

Alma Mater Studiorum - Università di Bologna

DOTTORATO DI RICERCA IN  
PHD IN MANAGEMENT

Ciclo 32

**Settore Concorsuale:** 13/B1 - ECONOMIA AZIENDALE

**Settore Scientifico Disciplinare:** SECS-P/07 - ECONOMIA AZIENDALE

ENVIRONMENTAL ACCOUNTING AND REPORTING IN ITALIAN  
LOCAL GOVERNMENTS: A LONGITUDINAL ANALYSIS OF  
CHANGES IN CONTEXT, CONTENT AND PROCESS

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**Esame finale anno 2021**



## Acknowledgements

To the University of Bologna for providing me with a grant to conduct research to attain the PhD in management and for all support in funding conferences and seminars. I would also like to thank the admission board that selected me for this programme and the PhD committee, particularly Prof. Chiara Orsingher.

To Prof. Rebecca Levy Orelli, Prof. Luca Zan, and Prof. Matteo Mura, for your availability, for reading multiple versions of my work, and for valuable suggestions.

To various professors who provided me with helpful feedback in earlier versions of the PhD project: Prof. James Guthrie, Prof. Walter Vermeulen, Prof. Joachim H. Spangenberg, Prof. Benedict Sheehy, Prof. John Dumay, Prof. Irvine Lapsley, Prof. Jesse Dillard, and Prof. Ericka Costa.

To Prof. Tomás B. Ramos and Prof. Rodrigo Lozano, for the inspirational discussions, multiple readings of my work, and precious support across the years beyond the PhD programme duration. I would also like to thank Prof. Sandra Caeiro, Prof. Kim Ceulemans, and Prof. Jean Hugé for supporting my career through numerous gestures.

To Prof. Isabel Brusca and Prof. Enrico Deidda Gagliardo for the positive and constructive feedback provided at the present work's final exam review.

To the interviewees that participated in this study, thank you for your time, for your availability in sharing your knowledge and support on this project. Your commitment and motivation for the common good showed me how so many brilliant people are working in Italian local governments.

To all my colleagues from the Sustainability Assessment & Management group at the Center for Environmental and Sustainability Research at NOVA University Lisbon. Thank you for all the vibrant discussions on various topics and for offering a constructive and positive work environment to exchange ideas and support each other's work.

To my colleagues of the PhD programme and my friends. You are an inspiration. I have been lucky enough to meet fabulous people throughout my life. A special thanks to my friend Alexandra Polido, who was crucial in various moments of this journey. Also, a special thanks to Inês Cosme, Patrícia Tourais, Sara Rebelo, and Andreia Silva.

To my parents. Obrigada por sempre me apoiarem incondicionalmente. Tudo o que vos der em troca nunca igualará aquilo que me oferecem diariamente.

To Joseph, no words can describe your valuable role in this process, from moving to another country with me to your continuous passionate support in every step of the journey. Thank you for the many proof-readings, but most importantly, thank you for your endless optimism and always making everything a lot of fun.

## **Abstract**

Environmental accounting and reporting has been adopted by different organisations worldwide, including public sector organisations. Local governments are among the public sector organisations that have adopted the most environmental accounting and reporting practices. Despite considerable research on 'why' local governments develop these tools and 'what' environmental information is included in formal documents, it is still unclear how contextual factors (including legislation and characteristics of the surrounding area) influence the content of documents and the process that led local governments to adopt, in the majority of cases voluntarily, changes to accounting and reporting practices.

The purpose of this research is to contribute to a better understanding of changes in local governments' accounting and reporting practices. Particularly, 'why', 'what' and 'how' environmental aspects (related to the territory under local governments' jurisdiction, the immediate surrounding area, the organisational performance and externalities caused by their operations) are included in accounting and reporting practices, and the significance of the changes across time.

This research adopts an interpretative approach using two case studies of Italian local governments to conduct a longitudinal analysis of changes. The framework based on the dimensions' context, content and process, suggested by Pettigrew and Whipp, is used to distinguish changes under each dimension and analyse their interconnections. Data is collected through the analysis of official documents and triangulated with semi-structured interviews to key stakeholders in both case studies. Findings are analysed within each case study and in a cross-case analysis.

