ARTICLES

The EU Green Deal and the Transformations of the European Administrative System: Does the "Epistemic Leadership" of the Scientific Advisory Board Push the Agency Model over the Sunset Boulevard?

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ABSTRACT: The *Article* aims to investigate the relevance of the EU agency model in the evolving European legal order and test its enduring ability to provide a functional and normative response to the complex challenges the EU is facing, first and foremost the achievement of climate neutrality, the macro-objective at the heart of the European Green Deal (EGD). By its long-term vision, latitude and regulatory effort, the latter has the capacity to determine a deep impact on the EU and its regulatory space. The analysis of the dynamics, governance arrangements, policy options and legal developments that characterise the EGD can thus represent an interesting "litmus test" for measuring more general trends and transformations in the European legal order and, in cascade, its administrative system. In light of these premises, the essence of the argument is as follows. Within the climate neutrality regulatory framework, a subtle functional downsizing of the European Environment Agency occurred due to the recent creation of the European Scientific Advisory Board on Climate Change, a multifunctional independent scientific body that should act as a point of reference for the EU on climate change issues. While testifying to the Union's ever-growing confidence in the independence formula, now experienced in climate neutrality realm, its establishment represents a significant and challenging development, capable of deeply impacting future EU climate policy-making, yet also triggering a series of tensions within the EGD political project.

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I. SETTING THE SCENE

In a series of pioneering articles dating from the early 1990s, Sabino Cassese questioned the possibility of recognising the existence of a Community administrative law different from national administrative law, the latter born within the conceptual framework of the nation-state, a distinctive feature of that theoretical model and expression of the traditional bipolar paradigm based on the dialectic between authority and freedom.[1] Today, no scholar could reasonably doubt the existence of a European administrative law[2] and of a European "integrated administration",[3] founded on the organisational and procedural dialectic between its national, supranational and composite components and on their mutual influence. The "European administrative system"[4] and the composite administrative machinery that articulates its operation, driven by the functional need to complete the internal market, have undergone a process of progressive complication, sophistication[5] and maturation, according to evolutionary dynamics that were not always harmonious and linear, but rather characterised by tensions, disharmonies, setbacks and underlying ambiguities.[6] The interest of legal science, once marginal, has grown in parallel with the evolution and consolidation of the European administrative system and there are now many, robust and influential analyses devoted to this disciplinary field.[7]

[1] The affirmative answer served as a prelude to a rigorous analysis of the organisational figures, principles and operational methods of Community administrative law and to a reconstruction of its distinctive features, to assess its elements of originality or continuity with domestic administrative law and to highlight the former's capacity to influence (both directly and indirectly) the latter, in a progressive convergence towards an "administrative jus commune". See S Cassese, 'I lineamenti essenziali del diritto amministrativo comunitario' (1991) Rivista italiana di diritto pubblico comunitario 3; S Cassese, 'Il sistema amministrativo europeo e la sua evoluzione' (1991) Rivista trimestrale di diritto pubblico 769; S Cassese, 'L'influenza del diritto amministrativo comunitario sui diritti amministrativi nazionali' (1993) Rivista italiana di diritto pubblico comunitario 329. The three essays are now collected in S Cassese, *Il diritto amministrativo: storia e prospettive* (Giuffrè 2010).

[2] Here understood as that set of principles, rules and practices, of both European and national sources, functionally oriented to ensure the implementation of European policies and laws. The definition is elaborated by E Chiti and J Mendes, 'The Evolution of EU Administrative Law' in P Craig and G de Burca (eds), *The Evolution of EU Law* (Oxford University Press 2021) 341.

[3] HCH Hofmann and A Turk, 'Introduction: Towards a Legal Framework for Europe's Integrated Administration' in HCH Hofmann and A Turk (eds), *Legal Challenges in EU Administrative Law: Towards an Integrated Administration* (Elgar 2009) 1.

[4] E Chiti, 'La costruzione del sistema amministrativo europeo' in MP Chiti (a cura di), *Diritto amministrativo europeo* (Giuffré 2018) 46 and bibliographical references therein.

[5] C Joerges and J Neyer, 'Deliberative Supranationalism Revisited' (EUI Working Papers LAW 20-2006) 16.

[6] As recently pointed out by E Chiti and J Mendes, 'The Evolution of EU Administrative Law' cit. 341.

[7] See P Craig, *EU Administrative Law* (Oxford University Press 2019); S Battini and others (eds), *Diritto amministrativo europeo* cit.; C Harlow, P Leino, G della Cananea (eds), *Research Handbook on EU Administrative Law* (Elgar 2017).

When we move on from the system to isolate one of its (albeit significant) components such as European agencies, "part and parcel of [...] the emerging, composite European executive",[8] the previous assumption seems not only confirmed, but indeed reductive. In other words, the impression is that of being faced with a deeply and repeatedly ploughed soil, on the furrows of which numerous fertile seeds have been sown, giving rise to as many interesting analyses and reflections. The individual pieces have thus contributed to creating a layered and complex mosaic.[9]

The reasons for such strong interest in the "agencification" process are anything but surprising, if one dwells on the cross-cutting nature of the topic,[10] the proportions assumed by the phenomenon in the European legal system and its ability to deeply affect the "composite and plural character"[11] of EU administrative organisation and of the law governing its functioning. Over the years, several waves of agencification[12] have passed through the main areas of economic and social regulation in the EU, contributing to consolidate the pivotal role played by this composition figure within the European regulatory space, to refine its functions and to clarify its tasks, characteristics and powers. Taking a retrospective look, it would be hard to deny that the story of EU agencies has been one of remarkable success.[13]

And yet, what is left for EU agencies today? Is the fever for agencies still high? Or has that model lost its appeal for the European administrative system, taking its last steps on the "Sunset Boulevard"?[14] To what extent are such satellite bodies of the EU executive

[8] M Busuioc, *The Accountability of European Agencies: Legal Provisions and Ongoing Practices* (Eburon 2010) 83.

[9] The literature on EU agencies is rich and cannot be recalled here in its entirety. Among the most recent books, it is worth mentioning at least M Conticelli, M De Bellis and G della Cananea (eds), *EU Executive Governance: Agencies and Procedures* (Giappichelli 2020); M Simoncini, *Administrative Regulation Beyond the Non-Delegation Doctrine: A Study on EU Agencies* (Hart Publishing 2018); J Alberti, *Le agenzie dell'Unione Europea* (Giuffrè 2018); M Chamon, *EU Agencies: Legal and political Limits to the Transformation of the EU Administration* (Oxford University Press 2016); M Everson, C Monda and E Vos (eds), *European Agencies in between Institutions and Member States* (Wolters Kluwer 2014); M Busuioc, M Groenleer and J Trondal, *The Agency Phenomenon in the European Union. Emergence, Institutionalisation and Everyday Decision-making* (Manchester University Press 2012).

[10] Capable of catalysing from the very beginning the attention of legal as much as political science. See respectively the works of E Chiti, *Le agenzie europee: Unità e decentramento nelle amministrazioni comunitarie* (Cedam 2002); and of D Keleman, 'The Politics of "Eurocratic" Structure and the New Europeans Agencies' (2002) West European Politics.

[11] E Chiti, 'La costruzione del sistema amministrativo europeo' cit. 79.

[12] Four waves of agency creation are usually identified, corresponding to the periods of the mid-1970s, the 1990s, the early 2000s and the early 2010s.

[13] As pointed out by E Chiti, 'Decentralized Implementation: European Agencies' in R Schutze and T Tridimas (eds), *Oxford Principles of European Union Law: The European Union Legal Order* (Oxford University Press 2018) 756.

