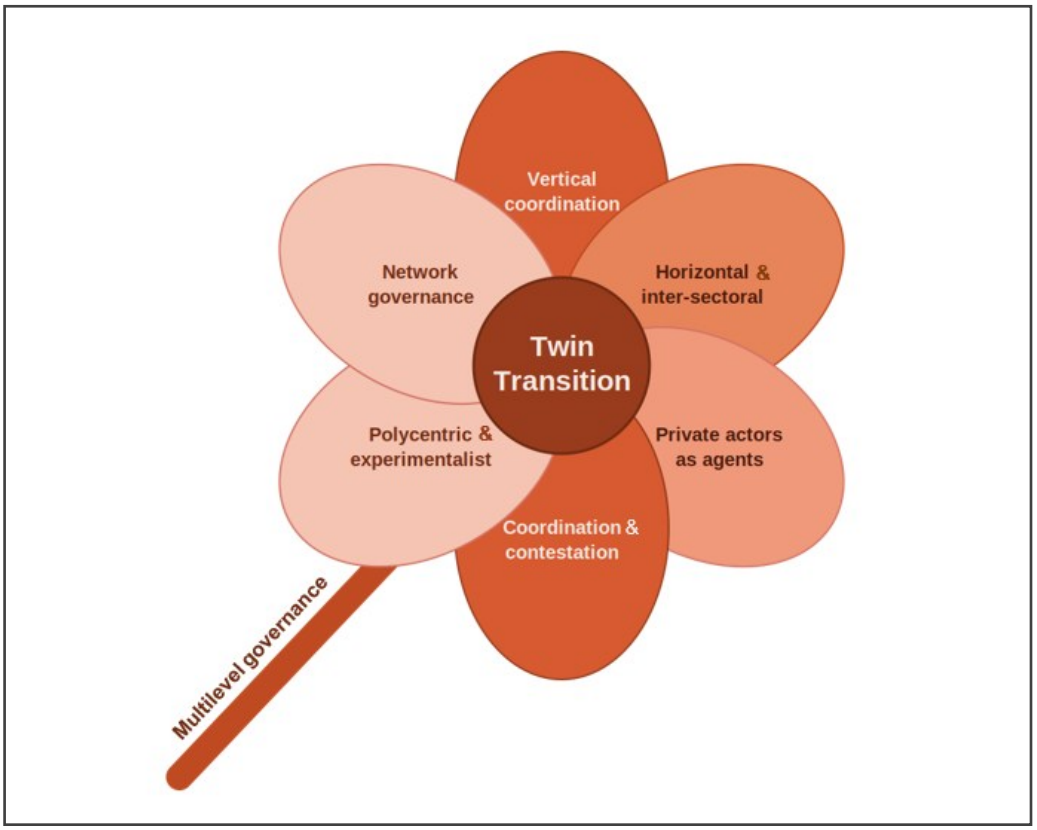


Figure 1. Integrated MLG framework for twin transition

2) **The second pillar is horizontal governance and inter-sectoral coordination.** Transition governance is inherently cross-sectoral. Climate policy intersects with energy systems, transport infrastructure, agriculture, forestry and waste management. Digital transformation intersects with data governance, security, and education. Both policy areas also intersect with each other (e.g. through smart transport grids), as well as with financial, industrial, competition, labour market and social policies. These interdependencies create coordination challenges that cannot be resolved solely through vertical governance. Horizontal coordination mechanisms – such as interinstitutional cooperation, cross-sectoral policy platforms, and intergovernmental forums – become essential. In an integrated MLG framework, horizontal governance is not secondary but constitutive of transition capacity.

3) **The third pillar is network governance and relational coordination.** As discussed in earlier sections, governance increasingly occurs through networks that connect public and private actors across levels and sectors. These networks are especially important in transition contexts because they facilitate information exchange, policy diffusion, and joint problem-solving under conditions of uncertainty. In climate governance, networks of cities, businesses, and transnational initiatives play a critical role in experimentation and implementation. In digital governance, trans-governmental regulatory networks and multi-



stakeholder platforms shape standards, norms, and regulatory practices. An integrated MLG framework therefore conceptualises networks not as auxiliary structures but as key **governance arenas where coordination and contestation occur simultaneously.**

4) **The fourth pillar is systematic incorporation of private actors as agents.** Transition governance is characterised by deep public-private interdependence. Private companies control key infrastructures, technological innovation, investment flows, and implementation capacities that are essential for both climate and digital transitions. Governance increasingly relies on hybrid arrangements where public authority and private capacity are intertwined. In an integrated MLG framework, private actors are **embedded participants who shape outcomes through expertise, investment, technological control, and network positions**. This requires a shift from viewing governance as state-centred coordination to viewing it as co-production among heterogeneous actors.

