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Climate change integration in the multilevel governance of Italy and Austria: the key role of vertical and horizontal coordination**

ABSTRACT (EN): Climate change represents a global problem and a challenge with manifold responses, which requires coordinated action at different levels. In this context, subnational governments play a significant – yet still understudied – role in the fight against climate change; they exercise powers in policy sectors that may have an impact on climate mitigation and adaptation objectives, such as transport, energy and water, and spatial planning. The research project “Climate change integration in the multilevel governance of Italy and Austria” (Research Südtirol/Alto Adige 2019) compares the Italian and Austrian legal systems with a particular focus on how climate change policy integration (CPI) is realized in the Autonomous Province of Bolzano and Trento in Italy and Länder Tyrol and Vorarlberg in Austria. The project hypothesizes that five factors play a particularly significant role in realizing CPI, namely coordination, participation, information, leadership and funding. In this contribution, we will focus on the dimension of coordination. Also in light of the different decentralization arrangements in Italy and Austria, coordination in the study areas analysed unfolds differently concerning both the type and the employed instruments of coordination, although certain common tendencies can also be observed. Drawing from the results of the empirical research (interviews) conducted in the study areas, this article argues that coordination is affected by the federal vs regional organization of the State only when it comes to vertical coordination. Furthermore, since climate change is not a unitary policy field, improving horizontal coordination among policy fields seems to be more crucial than improving vertical coordination.

ABSTRACT (IT): Il cambiamento climatico è un problema globale e una sfida complessa, che richiede un'azione coordinata a diversi livelli. In questo contesto, i governi subnazionali svolgono un ruolo significativo – per quanto ancora poco studiato – nella lotta contro il cambiamento climatico. Essi esercitano infatti le proprie competenze in settori di policy che possono avere un impatto sugli obiettivi di mitigazione e adattamento al clima, come mobilità, energia e risorse idriche, e pianificazione territoriale. Il progetto “Climate change integration in the multilevel governance of Italy and Austria” (Research Südtirol/Alto Adige 2019) mette a confronto i sistemi giuridici italiano e austriaco, con un'attenzione particolare a come viene realizzata l'integrazione delle politiche sui cambiamenti climatici (CPI) nelle Province Autonome di Bolzano e Trento in Italia e nei Länder Tirolo e Vorarlberg in Austria. Il progetto ipotizza che cinque fattori giochino un ruolo

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** Peer-reviewed article. In the common elaboration of this article, section 1 was written by Federica Cittadino, sections 2.1 and parts of section 3.1 (Province of Trento) by Niccolò Bertuzzi, sections 2.2.1 and parts of section 3.1 (Province of Bolzano) by Giada Giacomini, sections 2.2.2 and 3.2 by Alice Meier, and section 4 by all.

particolarmente significativo nella realizzazione della CPI: coordinamento, partecipazione, informazione, leadership e finanziamento. In questo contributo ci concentreremo sulla dimensione del coordinamento. Anche alla luce dei diversi assetti di decentramento in Italia e Austria, il coordinamento nelle aree di studio analizzate si sviluppa in modo diverso sia per quanto riguarda la tipologia sia per gli strumenti di coordinamento utilizzati, sebbene si possano osservare anche alcune tendenze comuni. Sulla base dei risultati della ricerca empirica (interviste) condotta nelle aree di studio, questo articolo sostiene che la dimensione del coordinamento è influenzata dall'organizzazione dello Stato in senso federale o regionale solo per lo specifico aspetto della coordinazione verticale. Inoltre, dal momento che il cambiamento climatico non è un settore di policy unitario, migliorare il livello di coordinazione orizzontale si è rivelato essere più importante che migliorare la coordinazione verticale.

SUMMARY: 1. Introduction. – 2. Vertical coordination. – 2.1. Relevance of international and EU framework. – 2.2. Mechanisms of vertical coordination with the national level. – 2.2.1. Italy. – 2.2.2. Austria. – 3. Horizontal coordination. – 3.1. The Autonomous Provinces of Trento and Bolzano. – 3.2. Länder Tirol and Vorarlberg. – 4. Conclusion.

1. Introduction

Climate change represents an urgent global challenge¹ that requires coordinated action at different levels². While objectives and framework rules to mitigate global warming are decided at the international level (see *infra*), their implementation remains key and requires that measures are adopted at different levels of government, including the subnational one. Indeed, the role of subnational governments in the fight against climate change is still largely understudied³. Most contributions focus on the role of local governments, such as cities and municipalities, either in forwarding the global climate agenda or in promoting innovative climate-related measures⁴. Less debated is instead the role that subnational intermediate governments⁵, such as regions, autonomous communities, *Länder*, and others, play in governing climate change.

This article aims to partially fill this gap by concentrating on how climate change is embedded in policy-making in selected subnational entities, namely the Autonomous Provinces of Trento and Bolzano in Italy and *Länder* Tyrol and Vorarlberg in Austria. In particular, the

¹ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Sixth Assessment Report, IPCC, 2022, available at <https://www.ipcc.ch/report/ar6/wg2/>.

² D. BROWN, *Cooperative versus competitive federalism: Outcomes and consequences of intergovernmental relations on climate change issues in Canada*, in *Zeitschrift für Kanada – Studien*, n. 32(2), 2012, pp. 9-27.

³ C. ADELLE and D. RUSSEL, *Climate policy integration: A case of déjà vu?*, in *Environmental Policy and Governance*, 2013, n. 23(1), pp. 1-12; R. STEURER and C. CLAR, *The ambiguity of federalism in climate policy-making: How the political system in Austria hinders mitigation and facilitates adaptation*, in *Journal of Environmental Policy & Planning*, n. 20(2), 2017, pp. 252-265.

⁴ E.g. H. BULKELEY, *Cities and climate change*, Routledge, London and New York, 2012; A. HUNT and P. WATKISS, *Climate change impacts and adaptation in cities: A review of the literature*, in *Climatic Change*, n. 104, 2011, pp. 13-49; S. HUGHES, E.K. CHU and S.G. MASON (eds.), *Climate Change in cities innovations in multi-level governance*, Springer, Cham, 2018.

⁵ For a discussion on the concept of intermediate entities, see T.O. HUEGLIN and A. FENNA, *Comparative federalism: A systematic inquiry*, University of Toronto Press, Toronto, 2015, at 16 ff.

article will focus on the aspects of vertical and horizontal coordination, which are deemed to be essential elements in the integration of climate change into the policies where the selected subnational entities exercise primary or shared legislative powers.

Coordination aims to respond to the need of legal scholars – particularly those dealing with federalism and multi-level systems – of going beyond the formal descriptions of powers attributed to different levels of government to explore instead how power distribution works in practice⁶. When it comes to climate change integration, coordination among different levels of government and across sectors is intended as a way to facilitate the cooperation among policy- and decision-makers.

