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Exploring the contribution of paradiplomacy to climate resilient development: the cases of Oslo and Nouvelle-Aquitaine

David-Pierre Giudicelli
MSc Global Development Studies

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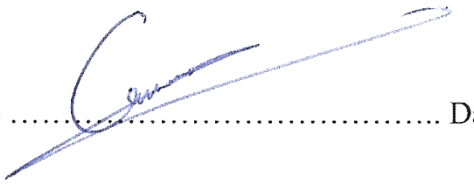
 david-pierre.giudicelli@proton.me
Noragric Department of International Environment and Development Studies P.O. Box 5003 NO-1432 Ås Norway
Tel.: +47 64 96 52 00 Fax: +47 64 96 52 01 Internet: http://www.nmbu.no/noragric

Declaration

I, David-Pierre Giudicelli, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature ..... Date: 12.08.2022



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Any errors are mine alone.

And any merit is gladly shared.

Abstract

The IPCC conclusions are clear: the situation is dire, and the window of opportunity to keep a hospitable climate is narrowing. Current systems of global governance are showing their limits in the face of such threats, as the important lag in appropriate climate action illustrates. Moreover, our better understanding of the synergies between climate and societies is pushing for transformations embedding climate resilience within a sustainable and just human development.

As such actions are required at all levels, a new type of actor emerging on the international scene deserves attention: subnational governments. Cities and regions worldwide are indeed getting increasingly involved in global affairs, advocating through networks, acting through cooperation, signing treaties… A phenomenon coined as "paradiplomacy" by a growing but fragmented body of literature, that embodies a move towards more polycentric forms of global governance.

This thesis explores how the global involvement of subnational governments can contribute to the integrated approach of climate resilient development. By looking at the paradiplomatic activities of two cases – the French region of Nouvelle-Aquitaine and the Norwegian city of Oslo – this research investigates actual contributions to key dimensions of climate resilience and socially just development. Through a comparative approach, it attempts to identify the factors shaping such contributions, highlighting some of the limits and potentials of a decentralized global climate action, and its integration with issues of socially just human development.

***Keywords**: Paradiplomacy, Decentralized Cooperation, Subnational Governments, Climate Resilient Development, Polycentric Governance*

Acronyms and abbreviations

AFD: *Agence Française de Développement* (French Development Agency)
COP: Conference of the Parties
COVID: Coronavirus Disease
CPMR: Conference of Peripheral Maritime Regions
CRD: Climate Resilient Development
CRDP: Climate Resilient Development Pathways
CTP: *Communauté de Travail des Pyrénées* / *Comunidad de Trabajo de los Pirineos* (Working Community of the Pyrenees)
FCE: French Central Expert (used in informant identification – see appendix 5)
FLG: French Local Government (used in informant identification – see appendix 5)
FLP: French Local Partner (used in informant identification – see appendix 5)
FMCU: *Fédération Mondiale des Cités Unies* (Global Federation of United Cities)
GDP: Gross Domestic Product
GHG: Greenhouse gas
HDI: Human Development Index
ICLEI: International Council for Local Environmental Initiatives
IPCC: Intergovernmental Panel on Climate Change
IR: International Relations
IRSSG: International Relations of Sub-State Governments
IULA: International Union of Local Authorities
IWRM: Integrated Water Resources Management
KS: *Kommunenes Sentralforbund* (Norwegian Association of Local and Regional Authorities)
MIC: Municipal International Cooperation
MLG: Multi-Level Governance
MRQ: Multi-Response Questionnaire
NCE: Norwegian Central Expert (used in informant identification – see appendix 5)
NGO: Non-Governmental Organization
NLG: Norwegian Local Government (used in informant identification – see appendix 5)
NLP: Norwegian Local Partner (used in informant identification – see appendix 5)
NMBU: Norwegian University of Life Sciences (*Norges miljø- og biovitenskapelige universitet*)
NRG4SD: Network of Regional Governments for Sustainable Development
OECD: Organization for Economic Co-operation and Development
PAGLI: *Programme d'Appui à la Gouvernance Locale en Itasy* (Support Program to Local Governance in Itasy)
PCG: Polycentric Governance
RNA: *Région Nouvelle-Aquitaine*
SDG: Sustainable Development Goals
SPM: Summary for Policy Makers
UCLG: United Cities and Local Governments
UN: United Nations
UNACLA: United Nations Advisory Committee of Local Authorities
UNEP: United Nations Environmental Programme
UNFCCC: United Nations Framework Convention on Climate Change
WACLA: World Assembly of Cities and Local Authorities
WMO: World Meteorological Organization

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« 'The Earth itself is a space ship,' he said.
We had better keep an eye on its air control system. »
Roger Revelle, American Oceanographe, when testifying before Congress in 1956/1957
(Weart, 2008)

« Tout divise les États, tout unit les communes »
« Everything divides States, everything unites municipalities » (free translation)
Édouard Herriot, 1872-1957.
French politician, former Mayor of Lyon and President of the National Assembly

I. Introduction

The climate crisis seems to have finally reached a level of attention worthy of it stakes, with fewer voices to deny and louder voices to propose. But if the challenges implied by a changing climate have come to be better understood, it has been so at the price of complexity. Building upon three decades of IPCC[1] assessments consolidating our visibility on planetary dynamics, we know more than ever how the climate crisis is not "just" about climate, and can above all be framed as an issue of **global development.**

While during the last century, living conditions of human populations have undeniably improved across the world – in context of what "development" entails - the trajectory has since taken a worrying turn. The rising levels of the two iconic indicators of human development - global poverty and hunger – illustrate an increase of inequalities across the globe. A trend the recent covid-19 pandemic has worsened, exposing as stressed by the United Nations the insufficient global progress towards sustainable development (UNDP, 2022).

In this dire picture, climate change appears as both an additional symptom, and an additional threat. A symptom at first of our dominant economic model, as free-market capitalism (or neoliberalism (Haslam et al., 2017)) recognized as a driver of rising inequalities and environmental harm (Peet & Hartwick, 2009), relies on ever-growing production fueled with carbon-emitting fossil energy (Leichenko & O'Brien, 2019). A threat also, as a changing climate brings constraints over basic human needs, from water to food, housing and security, with additional risks weighting on already fragilized populations (O'Brien et al., 2007).

Since 2015, the Sustainable Development Goals (SDGs) have embodied the answer to both the symptom and threat. Within seventeen specific goals, the SDGs acknowledge the wide range of human development and environmental issues, climate action among them set as goal thirteen. However, the neoliberal footprint visible throughout the goals (Briant Carant, 2017) along a somewhat sectorized approach to their pursuit, may have impeded the solidity of this global agenda, and the adequacy of its governance system. As recently stated by the United Nations Development Program, "*It is imperative to go beyond fragmented efforts"*, as tackling development issues "*in silos*" is proving inefficient in the face of synergetic crises (UNDP, 2022). A case for more integrated approaches to global development, but also for the exploration of alternatives to conventional nation-led multilateralism, and free-market fundamentalism.

Fortunately, alternatives are more to be explored than to be invented. Locally anchored approaches to development mobilizing participatory and collaborative methods, have already been outlined as encouraging inclusive solutions to local and global issues (Ziervogel, 2019). Decentralized and community-based approaches have been highlighted as more likely to achieve context-sensitivity than centralized top-down approaches (Mikulewicz, 2017). And already emerging forms of governance connecting multiple levels and centers of action - therefore of polycentric nature - have shown their potential in encouraging the experimentation and sharing of solutions across multiple actors and scales (Ostrom, 2010b). All of which leads to wonder about existing and more localized forms of governance, and turn

[1] Intergovernmental Panel on Climate Change

our gaze upon the actors embodying their most formal manifestation: subnational governments.

While nations have undeniably maintained a central role in global governance (with, as stated, questionable results), subnational governments - encompassing cities, regions and provinces of various names and natures - appear to have made their case as both actors of local implementation, and actors of global-reaching decisions. Beyond acting as relays for national policies, subnational governments have often carried the role of designing and implementing territorial policies related to their contexts (UNDP, 2010). But they have also shown their capacity to act across national boundaries, engaging in global affairs and arenas of governance through a diversity of ways (Paquin, 2020) and touching - among others - the burning issue of the climate crisis (Chaloux et al., 2022).

Which brings us to the central theme this thesis aims to address.

The emerging involvement of subnational governments in the global arena brings to question the role and approaches of such local actors regarding global issues of human development, in the context of a changing climate. Their locally anchored nature moreover raises interest upon their potential capacity to mobilize context-sensitive and defragmented approaches that could more adequately address the synergetic crises our world is facing.

Therefore, this study represents an attempt at answering the following question: how can subnational governments, through their global involvement, participate in addressing the intricate crises of climate change and human development? Or, anticipating on the concepts such question will unveil: *how can paradiplomacy contribute to climate resilient development?*

As we will discover through an extensive theory chapter, such a multidimensional question leads to concepts that themselves are very multidimensional. First, a look at the close relations between human development and climate change will lead us to the recent conceptualization of Climate Resilient Development. Second, an inquiry into the history of global climate governance will allow us to better understand the failing contemporary climate regime, based either on inept centralized mechanics or on hazardous market-based solutions (or both). This will bring us to explore the alternative offered by polycentric forms of governance, and – as our third theoretical dimension - look at the decentralized forms of global involvement performed by non-central governments: cities, regions and states worldwide, in a phenomenon that among its many names has been characterized as paradiplomacy.

Elaborating on the lengthy discussion needed to bridge these fairly new concepts, we will then present a methodology designed to unlock their exploration: a direct look into subnational governments' contributions to climate resilient development through their global involvement. Bridging theory to contextually-anchored practice, we will present the tools designed to facilitate the comparative study of two subnational governments in two contrasted contexts: the French region of Nouvelle-Aquitaine and the Norwegian city of Oslo. Through a series of analytical steps, we will attempt to unveil how these two subnational governments address key dimensions of climate resilient development through their global activities, and explore patterns of similarities and specificities. This analysis will lead us to conclude on a series of observations linking paradiplomacy theory with integrated approaches to climate

action. A final attempt at more general remarks and hypothesis emerging from our explorations will aim at highlighting paths for potential future inquiries.

Mobilizing aspects of climate discourse, international relations, social justice and sustainability governance, this thesis will aim to contribute in connecting various academic fields in an interdisciplinary approach, and bridge the world of scholars with the world of practitioners. Designed as an exploratory endeavor, it will hopefully help shed light upon the potential role of the subnational level in global climate governance, and attempt to participate in the active search for solutions matching the complexity of current and future human development needs.

I sincerely hope this thesis will prove as interesting to read as it was to write.

II. Theoretical pillars - connecting climate action, global governance, and paradiplomacy

As the essential first step for our academic endeavor, this theory section will aim to go beyond introductory elements. The concepts mobilized as pillars of this thesis have in common both their relative novelty, and their intrinsic complexity. To combine them further in a coherent manner, they will be extensively presented here with elements of background and literature reviews, progressively driving up from the climate situation – our "hot" topic to say the least – up to the response of subnational actors, within the stage of an evolving global governance.

1. Towards a Climate Resilient Development - a complex answer to a complex crisis

Our starting point, as briefly introduced, is the global situation of a changing climate - both a marker of unsustainable economic models, and a threat upon humanity's present and future. Therefore, building upon recent literature and the IPCC assessment agenda, we will briefly present the current situation, and the responses designed and adopted so far, leading up to the integrated approach of Climate Resilient Development.

a. The climate crisis in a nutshell

While the last decade has been rich in maturation of climate change framing, this thesis benefits from the recent IPCC calendar. Year 2021 has indeed seen the delivery of the first working group's 6th assessment report aiming at a comprehensive update on our understanding of the physical science behind the climate crisis. It presented the dire situation of an already increased global surface temperature of 1.09°C in average since the pre-industrial era (IPCC, 2021). The second working group's report in February 2022 then declared the "*unequivocal*" influence of human activity (IPCC, 2022a), linking elevated concentrations of greenhouse gases (GHG) in the atmosphere to the increased radiative forcing - key physical component of the global warming machinery. And to complete the picture, the report confirmed the global reach of the phenomenon, already affecting every region of the world through climate variations and more frequent and intense weather events.

Such a global reach translates into another number : 3,3 to 3,6 billion people living in areas highly vulnerable to climate change (IPCC, 2022a)(SPM.B.2, p11). This represents to date 41 to 45% of humanity. And along this number, it is important to mention some key aspects of the climate crisis, such as its unpredictability, and its capacity to amplify and multiply threats. Indeed, almost every aspect of human development - be it water access, food production, infrastructures and energy production…- can be negatively impacted by a rising temperature and increased variabilities. Changes in the global water cycle, magnified weather hazards, and perturbations of the biosphere can all amplify pre-existing pressures over human societies, on top of producing new potential risks. This emphasizes the double danger of an already changed and still changing climate.

Beyond the update of our present situation, the first working group's report also brought precisions on future potential paths. Five "*Shared Socio-economic Pathways*", illustrations of the potential trajectories already used in previous IPCC reports, were updated to include both the most recent data and a sharper understanding of climate science. This new update highlighted how consequential the continuation of GHG emissions may become, including two scenarios of high and very high emissions bringing an estimated raised temperature at the end of the century of respectively 3.6°C and 4.4°C - levels then linked to intensified and ever more frequent events such as droughts, floods and heat waves (IPCC, 2021)(figSPM.4, p13).

Although quite clear on the dangers of high emissions scenarios, the IPCC also highlights how a rapid decrease in GHG emissions could influence the global temperature trajectory. In that sense, the first Shared Socio-economic Pathway illustrates how the global warming curve could potentially be inverted before the end of the century, returning at an estimate of 1.4°C of increase after having reached about 1.6°C around 2050 (IPCC, 2021)(Table SPM.1, p14). This scenario highlights how relevant it is to act -and to act fast- to both reduce the quantity of GHG emitted by human activity, and to be ready for an already changed climate. Two approaches bearing the labels of mitigation and adaptation, that have constituted the two main pillars of climate action in the last decades.

b. The human response through climate action

The progressive acknowledgement of climate change and its anthropogenic origin has led to the identification of both a need to limit its extent, and to adopt measures allowing to face its consequences. The first approach, originally coined as "limitation" by the IPCC in 1990[2], is framed today as "**mitigation**" of climate change, defined as "*a human intervention to reduce the source or enhance the sinks of greenhouse gases*" (IPCC, 2014). Schematically, it therefore consists of any technical or political measure that may contribute to stabilize and even reduce greenhouse gases levels in the atmosphere, through impacting rates of emissions as well as actual atmospheric concentrations. To illustrate the scale of the task, the following

[2] "Limitation of Net Emissions" was presented as the main approach in the 1990 report to mitigate climate change. Interestingly enough, the term "limitation" of GHG emission is not much used anymore, replaced by "reduction", and generally absent from the SPM (notably so from the last report from Working Group III, specifically touching upon mitigation). This terminological shift doesn't seem trivial, notably so with the observed absence of voluntary limitation in economic growth, despite its coupling with GHG emissions, for the last 30 years (a debate outside the scope of this thesis)

table presents the current situation for three main greenhouse gases, both in levels and in emissions.

Table 1: Main indicators of GHG increase[3]

Main GHG	CO_2	CH_4	NO_2
Levels (% increase since 1750)	410 ppm (+47%)	1866 ppm (+156%)	332 ppb (+23%)
2019 emissions (% increase since 1990)	45 ± 5.5 Gt (+67%)	11 ± 3.2 $GtCO_2$-eq (+29%)	2.7 ± 1.6 $GtCO_2$-eq (+33%)

Source: (IPCC, 2021; IPCC, 2022b)

Alongside mitigation, the factuality of climate change and its expected evolutions also imposes to prepare both human and natural systems through **adaptation** measures. As framed by the IPCC: *"Adaptation is defined, in human systems, as the process of adjustment to actual or expected climate and its effects in order to moderate harm or take advantage of beneficial opportunities"*. This adjustment process of adaptation therefore implies changes to human societies, and changes in the way they interact with their environment. As a complement, the IPCC importantly notes that the extent to which human and natural systems can adapt do have limits - some soft and potentially circumvented, and some hard and simply unavoidable. In other words, not everything can be adapted to. The complementary concept of "maladaptation" is also worth mentioning, as increased risks in facing climate change can be a (mostly unintentional) result of misconceived, rushed or incomplete actions initially intended as adaptation measures (Eriksen et al., 2021).

Climate action through its two pillars of adaptation and mitigation evolved within another agenda: the development goals built on the concept of **sustainable development**. First coined in the 1980's, this concept obtained its precise definition through the Brundtland report in 1987, establishing the following: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (Brundtland, 1987). In theory, this concept established a vision of human development where the environmental (therefore climatic), social, and economic spheres were inseparable, highlighting intrinsic relations and the need to address development more systemically. In practice, Sustainable Development was (maybe in a less systemic way) first organized in 8 goals, set at the Millennium Summit of year 2000. Fifteen years later, the global development agenda was reorganized in 17 Sustainable Development Goals (or SDGs), the 13th being directly focusing on climate action.

This recent step marked an important move towards the acknowledgement of the interlinkages between climate action and human development. But far from being evident, this progressive move has been chaotic at the very least, and marked by intense debates in the past decades - debates that are still present today. And if the concepts of mitigation, adaptation and sustainable development are now clearly defined, the way they are set in

[3] CO_2= Carbon dioxide CH_4=Methane NO_2=Nitrogen dioxide ppm=parts-per-million ppb=parts-per-billion Gt=Gigatonne, or one billion tonnes $GtCO_2$-eq=Gigatonne of CO_2 equivalent

motion and connected highly depends on one ever-debated aspect: how climate change itself is fundamentally understood.

c. Climate change discourses, or how understanding shapes action (and inaction…)

Although climate action appears to be taken more seriously today, it is important to acknowledge that all actions aren't equal, nor out of competing interests and agendas. In the words of Nightingale et al. (2020), the framing of climate change shapes our imagination and can narrow - and therefore extend - the range of potential responses. And at the core of how climate action is defined, lies the climate change interpretation - or discourse - it builds upon. **Discourse** is understood here as a system of representation that shapes personal perspectives, meanings and values (Leichenko & O'Brien, 2019). Mobilizing the synthesis made by Robin Leichenko and Karen O'Brien in their 2019's book, we will briefly present four main **climate change discourses** and how they relate to climate action.

As a start, it is important to note that the global scientific consensus embodied by the IPCC has not yet convinced the proponents of a **dismissive discourse** over climate change. Pure negation persists despite scientific evidence, as well as a form of "neo-skepticism" acknowledging a global change but not its anthropogenic source (up to 34% of skeptics according to a recent study over 30 countries[4]). But along doubters, another important dismissive stance claims the need to look at other issues first, relegating climate change as a non-urgent or secondary matter. A stance that holds a real political influence as short-term economic or social benefits can often be prioritized over what is seen as a distant and long-term threat. And the idea that future technologies to come will solve the issue can also justify to dismiss the present need for change (Leichenko & O'Brien, 2019)(p48). All in all, a dismissive stance simply supports the absence of climate-aimed measures, for various reasons but with the same outcome of inaction.

A second type of discourse builds upon the recognition of climate change and its human causes, but concentrates on the biophysical aspects of the crisis. Heavily focused on the environment, a **biophysical discourse** therefore pictures science as the key answer, mainly pushing to fix the GHG emissions through incentive policies, updated technologies and changes in individual behaviors. An approach compatible with "*techno-managerial*" types of climate action, making use of enforced regulations and market incentives, along the deployment of cleaner or "*green*" technological innovations - measures that have been characterized as "*technical fixes*" that do not question established knowledge systems and the continuity of social-political dynamics (Nightingale et al., 2020). Such a unidimensional understanding of climate change can indeed be seen as a potential recipe for maladaptation, overlooking social processes at play and the root causes of vulnerability (Eriksen et al., 2021).

More sensitive to the political sphere, a third type of discourse builds on a critical stance that goes beyond CO_2 emissions, and puts the emphasis on socio-economic models of

[4] The survey institute Ipsos and the energy company EDF held this study in 2021, interviewing 24.004 individuals over 30 countries. While the sampled population was indeed large, the closed nature of questions asked in the survey may have left too little room to nuances and uncertainty. This leads to take the numbers of this study with some precautions, but it still informs on the persistence of climato-skepticism in general. https://www.ipsos.com/sites/default/files/ct/news/documents/2021-12/Ipsos%2BEDF_ObsCOP2021.pdf

development. Such **critical discourse** identifies the drivers of climate change within the choice of production models, and the political systems that enforce them through dynamics of power. Leichenko and O'Brien chose such a term to emphasize how this discourse builds upon a critique of dominant models: a neoliberal capitalism as prevalent economic doctrine, and the very suiting biophysical framing of climate change, compatible with simple marketable solutions. (Leichenko & O'Brien, 2019)(p47). Far from leading to inaction, a critical discourse of climate change therefore leads to look more cautiously at technological and market-based answers. It may indeed lead to be critical of development and climate actions themselves, if they were to be designed within actual economic and political systems – a critique already made on the SDGs, as well as on "*mainstreamed*" climate action (Briant Carant, 2017; Scoville-Simonds et al., 2020). Consequently, a critical stance will put its emphasis on necessary changes in power-infused knowledge production, unjust social-political systems, and rooted dynamics of domination (Nightingale et al., 2020).

Finally, the fourth discourse to be mentioned builds around a more integrative understanding of climate change. A critical discourse identifies and centers around the social-political interactions, but an **integrative discourse** takes the further step of questioning the fundamental pillars shaping the relations between humans and the environment they live in. Beyond decolonizing social practices, it seeks a decolonization of mindsets and worldviews that build around oppositions and duality - of humans and nature at the forefront. By doing so, it pushes for a deep transformation of human societies, calling for a holistic approach to situation analysis and solution finding accountant of social and ecological tradeoffs. This leads to more interdisciplinary approaches of climate action, seeking to identify and accompany transformative dynamics and systemic changes (Leichenko & O'Brien, 2019)(p54).

The four main discourses presented above highlight how climate change as an issue can be variously understood, leading to differentiated approaches of action that may or may not address the climate crisis in its complexity. Although a critical stance does resonate with the complex rooted inequalities within human societies, an integrative understanding of climate change may provide the stance necessary to comprehensively look upon social, political, economical and ecological dimensions, and therefore answer to the climate crisis in its complexity. In that regard, the most complete climate action approach to date emanating from an integrative discourse has been the one highlighted by the IPCC, captured by the concept of Climate Resilient Development.

d. Linking climate and development

In its fifth assessment report cycle of 2014, the IPCC proposed a frame for climate action combining the concepts of **climate resilience** and **development**. The aim was to provide a frame that would not be considered as an additional layer nor a simplistic technical outcome, but rather as a process of incremental changes and transformations of human societies (Werners et al., 2021). The proposed definition integrated adaptation and mitigation approaches within the ongoing process of human development (Denton et al., 2014), connecting with the systemic framing of sustainability and therefore building upon an integrative discourse of climate change. This combination of climate action and sustainable development emerged from the recognition of climate change's impacts on human societies,

and the role of human development models as both fuel for the climate crisis and hindrance for population's preparedness (Denton et al., 2014). Such an integrative framing supposedly prevents to see climate action as an additional and competing priority, therefore avoiding the need to choose between climate and development.

*"**Climate resilient development** (CRD) is the process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development"*
(IPCC, 2022a)

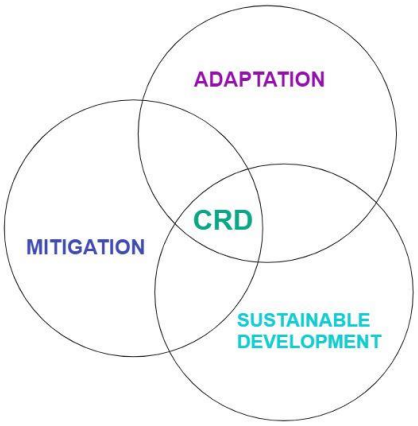


Figure 1: Simplified conceptualization of CRD

While the idea of "transition" is on most political agendas today, the use of the terms "*transformational change*" by the IPCC in association with the concept of CRD is not lightly made. A transition can indeed have the softer connotation of leading towards an identifiable state, on a slight and manageable slope of change (Leichenko & O'Brien, 2019). **Transformations** on the other hand imply fundamental changes in one's very nature, on a less predictable and more disruptive manner (Denton et al., 2014). Far from negative, such profound and systemic changes may actually have the potential to be emancipatory for human populations (Scoones et al., 2020). They could imply an opening towards more inclusive societies if navigated with solidarity and equity as core principles (Schipper et al., 2020). Transformation is therefore an implicit but critical dimension of CRD, in the way it opens to challenge all established societal norms, social dynamics, and forms of knowledges (O'Brien, 2012).

As a perhaps more obvious key dimension of CRD, the concept of **resilience** may also deserve some explanations, the term itself being rich in nuances and debates. Beyond its etymological "bouncing back" definition, a growing literature has helped connecting this technical term with human-centered considerations of anticipation, absorption and accommodation, although not without ambiguity (Werners et al., 2021). Some critique of the term may either see it as a depoliticized shock-oriented framing (Mikulewicz, 2019) or as lacking the capacity to question the core characteristics of social-ecological systems (Solecki et al., 2017). Both stances warn of the concept's compatibility with superficial techno-managerial solutions if taken isolated. Acknowledging this critique is therefore key to avoid the trap of a simplified version of "climate resilience" - a trap that could be avoided by stressing the complementary focus on social justice.

The IPCC frames **social justice** as "*just and fair relations within society that seek to address the distribution of wealth, access to resources, opportunity and support*" (IPCC, 2022a). It therefore targets any form of inequitable opportunities for humans to participate and thrive in society, opening up to acknowledge the pre-existing social conditions that can

hamper transformative capacities (Ziervogel et al., 2016) and increase rooted vulnerabilities (O'Brien et al., 2004). In that sense, social justice has for long been connected to sustainable development, the risk of its neglection being already identified within the Brundtland report (Brundtland, 1987). It could therefore be argued that social justice is already embedded within an integrative definition of development itself, but in the meantime, a focus on equity and social justice has been seen as key to the positive mobilization of resilience as a concept.

As explored by Borie et al. (2019), different conceptions of resilience open for different development strategies that have ethical implications, stressing the importance of a "*justice-based approach*". A claim consistent with a framing of climate resilience that, according to Schipper et al. (2020), would be indissociable with a solidarity-driven human wellbeing. Following such argument, actively correlating social justice with climate resilience could therefore prevent the traps induced by the frequent depoliticization and simplification of resilience as a concept. According to Werners et al. (2021), such is the positive framing of resilience mobilized by the IPCC in 2014 (and ever since). Consequently, the present thesis builds upon the same voluntarily positive understanding of resilience, unlocked by a continuous attention to social justice, moreover seen as inherent to an integrative framing of climate change.

Pursuing on concepts' clarification, some precisions should be made on CRD's frequent companion concept of "**pathways**". Considering Climate Resilient Development as the process towards the durable thriving of human societies, engaging on the process implies taking steps and making choices along the way. It is the plurality of trajectories implied by such recurring choices that has been conceptualized as "pathways" (Denton et al., 2014). The concept allows for a more incremental and flexible idea of progression, made of a multiplicity of options on a long-term process (Werners et al., 2021). In its March 2022 report, the IPCC illustrated how such development pathways could lead to either high or low climate resilience, depending on the societal choices made along the way - choices that could either strengthen climate resilience if taken in an inclusive, equitable and just approach, or that could impede it if following an inequitable and non-inclusive pattern (IPCC, 2022a). The figure itself is presented in the next page (Figure 2) with its related caption, presenting the conditions and outcome of "*higher*" as well as "*lower*" pathways, and the diverse arenas of engagement they need to be set in motion. In this thesis, the term pathways will be used in the same manner, accompanying CRD (sometime implicitly) to imply the trajectories leading - ideally- towards a climate resilient development.

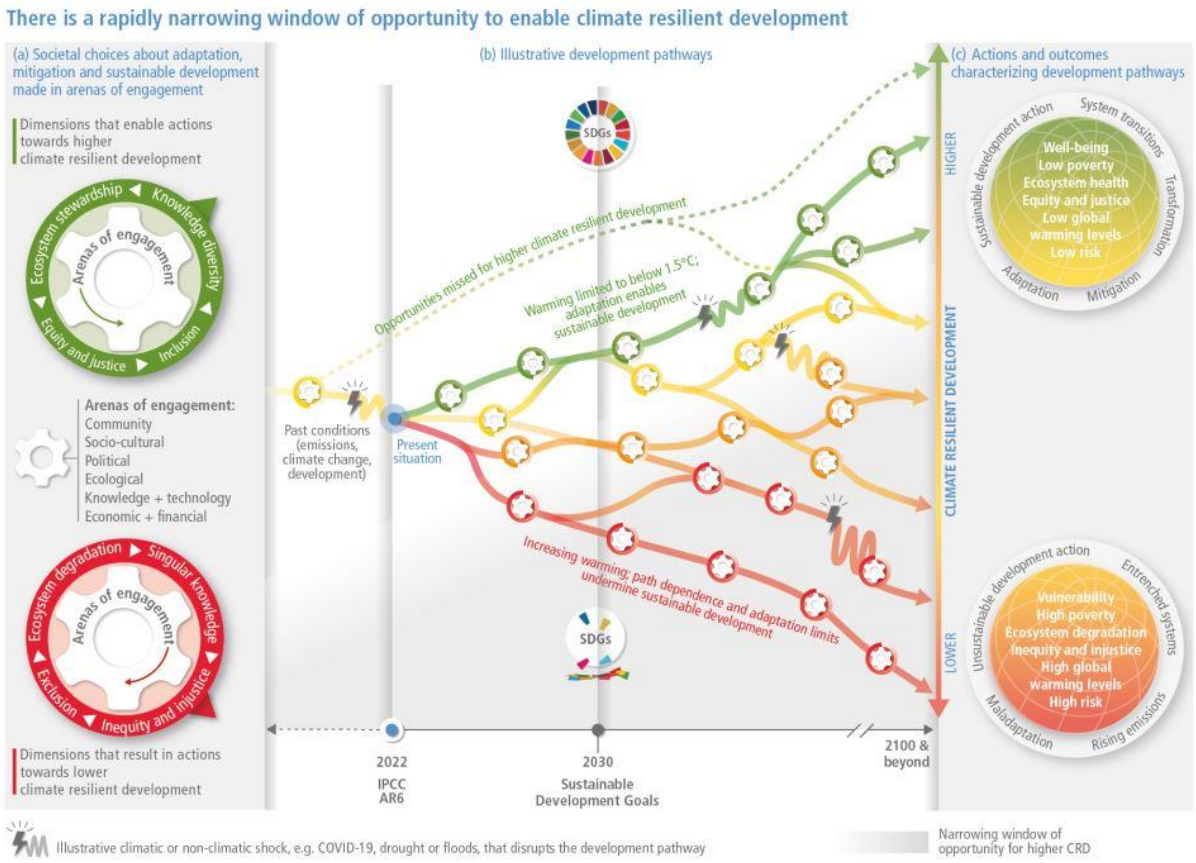


Figure 2: Illustration of CRDP by the IPCC, SPM.5 (IPCC, 2022a)

Figure 2 caption:

Figure SPM.5: Climate resilient development (CRD) is the process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development. This figure builds on Figure SPM.9 in AR5 WGII (depicting climate resilient pathways) by describing how CRD pathways are the result of cumulative societal choices and actions within multiple arenas. Panel (a): Societal choices towards higher CRD (green cog) or lower CRD (red cog) result from interacting decisions and actions by diverse government, private sector and civil society actors, in the context of climate risks, adaptation limits and development gaps. These actors engage with adaptation, mitigation and development actions in political, economic and financial, ecological, socio-cultural, knowledge and technology, and community arenas from local to international levels. Opportunities for climate resilient development are not equitably distributed around the world. Panel (b): Cumulatively, societal choices, which are made continuously, shift global development pathways towards higher (green) or lower (red) climate resilient development. Past conditions (past emissions, climate change and development) have already eliminated some development pathways towards higher CRD (dashed green line). Panel (c): Higher CRD is characterised by outcomes that advance sustainable development for all. Climate resilient development is progressively harder to achieve with global warming levels beyond 1.5°C. Inadequate progress towards the Sustainable Development Goals (SDGs) by 2030 reduces climate resilient development prospects. There is a narrowing window of opportunity to shift pathways towards more climate resilient development futures as reflected by the adaptation limits and increasing climate risks, considering the remaining carbon budgets.