[14] Reference is to the 1950 homonymous celebrated film directed by Billy Wilder and starring Gloria Swanson, William Holden and Erich von Stroheim. The movie tells the story of a former silent film diva, once acclaimed and idolised and now disgraced, abandoned by the public and the spotlight of modern cinema.

still able to provide a functional and normative response to the needs and challenges of a changing legal order? In what overall direction are the transformations of the EU pushing and what consequences do they have for its administrative component?

Certainly, an exhaustive answer to such questions would require "mapping the European administrative space"[15] in which EU agencies operate and whose characteristics they contribute to define and navigating through the various waves of the agencification process, by taking an evolutionary perspective and looking for the elements of continuity and change. Such an operation, however, is beyond the more modest ambitions of this *Article*. In referring back to studies of broader scope and depth,[16] the perspective purportedly adopted is avowedly partial, in that it focuses the analysis on a specific, albeit broad and cross-cutting, portion of the European regulatory space, represented generically by climate change and identifiable more precisely in the European Green Deal (EGD).[17] The reasons behind this *actio finium regundorum* stem from the conviction that the latter represents a phenomenon that, by its importance, characteristics, objectives, latitude and regulatory effort, has the capacity to determine a profound impact on the EU and its administrative dimension, potentially orienting and shaping its developments and future arrangements. In addition, it is a long-range political project functionally oriented to respond to one of the main challenges facing the EU and its Member States, namely the achievement of climate neutrality: what makes it a particularly topical and interesting angle of view. The analysis of the dynamics, governance arrangements, policy options and legal developments that characterise the EGD could thus represent an interesting "litmus test" for measuring more general trends and transformations in the European legal order and, in cascade, in its administrative system.[18]

In light of these premises, the article aims to develop the following hypothesis, which is made explicit from the outset. The thesis to be verified is that within the EGD regulatory framework, there appears to be a partial, possibly disguised, downsizing of the role of the European Environment Agency (EEA) due to the recent creation of the European

[15] HCH Hofmann, 'Mapping the European Administrative Space' (2008) West European Politics 671.

[16] E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' in P Craig and G de Burca (eds), *The Evolution of EU Law* (Oxford University Press 2021) 123.

[17] See Communication COM(2019) 640 final from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions of 11 December 2019 on The European Green Deal.

[18] In this respect, the choice of analysing with an inductive method the most recent positive law trends taking place within the EGD in order to infer consequences of a more general nature, related to broader institutional changes and transformations of the EU administrative space, represents a large-scale application and projection of the same logic and approach underlying the evolutionary study of EU administrative law, constantly in-between the development of different policy-fields characterised by their own rules, principles, practices and organisational arrangements and the attempt to infer from them implications of a more general and systematic nature, relating to the entire EU administrative system. See in this regard HCH Hofmann, GC Rowe and A Turk (eds), *Specialized Administrative Law of the European Union: A Sectoral Review* (Oxford University Press 2021).

Scientific Advisory Board on Climate Change (Advisory Board), a body of an independent nature that, by virtue of its high technical-scientific expertise, should act as a "point of reference" for the EU on climate change issues.[19] The establishment of such a body represents an intriguing and far from obvious development in the overall evolution of the EGD. While not openly questioning the role of the EEA, its tasks and attributions, it nevertheless testifies to the Union's ever-increasing reliance in the independence formula, now experienced in climate change realm. At the same time, the institution of such an organism is a decidedly problematic step capable of triggering a series of tensions within the EGD project. In this regard, the thorny cohabitation between the two administrative bodies (*i.e.*, the EEA and the Advisory Board) deputed to assist the Commission in the elaboration and evaluation of climate neutrality measures and the complex relationship between the technical and independent nature of the Advisory Board and the inherent political salience of climate neutrality choices represent the most interesting but also critical profiles to be discussed.

To develop the argument, the article is structured as follows. After a brief reconstruction of the main theoretical and factual reasons behind the success of the EU agency model (section II), the EGD is presented as an incremental "regulatory process"[20] functionally oriented towards achieving climate neutrality, and its profoundly transformative character for the European legal and societal construct is emphasised (section III). Subsequently, the *Article* dwells on the role and tasks of the EEA within the EU decarbonisation governance (section IV). The paragraph paves the way for analysing, through a dynamic-evolutionary perspective, the recent establishment of the EU Advisory Board on climate change, whose functions and attributions are outlined (section V) and implications for EU climate policy-making are discussed (sections VI, VII, VIII). Under this aspect, the two most interesting profiles are represented by the challenging coexistence between the Advisory Board and the EEA and, above all, by the choice to confer upon the former a kind of "epistemic leadership"[21] in the EU energy and ecological transition process, which might be hard to reconcile with the intrinsic and unamendable political salience of climate neutrality measures.

[19] See art. 3 of Regulation (EU) 1119/2021 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality (European Climate Law).

[20] For this conceptualisation of the EGD see E Chiti, 'Managing the Ecological Transition of the EU: The European Green Deal as a Regulatory Process' (2022) CMLRev 19.

[21] I borrow and adapt for the purpose the expression from JB Skjærseth and J Wettestad, 'Making the EU Emissions Trading System: The European Commission as an entrepreneurial epistemic leader' (2010) Global Environmental Change 314.

II. The (more than) discreet charm of EU agencies

Looking at the abundant and varied literature on EU agencies, there is no escaping the overall impression that the euphoria surrounding this topic stems as much from theoretical and conceptual reasons, relating to the application of models and principles capable of providing universal explanations, as from factors more properly linked to the European administrative system, its development and the evolution of its techniques of administrative integration, which EU agencies have contributed to shape and refine.[22] Admittedly, the distinction is not always clear-cut and often the two levels of analysis end up intertwining. What changes, however, are the objectives, method and perspective of the research.

Under the first aspect, the creation of EU agencies is traditionally read through the rationalist lenses of the principal-agent (P-A) model[23] and, in particular, through the horizontal delegation of administrative tasks and *lato sensu* regulatory powers from the principal (usually the Commission) to non-majoritarian bodies with high technical and scientific expertise.[24] Hence, interest shifts from delegation per se, as a "normative-legal principle",[25] to a whole range of sectoral issues inherent in delegation and the contextual "functional decentralization"[26] of powers within the composite European executive.[27]

In the second perspective, the diachronic analysis of EU agencies (from origin to consolidation to recent developments), their functions and the complex issues they raise is dropped within the history of the EU administrative system and proceeds hand in hand with its development and evolution, on the assumption that the agencification process

[22] See E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' cit. 124.

[23] P Magnette, 'The Politics of Regulation' in D Geradin, R Munoz and N Petit (eds), *Regulation through Agencies in the EU: A New Paradigm of European Governance* (Elgar 2005) 5; for a critical discussion of some of the limitations of this model see R Dehousse, 'Delegation of Powers in the European union: The Need for a Multi-principals Model' (2008) West European Politics 789.

[24] See G Majone, 'Delegation of Regulatory Powers in a Mixed Polity' (2002) ELJ 319.

[25] P Lindseth, 'Delegation is Dead, Long Live Delegation: Managing the Democratic Disconnect in the European Market-Polity' in C Joerges and R Dehousse (eds), *Good Governance in Europe's Integrated Market* (Oxford University Press 2002) 140.

[26] E Vos, 'EU Agencies and the Composite EU Executive' in M Everson, C Monda and E Vos (eds), *European Agencies in between Institutions and Member States* (Wolters Kluwer 2014) 11.