Mitigation and adaptation policies are transversal to a number of national, regional, or shared policy fields, such as environmental conservation, energy policy, water management, spatial planning, and others. Therefore, governing climate change poses specific challenges since it requires a high level of *vertical coordination* among different policy-makers, from the international to the local levels, in multiple policy sectors. Furthermore, the governance of climate change is not contained within any single sectoral policy. Rather, to tackle climate change, national and subnational governments need to enact legislative and administrative measures in a range of sectoral policy areas where they must coordinate their interventions in separate but overlapping policy fields. Cooperation across sectors between policy-makers and policy-officers operating at the same level (*horizontal coordination*) is therefore necessary to ensure both coherence and effectiveness⁷.

Our contribution draws from the research conducted in the context of the project “Climate change integration in the multilevel governance of Italy and Austria”⁸, financed within the program Research Südtirol/Alto Adige 2019 of the Autonomous Province of Bolzano. The project has a broader scope than the problem analysed in this article, since it aims to uncover and test the relevance of factors additional to coordination in the integration of climate change in subnational policy-making, namely participation of the public, information, leadership, and funding. The importance of these factors in particular is tested with reference to three specific policy fields that are deemed especially relevant for climate change integration, namely transport, energy (including hydropower), and spatial planning. The rationale for selecting the abovementioned study areas and the methodologies applied to specifically study the issue of coordination, however, are the same and are briefly illustrated in the following.

The Autonomous Provinces of Trento and Bolzano in Italy and the *Länder* Tyrol and Vorarlberg in Austria share a number of important elements. First, they are facing similar consequences triggered by climate change, in terms of water shortages, melting of glaciers, decreased and less permanent snow coverage in winter times, increased extreme weather events,

⁶ R. POUND, *Law in books and law in action*, in *American Law Review*, n. 44, 1910, pp. 12-36; C. ROTHMAYR ALLISON, *Law in books versus law in action: A review of the socio-legal literature*, in L.M. IMBEAU and S. JACOB (eds.), *Behind a veil of ignorance? Power and uncertainty in constitutional design*, Springer, Heidelberg, New York, Dordrecht and London, 2015; F. PALERMO and K. KÖSSLER, *Comparative federalism: Constitutional arrangements and case law*, Hart Publishing, Oxford, 2017, p. 3.

⁷ B.G. PETERS, *Managing horizontal government: The politics of coordination*, in *CCMD research paper 21*, 1998.

⁸ See <https://www.eurac.edu/en/institutes-centers/institute-for-comparative-federalism/projects/research-suedtirol>.

and modification of mountainous ecosystems⁹. Second, from an institutional point of view, both the Italian Autonomous Provinces and the Austrian *Länder* share some legislative powers with the national level in the sectors related to climate change. In Italy, legislation on environmental protection is an exclusive national competence of the Italian State, yet the regions hold exclusive or shared powers over matters that overlap with environmental protection, including transport, energy, and spatial planning. In Austria, environmental protection is considered a “*Querschnittsmaterie*” (a shared area)¹⁰ which includes energy, water, spatial planning, and nature protection. Thus the selected policy areas are considered partly within the exclusive competence of the *Bund* (e.g. water), partly in the exclusive competence of the *Länder* (e.g. nature protection)¹¹ and partly “*Querschnittsmaterien*” themselves (e.g. energy or spatial planning). Third, the selected study areas have put in place fruitful cross-border cooperation initiatives, including in environmental matters. The Euregio European Grouping of Territorial Cooperation (EGTC), which includes the Autonomous Provinces of Trento and Bolzano and *Land* Tyrol, shares a common history, common problems and the political will to solve them in a coordinated way. *Land* Vorarlberg is involved in political coordination in the Euregio through its observer status at the *Dreier Landtag*, the biannual meeting between the legislative assemblies of the Euregio members¹².

Although problems and institutions to some extent are shared, Italy and Austria also present variation in terms of subnational legal and governance systems, the former being a regional state (art. 114 and 116 Italian Constitution) and the latter a federal state (art. 2(2) Federal Constitutional Law, *Bundes-Verfassungsgesetz* – B-VG). This different organization of the state implies different degrees of autonomy of subnational entities, coupled with different financial capacity, different coordination mechanisms, and a different cooperation culture, as this contribution shows in more detail in the following sections. Even more interestingly, there is a certain degree of intra-national variation among the selected cases, although they share the same constitutional status. In Italy, the instruments adopted to tackle climate change differ in the two Autonomous Provinces: Trento has a legislative framework in place¹³, while Bolzano has adopted a framework cross-sectoral strategy on climate¹⁴. In Austria, *Land* Vorarlberg has a longer and more established history than *Land* Tyrol of climate activism¹⁵ and related participatory experiences¹⁶.

Concerning the methods of the research, the project relied both on desk research to retrieve the most significant legal documents and strategies that are relevant when it comes to climate

⁹ *Rapporto sul clima Alto Adige* (Eurac Research 2018), at 30; *Climate Action Plan 2.0* (Alpine Convention 2021), at 8.

¹⁰ M. STELZER, *The Constitution of the Republic of Austria: A contextual analysis*, Hart Publishing, Oxford, 2011.

¹¹ See section 3.

¹² <https://www.landtag-bz.org/de/dreier-landtag.asp>.

¹³ L.P. 5/2010, as amended by L.P. 19/2013.

¹⁴ Climate and Energy Plan – South Tyrol 2050, now partially replaced by Piano clima Alto Adige 2040, available at <https://ambiente.provincia.bz.it/piano-clima-energia-alto-adige-2050.asp>.

¹⁵ Art. 7(7) Vorarlberg Constitution establishes that the protection of the climate is a “state aim” (*Staatsziel*).

¹⁶ P. BÜßÄGER, *Entwicklungen in der direkten Demokratie und Bürgerbeteiligung in Vorarlberg*. in G. LIENBACHER (ed.), *Parlamentarische Rechtsetzung in der Krise*, Jan Sramek Verlag, Vienna, 2014; *Handbuch Bürgerbeteiligung für Land und Gemeinden* (Land Vorarlberg 2010).

policy integration (CPI)¹⁷ and on more empirical research in the form of a total of thirty-nine semi-structured interviews, conducted from June to November 2021, with relevant stakeholders from the administration and civil society in the study areas, in order to uncover more informal elements¹⁸.

The same data are used in this article to show how coordination in relation to policy-making in the field of climate change is realized in the study areas considered. A complementary goal of this contribution is to understand, through a comparative analysis, whether the regional or federal organization of the State, respectively in Italy and Austria, influences both the existence and the functioning of coordination mechanisms in the legal systems analysed. To this end, section 2 describes the mechanisms of vertical coordination between the State and the Autonomous Provinces in Italy and between the *Bund* and the *Länder* in Austria that may have a bearing on climate change integration. Section 3 analyses horizontal coordination within the selected study areas, in a way to uncover formal and informal cross-sectoral coordination mechanisms between different policy fields that are relevant to climate change. Section 4 draws comparative conclusions on the relative importance of coordination mechanisms and their relation with the different legal systems considered.