5) **The fifth pillar is polycentric and "experimentalist" governance.** Climate and digital transitions are characterised by uncertainty, complexity, and rapid technological change. Under these conditions, governance must be adaptive. There are multiple overlapping centres of decision-making that interact through coordination and competition. In the governance, iterative processes of goal setting, implementation, monitoring, and revision become crucial. In an integrated MLG framework, governance is not static but iterative and learning oriented. Policies evolve through cycles of experimentation and feedback across multiple levels and actors.

6) **The sixth pillar is recognition of contestation alongside coordination.** Unlike early functionalist interpretations of MLG, an integrated transition framework recognises that governance is inherently political. In transition governance, contestation is particularly pronounced because climate and digital transformations involve distributive consequences affecting industries, employment, and social structures. Contestation over policy direction, technological pathways, and regulatory authority is therefore intrinsic rather than incidental. An integrated MLG framework treats **contestation not as a failure of governance but as a constitutive dimension** that shapes coordination outcomes.

These six pillars together define an integrated MLG framework that is more capable of capturing the complexity of transition governance than classical models.

An integrated MLG framework has important **theoretical implications.** First, it shifts MLG from a static model of authority distribution to a dynamic model of governance processes. Second, it expands the scope of analysis beyond public institutions to include private actors, as well as networks, as constitutive elements of governance. Third, it reframes power as relational, process-based, and multi-dimensional rather than purely institutional. Fourth, it bridges coordination and contestation as coexisting dynamics that jointly shape governance outcomes.

The integrated framework **also requires a methodological shift.** Traditional institutional mapping is insufficient for understanding how transitions unfold. Instead, the framework should embed process-oriented and relational methodologies, particularly case analysis, process tracing, and network analysis.

Finally, the integrated framework provides **a more realistic account** of how climate and digital transitions are governed in practice. These transitions are not implemented through hierarchical command structures but through complex interactions among multiple actors operating across

levels, sectors, and institutional domains. Governance outcomes emerge from the interplay of coordination mechanisms, network relations, private actor strategies, and political contestation.

Twin transitions challenge governance systems in ways that make traditional hierarchical approaches insufficient. They involve cross-sector interdependence, distributed authority, uncertainty, private actor influence, and contested politics. These characteristics make MLG indispensable as an analytical framework, but they also require refinement of classical MLG. This report argues that an appropriated MLG framework for transition governance must be horizontally and vertically dynamic, actor-inclusive, polycentric, networked, and adaptive, ensuring not only efficiency but also legitimacy. Such an expanded framework strengthens MLG both analytically and explanatory, enabling scholars not only to map where authority lies but to understand how transition outcomes are produced through interactions among multiple actors across evolving governance architectures.

3. Empirical application of the integrated MLG framework to climate and digital transitions

3.1. Application of integrated MLG framework: analysis across six pillars

The empirical evidence from the climate and digital transitions across the four country cases – Finland, Latvia, Norway, and Poland – provides strong support for the integrated MLG framework. Across climate and digital transitions, governance does not operate primarily through hierarchical allocation of competences across levels, but through hybrid arrangements combining public authority, private capacity, networked coordination, and persistent dynamics of coordination and contestation. This section applies the integrated MLG framework, developed in Section 2.4. to the empirical findings from the climate and digital transition case studies. The aim of this section is to demonstrate how the six pillars manifest in practice and where persistent structural tensions emerge.

Vertical coordination across governance levels

Empirical evidence from the DeCrises case studies confirms that vertical coordination lies at the core of the twin transition governance, yet remains structurally imbalanced. Strategic agenda-setting, legal authority, and compliance mechanisms are concentrated at EU and national levels, while implementation responsibilities, social acceptance, and conflict management are delegated downstream to regions, municipalities, and local actors. This division creates enduring asymmetries between authority and exposure.

While formal coordination mechanisms exist – particularly in the form of national plans, reporting obligations, and compliance procedures – empirical findings show that vertical interaction is often procedural rather than dialogical. Feedback from subnational levels tends to occur late in the policy cycle, limiting opportunities for policy adaptations. As a result, vertical coordination functions more as a transmission belt than as a recursive governance process, reinforcing rather than correcting misalignments.

