

A review of policy coherence in three environmental policy areas in Ireland

Joanna O’Riordan & Richard Boyle
Institute of Public Administration, Ireland

Abstract

This paper reviews policy coherence in Ireland in respect of water, the circular economy and the bioeconomy. Policy coherence refers to the systematic promotion of mutually reinforcing policy actions across government in order to achieve agreed objectives. Policy coherence supports better governance. It has become prominent in the area of sustainable development as it is seen as critical to delivering on the United Nation’s Sustainable Development Goals, and ultimately better outcomes for citizens. The paper uses the Organisation for Economic Co-operation and Development’s recommendation on policy coherence for sustainable development as a framework of analysis in reviewing policy coherence in the three environmental policy areas. The paper concludes that Ireland is performing reasonably well in some aspects of policy coherence, for example there is a general orienting of government policy towards sustainable development, and some good examples of stakeholder engagement. However, a concerted effort is required to achieve the sort of policy coherence necessary to deliver transformative improvements in respect of water, the circular economy and the bioeconomy.

Keywords: governance, OECD recommendation, policy coherence, sustainable development

Introduction

Policy coherence – consistency in policy and regulation across government – is not a new concept. Sometimes, more colloquially, referred to as ‘joined-up government’ (Bogdanor, 2005), it reflects the idea that no one government organisation or tier of government can

unilaterally develop and implement policy on its own. Rather, effective policy implementation and the achievement of successful outcomes require collaboration and coordination across government. Policy coherence has been a particular focus of enquiry in the broad sustainability and environmental policy area 'to better understand intersectoral policymaking and steering governance complexity' in the context of the 2030 Agenda for Sustainable Development (Righettini & Lizzi, 2022).¹ Areas of environmental policy, for example, water, climate or land-use policy, are widely regarded as 'wicked problems' – that is, complex policy challenges that require a coordinated, cross-government response and where there is no obvious solution (Head & Alford, 2015). This further heightens the need for policy coherence to support effective policy development and implementation.

This paper reviews policy coherence in respect of three environmental policy areas – water, the circular economy, and the bioeconomy. The discussion and analysis draw on the findings of two research programmes reviewing governance arrangements in respect of environmental policy, carried out by the Institute of Public Administration on behalf of the Environmental Protection Agency (EPA) between 2020 and 2024 (Boyle et al., 2021; O'Riordan et al., 2021, 2022; O'Riordan, Boyle & Keating, 2025). The EPA initially identified a review of water from a governance perspective in order to ascertain whether new governance arrangements, put in place under the second-cycle *River Basin Management Plan* (Government of Ireland, 2018a), were leading to better outcomes in respect of water quality. The interest in governance arrangements in respect of the circular economy and bioeconomy was similarly prompted by a desire to improve outcomes. Ireland's circular material use rate (the extent to which material resources used come from recycled waste materials) was 1.8 per cent in 2022, significantly below the European Union (EU) average of 11.5 per cent (Eurostat, 2024).

The paper uses the recommendation on *Policy Coherence for Sustainable Development* (PCSD) of the Organisation for Economic Co-operation and Development (OECD, 2019) as a lens to review the effectiveness of policy coherence in the three areas. As far back as 1996, the OECD was describing the need for policy coherence as 'one

¹ The Sustainable Development Goals are a collection of seventeen global objectives established by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development. These goals aim to address a broad range of interconnected global challenges, including poverty eradication, environmental sustainability, social equity and economic growth, under the guiding principle of 'leaving no one behind'.

of the perennial challenges of governance’ (OECD, 1996, p. 3). Subsequently, the Development Assistance Committee of the OECD defined policy coherence ‘as the systematic promotion of mutually reinforcing policy actions across government departments and agencies creating synergies towards achieving the agreed objectives’ (OECD, 2020). In order to support national governments in enhancing policy coherence, the OECD developed a recommendation on PCSD (OECD, 2019). The PCSD framework was developed ‘to equip policy-makers with the necessary mechanisms and tools to address economic, social and environmental priorities in an integrated manner’ (OECD, 2024, p. 9). Ireland is an adherent to the recommendation and has provided feedback in general terms in respect of PCSD (OECD, 2024).

Context

The EPA’s *State of the Environment Report* (EPA, 2024, p. 16) draws attention to the inter-related nature of environmental policy, noting that ‘we need to build momentum towards delivering on not only climate but also our biodiversity, water, circular economy and pollution reduction goals. Delivering on these goals will require transformational change in many of the core systems of our society and will involve everyone’. One of the five key priorities in respect of Ireland’s environment is described by the EPA as ‘Driving policy implementation’. The EPA further indicates that ‘policy coherence – ensuring that sectoral policies are aligned with environmental goals – is an important prerequisite to effective implementation’ (EPA, 2024, p. 462).

Water policy and governance arrangements

Policy in respect of water in Ireland is the responsibility of the Department of Housing, Local Government and Heritage (DHLGH). The Water Framework Directive (WFD) (2000/60/EC) is an EU directive that seeks to protect and improve water bodies, including rivers, lakes, groundwater and coastal water. The WFD objectives are implemented in member states through river basin management plans (RBMPs), which are reviewed and updated every six years.