2. Vertical coordination

2.1. Relevance of international and EU framework

The world is “sleepwalking to climate catastrophe”; the objective to maintain global warming to 1.5 degrees Celsius above pre-industrial levels is “on life support. It is in intensive care”. These words were used by United Nations (UN) Secretary General Antonio Guterres during the Economist Sustainability Summit in March 2022¹⁹. A similar dramatic tone was adopted by the President of the European Commission Ursula von der Leyen in November 2019 when launching the European Green Deal, aiming to make Europe carbon-neutral by 2050: von der Leyen called it nothing less than “Europe’s man on the moon moment”²⁰.

These and similar speeches pronounced by key political figures testifies the extreme relevance that fighting climate change assumed in the rhetoric of international and European climate governance, especially in terms of mitigation. The international commitment dates back

¹⁷ C. ADELLE and D. RUSSEL, *Climate policy integration...*, cit.; G. R. BIESBROEK et al., *Europe adapts to climate change: Comparing national adaptation strategies*, in *Global Environmental Change*, n. 20, 2010, pp. 440-450; N. M. SCHMIDT and A. FLEIG, *Global patterns of national climate policies: Analyzing 171 country portfolios on climate policy integration*, in *Environmental Science and Policy*, n. 84, 2018, pp. 177-185; M. NILSSON and L. J. NILSSON, *Towards climate policy integration in the EU: Evolving dilemmas and opportunities*, in *Climate Policy*, n. 5, 2005, pp. 363-376.

¹⁸ Among the thirty-nine interviews, twelve refer to the Autonomous Province of Bolzano, eleven to the Autonomous Province of Trento, eight to *Land Tyrol*, and eight to *Land Vorarlberg*. Non only administrative figures were interviewed, but also political ones, members of civil society organizations (especially environmental organizations) and technical experts. The interviews were conducted online, recorded, and anonymized according to the Regulation (EU) 2016/679 (General Data Protection Regulation - GDPR).

¹⁹ <https://www.washingtonpost.com/climate-environment/2022/03/21/15c-climate-guterres-life-support/>.

²⁰ <https://www.theparliamentmagazine.eu/news/article/europes-man-on-the-moon-moment-von-der-leyen-unveils-eu-green-deal>.

at least to the 1970s, but it increased considerably in the last thirty years, starting from the UN Framework Convention on Climate Change (UNFCCC), the environmental treaty produced by the UN Conference on Environment and Development (UNCED, informally known as the Rio Earth Summit) in 1992, and signed by 154 States (currently 197). The convention pushed governments to pursue a 'non-binding target' to reduce atmospheric concentrations of greenhouse gases (GHG) in order to limit the anthropogenic effects on global warming. With the aim of assessing progress on the climate targets identified by that convention, formal meetings are held every year (starting from 1995, in Berlin) between the signers of the UNFCCC: these meetings are known as the UN Climate Change Conference of Parties (COP). Of particular relevance in terms of public debate and policy/strategy production, were COP3, held in Kyoto, and COP21 in Paris²¹. The Kyoto Protocol was a turning point, being the first international agreement containing a commitment of the industrialized countries to reduce GHG emissions; the Paris Agreements defined the structure of so-called Nationally Determined Contributions (NDCs), thus giving higher relevance to single States' voluntary commitment.

The leading role of international treaties and more generally international governance in pushing action and raising awareness at the local and subnational level was acknowledged by all the respondents of our inquiry, both those from civil society and those involved in the public administration (politicians and administrative figures). This is the most shared result among our sample, not only referring to vertical and horizontal coordination, but also looking at the whole range of dimensions considered. Beyond the international treaties, the role of the European Union (EU) in particular has been highlighted, and especially of the EU directives, acting as a main driver to implement effective policies at the national and subnational level²². As a prove of that, a considerable amount of the documents gathered in the four selected cases mentions EU directives and EU policy documents, highlighting the key role of the EU in implementing strategies and policies at the subnational level²³.

The EU has assumed a leading position in international climate governance within several international fora, such as: the Intergovernmental Panel on Climate Change (IPCC); the G8 and G20; the Major Economies Forum on Energy and Climate (MEF); the Organisation for Economic Cooperation and Development (OECD); and the International Energy Agency (IEA). The EU also reached important achievements, acting as a frontrunner for other

²¹ Also, COP15 in Copenhagen and COP18 in Doha are worth mentioning for their failure; and COP24 in Katowice for the first public speech given by Greta Thunberg and the great visibility acquired by the topic of climate change, especially among young generations.

²² However, it is worth mentioning that the Treaty on the Functioning of the European Union (TFEU) defines roles and limits of the EU action, also in the area of climate change (articles 191 to 193).

²³ Considering Austria, 88% (same percentage in Tyrol and Vorarlberg) of the policy documents analyzed in both *Länder*, 71% of the sectoral legislation and 50% of the 15a agreements specifically refer to EU law. Considering Italy, the total of documents mentioning European directives decreases to 71%. The percentage is almost the same in Trento and Bolzano considering the total amount of documents. A partial difference can be detected between policy documents (74% of the total amount of policy documents in Trento and Bolzano includes a EU reference) and legislative documents (67%). More details can be found in N. BERTUZZI, P. BURJÄGER and A. MEIER, *Coordination and leadership*, in F. CITTADINO, L. PARKS, P. BURJÄGER and F. ROSIGNOLI (eds.), *Climate change integration in the multilevel governance of Italy and Austria: Shaping subnational policies in the transport, energy, and spatial planning sectors*, Brill, Leiden, 2023 forthcoming.

continents but also as a reference point for Member States and subnational governments. Over the past 20 years, the EU has decreased its total GHG emissions by 24%, especially thanks to the so called mechanism of EU Emissions Trading System (EU ETS), a cap-and-trade system through which participants (all 28 EU countries plus Iceland, Liechtenstein and Norway, and their companies) report their emissions and give back a quota of emissions for each ton of CO₂ equivalent emitted²⁴. The cuts in GHG emissions have mainly occurred in the energy sector, while emissions from cars, planes and ships, which account for a quarter of the GHG produced in Europe, still need to be considerably reduced. More recently, the European Green Deal was launched, a very ambitious package of measures on different aspects, whose main objectives are carbon-neutrality by 2050 and the reduction of GHG emissions by at least 55% by 2030 (compared to 1990 levels).