Where coordination mechanisms are weak, delayed, or procedural, contestation intensifies. In the climate transition, this manifests in local opposition to renewable energy projects and disputes over land use and cost distribution. In the digital transition, contestation centres on issues of capacity, accountability, privacy, and the imposition of digital obligations without adequate support.

Horizontal and inter-sectoral coordination

Across both climate and digital transitions, weak horizontal coordination emerges as a recurrent governance constraint. Policy responsibilities are distributed across multiple ministries, agencies, and sectoral domains, yet effective mechanisms for cross-sectoral alignment remain underdeveloped. This fragmentation is particularly evident where transition policies intersect with land use, industrial policy, social policy, digital infrastructure, or public service delivery.

Empirical evidence indicates that horizontal coordination failures at national level frequently cascade downward, increasing the implementation burden on subnational actors. Where coordination does occur, it is often ad hoc or crisis-driven rather than institutionalised. This

confirms the theoretical argument that horizontal governance is a constitutive dimension of MLG capacity in transition contexts.

Network governance and relational coordination

The findings strongly demonstrate that network governance constitutes a central operational layer of contemporary MLG. Formal hierarchical arrangements are consistently complemented – and even substituted – by dense networks linking public authorities, private companies, intermediary bodies, experts, and civil-society actors across levels and sectors. These networks function as a practical infrastructure through which governance is operationalised, reflecting that coordination in both transitions is mediated through webs of formal and informal interactions.

In both transitions, networks facilitate information exchange, problem-solving, and coordination under conditions of uncertainty and complexity. Advisory groups, public-private platforms, expert communities, pilot projects, and informal consultation channels function as sites where governance is practically produced. Empirically, these networks compensate for gaps in formal coordination, particularly where competences overlap or evolve rapidly. This is especially evident in the digital transition, where rapid technological change and high technical complexity increase reliance on informal, advisory, and experimental governance arrangements.

At the same time, the evidence confirms that network governance is inherently selective. Access, influence, and visibility within networks depend heavily on technical expertise, resources, and proximity to decision-makers, whether institutional or relational. This selectivity reinforces structural advantages for well-resourced actors and contributes to opacity of the governance process, which reinforces the theoretical insight that networks are not neutral coordination devices but governance structures with distributive effects that shape whose knowledge and interests are prioritised.

Private actors as governance agents

Across all cases, private actors emerge as structurally embedded governance agents rather than external stakeholders. In climate transition, private companies control key infrastructures, investment flows, and technological pathways. In digital transition, private actors dominate platforms, data ecosystems, and technical standards. Public authorities therefore govern through interaction with private capacities rather than through hierarchical control alone. This confirms that governance across both transitions is characterised by structural public–private interdependence, where policy objectives are co-produced.

Empirically, private influence is exercised through multiple channels: expertise, ownership of infrastructures, financial leverage, innovation capacity, and network centrality. At the same time, the findings reveal strong asymmetries within the private sphere. Large firms and well-resourced non-state organisations are consistently better positioned to engage with MLG processes than smaller actors or community-based initiatives. This uneven distribution of influence reflects persistent participation barriers for small and medium-sized enterprises and local innovators and confirms that private authority is capacity-based, deriving from control over resources, infrastructures, and knowledge rather than formal delegation. It also highlights the need to address accountability and legitimacy gaps arising from the growing governance role of private actors.

Polycentric and experimentalist governance

The empirical material confirms the presence of multiple, overlapping centres of decision-making across governance levels and actor types, reflecting a polycentric governance landscape. Both transitions rely on experimentation, pilot initiatives, and learning-oriented approaches to address uncertainty and technological change.

However, while experimentation is observed, its institutionalisation remains limited. Pilot projects and innovative initiatives often remain isolated, with weak feedback mechanisms linking them to mainstream policy cycles. As a result, learning is fragmented and scaling is uneven. This confirms the theoretical insight that polycentricity alone does not guarantee effective governance; it must be coupled with mechanisms that connect experimentation to decision-making and revision across levels.