[27] Among the most investigated issues: what kind of powers can be delegated to EU agencies (purely executive or involving discretionary assessments) and what impact do they produce on the principle of institutional balance; how to make these bodies, endowed with autonomy or quasi-independence, publicly accountable for their actions through the construction of appropriate and accomplished accountability mechanisms; how to ensure their compliance with the principles and guarantees of the administrative rule of law, understood both as an instrument of control of administrative power and as a normative super-principle capable of conferring EU agencies a form of functional legitimacy. These profiles have been variously and thoroughly explored, among others, by M Simoncini, *Administrative Regulation Beyond the Non-Delegation Doctrine* cit.; M Chamon, *EU Agencies* cit.; M Busuioc, *The Accountability of European Agencies* cit.; D Curtin, 'Delegation to EU Non-Majoritarian Agencies and Emerging Practices of Public Accountability', in D Geradin, R Munoz and N Petit (eds), *Regulation through Agencies in the EU: A New Paradigm of European Governance* cit. 88.

cannot be fully grasped through a static and atomistic judgment, since this administrative phenomenon "is both a product of the internal dynamics of such system and a force capable of orienting its evolution and transformation".[28]

At least three reasons concur to explain the fascination exercised on scholars by this peculiar form of administrative integration. The first is related to the possibility of providing different explanations and conceptualisations of the emergence and mushrooming of EU agencies. There is general agreement in the literature that underlying the agencification process are reasons of an essentially functional nature, related to the increasing expansion and specialisation of supranational regulatory intervention and the risks of overburdening the Commission.[29] In this context, the creation of an agency finds its functional justification in the need to improve supranational efficiency and administrative capacity in policy areas characterised by high technical and scientific complexity, by allowing the Commission to concentrate on core tasks (policy-making) and giving agencies the responsibility of ensuring the effective and efficient administrative implementation of EU law (policy-implementation).[30] The prevailing view, tending to ascribe "factual legitimacy"[31] to these regulatory bodies, has not, however, prevented scholars from offering interesting alternative readings of the agencification process, based on different normative ideals, theoretical constructions and interpretations of political-institutional dynamics,[32] which are not necessarily mutually exclusive.

The second, more structural, stems from the hiatus between the legislative proliferation of EU agencies and the lack of a clear constitutional recognition or foundation for them, which has prompted legal doctrine to question how to reconcile the administrative-regulatory dimension of agencies with some form of constitutional legitimacy.[33] In this sense, it could be argued that the history of EU agencies mirrors at the "micro" level that of European

[28] E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' cit. 124.

[29] Interestingly, this is also the Commission's official narrative, expressed in various policy-documents. See, for instance, Communication COM(2022) 0718 final from the Commission of 11 December 2002, "The Operating Framework for the European Regulatory Agencies"; Communication COM(2001) 428 final from the Commission of 25 July 2001, "European Governance. A White Paper".

[30] For a synthetic reconstruction, see M Busuioc, *The Accountability of European Agencies* cit. 15 and M Everson, 'Independent Agencies: Hierarchy Beaters?' (1995) ELJ 180.

[31] M Everson, 'Good Governance and European Agencies: The Balance' in D Geradin, R Munoz and N Petit (eds), *Regulation through Agencies in the EU* cit. 158.

[32] See E Chiti, 'Decentralized Implementation' cit. for an overview of the diverse interpretations proposed by European legal scholarship, including the distinctive conceptualisation provided by the Author himself.

[33] Indeed, the creation of EU agencies granted with *de jure* or *de facto* regulatory powers took place in the absence of any constitutional recognition and solid constitutional anchorage, a lacuna that the Lisbon Treaty has only partly succeeded in filling, through the formal submission of agency acts to the scrutiny of the Court of Justice. On this profile see M Simoncini, 'Paradigms for EU Law and the Limits of Delegation: The Case of EU Agencies' (2017) Perspectives on Federalism 49.

administrative law as a whole, squeezed between a markedly functional legitimacy and orientation and the search for a normative vocation or constitutional foundation.[34]

The third, no less important, is related to the potential of EU agencies to assimilate two of the factors that, as noted in general terms by Yves Mény,[35] underpin the entire European scaffolding: bureaucracy and crises. The creation of an agency has often been a politically and legally appealing solution to managing a situation of crisis or an event of particular political salience. With the establishment of one or more new agencies, the Union has sought to harness the potential of its administrative machinery to provide a rapid and hopefully efficient response to crises (financial, above all, but also food and health and ultimately pandemic)[36] that could have undermined the foundations of European integration and disqualified the effectiveness of supranational regulation. Beyond the ability of agencies to embody a tool of "effective problem solving"[37] for the EU legal system in times of crisis, it is worth highlighting how the study of these new administrative bodies, their delegated powers and their scope of action became an opportunity to develop reflections with a broader and more systematic scope on the processes of "administrative reorganisation and transformation"[38] of the EU administrative system.

Over time, therefore, EU agencies have gradually emerged as specific organisational figures within the European administrative machinery, aimed at the joint exercise of European functions and instrumental to a project of "decentralized integration".[39] And along with them, a new model of implementing European law has been institutionalised and perfected, that of shared administration,[40] in which the pursuit of a European public interest goes through the distribution of (the exercise of) the administrative function

[34] This aspect of EU administrative law has been recently explored by E Chiti and J Mendes, 'The Evolution of EU Administrative Law' cit. 339.

[35] Y Meny, 'Europe: la grande hésitation' in O Béaud, A Lechevalier and I Pernice (eds), *L'Europe en voie de Constitution: Pour un bilan critique des travaux de la Constitution* (Bruylant 2004) 819.

[36] As demonstrated by the creation of the European supervisory authorities (ESAs) in the aftermath of the financial and public debt crisis, the establishment of the European Food Safety Authority (EFSA) following a series of food crises (e.g. the mad cow disease) and the institution of the Health Emergency Preparedness and Response (HERA) in the aftermath of the pandemic crisis.

[37] M Everson, 'Good Governance and European Agencies' cit.

[38] E Chiti, 'In the Aftermath of the Crisis: The EU Administrative System Between Impediments and Momentum' (2015) CYELS 311.

[39] E Chiti, 'Decentralisation and Integration into the Community Administrations: A New Perspective on European Agencies' (2004) ELJ 402; see also HCH Hofmann, 'European Administration: Nature and Developments of a Legal and Political Space' in C Harlow, P Leino and G della Cananea (eds), *Research Handbook on EU Administrative Law* cit. 29.

[40] On EU agencies ability to explore, complicate and institutionalise the rationale of shared execution, already present – though in simplified and embryonic form – in comitology see E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' cit. 132. On the concept of shared administration see the forerunner work of C Franchini, *Amministrazione italiana e amministrazione comunitaria: La coamministrazione nei settori di interesse comunitario* (Cedam 1993); and P Craig, 'Shared Administration, Disbursement of Community Funds and the Regulatory State' in HCH Hofmann and A Turk (eds), *Legal Challenges in EU Administrative Law* cit. 34.

among a multiplicity of national, European and composite bodies, formally distinct but functionally integrated within a substantively unitary procedure. The latter is usually dominated and coordinated by an EU agency placed in a position of "functional prominence"[41] towards the other actors operating within the sectoral administrative network and is designed in such a way as to make the agency "a kind of '*primus inter pares*' with the national authorities".[42]

Plenty of water has flowed under the bridges that, with varying geometries, interconnect the numerous components of the polycentric European administrative system. Admittedly, the many waves that have driven the agencification process have certified the crucial role played by such decentralised bodies within the European administrative governance and their significance "both as an institutional phenomenon and as a method of policy delivery".[43] And yet, the European regulatory space and the administrative machinery that articulates its functioning are anything but crystallised or monolithic. Their arrangements and structures are physiologically influenced by the transformations affecting the European legal order[44] and functionally adapt to the evolutionary objectives set from time to time by EU policy-making. If and to what extent the agency model is still capable of providing a functional and normative response to the new challenges raised by the EGD and the achievement of climate neutrality is the major problem to be addressed and the relevant question to be answered in the following sections.