The EU, the European Commission specifically, is organized around policy departments, known as Directorates-General (DGs), which are responsible for different policy areas: the most relevant in the fight against climate change are DG Energy, DG Environment and DG Clima, the latter guiding the efforts made by the European Commission to tackle climate change at the international and EU level. Furthermore, a Commissioner for Climate Action was created in 2010, being split from the environmental portfolio to focus on fighting climate change. The EU climate policy has developed within the European Climate Change Programme (ECCP), a multistakeholder organism (comprised of Member States, industry and non-governmental organizations) aimed to develop an effective European strategy to implement the objectives defined at the international level. Among the documents produced, at least two are worth mentioning: the “2030 Climate and Energy Framework” (2014) including EU-wide targets and policy objectives for the period from 2021 to 2030, and the “EU Strategy on adaptation to climate change”. These documents are of particular relevance in defining vertical coordination and the relation between the EU and the Member States in terms of climate policy in that they define the boundaries for specific competences and collaboration. Finally, it is worth mentioning the EU Committee of the Regions (EU CoR), an EU advisory body composed of locally and regionally elected representatives from all 27 Member States. EU CoR offers local and subnational governments the opportunity to formally express their opinion in the legislative process of the EU, representing a vertical coordination mechanism between the EU and the subnational level, integrating claims and issues of the subnational level into the European legislative process.

2.2. Mechanisms of vertical coordination with the national level

Based on the previously outlined international and European background, in the following, the vertical mechanisms of coordination are examined, with a focus on the interactions between

²⁴ Some scholars however are critical towards this mechanism, as it would reduce European emissions but at the same time externalizing these emissions in other continents. See for example: L. EMANUELE, *Carbon trading dogma: Theoretical assumptions and practical implications of global carbon markets*, in *Ephemera: Theory and politics in organization*, n. 17(1), 2017, pp. 61-87.

the national level and subnational governments in Italy and Austria, also providing some relevant examples mentioned in the interviews.

2.2.1. Italy

The Italian Constitution does not establish a “federation” in the traditional sense, as in the case of Austria. However, Italy is organized, from the political and administrative point of view, into regions. Thus, this “regional state” identifies several local autonomies in article 5 of the Italian Constitution, which entrenches the principle of decentralization. In fact, article 117 distributes legislative powers between the central state and the twenty regions, five of these with a special statute, including the region South Tyrol – Trentino (pursuant to article 116(1)). The latter consists of the Autonomous provinces of Bolzano and Trento, which are the subject of our analysis.

The 2001 constitutional reform, which profoundly amended Title V of Part II of the Constitution, for the first time explicitly regulates the role of the regions and the Autonomous Provinces in the process of European integration. Article 117(1) of the Constitution recalls the obligations deriving from EU law as a limit for the exercise of regional (and state) legislative power, while the paragraph 5 of the same article provides that “The regions and the Autonomous Provinces of Trento and Bolzano shall, in matters within their competence, take part in decisions for the formation of Community legislation and shall ensure the implementation and enforcement [...] of European Union acts, in accordance with the rules of procedure laid down by the law of the State, which govern arrangements for the exercise of power in the event of non-compliance”. The role of regions and Autonomous Provinces in the implementation of inter alia EU climate-related acts is therefore enshrined in the Constitution.

Nonetheless, in Italy there are no vertical coordination mechanisms specifically dedicated to either environmental matters or climate protection.

In general, the main principle of vertical coordination between the State and the regions is the principle of “loyal cooperation” which is enshrined in article 120 of the Constitution since the constitutional reform of 2001²⁵. Yet, no formal institutions of cooperation and coordination between the levels of government have been included in the Constitution. However, a wide range of bodies have been established to promote institutional cooperation among levels of government. These institutions are meant to establish vertical coordination among national, regional and local government. These networks are generally known as the “system of conferences”, which involves the permanent State-Regions (including Autonomous Provinces) Conference (*Conferenza Stato e Regioni*),²⁶ the State-Municipalities-Local Autonomies

²⁵ E. CECCHERINI, *Intergovernmental relationships in Italy: A feeble but useful model*, in E. ARBAN, G. MARTINICO and F. PALERMO (eds.), *Federalism and constitutional law: The Italian contribution to comparative regionalism*, Routledge, Abingdon, 2021, p. 68; J. WOELK, *Loyal cooperation: Systemic principle of Italy's regionalism?*, in E. ARBAN, G. MARTINICO and F. PALERMO (eds.), *ibid.*, p. 170.

²⁶ The permanent conference for relations between the state, regions and autonomous provinces was established in 1983 and is regulated by article 12 of l. 400/1988 (as complemented by legislative decree no.281/1997).

Conference (*Conferenza Stato-Città ed Autonomie Locali*)²⁷ and, finally, the State-Regions-Autonomous Provinces-Municipalities-Local Autonomies Conference, also known as “Unified Conference” (*Conferenza Unificata*)²⁸. The function and the mandate of such conferences is in the first case, to encourage cooperation between the activities of the State and those of the Autonomous Regions and Provinces, with a meeting every two weeks. It is the preferred forum for political negotiation between central and regional governments, the place where the Government discusses with the Regions general policy guidelines affecting matters of regional competence²⁹. The State-Municipalities-Local Autonomies Conference exercises different functions, among which coordination of relations between the State and local authorities; it therefore represents a forum for the study, mutual information and discussion on issues related to general policy guidelines that may affect functions (own or delegated) of provinces, municipalities and metropolitan cities³⁰. The Unified Conference consists of the Permanent Conference on Relations between the State, the Regions and the Autonomous Provinces and the State-City and Local Autonomous Conference which meets at least twice a month. This conference is mandated with the task to foster cooperation between the State and the system of autonomies, examining matters and tasks of common interest, also carrying out advisory functions³¹.

A specific mechanism of coordination is furthermore available for the Autonomous Provinces of Trento and Bolzano, in light of their particular status of autonomy enshrined in the Constitution (article 116). The Autonomous Provinces may adopt specific implementing norms (*norme di attuazione*)³² enacting the special forms of autonomy that are at the core of their Autonomy Statute³³. These norms, pursuant to article 107 of the Autonomy Statute, are adopted by two joint commissions (*commissioni paritetiche*), composed by an equal number of representatives of both the State and the Autonomous Provinces, namely the commission of twelve (*Commissione dei dodici*) for general implementing norms and the commission of six (*Commissione dei sei*) for the implementing norms concerning the policy fields that fall within

²⁷ As established in legislative decree no 281/1997, the State-Municipalities-Local Autonomies Conference has the duty to coordinate the relations between the state and local autonomies in order to study, inform and exchange opinions concerning problems connected with the general political direction.

²⁸ E. CECCHERINI, *Intergovernmental relationships*, cit. p. 69. As established in Law-Decree no. 281/1997, “Definition and extension of the powers of the Standing Conference on Relations between the State, the Regions and the Autonomous Provinces of Trento and Bolzano and unification of matters and tasks of common interest of the regions, provinces and municipalities, with the State Conference - cities and local authorities”.

²⁹ See also <https://www.statoregioni.it/it/presentazione/attivita/conferenza-stato-regioni/>.

³⁰ See also <https://www.statocitta.it/it/la-conferenza-stato-citta-ed-autonomie-locali/competenze/>.

³¹ See also <https://www.statoregioni.it/it/presentazione/attivita/conferenza-unificata/>.