Coordination and contestation

Empirical findings affirm that coordination and contestation are inseparable dynamics within MLG systems. Both climate and digital transitions generate distributive impacts that provoke political, social, and territorial conflict. These conflicts arise vertically (between governance levels), horizontally (between sectors or actor groups), and diagonally (between public and private actors). Empirical evidence further shows that contestation is closely linked to coordination failures, particularly where vertical misalignments or delayed participation limit opportunities for early engagement. Rather than signalling governance failure, contestation frequently acts as a driver of institutional adaptation. Disputes over responsibilities, costs, or impacts often trigger new coordination mechanisms, renegotiation of roles, or procedural adjustments. Crucially, where participation is early and meaningful, contestation remains productive and contributes to adaptive governance; where it is late or symbolic, conflict tends to harden, reducing legitimacy and undermining implementation effectiveness. This confirms the theoretical proposition that MLG must be understood as a political governance space, where conflict and cooperation jointly shape outcomes.

Taken together, the six-pillar analysis demonstrates that existing MLG arrangements provide substantial governance capacity for the twin transition, but deploy this capacity unevenly. Persistent misalignments between authority, exposure, and participation recur across pillars and across transitions. The empirical evidence thus supports the core theoretical claim of the report: the primary challenge of transition governance lies not in institutional absence, but in how existing structures organise power, coordination, and voice.

Applying the integrated MLG framework helps reveal where current governance systems systematically constrain effectiveness and legitimacy, and where targeted re-orientation – rather than institutional overhaul – can strengthen just and effective climate and digital transitions.

3.2. Re-using existing MLG arrangements: social innovation as an enabling governance mechanism

The six-pillar analysis demonstrates that the governance challenges of the twin transition stem less from the absence of MLG institutions than from how existing arrangements distribute authority, coordination capacity, and participation. Persistent misalignments – between strategic

decision-making and implementation responsibility, between horizontal policy domains, and between influential and highly exposed actors – undermine both effectiveness and legitimacy. Against this background, this section examines how community-based social innovation can operate as an enabling mechanism within existing MLG systems.

In DeCrises, social innovation is not defined as a fixed category but as a dynamic and evolving process of interaction through which new forms of social relations emerge, stabilise, and transform over time.[2] The empirical evidence from DeCrises case countries shows that social innovation contributes to solving structural imbalances in MLG by **activating, mediating, and re-orienting existing governance relationships**. Its relevance lies in how it interacts with the six pillars of the integrated MLG framework, particularly where formal arrangements prove insufficiently adaptive, inclusive, or responsive.

A recurring empirical pattern across the case studies is the **mismatch between exposure and influence** (see DeCrises Deliverable D1.2). Communities, local initiatives, and non-governmental organisations (NGO) are often directly affected by climate and digital transition policies, yet their role in shaping policy objectives and implementation pathways remains limited. This pattern reflects the vertical and horizontal coordination constraints, where strategic authority is centralised while implementation and societal consequences are decentralised. In this context, **social innovation emerges as a governance response to structural misalignment**. Community-based initiatives frequently act as intermediaries between abstract policy goals and place-specific realities, translating objectives into practices that are socially intelligible and locally feasible. Rather than replacing formal decision-making, they compensate for gaps in upstream engagement and weak feedback loops by bringing local knowledge, practical experience, and social legitimacy into governance processes that would otherwise remain technocratic or sectorally fragmented.

When viewed through the six-pillar framework, the governance contribution of social innovation becomes clearer. Drawing on examples from different regions in Europe and the world, it becomes evident how social innovation can enhance the quality can enhance the quality of MLG (Table 2):

- In terms of **vertical coordination**, locally grounded initiatives provide channels for upward feedback that are otherwise delayed or filtered through administrative hierarchies. They make visible implementation challenges and distributional effects that tend to surface only after policy adoption. While this feedback is often informal and weakly institutionalised, it nonetheless shapes adaptive adjustments and negotiated solutions. For example, resident-driven initiatives such as the “Heart of Mukkula” network in Lahti, Finland, illustrate how social innovation ecosystems emerge through sustained interaction among diverse local actors, including residents, public authorities, and intermediary organisations (Parjanen & Passila, 2025). Rather than functioning as a formal participation channel, the network operates through ongoing, practice-based collaboration and knowledge co-creation, where resident experiences are actively mobilised and combined with expert and administrative knowledge to inform urban development. Its governance role lies in

[2] Arora, C. & Hopp, J.Z. (2026, May 5). Social innovation: why is the definition messy - and why does that matter? *DeCrises.* https://decrises.eu/news/social-innovation-why-definition-messy-and-why-does-matter

enabling bottom-up initiatives, facilitating brokerage between actors, and supporting collective management of local development processes.