III. The evolution of the European regulatory space: the EU Green Deal as a transformative project

Through the foundational communication on the EGD the EU redefined, on a new and more ambitious basis, its commitment to combating climate change and cutting carbon emissions: the macro-objective, made explicit from the outset, is the achievement of climate neutrality by 2050.[45] The EU's political engagement has been then legislatively formalised by the European Climate Law (ECL)[46] – translating the zero-emissions target into a legally binding obligation – and implemented on a sectoral basis by the recent "Fit for 55" package,[47] containing a series of measures – distinct by sector, rationale, approach and objective

[41] E Chiti, 'Decentralized Implementation' cit. 753; see also R Dehousse, 'Regulation by Networks in the European Community: The Role of European Agencies' (1997) Journal of European Public Policy 246, highlighting the role of EU agencies as "network coordinators rather than as central regulators".

[42] E Vos, 'EU Agencies and the Composite EU Executive' cit. 45.

[43] E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' cit. 124.

[44] On the complex relationship between new governance forms, law and constitutionalism see G de Burca and J Scott (eds), *Law and New Governance in the EU and the US* (Hart Publishing 2006).

[45] See Communication COM(2019) 640 final cit.

[46] Regulation (EU) 1119/2021 cit. 2.

[47] "'Fit for 55': Delivering the EU's 2030 climate target on the way to climate neutrality", Communication COM(2021) 550 from the Commission to the European Parliament, the Council, the European Economic and

– functionally geared to the decarbonisation of the European economy. These acts, which represent in a sense the "backbone" of the EGD and testify to its gradual and incremental character, have been complemented over time by numerous others of different origin, legal nature and normativity (policy documents, sectoral strategies, action plans, sector-specific regulations),[48] which have contributed to defining an ever-growing body of law aimed at regulating and governing the EU energy and ecological transition.

When analysing the EGD, its time horizon, ambitions and ramifications, there is no escaping the overall impression that it would be reductive to interpret it as a simple and linear development of EU environmental law and its conventional objectives. Indeed, the achievement of climate neutrality postulates the elaboration and implementation of a series of "profoundly transformative policies"[49] capable of affecting numerous interconnected domains and embracing different disciplines (such as industry, emission trading system, energy, transport, biodiversity, competition and social policy), each called upon to play a decisive role in the path towards decarbonisation. From the very beginning, the not purely technical but inherently political character of the EU climate neutrality project emerged. What had been presented by the Commission's political manifesto as an urgent challenge that could not be further postponed, *i.e*. combating climate change and achieving zero harmful emissions, became an opportunity to launch a process of remarkable transformation of the European construct, its values and fundamental mission, which clearly revolves around, but is not limited to, the overarching goal of climate neutrality.[50] The zeroing of emissions implied and manifested a deeper ambition, reflected in the Commission's quasi-constitutional language and "politically messianic"[51] narrative: that

Social Committee and the Committee of the Regions 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality. On the topic see Editorial Comments, 'The European Climate Law: Making the social market economy fit for 55?' (2021) CMLRev 1321. For a multi-disciplinary analysis of the sectoral proposal formulated in the package, I would also refer to G Cavalieri, B Celati, S Franca, M Gandiglio, AR Germani, A Giorgi and G Scarano, 'Il "Fit for 55" *unpacked*: un'analisi multidisciplinare degli strumenti e degli obiettivi delle proposte settoriali per la decarbonizzazione dell'economia europea (2022) Rivista della Regolazione dei Mercati 409.

[48] See, for instance, the "EU Biodiversity Strategy for 2030. Bringing nature back into our lives", Communication COM(2020) 102 final from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions of 10 March 2020 on A New Industrial Strategy for Europe; Communication COM(2020) 98 final from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 11 March 2020 A new Circular Economy Action Plan For a cleaner and more competitive Europe; Communication COM(2021) 706 final Proposal for a Regulation of the European Parliament and of the Council of 17 November 2021 on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010.

[49] Communication COM(2019) 640 final cit. 4.

[50] See E Chiti, 'Managing the Ecological Transition of the EU' cit. 19 according to which the EGD "is about the *finalité* of Europe. Far from dealing only with environmental protection, it is a wide-ranging and ambitious regulatory project, calling for a renewal of the European construct beyond the consolidated *acquis*".

[51] Reference is to the concept elaborated by JHH Weiler, 'The Political and Legal Culture of European Integration: An Exploratory Essay' (2011) International Journal of Constitutional Law 678; JHH Weiler,

of shaping a more fair, just and inclusive European society, based on an advanced growth model, a modern, resource-efficient (circular) and competitive economy, the protection of ecosystems and the establishment of harmonious relations between human beings and nature.[52] Thus, around an apparently technical and aseptic objective such as decarbonisation, numerous fundamental choices of an intrinsically political nature coalesced, affecting the economy, society and nature as a whole and shaping the way in which these components interact to each other.

Admittedly, the final outcome of the process is far from being defined. Time will tell whether the EGD project, naturally tending toward progressive juridification, specification and articulation, will be successful and whether it will be able to translate its ambitions into reality, thereby increasing the functional legitimacy of the EU. What is worth highlighting here is its dynamic and genuinely subversive character, which has been inextricably linked from the outset to the need to develop and implement an arsenal of transformative policies functional to decarbonisation that cut across almost major areas of economic and social regulation in the EU.[53] It is the transformative power of climate neutrality that makes the EGD a particularly relevant and intriguing field of investigation, on the assumption that the power dynamics and positive law trends observed within the EU energy and ecological transition may point in directions and reflect broader transformations of the European legal system and its regulatory machinery.

IV. The European Environment Agency within the institutional architecture of the Green Deal: role and functions

This is not the appropriate forum to analyse in detail the EU climate neutrality governance, its multiple features and distinctive regulatory techniques.[54] With the effort of maximum synthesis, it can be observed that the European Climate Law (ECL) draws the institutional architecture for achieving net zero emissions, which takes on the features of a soft and

'Europe in Crisis–On "Political Messianism", "Legitimacy" and the "Rule of Law"" (2012) Singapore Journal of Legal Studies 248.

[52] Communication COM(2019) 640 final cit. 2. On how the EGD articulates these regulatory objectives against the background of the EU substantive constitution see the in-depth analysis of E Chiti, 'Managing the Ecological Transition of the EU' cit. 19.

[53] On the characteristics and importance of social regulation within the European construct and its distinction with economic regulation see G Majone, *Regulating Europe* (Routledge 1996); G Majone, 'The Transformation of the Regulatory State' (2010) Osservatorio AIR; see also T Prosser, *The Regulatory Enterprise: Government, Regulation, and Legitimacy* (Oxford University Press 2010).

[54] For an analysis of the governance architecture outlined in the proposal for a European Climate Law, I would refer to A Giorgi, 'Substantiating or Formalizing the Green Deal Process? The Proposal for a European Climate Law' (2021) Rivista quadrimestrale di diritto dell'ambiente 17; more recently see D Bevilacqua, 'La normativa europea sul clima e il Green New Deal: Una regolazione strategica di indirizzo' (2022) Rivista trimestrale di diritto pubblico 297; and F Donati, 'Il Green Deal e la governance europea dell'energia e del clima' (2022) Rivista della Regolazione dei Mercati 22.