³² These are adopted in the form of legislative decrees (*decreti legislativi*) but have a special constitutional status, in that they cannot be repealed by ordinary laws. See F. PALERMO, *Ruolo e natura delle commissioni paritetiche e delle norme di attuazione*, in J. MARKO, S. ORTINO and F. PALERMO (eds.) *L'ordinamento speciale della Provincia Autonoma di Bolzano*, Cedam, Padova, 2001, pp. 832-836; G. POSTAL, *Le norme di attuazione statutaria*, in M. MARCANTONI, G. POSTAL and R. TONIATTI (eds.), *Quarant'anni di autonomia. Le istituzioni e la funzione legislativa*, Franco Angeli, Milano, 2011, pp. 102-163; P. GIANGASPERO, *I decreti di attuazione degli Statuti speciali*, in R. BIN and L. COEN (eds.), *I nodi tecnici della revisione degli Statuti speciali*, I.S.G.Re, Udine, 2008, pp. 107-123; R. CHIEPPA, *Le esperienze delle commissioni paritetiche e il valore delle norme di attuazione degli statuti speciali regionali*, in *Le Regioni*, n. 6, 2008, pp. 1051-1076.

³³ DPR 670/1972.

the competences of the Province of Bolzano. According to the Italian Constitutional Court, the joint commissions are a special coordination body between the State and the autonomous regions, including the Autonomous Provinces³⁴. The latter have made large use of this mechanism of cooperation, by adopting a series of implementing norms also in the field of environmental protection, energy, transport and spatial planning³⁵.

2.2.2. Austria

As a general premise to the investigation of the vertical coordination in the Austrian legal system, it should be noted that Austria has a federal state structure, as explicitly provided for by article 2 of the Federal Constitutional Law (*Bundesverfassungsgesetz* or B-VG). It follows that legal system rests on a complex distribution of competences in legislation and in execution (pursuant to articles 10 to 15 B-VG) between its constituent entities: the *Bund* and the nine *Länder*³⁶. As a result of this power distribution, the nine *Länder* enjoy a symmetrical constitutionally entrenched autonomy from the national level in given fields, and cooperation between the different responsible level of governments becomes necessary in several other subject matters of shared or intersecting nature. As stated in section 1 of this article, cooperation is especially needed for public action aimed to achieve climate change mitigation and adaptation and for the integration of climate change in impacted policy fields.

It should be emphasized that Austrian federalism is characterized by its cooperative character³⁷. This cooperative nature is reflected both in the principle of mutual consideration of the respective competencies³⁸, and in the more or less institutionalized frameworks of cooperation, which operationalize the constitutional allocation of competences in practice.

Starting from the coordination mechanisms provided for by law, article 15a B-VG constitutionalizes the possibility for the *Bund* and the *Länder* to conclude legally binding agreements for the purpose of coordinating their public action in certain matters falling within their respective fields of competence. This option was adopted for instance under the sign of climate protection in relation to energy³⁹ and the reduction of GHG emissions in the building

³⁴ *Corte Costituzionale*, dec. No. 109/1995.

³⁵ See d.lgs. 9/2018, d.lgs. 146/2016 and 381/1974 on spatial and urban planning; d.lgs. 46/2016, d.lgs. 429/1995 and d.lgs. 527/1987 on transport and traffic regulation; d.lgs. 118/2003 and d.lgs. 463/1999 on hydroelectric concessions; d.lgs. 235/1977 on energy matters.

³⁶ Namely Burgenland, Carinthia, Lower Austria, Upper Austria, Salzburg, Styria, Tyrol, Vorarlberg and Vienna pursuant to art. 2(2) B-VG.

³⁷ For a detailed reconstruction of the coordination mechanisms in the Austrian system see P. BUßJÄGER, *Austria's cooperative federalism*, in G. BISCHOF and F. KARLHOFER (eds.), *Austrian federalism in comparative perspective*, UNO Press and IUP, New Orleans and Innsbruck, 2015, pp. 11-33.

³⁸ So called *Berücksigungsprinzip*, which is not anchored in the B-VG, but was developed by the Constitutional Court (Constitutional Court, VfSlg. e.g. 8831/1980, 14.403/1996, 15.281/1998, 15.552/1999) which is binding for the legislator of both the *Bund* and the *Länder*.

³⁹ *Vereinbarung zwischen Bund und Ländern gemäß Art. 15a B-VG zur Umsetzung der Richtlinie 2006/32/EG über Endenergieeffizienz* BGBl. I Nr. 5/2011.

sector⁴⁰. Moreover, the Austrian federal climate law (*Klimaschutzgesetz* KSG, BGBl. No. 106/2011 and amendments) not only sets national climate targets, but it is also intended to coordinate the implementation of effective climate measures between *Bund* and *Länder*, and represents the legal basis for the introduction of a climate governance. Specifically, the KSG introduces a consultative body with the purpose of addressing climate questions and coordinating efforts meet the internationally set climate targets for Austria. Specifically, the National Climate Protection Committee (*Klimaschutzkomitee*), pursuant to § 4, constitutes the advisory body on climate policy in Austria and is made up of representatives from politics, administration, experts, businesses, and civil society. Moreover, the national climate law stipulates (in § 6), that *Bund* and *Länder* will coordinate their efforts and develop collectively climate measures under the law. Accordingly, so far, this coordination mechanism produced three different sets of measures for 2013-2014, 2015 to 2018 and for 2019-2020⁴¹. The abovementioned coordination mechanisms represent a further basis of legitimacy for actions at the subnational level and were considered as a viable platform of intergovernmental exchange, however the enforceability mechanism was defined as ambivalent and not concretely binding⁴².

Last but not least, we observe that vertical coordination between different levels of government is tendentially organized in forms of thematic conferences between political representatives of the *Bund* and the *Länder*. The conferences are not constitutionally anchored, but represent a key feature of Austrian federalism in practice. In this context the Liaison Office of the *Länder* plays an important role in organizing and coordinating the different thematic conferences and issuing joint statements, representing the position of the *Länder* to the *Bund*. The thematic conferences are usually preceded by the preparatory work of thematic technical conferences composed of the administrative representatives. The conferences operate in the field of environment and climate protection⁴³, whereby separate coordination bodies exist in each policy sector⁴⁴. Similar coordination mechanisms exist also more generally with a focus on sustainability. Specifically, the Sustainability Coordinators Conference (*Nachhaltigkeitskoordinatorinnen-Konferenz*) stands as a coordination body for sustainability activities of *Bund* and *Länder*⁴⁵. The chairmanship of this coordination body rotates at regular intervals between the *Länder* and is held jointly with the *Bund* (co-chairmanship).

The aforementioned intergovernmental coordination mechanisms were repeatedly mentioned as central platforms of exchange between *Bund* and the *Länder* in the course of the

⁴⁰ *Staatsrechtliche Vereinbarung zwischen dem Bund und den Ländern über Maßnahmen im Gebäudesektor zum Zweck der Reduktion des Ausstoßes an Treibhausgasen* BGBl. II Nr. 251/2009 and *Änderungsvereinbarung betreffend Klimaschutzmaßnahmen im Gebäudesektor* BGBl. II Nr. 213/2017.