The legal framework defines the boundaries of the accounting information on the territory under local governments' jurisdiction and their immediate surrounding area. Organisational environmental performance and externalities are excluded from the requirements, which originates a limited representation of reality in terms of environmental aspects. Local governments prioritise their role as 'managers' of the territory and as influencing citizens' behaviour.

The formalism that characterises Italian local governments indicates that what is not mandatory is considered less critical. An interplay between contextual elements, namely the local outer context, political commitment and organisational culture justifies the implementation of changes in addition to what is regulated and implementation of transformational changes.

The cabinet member for the environment as well as international networks act as agents of change. Local governments engage in international networks to gain

access to funding and implement changes, leading to the adoption of the dominant environmental agenda. Key stakeholders, like citizens, are not engaged in the accounting and reporting process. Thus, there is no evidence that the environmental aspects addressed and related changes are in line with stakeholders' needs and expectations, which jeopardises its significance in the creation of value for society.

The thesis portrays how changes across time occur using a variety of official documents that reflect environmental aspects. The information from documents is complemented by interviews. Findings from the current research have implications in other EU member states due to the harmonisation of accounting and reporting practices and the common practice across the EU in using external funding to conceptualise and implement changes. This implies that other local governments could also be representing a limited account related to environmental aspects.

**Keywords:** PSO, Local Governments, Municipalities, Sustainable Development, Environmental accounting and reporting, State of the environment.

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## List of Abbreviations and Acronyms

COFOG	Classification of the Functions of Government
COP	Conference of the Parties (United Nations Framework Convention on Climate Change)
EC	European Commission
EU	European Union
Eurostat	European Statistics Institute
GBS	<i>Gruppo di Studio per il Bilancio Sociale</i>
GHG	Greenhouse gas
GRI	Global Reporting Initiative
ICLEI	International Council for Local Environment Initiatives
ISPRA	<i>Istituto Superiore per la Protezione e la Ricerca Ambientale</i>
IUCN	International Union for Conservation of Nature
NPM	New Public Management
NUTS	Nomenclature of Territorial Units for Statistics
PSO	Public Sector Organisations
PAES	<i>Piano d'Azione per l'Energia Sostenibile</i> (SEAP – Sustainable Energy Action Plan)
SGP	Stability and Growth Pact
SIOPE	<i>Sistema Informativo sulle Operazioni degli Enti Pubblici</i>
UN	United Nations
UN SDG	United Nations' Sustainable Development Goals
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environmental Programme
UNECE	United Nations Economic Commission for Europe
WWF	World Wild Fund for Nature
ZTL	<i>Zona a Traffico Limitato</i> (Restricted Driving Zone)

## **Chapter One: Introduction**

Sustainable Development has been at the forefront of the agenda of international organisations since the end of the 1980s. This concept considers that all activities conducted by individuals and groups have impacts on the environment and in society, for which they should be responsible and accountable. Organisations worldwide started to integrate the concept of sustainable development into their operations and monitor their achievements through sustainability or social and environmental accounting and reporting practices.

Sustainability accounting and reporting represent a tentative of managing 'wicked problems'. 'Wicked problems' are associated with specific characteristics, including the inexistence of a definitive formulation, it is difficult to know when a solution has been reached, and there is no objective solution (Rittel and Webber, 1973). What works for some organisations does not necessarily work for others because each will be associated with specific operations and respective impacts.

Sustainability accounting and reporting has been used to assess the current state of an organisation's progress towards sustainability based on internal performance measurement systems (sustainability accounting) (Hahn and Kühnen, 2013) and to communicate to stakeholders the efforts and progress in the leading sustainability aspects through external information disclosure (sustainability reporting) (Dalal-Clayton and Bass, 2002; Hahn and Kühnen, 2013; Siew, 2015).

Three strands are often considered to divide sustainability accounting and reporting research (Unerman & Chapman, 2014). The first focuses on the relationship between non-financial and financial performance and reporting. The second addresses the impacts caused by the capitalist system and the need to transform it. The third strand relates to engaging with organisations to identify social and environmental risks and opportunities and make changes to minimise the impacts of operations. The present research is focused on the third strand of research, particularly in engaging with Public Sector Organisations (PSO) to understand how, specifically environmental accounting and reporting, is developed. Arguments from the second strand of the literature are also used to analyse the significance of accounting and reporting changes.