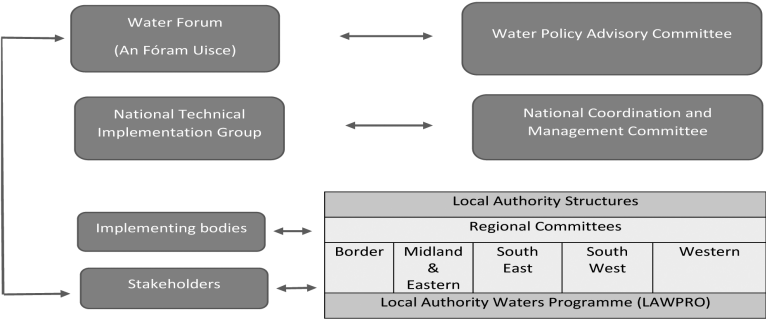
Governance arrangements under the first-cycle RBMP were criticised. In its assessment of the first-cycle RBMP, the European Commission observed that ‘there was no single body having ultimate responsibility’ and that ‘fragmented institutional structures, poor intra

and inter-institutional relationships and capacity, undermined the ability to both develop and implement plans' (Government of Ireland, 2018a, p. 117). In response, DHLGH created new structures and processes for water governance for the second-cycle plan (Figure 1). The new structures encompassed high-level oversight and policy advice (the Water Policy Advisory Committee (WPAC), advised by the Water Forum); technical support and problem-solving (the National Technical Implementation Group and the National Coordination and Management Committee) and implementation and stakeholder engagement (the Local Authority Waters Programme,² local government, and other implementing bodies). The new structures sought to enhance central oversight and direction, improve cross-government engagement and policy coherence, and to facilitate better engagement with both government and non-government stakeholders.

Ireland's third-cycle RBMP, the *Water Action Plan*, was published in September 2024 (DHLGH, 2024). It maintains the structures and processes put in place under the second-cycle plan but, based on feedback from the EPA–Institute of Public Administration research (Boyle et al., 2021; O'Riordan et al., 2021), seeks to enhance aspects of the governance arrangements, in particular incorporating an increased emphasis on roles, responsibilities and relationships. Governance measures in the plan include a review of the terms of reference of the cross-government oversight groups at tier one to refocus their objectives and purpose, and to ensure effective implementation of the integrated catchment plans. In addition, the relationship between WPAC and the stakeholder group, An Fóram Uisce, will be enhanced through attendance by the chairperson of the forum at WPAC meetings and through a memorandum of understanding between the two bodies. Lastly, and to ensure ownership of the RBMP, a newly formed section within DHLGH's Water Division, the Programme Delivery Office, will support the

² The Local Authority Waters Programme (LAWPRO) was established in 2016 as a local government shared service working on behalf of all thirty-one local authorities in Ireland. LAWPRO is managed jointly by Tipperary and Kilkenny County Councils on a shared-service basis for all local authorities. LAWPRO's objective is to coordinate local government's response to measures in the priority areas for action specified in successive river basin management plans and aimed at achieving good water quality. LAWPRO scientists work to build knowledge in respect of specific catchments, while those on the communities side of the organisation meet with, listen to and support those living and working in those catchments.

Figure 1: Water governance structures established under the second-cycle *River Basin Management Plan, 2018–2021* (Government of Ireland, 2018a)



implementation of the next RBMP across departments, local authorities, EPA and other key agencies and stakeholders, and will provide clarity and direction to the various implementation bodies responsible for water quality.

Circular economy policy and governance arrangements

The circular economy is one which seeks to minimise the environmental impact of economic growth. It is not just about better waste management or more recycling, it is about breaking the cycle of wasteful resource extraction, unsustainable consumption and unnecessary disposal. The overarching aim of the circular economy is to integrate sustainability into our economic model (Government of Ireland, 2020). The *Whole of Government Circular Economy Strategy 2022–2023* was published in late 2021 (Government of Ireland, 2021). One of the main aims of the circular economy strategy (CES) is to provide a joined-up national policy framework in respect of the circular economy and to draw attention to how the circular economy relates to a wide range of different policy areas across government. A Circular Economy Act (2022) has also been passed by government. It is anticipated that an updated CES will be published in 2025.

The Department of the Environment, Climate and Communications (DECC) has lead responsibility for circular-economy policy in Ireland. In order to ensure a coordinated approach to the implementation of circular-economy and waste policy in Ireland, the CES proposed the establishment of a cross-government working

group (Government of Ireland, 2021), though this had not happened as of spring 2025. Terms of reference for the group and an indicative work programme are included in the CES. The three proposed work areas for the group are awareness-raising in respect of the circular economy, mapping the circular economy and improving policy coherence, and policy development, in particular oversight of successive circular economy strategies (Government of Ireland, 2021).

Bioeconomy policy and governance arrangements

The bioeconomy utilises the products, services, waste and side-streams from sectors such as agri-food, forestry, marine and aquaculture more sustainably (Government of Ireland, 2023, p. 2). While there are areas of convergence, there are also distinctions between the circular economy and bioeconomy, and many countries, including Ireland, treat them as discrete policy areas.

Policy responsibility for the bioeconomy is mandated to the Department of Agriculture, Food and the Marine (DAFM) and DECC under the *National Policy Statement on the Bioeconomy* (Government of Ireland, 2018b). Following on from the publication of the *National Policy Statement on the Bioeconomy*, a cross-government Bioeconomy Implementation Group (later reorganised and renamed the Bioeconomy Implementation Development Group (BIDG)), jointly chaired by DAFM and DECC, was established, recognising the need for cross-departmental (eleven departments) and agency (eight agencies) engagement to guide bioeconomy policy development and implementation. This was followed in 2021 by the setting up of a stakeholder group, the Bioeconomy Forum, and a supportive expert advisory group to the forum.

The BIDG, supported by the Bioeconomy Forum, developed a *Bioeconomy Action Plan*, published in autumn 2023 (Government of Ireland, 2023). The purpose of this plan is to further develop Ireland's bioeconomy and support the delivery of the vision included in the 2018 *National Policy Statement on the Bioeconomy* (Government of Ireland, 2018b). One of the measures set out in the plan is a commitment to develop a national bioeconomy strategy, in order to promote the whole-of-government nature of the bioeconomy and the importance of a more coordinated approach. It is indicated that this will be published by the end of 2025.