"experimentalist"[55] model of governance based on iterative and dialogic processes between the Commission and Member States. This flexible regulatory solution, which can be likened to a revised form of the well-known Open Method of Coordination (OMC),[56] is based on the centralisation of tasks and functions in the hands of the Commission, which is called upon to regularly monitor and evaluate the performance of the Member States (their decarbonisation plans and strategies) and the EU's progress against the climate neutrality target.[57] The entire construct appears to rest on confidence in the Commission's ability to guide, steer and supervise the EU energy and ecological transition process, even though it lacks effective enforcement and coercive powers over non-compliant states, whose sanction essentially ends up taking on the features of a political or reputational stigma ("public naming and shaming").[58]

It is in the context of this highly centralised institutional architecture that the genuinely auxiliary but no less important role of the European Environment Agency (EEA) emerges, called upon to assist the Commission in preparing its assessments on the effectiveness and consistency of climate neutrality measures and to provide it with highly qualified environmental information and scientific reports.[59] The role attributed to the EEA fully reflects the original functions and mandate of an "information agency"[60]

[55] According to the well-known definition of CF Sabel and J Zeitlin, 'Learning from Difference: The New Architecture of Experimentalist Governance in the EU' (2008) ELJ 271. The main features of this model, which can be easily detected in the EU decarbonisation governance, are the setting of a general goal at EU level, a wide discretion of local units (Member States) in pursuing the objective, regular reporting on the performance and the adoption of corrective measures.

[56] In the same vein see L Lionello, 'Il Green Deal europeo: Inquadramento giuridico e prospettive di attuazione' (2020) JUS-Online 127. On the OMC see, *inter alia*, C de la Porte, 'Is the Open Method of Coordination Appropriate for Organising Activities at European Level in Sensitive Policy Areas?' (2002) ELJ 38; E Szyszczak, 'Experimental Governance: The Open Method of Coordination (2006) ELJ 486; K Armstrong and C Kilpatrick, 'Law Governance, or New Governance? The Changing Open Method of Coordination' (2006) ColumJEurL 650.

[57] See arts 6 and 7 Regulation (EU) 2021/1119 cit.

[58] Indeed, the Commission can only adopt soft law measures such as recommendations in order to structure Member State compliance (see art. 7(2) and (3) Regulation (EU) 2021/1119 cit.), envisaging that some kind of political or reputational sanction may influence the conduct of national public powers. Admittedly, this is the one of the rationales behind the use of soft law in the European legal order, whereas soft law is intended as "general rules of conduct laid down in instruments which have not been awarded legal force as such, but which nevertheless have certain legal effects and which are directed at and may produce practical effect". See L Senden and S Prechal, 'Differentiation in and Through Community Soft Law' in B de Witte, D Hanf and E Vos (eds), *The Many Faces of Differentiation in EU Law* (Intersentia 2001) 185, from which the definition is taken; more recently, on the impact of EU soft law on national courts and administrations, see M Eliantonio, E Korkea-aho, and O Ştefan (eds), *EU Soft Law in the Member States: Theoretical Findings and Empirical Evidence* (Hart Publishing 2020). In a general perspective, the development by the EU legal order of steering and governing instruments "qualitatively different from coercive means of enforcement" and yet capable of structuring the compliance is discussed by E Chiti, 'The Governance of Compliance' in M Cremona (ed), *Compliance and the Enforcement of EU Law* (Oxford University Press 2012) 31.

[59] See recital 37 and art. 8(3)(b) and (4) Regulation (EU) 2021/1119 cit.

[60] E Chiti, 'European Agencies' Rulemaking: Powers, Procedures and Assessment' (2013) ELJ 98. For a general discussion on the EEA and the dynamics of environmental information see PGG Davies, 'The European

perfectly cast in the EU environmental and climate governance, charged with the production, collection and dissemination of qualitative environmental information needed both by policy and decision-makers: the former at the stage of drafting climate laws and policies, the latter at the phase of implementing those policies and concretely exercising decision-making powers. Nor should this role, traditionally described as "regulation by information"[61] to distinguish it from a genuine direct rule-making activity (whether *de jure* or *de facto* exercised), be underestimated: not only because the scientific input provided by the agency is essential for the proper implementation of European policies,[62] but also because it is unrealistic to deny that information, especially in case of complex technical issues, has become to all intents and purposes "an autonomous source of power"[63] capable of conditioning the general political discourse.[64]

In this, the EGD moves in a logic of substantial continuity with the past, requiring from the EEA an "apolitical", reliable and objective provision of scientific environmental information that can reduce the decision-maker's margin of discretion and ensure that its policy choices are guided "by the polity's normative commitment to the preservation of the environment"[65] and – it may be added – of ecosystems and natural capital. Rather, it seems to enhance the agency's supporting role *vis-à-vis* the Commission, not only in the upstream phase of drafting legislative proposals and policy documents, but also, and more importantly, in the downstream phase of soft enforcement, by requiring that the Commission's evaluation of the collective progress made by states and of the consistency of EU and national climate neutrality measures also take place on the basis of the EEA scientific reports. Several other strategies, policy documents and regulations further contain an express reference to the EEA and the information network it coordinates (Eionet), highlighting its functional significance within the EGD for ecological and biodiversity protection goals and clarifying its supporting and monitoring tasks towards Member

Environment Agency' (1995) Yearbook of European Law 313; E Chiti, *Le agenzie europee* cit. 247; more recently, M Martens, 'Voice or Loyalty? The Evolution of the European Environment Agency (EEA)' (2010) JComMarSt 881.

[61] G Majone, 'The New European Agencies: Regulation by Information' (1997) Journal of European Public Policy 262, according to which this specific regulatory intervention aims "to change behaviour indirectly, [...] by supplying the same actors with suitable information".

[62] E Chiti, 'European Agencies' Rulemaking' cit. 98.

[63] G della Cananea, 'The European Administration: Imperium and Dominium' in C Harlow, P Leino and G della Cananea (eds), *Research Handbook on EU Administrative Law* cit. 62.

[64] M Everson and C Joerges, 'Re-conceptualising Europeanisation as a Public Law of Collisions: Comitology, Agencies and an Interactive Public Adjudication' in HCH Hofmann and A Turk (eds), *EU Administrative Governance* (Elgar 2006) 530, characterising agencies as "political administration" to the extent that they "juxtapose technical and scientific information with political discourse".

[65] M Everson, 'Good Governance and European Agencies' cit. 146; see also C Waterton and B Wynne, 'Knowledge and Political Order in the European Environment Agency' in S Jasanoff (ed), *States of Knowledge: The Co-Production of Science and Social Order* (Routledge 2004) 87.

States.[66] Admittedly, this is far from surprising and results in a further articulation and "complication" of the traditional role played by the agency within the environmental protection provided by the EU through social regulation.[67]

V. The EU Scientific Advisory Board on Climate Change as a multifunctional independent body: a taxonomy and its implications

And yet, governance structures and arrangements are anything but static or monolithic. Rather, they are "the result of the evolutionary developments in the various policy areas"[68] and their geometry is linked to and driven by the functional needs and challenges faced by the EU legal order, as the progressive construction of EU administrative system shows.[69] This assumption is even more true when placed in the context of the transformative power and inherent dynamism of the EGD and is concretely evidenced by the recent establishment of the EU Scientific Advisory Board on Climate Change (Advisory Board). The decision to create a highly specialised body of an independent nature, which is mandated to act as a the Union's compass on climate change scientific knowledge, is an interesting and far from neutral development, capable of having implications not only on the profiles pertaining to the decarbonisation governance, but also, and more profoundly, on the relationship between (independent) scientific expertise and politics in the design and subsequent implementation of climate neutrality measures.[70] Hence, its genuinely problematic character.

[66] See, for instance, Communication COM(2020) 380 final cit. 7, which mandates the EEA, together with the Commission, to provide guidance to Member States on how to select species and habitats for protection and restoration, establishing an order of priority; see also the COM(2022) 304 final cit., which at recital 65 entrusts the EEA with the function of supporting Member States in the preparation of national restoration plans and in the monitoring of progress towards the achievement of nature restoration targets and obligations.