⁴¹ https://www.bmk.gv.at/themen/klima_umwelt/klimaschutz/nat_klimapolitik/klimaschutzgesetz.html.

⁴² Interview source: IntT_07; IntV_03. Hereinafter, the code 'IntT' corresponds to interviews realized in Tyrol, 'IntV' in Vorarlberg, 'IntBZ' in the Province of Bolzano and 'IntTN' in the Province of Trento. Interviews are cited with codes to ensure the privacy of the interviewees.

⁴³ *Landesumweltreferenten-Konferenz* for environment protection and *Landesklimaschutzreferenten-Konferenz* for the protection of climate.

⁴⁴ For instance in the transport sector the *Landesverkehrsreferenten-Konferenz*; the *Landesenergiereferenten-Konferenz* in the energy sector and the *Österreichische Raumordnungskonferenz* (ÖRÖK) in the spatial planning sector.

⁴⁵ https://www.bmk.gv.at/themen/klima_umwelt/nachhaltigkeit/kooperationen/expertenkonferenz.html.

interviews, confirming that vertical coordination mostly happens in an informal context and that climate change is being thematized in the framework of existing coordination mechanisms. Moreover, particular emphasis was placed on the preparatory work by competent administrative officers in the context of pre-conferences, resulting in an interesting tool for coordination and information exchange at administrative level⁴⁶.

3. Horizontal coordination

Not only vertical coordination should be considered when analysing CPI. From what emerged in the present research, the role of horizontal coordination, intended as the mechanisms (both formal and informal) to ensure cooperation among policymakers and policy officers working in policy fields that have a bearing on climate issues, proved to be even more important for our case studies.

3.1. The Autonomous Provinces of Trento and Bolzano

Concerning the Autonomous Province of Trento, horizontal coordination played a key role among the dimensions that favoured CPI, especially in recent years. A progressive improvement of formal and informal mechanisms occurred. In particular, the identification of the Provincial Environmental Protection Agency (APPA Trento) as the technical referent on climate issues starting from 2020 has marked a turning point⁴⁷. Also previously, however, programs were launched with a joint commitment of several provincial departments. Trentino Climate Observatory (*Osservatorio Trentino Clima*) should be mentioned, a program agreement between provincial structures and local authorities, in force from 2010 to 2016, to coordinate monitoring, research and communication activities relating to climate change. Since its foundation, the Trentino Climate Observatory carried out an advisory function for the Provincial Council on all issues relating to climate change including financial needs and their priorities both in terms of study and research purposes, and for interventions and strategies deemed appropriate. In 2018, a coordination body for the identification of appropriate mitigation and adaptation measures and the definition of the overall strategy to be proposed to the provincial government was established, under the name of Provincial Coordination and Action Table on Climate Change (*Tavolo Provinciale di Coordinamento e di Azione sui Cambiamenti Climatici*). Furthermore, two other crucial bodies coordinated by APPA Trento are: the Provincial Forum for Climate Change (*Forum Provinciale per i Cambiamenti Climatici*), the main formalized participation mechanism composed of various entities promoting scientific, cultural, information, awareness, training and education initiatives on issues related to climate change at the provincial level; and the Scientific Committee, composed of representatives of the main provincial scientific bodies (University of Trento, Meteotrentino, Bruno Kessler Foundation and Edmund Mach Foundation)⁴⁸.

⁴⁶ Interview source: IntT_07; IntV_06.

⁴⁷ Interview source: IntTN_03; IntTN_04; IntTN_07.

⁴⁸ Interview source: IntTN_04; IntTN_07.

Numerous initiatives have been adopted in the provincial plans and programs that contain measures to fight climate change, enacted thanks to a more effective work of horizontal coordination, both formal (such as those listed above) and informal (interviews highlighted the relevance of day-by-day exchange between departments and also between single managers and/or employees)⁴⁹. For example, the Provincial Plan for the Protection of Air Quality (*Piano Provinciale di Tutela della Qualità dell'Aria*), the Summary Map of Territorial Hazard (*Carta di Sintesi della Pericolosità*), the Water Protection Plan (*Piano di Tutela delle Acque*), the Provincial Plan for Electric Mobility (*Piano Provinciale per la Mobilità Elettrica*), the Provincial Sustainable Development Strategy - SproSS - Agenda 2030 (*Strategia Provinciale per lo Sviluppo Sostenibile*), the Provincial Environmental Energy Plan - PEAP 2021-2030 (*Piano Energetico Ambientale della Provincia*), are examples of best practices in terms of horizontal coordination and collaboration, and of CPI more specifically. PEAP deserves again a special mention, as it defines a trajectory which, through twelve transversal strategic lines that concerns all the policy sectors, will guide the energy and environmental transition of Trentino until 2030. While the previous version (2013) was drafted by an external expert, the new version (2021) envisaged an intense coordinated work within the administration, leading to the delivery of a particularly solid and ambitious plan. In a first phase the process was “vertical”, as scientific experts (FBK, University of Trento, Mach Foundation) identified possible future scenarios. Based on this draft, the heads of all departments were involved in the drafting of the final document, based on their specific skills, to outline future solutions⁵⁰.

Also in the Autonomous Province of Bolzano, an office was identified to coordinate and implement climate action, namely the agency for the Environment and Climate Protection (APPA Bolzano).⁵¹ The Agency is “the largest South Tyrolean institution of experts in the technical protection of the environment, climate prevention and resource protection”. The provincial law (L.P.) No. 26 of 19 December 1995 (and subsequent amendments) has assigned to the agency as mission the protection and control in environmental matters.⁵² The agency also acts as Environmental Authority for the Autonomous Province of Bolzano in the European programs and funds for what concerns climate and environmental policies.⁵³ Its main task as Managing Authority is the integration of environmental protection in all areas of action of the European funds in a perspective of sustainable development, and to ensure that actions are in line with EU policy and legislation.

The material collected during the empirical research (especially the interviews) helped to shed light on the mechanisms of horizontal coordination. Shared objectives between departments in the fight against climate change were highlighted. For example, the energy sector and the water sector should necessarily work jointly because of the system of water concessions for the generation of hydroelectric power. However, a lack of the necessary structure in the

⁴⁹ Interview source: IntTN_03; IntTN_05; IntTN_07; IntTN_08; IntTN_09.

⁵⁰ Interview source: IntTN_05.

⁵¹ See the website of APPA Bolzano at <https://ambiente.provincia.bz.it/>.

⁵² L.P. 26/1995.

⁵³ For an account of European programmes and projects managed by APPA Bolzano consult <https://ambiente.provincia.bz.it/progetti/progetti-europei.asp>.

administration was mentioned in several interviews. Respondents claimed that provincial departments are not set up to deal with such a large cross-cutting issue. This structural unpreparedness seems to be linked to the process-innovation that climate-change integration concretely requires, and to the fact, perceived as an anomaly, that the same political party has been governing in the past 50-60 years, influencing the public administration.