Policy coherence and governance

In the academic literature, ‘governance’ is a contested term. It is about how organisations are run and the oversight and accountability that is encompassed in this process (Hughes, 2023). Accountability is inherent in the concept of governance, each needing the other to be effective. As Bovens (2010, p. 963) argues ‘there is no accountable governance without accountability arrangements’. However, governance is not only about better ways of working, it is also about delivery and outcomes. This is highlighted in the OECD’s overarching definition (2020), ‘governance is about meeting the needs of, and improving outcomes for, people’. In the public service this equates to implementing government policy, which is why the term is sometimes seen as synonymous with public management (Frederickson, 2004).

In understanding the challenges in addressing so called ‘wicked problems’, the need for a collaborative approach is typically emphasised (Head & Alford, 2015). Various governance models have been put forward to describe approaches that have been taken to try to address the issue of improved collaboration to address policy issues that cut across organisations, networks and levels of government. (Tönurist & Hanson, 2020). More recently, robust governance has been proposed as a means of providing insights into ‘how governance structures can be designed, led and managed where complex interactive change is normal rather than exceptional’ (Ansell, Sørensen & Torfing, 2023, p. 4).

The relevance of policy coherence to managing the complex range of priorities, conflicts and trade-offs inherent in modern government has been recognised for several decades (Howlett & Rayner, 2007). However, the issue has gained renewed prominence in respect of the United Nations Sustainable Development Goals (Nilsson & Weitz, 2019; Righettini & Lizzi, 2022). Within the ongoing context of ‘polycrisis’ and ‘permacrisis’, it is necessary for governments to balance short-term responses to a range of issues, including war, global migration, energy supply, food security, and long-term sustainability commitments.

This requires strengthening the capacity of national governments to address issues in an integrated and collaborative way. Policy coherence is critical for addressing interactions between economic, social and environmental areas in a balanced manner. This coherence needs to encompass horizontal coherence (between policy domains), vertical coherence (between different levels of government), internal

coherence (consistency within a policy domain) and multilateral coherence (with international organisations) (Nilsson & Nilsson, 2005). Policy coherence also applies to all stages of the policy process, with Cejudo and Michel (2017) noting that it can be understood as a policy attribute but also as an objective of the policy process. This is consistent with Kivimaa et al.'s (2024) assertion that coherence can be evaluated at the level of objectives, outputs or outcomes. Objectives express desired directions, outputs refer to specific 'products' that policies deliver, and outcomes focus on consequences of policies.

The OECD has placed policy coherence at the centre of governance, noting that 'it could be argued that PCSD is a proxy for public governance for sustainability' (OECD, 2023, p. 15). By way of further explanation, the OECD add 'policy is about the vision, the goals, strategies, targets, timelines and measures. Governance is the other side of the coin. It is not about what should be done and when, but how to get it done and who should be involved' (OECD, 2023, p. 15).

However, policy coherence remains an elusive concept as it is neither easy to define in a normative way nor to measure objectively (Bocquillon, 2018). Furthermore, coherence is all too often assessed ex-post and only given due attention when it appears it is lacking, with these situations arising most notably when potential linkages between policy domains have been overlooked; conflicts in objectives have remained implicit and/or unresolved; or, where the real, 'on-the-ground' realities impacting implementation have not been taken into consideration (Setec Hydratec, 2022). Similarly, the OECD (2023, p. 14) notes that '[a] lack of policy coherence across sectors and levels of government risks leading to fragmented government action; inefficiency, overlaps and duplication; and higher costs in government operations'.

In considering policy coherence, a further challenge for government can be to go beyond what has been termed 'low-ambition coherence', which mainly focuses on improving consistency across sectors and minimising trade-offs, but instead designing and delivering synergistic solutions that will achieve more transformative outcomes (Pender et al., 2024). However, as Nilsson and Weitz (2019) conclude, this level of integration requires deeper systemic and cultural change. These are government-wide issues. The OECD (2023) has set out a range of skills and capabilities to improve policy development and implementation in Ireland oriented at enhancing cross-government collaboration, systems thinking and governance.

The close alignment between governance and policy coherence means that governance can be understood as an enabler of policy coherence. According to Meuleman (2021), one of the reasons why complex policy challenges are often difficult to solve is that political, administrative and societal debates on sustainable development and other global and transboundary challenges tend to focus more on the 'what', than on the 'how'. This is a risky imbalance: political actors, policymakers and stakeholders, in addition to developing policy solutions need to give attention to the administrative, institutional and relations machinery which are needed to effectively deliver the results. Cairney (2025, p. 30) goes even further in warning against 'a naïve expectation that attempts to foster better processes produce better policies'. He further emphasises that achieving integration and coherence is, in essence, a political process and therefore inherently unpredictable and unstable given shifting political priorities as new governments are formed following elections.

All of this means that robust governance processes that support policy coherence are not easy to implement. They entail, at a minimum, political commitment, coordination and collaboration across government, stakeholder engagement, a focus on capacity-building and the sharing of learning, a targeted and diverse approach to regulation, and a central focus on data and evaluation (Boyle et al., 2021; O'Riordan et al., 2021). In summary, delivering on better governance and policy coherence requires painstaking and careful endeavour. However, the goal of better environmental outcomes for citizens, makes it worthwhile.

Methodology

This paper reviews policy coherence in respect of water, the circular economy and the bioeconomy. Findings are drawn from research carried out between 2020 and 2024 as part of two research programmes on behalf of the EPA. During this time, more than eighty interviews were conducted with personnel working across the governance structures of the three policy areas. In addition, there was a participant workshop in respect of each research study, to validate emerging research findings. A mainly qualitative research approach was adopted due to the detailed and nuanced information being sought (Bryman, 2016). A detailed semi-structured interview schedule was developed and reviewed by the project steering group.