[67] On the difference between social regulation and social policy within the overall "social dimension" of European integration see G Majone, 'The European Community Between Social Policy and Social Regulation' (1993) JComMarSt 153.

[68] HCH Hofmann and A Turk, 'An Introduction to EU Administrative Governance' in HCH Hofmann and A Turk (eds), *EU Administrative Governance* cit. 5. On the capacity of environmental governance to provide an "unusually rich material" and a privileged observation point for the study of new governance processes see J Scott and J Holder, 'Law and New Environmental Governance in the European Union' in G de Burca and J Scott (eds), *Law and New Governance in the EU and the US* cit. 211.

[69] For an analysis of the phases and routes that led to the progressive construction of the European administrative system see E Chiti, 'La costruzione del sistema amministrativo europeo' cit. 46.

[70] In general terms, on the complex interface between scientific expertise and political-administrative decision within the EU legal order see C Joerges, KH Ladeur and E Vos (eds), *Integrating Scientific Expertise into Regulatory Decision-Making: National Traditions and Europeans Innovations* (Nomos 1997); R Dehousse, 'Misfits: EU Law and the Transformation of European Governance' (Jean Monnet Working Paper 2-2002) 13; M Everson and E Vos (eds), *Uncertain Risks Regulated* (Routledge-Cavendish 2009); M Weimer, 'Risk Regulation and Deliberation in EU Administrative Governance: GMO Regulation and Its Reform' (2015) ELJ 622.

The Advisory Board is given many different tasks and attributions, reflecting its centrality. These tasks range from reviewing the latest scientific conclusions and climate data of the Intergovernmental Panel on Climate Change (IPCC), to advising – through scientific opinions and reports – on existing measures and EU proposals to address the climate crisis, to proactively identifying the actions and opportunities needed to successfully achieve EU climate goals, via raising awareness about climate change and its harmful effects, and disseminating independent scientific knowledge on emissions reductions.[71] If I were to elaborate, with a functional approach, a rationalised version of the tasks and functions performed by the Advisory Board, I would argue that it is an independent body, endowed with a high degree of technical expertise, acting in a fourfold capacity:

i) as a "scientific advisor" to the EU in the energy and ecological transition process;

ii) as the EU "watchdog" to ensure the development of serious, consistent and scientifically based decarbonisation policies;

iii) as a reviewer and "scientific disseminator" of climate data and knowledge, in dialogue with counterparts established by international climate change regimes;

iv) as a proactive driver and "shadow policy-maker" of future EU climate actions.

The functional taxonomy I am proposing has not only a descriptive and classificatory value, but allows to reflect on the normative foundations of the choice to establish such a body and to analyse possible tensions inherent in it, both from an external and internal perspective.

VI. The "external" dimension: increasing cross-fertilisation of climate change governance

A first order of considerations concerns the external implications of the choice, which appears to push towards a more pronounced dialogue and cross-fertilisation between European and international law on climate change.[72] The new Advisory Board seems to find its functional source of inspiration in the IPCC, the United Nation body called upon to provide policy-makers with regular scientific assessments of climate change, its impacts and future implications, which governments can take as a basis for the elaboration of their own climate adaptation and mitigation policies.[73] Over the years, the IPCC has emerged as the most relevant and influential "informational source" in the international arena for climate change policy-

[71] For a more detailed list of tasks see art. 3(2) Regulation (EU) 2021/1119 cit.

[72] See in general terms S Kingston, 'Mind the Gap: Difficulties in Enforcement and the Continuing Unfulfilled Promise of EU Environmental Law' in S Kingston (ed.), *European Perspectives on Environmental Law and Governance* (Routledge 2013) 147 pointing out how parallel environmental governance regimes are increasingly resulting in inter-regime cross-fertilisation of a mutually reinforcing nature.

[73] On the topic see N Singh Ghaleigh, 'Science and Climate Change Law: The Role of the IPCC in International Decision-making' in CP Carlane, KR Gray and R Tarasofsky (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016) 55.

making.[74] While embracing and articulating its rationale, that is to condition the content of climate regulations with technical assessments and recommendations, the EU Advisory Board differs from the IPCC model in its independent nature and in the greater and more formalised number of functions exercised than the former. Interestingly enough, absent any proceduralisation, a sort of informal cooperation and "whispered" dialogue takes place between the two bodies, as the Advisory Board is called upon to examine the scientific conclusions of IPCC reports and climate data, paying particular attention to information relevant to the EU.[75]

The interplay between the different regimes on climate change thus becomes even more complex and articulated. It has been recently argued that the UN Paris Agreement[76] catalysed a process of trans-nationalization[77] (or rather of "administrativeisation") of international law in the area of climate change governance, by creating mechanisms and procedural structures that facilitated, within a bottom-up architecture, the participation in climate action of several transnational actors. Latest developments seem instead to open up a process of European import and re-adaptation of consolidated models operating in international climate change regimes, paving the way for a phenomenon of partial internationalization of European (administrative) law[78] and gradual convergence between the two legal systems, at least on an organisational level.

VII. The "internal" dimension: a thorny cohabitation with the European Environment Agency

Further reflections relate to the internal dimension of the decision to establish an independent scientific body on climate change, *i.e*. its repercussions on the European legal system and its administrative space. It is precisely here that the greatest challenges lie, both from an organisational point of view, concerning the allocation of tasks and functions among the various actors that in different ways condition the design of climate policies, and from a substantive point of view, due to the uneasy coexistence between the

[74] M Peeters, 'Climate Science in the Courts' in V Abazi, J Adriaensen and T Christiansen (eds), *The Contestation of Expertise in the European Union* (Palgrave Macmillan 2019) 145.

[75] Art. 3(2)(a) Regulation (EU) 2021/1119 cit.

[76] United Nations, Framework Convention on Climate Change of 12 December 2015, UN Doc FCCC/CP/2015/L9/Rev/1 ('Paris Agreement').

[77] See G Çapar, 'From Conflictual to Coordinated Interlegality: The Green New Deals Within the Global Climate Change Regime' (2021) Italian Law Journal 1003.

[78] On the administrative dimension of the interactions between EU law and international law, see E Chiti, 'EU Administrative Law in an International Perspective' in C Harlow, P Leino and G della Cananea (eds), *Research Handbook on EU Administrative Law* cit. 545 where the complex legal arrangements governing the interplay between EU administrative law and international law are reconstructed.

technical-neutral characterisation of the Advisory Board and the irredeemably political nature of climate neutrality measures.[79]

Starting with the former, the relationship between the Advisory Board and the EEA is not fully structured and clarified, nor is the scope of their respective attributions, which to a certain extent may even compete and overlap when it comes to sharing climate information and scientific reporting to the Commission. Indeed, both bodies play in principle an auxiliary role *vis-à-vis* the Commission, which is mandated to assess the coherence of national and European decarbonisation measures (also) in the light of the EEA and Advisory Board scientific reports.[80] Yet, while the Advisory Board is assigned a function that is meant to be "supplementary" to the work of the EEA,[81] this is difficult to reconcile with the quality, variety and significance of tasks assigned to the latter. What is more, no criteria seem to guide the decision-maker's choice should the reports of the two bodies be methodologically or substantially inconsistent with each other. It is currently uncertain what would occur if there were significant discrepancies between the scientific findings of the EEA and those of the Advisory Board. There are no normative or technical parameters available to determine which of the two scientific reports should be given greater epistemic value and, accordingly, capacity to influence and shape the Commission's decision-making process. In light of this, one should not assume that the interactions between the two bodies will be necessarily harmonious, particularly if the EEA were to perceive that its influence and information prerogatives have been downgraded in practice. On the contrary, there is a risk that a future indirect "regulatory conflict" may arise in the absence of effective coordination and clear allocation of functions, the consequences of which are as yet unforeseeable, but might jeopardise the overall coherence of the EU climate neutrality strategy.