Having hopefully clarified such a varied set of concepts, a final note needs to be addressed before pursuing further on. The positive stance upon the diverse concepts presented above and the utility of Climate Resilient Development as an encompassing "super-concept", doesn't imply its consideration as a concept to "rule them all" empty of risks, nor as panacea. As stated by Schipper et al. (2020) "*there is no one 'right' climate resilient development pathway*" that would be unlocked by the simple framing of CRD. In fact, all of its constituent and companion terms can be subjected to simplifications that would devoid CRD from its beneficial inclusiveness and complexity – from transformation (Scoones et al., 2020) to resilience (Mikulewicz, 2019), adaptation (Eriksen et al., 2021) and even development (Scoville-Simonds et al., 2020). This shows how no term nor set of concepts, however complete and relevant they might be, are actually safe from the **dangers of "mainstreaming**" and **depoliticization**, possibly tainting their original value. The mobilization of such terms throughout this thesis will rely on their whole untainted meaning as presented above, despite their observed occasional misappropriation. Far from a naïve stance disregarding their instrumentalization, this thesis voluntarily aims at respecting the initial sense of each term in order to -humbly- contribute to maintain their true meaning.

e. CRD as a frame to overcome biophysical discourses?

Although not void of critique as we just explored, CRD is to date the most comprehensive framing for the pathways leading towards desirable futures, consistent with the need to go "*beyond fragmented efforts*" as put by the UNDP (2022), and therefore deemed as a relevant focus in the context of this thesis. It aligns with an integrative discourse of climate change, setting the ground for an inclusive approach to human development, with the interesting feature of aiming at addressing development alongside climate, as two indissociable aspects of the same global crisis. But operationalizing such a combination of concept is no easy feat, although not impossible, as the recent literature shows.

The tradeoff of such an integrative approach is of course its density. Aiming at designing comprehensive solutions to socio-ecological systems taking into account economical aspects, power-relations, rooted inequalities and planetary boundaries imposes care, humility and precautions. But the recent work done by the IPCC and other scholars provides today more matured tools to attempt to operationalize CRD in its full complexity. Such is the case of a literature review published in 2021, that aimed to explore the maturation of Climate Resilient Development Pathways in academic literature since the IPCC's fifth assessment report. The work of Saskia Werners and her 13 co-authors is an important companion to this thesis, providing an update and synthesis of the constituent concepts of CRD and its pathways (Werners et al., 2021). Complementary to their synthesis, the authors proposed in their review a conceptualization combining the main lessons from scholars of CRDP in recent years. This conceptualization led to a representation (Figure 3) showcasing the four domains of Climate Action, Resilience, Development and Pathways, and eight key constituent features that, although not claimed as exhaustive, interestingly relate to the key dimensions of an integrative approach we defined above.

Figure 3: Representation of the literature lessons from the four domains of CRDP (Werners et al., 2021)

We can indeed note how enablers of transformations are held within the (1) **flexible response to ambiguity and uncertainty** as imposed by unpredictable futures, as well as within the continuous (2) **learning process through monitoring and evaluation** feeding an iterative dynamic of change, and the necessary (3) **engagement with transformative capacities** in all spheres of human societies. The justice-based approach to resilience, critical as highlighted, transpires from the (4) **recognition of the root causes of vulnerability**, the inclusion and participation of (5) **all actors in consideration with their diverse and potentially competing aspirations**, and the ever-present attention to respect the (6) **core principles of sustainability, equity and justice**. The potential externalities and trade-offs within and across social and environmental spheres are said to be (7) **accounted for as part of one intricated and dynamic system**, marker of the integrative framing for climate and societies. And finally, the necessary (8) **incorporation of adaptation and mitigation actions** points to the aforementioned need for action to both reduce the rate of GHG emissions, and adjust to an already changed and still changing climate.

Strong with these eight key components, the figure built by Werners et al can be seen as an interesting heuristic – a simplified conceptualization not claiming to be complete nor exclusive, but helping to grasp the multidimensional and interlinked nature of a Climate Resilient Development and its Pathways. The artificial segmentation of each of the eight key features does not imply an absence of links nor overlaps – they are even explicitly intertwined and are in no way an insurance of successful climate resilience building even with each dimension "checked". But they provide interesting markers that, if any were to be fully disregarded, would clearly hamper any attempt at a Climate Resilient Development. Although the figure was not specifically designed as a heuristic, the explicit aim of the authors to guide CRDP and its operationalization ensures that such a mobilization would remain within its initial logic.

We have now presented the core understanding of climate change this thesis builds upon, and how it leads to a framing of climate action that encompasses human development aspects in an integrative approach. We have also explored the conceptual effort invested in framing a Climate Resilient Development, designed to capture and answer best the systemic complexity of actual global crises. And finally, we have presented a tool offered by recent literature on Climate Resilient Development, that attempts to synthesize this complexity in a potentially operationalizable conceptualization. Our climate framing now defined, we will leave the world of climate theory to set eye upon the global stage where transformations are at play.

2. Governing complexity – polycentricity to the rescue of global climate governance

While the academic understanding of climate action has greatly evolved and matured in the last decades as we saw, so has the global structure of governance that shapes the translation of climate action theory into climate action policy. Constituent of this global structure, the forefront role of nations is still explicit within the undisputed inter-national order embodied by the United Nations since 1945. But the process of globalization has in the meantime complexified global governance, and the way climate change and human development are addressed. **Governance** is here defined as the structures, processes and actions through which different actors interact and decide, following formal and informal norms, regulations and procedures, at any scale (IPCC, 2022a). This precision in mind, the following section will aim at summarizing the evolutions regarding governance structures linked to climate change, and introduce the concept of polycentricity.

a. A brief history of global climate governance

Although the capacity of human activity to influence the planet's "greenhouse effect" was scientifically identified in the 1950's, it took a few more years, studies and reports for global warming to obtain political attention (Weart, 2008). Global acknowledgement of the phenomenon crystallized in 1979, with the first World Climate Conference in Geneva organized by the World Meteorologic Organization (WMO). This event set the first coordinated scientific efforts and led to the creation of the **IPCC** in 1988, by the United Nations Environment Program and WMO. This marked the beginning of a global effort to better understand the science behind climate change, to assess its environmental and socio-economic impacts, and to explore response strategies available to policy makers (UNEP & WMO, 1989).

The first ever set of assessment reports came out in 1990, providing enough evidence for the first stones of a formal and organized global governance on climate change to be set at the Earth Summit of Rio in 1992, embodied by the Rio Declaration. Two years later, the United Nations Framework Convention on Climate Change (UNFCCC) was entering into effect, providing a frame for climate action and international cooperation between its "parties" - the 197 countries having to this day ratified the convention (UNFCCC, 2022b). The stage for global action was therefore established and informed periodically by the IPCC through a set of non-prescriptive reports. Written by three working groups, those assessments provided

updates on the status of the climate system (through its first group), and on how to best respond through the two main strategies of adaptation (second) and mitigation (third group).

Since the Earth Summit, Conferences of the Parties (COP) have been held regularly, providing a formal space of advocacy, negotiation and engagement. In 1997, the COP3 led to the elaboration of the Kyoto Protocol – an agreement pushing for national pledges and policy engagements in the reductions of greenhouse gases emissions. An important milestone as it was introducing the first signs of a legally binding agreement, but a milestone that required a few more years to enter in effect due to heavy negotiations, and precisions in the binding mechanisms (UNFCCC, 2022a; Weart, 2008). In 2005, once ratified by enough countries representing more than 55% of total global emissions, the Kyoto protocol came into effect, aiming to return global emission at their 1990 level by 2010. An objective that ended up being largely overshot if we look back at emissions rate in the last three decades (Figure 4).

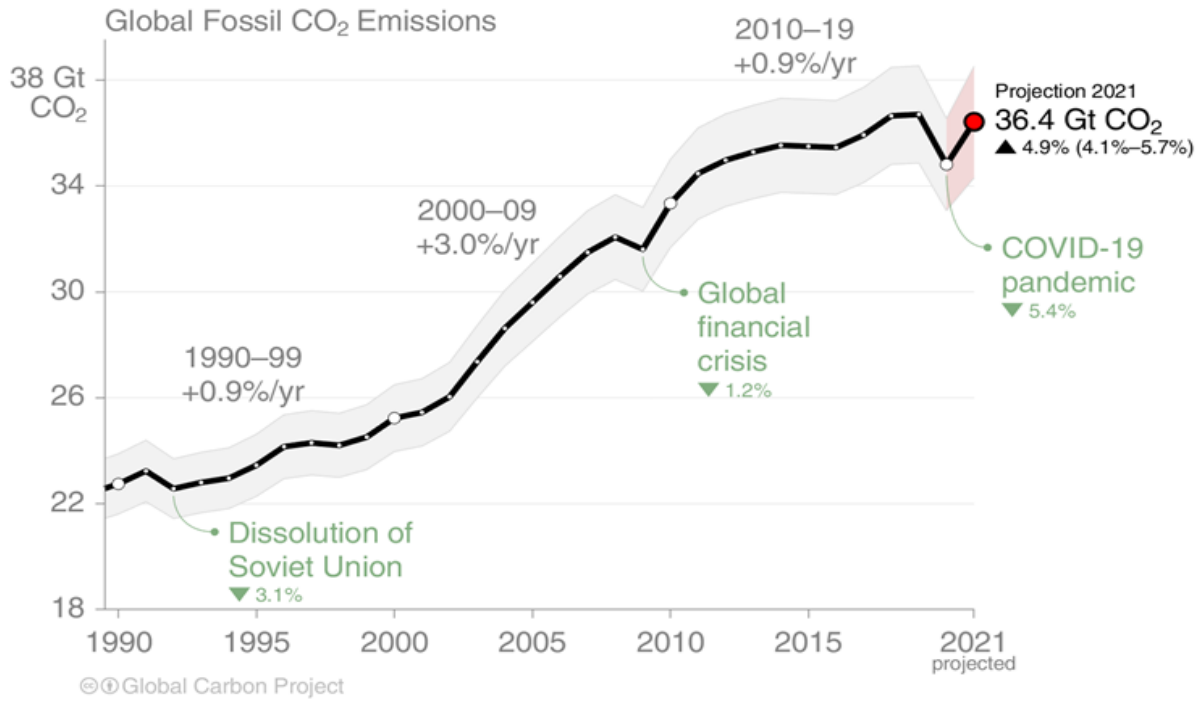


Figure 4: Global Fossil CO_2 emissions since 1990 (Global Carbon Project, 2021)

Continued multilateral efforts led to another major milestone in 2015, giving birth at the 21st COP to what is now known as the Paris Agreement. This new international treaty, aiming at being legally binding, set the specific goal of "*Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels*" (UN, 2015). Rapidly signed by 196 parties in Paris, the agreement came into force in 2016, providing the target most commonly used to date for national objectives and multilateral negotiations – the famous 1.5°C. It is to be noted that in the same year the COP 21 was held, Member States of the United Nations adopted the 17 Sustainable Development Goals as framework for the global development agenda, featuring its 13th goal specifically aimed at climate action. But as for the Kyoto Protocol, if goals were indeed set and agreed upon, action lagged to the point that the

world is today recognized as "*woefully off track*" by the United Nations themselves (Figure 5).

"Today's IPCC report is an atlas of human suffering and the damning indictment of failed climate leadership".
Antonio Guterres, United Nations Secretary General (2022)

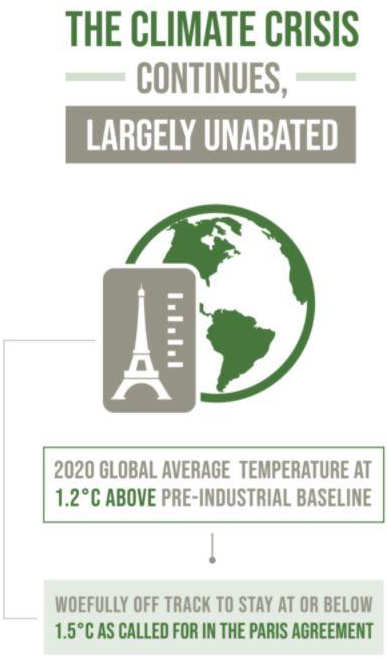


Figure 5: United Nations' message on the climate crisis (UN, 2021)

b. A "*failed leadership*", but plenty of actions nonetheless

While nations clearly led the global governance on climate change through their multilateral institutions, it implies that delays and failures were nation-led too. Oppositions in 2001 to the Kyoto Protocol by the US President George W. Bush clearly impeded its ratification process and enforcement (Weart, 2008), participating – along the treaty's structural weaknesses - in its failure as an emission reduction instrument (Prins & Rayner, 2007). Long debates on the historical responsibility of high-income countries and equitable burden-sharing have also occupied many of the COPs discussions, with arguable results (Luomi, 2020). And iconic blows such as Donald Trump's theatrical exit from the Paris Agreement also illustrate – along the general failure of staying on track of fixed goals – the incapacity of nation-led global level governance to successfully address the climate crisis (Cole, 2015; Prins & Rayner, 2007). But this failure may have given room for other actors to take a role in climate governance alongside historical institutions.

For starters, non-governmental actors in their diversity have taken an active part along the evolution of climate global governance. In 1989, the Climate Action Network was established by environmental organizations such as Greenpeace International and the WWF (Nulman, 2015) to organize the civil society's effort and influence international negotiations – with relative outcomes but outcomes nonetheless (Giorgetti, 1998; Youssef, 2021). Civil movements have also shown to be impactful (Agnone, 2007; Bugden, 2020), using their visibility to put more pressure on Nations through local and global scale protests like the ones organized by the World Climate March[5], and even school strikes as embodied by "Fridays for

[5] https://www.worldclimatemarch.org/

future"[6]. A variety of actions and initiatives that have, with at least a sense of accountability, infused the global governance machinery.

Among non-public actors, it is also necessary to acknowledge private companies and economic institutions as influential players in climate governance (Andrade & Puppim de Oliveira, 2014). Historically this influence has not necessarily been in favor of climate action though, and clear lobbying efforts - notably so from the extractive industry in the USA – have even aimed at denying the necessity for carbon emissions control (Weart, 2008). More inclined towards action, initiatives such as Climate Action 100+[7] may better embody an attempt at more constructive roles for private actors and investors. Negative as well as positive impacts then, but impacts nonetheless that illustrate how non-governmental bodies have, in good or bad, influenced and taken part in global climate governance.

To complete this overview, local and regional governments must also be acknowledged as growingly influential actors in the global governance scene on climate change. As early as 1990, initiatives like the Climate Alliance[8] unifying cities and regions of Europe were aiming at both local and global advocacy to push for rapid action. International summits parallel to COPs were held specifically for subnational governments, such as the Climate Summit for Local Leaders in December 2015, along COP21 in Paris. And even more recently, the initiative "We are still in"[9] embarked numerous American States and Cities after US President's decision to withdraw from the Paris Agreement, embodying the direct pledge non-central forms of governments could take along or against their nation's decisions (Chaloux et al., 2022).

Such a swift (and non-exhaustive) overview highlights an important reality: if the UNFCCC embodied at first a more centralized type of formal climate governance, history has shown the growing involvement of a variety of actors alongside nations, pushing for more engagements and action in addressing the climate crisis, and even taking actions themselves at a variety of levels (Bulkeley et al., 2018; Luomi, 2020). This has been characterized as a move from a "*monocentric*" governance, embodied by the UNFCCC, to a "*polycentric*" or "*multi-level*" form of governance, made of initiatives and engagements from actors of all types (Chaloux et al., 2022; Jordan et al., 2018a; Setzer, 2015). These two concepts then deserve attention in this thesis, as they provide a frame to understand the involvement of actors in global climate governance that are out of the traditional nation-centered scope.

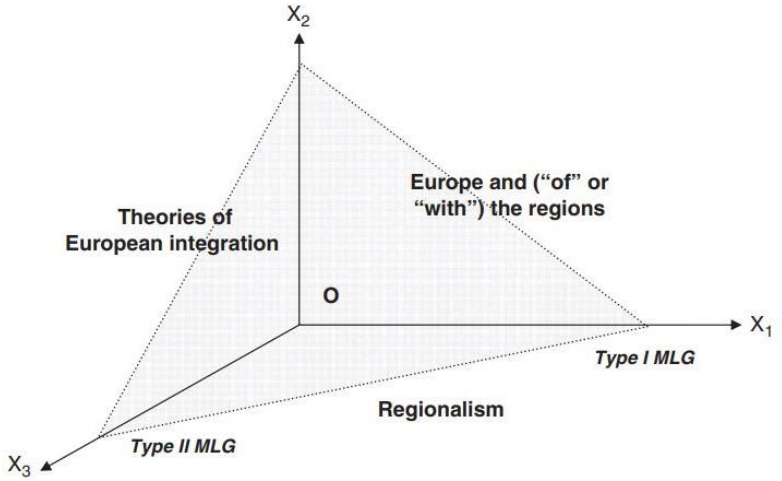
c. Multi-level and polycentric governance as theoretical alternative

The principles shaping a non-central type of governance have led to a variety of concepts, some more popular than others, but all aiming at understanding and framing this shared and networked approach of governance. American scholar Elinor Ostrom may be one of the most iconic theorizer of this approach, as her work on governing the commons has helped answering to its prophesized tragedy (Hardin, 1968). **Polycentricity**, presented as a plurality of centers of decision being formally independent but potentially interacting in

[6] https://fridaysforfuture.org/
[7] https://www.climateaction100.org/about/
[8] https://www.climatealliance.org/about-us/association.html
[9] https://www.wearestillin.com/

different ways, was first introduced in 1951 by Michael Polanyi[10] (Aligica & Tarko, 2012; Polanyi, 1951). Its further development by Vincent and Elinor Ostrom provided an alternative view upon dominant frames of governance and public policy, advocating for a more complex, interconnected and trusting approach to institutions as opposed to market and state-centered governance, based on individualism and supposed rationality (Ostrom, 2010a; Ostrom et al., 1961).

On the other side of the Atlantic, studies in the European context have led to the emergence of the very related concept of **Multi-Level Governance**, or MLG. Its first use traces back to 1992, when it was proposed by Gary Marks to characterize the complex decision-making dynamics taking place within the European Community (Marks, 1992). The concept has since been developed to picture the evolution of governance models beyond the unitary sovereign state, encapsulating within a simple term the complex transformations of political mobilization, policy-making and institutions (Piattoni, 2010). A useful typology, companion to the Multi-level Governance concept, separates a Type I MLG made of limited and non-intersecting types of jurisdictions (such as a federal state, where power is vertically transferred to multiple levels) and a Type II MLG made of unlimited, overlapping and self-organizing actors and jurisdictions (horizontally interconnecting formal institutions and civil society at various levels) (Hooghe, 2001; Piattoni, 2010).



Notes: X_1 = center-periphery dimension; X_2 = domestic-international dimension; X_3 = state-society dimension; O = the sovereign state.

Figure 6: MLG's Analytical space, from Piattoni (2010)

Other terms have also emerged to characterize the dispersion of authority away from central governments and their multilateral structures, such as *multi-perspectival* or *networked governance*, *condominio*, *polylateralism* or *cosmocracy* (Hooghe, 2001; Scholte, 2008). Interests of such alternatives can be seen in the limits of the term "multi-level" -being applicable to devolved albeit vertical and rigid forms of governance- and of the term "polycentric" -perpetuating an idea of "centers" while implying a decentralized phenomenon (Scholte, 2008). But "multi-level" and "polycentric" as attached to governance seem to have gained the most visibility, and the very similar phenomenon they depict indicates a semantic proximity that has resulted in a frequent indistinctive mobilization of both terms. Their recent use in academia shows such a tendency (Bulkeley et al., 2018; Hooghe & Marks, 2020;

[10] It can be noted that in his book from 1951, Polanyi refers to an older work on polycentricity published in 1946, in the journal *Humanitas*. But his focus being more on economic systems than on governance, it has not been researched further in this thesis.

Jordan et al., 2018a; Vedeld et al., 2021), and the definitions mobilized in the last IPCC WGII report illustrate this semantic similarity, and potential overlap in meaning.

Table 2: Interpretations of multi-level and polycentric governance by the IPCC

Multi-level governance *refers to the dispersion of governance across multiple levels of jurisdiction and decision-making, including, global, regional, national and local, as well as trans-regional and trans national levels*	***Polycentric governance*** *deals with active steering of local, regional, national, and international actors and instigates learning from experience across multiple actors, levels of decision-making, and temporal scales*
(Ara Begum et al., 2022) Chapter 1 p56	*(Birkmann et al., 2022) Chapter 8 p100*

Building upon associated literature, and in order to bring as much clarity as possible on the use of each term, we can stress the jurisdictional aspect of multi-level governance, and its implication of superimposed institutional scales, implying multiplicity with a territorial dimension (City, Region, State, Nation…). In comparison, a polycentric governance indicates a more actor-centered focus, implying multiplicity to the functional dimension of involved stakeholders, regardless of their geographical scale and nature (public, private, formal, informal, local, global…)(Piattoni, 2010; Schmitter & Kim, 2005). Therefore, the two concepts are highly compatible and complementary, bringing when combined a total plurality in scale and actorness within governance. But to precisely connect them, polycentricity can - and will in this thesis - be understood as a less vertical and more integrative multi-level governance, corresponding to a realized type II MLG. Consequently, the more open and horizontal nature of "polycentricity", as well as the historic work aimed at proposing an alternative to centralized and market-based models, leads to favor it to "multi-level" governance in the chapters to come.

"So, all PCG is MLG, but all MLG is not PCG…"
Confused author (2022)

d. Limits and benefits of polycentric climate governance

Having settled its technical subtleties, the phenomenon of polycentric governance and its theorization help make sense of the diversity in level and nature of actors now involved in climate governance, as we briefly presented earlier. It allows to look beyond the authority of sovereign nations and their core institutional frames such as the UNFCCC, and permits to acknowledge the active – and legitimate - role of all types and levels of actors, now engaged in addressing climate change (Jordan et al., 2018a; Ostrom, 2010b). The concept's attention to inclusivity and democratization aims at reducing the risks of purely institutional approaches of climate adaptation, that can otherwise foster local dynamics of power and existing vulnerabilities (Nightingale, 2017). Thus, accounting for the way it can enhance innovation, foster cooperation and pursue experimentations at multiple scales, a functional polycentric approach to climate governance has been advocated as beneficial by Elinor Ostrom, and is now recognized as a need for climate adaptation by the IPCC (Ara Begum et al., 2022).

While polycentric governance can be advocated both as an inherently positive approach based on diversity, as well as a specific response to the failed leadership of a solely nation-led climate regime (Okereke et al., 2009), two important nuances deserve to be made. The first being that going beyond a nation-centered governance doesn't imply the uselessness of nations in an anti-sovereign stance. For their role in shaping legal frameworks and international rules, nations and intergovernmental institutions remain key even within a post-sovereign polycentric approach of governance (Dorsch & Flachsland, 2017; Jordan et al., 2018b; Scholte, 2008). This relates to an understanding of polycentricity as integrative of both vertically and horizontally shared governance.

The second nuance we need to mention is again brough by Elinor Ostrom, rightfully reminding that although potentially beneficial, polycentricity is not a panacea (Ostrom, 2010b). Several threats to self-organized types of climate governance have been identified, such as the geographical inconsistency of policies, the mere relocation of emissions, and the more complicated access to necessary expertise. Moreover, the IPCC highlights the risks of inadequate decision-making process in polycentric governance, that could exacerbate existing inequalities regarding marginalized actors if not applied with suitable communication, coordination and democratic participation (Caretta et al., 2022). A case for the risks of "*uncoordinated fragmentation*", fundamentally challenging the performance of polycentric approaches (Dorsch & Flachsland, 2017), along the case for the risks of further social marginalization fundamentally challenging any transformation in modes of governance (Schipper et al., 2020).

Despite the necessity to acknowledge such threats and limits in polycentric governance, the relevance of such an approach for fostering multiple actors' participation in an interconnected global climate governance is now explicitly established by the IPCC (Birkmann et al., 2022). The adequacy of the phenomenon with the concept of climate resilient development is clear, in the way it can enhance solutions through synergies of knowledge, involvement of local structures and communities, experience-sharing at multiple level, and the building of mutual trust across engaged actors (Cole, 2015; Jordan et al., 2018a; Ostrom, 2010a). All these features advocate for the pertinent role of polycentricity in setting the conditions and governance enablers that, locally and globally, allow for more creative, interconnected and contextually-induced climate actions.

"Therefore, there can be no silver bullet […] to bring about the desired end.
But could there be silver buckshot?"
Prins and Rayner (2007)

e. Among a polycentric governance, the level of subnational governments

Having outlined the relevant involvement of multiple levels – or rather multiple centers at multiple levels – this thesis will now concentrate on one specific level within our integrative framing of climate governance. Although acknowledging the diversity in nature of actors involved in a polycentric regime - from sovereign to civil, from public to private - there

is an interesting specificity to the general family of subnational governments that draws interests when exploring polycentricity. Subnational governments are indeed formal structures of governance bound to a geographically delimited territory, therefore both an administrative jurisdiction and a *place* without the sovereign characteristics of a nation. Through their intrinsically non-central nature and their explicit governance-bound role, they embody decentralized places of governance geographically closer than nations to populations and local realities (Happaerts et al., 2010; Somanathan et al., 2014; van der Heijden, 2018). They therefore hold specific characteristics that, regarding human development and climate concerns, deserve further investigations.

To begin with, if the concept of subnational government seems somewhat simple, the vast variety of institutional contexts worldwide brings some complications when looking globally at such family of actors, and imposes clarification. The almost nation-specific approach to **decentralization** – i.e. the dispersal of central governmental authority and power to other levels of government or administration[11] (Böckenförde, 2011) – makes the phenomenon various in itself, with different numbers of levels, denominations, ways to elect or nominate leaders, or roles and responsibilities. A few acronyms populate the literature such as NCG (Non-Central Governments), SNA/SNG or SG (Subnational Actor/Governments), LG (Local Governments), LA or LRA (Local and Regional Authorities)… somewhat complicating the navigation through this very context-specific field. To provide the best clarity, this thesis will mobilize a recent synthesis made by Joana Setzer and her colleagues (2020) on the theme of transnationalization, giving a scale-encompassing definition to the term "subnational" – therefore used in this thesis as including cities and regions alike - as illustrated in the following table.

Table 3: Definitions of terms used to describe governance levels, from Setzer et al. (2020)

Governance level	Definition
Transnational	Contacts, coalitions and interactions across state boundaries that are not controlled by the central foreign policy organs of governments, involving private actors and/or subnational governments, as well as, or rather than, states or inter-state organizations[a,b]
State, national or central government	Consists of all administrative departments of the state and other central agencies whose responsibilities cover the whole economic territory of a country
Regional government	Coherent territorial entity situated between local and national levels, with a capacity for authoritative decision-making.[c] Depending on the country, it may involve states, provinces, domains, territories, länder, cantons, autonomous communities, oblasts, etc.
Local government	All levels of government below the regional level (prefectures, districts, counties, municipalities, cities, towns, communes, etc.)
Subnational government	All levels of government below the national level (includes both regional and local governments)

Note: all definitions are adapted from Setzer (2013), drawing from [a]Keohane and Nye (1971, p. xi), [b]Abbott (2014) or [c]Marks *et al.* (2008, p. 113).

While labels and legal frames are internationally different, a key principle usually drives all processes of decentralization: **subsidiarity**. Defined by the UN as a transfer of

[11] Böckenförde (2011) interestingly notes that "*Decentralization is a two-way street*", often seen essentially as a transfer of power from the national towards the local scale, but the literal definition of decentralization can also imply a transfer from the national towards the international scale – an "upward" decentralization referred to as *regional integration* or *internationalization*.

responsibility to the appropriate level of decision the closest to citizens, subsidiarity is said to be "*the rationale underlying to the process of decentralization*" (UN-HABITAT, 2009). This principle is also at the core of the European construction, enshrined in its constitutive treaties since 1992 to ensure the scale of decision to be the most relevant between all levels of governance – from supra-national to local (Pavy, 2021). Beyond representing a concrete example of institutionalized subsidiarity, the European Union's case also illustrates how interpretations of this principle can lead to more controversial applications, as the satisfactory scale of action can be politically determined to actually be farther -and not closer- to citizens (Piattoni, 2010). This case illustrates once again the malleability of such terms and principles, and the possibility to see them being misused and turned against their embedded meaning. Despite those risks, the close relationship between polycentricity and subsidiarity highlights the significance of this principle when exploring multi-level and polycentric climate governance (Cole, 2015; Jordan et al., 2018a; Piattoni, 2010).

Altogether, the set of concepts that was presented grants a positional understanding of subnational governments within the global governance context – the subsidiarity principle being at the core of a decentralization process, itself shaping an evolution from nation-centered to spread-out polycentric forms of governance. The precise competences held at subnational levels still vary tremendously from a context to another, and from a scale to another, implying a large variety in subnational governments' actions and involvements. These actions are of course essentially oriented towards the management of their own populations and spaces -their reason of existence- according to the powers and responsibilities transferred by law from the central level. But as we briefly looked at earlier, subnational governments are also already engaged outside the scope of their territory, participating in global actions through transnational networks, attendance to summits, and direct pledges to reduce carbon emissions (Chaloux et al., 2022; Ostrom, 2009). A participation we can now understand as marker of a polycentric form of governance, with subnational governments being themselves centers of decision and action, not as mere executors of nationally-designed and vertically enforced policies, but through agency-driven processes.

However, engaging in what can be seen as foreign affairs at a subnational level is far from trivial. The progressive evolution of the phenomenon in the last decades has brought many scholars to raise questions about what it implies for the sovereignty of nations, for the mutation of international relations, and for its integration into global governance – in a polycentric approach as we saw. This leads us to the final piece of our theoretical puzzle, the ultimate concept required to go further: a dive into the phenomenon and academic field of paradiplomacy.

"We're the level of government closest to the majority of the world's people. While nations talk, but too often drag their heels—cities act."
Michael Bloomberg, Mayor of the City of New York[12]

[12] www.bloomberg.com/news/articles/2012-06-13/what-if-mayors-ruled-the-world

3. From the global action of cities and regions to the rise of paradiplomatic studies

The involvement of local and regional governments outside of their countries' boundaries didn't start with international climate action. The related academic field that bears the name of *paradiplomatic studies* has a history and debates of its own, building upon a complex development of locally-led foreign relations. The following contextualization fed by an extensive review of the literature will help situate the concept of paradiplomacy within a global polycentric governance, present the story and state of a fragmented academic field, and aim at proposing a defragmented framing for the sake of this thesis.

a. Final nutshell: historical perspectives on the local going global

The global involvement of subnational governments is far from recent, and if it is frequent to describe its appearance linked with the post-war town twinning movement, it can actually be traced back even further. As a start, it is interesting to note that throughout history, cities and towns "*have played a central role economically, politically, and culturally in all human societies and precede nation states by some 5,000 years*" (Ljungkvist, 2014). This reminds us of the historical role and stability of cities, therefore to be noted when compared to modern forms of central governance, and the quite (relatively) recent appearance of "Westphalian" nation-states some four centuries ago (Spruyt, 2002). But as subnational governments are now characterized by their non-sovereignty, it is more accurate to mention external relations held since they are bound to sovereign nations.

Incidentally, the first envoys of non-sovereign subnational governments acting as diplomatic representatives can be traced back to the second half of the nineteenth century, with delegates of overseas colonial governments settling in Paris or London (Tavares, 2016)p11. The first formal diplomatic agreement involving a subnational government may have been signed in 1907 between the Brazilian state of Sao Paulo and the country of Japan, for immigration management purposes. More cultural motivations then led to the first city-to-city[13] twinnings in 1918 between European localities – a growingly popular form of subnational cooperation later labelled "*people-to-people diplomacy*" by US President Eisenhower (Furmankiewicz, 2005). Indeed, town twinning became an officially recognized instrument of peace and reconciliation in the aftermath of the second world war, inciting a lasting dynamic that led to more than 11.000 twinnings worldwide in the 1990's, and reaching over 40.000[14] partnerships today (Langenohl, 2015; Marchetti, 2021; Zelinsky, 1991).