The paper uses the OECD’s recommendation on PCSD (OECD, 2019, 2021) as a framework to review the strengths and weaknesses of policy coherence in respect of the three policy areas of water, the circular economy and the bioeconomy. According to the OECD, the eight principles of policy coherence for sustainable development embodied in the PCSD recommendation comprise the core governance functions to effectively address environmental challenges as they provide a framework for embedding sustainability considerations into each step of the policy cycle – planning; co-ordination and implementation and, monitoring and reporting (OECD, 2023). The OECD PCSD recommendation is shown in Table 1.

Table 1: Three pillars and eight guiding principles of the policy coherence for sustainable development recommendation (OECD, 2021, pp. 6–7)

I. A strategic vision for achieving the 2030 Agenda and the Sustainable Development Goals in an integrated and coherent manner 1. <i>Political commitment and leadership</i> – Mobilise whole-of-government action and orient policy development towards sustainable development. 2. <i>Strategic long-term vision</i> – Support present needs and those of future generations in a balanced manner. 3. <i>Policy integration</i> – Capitalise on synergies and address trade-offs between economic, social and environmental policies, in addition to specific areas such as security policy and human rights.
II. Effective and inclusive institutional and governance mechanisms to address policy interactions 4. <i>Whole-of-government coordination</i> – Resolve divergences between policies, including between domestic and external policies. 5. <i>Subnational engagement</i> – Align priorities and promote coordinated action at different levels of government. 6. <i>Stakeholder engagement</i> – Engage all relevant actors to identify challenges, set priorities, align actions and mobilise resources.
III. A set of responsive and adaptive tools to anticipate, assess and address impacts of policies 7. <i>Policy and financing impacts</i> – Systematically consider the effects of policies on people’s well-being ‘here and now’, ‘elsewhere’ and ‘later’. 8. <i>Monitoring, reporting and evaluation</i> – Inform decision-making, and adjust policies in light of potential negative effects.

Given the breadth of the three policy areas, and the volume of data collected in the research carried out for the EPA, it is not possible to include everything relevant in respect of the eight PCSD principles. Neither is it appropriate to come to a definitive assessment of the comparative performance of the three policy areas in respect of the eight principles. Rather, the focus here is to include the most prominent findings from the research and also to draw attention to areas where there is a common challenge or approach, or where there is divergence and, in this way, to make a contribution to improving policy coherence.

Findings and discussion

This section analyses the data from the two EPA research projects using the eight principles included in the PCSD recommendation as a framework (OECD, 2019, 2021). The concluding section of the paper evaluates these findings and makes recommendations for areas of improvement.

Principle 1: Political commitment and leadership – Mobilise whole-of-government action and orient policy development towards sustainable development

The 2025 *Programme for Government* (Government of Ireland, 2025) includes a chapter on environmental protection. This builds on the actions of the previous government, most prominently around climate action. The *Programme for Government* specifically references the government's commitment to accelerating Ireland's progress towards the Sustainable Development Goals (Government of Ireland, 2025, p. 51), and also to promoting the development of a circular economy (2025, p. 55). However, the challenge across government has been to translate these commitments into practice.

Roles and responsibilities in respect of water governance are defined in the second-cycle RBMP. Our research (Boyle et al., 2021, O'Riordan et al., 2021) concluded that the new arrangements put in place under the RBMP are constructive. All relevant government bodies are involved, and the structures facilitate cross-government engagement in respect of water governance. However, we found that discussions were more typically focused on information-sharing and building technical capacity, rather than strategic oversight and planning, policy advice and the monitoring of policy implementation.

While information-sharing and the sharing of technical knowledge are helpful, in particular in fostering trust and engagement, effective policy implementation demands more robust governance of policy implementation. Changes made to governance arrangements in the third-cycle RBMP are aimed at addressing these difficulties. However, it remains to be seen if a renewed focus on governance can support better policy coherence and ultimately, better water quality.

Cross-government leadership and collaboration in respect of the bioeconomy is the responsibility of the BIDG. The group was originally established under the *National Policy Statement on the Bioeconomy* (Government of Ireland, 2018b). It has been centrally involved in the development of the *Bioeconomy Action Plan* and is tasked with supporting the implementation of the plan and promoting enhanced coordination and investment in the bioeconomy (Government of Ireland, 2023). However, our research concluded, as in the case of water policy, that there is a tendency for meetings to focus on information-sharing. This leads to an over-reliance on the group's secretariat to progress actions.

The absence of a whole-of-government group to have oversight over the implementation of the circular economy is problematic in terms of leadership and governance. It is anticipated that this group will be established following publication of the second CES. The delay in its establishment is concerning, but it may allow for the group to be given a more prominent role in respect of strategic leadership and oversight than was envisaged in the first CES (Government of Ireland, 2021), and also for it to support a high-level, coordinated approach in respect of both circular economy and bioeconomy policies (O'Riordan, Boyle & Keating, 2025).

Good governance requires that the right organisations from across government engage on policy issues and support policy implementation. However, in addition to the right organisations, it is also important that the right *members* of those organisations participate. In the case of the BIDG, it was suggested that the grade of those attending meetings, typically at middle-management level, can represent a challenge in relation to an issue where a whole-of-government, coordinated approach is required. It was suggested by research participants that the grade at which the BIDG is chaired sends a signal as to the relative priority afforded to the BIDG among a range of competing priority issues. The relevance of the seniority of attendees was expressed well by one interviewee who commented that those attending are 'perhaps not the people who can really steer

resources and policy in the direction of the bioeconomy’ (O’Riordan, Boyle & Keating, 2025).

Principle 2: Strategic long-term vision – Support present needs and those of future generations in a balanced manner

Balancing between different groups in society and also intergenerationally is a huge challenge for government. Having a strategic long-term vision and associated targets is one way governments try to capture a long-term perspective on policy-making. The EU has sought to provide leadership in this area. The European Green Deal was adopted by the Council of Ministers in December 2019 (European Commission, 2019). It represents a package of policy initiatives which aim to set the EU on a path to sustainability, with the ultimate goal of reaching climate neutrality by 2050.