VIII. The integration of independent scientific expertise into the regulatory process: legitimising force or disputable "epistemic leadership"?

So we have arrived at the heart of the problem, namely the reasons that justify from a normative point of view the choice of establishing an independent body, endowed with high technical expertise, entrusted with the task not only of providing scientific advice to policy-makers, but also of proactively identifying "the actions and opportunities needed

[79] Already with reference to environmental protection, scholars emphasised that "EU environmental law and policy-making entails an intriguing mix of political and technical considerations and final decisions are often of a political nature". In these terms A Volpato and E Vos, 'The Institutional Architecture of EU Environmental Governance: The Role of EU Agencies' in M Peeters, M Eliantonio (eds), *Research Handbook on EU Environmental Law* (Elgar 2020) 54, referring in turn to M Lee, *EU Environmental Law, Governance and Decision-Making* (Oxford University Press 2014) 56.

[80] See art. 8(3)(b) Regulation (EU) 2021/1119 cit.

[81] See recital 24 and art. 12 Regulation (EU) 2021/1119 cit.

to successfully achieve the Union's climate objectives".[82] Explanations for this development clearly lie in the need to increase the role of science in climate policy-making and the weight of expert advice within the EGD regulatory process.[83] Abstractly taken, these opinions, whose function is to restrict the decision-maker's room for manoeuvre by conditioning its choices on compliance with rigorous scientific evaluations and parameters, have a significant indirect regulatory power and, consequently, the capacity to considerably influence the substance of the Commission's climate neutrality choices.

In this respect, the Advisory Board should act as a legitimising force in the Union's energy and ecological transition process and its independence, combined with a high degree of scientific expertise, should increase the objectivity, effectiveness and credibility of stringent climate policies. Behind the creation of the body there is hence a clear functional rationale, which is to take the choice as far as possible away from the politics, its logic and arbitrariness, and to invest the independent neutral entity with it, to ensure that the development and subsequent implementation of climate measures are consistent with the goal of climate neutrality. Once the emergence of this peculiar form of "regulation by consultation" is recognised,[84] the discussion could therefore end here.

And yet, on closer examination, this regulatory option shows its decidedly problematic character. Leaving aside the physiological uncertainty to which (climate) science is subject,[85] its inherently controversial nature or the risk of pathological phenomena that may undermine the credibility of scientific findings (conflict of interest, undue pressure, capture),[86] it seems difficult to deny that environmental policy and *a fortiori* climate change measures

[82] Art. 3(2)(d) Regulation (EU) 2021/1119 cit.

[83] As seems to be confirmed by the EU invitation to each Member State to establish a national climate advisory body, responsible for providing scientific advice on climate policy to the competent national authorities, pursuant to art. 3(4) Regulation (EU) 2021/1119 cit. On the crucial role played by science in climate change policy-making see T Meyer, 'Institutions and Expertise: The Role of Science in Climate Change Lawmaking' in CP Carlane, KR Gray and R Tarasofsky (eds), *The Oxford Handbook of International Climate Change Law* cit. 441; AE Dessler and EA Parson, *The Science and Politics of Global Climate Change* (Cambridge University Press 2006) 18.

[84] Peculiar only in respect to its application to the climate change realm. Admittedly, the model in itself is far from new and the EU legal system has already experimented with it in other fields, such as the regulation of food safety. The point is recently highlighted by D Bevilacqua, 'La normativa europea sul clima e il Green New Deal' cit. 297, to whom we refer for an analysis of how a "technical administration" such as the European Food Safety Authority (EFSA) is able to influence the content of policy and administrative decisions of the food sector through its risk assessment activities.

[85] On the different varieties of scientific uncertainty and how science handles each of them to support climate policy-making see LA Smith and N Stern, 'Uncertainty in Science and Its Role in Climate Policy' (2011) Philosophical Transactions of the Royal Society A 4818.

[86] See R Dehousse, 'Misfits' cit. 15: "(w)hereas policy-makers expect scientific assessments to provide them with clear-cut answers, we have known since Karl Popper that there is no such thing as a stable and definitive truth in in scientific discussion". With specific reference to the climate change matter, some critical remarks concerning the functioning of the IPCC are made by D Henderson, 'Unwarranted Trust: A Critique of the IPCC Process' (2007) Energy and Environment 249.

are characterised by a strong "political and ethical significance"[87] that can hardly be sterilised by the scientific assessment of an independent body. The EGD, in this sense, is a striking example. Around an apparently technical and aseptic objective such as climate neutrality, hardly subsumed within a single policy-field, numerous fundamental choices of an intrinsically political nature coagulate, requiring policy-makers to strike difficult balances between economic, social, environmental and ecological considerations in accordance of an "overriding"[88] public interest in decarbonisation. The Commission itself has repeatedly highlighted how the realisation of the EGD necessitates the elaboration and implementation of a range of transformative policies spanning different interconnected policy fields and capable of deeply impacting the European legal and societal order.

Therefore, climate neutrality measures adopted by both national and supranational public powers[89] imply a cross-sectional vision and engage them in a delicate political process of balancing and adjusting several competing interests, values and instances (public, private, collective). This process often requires taking an intergenerational perspective and addressing social justice, ethical, and equity considerations inherent in the choice, to avert potential regressive effects and protect the most vulnerable groups against the setbacks of the transition.[90]

But there is more than that. Not only the purpose and content (*quid*) of a climate policy, but also the way to achieve the envisaged goal (*quomodo*) are the result of a choice that cannot be fully delegated to a scientific assessment conducted by an independent technical subject. The choice of the most suitable instrument to control externalities and reduce emissions is often influenced by normative ideals, past experience, the criteria used to assess its effectiveness (economic efficiency *vis-à-vis* distribution of costs and benefits over the population) and the political feasibility and desirability of the instrument. As the

[87] A Volpato and E Vos, 'The Institutional Architecture of EU Environmental Governance: The Role of EU Agencies' cit. 54.

[88] Communication COM(2022)108 final from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions of 8 March 2022 on REPowerEU: Joint European Action for more affordable, secure and sustainable energy, para. 2(2)(3). See recently on this topic E Bruti Liberati, 'La strategia europea di decarbonizzazione e il nuovo modello di disciplina dei mercati alla prova dell'emergenza ucraina' (2022) Rivista della Regolazione dei mercati 3.

[89] On the crucial role of public powers in reorienting the economic system to address the challenges of decarbonisation and ecological transition see, with different perspectives, A Moliterni, 'Transizione ecologica, ordine economico e sistema amministrativo' (2022) Rivista di Diritti Comparati 395; E Bruti Liberati, 'Politiche di decarbonizzazione, costituzione economica e assetti di governance' (2021) Diritto pubblico 415; F de Leonardis, 'La transizione ecologica come modello di sviluppo di sistema: il ruolo delle amministrazioni' (2021) Diritto amministrativo 779.