- Regarding **horizontal coordination**, social innovation initiatives often cut across policy silos that remain administratively separated at higher levels. Climate and digital transitions frequently intersect with housing, mobility, social inclusion, education, and regional development. Community-based initiatives respond to these intersections pragmatically, addressing multiple objectives simultaneously and thereby compensating for the lack of integrated horizontal governance at national or supranational levels. For example, the Kibera (Kenya) bio-energy centres combine energy provision, sanitation services, and community spaces within a single intervention, thereby linking infrastructure, health, and social development domains through shared practices and local management arrangements (Moulaert & MacCallum, 2019). Similarly, digitally enabled rural platforms in China that connect farmers with urban consumers operate across agricultural production, digital infrastructure, and market access (Phillips et al., 2024), illustrating how interaction-based coordination emerges across sectors that remain institutionally separated in formal governance arrangements

Table 2. Role of social innovation across MLG pillars

MLG pillar	Limitation in current MLG	Role of social innovation
Vertical coordination	Weak feedback from local level	Facilitates bottom-up input and mediation
Horizontal coordination	Fragmented policy domains	Integrates issues across sectors
Network governance	Selective and uneven participation	Creates inclusive interaction spaces
Private actors	Dominance of large actors	Introduces civic and community-based agency
Experimental governance	Isolated pilot initiatives	Enables local experimentation, adaptation and learning
Coordination/contestation	Late-stage conflict	Channels contestation into deliberation

- Social innovation also operates through and reinforces **network governance**. Many initiatives are embedded in informal networks linking municipalities, NGOs, private companies, experts, and citizens. These networks mirror the broader relational architecture of MLG, enabling coordination in the absence of strong formal steering. At the same time, their informal nature raises concerns about selectivity, sustainability, and unequal access, highlighting that social innovation does not bypass governance trade-offs but operates within them. Network governance is visible in cases such as urban civic networks in Bari, Italy, where neighbourhood-level activities are coordinated through proximity-based relations between civic actors, associations, and local authorities, relying on ongoing interaction rather than formal hierarchy networks (Ricciardelli et al., 2020). Similarly, the *Som Energia* cooperative in Spain organises energy production and consumption through a decentralised member network, where coordination is achieved via shared governance practices and digital interaction infrastructures, while remaining

dependent on voluntary participation and collective engagement (Belda-Miquel et al., 2016).

- Empirical findings highlight that social innovation expands the understanding of **agency within MLG** beyond market-driven private actors. While large businesses often act as governance agents, social innovation reveals forms of collective, civic, and community-based agency that also shape governance outcomes. These actors typically lack formal authority or economic leverage, but exercise influence through facilitation, trust-building, mediation, and local problem-solving capacities. Their contribution thus complements other forms of private authority. For example, the case of the Grameen Bank in Bangladesh illustrates how social innovation can enhance the agency of economically marginalised populations by restructuring access to financial resources (Genov, 2021). Through group-based microcredit schemes, borrowers - primarily women without collateral - were encouraged to participate in collective lending arrangements that combined financial provision with mutual accountability and peer support. This model not only enabled access to credit but also created new social relations and decision-making capacities at the community level, allowing participants to engage more actively in economic life (Genov, 2021). Likewise, the initiative *Circo Social Ecuador* provides an example of how social innovation can strengthen agency among socially vulnerable youth through participatory cultural practices. By engaging participants in collaborative circus activities, the initiative fostered skills such as cooperation, self-expression, and collective problem-solving, while also building trust and social cohesion within marginalised communities (Phillips et al., 2024). These practices create spaces in which individuals can redefine their roles and capacities, thereby enhancing both individual confidence and collective action potential.

- Social innovation further aligns with the **polycentric and experimentalist dimension** of the integrated MLG framework. Many initiatives function as sites of experimentation, testing governance practices, participation formats, or implementation approaches under real-world conditions. However, without predictable linkages to decision-making and learning mechanisms, experimentation risks remaining isolated, reinforcing the diagnosis that polycentric governance without institutionalised feedback produces limited systemic change. For example, the Bologna Regulation on Collaboration between Citizens and the City for the care and regeneration of urban commons (City of Bologna, 2014) is a regulatory innovation model based on “circular subsidiarity and civic collaboration” that translates into concrete practices of co-design and co-maintenance of urban commons, where the boundaries between public authority and citizens are continuously reworked through shared spaces and care interventions. In parallel, initiatives such as the Olinda transformation in Milan – where a former psychiatric institution was reconfigured into a community-oriented space (Moulaert & MacCallum, 2019) – illustrate how experimentation can redefine institutional boundaries and social practices locally.