Under the EU WFD (European Commission, 2000) countries are required to produce RBMPs. These plans set out the actions a country will take to protect, improve and restore water quality in their waterbodies (rivers, lakes, estuaries, coastal waters). Ireland’s third-cycle plan was published in 2024 (Government of Ireland, 2024). It builds on the targeted and cross-government approach to improving water quality put in place under the second-cycle plan (Government of Ireland, 2018a).

A *National Policy Statement on the Bioeconomy* was published in 2018 (Government of Ireland, 2018b). This was followed by the *Bioeconomy Action Plan* in autumn 2023 (Government of Ireland, 2023). While the plan was welcomed, it was suggested by some in central government that there is still a need for a whole-of-government bioeconomy strategy. The need for an overarching long-term bioeconomy strategy, to support improved policy coherence is also highlighted in other Irish research (Pender et al., 2024). There is an action in the *Bioeconomy Action Plan* requiring a whole-of-government strategy to be published by the end of 2025. In addition, the *Bioeconomy Action Plan* assigns actions to departments and agencies other than DAFM and DECC and under Pillar 1 requires participating BIDG departments to report on how the bioeconomy is being integrated into relevant policies. These actions are all oriented at communicating a message across government that the bioeconomy is ‘not something technical or agricultural but is relevant for the whole of government’ (O’Riordan, Boyle & Keating, 2025).

The *Whole of Government Circular Economy Strategy 2022–2023* was published in late 2021 (Government of Ireland, 2021). It sought to give

prominence to the idea of a circular economy across government and emphasises that Ireland's move to more sustainable production and consumption, which is essential to meeting our emission reduction targets, requires a clear policy approach and support from across government. It was indicated during our research on behalf of the EPA that an updated CES, with more detailed actions, as required under the Circular Economy Act, would be published in 2025.

Principle 3: Policy integration – Capitalise on synergies and address trade-offs between economic, social and environmental policies, in addition to specific areas such as security policy and human rights

The circular economy and bioeconomy are central to climate action and the aim of using resources more sustainably in order to reduce greenhouse gas emissions. However, there are further distinct benefits of both policy areas, as they both involve economic activity, but with the overarching objective of decoupling economic gains from the consumption of finite resources. Social considerations are also relevant in each policy area and, in the case of the bioeconomy, there are opportunities to promote food and energy security (Government of Ireland, 2018a).

The potential of the circular economy and bioeconomy to afford environmental, economic and social benefits is inherently understood by those working directly in the two policy areas. However, the challenge has been to communicate this understanding more widely across government. In our research for the EPA, there was a level of frustration evident from some interviewees who referred to the persisting levels of seeming unawareness of the relevance and potential of the bioeconomy across government, even in government departments for whom it should be prominent (O'Riordan, Boyle & Keating, 2025). However, from the perspective of collaborating departments, it was noted that bioeconomy policy can be complex and that on occasion they do not have all the information they need to make informed decisions. One research participant noted that 'there isn't friction in terms of outcomes sought, but there are challenges' (O'Riordan, Boyle & Keating, 2025). The *Bioeconomy Action Plan* (Government of Ireland, 2023) gives prominence to initiatives aimed at building capacity across government, for example, the development of bioeconomy advisory services and continuous professional development programmes.

The circular economy has perhaps greater prominence across government, and particularly at local government level, where there

are long-established structures and relationships in respect of waste governance. However, as noted by the European Environment Agency (2022) in a European context, this has both positive and negative aspects. While it is helpful that structures are in place, there have been challenges in enabling these structures to pivot from focusing on waste management to the circular economy.

In the case of water, similarly the challenge is one of communicating the potential for synergies, which those responsible for the policy area are acutely aware of, with government more broadly. In this regard, it is recognised that the notion of co-benefits is critical to achieving full ‘buy-in’ and commitment to improving water quality and the prioritising of water measures. However, in addition, it was acknowledged that there is an onus on those directly involved in water policy to support government more broadly to identify and act on these linkages. In other words, communicating how delivering on water-quality measures and achieving the goal of better water quality, can support a range of other policy priorities, for example, health and well-being, biodiversity, climate action, tourism, recreation and heritage.

The opportunity to capitalise on synergies and address trade-offs is a central focus of the Local Authorities Water Programme (LAWPRO), the local government shared service in respect of water quality. LAWPRO scientists focus on individual water catchments and try to identify the specific solutions required. Those involved in community engagement in the organisation then engage directly with local residents and farmers to support them in identifying measures that will both enhance their productivity and safeguard water quality. The importance of multiple benefits is prominent in the conclusions of an external evaluation of LAWPRO. According to Crowe (2021, p. 4), while achieving the water-quality objectives of the WFD is ‘paramount, but there is a much bigger prize available to Ireland by adopting an approach aimed at delivering multiple benefits. Such an approach is consistent with the overall objectives of the EU Green Deal and the sustainability objectives of the current Programme for Government’.

Principle 4: Whole-of-government coordination – Resolve divergences between policies, including between domestic and external policies

Policy coherence, that is resolving differences between government policies and ensuring a consistent approach, is fundamental to finding solutions to wicked problems such as environmental protection. While

the DHLGH, DECC and DAFM have lead policy responsibility for water, circular economy and bioeconomy policies, there are a broad range of other departments, government agencies, and, in particular, local government that need to have a prominent role in respect of policy implementation and governance. Key sectors in this regard include housing, transport, enterprise, health, energy, fishing, forestry and recreation. Having representatives on committees and governance structures does help to facilitate information exchange and engagement, however, this may not be enough to ensure coherent and consistent policy-making on challenging issues where there may be competing policy demands.