However, other interviews demonstrated that there is indeed a certain amount of coordination at the sectoral level, which happens also through formal means. For example, committees and commissions were instituted by sectoral laws (e.g. L.P. 17/2017) concerning the evaluation of environmental plans and projects, which involves the cooperation of different offices.⁵⁴ In fact, L.P. 17/2017 establishes the procedures for EIA (environmental impact assessment) in the Province of Bolzano. The authority in charge of conducting environmental assessments is the Environmental Committee, a technical advisory body of the Provincial Government for the evaluation of plans and programmes to be submitted to strategic environmental assessment (SEA) and the projects to be submitted to EIA. It is the decision-making body for appeals in the cases provided for by provincial legislation. Such body is composed by different stakeholders that should cooperate in the assessment procedures (e.g. the director of APPA; an expert/expert on public health and hygiene, appointed by the Director or the Division Manager responsible for the matter; an expert in the field of landscape and nature conservation, appointed by the Director or the Division Manager responsible for the subject; etc).⁵⁵

Coordination between different departments and with international goals of the Bolzano province it is evident because of the adoption of some overarching strategic frameworks, such as the Climate Plan. In fact, the actualization of such important instrument requires the sectoral cooperation between different departments, such as energy and water sectors.

The Climate Plan, which was adopted in its first version in 2011, is now undergoing a review process which will culminate this year (2022).⁵⁶ The Climate Plan has three important objectives that coincide with global aims of climate change mitigation, divided into medium and long term. First, reduction of the consumption per capita of energy to 2.500 W in 2020 and 2.200W in 2050, encouraging as a first action the saving of energy through rational and smart use. Second, an increased coverage of energy consumption through the use of renewable energy sources to 75% in 2020 and 90% in 2050, thus reducing the use of fossil fuels. Third, the reduction of CO₂ emissions per capita to 4.0 t in 2020 and 1.5 t in 2050, attributable to energy consumption.

The objectives of the Climate Plan are an operationalization of the European Green Deal, which enshrines a strategy of reducing GHGs emissions of at least 30% by 2030, and of net zero emissions by 2050. In order to reach such important objectives, according to the Draft Climate Plan, it will be necessary to reach a 15% reduction in the consumption of thermal energy from fossil in residential context by 2030 and to reach a 25% reduction in fossil energy consumption in the transport sector compared to 2019 thanks to the increase in efficiency of

⁵⁴ See L.P. 17/2017.

⁵⁵ *Ibid.*, article 2.

⁵⁶ The draft plan can be found at <https://ambiente.provincia.bz.it/energia/piano-clima-energia-alto-adige-2050.asp>.

new vehicles and the use of public transport. Energy will be the most important part of this transition. Renewable sources will play a key function – especially photovoltaic – with the objective of the Climate Plan being covering “more than half of the heat demand”⁵⁷.

Another crucial initiative in terms of vertical coordination is the Sustainability Strategy, which operates in conjunction with the Climate Plan as regards the fight against climate change. The document was firstly launched in 2019 and then approved in 2021⁵⁸. This Strategy can be considered a harmonization at the provincial level with the objectives of the internationally acknowledged Sustainable Development Goals (SDGs).

Finally, the interviews have evidenced that informal mechanisms of cooperation exist between the different offices and personnel for what regards CPI in the Province of Bolzano⁵⁹. Informal cooperation, which also happens at the interpersonal relationship level, emerged in the interviews as it was stated that “it is common practice to collaborate between different departments and administrations” and it is driven by will and sensibility rather than legally established practices.

3.2. *Länder* Tirol and Vorarlberg

Horizontal coordination between different departments generally occurs at the strategic level in the policy-development phase and on a project-basis (based on recurring mutual dependencies)⁶⁰. The informal setting, meaning direct exchange between officers, has been defined as a rule due to the modest size of the respective administration, whereby the importance of informal exchange was repeatedly highlighted⁶¹. Thus, the institutionalization of horizontal coordination would not be necessary *per se*, but was deemed beneficial for the integration of climate change in sectoral policies, due to the overlapping nature of the topic⁶². In the Austrian case studies, an interplay of both formal and informal mechanisms was observed, whereby the need for the establishment of a clear coordination framework and of evolutions in terms of a systematization of coordination, both in relation to the integration of climate change in sectoral policies, were expressly stressed in both territories in the course of the interviews⁶³.

Preliminarily, before moving to the analysis of the specificities of horizontal coordination, one of the key findings of the Austrian interviews should be highlighted: in both *Länder* the administration is structurally unprepared to handle a cross-cutting and cross-sectoral thematic such as climate change⁶⁴. Consequently, climate change poses a significant horizontal coordination challenge, requiring responsible departments to coordinate and cooperate beyond

⁵⁷ *Ibid.* p. 25.

⁵⁸ Sustainability Strategy of the Autonomous Province of Bolzano, at <https://sostenibilita.provincia.bz.it/it/il-progetto>.

⁵⁹ Interview source: IntBZ_01.

⁶⁰ Interview source: IntV_05; Int_05.

⁶¹ Interview source: IntV_02; IntT_03.

⁶² Interview source: IntV_06; IntT_04.

⁶³ Interview source: IntV_05; IntT_07.

⁶⁴ Interview source: IntT_02; IntV_03.

their institutionalized tasks. In both analysed territories, despite organisational differences, efforts were conducted to overcome this structural unpreparedness. The efforts in both *Länder* can be summarized as follows: i) centralization of coordination efforts with the establishment of climate coordination units and climate coordinators (*Klimakoordination* and *Klimakordinator*) within the organisational matrix of the respective administration (see below); ii) outsourcing of certain tasks related to climate change integration; iii) co-formulation of climate measures and of strategic documents. In this context the read thread for sectoral climate change integration is represented the respective subnational climate policy, as complemented and specified by sectoral policies which also contain climate measures⁶⁵.

In *Land Tyrol* the key policy in relation to climate change is currently represented by the newly updated Sustainability and Climate Strategy (*Tiroler Nachhaltigkeits- und Klimastrategie 2021*). The strategy outlines the climate objectives of the *Land*, also identifying broad objectives and recommendations for sectoral climate change integration. This document was developed with the inputs of all responsible sectoral departments and through the intervention of a two-level governance based on a core working group, composed of administrative officers and a steering group with both political and administrative representatives. Besides, *Land Tyrol* is committed to reach energy autonomy and climate neutrality by 2050, in the framework of the “*Tirol 2050*” program⁶⁶. In practice, sectoral integration is coordinated by a climate coordination unit and a climate coordinator (*Nachhaltigkeits- und Klimakoordination* and *Klimakordinator*). Both the unit and the climate coordinator are situated in the Department for Land Development (*Abteilung Landesentwicklung*). In addition, in order to face sectoral complexity, *Land Tyrol* introduced a coordination unit in the energy sector (the *Energiekoordination*) which deals with the internal coordination of the climate integration efforts in the sector.