Geographical proximity also played an obvious role in cooperation dynamics. While neighborhood linkages may be as old as humanity itself (Duchacek, 1990), formal connections clearly intensified with Europe's post-war efforts to overcome the defensive legacy of frontiers, fostering peaceful transborder relations through formal economic and

[13] Taking a global perspective over towns and cities, it is important to acknowledge the diversity of definitions in use across the world. The United Nations and the European Commission have worked on a unified city definition to facilitate monitoring methods (UN-HABITAT, 2020). However, it has not yet allowed for data consolidation or conceptual clarity over phenomena involving cities. Incidentally, this thesis doesn't use a scale-restrictive definition of cities and towns when mentioning "city-diplomacy" or "town-twinning".

[14] If 39.816 twinnings in Europe were registered in 2010 (Langenohl, 2015), numbers from other continents appear to have not been aggregated.

cultural agreements (Scott, 1989). Generally facilitated by a decentralization process, the following decades saw a variety of transborder agreements worldwide, such as between US and Canadian states in the 1980's (Tavares, 2016), between Russian and Japanese provinces in the 1990's (Williams, 2007), and between Spanish, French and Italian neighbor regions from 1992 and onward (Duran, 2015). A trend that led to numerous collaborations and agreements for migration and cultural purposes, but also for the management of environmental resources and issues transcending nations' borders (Duchacek, 1984; Tavares, 2016)p34.

Parallel to bilateral forms of cooperation, multilateralism also developed at the local scale. In 1913, the first transnational network of local governments was created in Ghent (Belgium) in the form of a global municipal movement : the *Union Internationale des Villes* (UCLG, 2013). This network then became the International Union of Local Authorities (IULA) in 1928. Other transnational networks appeared following the second World War to foster bonds between localities worldwide, such as *Sister Cities International*[15] in 1956, *Arab Towns organization*[16] in 1957, *Union of African Cities*[17] in 1975, *French-Speaking Mayors Association*[18] in 1979… The creation of the Nrg4SD in 2002 (Network of Regional Governments for Sustainable Development) also illustrates how provinces and regions alongside cities formalized their global involvement through transnational networking. A phenomenon that is far from anecdotic, as more than 300 networks might today be active, linking localities and regions within and across all continents (Acuto & Leffel, 2020).

This rich and steady dynamic of subnational governments' global presence got gradually acknowledged by international institutions. At continental scale, this led for example to the creation of the European Conference of Local Authorities in 1957 (Duchacek, 1990), allowing for territorial authorities to complement (or counterweight) the so far nation-led Council of Europe. At the global scale, progressive recognition of the subnational level by the United Nations led in 1996 to the organization of WACLA – the first World Assembly of Cities and Local Authorities, gathering more than 500 Mayors from around the world along the Habitat II conference in Istanbul[19]. The assembly then laid ground to the creation of two major organizations. First, the United Nations Advisory Committee of Local Authorities[20] – UNACLA- got created in 1999 by the Commission on Human Settlements, aiming to facilitate the dialogue of subnational governments with the UN System. This Committee claims today to represent on the global stage around 323.000 institutions of all scales through its member organizations. Second, the global network named United Cities and Local Governments - UCLG - emerged in 2004 from the fusion of IULA and FMCU[21], with the mission to "*promote and represent local governments on the world stage*" (Alger, 2014; UCLG, 2013). UCLG has since worked both as a network counting more than 240.000 members worldwide (Kihlgren Grandi, 2020b), and as an advocacy platform, initiating the

[15] https://sistercities.org/
[16] http://www.arabtowns.org/
[17] https://www.uclga.org/
[18] https://www.aimf.asso.fr/ *(Association Internationale des Maires Francophones*)
[19] https://www.global-taskforce.org/world-assembly-local-and-regional-governments
[20] https://unhabitat.org/network/united-nations-advisory-committee-of-local-authorities-unacla
[21] Fédération Mondiale des Cités Unies, formerly know as Fédération Mondiale des Villes Jumelées or United Towns Organization (UTO) in English (Alger, 2014; UCLG, 2013)

creation of the complementary Global Taskforce of Local and Regional Governments[22] in 2013, that is still active as a coordination mechanism today.

To sum up this historical overview, the following figure built by UCLG for the 100th anniversary of the first subnational governments' transnational network illustrates the almost ecosystemic complexity of one iconic but still very partial aspect of this multidimensional phenomenon.

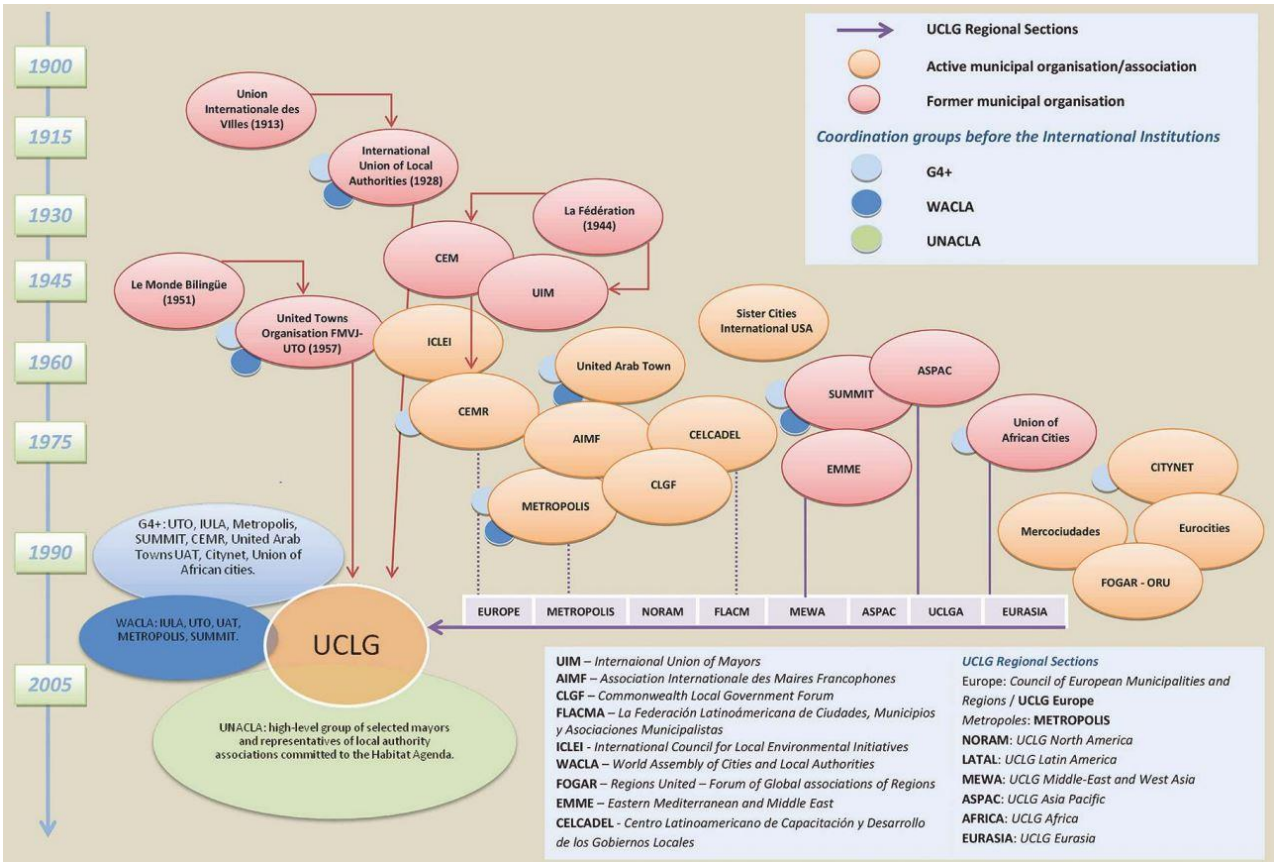


Figure 7: Historical development of subnational governments networking (UCLG, 2013)

b. Many shapes, frames and names for a multidimensional phenomenon

The condensed summary we just presented only offers illustrative fragments of the history of subnational involvement on the global stage. Highlighting the steady development of such a rich landscape of actors and engagements illustrates how, although closely related to nation-led processes of decentralization and devolution (Paquin, 2020), the phenomenon has also emerged from various initiatives at the subnational level in a "*grassroot*" (Alger, 2014; Williams, 2007) or "*bottom-up*" manner (Dickson, 2014; Duran, 2015; Habdullah & Garcia-Chueca, 2020). But this endogeneity also implied very context-specific frames of action and terminologies, shaping a multifaceted and somewhat disharmonized phenomenon that, before looking at academic interpretations, deserves a brief inquiry.

As a start, we can mention how such a global involvement of subnational governments heavily depends on the legal frame of the host country itself. Foreign affairs and diplomacy

[22] https://www.global-taskforce.org/about-us

are still very closely linked to "*high politics*" and sovereignty (Tavares, 2016; Williams, 2007), and are therefore seen (and often legally framed) as the prerogative of central governments only (Paquin, 2020). But this legal delineation rapidly blurs when looking at the reality of transnational relations, as many actions are held beyond the officially formalized frames, either in legal vacuums or by circumventing limitations – as for example in Canada (Kuznetsov, 2014) or Russia (Williams, 2007). Preventing this "grey area", some countries have been officially granting their (or some of their) subnational governments the competence or mandate to autonomously engage in international relations – with rigid restrictions such as in Poland (Furmankiewicz, 2005), Austria (Blatter et al., 2008), France (Duran, 2015), or quite openly for countries like South Africa (van Wyk, 1997), Belgium, and Germany (Blatter et al., 2008).

The nature and labeling of these relations have also been influenced by the subnational context and scale engaging in foreign affairs. As we have seen, the local scale has been involved through twinnings and sisterhood agreements, although these actions were sometimes politically framed as "*city-to-city diplomacy*" (Tavares, 2016), Municipal International Cooperation (MIC) and "*people-to-people cooperation*"[23], "*Inter-City Solidarity*"[24] or "*Citizen Diplomacy*"[25]. At regional scale, the terms "*Federative diplomacy*" were employed by Brazilian officials in the 1990's to characterize the international involvement of States (Setzer, 2015), while "*self-governmental diplomacy*" was used in Poland (Kamiński, 2018), and "*Decentralized Cooperation*" was preferred by French institutions to name both regions and cities' global involvement (Tavares, 2016). Although France ended up favoring "*territorial collectivities' international action*" (Kihlgren Grandi, 2020a) and Italy opted for "*territorial partnership*" (Magarini et al., 2017), the European Union adopted "*Decentralized Cooperation*" as an encompassing concept for the foreign affairs of subnational governments, often adjoining "development" in between the two terms to frame it as an instrument of subnational aid (Elong Mbassi, 2017). In practice, the "international" terminology visibly persists within institutional language, despite the more "transnational" characteristics of actions undertaken not *between* nations, but *across* national borders (Gregory et al., 2009).

Such a rapid overview on the vast terminological and practical landscape of subnational involvement continues to depict a global phenomenon with the characteristic of being extremely diverse not only in nature, but also in the way it is framed and described by institutions, politics and practitioners themselves. The lack of a consistent terminology complicates the visibility on the phenomenon in its globality, marked by overlapping and space-specific terms, even within the same language. And if we could have hoped to count on academics and scholars to bring some clarity and harmonization to the phenomenon, the next section will present how they have quite debatably done so.

[23] https://www.norad.no/en/toolspublications/publications/ngo-evaluations/2009/municipal-international-co-operation-kristiansand-norway-and-walvis-bay-namibia/
[24] http://www.mayorsforpeace.org/english/aboutus/covenant.html
[25] https://www.sistercities.org/about-us/

c. Scholars to the rescue: the rise of an academic field (or a few…)

Historically, political sciences and international relation studies have been very nation-centric, but the progressive involvement of subnational governments in global affairs has not remained unnoticed for long in the academic world. The first specific research on the subject may trace back to the 1970's, sparked within federal studies to investigate the new role played by US and Canadian States and Provinces (Manning, 1977), and what was seen as a process of "*erosion of the sovereign state's prerogatives*" (van Wyk, 1997). In the 1980's, the geographical focus extended from North America to European subnational governments, and developed from a mostly descriptive to a more analytical approach (Kuznetsov, 2014; Liu & Song, 2020). It is in 1984 that the term "*paradiplomacy*" war first used[26] by Ivo Duchacek[27] to describe the general phenomenon of local and regional governments' international affairs, along a first attempt at a typology (Duchacek, 1984). The academic field of paradiplomatic studies was born.

Unsurprisingly, terminological debates developed at the same time, and the 1990's saw an interesting array of critiques to the term *paradiplomacy*. Ivo Duchacek originally switched from the prefix 'micro' to 'para' to imply the non-inferiority of subnational diplomacy[28]; however, some detractors claimed that it gave a 'parallel' connotation, implying a separation from national policies and an intrinsic conflictuality (Hocking, 1993). The implicit acknowledgement of a legitimate central diplomacy held by nation-states was also seen as potentially undermining subnational diplomacy (Kincaid, 1990), by suggesting the existence of "*second-order*" or "*pale imitations of 'real' diplomacy*" (Hocking, 1999). This debate has not stopped in the 1990's though, and if the term *paradiplomacy* has been recently claimed as "*universally recognized*" (Liu & Song, 2020), the continuous criticism upon a certainly imperfect term has to be acknowledged (Bellini & Bramanti, 2008; Cornago, 2010; Habdullah & Garcia-Chueca, 2020; van der Pluijm & Melissen, 2007).

Consequently, a vast number of alternatives have been proposed in the last decades. Ranging from "*constituent diplomacy*" (Kincaid, 1990), to "*multilayered diplomacy*" (Hocking, 1993), "*postdiplomacy*" (Aguirre, 1999), "*sub-state diplomacy*" (Cornago, 2010; Puybareau & Talom, 2020), IRSSG for *International Relations of Sub-State Governments* (Schiavon, 2018) and more… As analyzed by Thomas Jackson (2017): "*The very existence of these multiple terms is indicative of the plurality of processes which analysts have attempted to capture*", highlighting once again the multidimensional characteristics of the phenomenon and the therefore difficult consensus over terminologies. But these attempts at alternative

[26] The first academic appearance of the term '*paradiplomacy*' traces back to 1961 in Rohan Butler's work, but he then meant to characterize the diplomacy "*complementing or competing with the regular foreign policy*" (Butler, 1961). As Alexander Kuznetsov points out, Butler misleadingly used a new term to describe an already studied concept of "*secret diplomacy*", performed in the shadow and characterized by secrecy and non-officiality (Kuznetsov, 2014). Therefore, the first mobilization of the term *paradiplomacy* in its specifically subnational definition was indeed by Ivo Duchacek in 1984.

[27] It should also be noted that '*paradiplomacy*' only appeared on the abstract of Duchacek's 1984 article, while '*microdiplomacy*' was preferred intext. In a book published in 1990, Duchacek acknowledged the better adequacy of '*paradiplomacy*' and attributed its original proposition to Panayotis Soldatos (see note 25).

[28] In the words of Ivo Duchacek "*Initially, I used the colloquial term 'microdiplomacy'; since a derogatory sense could be read into it, I gladly accept Professor P. Soldatos's much better term 'paradiplomacy'. Not only has it no derogatory sound, but 'para' expresses accurately what it is about: activities parallel to, often co-ordinated with, complementary to, and sometimes in conflict with centre-to-centre 'macrodiplomacy'*" (Duchacek, 1990)

names have never reached the same adhesion as *paradiplomacy* (Kuznetsov, 2014; Liu & Song, 2020; Tavares, 2016). Since 1990, it has indeed spread across all continents (see appendix 1), and been adopted by scholars in numerous languages, from French to Chinese, Portuguese, Russian, German, Spanish, Indonesian or Polish (see Table in appendix 2).

It must however be emphasized that a wide adoption of the term doesn't imply a commonly adopted framing, and paradiplomacy appears today as a very fragmented field. We can first acknowledge how very different approaches have shaped different understanding of the phenomenon, from the nation-centered "*perforated sovereignties*" of Ivo Duchacek (1990), to the agency-related concept of "*actorness*" from Brian Hocking (1999), and even to the point of confusion with the distinct notion of "*track two*" diplomacy (Colafrancesco, 2012). It has been argued that most of recent studies have looked at the phenomenon through a neoliberal lens (Tubilewicz & Omond, 2021), but following up on classical theories of International Relations (Kamiński, 2018), a more constructivist lens also appears through notions or "*protodiplomacy*" and "*identity paradiplomacy*"[29] (Paquin, 2004), depicting subnational governments on a sovereignty-seeking journey in opposition to their nations (Marciacq, 2015; Puybareau & Talom, 2020; Sharafutdinova, 2003). Debates related to scales of governments have also populated the field of paradiplomacy, with proponents of a scale-exclusive definition solely involving regions and federated states[30] (Berridge & Lloyd, 2012; Cornago, 2010; Kuznetsov, 2014), and scale-inclusive defenders highlighting the similar non-sovereign characteristics of cities and regions (Kamiński, 2018; Liu & Song, 2020; Mamadouh & Van der Wusten, 2015; Tavares, 2016).

Beyond ongoing semantic debates, many concepts fitting within Duchacek's initial definition have been explored concomitantly, generating academic sub-fields of their own without necessarily acknowledging their encapsulation within paradiplomacy. It is notably so for the studies of *regional* or *federal diplomacy*, focusing solely on the foreign relations of entities at the direct subnational level (Criekemans, 2010; Michelmann, 2009). *City diplomacy* has recently seen a lot of academic coverage, with articles and books published to explore the developing phenomenon (Amiri & Sevin, 2020; Barber, 2013; Hubbert, 2020; Kosovac et al., 2021; Marchetti, 2021; van der Pluijm & Melissen, 2007). *Town-twinning* has also received specific attention, with rare mentions of its connection to the broader field of paradiplomacy (Clarke, 2011; Faleye, 2016; Langenohl, 2015). So is the case for the dynamics of *transnational networking*, sometimes studied specifically at the regional scale (Happaerts et al., 2010; Setzer et al., 2020) or at the city scale (Acuto & Rayner, 2016; Bouteligier, 2012; Karvounis, 2020). And we can also mention the closely linked *border studies* (Perkmann, 1999) and *island studies* (Grydehøj, 2014) that could very well fit within the field of paradiplomacy, but do not necessarily acknowledge so.

[29] We can note that Stephane Paquin distinguishes *identity paradiplomacy* from *protodiplomacy*. The latter would aim at reaching a status of independent sovereign nation, while the former would aim at reinforcing its status of minoritarian nation within a multinational country, without seeking independence (Paquin, 2004).

[30] It is worth noting that if Ivo Duchacek and Panayotis Soldatos' first publications on paradiplomacy were focused on federated states allowing later studies to mobilize their initial framing in a scale-exclusive manner, both scholars actually showed openness to local governments. Ivo Duchacek indeed acknowledged that "*municipalities have also engaged in "foreign relations*" (Duchacek, 1984), later mentioning "*intermunicipal arrangements*" when examining "*transborder regional paradiplomacy*" (Duchacek, 1990), while Panayotis Soldatos directly mentioned "*city paradiplomacy*" when concluding on his proposed explanatory framework (Soldatos, 1990).

d. A glass half full - in fragmentation, the room for diversity

Despite its observed fragmentation, paradiplomacy as an academic field has nonetheless left its infancy, shifting away from an initially western-centered focus to a more global-reaching development phase (Liu & Song, 2020; Munir et al., 2022). Having "*decisively crystallized in a sustainable subdiscipline in contemporary political science*" as expressed by Alexander Kuznetsov (2014), paradiplomatic studies offer today a variety of analytical frameworks from a diversity of perspectives (Dickson, 2014; Keating, 1999; Kuznetsov, 2014; Lecours, 2002; Mamadouh & Van der Wusten, 2015; Soldatos, 1990; Tubilewicz & Omond, 2021). The frequent claim over the lack of consistent paradiplomacy theory does persist, bringing scholars to continuously propose new frameworks to make sense of the phenomenon (Alvarez, 2020; Bursens & Deforche, 2010; Duran, 2015; Royles, 2017; Schiavon, 2018), among which - as we must emphasize for the sake of this thesis - appear polycentric and multilevel governance theories (Chaloux et al., 2022; Kaiser, 2005; Kamiński, 2018; Philippart, 2005; Setzer, 2013). Therefore, when reading recent scholars such as Jorge Schiavon (2018) stating "*there is no theory of paradiplomacy or IRSSG used or accepted by most researchers in the field*", we must understand not an observed lack of academic proposition, but instead recognition of the plethora of approaches, concepts, theories and frameworks from which none has simply emerged dominant. A resulting diversity that undeniably provides depth to the field of paradiplomacy, and very well relates to the already mentioned multidimensional nature of the phenomenon itself (Jackson, 2017; Kuznetsov, 2014).

Consistent with such a diverse nature, the exploration of paradiplomacy has mostly been achieved through the investigation of empirical cases. This has been acknowledged by several scholars as a potential limitation to the theorization of paradiplomacy (Mamadouh & Van der Wusten, 2015; Tubilewicz & Omond, 2021). But considering the intrinsic benefit of having context-sensitive approaches - a primordial aspect in a polycentric perspective - it can be seen less as a limitation, and more as an opportunity. As bluntly put by Francesca Dickson (2014), "*different types of international activity are conducted by different types of regions for different types of reasons*", which emphasizes the interest to adopt case-centered and comparative approaches sensitive to local characteristics and specificities. Such comparative approaches have been used in varied contexts by numerous authors (Dickson, 2017; Kaiser, 2005; Schiavon, 2018; Zamora Aviles, 2016), providing rich insights on subnational diplomacy - but considering its relative novelty, it remains lightyears away from exhaustivity[31], and has often implied ad-hoc and hardly-transferable methodologies.

While the field of paradiplomacy is indeed "*not a monolithic construction with a particular dominant paradigm and methodology*" (Kuznetsov, 2014), the variety of ways to approach paradiplomatic cases may have amplified the scatteredness image of the field. Consequently, the last decade has witnessed a few attempts to systematize the study of subnational governments' foreign affairs. One of the most successful attempt so far has been the explanatory framework proposed in 2014 by Alexander Kuznestov (Liu & Song, 2020).

[31] Appendix 1 provides a geographical insight on a substantial portion of paradiplomacy literature, highlighting the unequal distribution of paradiplomatic case studies across the globe, and important gaps remaining.

By integrating the key criteria[32] characterizing the "actorness" of subnational governments as initially framed by Brian Hocking (1999), Kuznetsov has pushed beyond the frame of conventional foreign relations, allowing to explore some specificities of a subnational approach. Built on a multidimensional frame integrating various paradiplomatic discourses and a precise methodology based on a pre-coded analysis (Kuznetsov, 2014), this framework has offered a solid starting point for the systematized exploration of paradiplomatic cases notwithstanding the complexity of the endeavor. And despite a design initially aimed at regional governments, it has already been mobilized by a few authors addressing cases of regions as well as cities in different areas of the globe since its publication (Kamiński et al., 2018; Mesupnikom, 2021; Schiavon, 2018; Tidwell, 2021). Kuznetsov's framework embodies a new step in the maturation of the academic field of paradiplomacy, now equipped with refined tools and diverse theories to pursue the exploration, mapping and understanding of the global involvement of subnational governments.

"There is indeed substantial evidence that paradiplomacy has become an increasingly grown-up, global and integrated practice, one that has in other words come of age"
Manuel Duran (2016)

e. Making sense of the fragments: clarifying a frame for paradiplomacy

Having achieved an overview of paradiplomacy both as a phenomenon and as an academic field, we can make sure to address the shades of its observed theoretical fragmentation and mobilize it in an inclusive and open framing. Paradiplomacy is therefore defined in the present thesis as **the phenomenon of subnational governments -from local to regional- engaging outside of their countries' boundaries** through direct and indirect action, collaboration, networking and advocacy. Such a framing provides the room necessary for context-specificity in all geographical, legal and cultural situation, while still precisely restricting to the involvement of subnational governments on the global stage. The way the term paradiplomacy translates the non-exclusivity of nations in foreign affairs, and etymologically[33] opens for actions *along*, *aside*, *apart* and even, *despite* and *against* national diplomacy (Duchacek, 1990; Tavares, 2016), is deemed relevant in the context of a global polycentric governance, acknowledging the agency of non-sovereign actors on the "international" - or rather transnational - stage. Such a voluntary choice to adopt an encompassing framing of paradiplomacy, regardless of territorial scale and without preconceived assumptions of local-national conflictuality, ensures the exploration of the phenomenon with as little bias as possible - a key to be able to depict such a multidimensional and diverse phenomenon without risking enclosing it in a tightly bound and monolithic theory.

Additionally, the quite global use of the term paradiplomacy throughout an already fragmented literature encourages to adopt a consensual position, in order to contribute to the

[32] According to Brian Hocking (1999), the criteria of international actorness included aims and motivations, extent and direction of involvement, structures and resources, levels of participation, and strategies.

[33] Borrowing a more complete etymological reminder from Manuel Duran (2013) : "*The Greek word παρα (para) can have a number of meanings, ranging from "from the side of", "alongside of", "to the side of", via "near" through "with" and "contrary to", "beyond", "against", "except"*."

academic field by emphasizing points of convergence and not by adding more dissonance. This thesis therefore doesn't claim any superiority and acknowledges imperfections to the term "paradiplomacy". It recognizes possible interchangeability with other inclusive formulations such as *subnational*, *constituent* or *territorial diplomacy*, as done by other scholars of the field (Kuznetsov, 2014; Schiavon, 2018). But the simplicity and somewhat elegance of the word, reflecting "*both the idea of parallelism and subsidiarity*" as expressed by André Lecours (2002), along the factuality of its adoption worldwide, and its capacity to spark healthy debates on the international regime of global governance, confirm the choice of this thesis to endorse the term paradiplomacy.

This concludes our piece-by-piece theoretical introduction. We have presented the stage and main protagonists - subnational governments in a global and increasingly polycentric regime of governance - set to face the ultimate plot of our time - the synergies of human development and environmental crises - with a strategy designed to overcome the challenge: the integrative frame of climate resilient development. Although this overview of each of our framework's components was meant to provide clarity, it won't be complete without a step back and a final look upon the whole picture. Before diving into our own journey, we will look once again into the state of the art, and highlight how the contributions of paradiplomacy to climate resilient development have been investigated so far.

4. Paradiplomacy and Climate Resilient Development - overviewing the limits of the literature

Climate Resilient Development and paradiplomacy, both quite multidimensional and recent concepts as we saw, have for now received mostly limited and fragmented attention. With "*little evidence of dedicated empirical and conceptual work*" on CRDP found by Werners et al. (2021), and "*still several blind spots*" within paradiplomatic studies according to Paquin (2020), it is of no surprise that no published study has ever (to date) directly and nominatively linked the two. But if integrative approaches are yet to be conducted, looking through the main dimensions of CRD in the definition of the IPCC - i.e. climate action and sustainable development - allows to find existing materials that have independently explored the global actions of subnational governments with an environmental, climatic and human development focus.

As a start, it is interesting to note that as early as 1988, paradiplomatic activities of states and provinces were observed as capable of overcoming deadlocks in international environmental negotiations, as illustrated by the treaties on acid rain signed at subnational level between the USA and Canada (Smith, 1988). This represents one of the first studied cases on a phenomenon since depicted as "*green paradiplomacy*" (Chaloux & Paquin, 2012), or also labelled "*environmental paradiplomacy*" in Kuznetsov's typology of paradiplomatic discourses (2014). This focus on subnational governments' contributions to transnational environmental issues has led to a few descriptive and explanatory publications, touching upon the role of regions in transborder resource management (Chaloux & Paquin, 2013), and the contributions of global multilateral networks such as Region4 Sustainable Development[34]

[34] https://www.regions4.org/

(formerly known as nrg4SD)(Happaerts et al., 2010; Vera et al., 2019). At the local scale, environmental city diplomacy has also been slightly explored, demonstrating for example some contributions to transboundary coastal management, even in the authoritarian context of China (Leffel, 2020).

Within "*green paradiplomacy*", an increasing body of literature has specifically explored the global climate action of subnational governments - a phenomenon now labelled "*climate paradiplomacy*" by some authors (Chaloux et al., 2022; de Macedo & Jacobi, 2019). Through this lens, studies on the global action of (very) few subnational governments have provided interesting case-specific insights. A look upon the States of California and São Paulo notably highlighted how proactive engagements could overcome national governments' lack of climate leadership (Anderton & Setzer, 2017). A study on the case of Quebec brought positive conclusions regarding the respect of the province's 25 years-long international climate engagements (Chaloux, 2016). The global participation of cities also received some attention, though mostly through their transnational municipal networks such as C40 Cities, Eurocities or the Covenant of Mayors, and with more contrasted results upon the observed local achievements (Bansard et al., 2016; Smeds & Acuto, 2018). And a more constructive impact was granted to the global network ICLEI[35], having successfully pushed for the implementation of a focus on cities in the IPCC assessment cycle (Curtis & Acuto, 2018). Quite a scattered landscape then, and a sub-field of climate paradiplomacy that at best provides scale and theme-specific insights, but hardly a consolidated picture.

Beyond climate and environmental aspects, some of the literature did explore interesting connections between paradiplomacy and more human and social-based issues. The phenomenon has indeed been depicted as "*homo-diplomacy*" (Duran, 2013) and "*humanist diplomacy*" (Mocca, 2020) for its capacity to link individuals across the world, to the point it got considered as "*a laboratory of democracy*" (Tubilewicz & Omond, 2021) which in an era of depoliticization is no negligeable feat. When looking closer at human development issues though, the pattern of preponderant theme-specific case studies becomes again visible, and requires exploring the literature beyond the term paradiplomacy. Doing so – through concepts of decentralized cooperation, city-to-city cooperation or transnational networks - allows to identify some academically observed outcomes to subnational governments' transnational partnerships. Cherry-picking a few, it can range from the potential to "*globalize care*" through town-twinning in UK (Clarke, 2011), to long-term relations between cities in the Netherlands and Nicaragua acting as a "*catalyst for local development*" (Lindert, 2009), and even to some potential conferred to city networks in helping to deal with issues of social resilience (Davidson et al., 2019). But if such sparse insights (from the very general to the very specific) do hint towards some concrete outcomes, they also confirm (again) the scattered nature and fragmented terminological landscape of the existing literature, with regards to the precise role and impact of paradiplomatic activities on human development.

While this very brief overview of the literature on climate, green and "humanist" paradiplomacy does confirm the transnationalization and the increasing role of subnational governments globally, we can also note how most of the literature has taken a descriptive and mono-thematic approach, being only rarely analytical on the specific characteristics and

[35] https://iclei.org/

normative outcomes of paradiplomatic activities (Dickson, 2014). This doesn't come as a surprise considering the novelty of the subject, and it only confirms the relevance of its further exploration - a view shared by a few scholars of the field (Chan et al., 2019; Mesupnikom, 2021; Setzer, 2013) - moreover through the mobilization of integrated concepts such as Climate Resilient Development, acting as an encompassing answer to the synergies of crises impacting human societies at all scales.

We therefore reach a point where theory brings more questions than answers, especially when adopting an interdisciplinary point of view. The very IR-centered eye set upon paradiplomacy so far incites to wonder how such a subnational approach can relate to more integrated framings of global development. While we are indeed observing a transformation of the climate regime "*from a state-centric approach to a multilevel and polycentric "all in" form of climate governance*" (Chaloux et al., 2022), then what can be the role of subnational governments? How does such a specific actor, territorially rooted and embodying the diversity of cultural, political and geographical contexts across the globe, address the synergetic issues of climate and societal development? And how is this diversity of approach to global involvement impacting the engagement on climate-aware trajectories of development? Many interrogations that can be summarized into the following question: ***how can paradiplomacy contribute to climate resilient development?***

From this question, built on academically-argued research gaps, but also on a personal curiosity left unsatisfied by the current state of the art, we have the entry door to this research project. The recently observed transformation towards a polycentric global climate governance, as well as the sporadically studied role of subnational governments as highlighted, prompts an attempt at answering the abovementioned question. Exploring the potential contribution of paradiplomacy to climate resilient development, in a time in dire need of more solution-based approaches and alternatives to hyper-centralized and market-based development models, appears as an interesting endeavor for the field of global development studies.