A central conclusion of our research for the EPA is the need for greater coherence between circular-economy and bioeconomy policies (O'Riordan, Boyle & Keating, 2025). While they are not the same thing, and the bioeconomy is not a subsector of the circular economy, there are clear parallels in terms of what the two policy areas are trying to achieve, their connection to climate policy, the desirability of communicating a joined-up approach to stakeholders, and the significant overlaps in terms of personnel, all point to the importance of greater coherence between the two areas. This is recognised in the *Bioeconomy Action Plan* and needs to be further reinforced in the forthcoming CES.

However, the issue of policy coherence with wider government remains very pertinent. Research by Pender et al. (2024) to review drivers and barriers to policy coherence for the bioeconomy cites a number of constraints, which include a lack of integration of the bioeconomy across government, persistence of siloing and bioeconomy leadership gaps, wide-ranging resourcing issues, including a lack of sufficiently knowledgeable bioeconomy policy analysts in relevant departments, a lag between regulation and bioeconomy innovation, and better communication in relation to the bioeconomy. Measures within the *Bioeconomy Action Plan* are aimed at addressing these issues, but they need to be widely supported.

Policy coherence is complex, at its heart is the issue of competing policy demands, which depending on the priorities of those involved or the constituencies they represent may be perceived to be equally or even more important. In an Irish context, the National Economic and Social Council (2023) has carried out important work on a Just Transition for the agriculture sector in relation to climate action. The OECD water governance principles (OECD, 2018) recommend the use of cost-benefit analysis to determine the cost of poor water-

related coherence and the benefits of a good approach. In addition, they suggest that conflict mitigation and resolution mechanisms, including water courts, can be used to manage trade-offs. Also, as noted above, the work of LAWPRO in engaging on a community-by-community and farm-by-farm basis is oriented at achieving mutually beneficial outcomes.

Principle 5: Subnational engagement – Align priorities and promote coordinated action at different levels of government

Effective policy coherence requires engagement across government and at different levels of government. In Ireland, this particularly relates to local government. Government in Ireland is highly centralised. Despite recent increases in the local government budget, its share of current government spending is only about 8 per cent, one of the smallest shares across the EU and OECD (Turley & McNena, 2024).

LAWPRO, the local government shared service for water, is a very positive and highly regarded initiative. A shared service approach has been very helpful in coordinating the identification of measures to improve water quality and ensure a consistent approach across the country. LAWPRO has also played a critical role in stakeholder engagement and building capacity in respect of water. However, during our research it was acknowledged that due to the breadth of services and wide-ranging responsibilities of those working in local government, that knowledge in relation to water issues in individual local authorities could be strengthened. This is recognised by LAWPRO which sees a role for itself in proactively working with local authorities to build capacity.

Local government has responsibility for waste planning under the Waste Management Act (1996). This is done mainly on a shared service basis through the regional waste management planning offices and the Local Authority Waste Programme Coordinator's Office. A *National Waste Management Plan for a Circular Economy* was published in 2024 (Local Government Ireland, 2024). This sets out the measures to be taken by local government to support the development of a circular economy. In terms of governance, the plan proposes a new, national coordinating group for waste and the circular economy to ensure a collaborative approach to waste and the circular economy between central government, local government and relevant government agencies (Local Government Ireland, 2024).

It was accepted during our research for the EPA that there is a need for local government to reflect internally on 'the integration of front-line staff on water, climate change, waste and circularity, biodiversity etc.' (O'Riordan, Boyle & Keating, 2025) and that an expansion of the remit of an existing local government shared services such as the climate action regional offices, to incorporate the circular economy and bioeconomy could be examined. However, the point was also made that it is necessary to have national governance structures resolved first before looking at sectoral structures.

Principle 6: Stakeholder engagement – Engage all relevant actors to identify challenges, set priorities, align actions and mobilise resources

How stakeholders are involved to help determine and implement policy is an important element of governance (Bingham, Nabatchi & O'Leary, 2005). Stakeholder engagement is a subset of wider participatory initiatives that aim to involve people in decision-making regarding public policies and their implementation (Shannon & O'Leary, 2020). Involving stakeholders can be particularly important when addressing wicked policy problems, where 'the definition of the problem is clear, but the solution is not ... and therefore learning and discussion are required by both the governmental managers and the stakeholders they lead' (Head & Alford, 2015, p. 717).

One of the primary objectives behind the development of new governance structures for water was the need to achieve greater stakeholder engagement. The importance of public participation had already been recognised by the local government sector, with the establishment in 2017 of LAWPRO and the creation of twelve Community Water Officer posts around the country with responsibility for engaging and working with environmental and voluntary groups and with the wider public. O Cinnéide and Bullock (2020) note that up to spring 2020, LAWPRO team members had taken part in 1,183 events over three years and in each of the twenty-six counties. As an organisation, LAWPRO has put a huge amount of reflection into the way in which it approaches stakeholder engagement. This is consistent with good practice, with the OECD (2018) referring to the value of assessing the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly. The comment of LAWPRO's first director that 'we do our best work over a cup of tea' seems particularly apt for their style of engagement. In addition, their own assessment of their work is very relevant: 'it [building

relationships] can never be seen as wasted time, but it does take time to get right' (O'Riordan et al., 2022).

Recognition of the importance of stakeholder engagement within water governance further resulted in the establishment in 2017 of the Water Forum, a statutory stakeholder group. In establishing the Water Forum, a concerted effort was made to map and include all stakeholders, something which is recommended by the OECD (2018). This is evidenced in the Water Forum's broad membership, including environmentalists, agricultural and farming representatives, and the general public. The need to keep the process of stakeholder engagement flexible and capable of adapting to changing circumstances has been a prominent issue for the Water Forum. The time commitment required of members, particularly those with limited support or who are not working full-time in the area, was referenced in our research as a limitation in terms of their participation. It was thought that this could lead to disadvantages for lesser resourced stakeholders in determining the direction of the forum's work (Boyle et al., 2021). In addition, the wide-ranging brief of the forum was referenced by several interviewees as posing challenges in terms of possibly having too diverse an agenda and hence failing to address selected issues in a thorough and comprehensive manner.