In *Land Vorarlberg* similar trends in horizontal coordination could be detected. The climate policy at *Land* level presently revolves around two key documents: the Climate Adaptation Strategy (*Strategie zur Anpassung an den Klimawandel in Vorarlberg – Ziele, Herausforderungen und Handlungsfelder 2015*) and the Energyautonomy Strategy + (*Strategie Energieautonomie + 2030*), which represents the mitigation strategy of the *Land* and was recently updated to include the mitigation of emissions going beyond the energy sector (hence the +). This paper was developed based on the collective inputs of all the departments affected by climate change integration. Moreover, *Vorarlberg* committed at a very early stage to energy autonomy by 2050, following unanimous resolutions of the *Land* parliament in 2007 and 2009⁶⁷. As for the institutional framework to deal with climate change, the coordination responsibilities are entrusted, in a similar fashion as Tyrol, to a climate coordination unit and a climate coordinator, both in the Energy and Climate Protection Division (*Fachbereich Energie und Klimaschutz*) within the General Economic Affairs Department (*Abteilung Allgemeine Wirtschaftsangelegenheiten VIa*). Moreover,

⁶⁵ For instance, the Energy Autonomy Strategy + 2021 (“*Energieautonomie +*”) in Vorarlberg and the spatial planning concept “*Zukunftsraum Tirol*” 2011.

⁶⁶ <https://www.tirol2050.at/>.

⁶⁷ Vorarlberger Landtag, Energiezukunft Vorarlberg, Resolution, Beilage 34/2007 and Energieautonomes Vorarlberg, Beilage 75/200.

also Vorarlberg introduced a sectoral coordinator, to bundle actions with regard to sustainable mobility (*Koordinationsstelle Mobilitätsmanagement*).

The institutionalisation of coordination in relation to climate change, with the identification of dedicated administrative entities (see above) was generally positively welcomed by the interviewees in both *Länder*. However, the respondents expressed the need for an improvement in interdepartmental coordination, since the established coordination units would only be able to maintain an overview on the progress of sectoral integration, without being able to influence the implementation in practice⁶⁸.

As anticipated, both *Länder* also systematically delegate and outsource some of their tasks in relation to climate change integration to peripheral agents (entities differently linked to the administration), especially in terms of dissemination of relevant information, of knowledge building and funding of climate-friendly behaviour⁶⁹.

Finally, despite the generally observable trend, reported from both institutional and non-institutional interviewees⁷⁰, towards the acknowledgement of the urgency of the climate question and the consequent integration of climate objectives in sectoral policies, the action is still mostly limited to the strategic level. Overall, there is a reported lack of concretization of implementation measures and of the need of a systematization of coordination⁷¹.

4. Conclusion

From the analysis conducted above, we may conclude that, in the study areas analysed, CPI at subnational level has implied a high level of policy coordination, especially among different subnational policy sectors (horizontal). The mechanisms of horizontal coordination in the four cases seem to be aligned, notwithstanding different constitutional frameworks in place. These consist mainly in the establishment of dedicated coordination units, created with the mandate to ensure the integration of climate change in sectoral policies and a higher degree of intersectoral cooperation. In all cases, furthermore, there are informal coordination mechanisms between departments that are based more on interpersonal relationships rather than a more established structure. These informal mechanisms are therefore subject to change and cannot ensure the necessary stability needed for CPI.

Interestingly, some differences in horizontal coordination emerge within the Italian and Austrian case studies. For instance, it seems that the Province of Trento has put in place more formally developed horizontal coordination mechanisms than the Province of Bolzano. These formal mechanisms in Trento include not only the provincial environmental agencies but a number of complementary bodies with consultative functions. In Austria, we note a clearer alignment of the horizontal coordination mechanisms in place in the two *Länder*, with Tyrol having adopted an overarching climate strategy, while Vorarlberg framed CPI in the climate

⁶⁸ Interview source: IntT_01; IntV_06.

⁶⁹ In this context the Energy Institutes in both *Länder* act as implementation agents of the administration in relation to climate change integration.

⁷⁰ Interview source: IntV_04; IntT_05.

⁷¹ Interview source: IntV_01; IntT_03.

adaptation strategy and with regard to climate change mitigation in the newly updated energy autonomy plus strategy (targeting the reduction of sectoral emissions beyond the energy sector). Important common elements in the four case studies concern the general perception that the existing horizontal coordination structures are not sufficient and up the challenge of ensuring climate protection, especially when it comes to interdepartmental coordination. Another shared evaluation regards the fact that horizontal coordination usually happens at the strategic level, rather than in the phase of policy implementation, which partially explains the perceived lack of interdepartmental coordination.

Important differences between Italy and Austria emerged instead when it comes to the vertical mechanisms of coordination. In Italy, no specific coordination mechanism on climate change has been adopted so far. This is mirrored by the lack of a national overarching legislation on climate change⁷². The system of conferences described in section 2.2.1 cannot guarantee the necessary level of CPI between the national and regional level, since they are used mostly by the State to inform regions on draft legislation, without the possibility of a genuine exchange on the matters discussed. Conferences have not been used to prevent potential conflicts of powers between the national and regional levels⁷³, and it cannot be expected that they will do so in the future. In Austria, instead, not only formal coordination mechanisms on climate change have been established, but also informal conferences play a fundamental role in ensuring cooperation among levels, due also to the federal culture of cooperation described in section 2.2.2. It is interesting to note that, notwithstanding the more established nature of vertical coordination in Austria, the federal allocation of competences has been depicted in the interviews conducted as a further coordination burden and as an additional challenge for the integration of climate objectives in sectoral policies⁷⁴. Furthermore, interviewees stressed that the *Länder* achieved comparatively better results in terms of CPI in fields where they can exercise exclusive competences, such as buildings and housing subsidies⁷⁵.

An important common element of vertical coordination in all cases analysed is the relevance of EU legislative framework and leadership in steering CPI, which explains the level of substantive alignment of climate objectives between Italy and Austria, and in all case studies.

To conclude, this article has demonstrated that coordination is affected by the federal vs regional organization of the State, only when it comes to vertical coordination, while horizontal coordination follows the logic of interdepartmental coordination that is common to all territories analysed. This is due to the fact that climate change is not a unitary policy field. For this reason, improving horizontal coordination among policy fields seems to be more crucial to realizing CPI than improving vertical coordination. The latter is indeed heavily influenced by the levelling action of EU climate policies and targets.

⁷² See M. BERTEL and F. CITTADINO, *Climate change at domestic level: National powers and regulations in Italy and Austria*, in F. CITTADINO, L. PARKS, P. BUßJÄGER and F. ROSIGNOLI (eds.), *Climate change integration...*, cit.

⁷³ Ibid.

⁷⁴ Interview source: IntT_01; IntT_02; IntV_01; IntV_05.

⁷⁵ Interview source: IntT_03; IntV_03; IntV_06.