Having presented the origins and fundamentals of this exploration, we will now move from the realm of theories and concepts, and present the method built and applied for its pursuit – a bridge between the generous world of theory and our beloved and yet battered reality.

"*Our struggle for global sustainability will be lost or won in cities*."
Ban Ki-moon, United Nations Secretary General (2012)

III. Methodology

The previous section makes up for a "theory-rich" thesis, as it bases upon still recent and integrative - therefore complex - concepts: paradiplomacy and climate resilient development. Exploring their junctions will therefore bring its set of complexity.
If the theory section thoroughly presented these two critical components (and their own constituents), as well as the general stage of evolving global governance they build upon, it

also shed lights on the limitations and risks of such an endeavor. The present section will describe the methodological frame designed to account for these complications, in an attempt to bridge the two concepts of paradiplomacy and Climate Resilient Development in an as relevant approach as possible. It will first introduce the factors, principles and choices that contributed to shape this methodology. It will then detail the approach to data collection, from source identification to sampling strategies. And it will finally present how the two frameworks of paradiplomacy and CRD were adapted to help unveil elements of answer to our research question.

1. Methodological groundwork – shaping a research design

Turning a research problem into a solid methodology in no small feat, as heedfully learned during the last two years. And if each academic field certainly holds its own challenges, the study of paradiplomacy sure doesn't derogate. To quote one of my NMBU predecessors in paradiplomatic studies, addressing such puzzle usually "*leads to a degree of eclecticism in approaches"* (Haugvoll, 2021), mirroring the sheer diversity of the phenomenon itself - and the additional focus on climate action and governance addressed in this thesis clearly won't prove her wrong. The following description will highlight how contextual elements have helped consolidate such a dense and admittedly ambitious research design.

a. Goals, available materials, and limitations

As a start, exploring the contributions of paradiplomacy to Climate Resilient Development implied precising the objectives to be pursued. Informed by our literature review, a progression of sub-research questions (subRQ) emerged as key research steps to answer to our overarching question. To begin with, diving into the multi-dimensional nature of paradiplomacy appeared as a necessary preliminary step (question "zero"). By obtaining precise elements on the nature of subnational involvements, it was then possible to unlock further analysis specifically regarding climate action.
The first set of questions shaping our approach was therefore defined as follows:

subRQ.0: *What characterizes a subnational government's paradiplomacy? How is paradiplomacy framed? How is it pursued?*

The provided visibility was meant to allow specific questions providing more direct element to our main inquiry connecting paradiplomacy to CRD:

subRQ.1: *How is climate action framed within subnational government's paradiplomacy? How integrative? How does it impact action implementation?*

subRQ.2: *How is CRD precisely addressed through paradiplomatic activities? How integrative? How are each of its dimensions addressed?*

subRQ.3: *How are paradiplomacy settings impacting climate action and CRD?*

Once the questions were set as main objectives, the general approach was to be designed - an approach that got shaped by the three main aspects we will briefly present.

As highlighted in the precedent section, studies of the very context-dependent phenomenon of paradiplomacy almost systematically relied upon empirical explorations, looking into tremendously diverse situations. While complexifying attempts at generalization, it also stemmed from the astounding diversity of available cases, specific to their contexts of origin - a marker of endogeneity regarded positively in this thesis. The very scattered literature on paradiplomacy cases - and its inexistence with regards to CRD at the time of this research - implied the relevance of similarly pursuing an empirical exploration, as the available academic material could not provide consolidated theoretical insights nor extensive and saturated case-related data. The theoretical constraints of paradiplomacy and its state of the art related to integrated climate action therefore encouraged to settle upon a form of qualitative case-study design, implying "*detailed and intensive analysis"* (Bryman, 2012)(p66) informed through data gathered from subnational governments directly.

While a case-centered approach responded to constraints intrinsic to our subject, an external constraint became an impactful aspect too. The very specific period of this research brought challenges to methods design, that can be summarized in a now far-too-familiar word: covid. Beyond imposing new teaching constraints through the entire Master (perk of a 2020-2022 timeframe), the Covid-19 pandemic also led to logistical constraints over students wishing to add in-situ dimensions to their research projects. Therefore, if any country in the world possibly held interesting cases of paradiplomatic activities with regard to CRD, the travel restrictions in effect at the preliminary design stage of this research led to limit potential cases to two countries specifically: Norway, as the host country of NMBU, and France, as my home country. Consequently, allowing for potential in-situ and in-person contacts for research purposes implied to focus solely on these two countries.

Beyond these theoretical and logistical boundaries, interesting opportunities also came from the state of both paradiplomacy and CRD academic fields: the availability of conceptual tools designed with operationalization in mind. As introduced earlier, the precise conceptualization of CRD by the IPCC led to the elaboration of synthetical tools, one of the most recent being proposed by Saskia Werners et al. (2021) providing the already introduced eight-dimensions figure opening up for detailed analysis (Figure 3, p12). Regarding paradiplomatic studies, the previously mentioned explanatory framework proposed by Alexander Kuznetsov (2014) was paving the way for case-specific standardized explorations, allowing to participate in an already sparked dynamic of empirical research. These two pieces, as state-of-the-art independent frames of their own fields, were identified as operationalizable instruments combinable into a research design. As such an approach was still unattempted at the beginning of this study, the two frameworks were chosen as main methodological building blocks.

These three grand contextual elements - empirical incentives, pandemic restrictions, and pre-existing advanced tools - established the broad outlines of this research design: a qualitative case-study of globally-engaged subnational government(s) in France and/or Norway, explored through the paradiplomacy explanatory framework, and the eight-dimensions conceptualization of Climate Resilient Development. With this general structure defined, a second critical step awaited: the choice of relevant case(s) to explore.

b. Opportunity, diversity and risk-mitigation: towards a double-case comparative study

The established geographical outline - namely the focus on France and Norway - opened an interesting opportunity for a case-study: the possibility to mobilize pre-acquired knowledge from a former professional experience. This Master's research didn't indeed stem from student curiosity and academic duty only. It was also part of a "professional ellipsis" meant to acquire distance from the realm of paradiplomacy practitioners - a world I occupied for 9 years prior to these studies, spent as the field agent of a French subnational government - the Region of Nouvelle-Aquitaine. This professional experience implied existing contextual knowledge and contacts among agents and partners of this specific regional government. While designing the research, such pre-acquired knowledge appeared as a way to possibly enhance a case-study, providing the "*pre-understanding*" of an insider (Fleming, 2018), rapid and convenient access to documentation and informants, and relations of trust with certain individuals through both personal experience and a form of professional acceptance (Dwyer & Buckle, 2009). While bringing the critical challenges of ethics and trustworthiness of an insider's look (Toy-Cronin, 2018), as well as the limits inherent to a highly convenient sampling (Bryman, 2012), the benefits in terms of research process (and admittedly of personal curiosity) were seen as outweighing the risks of bias, especially with conscious and informed efforts to mitigate those risks. Consequently, the region of Nouvelle-Aquitaine, as a French subnational government engaged in paradiplomatic activities, was chosen as a case for the present study.

To mitigate the risks such a choice implied, a specific attention to ethical consequences was paid, following recent published recommendations on insider research (Fleming, 2018). It led to set a high level of **rigor** and **transparency** as silver lines of the entire research process, from conception to redaction - hence the attention to this thesis section, precisely exposing the "insider" attribute of the research. It also led to a particular focus on the **trustworthiness** of the study, through a specific care to credibility, dependability and transferability, in place of the more classical research method concepts of reliability and internal/external validity (Fleming, 2018; Harrison et al., 2001). Hence, credibility was to come from the combination of long-term personal engagement in paradiplomacy - providing hands-on insights and understanding of the field - and the parallel mobilization of recent scientific frameworks bringing external soundness to the research structure. Dependability was to emanate from the continuous care to acknowledge and integrate the impacts of such an "insider" approach within the whole research process. And as a final element, transferability was to be ensured by a high level of precision in the description of the research method. But to reach an even higher level of transferability, decision was made to add an extra dimension to this research design: the implementation of a comparative approach through a second case presenting no "insider" dimension.

Opening to an additional case for a comparative approach actually appeared relevant in more than one aspect. It indeed opened for complementary trustworthiness as the same research methodology would be applied to both a known and an unknown case, providing a reference point and indicator of transferability while still benefiting one case's "insider" position. But in the meantime, it improved the scope of the research by adding

complementary insights on a distinct case, with distinct approaches to both paradiplomacy and climate action (Bryman, 2012). In her PhD thesis on paradiplomacy, Joana Setzer (2013) noted how a comparative approach between subnational governments could provide broader analytical elements, suiting very well with our planned exploration. Considering the intrinsically diverse nature and extreme context-specificity of paradiplomacy, exploring two cases indeed meant expanding the observed landscape of global action, while providing comparative insights on externally and internally-bound factors, even more so when pursued in a cross-national and cross-cultural manner (Bryman, 2012). As two cases from different nations could imply two distinct decentralization contexts and potentially contrasted approaches to both paradiplomacy and climate action, it promised even more diverse insights.

Consequently, to benefit from a cross-national comparative approach and stay consistent with the geographical boundaries previously set, the second case of globally involved subnational government was chosen in Norway. While no pre-acquired knowledge on Norwegian paradiplomacy could orientate such choice, the notorious and publicized global involvement of the Capital City of Oslo made it an evident candidate. Its geographical proximity to NMBU also opened for potential on-site data collection, a delightful perspective after a long time of virtual encounters. And the prospect of exploring both a city[36] and a region through the same methodology opened for potential insights in the scale-exclusive debate of paradiplomatic studies, allowing to ultimately inform on the sometimes-claimed distinctness between municipal and regional diplomacy. All in all, it made the City of Oslo a very relevant case to be explored, becoming the second subnational government to be studied alongside the Nouvelle-Aquitaine region in our comparative design.

Although such a comparative approach was certainly opening for rich insights, the additional layer of complexity it was bringing led to aim for a solid and rigorously framed methodology, building strongly upon elements of the literature. An aim that was greatly helped by the aforementioned 2014 publication on paradiplomacy: the explanatory framework and its detailed companion methodology.

c. Adopting – and adapting - the paradiplomacy framework

As presented in the theory section, Alexander Kuznetsov's work has been recognized by paradiplomacy scholars as one of the most complete to date, proposing a complete standardized approach for paradiplomatic case studies. It therefore answered very well to this research's need of a solid methodology, opening for the mobilization of far more than just an analysis grid to relevantly address our preliminary sub-research question. But, consistent with a permanent concern for context-sensitivity, the specific context and approach of this research called for a certain degree of appropriation and adaptation, that we will now present.

The framework itself was originally designed to explore cases of paradiplomacy through a complete methodology, from information collection to analysis. It consists of six main questions with thirty-two pre-categorized answers meant to be addressed through a

[36] Interestingly enough, the subnational government of Oslo is actually a municipality and a county, the largest constituent unit in Norway. It is therefore both a city and a region, but this curious fact was acknowledged only through research, and was unknown at the early stage of case identification. It will be touched upon in the discussion section.

Multi Response Questionnaire (or MRQ) technique - an approach involving interviews with agents and representatives of a studied subnational governments, as well as complementary interviews with experts, documentation and more. The questions consecutively address the following aspects of a subnational government's case:

1) the external and internal causes of its paradiplomatic activities;
2) the legal frame on which subnational diplomacy occurs;
3) the main motives behind its foreign engagements;
4) the institutionalization of paradiplomacy;
5) the central government's attitude regarding its foreign activities;
6) the consequences of paradiplomacy at the national scale.

The principal characteristics of a case's paradiplomatic activities are therefore addressed within the framework, integrating both subnational and national points of view and allowing for further characterization and analysis based on the obtained comprehensive description. The following figure (Figure 8) built by the author of the framework summarizes the explanatory dimension, from the six questions to the pre-proposed and codified answers.

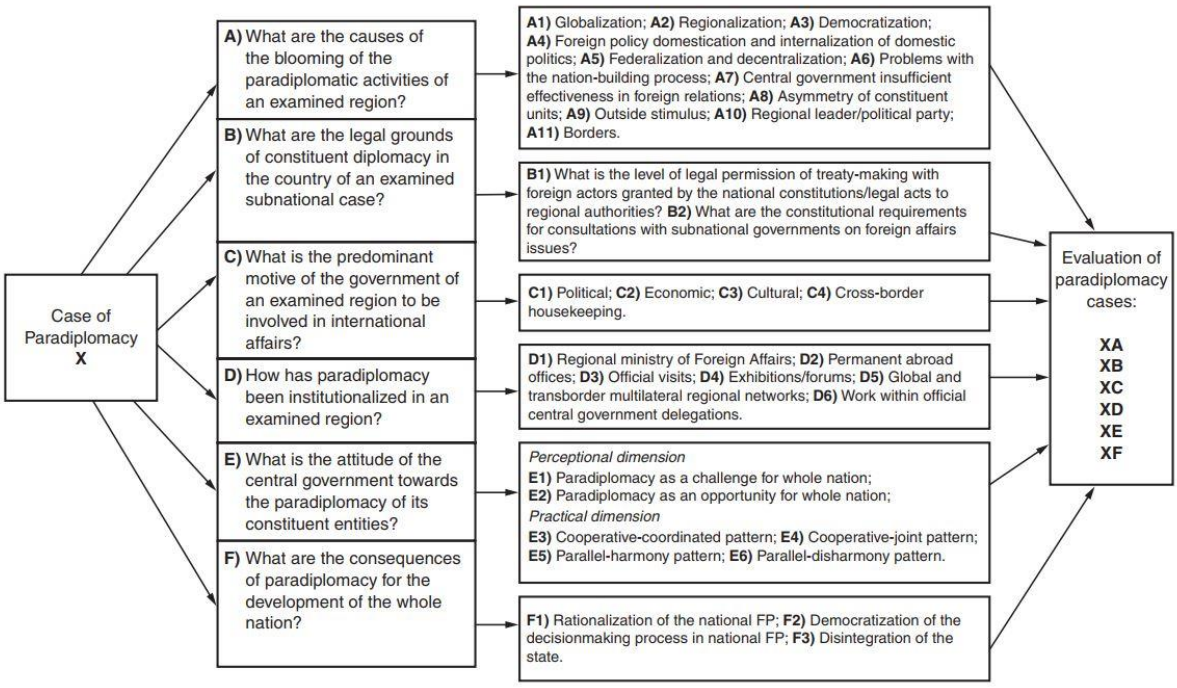


Figure 8: Paradiplomacy Explanatory Framework, from Kuznetsov (2014)

While the framework does provides a "*valuable analytical lens*" (Mesupnikom, 2021) with no equivalent as comprehensive to date (Liu & Song, 2020), Kuznetsov's method is not to be considered as a flawless and universally applicable recipe. Looking back at the literature, Grzegorz Bywalec (2018) described the framework as being "*inadequate and practically inapplicable*" to the context of India, where paradiplomacy was seen too unevenly understood and chaotically held to be addressed with such a precise methodology. Some aspects were also identified as lacking by Kamiński et al. (2018) when applying the framework to a variety of cases, namely "*the influence of internal policy, bottom-up business initiatives that encourage local authorities to develop international contacts, and the*

importance of historical issues". An evolution-related weakness confirmed by Nirinthorn Mesupnikom (2021), who highlighted how the framework "*captures only a particular moment*" and doesn't allow to highlight the dynamics and drivers impacting paradiplomatic relations through time.

These vulnerabilities were actually acknowledged by Alexander Kuznetsov's himself, who took care to present his framework as a *"product with an open code"* to be updated and improved (2014). His invitation to see it as a flexible recipe incites to address the potential limits of the framework by adapting it to the needs of any research project, and to the specific context chosen for a study. It invites to see the critics of other scholars not as the highlight of inherent flaws within the framework, but as a reminder that context matters, and that such a methodology, as complete as it may be, requires anticipation and context-related adaptations.

In our case, adapting the framework to ensure its relevance led to four major modifications.

1) First, the very enclosing approach of pre-coded answers was seen as potentially restricting, in the still maturing field of paradiplomacy. To allow for unforeseen and complementary elements to be collected, it was decided to keep the pre-coded answers solely for analysis purpose, and not to integrate them as choices for informants in the data collection. It implied supplementary efforts to then identify the related answers within the data collected, but it was deemed a more adequate approach with the exploratory setting of our research.

2) The second major modification was the addition of complementary paradiplomacy-related questions to the six prelisted by the framework. Building upon the limitations identified by scholars (mostly the lack of information on evolutionary factors and the potential role of local actors) but also on the specificities of a subnational approach, five questions were added to the questionnaire related to such internal, historical and local-specific elements.

3) The third main modification implied adjusting the questionnaire to provide elements on the climate action pursued in relations to the global involvement of our cases. Paradiplomacy being just one dimension in our research, adjoining theme-related inquiries linked to the complementary framework of climate resilient development allowed to adapt the methodology to the specific needs of this research, while still relying on the general approach proposed by Kuznetsov. Also, if the first set of paradiplomacy-related questions directly linked to the framework implied a structured accuracy-based approach to data collection (Bryman, 2012)(p211), the complementary climate-related questions were designed in a more open manner, intended for a semi-structured setting aligned with the aim to provide more freedom and flexibility to the informants, and thus more variety in potential answers (Bryman, 2012)(p472).

4) The fourth modification was brought to the data collection method. The framework initially relies on five means to provide the most complete elements on a case's paradiplomacy:

1) *Face to face and phone interviews with officials of the local government*
2) *Open documents on the local government's external performance available on the official website and brochures*
3) *Mass media records*
4) *Discussions/interviews with experts from academia who researched on related topics*

5) *Secondary sources, literature related to paradiplomacy*

(Kuznetsov, 2014)

With the addition of theme-related questions on climate action and the implementation of a comparative approach implying a more exploratory than in-depth design, it was not deemed realistic to pursue the exact same approach and mobilize all five means. Instead, a focus on the first, second and fifth - interviews with officials from the subnational government, open documentation and secondary sources – was seen as providing enough data for the sake of our study, consistent with its timeframe and objectives. It was nonetheless decided to open the first category to two additional types of informants related to the studied cases: 1) technical partners and 2) central agents and experts (though not from academia, so not corresponding to Kuznetsov's fourth type of sources), in order to complement the collected data with external and more contrasted points of views.

Finally, we must mention how the six questions directly deriving from the framework were adjusted during the interviews to avoid using the word 'paradiplomacy'. The term being as we saw a subject of debate and very unevenly adopted worldwide, it was decided to use its description instead (the global/international involvement of subnational governments) for data collection purposes. This was not considered to be a major modification to the framework, as it only implied terminological adaptations during the interviews. An inquiry about the term 'paradiplomacy' was nonetheless seen as a relevant addition at the end of the questionnaire, to allow for the collection of complementary data on this specific terminology, and open for a potential discussion with informants - a way to add elements of reciprocity to this research, as it could imply answering questions about the term, phenomenon and academic field of paradiplomacy and share knowledge back with the informants.

2. Approach to data collection

With the general frame, specific cases and core methodology of the study presented, we can now describe the approach adopted for data collection. As we just saw, the entire research relied heavily on the methodology proposed by Alexander Kuznetsov, which therefore guided the collection of data required to address our research question. According to the modified MRQ method, data was collected through three means:

1) In-person and online interviews among three different types of informants (or populations):
    - ⇝ officials of the subnational government involved in paradiplomacy (population 1)
    - ⇝ partners of the subnational government's paradiplomatic activities (population 2)
    - ⇝ national experts and agents of the central government (population 3)
2) Online documents on the subnational government's paradiplomacy
3) Secondary academic and online sources for general complementary elements (economy, demography…)

All sources of data were therefore sampled purposively to correspond to the specific needs of the study, related to two specific cases of subnational governments and their paradiplomatic

activities, representing the main selection criteria. The detailed approach adopted for each source will be presented below.

a. Interviewing among three populations for two cases

Consistent with our adapted approach to data collection, informants were recruited among three different types of individuals, as sources of qualitative primary data. While the interview methodology was strictly identical for the two compared cases, the approach to sample selection differed.

Pre-existing relations and contacts for the second case of Nouvelle-Aquitaine made informants more easily accessible, implying a convenience approach to sampling for this case (Bryman, 2012)(p201). Accordingly, in alignment with the ethical considerations related to insider research, a specific attention was given when recruiting among former colleagues (Fleming, 2018). To avoid bias stemming from personal perception or former positions of power, no informant formerly in situation of subordination was recruited.

For the case of Oslo, no pre-acquired contact existed, which led to a more tentative approach based on emails sent to a purposively selected sample of individuals, following the same types of informants than for Nouvelle-Aquitaine. To improve the chances of conducting relevant interviews, a touch of snowball sampling was added - i.e. the proposition of complementary contacts by the informants themselves (Bryman, 2012)(p424).

Regarding the size of population samples, the comparative design of the study implied the imperative to reach a minimum number of informants for the two cases, in order to allow a proper comparison between the categories of data (Bryman, 2012)(p421). Considering the level of redundancy reached with three types of informants for each case, it was estimated that a single informant by sample - so three informants per case, and six informants total - would be acceptable, although an absolute minimum to allow for a relevant level of analysis (the maximum being dictated by realism regarding the timeframe of the study, and the success rate in informants' recruitment). While such limited sample could not allow for any theoretical saturation, it was seen as providing sufficient data for a balanced analysis between the two cases.

While all populations were in the end represented among the informants (ensuring an equal diversity of perspectives for the two cases) the number of total informants differed: 9 in total were recruited for Nouvelle-Aquitaine, and 5 in the case of Oslo. The difference can be explained by two factors:

- the different approaches to paradiplomacy between Oslo and Nouvelle-Aquitaine implied a difference in informants' accessibility, both related to the size of total populations and to the variety of paradiplomatic activities engaged.
- the ratio of positive answers from potential informants was superior with Nouvelle-Aquitaine, most certainly due to the pre-existing contacts.

The following table presents the differences, specificities, and outcomes of the informant selection process for each case.

Table 4: Sampling approaches

		Case 1: Oslo	Case 2: Nouvelle-Aquitaine
SAMPLE 1	Population 1	Agents and representatives of Oslo, working in relation with International Cooperation Office (Total population of 8 people)	Agents and representatives of Nouvelle-Aquitaine, working in relation with the Europe and International Pole (Total population of ~100 people)
	Sample 1 selection	Purposive generic sampling, recruited through emails	Convenience sampling among former professional acquaintances, contacted through emails
	Final Sample 1	**1 informant**	**6 informants**
SAMPLE 2	Population 2	Agents and representatives of organizations partnered with Oslo in global activities	Agents and representatives of organizations partnered with Nouvelle-Aquitaine in global activities
	Sample 2 selection	Purposive generic sampling and snowball sampling, recruited through email	Convenience sampling among former professional acquaintances contacted through emails
	Final Sample 2	**2 informants**	**1 informant**
SAMPLE 3	Population 3	National agents, representatives and experts linked to the global activities of Oslo	National agents, representatives and experts linked to the global activities of Nouvelle-Aquitaine
	Sample 3 selection	Purposive generic sampling and snowball sampling, recruited through emails	Convenience sampling among former professional acquaintances contacted through emails
	Final Sample 3	**2 informants**	**2 informants**
Total of informants: 14		**5 total informants for case 1**	**9 total informants for case 2**

As planned during the design phase, the base for the interview guide was built from the six questions directly derived from Kuznetsov's framework. Five paradiplomacy-related questions intended for a structured interviewing approach were added to the guide, then complemented with open inquiries based on keywords related to climate resilient development, meant to be conducted in a semi-structured manner. Consistent with the identification of three distinct populations, three separate interview guides were then derived from the initial base, adjusted to correspond to each population (mostly implying the removal of specific technical questions on the cases, only relevant for informants from population 1). The resulting interview guides are presented in appendix 6 in their English version (a French version was prepared for the interviews held with informants related to Nouvelle-Aquitaine).

Following the notification procedure related to the processing of personal data, the Norwegian Center for Research Data (NSD) provided a positive assessment of the project on the 10/02/2022. A total of 12 interviews were then held from the 18/02/2022 to the 25/04/2022, both in person (3) and online (9), involving a total of 14 individuals.

Although all interviews were initially designed to be held with single individuals, five of them were opportunistically held with two informants at the same time following propositions from the informants themselves. As the interviews were aiming to obtain information on the subnational governments and their activities and not on the individuals, it was not seen as impeding the quality of the data - it on the contrary allowed to benefit from more diverse and sometimes precise points of view within the same timeframe. On a methodological sidenote, we can stress how this opportunity implied group interview settings and not focus groups, as the questions remained as planned and no interaction nor discussions between the interviewees were aimed for (Bryman, 2012)(p501).

b. Online documents on the subnational governments

The second means of data collection relied solely on online documentation. It implied the purposive identification of official documents specifically providing information on the themes of paradiplomacy and climate-related actions for each case (Bryman, 2012)(p543). The process essentially involved internet research on the official websites of the city of Oslo, the region of Nouvelle-Aquitaine, their direct partners and networks, and the Ministries of Foreign Affairs for both France and Norway. Relevant data were then collected either directly from the web pages, or through downloaded specific documentation in the form of reports, technical sheets, or communication pamphlets. Such focus on official governmental (national and subnational) and private sources was meant to provide the highest level of authenticity and credibility, set as the main relevant criteria to assess the documents' quality (Bryman, 2012)(p544).

A total of 14 sampled documents ended up providing relevant data for the research (webpage non-included). The list is presented in appendix 4.

c. Secondary academic and online sources

To complement the theme-related information of each case, a complementary means for data collection involved the acquisition of secondary data from diverse online sources and academic material. Implying a purposive selection again, it essentially aimed at the collection of general information such as demography, budgets or cartography, to complete the descriptive elements of each case. In order to ensure a suitable level of authenticity and credibility, data was collected either from institutions' official websites (related to statistics for example), from peer-reviewed collaborative websites (such as Wikipedia, with all due precautions) or from academic publications.

3. Data treatment and analysis: a call for adaptation, rigor, and creativity

The complex design of this research led to approach the data analysis process with an experimentative mindset. While the method proposed by Alexander Kuznetsov provided an excellent starting point for treating and analyzing the collected data related to each studied case, the complementary questions and the comparative setting of the research implied adapting the framework's initial approach. Additionally, mobilizing the figure from Werners et al (2021) as a heuristic to inform the analysis of climate-related data implied adapting the eight-dimensions figure presented in the publication (Figure 3, p12) into an operational

analysis grid. The adaptation process and resulting analysis tools clearly deserve some explanations.

a. Main principles guiding data treatment and analysis

Considering the general design of the research, relying on a thematic analysis of the collected data appeared to be the most adequate - 'thematic analysis' being understood simply as the organization and extraction of relevant information related to themes set notably by the research question (Bryman, 2012)(p580). Inquiries through the interviews - and therefore the resulting answers as well - had indeed very specific predetermined themes (paradiplomacy and climate action) and sub-themes (the 11 questions on paradiplomacy and 8 key features of CRD) meaning the themes were not inductively identified. The comparative pattern of the research along the aim for credibility and transferability implied the relevance of approaching data analysis with such a standardized and easily replicable method.

Consequently, the interviews went through a process of transcription and coding based on the themes provided by the two frameworks, and the sub-themes of their constituents. It led to build a corresponding matrix using an Excel sheet, equivalent to the "*Framework approach*" described by Alan Bryman (2012)(p579) and originating from the work of Ritchie and Lewis (2003) on qualitative analysis. The resulting "*thematic charting*" (namely the placing of key points extracted from the collected data into the thematic matrix) provided the base for a methodical exploration of the transcriptions.

Concerning the official documents accessed online - our second means for data acquisition – a quite classical document analysis (Bowen, 2009) allowed to extract the theme-related data specific to the need of the research, mainly complementing the profiling of each case's paradiplomacy as set in Kuznetsov's methodology. It also allowed to triangulate some information acquired through interviews, consolidating specific elements of data also appearing in official documents (ex: partners and networks, ongoing projects…).

As a final guiding principle, we can stress how attention to the impact of having insider elements in this research also infused the whole analysis process. It mainly implied acknowledging and anticipating the risks of interpretation and "*premature conclusions*" in the treatment and analysis process, as advised by Fleming (2018). Pre-acquired knowledge on paradiplomacy could indeed lead to misinterpretation with the unfamiliar case of Oslo, as well as rushed and potentially outdated conclusions with the more familiar case of Nouvelle-Aquitaine. This risk was not only addressed by constant passive attention, but it also motivated specific actions that impacted the analysis process, as we will now present.

b. Final adaptation to the paradiplomacy framework: towards a multi-purpose tool

Exploring the paradiplomacy of a subnational government through Kuznetsov's explanatory framework could have constituted a research project on its own, as recent publications plainly applying its method have shown (see section II.3.d). But in our case, the framework's methodology also served as the entry door - our sub-research question "zero" - for a comparative and additional climate-themed analysis. As such, a second step to organize data beyond the initial thematic charting became relevant, both to facilitate the comparative

analysis and to enable the presentation of the results in a concise manner. The paradiplomacy sub-themes provided by Kuznetsov (Figure 8, p37) represented a relevant starting point for a summarized restitution. However, the descriptive profile of subnational governments and more specific data on their actual paradiplomacy activities were not initially included. This lack led to imagine how to combine all the relevant information of each case into a single synthesis tool.

In the meantime, attention to the trustworthiness of the study led to reflect upon an efficient way for the main informants to verify the correct transcription of their contributions. This was thought as a precaution to avoid any misunderstanding or mistranslation, but also to prevent the potential bending of analyzed data by pre-acquired case-specific knowledge (for the familiar case of Nouvelle-Aquitaine) and pre-conceived assumptions on paradiplomacy generally (for the unfamiliar case of Oslo). Additionally, the wish to add some reciprocity into the research made it interesting - and potentially innovative - to summarize in a tool all paradiplomacy information, and to structure it according to a scientific framework. It was imagined as a way to emphasize the existence of academic interest upon the practice of paradiplomacy, and inform on the existence and consistence of "paradiplomacy" itself (a clear lack identified from the literature review). This led to conceive a tool with its sharing in mind, first to allow for a facilitated verification by informants themselves, but also to make the content somewhat appealing, implying readability, simplification, and an ounce of esthetics.

Finally, the objective to compare two cases in a standardized manner thanks to the paradiplomacy framework guided the idea to push the operationalization of the tool and make it an easy-to-use instrument for this specific research, but also eventually transferable to other research setups. Such standardization implied the elaboration of a canvas that could hold all relevant information about any type of paradiplomacy case - the profiling of a subnational government granting rapid access to general information, specific and summarized description of paradiplomatic actions, and synthesized elements of the explanatory analysis emanating from the paradiplomacy framework.

All these aspects led to the elaboration of the tool nicknamed "**Paradiplo-ID**". Thought as an experimental hybrid frame, it embodied an attempt to efficiently bridge the needs for comparative analysis, result synthesis, informant review, and even potential further standardization. By carefully integrating each question from Kuznetsov's explanatory framework along descriptive data, it aimed to provide a tool in the shape of a technical sheet complimentarily showcasing scientific solidity, within a standardized frame.

The structuration of its content and the links to each question of the paradiplomacy explanatory framework (from A to F as originally defined) are presented in the following figure (Figure 9), while the standard fillable sheet is provided as appendix 3.