The importance of a strong, knowledgeable and independent chairperson, not linked to any particular interest group was seen as a crucial consideration in navigating these issues and in building trust by those involved in the forum (Boyle et al., 2021; O'Riordan et al., 2023). This was similarly acknowledged in respect of debates and engagement in the Bioeconomy Forum. Participants referred to 'the opportunity to be challenged and to challenge others' and that the Bioeconomy Forum was 'creating a structure where people know there is a place to go in terms of interfacing with government, interfacing with academics, industry, where we can go to bring these things' (O'Riordan, Boyle & Keating, 2025). The considerable contribution of both the Bioeconomy Forum and its expert advisory group to the development of the *Bioeconomy Action Plan* was positively commended in our research with stakeholder engagement regarded as resulting in better policy.

The Waste Advisory Group (WAG) was set up by DECC to facilitate stakeholder consultation in the preparation of *A Waste Action Plan for a Circular Economy* (Government of Ireland, 2020). The department found the support and input of the WAG to be helpful, and subsequent to *A Waste Action Plan for a Circular Economy*

being published, a commitment was made by DECC to maintain and expand the forum to support ongoing implementation of the plan. However, research participants from beyond DECC regard the group as too large and unwieldy and lacking a clear focus and objectives. There is learning for the WAG in this regard in the operations of both the Water Forum and the Bioeconomy Forum.

Ultimately, stakeholders are anxious to see how their submissions impact on policy and would welcome greater feedback in this regard. This point is of particular relevance for policymakers, to ward against any perception, as noted in the literature (Wagner & Ylä-Antilla, 2020), that policy forums are used by politicians or bureaucrats only to legitimise their policies and give a veneer of credibility to stakeholder engagement. In the case of the Water Forum, its status as a statutory body does enhance the level of access afforded to it.

Lastly, each of the three stakeholder forums and those directly involved in the three policy areas recognised the need to reach the general public. In this regard, it was suggested that engaging recognised stakeholders is not the challenge, but rather the challenge is engaging the general public and that more work needs to be done to ensure that these issues resonate more strongly with the public. In this regard, a coordinated approach around all environmental issues, both at central and local government levels, is regarded as vital by many involved because the public do not necessarily distinguish across environmental issues. This finding is consistent with other Irish research which highlighted the increasingly siloed and fragmented way that public engagement is carried out, and the need for more cross-sectional and cross-disciplinary approaches (Revez et al., 2022).

Principle 7: Policy and financing impacts – Systematically consider the effects of policies on people's well-being 'here and now', 'elsewhere' and 'later'

Our research for the EPA concludes that policy in respect of water, the circular economy and the bioeconomy is oriented towards sustainability (O'Riordan et al., 2022; O'Riordan, Boyle & Keating, 2025). However, challenges in respect of policy coherence, as discussed throughout this paper have the potential to undermine the effective implementation of policy. The focus in the remainder of this section is on financing impacts as policy impacts are covered in respect of other principles, in particular under Principle Four.

As with most policy initiatives that require significant investment, the total level of resources available for the implementation of RBMP

actions was raised as an issue in our research on water. Resource constraints impact on the pace and level to which various actions can be advanced. Several interviewees noted the challenges for Irish Water, where budgetary limitations have resulted in delays in investment in some treatment plants and water mains. This is consistent with the conclusions of research carried out by the Water Forum (Augustenborg, Lentz & Pender, 2024) which found that financial and staffing constraints were key barriers impeding progress in respect of water quality.

Many interviewees also stressed that funding arrangements associated with the next Common Agricultural Policy will fundamentally affect the interest and ability of farmers to engage effectively with water improvement initiatives. Changes to the Common Agricultural Policy that encourage greater emphasis on environmental sustainability are expected, and encouraging policy moves in this direction is an important role for the WPAC.

In terms of outcomes at the farm level, a number of pilot initiatives are looking at results-based payments for achieving agreed environmental outputs and outcomes. Historically, farmers were getting public money to deliver increases in food production. Payment for results in these pilots, such as the BurrenLIFE project, is promoting the use of public money to achieve environmental outcomes (e.g. number of wildflowers on a farmer's land, new water troughs installed). These pilots have a clear auditing process, with quantifiable and outcomes-based results (Boyle et al., 2021). Another innovative funding initiative of note is the Agricultural Sustainability Support Advisory Programme.³ The programme is a collaborative one between the public and private sectors, with funding and support received from DAFM, DHLGH and Dairy Sustainability Ireland. The programme offers a free support and advisory service provided by twenty Teagasc advisors and ten advisors funded by the dairy-processing co-operatives (O'Riordan et al., 2022).

The role of governance structures in channelling funding appropriately is also evident in actions of the BIDG which has prioritised the building of an evidence base in respect of the bioeconomy, with projects such as Biorbic,⁴ the National Bioeconomy

³ For information on the Agricultural Sustainability Support Advisory Programme in detail see www.teagasc.ie/environment/water-quality/farming-for-water-quality-assap/assap-in-detail/

⁴ <https://biorbic.com/>

Research Centre, which is helping to build knowledge in respect of the bioeconomy. Other projects such as InformBio⁵ are aimed at providing clear metrics on the bioeconomy in Ireland. For the circular economy, not-for-profit organisations, such as the Rediscovery Centre⁶ and initiatives such as Ciruléire,⁷ a public–private partnership that supports industry in developing and implementing circular approaches, have helped promote learning and knowledge. Joining up all research and innovation in respect of the circular economy and ultimately ensuring that it influences policy is a prominent issue for DECC. Consideration is being given to the establishment of a centre of excellence for circular innovation to ensure more effective scaling up of innovation (O’Riordan, Boyle & Keating, 2025).