- Social innovation plays a critical role in shaping the relationship between **coordination and contestation**. By involving affected actors earlier and more substantively, community-based initiatives can channel conflict into deliberation and negotiated adjustment rather than resistance. Where participation is meaningful, contestation contributes to governance responsiveness. Where it is absent or symbolic, social innovation remains marginal, and contestation hardens. This reinforces the conclusion

that social innovation does not eliminate conflict but helps determine whether conflict becomes productive or disruptive. For example, empirical cases such as the *Alliance against Energy Poverty in Barcelona*, formed to fight for universal access to water and energy as a basic human right, demonstrate that collective organisation and negotiation processes can transform social conflict over resource access into structured engagement with public authorities (Moulaert & MacCallum, 2019). Through community assemblies and legal victories such as Catalan Law 24/2015 - which legally prohibits utility companies from cutting off water, electricity, and gas to vulnerable families without prior approval from social services - the alliance has empowered vulnerable households and strengthened their protection against utility disconnections.

In sum, social innovation is most effective when understood not as an alternative governance model, but as a **mechanism for re-balancing interaction within existing MLG arrangements**. It strengthens coordination where formal mechanisms are weak, enhances legitimacy where authority and exposure diverge, and supports learning where governance must operate under uncertainty. This positions social innovation as a key bridge between the analytical diagnosis of MLG limitations and the identification of feasible governance improvements within existing institutional constraints.

4. Conclusions

This report demonstrates that while MLG remains an indispensable analytical framework, its classical formulations are insufficient to explain how contemporary transitions are governed in practice. Climate and digital transitions unfold through governance arrangements that are more hybrid, networked, and contested than traditional models assume, and they require corresponding conceptual refinement.

The integrated MLG framework developed in this report advances the literature by moving beyond static, territorially focused accounts of authority distribution. The six pillars – vertical coordination, horizontal and inter-sectoral coordination, network governance, private actors as governance agents, polycentric and experimentalist dynamics, and the interplay of coordination and contestation – together provide an analytical structure that captures how authority, capacity, and influence are exercised across levels and actor types in transition contexts. This framework allows governance to be analysed as a dynamic and relational process rather than a fixed institutional architecture.

The empirical synthesis of climate and digital transition case studies confirms the explanatory value of this integrated approach. Across both transitions, governance capacity is not absent, but unevenly deployed. Strategic authority is concentrated at EU and national levels, while implementation responsibilities and societal exposure are decentralised to subnational actors and communities. Horizontal fragmentation persists across policy domains, increasing reliance on informal coordination and networks. Private business actors emerge as structurally embedded governance agents due to their control over infrastructures, technologies, and expertise, while civic and community actors often remain highly exposed but weakly influential.

Crucially, the findings show that networked and informal coordination are not peripheral to MLG, but function as its operational infrastructure. These networks enhance flexibility, learning, and problem-solving under uncertainty, yet also reproduce asymmetries of access and influence. Governance outcomes are shaped not only by coordination mechanisms but by sustained contestation over responsibilities, costs, and impacts. Contestation is thus not an anomaly but a constitutive feature of transition governance, capable of either enabling adaptive change or undermining legitimacy depending on how participation and deliberation are structured.

The main conclusion of DeCrises is that the primary governance challenge of the twin transition lies not in institutional absence, but in misalignments between authority, exposure, and participation within existing MLG arrangements. Addressing these misalignments does not require creating new governance levels or institutions, but re-orienting how existing institutions and processes are used. In this respect, community-based social innovation emerges as a key enabling mechanism. Empirical evidence from Europe and the world shows that social innovation contributes by mediating between levels, compensating for coordination gaps, strengthening feedback loops, and channelling contestation into deliberative and learning-oriented processes. Its governance value lies in how it re-configures interaction within MLG, rather than in replacing formal structures.



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AI disclosure statement

The authors used AI-based tools (M365 Copilot) to improve the language and clarity of this deliverable. These tools were used exclusively to enhance readability and did not contribute to the analysis, interpretation, or substantive content. All final content remains the sole responsibility of the authors.



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