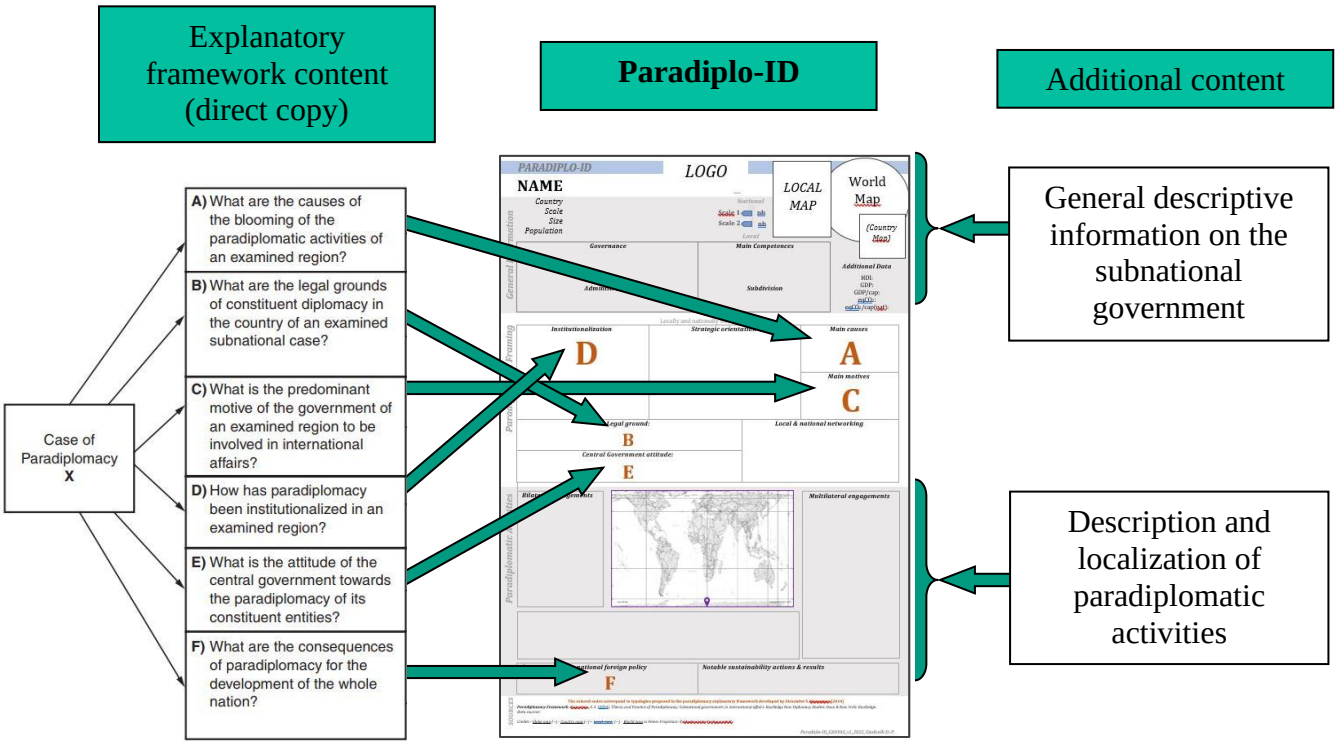


Figure 9: Content of the Paradiplo-ID tool, derived from Kuznetsov's explanatory framework (2014)

The Paradiplo-ID of each case was filled with the data organized following the thematic analysis process, which helped define the general shape of the tool and balance the presentation of its content in an iterative process. The additional feature of *plus* and *minus* in the fashion of academic grades was added to the coded pre-categorized answers to allow emphasis on factors more prominent than others while conserving the condensed presentation of the tool. It was then shared with the main informants to allow for facilitated correction, completion and other remarks. The two cases' IDs were refined according to the feedback received, providing consolidated versions that will be presented in the analysis section of the thesis, as answers to our preliminary sub-research question focused on paradiplomacy.

c. CRD framework - operationalizing an eight-dimensions figure

For data analysis related to the theme of Climate Resilient Development, the approach required far less adaptation than for paradiplomacy. I the original aim of the figure built by Werners et al. (2021) (Figure 3 p12) was to present the main lessons learned from the recent literature on CRDP, it provided for this research a simplified representation of the main constitutive dimensions of a Climate Resilient Development and its Pathways - a mental shortcut, or heuristic of eight components, easy to operationalize. Consequently, the figure's components were used as eight sub-themes for coding and charting within the analysis matrix, allowing to organize and highlight elements from the transcribed interviews that presented a connection to any of the eight components. The original article served as a guide providing the descriptive understanding of each component, allowing for the thematic analysis of the transcribed interviews' content. The following figure, directly adapted from Werners et al.

(2021), presents the numerated coding of the components that was used for the analysis, and will shape the results shared in the next chapters to answer to our research questions.

The eight-dimensions heuristic of Climate Resilient Development and its Pathways is made of the following components considered as CRD markers:

1. Respond with flexibility to ambiguity and uncertainty
2. Monitor & evaluate to learn and inform implementation
3. Engage with actor aspirations & trade-offs
4. Center around sustainability, equity, justice
5. Account for dynamic system properties
6. Engage with capacity to adapt and transform
7. Recognize root causes of vulnerability
8. Incorporate adaptation and mitigating actions

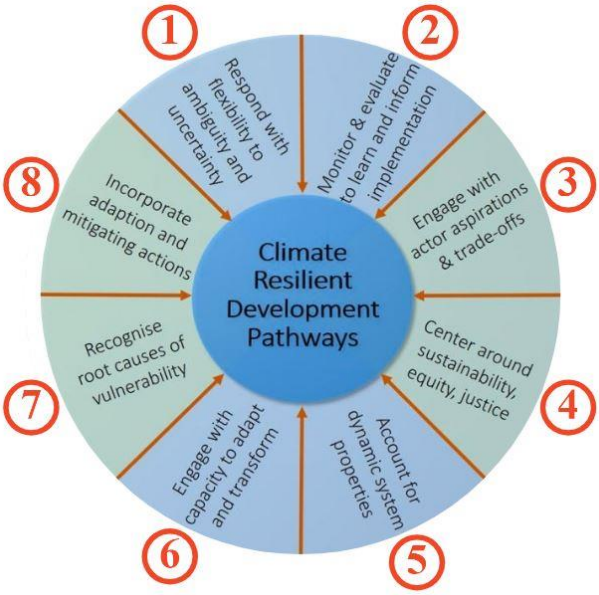


Figure 10: Heuristic of 8 CRDP components, adapted from Werners et al. (2021)

Along the thematic analysis of the transcriptions based on the figure, a complementary document analysis helped consolidate the data available for each marker, either by triangulation of already provided material, or by providing additional elements that were absent in the interviews. As such absence could in itself be informative of a case's approach to CRD, additional elements emanating solely from documents were clearly marked as such during the analysis.

Finally, building upon our literature review on climate change (and mostly point II.1.c of the precedent section) a complementary dimension was added to the analysis process related to CRD: discourse analysis. Beyond allowing to pursue the thematic analysis described above, the collected data from the interviews also opened the opportunity to look beyond the words and explore how climate change was fundamentally understood. Although CRD builds as we saw earlier on an integrative framing of climate change, linking how CRD was addressed through paradiplomacy to the demonstrated understanding of climate change by each case seemed very relevant, as it could provide explanatory factors shaping the overall identified approach to climate action. Consistent with this aim, the description of the four main climate change discourses originating from the work of Leichenko and O'Brien (2019) provided the base of a discourse analysis - namely the exploration of the worldviews and visions of society emanating from the language and vocabulary seen in the collected data, both from interviews and from official documents (Bryman, 2012)(p528). Although purposively shallow, this exploration of the cases' climate discourse led to interesting analytical complements that will be displayed in the chapters to come.

4. Limitations and trustworthiness

As traditionally required in any research reporting, an additional word on limitations is due. Specific attention to trustworthiness was, as presented in the detailed methodology, integrated into the core characteristics of the research design, and infused in as many dimensions as possible. The aim was to consolidate the whole architecture of the project, and not just add a layer of *a posteriori* attention to credibility and transferability, even more so with the evident limitation of exploring a personally known case. As the thick theoretical backbone and the detailed methodology you just read hopefully shown, the insider dimension of the research was not meant to just make things easier. It was mobilized to improve the depth of the research, capitalizing on a lengthy professional experience and the many doors it opportunistically unlocked. And as already mentioned, it answered to the personal curiosity of assessing as scientifically as possible the potential of paradiplomacy regarding climate action, with the goal to *understand* and not to *confirm*. Hence this complex methodology, elaborated to provide comparative elements upon the practice of paradiplomacy, and the mobilization of advanced academic frames to solidify the exploration of each case.

As a more conventional limit to be acknowledged, the educational objective of the present project certainly implied some less honed, less conventional, and maybe less prudent design decisions. With no goal of publication nor pre-existing constraints, a high level of freedom was allowed to tailor a quite ambitious research. While a simpler design could have been possible, the comforting learning environment provided by this Master also meant that mistakes could be done and learnt from. This position led to "push the envelope" of what could be done in the set timeframe, and engendered a two-sided limitation: what resulted from the evident lack of former experience in social qualitative research, and what emanated from the wish to make the most out of this opportunity, even if it implied a more complicated design. Hopefully, the rigorous attention to details within these pages will contribute to balance those limitations.

A more specific limitation resides in the scope of this research, and difficulty to generalize from its conclusions. The qualitative nature of this study implies in essence the non-representativity of its results, but it is worth emphasizing this fact as no equivalent research yet provides any reference to be compared to. The light shed on the uncharted territory of comparative CRD-sensitive paradiplomatic studies is to be taken with precautions, and considered as an attempt based on constricted time, limited data, experimental method and apprentice research skills. It is therefore meant to push the entry door into this unexplored territory, setting a first tentative step, but without any claim of definitive discovery, and with the hope that further research will bring more light, nuances and diversity in the understanding of climate paradiplomacy.

Finally, a word on the main ingredient that drove this research process but could also be a source of limitations: enthusiasm. My personal engagement in the subjects of paradiplomacy and climate action prior to this research represents an obvious motive for this inquiry, that I must transparently insist on. Despite all the efforts invested in building a sound method relying heavily on the literature, it can't be discarded that personal interest may have infused the whole process and impacted its outcome. As the previously mentioned mitigation

measures were applied to minimize the potential negative impacts, only the positive impact of enthusiasm hopefully transpires from the present thesis - namely a genuine wish to gain, and potentially provide, better understanding on the researched subject.

On that note, we conclude the chapter meant to present the designed methodology for our research. All elements are now in place - from the theoretical foundations to the adapted components mobilized from the literature - to dive into the empirical elements of the study, and explore through the lens of our tailored method the cases of Oslo and Nouvelle-Aquitaine's climate action through paradiplomacy.

IV. The paradiplomacy profiles of Oslo and Nouvelle-Aquitaine

The empirical exploration of our two cases is a multilayered one. As presented in the methods chapter, our comparative design builds on a first layer of individual profiling of each case, aimed at identifying their main characteristics and practices regarding paradiplomacy thanks to the adapted explanatory framework and the synthesis tool directly derived from it. This step then unlocks the second layer of analysis, setting the comparative approach in motion to highlight the similarities and specificities of our two cases' paradiplomacy. As prerequisites for CRD related analysis in our methodology, the results obtained from these two initial layers, forming the first empirical elements of this thesis and the answer to our sub-research question "zero" will now be presented.

1. Case 1: the city of Oslo

a. Introductory elements of Oslo paradiplomacy

While the main characteristics of Oslo as a subnational government are integrated in the Paradiplo-ID showcased in the following pages, the case still needs a quick introduction.

First, as a key to the question of devolved foreign relations, the decentralization context of Norway - a unitary parliamentary democracy and constitutional monarchy - needs a rapid description. Originating from 1837, the Norwegian two-tier system of subnational governments is still in effect today, establishing a local parliamentary system based on elected representatives at both scales of municipalities and counties (Norwegian Ministry of Local Government and Modernisation, 2013). The Central Government retains "overriding authority and supervision" over the local authorities; however, a continuous decentralization process seems to transpire from the last decades' various reforms - from the Local Government Act in 1992 providing wider organization options to subnational governments, to additional tasks transferred to counties in 2010, up to the recent territorial reform of 2020[37] resulting in a new count for both administrative scales. It is also interesting to note that a specific Ministry of *Local Government and Regional Development* handles subnational-related matters today.

Within this national decentralization context, the case of Oslo as subnational government actually holds a few particularities. First, as the capital city of Norway, Oslo

[37] https://www.ks.no/om-ks/ks-in-english/local-government-reforms-in-norway/

represents its largest municipality, hosting about 13% of the country's population as well as its main institutions. Its metropolitan area accounts for one third of national GDP according to the OECD[38], depicting its centrality in Norway's economic activity. The local government of Oslo also has the peculiarity of handling both municipal and county-related responsibilities, as it is administratively considered as both. These few (and non-exhaustive) singularities of the City of Oslo imply the non-representativity of the city's case in the Norwegian subnational context – an important aspect to keep in mind while pursuing its exploration.

Although briefly highlighted within the Paradiplo-ID, Oslo's engagement on the subject of climate change deserves an additional comment. The City has indeed adopted in 2020 highly ambitious goals for the reduction of its GHG emissions (Oslo, 2020), accompanied by a climate dedicated online platform made to follow up on goals, actions and results (www.klimaoslo.no). Confirmed by the elaboration of a carbon budget accompanying all budgetary decisions since 2016, such dedication appears to now infuse all sectors of the city's activity, building upon its measured carbon footprint as illustrated in Figure 11.

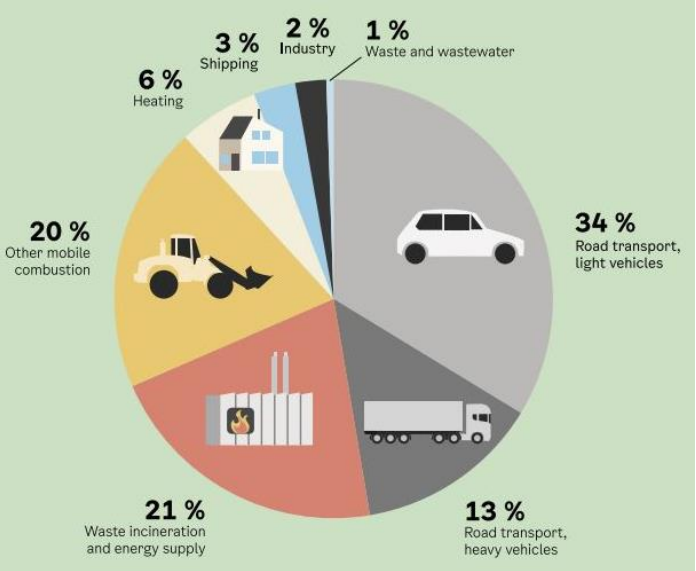


Figure 11: Carbon footprint in Oslo by sector of emission (Oslo, 2020)

While certainly a factor among many, the climate forwardness of Oslo has contributed to increase its global visibility in the last years, resulting in some academic interest upon its involvement abroad. We can notably mention a recent article specifically touching upon the city's climate governance, interestingly highlighting its polycentric nature and the strategic role of transnational networking (Vedeld et al., 2021). And to give credits to my predecessors once again, a few NMBU Master's Thesis have previously touched upon the global involvement of Oslo, exploring its case through the lens of international relations (Guttormsen, 2021; Jansen, 2021). From their conclusions strongly echoing the case-specific first step of this analysis - notably so by emphasizing the diversity in both Oslo's motives and described global activities - they consolidate the profiling of the city that we will now present, and they confirm the relevance to take the subject a few steps further.

b. Oslo paradiplomacy profile: presenting through the first Paradiplo-ID

In order to avoid a lengthy case description, the detailed profile of Oslo's paradiplomacy will be presented through the Paradiplo-ID tool built for the sake of this thesis.

[38] https://www.oecd.org/cfe/NORWAY-Regions-and-Cities-2018.pdf

This condensed presentation allows for a rapid overview of Oslo's main characteristics and explanatory factors regarding its foreign relations. The source of each descriptive element has been integrated via hyperlinks into the ID, to assist any desire for further exploration of the case and facilitate potential updates of the content itself. This allows this section to solely focus on elements that are key for the next steps of our comparative approach, that we will address once both cases individually presented.

The first Paradiplo-ID, related to Oslo, figures in the following page.

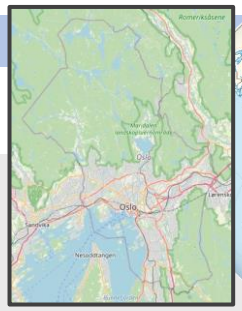
Oslo City Hall, Norway

Rådhushallen – the Grand Function Room in Oslo City Hall, decorated by a 265 square meter fresco from Alf Rolfsen

PARADIPLO-ID

OSLO

Oslo



General Information

Country **Norway**
Scale **Municipality** (Capital) **& County**
Size **480 km²**
Population **698.660** (2021)

National
County 11
Municipality 356
Local

Governance

Mayor: Head of City Council
City council: parliamentary body, 59 seats elected for 4 years
Governing Mayor: Head of City Government
City Government: executive body of 9 members

Administration

Number of agents: 55.000 within 51 agencies in 8 departments
Annual budget: NOK 85 billion (~9.3B$) in 2022

Main Competencies

Primary education, social services (outpatient health, senior citizen, unemployment and other), zoning, economic development, municipal roads

Subdivision

Delegates some missions to 15 City Districts, run by elected District Councils

Additional Data

HDI: 0,968 (2018)
GDP: 57B$ppp (2016)
GDP/cap: 87k$ppp (2015)
eqCO_2: 1,08Mt (2020)
eqCO_2/cap(nat): 7,6t (2020)

Paradiplomatic Framing

Locally and nationally termed *"**International Cooperation**" – paradiplomacy* or *city diplomacy* not in use

Institutionalization

International Cooperation Office (D1+)
- ➞ Attached to the Governing Mayor's office
- ➞ 8 employees
- ➞ Integrated administrative budget
- ➞ Transversal mission: liaison with global partners, EU programs management, foreign secretariat and mission planning.

Permanent office in Brussels (D2+)
- ➞ Participation to global events (ex: COP) (D4)
- ➞ Occasionnal international missions (D3-)
- ➞ Seldom participation in central government delegations abroad (D6-)

Strategic orientation

Set by the municipal masterplan (4 years duration)
Framed in **strategic goals:** (adopted in 2009, revised in 2010)
1. Learn through experience sharing
2. Influence through targeted international participation in alignment with the SDGs
3. Grow sustainably through innovation and competition
4. Attract through international profiling
5. Ensure diversity, openness and inclusion
6. Become the world peace capital

Complemented by:
- the **city government's** Platform (political, 4 years)

Main causes

- ➞ External: Globalization trends (climate crisis, digitalization, European cooperation…) (A1+A9+), Foreign policy domestication (A4)
- ➞ Internal: Political will (A10+)

Main motives

- ➞ Improve municipal services
  - Political (C1+)
  - Economical (C2)
  - Cultural (C3)

Legal ground: None

No legal framework, no needed permission (B1), no required consultation (B2)
International Cooperation as constitutional prerogative of the national government

Central Government attitude: mostly positive, distantly overlooking

Actions tolerated, voluntarily communicated and mostly seen positively (E2-). Close contact with some signs of cooperation and complementarity, but actions mostly autonomous. *Cooperative-joint* (E4-) / *Parallel-harmony* (E5+)

Local & national networking

(Organizations aslo engaged globally)

Osloregionen — Alliance of 65 municipalities to internationally strenghten Oslo region

KS — Norwegian Association of Local and Regional Authorities

Østlandssamarbeidet — Eastern Norway County Network, cooperation body made of 4 counties

Paradiplomatic Activities

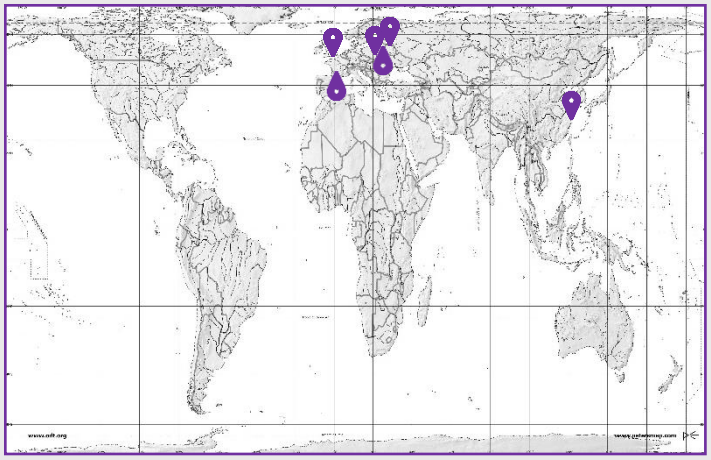
Bilateral engagements

City Cooperation

Termed "Cooperation agreements" centered on experience sharing

- Hackney (London-UK)
- Shanghai (China)
- St Petersburg (Russia)
- Toulouse (France)
- Vilnius (Lithuania)
- Warsaw (Poland)

+ Relations with Nordic cities
Informal but continuously ongoing



Multilateral engagements (D5)

Signatory/Endorser

Circular Cities Declaration

Covenant of Mayors for Climate & Energy Europe

Aalborg Charter

Active membership

EUROCITIES

C40 Cities

Global Lead City Network on Sustainable Procurement

Mayors for Peace

ICLEI Local Governments for Sustainability Europe

CNCA

Cities4Forests

International branding activities

- Christmas tree as gift to London (UK)
- Host of Nobel Peace Prize Ceremony

Funding of local-led initiatives

Possible support on demand to associations and NGOs

Cooperation with the European Union

- ➞ Participation in EU programs
  - Horizon Europe & INTERREG
- ➞ Contribution and follow-up on specific EU legislation (environment, urbanization…)

Consequences for national foreign policy

Indirect rationalization (strengthened norwegian global presence through additional local-specific competences), passive democratization (complementary endogenous actions) (F1F2)

Notable sustainability actions & results

Elected European Green Capital in 2019
Engaged to reduce CO_2 emissions by 95% in 2030 (from 2009)
Led the elaboration of a Climate Budget manual

OSLO 2019 EUROPEAN GREEN CAPITAL

SOURCES

The colored codes correspond to typologies proposed in the paradiplomacy explanatory framework developed by Alexander S. Kuznetsov (2014)

Paradiplomacy Framework: *Kuznetsov, A. S. (2014). Theory and Practice of Paradiplomacy: Subnational governments in international affairs. Routledge New Diplomacy Studies. Oxon & New York: Routledge.*
Data sources: *Wikipedia (socio-economic data), City of Oslo (interviews and web documents, 2022)*

2. Case 2: the region of Nouvelle-Aquitaine

a. Introductory elements of Nouvelle-Aquitaine paradiplomacy

Consistent with our aim to compare the two cases through mirroring data, the region of Nouvelle-Aquitaine will briefly be introduced following the same pattern previously adopted for the city of Oslo.

Building upon a history of centralizing monarchy, the now parliamentary and unitary French republic has gone through numerous and complicated phases of decentralization. Its three-tier territorial organization now builds on "*territorial collectivities*", namely the municipalities, "*départements"* and regions, all scales relying on locally elected deliberative assemblies since the main recent decentralization act of 1982. Boundaries and counts of "collectivities" have since been revised multiple times, their responsibilities also evolving at the rhythm of numerous reforms up to the last law enforced in 2016 – the year Nouvelle-Aquitaine came to existence from the fusion of three former regions.

As the most South-Western region of France, Nouvelle-Aquitaine shares borders with Spain and a 720km long coast of the Atlantic Ocean, being by its size the largest French "collectivity". Inhabited by about 9% of the country's population, its scale provides the region with very diverse socio-economic activities, from aeronautics to agriculture, tourism, fisheries… all details figuring in an Atlas[39] edited by the Region itself (Nouvelle-Aquitaine, 2018). Such scale and territorial diversity make for the main drivers of singularity of the region, along the cultural specificities coming from its geographical proximity with another European country. Beyond these characteristics, the region is administratively quite similar to its 17 counterparts (as opposed to Oslo being a quite peculiar case among Norway's municipalities).

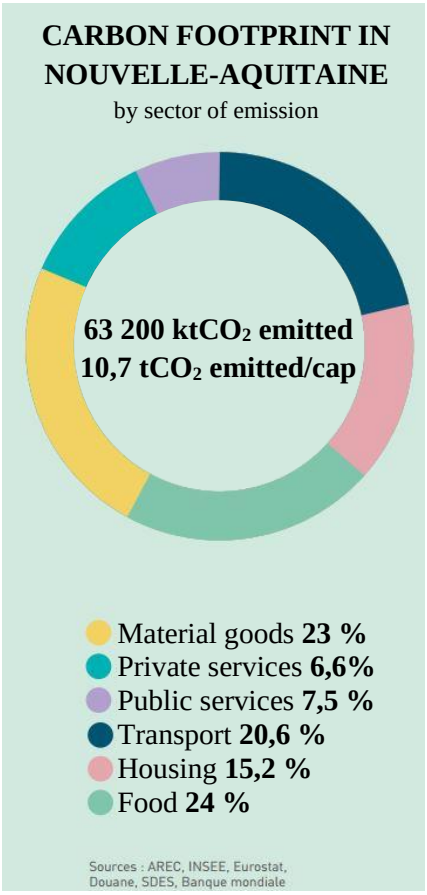


Figure 12: Carbon footprint in Nouvelle-Aquitaine by sector of emission (Nouvelle-Aquitaine, 2019a)

Regarding climate change, Nouvelle-Aquitaine seems to have taken a proactive route, establishing in 2011 a local version of the IPCC since formalized into the association AcclimaTerra[40]. Having since produced specific reports to help inform the design of local policies, the committee has also contributed to the elaboration of a climate-sensitive development roadmap for the region called *Neo-Terra*, adopted by Nouvelle-Aquitaine in 2019 (Nouvelle-Aquitaine, 2019a). These combined elements, building on an acknowledged carbon footprint as illustrated in Figure 12, highlight a certain level of both consciousness and integration of the climate crisis into Nouvelle-Aquitaine's political agenda.

While the region may hold some notoriety from a cultural standpoint (the wines of its chief town Bordeaux

[39] https://fr.calameo.com/read/0060092714023d78c8c51?page=3
[40] http://www.acclimaterra.fr/en/

certainly contributing), very little academic material could be found to complement the paradiplomacy profiling of Nouvelle-Aquitaine. Beyond reports from AcclimaTerra and the institution itself, a brief case-specific description of the region was produced by the association Climate Chance, as an example of subnational engagement for reduced emissions (Climate Chance, 2018), beyond which no other relevant material was identified. Therefore, the profiling of Nouvelle-Aquitaine showcased in the next page attempts a synthesis that could not be compared and consolidated with other academic publication.

b. Nouvelle-Aquitaine paradiplomacy profile: the second Paradiplo-ID attempt

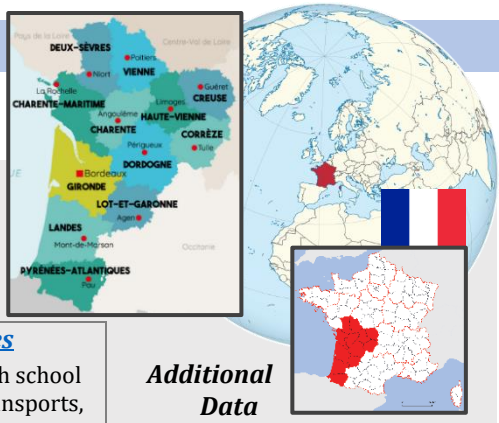
Using the very same approach than for Oslo, the Paradiplo-ID built for Nouvelle-Aquitaine will be presented in the following page, figuring a similar architecture to facilitate the comparison of the two cases.

Hôtel de Région Nouvelle-Aquitaine, Bordeaux, France
Credits: Françoise Roch, 2019

PARADIPLO-ID

Nouvelle-Aquitaine

RÉGION Nouvelle-Aquitaine



General Information

Country **France**
Scale **Region**
Size **84.036 km²**
Population **6.010.289** (2021)

National
Region 18
"Département" 101
Municipality 35.010
Local

Governance

President: Head of the Regional Council, elected by its members
Regional Council: deliberative assembly of 183 seats elected for 6 years through universal direct suffrage

Administration

Number of agents: 8.011 within 13 Poles and Directions
Annual budget: € 3,3 Billion in 2022 (~3.5B$)

Main Competencies

Economic development, high school management, non-urban transports, landscape management, professional training, EU funds management

Subdivision

12 'Départements', 4309 Communes

Additional Data

HDI: ~0,88 (2016)
GDP: 208B$ppp (2016)
GDP/cap: 35k$ppp (2016)
eqCO_2: 63,2Mt (10,7t/cap) (2015)

Paradiplomatic Framing

Locally termed ***International*** or ***External Action***, ***demultiplied diplomacy*** and ***Decentralized Cooperation*** – *paradiplomacy* or *regional diplomacy* not in use

Institutionalization

- **3 Vice-Presidents for International affairs**
- **Specific Pole for Europe and International affairs** (D1+)
  - 100 employees
  - 7.7 M€ credited in 2021
- **6 Permanent offices globally** (D2+)
  Bruxelles (Belgium), Sapa (Vietnam), Miarinarivo (Madagascar), Wiesbaden (Germany), Wuhan (China), Ziniaré (Burkina Faso)
- Frequent international missions (D3+)
- Rare or indirect participation to global events & central delegations abroad (D4-D6-)

Strategic orientation

Set by the external action roadmap (adopted in 2019)
Main objectives (further declined in 14 actions):
1. Strengthen the presence on the european and international scene, towards a '*territorial diplomacy*'
2. Support actors of the territory who engage globally
3. Ensure better consultation and coordination of international policies and actions

Summarized main actions:
- Develop region-to-region cooperation
- Accompany cooperation and international solidarity projects and sensitize citizens
- Support youth mobility
- Promote francophony

Main causes

- External: Regionalization (A2+) Democratization (A3) Globalization (A1) Foreign policy domestication (A4)
- Internal: Political will (A10+) Borders (A11+) Decentralization (A5) Geographic dimension (A8)

Main motives

- Political (C1+)
- Crossborder housekeeping (C4)
- Economical (C2) - Cultural (C3)

Legal ground: legally recognized and encouraged

'*Decentralized Cooperation*' authorized by law since 1992, framed within '*External Action of Territorial Collectivities*' since 2007.
Subnational governments can freely engage in global uni/bi/multilateral formal and infomal actions "*with respect to the international engagements of the nation*" (B1B2)
Coordinated and supported since 1992 by a National Commission (CNCD) and a Delegation (DAECT) within the Ministry of Foreign Affairs.