Principle 8: Monitoring, reporting and evaluation – Inform decision-making, and adjust policies in light of potential negative effects

Data, its monitoring, reporting and evaluation, is at the heart of policy coherence and good governance (Boyle & Redmond, 2024). The need for robust data and evidence in respect of the implementation of environmental policy is widely accepted by all involved, with the role of the EPA and the very robust data it collects and reports on highly regarded. However, there is scope for a broader range of data to support the development and implementation of policy.

In relation to circular economy policy, it was noted that there are clear targets, in relation to waste, recycling and circularity, which have been set out in Irish policy. The EPA manages a range of statistics on waste generation and management, including recycling rates and publish its Circular Economy and Waste Statistics Highlights report every two years (EPA, 2023). However, the European Environment Agency (2024) notes that there is a need for gathering data and reporting on a greater range of indicators, in order to assist in monitoring and reviewing Ireland’s progress in respect of targets for waste and the circular economy.

Similarly, in relation to the bioeconomy, there was an overall sense from the research participants that while progress has been made in developing an evidence base in respect of the bioeconomy, more remains to be done. It is recognised that indicators on the economic, social and environmental benefits of the bioeconomy are needed to

⁵ <https://informbioproject.ie/>

⁶ www.rediscoverycentre.ie

⁷ www.circuleire.ie/

give a balanced view of progress. Data are required for example, on bioeconomy employment, income, the contribution to rural regeneration, and the bioeconomy's role in greenhouse gas emission reductions. While research is ongoing in these areas, with government funding several research projects, it was noted that from a policymaker's perspective that some fundamental questions remain, for example, what is and is not a bio-resource, and there is also a lack of clarity in relation to how the bioeconomy is measured.

In addressing data challenges, the National Technical Implementation Group (NTIG), which is part of the water governance structures, established under the second-cycle RBMP has played a valuable role. The NTIG brings together experts to validate evaluative information and ensure that evidence feeds through to inform policy-making. The findings of our research were that NTIG was perceived as working well, with a strong focus on problem-solving. It provides a useful model for others to learn from.

However, one challenge was identified in the context of water data, which is equally relevant for circular economy and bioeconomy policies, is the need for intermediate outcome indicators to track progress on an ongoing basis. The three-year monitoring cycle in place, while crucial as an overall monitoring tool, does not allow for the evaluation of outcomes in the short to medium terms. There is a need for more interim indicators, which would allow for mid-cycle adjustments to policy and practice, and also a wider range of indicators measuring the outcome of specific initiatives or activities, for example, changes in fertiliser use by farmers. A lesson from the three policy areas is the need for those elements of the governance structures with overall responsibility for policy implementation to ensure that monitoring responsibilities are clearly defined and that intermediate outcome indicators are developed and used to assess means of tracking progress towards the desired outcomes.

In addition, there is a need within the governance structures for oversight of policy implementation to be clearly assigned. Our research on water (Boyle et al., 2021; O'Riordan et al., 2022) found that to date the WPAC has not meaningfully developed its role to monitor the implementation of the RBMP. This is a serious omission, as it means that delays, challenges and lessons learned are not being formally managed. The third-cycle RBMP is cognisant of the need for WPAC to 'refocus their objective and purpose' (DHLGH, 2024, p. 80). Similarly, in respect of the circular economy, there is a lack of clarity in relation to who has responsibility for overseeing the

implementation of actions and measures set out in the CES. Our research called for this group to be urgently established.

Conclusions

This paper reviews policy coherence in respect of water, the circular economy and bioeconomy policies in Ireland, using the OECD's recommendation on PCSD (OECD, 2021) to inform analysis. The recommendation encompasses eight principles which support better policy coherence. These are set out in detail in Table 1. The objective of the paper has been to comment in a structured way on policy coherence across the three policy areas and to make suggestions in respect of how policy coherence might be enhanced. There is also learning for other policy areas from the findings and conclusions.

The findings presented in this paper show that in the policy areas of water, the circular economy, and the bioeconomy, considerable further endeavour is required in order to enhance policy coherence. Government policy is generally oriented towards sustainability and greater policy coherence, and there is reasonable collaboration across government and with external stakeholders. However, to date, engagement has been largely focused on information and knowledge-sharing, and to some degree problem-solving, rather than grappling with more substantive issues such as capitalising on synergies, determining trade-offs, and choosing between competing policy and financing priorities, which are all at the heart of policy coherence. To reiterate the point made by Meuleman (2021), there has been too much focus on the 'what' of policy coherence at the expense of the 'how'.

Establishing governance structures and processes will not guarantee policy coherence, but they are necessary. Carefully defining roles and responsibilities, with a strong emphasis on central oversight and strategic direction, supports better policy coherence. However, it is also imperative that those involved are at a sufficiently senior level to make the decisions, for example around policy and resourcing, which better policy coherence requires. A more joined-up approach in respect of governance arrangements across different environmental policy areas, for example climate and biodiversity, in addition to water, the circular economy and the bioeconomy, may also result in greater traction at all levels of government, with the environment in effect 'speaking with one voice'. This would also have benefits in terms of communicating knowledge and targets with the general public, who do not, in the main, distinguish between different environmental policy areas.

Environmental outcomes in Ireland are still very uncertain (EPA, 2024). Policy coherence provides a road map for achieving better outcomes. However, policy coherence is far more challenging than collaboration, engagement, or information-sharing. It requires painstaking effort across each of the eight principles reviewed in this paper.

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