[90] On the inevitable intertwining of climate concerns and social justice profiles see, *inter alia*, LR Mason and J Rigg, 'Climate Change, Social Justice: Making the Case for Community Inclusion' in LR Mason and J Rigg (eds), *People and Climate Change: Vulnerability, Adaptation, and Social Justice* (Oxford Academic 2019); MT Brown, *A Climate of Justice: An Ethical Foundation for Environmentalism* (Springer 2022).

literature on environmental regulation shows, no one tool is abstractly superior to the others when all dimensions relevant to environmental policy decision are taken into account.[91] And the final decision, although based on technical criteria and evaluations, is fundamentally political in nature, affected by a number of contextual factors and influenced by ideological preferences capable of masquerading with neutral choices.[92]

How, then, can the inherent political salience of climate change be reconciled with the "epistemic leadership" that seems to be conferred on the Advisory Board? To what extent is a scientific body of an independent nature capable of making assessments of appropriateness in climate change realm that require balancing several competing interests and exercising political discretion? And what legitimacy does this body have in indicating the actions necessary to achieve a goal as transformative as climate neutrality?[93]

Admittedly, it is not possible to provide a definitive answer due to the freshness of the regulatory intervention and the dynamic and evolutionary nature of the EGD. Furthermore, it remains to be seen how and to what extent the Advisory Board technical advice will actually influence (the substance of) EU climate measures and policy-making and how its scientific deliberations will be organised from a procedural point of view, in light of the administrative rule of law principles and guarantees. In this regard, establishing an independent body like the Advisory Board requires not only fully regulating the criteria and conditions that ensure its structural and functional independence and the scientific independence of the experts that are its members, but also to design mechanisms to control their work, to subject their scientific assessments to transparency guarantees and to construct a fully-fledged "accountability regime"[94] that reinforces the overall legitimacy of the independent body.[95] On both these aspects, however, the supranational discipline is currently laconic and excessively vague.[96]

[91] See LH Goulder and IWH Parry, 'Instrument Choice in Environmental Policy' (2008) Review of Environmental Economics and Policy 152.

[92] On how ideologies and interests are able to influence technical choices and masquerade with them see the seminal work of K Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Beacon Press 2001); and J Weiler, 'The Transformation of Europe' (1991) YaleLJ 2403.

[93] This last question becomes even more relevant when one considers that "the scale and veracity by which the contestation of expertise (in the European Union) has been taking place in recent years is unprecedented". The passage is extrapolated from the preface to V Abazi, J Adriaensen and T Christiansen (eds), *The Contestation of Expertise in the European Union* cit.

[94] Reference is to the notion elaborated by JL Mashaw, 'Structuring a "Dense Complexity": Accountability and the Project of Administrative Law' (2005) Issues in Legal Scholarship 8; see also M Bovens, D Curtin and P 't Hart (eds), *The Real World of EU Accountability: What Deficit?* (Oxford University Press 2010); and P Craig, 'Accountability' in A Arnull and D Chalmers (eds), *The Oxford Handbook of European Union Law* (Oxford University Press 2015) 431.

[95] On the possibility of basing the legitimacy of scientific evaluations on the way these deliberations are organised, with particular reference to the principles of transparency, accountability, and independence see R Dehousse, 'Misfits' cit. 14.

[96] As evidenced by reading art. 12 Regulation (EU) 2021/1119 cit.

Those raised above, however, are relevant questions that the Union will have to answer sooner or later. While waiting for a clarification of the overall direction of the EU decarbonisation project and the power relations between its multiple actors, it seems possible to point out the problematic coexistence between the innate "politicity" of climate neutrality measures and the alleged scientific "neutrality" of an independent technical body in charge of substantiating these measures, which risks generating a tension (or, in worst-case scenarios, a contradiction) within the EGD that could be hardly remediable, especially should a process of genuine dialectic and political synthesis be lacking.

IX. Conclusions

This *Article* started with a number of questions concerning the role played by EU agencies in the evolving EU legal system and their ability to provide a functional and normative response to the Union's complex challenges, first and foremost the achievement of climate neutrality. The perspective adopted, focused on the EU energy and ecological transition project, does not permit nor pretend to provide an exhaustive answer to these ambitious questions. However, the analysis of the institutional dynamics, governance arrangements and policy choices that characterise a political project as profound as the EGD allows for some concluding remarks that can serve as a basis for further discussions and broader analysis. The conclusions are summarised as follows.

First, the EGD does not seem to openly question the agency model based, among other things, on the distinguishing feature of autonomy. The EEA continues to play a relevant role in the EU climate neutrality governance, it is not – in Dino Buzzati's words – a "fortress Bastiani"[97] overtly deprived of its strategic importance. Nor could be otherwise, given its well-established function of high-quality environmental information dissemination and the ramified network that coordinates. This prototypical, almost "totemic" character of one of the first agencies created in the EU legal system might explain why the supranational legislator did not choose the path of enhancing its tasks and attributions, opting instead for the creation of an independent scientific Advisory Board.

Second, the establishment of such a body, while not disavowing the agency model, perforce entails its partial functional downsizing, in a more subtle and disguised manner than the *mens legis* might suggest. The quantity, quality and relevance of tasks and functions attributed to the Advisory Board, a rationalised version of which was provided, testifies to the EU's need to strengthen the role of independent science and the weight of expert advice in the development of credible and rigorous climate policies, beyond the

[97] D Buzzati, *Il deserto dei Tartari* (Rizzoli 1940). In Buzzati's famous novel, the Bastiani fortress represents a once important and strategic defensive outpost, but now devoid of any utility and functional relevance due to the prolonged absence of attacks and threats from the desolate plain that the monumental construction, perched on the mountain, dominates. There is thus a hiatus between the apparently solemn character of the fortress and the function of mere historical testimony that the defensive construction, like a hollow simulacrum, essentially performs.

mere "regulation by information" of the EEA. The new scientific body and its distinctive "regulation by consultation" stand to become the *de facto* cornerstone of the entire structure built by the EU to tackle the challenge of climate neutrality. Yet, if not appropriately coordinated and harmonised, the two indirect regulatory functions of the EEA and the Advisory Board, rather than tending towards integration, could instead lead to potential conflicts and the "disintegration" of the functional rationality of the overall EGD.

Third, a general EU's tendency to rely on the independence formula to cope with situations and contexts *lato sensu* of crisis seems to be confirmed, despite the unquestionable diversity of assumptions, expected outcomes and powers attributed to the independent body.[98] Yet, when experienced and declined in climate change realm, the model of independent experts with highly specialised technical knowledge seems to show some limitations. Climate neutrality measures, as has been thoroughly argued, are characterised by a strong political significance. And their political salience cannot nor should be entirely neutralised by technical assessments conducted by an independent body ill-suited to balance between competing claims, values and interests in the same way as political-administrative institutions. The risk, otherwise, is that instead of serving as a legitimising force for the EGD, the Advisory Board may turn into a questionable "shadow policy-maker" and "epistemic leader" in the EU energy and ecological transition process, especially if its functioning is not accompanied by effective consensus-building[99] and full compliance with the administrative rule of law guarantees and principles. While awaiting clarification on the dynamics and power relationships among the multiple actors operating within the climate neutrality governance, as well as the actual influence of the Advisory Board on EU climate policy-making, it is worth pointing out the existence of a number of latent tensions, knots and potential conflicts that might functionally and normatively undermine the EGD legitimate ambitions.

[98] Admittedly, the creation of the three European Supervisory Authorities (EBA, EIOPA, ESMA) in the aftermath of the financial and public debt crisis represents a striking example of the EU political choice to go beyond the traditional EU agency model, based on simple autonomy from the Commission, and to establish genuine EU independent authorities provided with relevant regulatory powers. On the rise of an EU independent authority model within the agencification process see E Chiti, 'The Agencification Process and the Evolution of the EU Administrative System' cit. 146.

[99] On the need to develop "civic epistemologies" as "publicly accepted and procedurally sanctioned ways of testing and absorbing the epistemic basis for decision making" see S Jasanoff, 'Cosmopolitan Knowledge: Climate Science and Global Civic Epistemology' in JS Dryzek, RB Norgaard, and D Schlosberg (eds), *The Oxford Handbook of Climate Change and Society* (Oxford University Press 2011) 129.