Central Government attitude: positive and supporting, relatively overlooked

Actions encouraged, with financial and operational support from central diplomacy (E2+)
Cooperative-coordinated (E4+) *Cooperative-joint* (E5)

Local & national networking

(Organizations engaged globally)

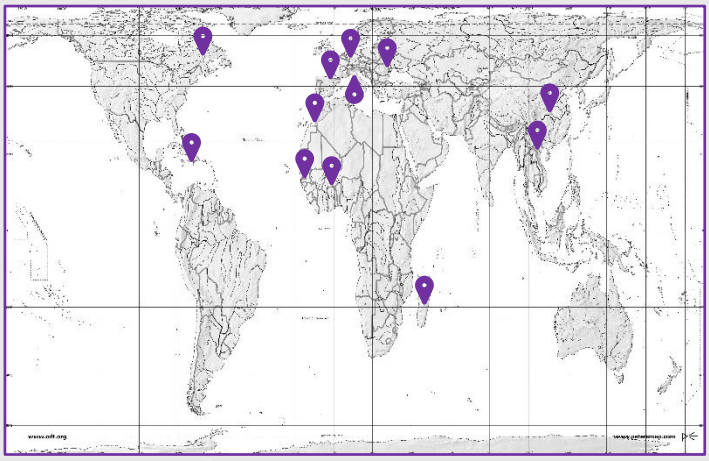
- SCOOP COOPERATION Nouvelle Aquitaine — Regional platform for cooperation and international solidarity
- cités unies france — Federation of French subnational governments engaged globally
- RÉGIONS DE FRANCE — Association of French Regions

Paradiplomatic Activities

Bilateral engagements

Regional Cooperation

- Hesse/Middle Franconia (Germany)
- Emilia-Romagna (Italy)
- Galați (Romania)
- Euskadi/Navarre/Aragon/Galicia (Spain)
- Quebec (Canada)
- Nord (Haiti)
- Souss-Massa (Morocco)
- Bambey/Diourbel/Mbacké/Gossas/Fatick/Foundiougne (Senegal)
- Plateau-Central (Burkina Faso)
- Itasy (Madagascar)
- Lào Cai/Thừa Thiên Huế (Vietnam)
- Hubei (China)



Multilateral engagements (D5)

Transborder cooperation

CTP — EUROREGION EUROESKUALDEA EUROREGIÓN — CPMR ATLANTIC ARC COMMISSION

Active membership

Gsef — AIRF — a.f.c.c.r.e — nereus — AREPO — CPMR CRPM — AREFLH — ERRIN European Regions Research and Innovation Network

Funding of youth international mobility

- Through student loans and volunteering programs

Funding of associations and local-led initiatives

- Specific grant for international solidarity and '*global citizenship education*' projects (~600k €/year)

Relations with the European Union

Participation in EU Interreg programs ,(Atlantic Area, SUDOE, POCTEFA) +ERDF-ESF
Piloting ~2,5B€ of funding for the period 2014-2020
→ Follows up EU policies and fundings, acting as relay for regional actors

Consequences for national foreign policy

Direct rationalization (strengthened french global presence through additional local-specific competences), active democratization (complementary endogenous actions) (F1F2)

Notable sustainability actions and engagements

Member of the Under2° Coalition, signatory of the 2015 MoU
Engaged to reduce CO_2 emissions by 80 to 95% by 2050.
Adaptation actions to climate change integrated in decentralized cooperations

UNDER 2°

The colored codes correspond to typologies proposed in the paradiplomacy explanatory framework developed by Alexander S. Kuznetsov (2014)

SOURCES

Paradiplomacy Framework: *Kuznetsov, A. S. (2014). Theory and Practice of Paradiplomacy: Subnational governments in international affairs. Routledge New Diplomacy Studies. Oxon & New York: Routledge.*
Data sources: *Wikipedia (socio-economic data), Region of Nouvelle-Aquitaine (interviews and online documentation, 2022)*
Credits - *Globe map Author: Addicted04 ©Wikimedia Commons CC-BY-SA – Region map*: touteleurope.eu - *World map in Peters Projection: ©Akademische Verlagsanstalt*

3. First insights on paradiplomacy from a comparative observation

Constructing the two Paradiplo-ID has allowed to go thoroughly through the identical process of analysis, synthesis, vulgarization and validation, bringing a very even level of visibility upon the paradiplomacy profiles of both Oslo and Nouvelle-Aquitaine. This approach provides the basic element to characterize our two cases' paradiplomacy - linked to our preliminary sub-research question - and allows us to reach a first set of observations. Preparing the ground for climate-themed inquiries, this section presenting the main findings of our comparison will highlight the major differences and similarities observed between the paradiplomatic contexts and practices of our two cases.

a. Main observations related to paradiplomacy

Several fundamental distinctions appear when comparing the two profiles, the most evident being linked to the types of paradiplomatic activities the two subnational governments engage in. Both appear involved in bilateral collaboration worldwide with subnational counterparts, as well as into multilateralism through transnational networking – illustrated by the numerous markers on the two worldmaps and the rich (and non-exhaustive) sets of logos of their partners. But for evident geographical reasons, only Nouvelle-Aquitaine is concerned by transborder bilateral and multilateral collaborations - linked to a "*cross-border housekeeping*" dimension in the words of John Kinkaid (in Kuznetsov (2014)) - which technically implies more types of activities the region can (and does) engage in compared to Oslo. It is an obvious albeit important factor of singularity to be noted, as some activities can only be performed by Nouvelle-Aquitaine for reasons unrelated to political will, and simply dictated by the different nature and geography of the two governments. This geographical distinction stated, we can look more specifically at what differs in our cases approach, based on decisional factors.

In the case of Oslo, paradiplomacy appears to bear one main role: it is "*a tool to reach technical and political goals for the city of Oslo*" in the words of our informant from the city's International Office (NLG1). "*International work is not a goal in itself, it's a way to reach other goals and it's one of many ways*" - a statement highlighting how paradiplomacy is integrated into Oslo's operations, and not framed as an additional activity with objectives of its own. Such transversality also transpires from the institutionalization of paradiplomacy into the city's organizational structure: the International Office is composed of eight employees positioned within the Governing Mayor's office, therefore not appearing as a specific entity on the city's organizational chart (Oslo, 2022). The office's agents are tasked with "*coordinating and inspiring and pushing the rest of the people working in the city of Oslo to use international work as a tool in their daily work*" (NLG1). Such transversal position confirms the role of the International Office as an interface between all departments and global partners, mainly intended to contribute in reaching the city's local goals. Consequently, the city's current partners are all major municipalities (almost essentially European) having similar interests and issues, therefore opening for reciprocal experience sharing in urban management. While some local development programs with foreign counterparts or solidarity-driven actions were conducted by the city in the past through Municipal

International Cooperation, it is no more the case today, confirming the orientation of Oslo's paradiplomacy towards local interests.

For Nouvelle-Aquitaine, the approach differs significantly. Paradiplomacy appears administratively as one mission among others undertaken by the region – additional as opposed to integrated. A specific "pole" counting about a hundred agents handles the European and International affairs of the region, at the same organizational level than its twelve other poles of activity (Nouvelle-Aquitaine, 2022). Three elected representatives are moreover tasked with international affairs within the Region Council, bearing the status of Vice-Presidents. About motivations, in the words of the pole's Director: "*the field of decentralized cooperation is extremely vast and large […] so the reasons for which we engage are not the same from one cooperation to another*". The region is indeed involved in solidarity-driven cooperations with "*a real political will to contribute, to participate to the effort of development at its level*" ; in European decentralized cooperations where "*there are win-win interests as there are economic interests, interests in higher education…*" ; and in cross-border relations where "*there is also a strong territorial dimension […] and if we wish to have a global approach, holistic, it is necessary to work at both sides of the frontier*" (FLG1). Consequently, Nouvelle-Aquitaine's paradiplomatic partners are from both hemispheres, presenting various human development contexts and types of cooperation, implying some reciprocal cultural and economic partnerships (with a Canadian province or a German Länder for example), and some more unidirectional and solidarity-based cooperation programs (with a Malagasy Region or a Haitian Department to cite a few). Our informant moreover explained how: "*our decentralized cooperations, and in particular those at the international level and in Africa by definition, they have the vocation to apply to a territory that is the partner's territory, and the outcome on our own territory is quite accessory. We have a few actions in return… it is true, we do, but it is limited.*" (FLG1). The various international activities held by the region therefore appear to answer to objectives that can be related to local interests of Nouvelle-Aquitaine's territory, but they can also answer to objectives that are more global, outward and solidarity-driven.

Building on these main observations, we can draw links with another critical dimension of the framework: the legal grounds for paradiplomacy. For Nouvelle-Aquitaine, the legal frame is clear and openly allowing "*external activities*" and "*demultiplied diplomacy*", as thoroughly defined within a specific white paper on paradiplomacy published by the French Government (CNCD, 2017). It is seen as such by the subnational governments themselves, as confirmed by an informant from the international pole of the region stating: "*The law authorizes, sets the frame of action"* (FLG2). Such precise legal ground correlates with the multiple engagement levels of the region, from reciprocal cross-bordering to more cultural and solidarity-based decentralized cooperation programs - all legitimized and even encouraged by French national policies.

In Norway, paradiplomacy has no legal frame in effect. As expressed by our informant from the national development agency: "*Actually, we don't have any legal ground that I know about*" (NCE1), a situation confirmed by our informant from KS, the Norwegian Association of Local and Regional Authorities: "*in general, international cooperation is not a local government responsibility in Norway, and local government is not recognised as a player in international relations*" (NLP2). Consequently, Oslo's international cooperation appears to be

directed towards its fundamental responsibility: providing the best services to its citizens. As stated by our informant from the city: "*to improve municipal services is sort of the main thing, and that has been for a main point in the international strategy*" (NLG1). It therefore appears legally consistent for Oslo to rely on an integrated approach of paradiplomacy for inward purposes, as pursuing additional and less locally beneficial external activities could be considered out of the City's legitimate frame of activity.

To further elaborate on the *integrated/additional* attributes appearing through the comparison of our two cases, a complementary element of institutionalization can be looked at: budgets. Illustrating the highly integrated nature of paradiplomacy within Oslo's operations, no specific budget is identifiable for the city. While it would be possible to calculate contributions and salaries linked to international actions, it is willingly not done so to ensure the administratively integrated nature of these activities. As stated by our informant from Oslo's International Office: "*if we would have our own budget for our own international work, we would argue against ourselves, because then we would say that 'oh, international work, it's something we're doing on the side of everything else and not as an integrated part that we are doing*" (NLG1). For Nouvelle-Aquitaine, very specific lines in its published budget allow to identify the amount targeted for its international cooperation, mirroring its additionality to other operations. For the year 2021, the region scheduled about 7.7M€ of credits for its European and International operations - human resource not included as agents of the pole are integrated into the general administration (Nouvelle-Aquitaine, 2021). This represents about 0,27% of the region's 2021 budget, focused on Europe and International operations.

To conclude our main observations, we can emphasize how a clear distinction is visible between Oslo's integrated and somewhat inward approach, and Nouvelle-Aquitaine's more additional and both inward and outward approach. These traits appear as a central differentiation in the paradiplomacy of the two subnational governments, integrating and summarizing the main specificities revealed by the explanatory framework.

b. Complementary findings differentiating our two cases

The paradiplomacy framework allows to highlight interesting distinctions in the drivers and motives behind both cases' global activities. While the process of regionalization (linked to the French decentralization policy) and the democracy-based political will are identified as the main drivers for Nouvelle-Aquitaine's paradiplomacy, they also combine with a diversity of complementary causes, such as the globalization trends pushing for competitivity through territorial branding, and of course the sharing of borders with Spain implying environmental and cultural proximity. As Oslo does not share such border-related and regional features, the drivers for its paradiplomacy differ slightly, but still resonate with the external pressure from globalization trends (leading to both cooperative and competitive behaviors) and the expression of a strong political will from locally-elected representatives.

As an additional singularity, we can point out the impacts of paradiplomacy on each case's national foreign policies - the sixth question in Kuznetsov's methodology. As highlighted in the Paradiplo-IDs, the rationalization and democratization of national policies

(codes F1 and F2 of Kuznetsov's framework, as shown in Figure 8, p37) are characterized as indirect and passive for Oslo, and more direct and active for Nouvelle-Aquitaine. This distinction is made with relation to the legal ground of each case's paradiplomacy, and deserves further explanation.

For Nouvelle-Aquitaine, the legal framework legitimizes a direct complementation of national diplomacy by a subnational presence and means - a recognition emphasized by the official expression "*demultiplied diplomacy*" used in governmental documents (CNCD, 2017). And as confirmed by a diplomat from the French Embassy in Madagascar (informant FCE1): "*the action of territorial collectivities fits completely in the frame of public development aid, with actions of proximity that can't be implemented by the AFD*[41] *nor French institutions present locally".* It therefore results in the "rationalization" of national foreign policies following Alexander Kuznetsov's terminology, and in a direct manner as it is actively encouraged by French laws and policies. A similar pattern appears for the outcome of democratization according to our informant, as "*aside from the actions undertaken by the State, the territorial collectivities are elected representatives above all, so it represents the people*" (FCE1). It therefore denotes an additional and planned – therefore characterized as active - layer of democratic involvement enriching French foreign policies.

The situation for Oslo is different, as the Norwegian legal framework officially reserves formal foreign policy to the national scale, but global actions are nonetheless undertaken by subnational governments. Oslo's relations with global counterparts indeed seem to contribute to Norway's foreign policy, as according to our informant from the Ministry of Foreign Affairs: "*Oslo is very active in that [C40] group and we are happy about that. They haven't asked, you know: "can we do this?" […] There are lots of things they can and should do with the international cooperation that doesn't need a legal basis*" (NCE2). It does suggest that Oslo's involvement adds a local-specific dimension to Norwegian foreign relations, and as no regulation nor policy indicates it is voluntary, we can characterize it as an indirect rationalization. Such characterization is confirmed by our informant from the national development agency, stating how "*It's not a formal role for the municipality in Norwegian foreign policy or in development policies. But of course they sometimes play an informal role with their networks and connections with other cities in other parts of the world, which of course I think is useful for national authorities to utilize"* (NCE1). Similarly, our observations lead to acknowledge a form of democratization of foreign policies as – similar to Nouvelle-Aquitaine – locally elected representatives define the orientations of Oslo's global actions. But we can characterize it as passive as no indication of it being a voluntary outcome of paradiplomacy transpires from Norwegian laws and regulations, nor from our informant's inputs.

This *active-direct/passive-indirect* distinction was absent from the original paradiplomacy framework but appeared necessary to discern the nature of each case's consequences regarding their national foreign policies. Both cases classify indeed in the positive categories of outcomes - rationalization and democratization according to Kuznetsov's framework, with no indication of the negative outcome of "*disintegration of the*

[41] Agence Française de Développement (*French Development Agency*) https://www.afd.fr/en

state". But our cases reach such outcomes in two distinguishable manners as we saw, that can be interpreted as linked to their respective national legal ground for paradiplomacy.

Before closing this point on singularities, we can add a word on the obvious question of our cases' scales. Oslo is both a county and a municipality, and being the latter implies competences and responsibilities linked to urban settlements that Nouvelle-Aquitaine doesn't have. While it of course shapes distinct content of bilateral and multilateral cooperation programs between the two cases, no clear distinction in the main explanatory factors of the framework seem to originate from one performing a "regional" form of diplomacy and the other a "city diplomacy". The fundamental difference in the two countries' legal frames for subnational diplomacy seems to have more identifiable impacts in the way both cases engage globally.

c. Complementary findings on shared characteristics

Though some differences between the two cases have been pinpointed, numerous similarities have also emerged from our comparative approach, and deserve to be highlighted.

As a start, we can point out how both cases seem to share similar motives for their external activities, following the framework's pre-coded answers. While cross-bordering is a reason specific to Nouvelle-Aquitaine, informants from both cases identified political aspects as the main drivers for their paradiplomatic activities. A Chieffe of Office from Nouvelle-Aquitaine's International Pole indeed expressed how external activity "*is first of all a political will"*, nominatively stressing the forefront role of the Region's President in the matter (FLG2). For Oslo, it was also highlighted how "*you could say it is political will, since it is politically decided in the municipal master plan*" (NLG1). It could be argued that economic and cultural motivations can fuel the political will to engage globally; however, such potential overlap between the different pre-coded motives was actually acknowledge by Alexander Kuznetsov's framework (2014). Therefore, the characterization of the main paradiplomacy drivers intends here to highlight how cases identify and express their own motives, indicating which dimension is preponderant in their own conception. As such, we can see that Oslo and Nouvelle-Aquitaine identify quite similarly their main motive, and place its root in a democratically sanctioned political will, more than in economic or cultural objectives.

As an additional similarity, we can highlight how both cases appear to nurture the global involvement of their civil society by orienting specific fundings towards local associations - through grant schemes specifically aimed at international solidarity (the case for Nouvelle-Aquitaine) but also following direct solicitations from local actors (mostly the case for Oslo). This implies the allocation of public fundings from the subnational governments into global actions designed by local associations, and shows a voluntary role to facilitate the relations between actors of their territory and the rest of the world.

Linked to the external paradiplomacy driver of globalization that both cases share, we can highlight how engaging globally is a mean for Oslo and Nouvelle-Aquitaine to acquire international visibility and notoriety. The "*attractivity*" of its territory is pointed as an important objective for the French Region's international roadmap (Nouvelle-Aquitaine, 2019b), whereas the "*branding*" of Oslo has been pointed by our informant (NLG1) as a key

outcome of the City's paradiplomatic activities, in alignment with its adopted international strategy (Oslo, 2009). While both subnational governments engage in what they frame as international cooperation, it is interesting to note how elements of competition are shaping their paradiplomatic strategies and activities. It seems to be very explicitly the case for Oslo as, stated by our informant: "*we are working internationally to make sure that's Oslo' position and competitiveness is high, so we are sort of benchmarking ourselves to other cities related to innovations, public services…"* (NLG1).

On a more cooperative note, the European Union was highlighted by informants of both cases as an important element of their paradiplomacy. The two subnational governments are indeed managing European fundings granted for two main purposes: supporting projects with economic, cultural and local development goals on their respective territories, and facilitating collaborations and partnerships between European localities – the latter being therefore a catalyst for paradiplomacy. Beyond the management of ever-changing grants and projects, the strong relation with the EU has translated in permanent representation offices opened in Brussels by both Oslo and Nouvelle-Aquitaine. Our informant from Oslo specifically highlighted how such close connection was aiming at tracking and even contributing to the evolution of EU legislations: "*we want decisions in the EU to be taken in line with what is our interest, so we are sort of lobbying up towards European Commission*", further confirming the aim "*to ensure that the decisions and initiatives internationally are made and line with the city*" (NLG1).

Pursuing on the subject of multilateralism, we can highlight how both subnational governments have integrated numerous transnational networks of different sorts, scales and aims. This variety implies both different motives and outcomes for almost each organization joined, but it allows to stress how the dynamic movement of transnational networking, also identified within the paradiplomacy literature (see section II.3.c), appears through the actions of our two cases. It is to mention that the diverse organizations represented in the Paradiplo-IDs are not to be considered as exhaustive, and represent a sample of the main memberships according to our informants from Oslo and Nouvelle-Aquitaine.

In a quite similar manner, both cases seemed linked to actions engaged globally by national and local organizations of subnational governments they are part of. It is the case for Oslo, notably through its belonging to the association of local authorities KS, as well as for Nouvelle-Aquitaine through its affiliation with "Régions de France", both organizations having international actions of their own. These two examples (non-exhaustive once again) imply a complicated ramification of global involvement that connect each of our cases to various projects and actions across the globe - actions that would be quite difficult to fully explore and inventory considering their sheer diversity and, for this case, indirect nature.

Finally, as an interesting similarity, we must highlight how among all fourteen informants for the two cases, none had ever heard of the term *paradiplomacy*. The *international* characterization for both subnational governments persists, although "*external activities*" and even "*diplomacy of territories*" are more employed for the French case, and associations with the term diplomacy seem more delicate (if not problematic) in the Norwegian context. Nevertheless, it is interesting to see how for two cases quite openly involved in global activities through a wide variety of means (as illustrated by the difficulty to fit such rich profiles into both Paradiplo-IDs), no connection to the field of paradiplomatic

studies was apparent. This confirms the profound gap that seem to exist between practitioners and scholars, as identified through the literature review phase. No generalization can be drawn through two cases only, but it is still important to note how such a prominent unawareness of paradiplomacy has transpired from the studied cases.

This concludes the three first steps of our comparative approach, having presented the paradiplomatic fundamentals for Oslo and Nouvelle-Aquitaine through both their individual characteristics, and an overview of their main differences and similarities. We have therefore built the needed visibility upon our cases' paradiplomacy, answering to our sub-research question "zero" with the additional contrasts unveiled by a comparative approach. We can now proceed to the next step in a similar fashion, adding the layer of climate resilient development to the exploration of our two cases' paradiplomacy.

V. Searching for markers of Climate Resilient Development

Building upon the visibility acquired on Oslo and Nouvelle-Aquitaine paradiplomatic profiles, we will finally connect the global activities of our two cases with the domain of climate action, and more precisely with the integrated concept of climate resilient development. This will lead us to incrementally address our sub-research questions linking paradiplomacy to climate action. We will first look at both cases' official approach to climate change, investigating for our sub-research question n°1 the surface layer of climate action. The subsequent sections will then allow us to look into our sub-research questions n°2 and 3, as we will dive right into the very links between the key markers of CRD and our two cases' precise paradiplomatic activities.

1. Looking at the surface layer of CRD – discourses and official strategies

Before looking into each case in details through the lens of our CRD framework, we must present the general approach to climate change adopted by Oslo and Nouvelle-Aquitaine through their official policies. This approach shapes the official discourse of both subnational governments, and steers their formal engagement into what we can characterize as *climate paradiplomacy* according to our literature review (Chaloux et al., 2022). This will provide the first elements of answers on how climate is addressed through paradiplomacy, and how integrated our cases' official discourses can be.

a. Oslo's approach to climate change and sustainable development through international cooperation

As a start, we can acknowledge how the City of Oslo appears to have given a preponderant place to climate change in its global engagement. It didn't figure as an explicit objective of its 2009 international strategy, but it has since integrated the City Government's goals, linking Oslo's "*process of establishing a strong position on an international level"* directly to its climate action (adoption of the world's first climate budget, award of the 2019 European Green Capital, experience sharing on fossil-free construction and transportation…)(Oslo, 2019). Reciprocally, we must highlight how within the City's official

climate strategy, the 16th and final goal aims to "*seek international collaboration*" for experience sharing and solution dissemination (Oslo, 2020), as presented in Figure 13. Oslo's global involvement and its climate action are therefore closely intertwined within the City's policies.

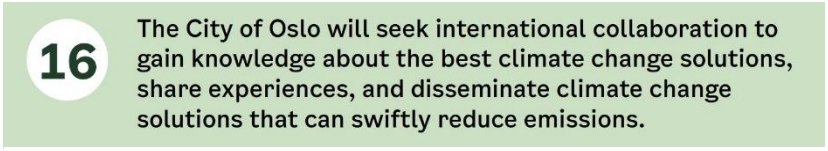


Figure 13: 16th goal of Oslo's Climate Strategy (Oslo, 2020)

From this official discourse, we can also identify how climate action appears essentially linked to the mitigation of GHG emissions in Oslo's global approach. Adaptation does appear in the city's climate strategy, though it is not explicitly mentioned within its 16th and international-specific goal, the emphasis being - as Figure 13 shows - on emissions reduction. This allows to characterize the type of climate discourse emanating from the city's official paradiplomatic policy as more biophysical than critical or integrative, according to the discourse typology from Leichenko & O'Brien (see section II.1.c). Consistent with such a GHG-centered framing of the climate crisis, we can observe within the city's global involvement regarding climate change how it mainly results in a focus on climate budgeting – therefore on managerial and technological solutions specifically centered on carbon footprints, without clear nor explicit integration of more social and adaptation-related aspects.

As this observation helps better understand the city's approach, it also implies that within such a biophysical framing, human development considerations will be seen as disconnected from climate issues. Which brings us to look for separate markers of a sustainable development approach within the city's international strategy, to get a more complete view upon the main constituents of CRD. As such, we can note how the amended version[42] of Oslo's international strategy states: "*Contributing to the fight against poverty, safeguarding human rights, democracy, social justice and sustainable development must be part of Oslo's international commitment*" (Oslo, 2010). Additionally, in its second objective, the document mentions how "*the municipality will also work for international sustainable development, democracy and human rights*". These formulations denote a socially-aware approach to sustainable development within Oslo's official international strategy, with human rights and social justice explicitly mentioned.

On a more practical side, we can note how Oslo's international strategy was initially aiming for a "*contribution to development*" as objective 1.4, explicitly citing its collaboration with the South African city of Mbombela on local democracy and sustainable environmental management (Oslo, 2009). But as highlighted through the paradiplomatic profiling of the city (section IV.3.a), this type of solidarity-driven bilateral collaboration has since stopped. According to our informant from KS, this trend has been visible throughout the country and beyond: "*This is what we have experienced in Norway, the place of local governments in decentralized development cooperation is diminishing. This also has been actually a trend in*

[42] These mentions of sustainable development and social justice were absent from the 2009 version of the strategy, and were added as amendments only in 2010, denoting the evolution of a political debate among Oslo's City Council.

many other countries" (NLP2). In the case of Oslo, such actions have been replaced by mutualized multilateral engagements through transnational networks such as C40 Cities, and by indirect connections with development projects held by KS in a more mutualized approach.

As a conclusion, this exploration of Oslo's international strategy leads to acknowledge the presence of both climate action and sustainable development in the city's official approach, but the two are framed as somewhat disconnected issues. Consequently, climate change appears to be addressed as a biophysical issue, leading to a CO_2-focused approach with little to no mention of adaptation. And in parallel, although explicitly present in its strategy, the social dimension of sustainable development has stopped being addressed directly by the city through its bilateral cooperation, and is now only indirectly addressed through organizations the city is a member of.

b. Nouvelle-Aquitaine's approach to climate change and sustainable development through international cooperation

Following the same pattern as we did for Oslo, we can start by acknowledging the place given to climate change in Nouvelle-Aquitaine's external action roadmap. The exploration of the document highlights a mainstreaming approach to climate action, explicitly integrated in a diversity of actions and not as a specific objective. It notably appears as a dimension to be reinforced in transborder relations (action 2), decentralized cooperations (action 4), international collective exchanges (action 5), local associations and networks (action 6) and programs of "International Solidarity and Citizenship Education" (action 12) (Nouvelle-Aquitaine, 2019b). The reciprocal doesn't seem to verify, as none of the eleven objectives of the current environmental roadmap NeoTerra (including the regional climate strategy) appears to express connections to international action (Nouvelle-Aquitaine, 2019a). It seems to imply a vision of paradiplomacy as a channel to externally address climate issues, but not necessarily as a means to locally improve climate actions and policies. An observation consistent with Nouvelle-Aquitaine's more "additional" approach to paradiplomacy identified earlier.

Drawing on these observations, we can state that Nouvelle-Aquitaine doesn't seem to build its roadmap on an integrative framing of climate change. Although climate action seems indeed mainstreamed into numerous objectives, it is done so in addition to economic and social aspects, implying its framing as a parallel and not necessarily interlinked issue. This is corroborated by the way human development and solidarity-related objectives are stated in an additional and seemingly disconnected manner to climate aspects throughout the external action roadmap - an apparent disconnection transpiring from separately framed objectives or themes as illustrated by action 4 ("*reinforced attention for all cooperation will be given to : the development of exchanges related to the environment <u>and climatic issues</u> ; economic development and employment*") and action 5 ("*contribute to collective international action […] particularly on the themes of governance and local democracy, economic development, training, environment <u>and climate</u>*")(Nouvelle-Aquitaine, 2019b). Therefore, if Nouvelle-Aquitaine seems to follow a less mitigation-centered approach to climate action in its external policy as opposed to Oslo (adaptation being explicitly mentioned in action n°2 of Nouvelle-

Aquitaine's roadmap), both cases seem to share an understanding of climate issues as additional to and not explicitly integrated with sustainable development (at least in their official and politically validated documentation ; we will see later that some informants' personal understanding may differ).

Once again, such a disaggregated approach to climate change, inconsistent with the integrated frame of CRD, imposes to look at how human development is in parallel addressed by the region's global policy. It is notably interesting to note that as preamble to its first objective, the external action roadmap states that "*Regions have an essential role to play in the development of international relations. They contribute through their action to social and economic development globally. Their role is also fundamental in the contribution to the development of the poorest countries.*" (Nouvelle-Aquitaine, 2019b). Practically, this role appears clearly within the roadmap through the specific actions of decentralized cooperations (action 4), emergency humanitarian aid (action 8), and "International Solidarity and Citizenship Education" (action 12).

To conclude, Nouvelle-Aquitaine seems to present a situation quite comparable to Oslo, officially connecting its paradiplomacy to both climate change and human development, albeit in a seemingly disjointed manner. We can note how the region seems less explicitly focused than Oslo on mitigation measures, clearly mentioning climate adaptation in its roadmap. But the major difference between the two cases may reside in the very direct actions undertaken by the region with regard to development cooperation and the social dimension of sustainable development, addressed mainly through its decentralized cooperation – an approach absent from the city's activities.

This comparison based on the strategic orientations officially framing the paradiplomacy of Oslo and Nouvelle-Aquitaine allows to start identifying key characteristics and differences between the two cases. It also draws the first connections between their climate and paradiplomatic discourses and strategies. But the disintegrated approach they both adopt to address climate change and human development makes the mobilization of a precise lens even more relevant for a thorough exploration. We will therefore take our analysis one step further, and look at more technical details and actual paradiplomatic actions through the eight dimensions of our Climate Resilient Development's framing.

2. Looking through the surface – searching for the deep markers of CRD

With eight markers and two very rich paradiplomatic approaches as depicted in chapter IV, the present section (as well as the entire research in all realism) will not be able to render an exhaustive vision of all ways key markers of Climate Resilient Development and its Pathways are addressed by the two cases. As we have highlighted, numerous bilateral partnerships, memberships of multilateral networks and even indirect actions through national structures and the funding of local associations represent a diversity that cannot be fully explored in the present thesis. Nevertheless, the collected data does provide enough visibility to observe the general integration of each marker, and synthesize the resulting findings – direct answers to our sub-research question n°2 - in two figures adapted from our analysis framework (Figure 10, p46).

It is to be stressed that the following figures illustrate findings based on necessarily partial information, originating from qualitative interviews with a limited and non-representative sample of individuals, and are therefore not to be considered as an assessment valid for all paradiplomatic activities nor public policies of Oslo and Nouvelle-Aquitaine.

This disclaimer set, we can dive into the final steps of our exploration - the sixth and seventh to be precise, and our endeavor's ultimate layer of analysis.

a. CRD markers in Oslo's paradiplomacy

As a general observation building on our analysis of documentation and informants' input, we can state that the different markers of CRD appear to be addressed unevenly throughout Oslo's paradiplomatic activities. To illustrate this unevenness, each numerated marker from Figure 10 (p46) has been represented in Figure 14 following three tiers of visible "presence" among the city's paradiplomacy, illustrating when a marker is observed as "preponderant", "present", or "less present", relatively to other markers - therefore remaining a purely qualitative illustration, and not a quantification of the markers' presence on an absolute scale.

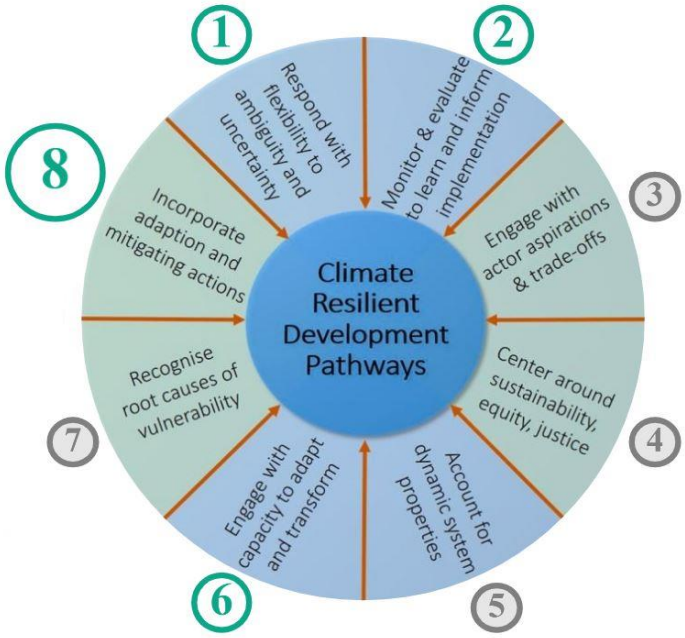


Figure 14: Presence of CRD markers in Oslo's paradiplomacy

Visual representation of CRD markers in figure 14:

X = Preponderant X = Present x = Less present

Observation for Oslo n°1: A strongly incorporated standard climate action.

The first element that arises from our analysis is the preponderant place of adaptation and mitigation in Oslo's paradiplomatic approach - marker 8, corresponding to a standard framing of climate action (as defined in section II.1.b). To cite key elements from the interviews, our informant from the city of Oslo notably stated: "*we are actively contributing to reduce emissions in other cities. So, when we are explaining how we became the EV*[43] *capital of the world, we don't do this to brag or to say: "We are so great". We do it because we want other cities to adopt as fast as possible Oslo's experiences and policies, so that we*

[43] EV standing for Electric Vehicles.

can see more reduction in emissions in other cities also". And as expressed further in the interview: "*we have seen that other cities are very much interested in the pioneering work done in the city of Oslo in climate budgeting, so we have started a pilot in the C40 network*" (NLG1). Bilateral and multilateral cooperation through transnational networking appear therefore as central means to spread low-emission solutions in an exemplary position taken by Oslo. This position was confirmed by an informant from KS, stating how "*Oslo recently was a green capital a few years ago, and they started a lot of cooperations, and really had like a very proactive attitude to spread what they're doing, and connect to other cities*" (NLP1). These quotes highlight the centrality of emissions reduction in Oslo's paradiplomatic engagements, as most of the city's actions involve the search and spread of low emission solutions and the promotion of climate budgeting. This tends to confirm the focus on mitigation measures identified throughout the city's official policy, and the lesser presence of adaptation measures in both policies and activities.

While such an explicit focus on climate mitigation demonstrates the proactivity of Oslo's global involvement, the adopted approach tends to confirm the general "inwardness" of the city's paradiplomacy, identified in the precedent section. As expressed by our informant from the city's International Office: "*if we are to reach our climate goals, we have to push for other cities internationally to adopt the solutions that we have made in the city of Oslo*" (NLG1). Such statement highlights how the reduction of emissions from other cities is framed as beneficial for Oslo itself. Additionally, our informant stated: "*So, if we see in Oslo that transport is making up for, I don't know, 15-20% of our emissions, well how are we going to cut the emissions in transport sectors? Well, we have to look how other cities are doing*." (NLG1). There is therefore a clear desire to benefit from other cities' experiences to inspire and complement Oslo's own approach. Its climate-oriented paradiplomacy appears therefore essentially aimed towards internal objectives - of a reduced climate threat in general, pushing Oslo to take a frontrunner position, and of the improvement of its own policies efficiency through the experience of other cities across the globe.

To summarize, our observations resonate with Oslo's paradiplomatic objectives of improving its own situation and capacities. It does so by looking at other cities' experiences (through bilateral and multilateral connections), and by spreading mitigation solutions through advocacy (as exemplified by its participation to global summits such as COP26) and exemplarity (as illustrated by its proactivity on climate budgeting tools within the C40 network). It indeed shows a preponderant incorporation of climate mitigation and adaptation (although less obviously for the latter) into Oslo's paradiplomacy, leading us to characterize the 8th marker of our figure as the most visibly addressed.

Observation for Oslo n°2: Three averagely present markers related to the City's organizational capacities.

Among the seven other markers of CRD, if no other appears predominant, three specific markers were identified as "present" through the interviews. Elements related to flexible responses to uncertainty (marker 1), monitoring and evaluation (2), and engagement with adaptive capacity (6) appeared notably through the example of experience sharing on flooding management. Quoting our informant from Oslo: "*We see that there will be a lot of*

extreme weather in the years to come, so we have to sort of increase our capacity, and understanding, and actions. Well, it will be that we are increasing or giving priority to engage in working groups in C40 on these issues, or working on Eurocities on issues related to flooding for instance. So that's the way international cooperation sort of helps." (NLG1). Transnational networks are therefore clearly cited as means to improve the understanding and responsive capacity of the municipal institution to potential extreme climate events. Beyond the role of such formal collaborations, another interesting example of swift response in trouble times and reaction capacity was also provided by our informant, relating to less formal types of global involvement: "*Now with Ukraine, you see local governments in Norway, they are sort of hands on to the refugees coming in Norway. They have to be prepared, to have a system to take care of the refugees. And you see the Governing Mayor of Oslo, he's in the newspaper every day, and referring to talks with the Ukrainian Ambassador on what Oslo as a city is doing to support Ukraine*". And pursuing on the subject, further in the same interview with informant NLG1: "*We have seen during the pandemic, and also related to Ukraine and on the political level, the governing Mayor had a lot of meetings on Zoom or Teams with his colleagues in Nordic capitals".* These examples denote the role of global city-to-city communication in times of crisis, and how for the case of Oslo such swift response and adaptation relied on paradiplomatic activities.

Although clearly identifiable, the less explicit mention of these three markers throughout the interviews (as opposed to the marker of more standard climate action) led to categorize these three markers as present, albeit not visibly preponderant. And to push the analysis a bit further, looking at the characteristics of these three specific markers, we can note how they relate to the ability of the municipal institution to respond (marker 1), learn (2) and adapt (6), and seem therefore linked to organizational capacities of the city, that appear to be reinforced (or are at least aimed at being reinforced) through paradiplomacy.

Observation for Oslo n°3: The lesser presence of four socially inclined markers.

For the last four markers, our analysis shows limited presence among Oslo's paradiplomacy, either as unrelatable or too indirectly linked to informants' answers and documentation. We can notably highlight how social-related aspects were described as dependent on political considerations, and not as core elements infusing Oslo's international cooperation. Citing our informant from the international office: "*it's very much a political issue, and you can see that different political parties have different approaches to social justice*" (NLG1). It doesn't imply that social inequalities are absent from the city's paradiplomacy, but it does mean that it is less consistently addressed and more subject to political debates happening outside the sector of international cooperation. In addition to the absence of clear markers impacting Oslo's internal social dynamics through paradiplomacy, the decision to stop direct development cooperation confirms the non-priority of working at a global scale for better inclusion (marker 3), equity (4), consideration of social externalities (5) and contextual vulnerabilities (7). The focus of Oslo's paradiplomacy being on improving its local policies and services, global social justice is logically observed as secondary, although admittedly not totally absent. As stated by our informant: "*we definitely engage with cities in the global South, but it's more through the network, not a bilateral thing*" (NLG1). Therefore,

markers related to inclusion, participation and actors' tradeoffs (marker 3), along with attention to equity and social justice (4) and to the root causes of vulnerability (7) are considered as seldomly or indirectly present within Oslo's paradiplomacy, according to our data. It is also identified as such for marker 5, as the considerations to cross-scale dynamics of reciprocity were more expressed in relation to environmental externalities (and therefore more to climate mitigation) than to social externalities. This justifies our interpretation of four markers among eight as less evidently present within our data, and therefore considered as less directly addressed through Oslo's paradiplomacy.

As a concluding remark on Oslo's integration of CRD within its paradiplomacy, we can underscore how all markers can be connected to paradiplomatic activities, albeit very unevenly. We can state how the brief discourse analysis performed in the precedent section on the city's official strategy is corroborated by the content analysis of the interviews. The focus of Oslo appears very much to be towards improving the mitigation of its emissions and helping other cities to do the same – a focus on the biophysical aspects of the climate crisis. The secondary integration of social considerations previously highlighted seems consistent with this observation, and indicates a moderate contribution to the social justice aspect of CRD by Oslo's paradiplomacy, compared to its substantial contribution to climate mitigation.

b. CRD markers in Nouvelle-Aquitaine's paradiplomacy

Following the same analysis pattern of the eight markers' relative "presence" among the collected data from Nouvelle-Aquitaine, we reach the results illustrated in Figure 15. There appears to be some unevenness in the way all CRD markers are visible through the region's paradiplomacy, with two characterizable tiers among all markers – from "preponderant" to simply "present". The following explanations will present the findings in detail and describe how such characterization was reached.

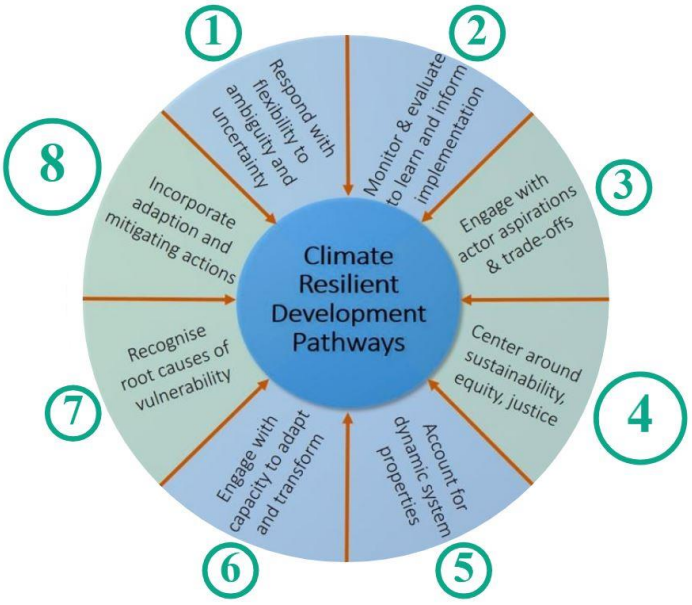


Figure 15: Presence of CRD markers in Nouvelle-Aquitaine's paradiplomacy

Visual representation of CRD markers in figure 15:

X = Preponderant x = Present

Observation for Nouvelle-Aquitaine n°1: the strong although unequal presence of standard climate action.

The incorporation of adaptation and mitigating actions is visible in different areas of Nouvelle-Aquitaine's paradiplomacy. It's engagement in the Under2 Coalition[44] embodies how the Region's efforts in GHG emissions reduction connects to transnational networking. Cross-border relations were also highlighted as means for climate action and mentioned by our informants from the Direction of Cooperation when stating: "*Territorial management and climate issues (and here we have a lot of things to share on climate in transborder cooperation), it doesn't stop at the Pyrenees*[45]." (FLG1). By "*a lot of things to share*", our informant referred to the actions undertaken by the Working Community of the Pyrenees (CTP), a cross-border organization Nouvelle-Aquitaine is a part of, that has identified the "*Protection of the environment and adaptation to climate change*" as first axis of intervention in its 2018-2024 strategy (CTP, 2019). Within the same area of multilateral cross-bordering, our informant also mentioned the Atlantic Arc Commission from the Conference of Peripheral Maritime Regions (CPMR) when asked about Nouvelle-Aquitaine's networks. "*I think in particular of the association of the regions of the Atlantic Arc for example, that gathers all these regions… and there, the climate issues, the future of the Atlantic Ocean, maritime transport, etc… things of this nature are very prevalent.*" (FLG1). Looking closer, the CPMR indeed created a Task Force on climate issues in 2016, with the explicit mission stated as follows:

"*The Task Force's areas of action shall focus on:*

- *issues related to "mitigating" the causes of climate change*
- *issues related to the "adaptation" of these territories to the foreseeable effects of climate change."*

(CPMR, 2016)

Looking at other forms of paradiplomacy, our informant from the region coordinating the decentralized cooperation with a Vietnamese province stated how in this program "*The question of climate change is really present. Agrisud*[46] *has been integrated to the project because of climate change and to actually work with the populations, so they do not endure all its economic consequences*" (FLG5). Adaptation measures were therefore primarily mentioned, illustrating their incorporation into this development-inclined decentralized cooperation program, along - interestingly - little to no mention of mitigation measures.

Along the observable preponderance of adaptation measures, an important nuance appeared throughout the interviews. It was indeed stated by another informant from the region when asked about climate action, how "*it is not really in our objectives, even if we sometimes do have actions on it. Through the external action of collectivities, it is the case; through*

[44] The Under2 Coalition is a global network of states and regional governments focused on emissions reduction. https://www.theclimategroup.org/under2-coalition

[45] The Pyrenees are a mountain range geographically parting France and Spain – therefore separating Nouvelle-Aquitaine from its Spanish neighbors, the Communities of Aragon, Navarre and the Basque Country.

[46] Agrisud International is a French NGO based in Nouvelle-Aquitaine, specialized in agroecology and rural entrepreneurship, partnering with Nouvelle-Aquitaine in several of its development cooperation programs. https://www.agrisud.org/web/en

decentralized cooperation, a bit less." (FLG3). This distinction made by our informant highlighted how the issue of climate change is variously addressed by the region through its different types of paradiplomacy. Relating to the French distinction between decentralized cooperation (understood as formalized partnership between subnational governments) and the more general external action of territorial collectivities (encompassing all types of global activities, from formal multilateralism to informal advocacy and networking)(CNCD, 2017), our informant expressed how climate change is more directly addressed through the latter. Further explanations allowed to confirm how climate "*is not targeted as such today in our programs. It is one of our long-term objectives, but we do not work specifically on resilience to climate change through specific actions. We are more applying principles that will lead there, like agroecology, and governance also. But on Madagascar, we don't have a specific program related to that.*" (FLG3). This distinction was furthermore implied by another informant from the region, when declaring about the prevalence of climate action through the Atlantic Arc: "*here, we are indeed in an international dimension, but we are not really in a decentralized cooperation logic"* (FLG1).

We can therefore build upon the distinction made by our informants to state how the incorporation of adaptation and mitigating actions (marker 8) is clearly identifiable throughout the global involvement of Nouvelle-Aquitaine. But looking a little closer, its presence appears uneven within the different types of paradiplomatic activities the region engages in – decentralized cooperation being a sector where such incorporation seems less formally expressed than within cross-bordering. Furthermore, it is interesting to note how adaptation to climate change seemed more prevalent in the interviews than mitigation measures.

On that note, a complementary observation emerged from the interview with a local partner of Nouvelle-Aquitaine in its decentralized cooperation with a region of Madagascar. Our informant from the NGO Agrisud stated how "*the demand [from Nouvelle-Aquitaine] is really on professionalization, and the continuity of our farmer-trainer system. But there is no expectation regarding climate change."* (FLP1). This statement correlates with the precedent quote from informant FLG3, describing how no action was explicitly aimed at climate change, but how actions targeting farmers were built on climate-aware principles, like agroecology. And it is interesting to note that, if Nouvelle-Aquitaine's "*demand*" for these actions is focused on the professionalization of farmers (therefore with a primarily social objective), the partnered NGO appears to answer to the demand through actions denoting a strong climate-sensitivity. As expressed by our informant from Agrisud: "*Our actions have the objectives to adapt agriculture to climate change, and also to mitigate climate change; we really are on the two aspects. […] We know that agroecology, and that putting back organic matter – carbon – in the soils, it is recognized as the "4 per 1000 initiative"*[47]*. And if we increase by 4‰ the organic matter in every soil of the planet, we solve the issue of climate change*" (FLP1). Therefore, if Nouvelle-Aquitaine's decentralized cooperation wasn't expressed as primarily engaged in climate adaptation and mitigation, actions undertaken by local partners within decentralized cooperation programs still could (and do in the case of

[47] The international "4 per 1000" initiative focuses on the organic matter concentration in farmed soil, to sustainably combine carbon sequestration and food security. https://4p1000.org/?lang=en

Agrisud) have explicit focus on climate change. Such observation once again highlights the depth of complexity in the ramifications connecting the different types of paradiplomacy to climate action, and to CRD more broadly. It indeed implies how through mechanisms of co-benefits, actions framed as socially beneficial by Nouvelle-Aquitaine can be environmentally and climatically beneficial, even when not directly framed and promoted as such.

To conclude, if our first observation on Nouvelle-Aquitaine's paradiplomacy regarding CRD stresses the very visible presence of standard climate action (leading to consider marker 8 as preponderant), our exploration also sheds an even brighter light upon the complexity and multidimensional nature of paradiplomacy in practice. Through the actions of one type of paradiplomacy (decentralized cooperation), the region can indeed almost involuntarily touch a key dimension of CRD, while very openly addressing the same dimension through a separate type of action. While certainly complicating the endeavor we are engaging in, we can also recognize how such complexity in practice mirrors paradiplomacy's already explored complexity in theory.

Observation for Nouvelle-Aquitaine n°2: A preponderant engagement with social justice (mostly through decentralized cooperation)

While actions towards climate adaptation and mitigation were identified as less present in decentralized cooperation and more in other external actions of the region, the opposite pattern appeared for a second strongly visible marker of CRD in Nouvelle-Aquitaine's paradiplomacy: the centrality of sustainability, equity and justice (marker 4). As expressed by our informants from the region: "*The international dimension of decentralized cooperations towards developing countries has as primary objective to reach the populations that are the most in need. It is not to sound more generous than we would like, but we have an ambition, that is to reach a population among the most distressed, whether it is through the trainings we do for young people seeking employment in Senegal, our actions with Malagasy farmers in need of training, whether we reach for disorganized Senegalese goat farmers who need higher income…*(FLG1) *[a second informant adding:] Ethnic minorities in Vietnam. […] This dimension of social justice, I want to say it is the silver line of our cooperations in these countries* (FLG2)". Such a strong statement actually correlates with the social-centered inclination of decentralized cooperation highlighted through our first observation, and does indicate the preponderance of equity and justice in this aspect of Nouvelle-Aquitaine's paradiplomacy.

Although such focus towards social justice was (logically) stated as essential for solidarity-based cooperations targeting developing countries, informants highlighted how it was less present – although not totally absent – from other forms of cooperation. "*If we talk about European cooperation, we talk about Romania where we try to address issues of education and health, but it is also to support things that are beneficial to the population… so it is very difficult to categorize, but I would say that it [social justice] is a dimension that is not necessarily very present in North-North cooperations, but it is almost central in "South" cooperations.*" (FLG1). Such centrality, with regard to Nouvelle-Aquitaine's numerous partnerships, leads to characterize marker 4 as strongly present within the region's

paradiplomacy. And we can emphasize how, as for marker 8, it is unevenly the case throughout the different types of the region's global involvement.

Observation for Nouvelle-Aquitaine n°3: average presence of all 6 remaining markers

As stated in this section's introduction, our analysis led to identify only two tiers of presence for the eight markers of CRD in the case of Nouvelle-Aquitaine. Indeed, beyond the two predominant markers related to standard climate action and social justice, the six remaining markers could all be characterized as present, being averagely identifiable within the region's actions through our informant's inputs.

While it wasn't pointed as predominant through the interviews, mentions of the Atlantic Arc and the Community of the Pyrenees allowed to identify the direct contribution of multilateral cross-bordering to an institutionalized monitoring and evaluation system. The Community of the Pyrenees is indeed particularly engaged in an observatory of climate change[48], serving as a knowledge platform monitoring the evolution of environmental parameters throughout the mountain range, and informing policy and decision making of Nouvelle-Aquitaine and its six other members (CTP, 2019) – a visible presence of marker 2, directly linked to cross-bordering.

Looking at marker 6, the engagement with adaptive capacity appeared at different levels in our data: through the general statement of our informant from the region about the "*several things we can do at the local level to encourage adaptation*" (FLG1), and through the concurring example of farmers professionalization in Vietnam to reinforce their capacities of adaptation to new climate conditions in high altitude agriculture. "*We have seen extremely cold winters like never before in 2016 and 2022. And 2016 made us say: well, now we need to work differently on the agricultural side, particularly with populations struck by the complete loss of their crops. The cardamom was completely frozen, and it takes three years to grow back. But then, cardamom was their bank, it has a very strong value, that's how you make a living and for some people, that was 100% of their revenue. So, what do you do? How do you replace? That's where we brought Agrisud*" (FLG5).

Still linked to the adaptive capacity marker, Nouvelle-Aquitaine appeared to engage in the reinforcement of partnered institutions alongside the abovementioned support to farmers. When describing decentralized cooperation, our informant from the region expressed the objective "*that local authorities take advantage of it, that they develop, that they consolidate*" (FLG1) indicating Nouvelle-Aquitaine's intention to support the institutional capacities of partnered subnational governments.

While such reinforced capacities could also be linked to the ability to respond with flexibility and swiftness to uncertainty (marker 1), an even more eloquent example of swift reaction was provided by another informant from the region. "*We have a partnership with Hubei, whose capital city is Wuhan. The decentralized cooperation has allowed to organize very direct exchanges with doctors from our 3 hospitals – Bordeaux, Limoges, Poitiers, and even a network of urban doctors, etc… to exchange with doctors from Wuhan's hospital on*

[48] The Pyrenees Climate Change Observatory (OPCC) is a cross-border initiative of the Working Community of the Pyrenees, aimed at monitoring climate change in the mountain range of the Pyrenees. https://opcc-ctp.org/en/contenido/presentation-opcc

the disease[49] *in its beginning. […] I'm not saying it has revolutionized anything, but at the time it has given our doctors the possibility to acquire some knowledge, have a direct exchange with Chinese doctors who were facing these difficulties before them, and get their feedback.*" (FLG2). This example highlights how the global connections of the region rapidly opened for experience sharing when confronted to an unforeseen - and unprecedented - situation. And taking some perspective on the 3 markers mentioned, we can state (like we did for Oslo) how they can generally relate to organizational capacities of the regional institution itself: abilities to respond (marker 1), learn (2) and adapt (6), which indicates for Nouvelle-Aquitaine a similar outcome of capacity reinforcement (and/or reinforcement of its partners) through its paradiplomacy.

The three remaining markers, generally more related to societal aspects, could also be identified in various actions of the region. The involvement of actors and consideration to their various aspirations and interests (marker 3) transpired from our informants' answers, notably on the case of the decentralized cooperation in Madagascar: "*How we decide collectively of the commons and resources, it is also through the participation of all actors. So it is also this dimension of strengthening local democracy that is in our cooperation through the PAGLI*[50] *and IWRM*[51]" (FLG3).

Still connected to the inclusion and participation marker, another example by agents of the region involved in decentralized cooperation in Vietnam also related very much to marker 7, and the consideration to discriminations and contextual vulnerabilities. "*We are in a country [Vietnam] that is completely centralized, with deconcentration and not decentralization, and we do not provide support there you see, with the political regime we have. So, these values… But we still have an impact actually. We have made the first meetings with participative features, some of the first meetings where you had women and ethnic minorities discussing with their Province President. That was never seen before*". (FLG5).

Although such acknowledgement of pre-existing vulnerabilities appeared within the region's "North-South" cooperations, reaching "*territories that are already disfavored by many other factors*" (FLG2), another given example highlighted how it is not exclusively the case. "*We [Nouvelle-Aquitaine] have a project in Quebec on the care of the elderly […] There are risks inherent to this population, and with climate change, regarding heat waves that are more frequent, we see that living conditions of elderly people in nursing homes, the way they are taken care of… it is all the more complicated if there is a heat wave or a health crisis as we had with COVID. In fact, we see how these moments of crisis reveal to the public the disfunctions, the inequalities that ultimately preexisted*" (FLG2).

Finally, about cross-scale considerations and dynamic system properties (marker 5), it was emphasized by our informant coordinating the cooperation program in Madagascar how

[49] Wuhan was in early 2020 the epicenter of the Covid-19 outbreak – the disease mentioned by the informant.

[50] PAGLI stands for *Programme d'Appui à la Gouvernance Local en Itasy* (Support Program to Local Governance in Itasy), a pluriannual project held within the decentralized cooperation between Nouvelle-Aquitaine and the Itasy region in Madagascar, involving 15 Malagasy municipalities. https://www.nouvelle-aquitaine.fr/actualites/cooperation-avec-la-region-malgache-ditasy-deux-nouveaux-projets#titre_h2_3347

[51] IWRM stands for Integrated Water Resources Management (*GIRE* in French). This approach is mobilized through a pluriannual program aiming to sustainably manage the Itasy lake, in the eponymous region. https://www.pseau.org/outils/ouvrages/oieau_breves_decembre_2018_projet_d_appui_a_la_gire_lac_itasy_2018.pdf

"*as we are involving all actors, we necessarily take into account the systemic dynamics, as it means that we have a vision with multiple eyes that allows to see a little bit everywhere, and to touch all scales*" (FLG3). Furthermore, the same informant stated about such decentralized cooperation how "*it allows also to sensitize the people in Nouvelle-Aquitaine - the Citizens - to what happens elsewhere in the World, and to sensitize when possible to actions of international solidarity. Well, feedbacks are more or less positive, but at least when we talk about it, it allows to say that it exists, that there are issues also in other countries, which opens up in terms of reciprocity"*. Such explicit attention to the reciprocal connections between local and global scales confirms the consideration given to dynamic system properties within Nouvelle-Aquitaine's paradiplomacy - and even channeled through its paradiplomacy, with actions of "International Solidarity and Citizenship Education". Although clearly relating to global interconnexions and therefore to marker 5, we can note how the considerations highlighted through the interviews appeared directed towards social externalities, with no specific mention of environmental and climatic externalities. It somewhat strengthens the prevalence of the social dimension within Nouvelle-Aquitaine's paradiplomacy. A pattern actually visible through the presence and overlaps of these three final markers – 3, 5 and 7 - mainly appearing through the region's decentralized cooperation.

As a concluding remark, we can underscore the observable presence of all constituent markers of our CRD framework within Nouvelle-Aquitaine's paradiplomacy, with no marker appearing too indirectly or too slightly addressed. It provides a relatively balanced image when looking at Figure 15 (p68). However, our closer exploration allows to stress how the different types of paradiplomatic activities the region is engaged in have very different aims and outcomes, and connect to each marker in uneven ways. Social-sensitive elements such as equity and justice, contextual vulnerabilities and participation appear predominantly and very outwardly through decentralized cooperation (notably with subnational governments in developing countries). On the other hand, standard climate action appears unequally integrated, with limited explicit appearance in global decentralized cooperation, but more presence in other forms of external action – transnational networking, cross-bordering and European cooperation notably. This observation correlates with Nouvelle-Aquitaine's general framing of climate change identified earlier, seemingly decoupling human development to the biophysical aspects of the climate crisis. We can therefore observe how through the diversity of its paradiplomatic approaches and activities, the region appears to compensate a generally disintegrated approach to CRD.

Having performed the final exploration of our data, we now have all the necessary elements for a side-by-side comparison of Oslo and Nouvelle-Aquitaine, and the formulation of clear elements of answers to all our research questions.

VI. From comparison to conclusion: discussing the observed contributions of paradiplomacy to Climate Resilient Development

Oslo and Nouvelle-Aquitaine are two particular cases among hundreds of thousands of subnational governments worldwide. Many of our observations are specific to these two

cases; however, they still represent two concrete approaches of paradiplomacy, that can inform on its general potential regarding CRD. Moreover, comparing how contrasting paradiplomatic approaches potentially shape different climate action can help further identify factors impacting how CRD is addressed – granting additional elements of answers for our third and final sub-research question. Therefore, by combining and elaborating on our case-specific observations, this final section will aim to present a set of findings, synthesized into direct elements of answers to all of our questions, and to our original inquiry: the potential contributions of paradiplomacy to CRD.

1. Comparative observations and implications for CRD and paradiplomacy theory

Before looking at our two cases side by side, it is important to stress how this comparative approach is aimed at highlighting patterns and linkages between paradiplomatic practices and contributions to different dimensions of CRD. It is by no mean a comparative assessment of who does "best" between the two cases, and should not be used to reach such conclusion.

Mobilizing Figure 14 (p65) and Figure 15 (p68), we can propose an additional illustration (Figure 16) facilitating the comparison between Oslo and Nouvelle-Aquitaine, and leading us to our final observations. Combined with the findings of our paradiplomacy analysis in section IV, we can ultimately connect the observed differences and similarities with more precise elements of paradiplomacy and CRD theories.

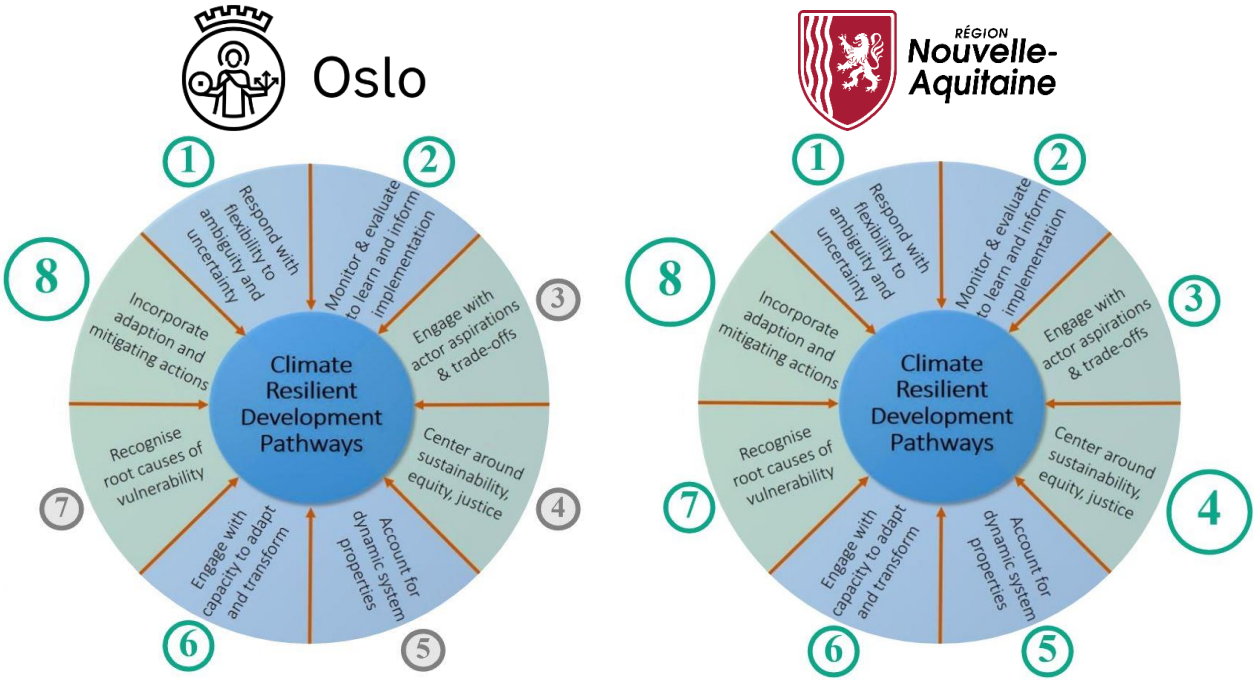


Figure 16: Side-by-side comparative presence of CRD markers in Oslo and Nouvelle-Aquitaine paradiplomacy

Visual representation of CRD markers in figure 16:

Comparative observation n°1: the contrasted presence of CRD markers between the two cases

Although now obvious, this observation has important implications. The presence pattern of CRD markers appears very distinct between the two cases, indicating a dissimilar and case-specific contribution to the different dimensions of climate resilient development. As both cases identify local political will as the main driver of their paradiplomacy, and engage in external activities on very different nation-specific legal grounds, this observation confirms a context-dependent "bottom-up" form of foreign relations, consistent with the theoretical endogeneity of paradiplomatic approaches. It allows to affirm that Oslo and Nouvelle-Aquitaine are, in their own particular and contextual ways, participating in a polycentric form of global climate governance, out of the centralized, vertical and nation-led governance, and of the market-based privatized governance.

Comparative observation n°2: the apparent role of paradiplomacy types in differentiated contributions to CRD

One clear difference between Oslo and Nouvelle-Aquitaine paradiplomacy relates to socially-inclined markers (notably markers 3, 4 and 7). They were characterized as (very) present for the region, though it appears to be mostly because of a strong engagement in solidarity-driven decentralized cooperation - a type of paradiplomatic activities the city of Oslo does not directly engage in anymore. We can also note how fewer distinctions seem to emanate from transnational networking, "North-North" cooperations, or even from the cross-bordering activities exclusively performed by Nouvelle-Aquitaine. These types of paradiplomacy all appear to center around standard climate action and the improvement of institutional capacities for the two cases. This observation confirms the profound multidimensionality of paradiplomacy as a phenomenon, and the very different approaches adopted through each type of paradiplomatic activity.

Comparative observation n°3: the direct contribution of paradiplomacy to standard climate action

For the two cases, mitigation and adaptation to climate change (marker 8) appear preponderant, and connect to all forms of paradiplomatic engagement, although more or less directly as seen with Nouvelle-Aquitaine's solidarity-driven decentralized cooperation. This observation indicates an apparent and diversified contribution of our cases' paradiplomacy to the climate action dimension of CRD. It appears yet again specific to each case's context, as Oslo's paradiplomacy seems to put the emphasis on climate mitigation, and Nouvelle-

Aquitaine expresses more connections to climate adaptation. But for both cases, climate action appears mostly disconnected from other dimensions of sustainable development (notably from its social dimension), resonating once again with a mostly biophysical framing of the climate crisis - a common point between Oslo and Nouvelle-Aquitaine.

Comparative observation n°4: the seemingly outward framing of social justice and other human development dimensions of CRD

While Nouvelle-Aquitaine appears to strongly engage with social justice through its paradiplomacy, it seems to be mostly in an outward approach, with the aim to contribute to development objectives of partnered territories through decentralized cooperation. For actions answering to local objectives within their own territory (therefore linked to an inward approach), both Oslo and Nouvelle-Aquitaine very seldomly express the questions of inclusion, inequalities and social justice. For our two cases, paradiplomacy appears therefore as a means to globally contribute to human development *elsewhere* (as clearly done by Nouvelle-Aquitaine and formerly done by Oslo), but not evidently as a means to improve local dynamics of equitable and just human development.

Comparative observation n°5: the potential centrality of paradiplomacy legislation in shaping global engagements, and therefore contributions to CRD

While no certain assertion can stem from such a limited number of cases, a prudent hypothesis can be made from the correlation observed between Oslo's inward approach built on an absence of legal ground to outwardly engage, and Nouvelle-Aquitaine's more diverse both inward and outward approach built on explicit legality, recognition and central support. The explicit legality of paradiplomacy logically seems to coincide with a wider diversity of global engagement, going beyond the local interests of a subnational government.

All in all, these five observations lead to affirm that Oslo and Nouvelle-Aquitaine are addressing the different dimensions of a climate resilient development through their paradiplomacy, in a vast diversity of case-specific differentiated ways consistent with their contextual situations and dynamics - notably political, legal and geographical.

2. From case specific observations to (prudent) general assertions – and new grounds to explore?

The exploratory approach of this research has allowed to unveil a large variety of ways the two studied subnational governments address dimensions of CRD through their paradiplomacy. Beyond the many case-specific (though very not exhaustive) examples presented through the thesis, we can draw our concluding observations directly answering our three sub-research questions, and opening new ones that would appear relevant for further explorations.

Sub-research question 1: *How is climate action framed within subnational government's paradiplomacy? How integrative? How does it impact action implementation?*

- For the case of our two studied subnational governments, a biophysical framing of the climate crisis seems to correlate (and hypothetically result) with disintegrated approaches to climate and human development issues. Indeed, if all dimensions of CRD are (variably) addressed through Oslo and Nouvelle-Aquitaine's paradiplomacy, it appears to be in a disconnected manner, consistently with the fragmented and CO_2-centered framing of their official policies. Addressing the climate crisis in its integrated dimension, aware of the interconnexions between social and environmental dynamics, may first require to be framed as such, before being addressed as such. Which leads to the issue of *climate literacy* - or perhaps more precisely of *integrated climate action literacy* - and to the acknowledgement by subnational governments of more recent and holistic approaches to climate action, inclusive of social dimensions, and sensitive to local dynamics of knowledge, power and equity. As these elements relate directly to the "*dimensions that enable actions towards higher climate resilient development*" as depicted in Figure 2 (p10), they are already made accessible through the Summary addressed to policy makers by the IPCC (IPCC, 2022a). Therefore, while more research appears relevant to elaborate on the applicability of integrated frames such as CRD at the local scale, direct actions of information, clarification and advocacy towards subnational governments - notably with existing tools from the IPCC - may already enable their practical appropriation, and concrete implementation through local policy.

Sub-research question 2: *How is CRD precisely addressed through paradiplomatic activities? How integrative? How are each of its dimensions addressed?*

- Paradiplomacy can contribute to all eight dimensions of a climate resilient development - from standard climate action to more human-centered and social-justice inclined measures. These contributions can be of very diverse nature, potentially specific to each subnational governments, and possibly endogenous and locally-designed as observed for Oslo and Nouvelle-Aquitaine. But for the two cases of this study, these dimensions appeared mostly addressed in independent and therefore non-integrative ways.

  While such independent connections between paradiplomacy and each of CRD dimensions have now been observed, assessing the adequacy, quality and relevance of subnational approaches can be a next step to engage on, notably regarding more integrated approaches to climate action. Which resonates with the call from paradiplomacy scholars for less descriptive and more analytical studies to be carried on (Dickson, 2014).

Sub-research question 3: *How are paradiplomacy settings impacting climate action and CRD?*

- The different geographical, political and legal contexts of subnational governments across the globe impact the way climate and human development issues are addressed,

underlining the context-sensitivity of paradiplomacy. Searching for patterns of similarities and distinctions between more cases from various contexts (other continents, authoritarian countries, developing economies, federal systems…) could expand our understanding on the key criteria resulting in more - or less - CRD-related actions through paradiplomacy.

- Different types of paradiplomacy can address each dimension of CRD in different ways, which stresses the need to further characterize and understand the phenomenon of paradiplomacy in its complexity. Our exploration notably highlights the relevance of a precise typology of paradiplomatic engagements to support deeper analysis. Such typology could further expand on precedent propositions from scholars of the field - notably from Kuznetsov (2014) and Tavares (2016), who proposed typologies based on Duchacek's initial work (1990), although not providing enough precision to be operationalizable in this study.

From our analysis, we can identify a few specific types of paradiplomatic engagements that each have different implications regarding CRD:

- Territorial internationalization (funding local initiatives from civil society, as done by both Oslo and Nouvelle-Aquitaine)
- Global advocacy (going to world summits, like Oslo did for COP 26)
- Transnational networking (being in a global network like C40 Cities for Oslo)
- Cross-border bilateralism (having relations with a direct neighbor, like Nouvelle-Aquitaine with Navarre)
- Cross-border multilateralism (being in an organization with neighbors, like Nouvelle-Aquitaine and the Euroregion or the CTP)
- Global analogous bilateralism (cultural & economic cooperations – reciprocal, like Nouvelle-Aquitaine and Quebec)
- Global solidarity bilateralism (development cooperations – aid based, like Nouvelle-Aquitaine and Vietnam)
- Global mutualized solidarity (indirect action through networks / organizations, like Oslo does through KS)

Further research on the drivers, outcomes, and potentialities of each type of paradiplomacy, notably regarding CRD, would be a relevant addition to the current (and presently scarce) academic literature.

- Precise and open legal grounds for paradiplomacy seem to relate to wider global engagements, possibly unlocking direct contributions to more dimensions of CRD. Further research seems necessary to consolidate this hypothesis and observe the role of other factors such as historical and cultural aspects, local dynamics of democracy, funding opportunities for paradiplomatic activities, and central foreign policies and incentives (a few non-exhaustive ideas of potential factors).

These concluding observations are of course stated - and must therefore be read - with all due precautions, in full awareness of the previously stated limitations of this now

completed study. They are nonetheless written in the hope to provide possibly useful indications for future explorations, and to humbly participate in rising the visibility of what is now at least confirmed as a subject worthy of attention: the role of paradiplomacy in engaging and pursuing a climate resilient development.

Before reaching our conclusion, I must emphasize how, while reaching the end of this research process, the feeling of having barely scratched the surface of a really vast and promising field takes hold. The questions that were raised are meant to encourage further studies to dig into the multidimensional phenomenon of paradiplomacy, and its now clearer potential regarding integrated approaches to development, cooperation-based relations across borders and cultures, and the emergence of an alternatively governed polycentric world nurturing trust, diversity and reciprocity.

VII. Conclusion

This thesis started with a critical reminder: the global situation is dire. Negative dynamics of human development, rising inequalities and multiplied threats notably due to human-induced climate change, all stress the importance to act - and to act now. But answering to such synergy of challenges imposes to embrace the complexity of the task, and design matching complex solutions. And the current models built on national leadership, in a mixture of centralized governance and market fundamentalism, appear to be at best inadequate, and at worst the principal drivers of our current struggles.

In this crisis of global development, alternative models and approaches are needed. Polycentricity, as a self-organizing and cooperation-based model of governance, can represent such an alternative, already visibly emerging at various levels as highlighted through the work of Elinor Ostrom (2010b). Powered by decentralization and principles of subsidiarity, subnational governments are embodiments of such non-central scales, that have shown in the last decades a capacity to connect, organize, and act beyond the boundaries of their own territories. The emergence of this phenomenon known as paradiplomacy led us to wonder how such subnational actors could contribute to more complex and integrated forms of development. As bearers of a locally-anchored approach, non-central governments could indeed bring a (welcome) contrast to a so far nation-led and growth-based mainstream global development model (Haslam et al., 2017). A possibility deemed worthy of investigation, that sparked the realization of this study.

The first section of this thesis therefore led us into the ever-evolving world of theories and frameworks, from the understanding of our current climate crisis to the recent answers highlighted by the IPCC: Climate Resilient Development, a framing to integrate climate action with a socially-just sustainable development. A rapid look at the failing global regime of climate governance pushed us to look at polycentricity - as a less vertical type of multi-level governance - and dive into the subnational scale and its global contribution through paradiplomacy.

As a second step, the clear fragmentation and incompleteness of paradiplomatic studies led us to present a research method combining pre-existing knowledge with cross-cultural aspects within a comparative case-study design. The French region of Nouvelle-Aquitaine and the Norwegian city of Oslo provided contrasted situations and approaches to global involvement, that through a combined use of recent frameworks provided by the literature, offered concrete insights on how paradiplomatic activities could address essential dimensions of a climate resilient development.

The third part of this research built on documentation, interviews of paradiplomats and partners, and a methodical qualitative analysis, allowed to profile the global involvements of our two cases, elaborating on the paradiplomacy framework built by Alexander Kuznetsov (2014). It helped unveil very diverse ways subnational governments could engage with key dimensions of CRD - all eight of its core dimensions as framed by Saskia Werners et al. (2021) being addressed through our two cases' paradiplomacy. It also appeared that engagements were strongly varying from one case to another, with insightful difference and similarities highlighted through a comparative approach.

The conclusions we can draw from this exploration of two specific cases provide direct elements of response to our research question. To the inquiry over the contributions of paradiplomacy to climate resilient development, we can formulate how a multitude of locally-designed and context-specific actions appears to be pursued by subnational governments to independently address key dimensions of CRD through their global involvement - from organizational adaptive capacity to social inclusiveness, environmental monitoring, pre-existing vulnerabilities, and more classical climate action of mitigation and adaptation.

We could notably observe how Oslo's paradiplomacy focuses very much on climate mitigation, with a more relative - though still present - treatment of organizational and social dimensions of adaptability, responsiveness, and equity. Nouvelle-Aquitaine on the other hand showcased a more balanced approach thanks to more diverse and legally recognized engagements in outcome-specialized types of paradiplomacy - more socially-inclined for "North-South" decentralized cooperation; more adaptation and organizationally-inclined for cross-border relations. Such contrasts relate heavily to key dimensions of paradiplomacy (Kuznetsov, 2014), as geography (defining scales, borders and neighbors), legal grounds (setting what is possible and encouraged) and political will (as expressed through decentralized democracy) appeared to largely contribute in shaping the two cases' climate and human development approaches. Which leads us to state how different approaches to paradiplomacy clearly influence how CRD is addressed in practice.

While an important variability therefore stems from the endogenous nature of these paradiplomatic endeavors, it also appeared for both studied cases to come with a lack of integration and interconnection between social and environmental aspects. Therefore, if the potential contribution of paradiplomacy to CRD as a whole appears as a reality - as both Oslo and Nouvelle-Aquitaine showed a capacity to touch all of its key dimensions - it can be so in a very uneven and fragmented manner, showcasing some markers of a disintegrated and biophysical understanding of the climate crisis (Leichenko & O'Brien, 2019). Such observation leads to formulate how the way paradiplomacy addresses CRD is ultimately shaped by climate discourses and framings from the subnational government. While it allows such discourses and framings to be expressed on the global arena, no indication of

paradiplomacy shaping in return subnational political views and framings could be observed in the study. In other words, paradiplomacy may be a political tool to bring the subnational agenda on the global stage - interestingly adding a more local and cross-scalar dimension to global governance - but openness to the reciprocal influence of paradiplomatic activities over discourses and policies appears limited - at least in our two cases.

Beyond the evident need for more research on the subject, these observations also stress the need for stronger and harmonized communication between the academic world and practitioners. Multidimensional concepts such as paradiplomacy and CRD can embody more integrated approaches emerging from academia, and could possibly help answer the call for less fragmented approaches to development in practice (UNDP, 2022). But through this research, both concepts have proven seldomly known and understood by practitioners, and therefore seldomly integrated into policies and actions. While unsurprising considering the novelty and ongoing maturation of CRD and paradiplomacy concepts, such lack of visibility and operationalization outside of academia may represent their most important limitation.

As methodological tools, both the conceptualization of CRDP from Saskia Werners et al. (2021) and the explanatory framework from Alexander Kuznetsov (2014) have shown their usefulness and adaptability, notably in the interdisciplinary setting of this study. Some aspects were identified as further improvable, such as a more precise typology of paradiplomatic activities, and openness to non-regional scales of governments in the case of the explanatory framework. The significant distinction observed between approaches of climate adaptation and climate mitigation could also advocate for their separate consideration within an adjusted conceptualization of CRDP, as they currently are embedded into *climate action*. But beyond these points, the two frameworks have shown their soundness and relevance as theoretical foundations - moreover when anchored to emerging dynamics of polycentric governance - and have confirmed their utility and adaptability for further explorations of the two concepts, of their real-world applications, and of their multiple connections – explorations that can only be fiercely encouraged.

This study, as an inquiry into the contributions of paradiplomacy to integrated approaches of climate-aware development, may indeed be the first step of many. The observed capacity of paradiplomacy to address questions of inclusion and social justice illustrates how subnational approaches can harness the potential of their proximity to local dynamics. And the cross-scale dimension they embody, notably through paradiplomacy and the connection of local and global actors and dynamics, does coincide with the need to mobilize diverse "*arenas of engagement*" at different scales, in order to advance towards climate resilient development (Figure 2, p10). While the reality of such connections has been highlighted through this study, so has the existence of some limitations - from the weight of a legal ground to the impact of fragmented and simplified framings, or simply the lack of visibility that paradiplomacy has, both as a phenomenon and as an academic field. These limitations lead to wonder what true potential lies within paradiplomacy - as a link between the local and the global performed by formal actors of governance - regarding the transformation of our global governance system, and of our dominant development model. While this study hopefully represents a useful first step of exploration, its conclusion does emphasize the relevance of connecting paradiplomacy to CRD. But it moreover pushes for further exploration of paradiplomacy's transformative potential, and of the ways such

potential could actually be unlocked. While paradiplomacy appears to have its place in a polycentrically governed climate resilient world as the global connection of subnational scale, the question of how it could actively contribute to transform towards such world is now open.

As a final and more general word, I can personally stress how this thesis concludes a loop of curiosities, needs, and surprises. Curiosities coming from the academic exploration of a former profession, and the connections with newly acquired knowledge and skills along a rich Master program. Needs arising from a better and interdisciplinary understanding of the (dire) global situation, and the stronger-than-ever feeling of urge to find concrete ways to address synergetic crises. And surprises that came from the discovery of the rich and world-spread academic field of paradiplomacy, and its now evident connection to polycentric dynamics - as self-organizing, context-anchored and trust-based types of governance. An answer potentially complex enough to respect and nurture the tremendous diversity of situations, histories and cultures our planet holds. And, to end on a note of hope, maybe an answer complex enough to help humanity actually engage on pathways of sustainable, climate resilient, and socially just development.

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IX. APPENDIX

Appendix Summary

1. Overview of the localized academic use of ‘paradiplomacy’ worldwide
2. Examples of the global use of the term paradiplomacy
3. Paradiplo-ID canvas
4. List of documents used as primary sources for document analysis
5. Anonymized list of informants
6. Interview guide

1. Overview of the localized academic use of 'paradiplomacy' worldwide

LOCALIZED PARADIPLOMACY LITERATURE - SAMPLE

- Country-scale analysis
- Subnational-scale analysis

Adhering to and using "Paradiplomacy"
Mentioning but not using "Paradiplomacy", using alternative
Not mentioning "Paradiplomacy", using alternative
Mentioning but disagreeing with "Paradiplomacy", using alternative

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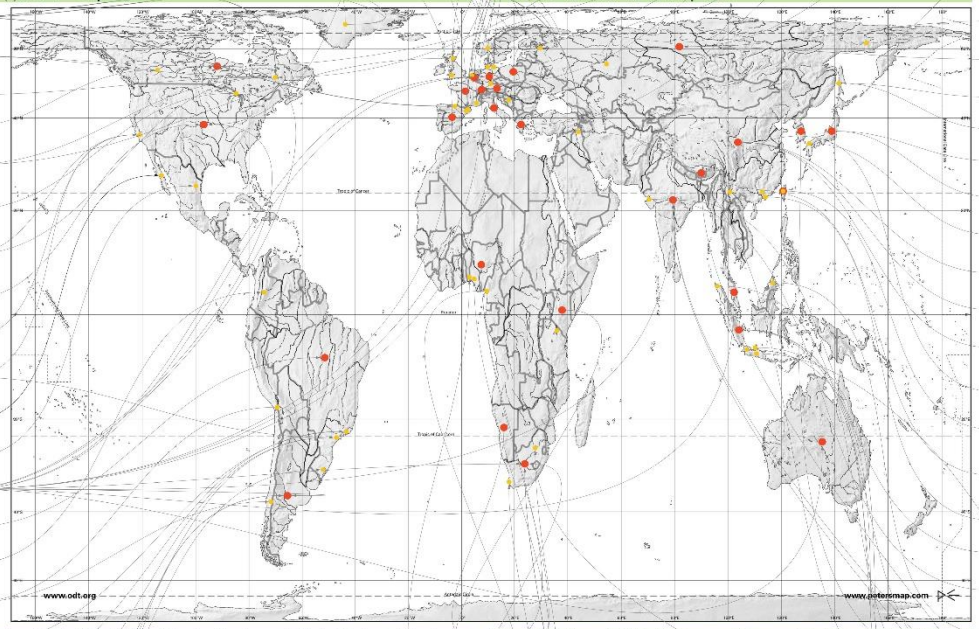

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World map in Peters Projection: ©Akademische Verlagsanstalt

2. Examples of the global use of the term paradiplomacy

The following list is not exhaustive, and only represents a sample of the different use of the term paradiplomacy in different languages across the world. Complementary to the map in Appendix 1, this list illustrates the widespread phenomenon of paradiplomatic studies, not only on the area it covers as subject of studies, but also in the countries of origin of scholars and the studies themselves.

Language	Term	Reference
English	paradiplomacy	Duchacek, I. D. (1984). The International Dimension of Subnational Self-Government. *CrossRef Listing of Deleted DOIs*, 14 (4). doi: 10.2307/3330188. Cornago, N. (2018). Paradiplomacy and Protodiplomacy. In Martel, G. (ed.) vol. 3 *The Encyclopedia of Diplomacy*, pp. 1-8: John Wiley & Sons.
French	paradiplomatie	Philippart, É. (2005). Gouvernance à niveaux multiples et relations extérieures : le développement de la « para-diplomatie » et la nouvelle donne belge (Note). *Études internationales*, 29 (3): 631-646. doi: 10.7202/703921ar. Viltard, Y. (2008). Conceptualiser la « diplomatie des villes ». *Revue française de science politique*, 58 (3). doi: 10.3917/rfsp.583.0511.
Spanish	paradiplomacia	Alvarez, M., Luna Pont, M. & Oddone, N. (eds). (2019). *América Latina global: estudios regionales sobre para-diplomacia*. First Edition ed. Sáenz Peña: Universidad Nacional de Tres de Febrero. González Uresti, L. A. (2016). La paradiplomacia de Nuevo León: un estudio de caso. *Desafios*, 28 (1): 203-247. doi: 10.12804/desafios28.1.2016.05. Oddone, N., Rubiolo, F. & Calvento, M. (2020). Paradiplomacia y relaciones internacionales: de la práctica hacia su curricularización en Argentina. *Oasis* (32): 63-84. doi: 10.18601/16577558.n32.06. Velázquez Flores, R. & León Valdez, E. A. (2016). Los pilares de las relaciones internacionales de los gobiernos locales de México: El caso de Baja California. *Desafios*, 28 (1): 165-202. doi: 10.12804/desafios28.1.2016.04.
German	paradiplomatie	Bosold, D. (2004). *Transatlantische Paradiplomatie. Die Kooperation kanadischer Provinzen und deutscher Bundeslander*: Universitätsbibliothek Marburg. Koschkar, M. (2018). *Subnationale Außenbeziehungen: Mecklenburg-Vorpommern und Schleswig-Holstein im Ostseeraum*. First ed. Wiesbaden: Springer VS.
Portuguese	paradiplomacia	Gonçalves, F. C. N. I. & Oliveira, P. C. d. (2017). A política externa (sub)nacional: um estudo da paradiplomacia do Estado do Rio de Janeiro e de sua relação com o governo federal. *Conjuntura Global*, 6 (1). doi: 10.5380/cg.v6i1.51753. Salomón, M. & Nunes, C. (2007). A ação externa dos governos subnacionais no Brasil: os casos do Rio Grande do Sul e de Porto Alegre. Um estudo comparativo de dois tipos de atores mistos. *Contexto Internacional*, 29 (1): 99-147. doi: 10.1590/s0102-85292007000100004.
Russian	парадипломатии	Bakov, A. & Kerimov, A. (2018). Regions in International Activity: Factors of Development of the Paradiplomacy. *Discourse-P*, 32-33 (3-4): 164-172. doi: 10.17506/dipi.2018.33.4.164172. Novopriyezzhy, A. O. & Parfyonova, O. A. (2020). “Paradiplomacy” and International Environmental Policy. *Общество: политика, экономика право* (12): 40-44. doi: 10.24158/pep.2020.12.5.
Chinese	平行外交	- According to Dominik Mierzejewski (2018) Mierzejewski, D. (2018). Channelling Foreign Policy Through Local Activities in China: City of Guangzhou Case Study. In Pietrasiak, M., Bywalec, G., Kamiński, T., Mierzejewski, D. & Słowikowski, M. (eds) *Paradiplomacy in Asia. Case studies of China, India and Russia*, pp. 93-135. Łódź: Łódź University Press.
Indonesian	paradiplomasi	Mukti, T. A. (2020). *Politik paradiplomasi dan isu Kedaulatan di Indonesia*. Yogyakarta: The Phinisi Press.

Albanese	paradiplomacia	Dauti, R. (2021). *Paradiplomacia në Ballkanin Perëndimor me theks të veçantë në periudhën pas vitit 1991*. Shkup: Universiteti i Evropës Juglindore.
Polish	paradyplomacji	Pyka, A. (2020). City diplomacy in the light of „LGBT-free" zones in Poland. *Alcumena Interdisciplinary Journal*, 4: 5-13. doi: 10.34813/psc.4.2020.1. Rydzewska, A. (2020). External activity of sub-state actors: the example of Catalonia. *Alcumena Interdisciplinary Journal*, 4: 15-29. doi: 10.34813/psc.4.2020.2.

Example of existing paradiplomacy networks (not exhaustive):

http://africanparadiplomacynetwork.org/

http://repit.site/ (Red de Expertos sobre Paradiplomacia e Internacionalización Territorial)

PARADIPLO-ID

LOGO

NAME

LOCAL MAP

World Map

Country Map

General Information

Country
Scale
Size
Population

National
Scale 1 nb
Scale 2 nb
Local

Governance	Main Competencies
Administration	Subdivision

Additional Data

HDI:
GDP:
GDP/cap:
eqCO_2:
eqCO_2/cap(nat):

Paradiplomatic Framing

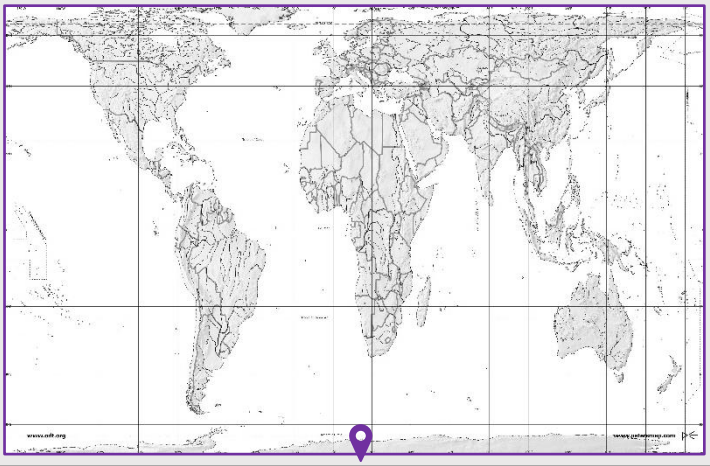
Locally and nationally termed "---"

Institutionalization	Strategic orientation	Main causes
		Main motives

Legal ground:	Local & national networking
Central Government attitude:	

Paradiplomatic Activities

Bilateral engagements



Multilateral engagements

Consequences for national foreign policy	Notable sustainability actions & results

The colored codes correspond to typologies proposed in the paradiplomacy explanatory framework developed by Alexander S. Kuznetsov (2014)

SOURCES

Paradiplomacy Framework: *Kuznetsov, A. S. (2014). Theory and Practice of Paradiplomacy: Subnational governments in international affairs. Routledge New Diplomacy Studies. Oxon & New York: Routledge.*

Data sources:

Credits - Globe map (--) - Country map (--) – Local map: (--) - World map in Peters Projection: ©Akademische Verlagsanstalt

4. List of documents used as primary sources for document analysis

1	CNCD. (2017). *Diplomatie et Territoires - Pour une action extérieure démultipliée*. Paris, France: Direction de l'information légale et administrative.
2	CTP. (2019). *Stratégie Pyrénéenne 2018 - 2024*: Consorcio de la Communauté de Travail des Pyrénées.
3	KS. (2020). *Local government reforms in Norway*. Available at: https://www.ks.no/om-ks/ks-in-english/local-government-reforms-in-norway/ (accessed: 23/04/2022).
4	Norwegian Ministry of Local Government and Modernisation. (2013). *Local Government in Norway*.
5	Nouvelle-Aquitaine. (2018). *Atlas régional 2018 - Nouvelle-Aquitaine*. In Pôle Aménagement du Territoire et Action Régionale de la Nouvelle-Aquitaine (ed.). Bordeaux, France.
6	Nouvelle-Aquitaine. (2019). *Feuille de route « NeoTerra » pour accélérer et accompagner la transition environnementale en Nouvelle-Aquitaine*. Bordeaux, France.
7	Nouvelle-Aquitaine. (2019). *Feuille de route Actions Extérieures de la Région Nouvelle-Aquitaine*. Pôle Europe & International. Bordeaux, France.
8	Nouvelle-Aquitaine. (2021). *Rapport de présentation Budget Primitif 2021*. Finances. Bordeaux, France: Nouvelle-Aquitaine.
9	Nouvelle-Aquitaine. (2022). *Organigramme Région Nouvelle-Aquitaine*. RNA_2022_OrganigrammeRegionNA_Avril2022.pdf (ed.). nouvelle-aquitaine.fr.
10	Oslo. (2009). *Strategi for Oslo Kommunes Internasjonale Arbeid*. City Council. Oslo, Norway.
11	Oslo. (2010). *Strategi for Oslo Kommunes Internasjonale Arbeid - Byrådssak 143 av 02.07.2009*. City Council. Oslo, Norway.
12	Oslo. (2019). *Platform for City Government cooperation between the Labour Party, the Green Party and the Socialist Left Party in Oslo 2019-2023*. City Government. Oslo, Norway.
13	Oslo. (2020). *Climate Strategy for Oslo towards 2030 - Short version*. Oslo, Norway: City of Oslo.
14	Oslo. (2022). *Organizational Chart City of Oslo*. Organisasjonskart_eng_oslokommune.pdf (ed.). oslo.kommune.no.

5. Anonymized list of informants

INFORMANT CODE	STRUCTURE	ROLE
FLG1	Nouvelle-Aquitaine	Director
FLG2	Nouvelle-Aquitaine	Chieffe of office
FLG3	Nouvelle-Aquitaine	Mission responsible
FLG4	Nouvelle-Aquitaine	Local coordinator (Madagascar)
FLG5	Nouvelle-Aquitaine	Mission responsible
FLG6	Nouvelle-Aquitaine	Local coordinator (Vietnam)
FCE1	French Embassy in Madagascar	Diplomat
FLP1	Partnered NGO	Local coordinator (Madagascar)
FCE2	Global Consulting Agency	Public Policy Evaluator
NLG1	Oslo	Deputy Head of office
NLP1	KS	Advisor
NLP2	KS	Head of department
NCE1	NORAD	Assistant Director
NCE2	Norwegian Ministry of Foreign Affairs	Director

Total number of informants: 14 (6 women, 8 men)

Code signification:
FCE: French Central Expert
FLG: French Local Government
FLP: French Local Partner
NCE: Norwegian Central Expert
NLG: Norwegian Local Government
NLP: Norwegian Local Partner

6. Interview guides

a. Sample 1 interview guide

Sample 1: local governments agents and representatives involved in global activities

SECTION	Content	Time
Introduction	Personal Presentation Project presentation Interview objectives Interview practicalities (+ open for any question) (ask for recording consent)	5 to 10 minutes
Section I : Explanatory elements of paradiplomatic activities (structured)	1 What are the causes of the blooming of their paradiplomatic activities? 2 What are the legal grounds of paradiplomacy in the country? 3 What is their predominant motive to be involved in international affairs? 4 How has paradiplomacy been institutionalized? 5 What is the attitude of the central government towards their paradiplomatic activities? 6 What are the consequences of paradiplomacy for the development of the whole nation? 7 How have internal politics influenced their paradiplomatic activities? 8 How have the civil society and economic actors of the territory influenced paradiplomacy? 9 How and why have paradiplomatic policies evolved through time? 10 What are the specificities of paradiplomacy compared to other international relations? 11 What are the values underlying paradiplomatic activities?	20 to 30 minutes
Section II : Practical elements of paradiplomatic activities (Semi-structured)	Summary of main paradiplomatic policies, strategies and actions. Depending on pre-acquired documentation, specific complementary questions on : - Chronology and mapping - Budgets - Quantitative and qualitative results	5 to 10 minutes
Section III : Practical elements of climate action (Semi-structured)	Summary of paradiplomatic policies, strategies and actions specific to climate change : - Locally - Globally Depending on pre-acquired documentation, specific complementary questions on : - Chronology and mapping - Budgets - Quantitative and qualitative results	5 to 10 minutes
Section IV : Climate change and sustainable adaptation framing and approach (Semi-structured)	How they define and approach : (definitions and frames they officially endorse/use if possible) - Sustainable Development - Adaptation - Mitigation - Resilience - Vulnerability	15 to 30 minutes long
Conclusion	If relevant : opinion on the term «paradiplomacy» and its alternatives Open for their questions or need of precisions Final comment and info on the research next steps Thankful comment and closure	5 to 15 minutes

b. Sample 2 interview guide

Sample 2: agents and representatives of organizations partnered with local governments in global activities

SECTION	Content	Time
Introduction	Personal Presentation, Project presentation, Interview objectives Interview practicalities (+ open for any question) (ask for recording consent)	5 to 10 minutes
Section I : Practical elements of the partnership with the local government	Presentation of main collaborations with the local government. Main reasons behind the partnership. Depending on pre-acquired documentation, specific complementary questions on : - Chronology and mapping - Budgets - Quantitative, qualitative and normative results	10 to 20 minutes
Section II : Practical elements specific to climate action	Presentation of main collaborations on climate change with the local government. Depending on pre-acquired documentation, specific complementary questions on : - Chronology and mapping - Budgets - Quantitative, qualitative and normative results	10 to 20 minutes
Section III : Specificities of collaborating with local governments	How are local actors involved/influencing in the local government's international actions? What are the specificities of partnering with local governments compared to other partners? - Strengths - Weaknesses - Perspectives - Recommendations	10 to 20 minutes
Conclusion	If relevant : opinion on the term «paradiplomacy» and its alternatives Open for their questions or need of precisions Final comment and info on the research next steps Thankful comment and closure	5 to 15 minutes

c. Sample 3 interview guide

Sample 3: National agents, representatives and experts linked to the global activities of local governments

SECTION	Content	Time
Introduction	Personal Presentation, Project presentation, Interview objectives Interview practicalities (+ open for any question) (ask for recording consent)	5 to 10 minutes
Section I : General views on paradiplomacy	Main definition and term used, history, understanding and opinion on the significance (quantitative and qualitative) of the phenomenon. - What are the specificities of paradiplomacy compared to other international relations? - What are the values underlying paradiplomatic activities? - What is the role of local governments with global issues like climate change ?	15 to 30 minutes
Section II : Explanatory elements of paradiplomatic activities of the case	1 What are the causes of the blooming of paradiplomatic activities of the case? 2 What are the legal grounds of paradiplomacy in the country? 3 What are the predominant motives of the local government to be involved in international affairs? 4 What is the attitude of the central government towards its paradiplomatic activities? 5 What are the consequences of paradiplomacy for the development of the whole nation? 6 How and why have paradiplomatic policies of the case evolved through time?	15 to 35 minutes
Conclusion	If relevant : opinion on the term «paradiplomacy» and its alternatives Open for their questions or need of precisions Final comment and info on the research next steps Thankful comment and closure	5 to 15 minutes

Norges miljø- og biovitenskapelige universitet
Noregs miljø- og biovitskapelege universitet
Norwegian University of Life Sciences

Postboks 5003
NO-1432 Ås
Norway