A significant amount of research within the public sector falls in third strand of literature. It encompasses, on the one hand, organisational reporting practices and, on the other hand, internal management accounting as a control tool of accounting for sustainability. This topic has been of interest to academics due to the voluntary adoption of accounting and reporting for sustainability by organisations in different parts of the world (Lozano and Huisinigh, 2011) becoming a pertinent topic in business and academia in the 1990s (Hahn and Kühnen, 2013).

The vast majority of research in sustainability accounting and reporting is within the private sector. Less is known concerning how sustainability accounting and reporting is developed in PSO (Maroun and Lodhia, 2018). At the end of the 1990s, PSO were still in the early stages concerning the adoption of sustainability accounting and reporting, e.g., in Canada and Belgium (Devuyst & Hens, 2000). Only in the 2000s did sustainability accounting and reporting start to be adopted by a few PSO. As a result, recent studies show that research on sustainability accounting and reporting in the public sector is still an emerging research agenda (Fusco and Ricci, 2019; Manes-Rossi *et al.*, 2020).

It is essential to understand the phenomenon of sustainability accounting and reporting in PSO's context, as suggested by Grubnic, Thomson, & Georgakopolous (2018, 2015). PSO are significantly responsible for the application of policies and actions related to sustainability (Ball *et al.*, 2014). They also constitute a significant component of economic activities, by creating value for society and being responsible for a large number of a nation's employees which is associated with the consumption of various resources and significant impacts. In Europe, the public sector is responsible for a significant amount of the total workforce and a significant employer of the most highly qualified and educated people (Pollitt, 2003).

PSO are associated with longer lives than private organisations, and their decisions can impact other sectors of activity, including health, safety, education, and security (Bozeman, 2004) by setting social, legal and physical infrastructure where society operates (Gray *et al.*, 2014). PSO characteristics make paramount the study of their, still mostly voluntary, adoption of sustainability accounting and reporting practices. It is now possible to analyse changes to accounting and reporting that have been implemented since the early 2000s.

So far, the small amount of research in sustainability accounting and reporting in the public sector has been focused on higher education institutions and local governments (Manes-Rossi *et al.*, 2020). Local governments have an essential role to play in the adoption of sustainability policies and practices at a local level and to influence citizens and other organisations under their jurisdiction. Most research on local governments has described 'what' local governments report and 'why' they voluntarily develop sustainability accounting and reporting tools, based on institutional theory (e.g., Alcaraz-Quiles *et al.*, 2015; Farneti *et al.*, 2019; Goswami & Lodhia, 2014; Greco *et al.*, 2015; Greco, Sciulli, & D'onza, 2012; Hossain, 2018; Marcuccio & Steccolini, 2005, 2009; Niemann & Hoppe, 2018; Siboni, 2014; B. Williams *et al.*, 2011).

Less is known regarding 'how' sustainability accounting and reporting processes are developed and what are the contextual factors that influence the content of the reports and the change process. According to Jeffrey Unerman & Chapman

(2014), applying the same theories to different data does not significantly contribute to advance evidence towards which more solid policies and practices can be developed. Despite the explanatory potential of using theories to identify sustainability reporting drivers, as conducted in previous studies, the contextual dynamics play an essential role in the process (Manes-Rossi *et al.*, 2020; Qian *et al.*, 2011). Changes in accounting and reporting practices have a political and economic nature (Dillard *et al.*, 2004) which need to be identified to understand 'why' specific change occurs and 'how' it is conceptualised and implemented.

The most recent studies on sustainability accounting and reporting in local governments have pointed out the importance of adopting a longitudinal approach to analyse the content of social and environmental disclosures (Farneti *et al.*, 2019), and identifying elements associated with the context, reporting features, and process characteristics to understand the impact of sustainability reporting (Niemann and Hoppe, 2018).

The purpose of this research is to contribute to a better understanding of changes across time in accounting and reporting practices in local governments. Particularly, 'why', 'what' and 'how' environmental aspects are incorporated in accounting and reporting practices, and the significance of changes across time. The present research is focused on the environmental component of the accounting and reporting in local governments. Environmental aspects refer to information associated with pressures in a variety of environmental areas addressing the territory under local governments' jurisdiction, their immediate surrounding area, organisational performance and externalities caused by their operations. This research adopts an interpretative approach using Italian local governments as case studies to conduct a longitudinal analysis of changes to accounting and reporting practices.

The present research answers the call for critical studies in PSO on the impact of the information disclosed by PSO (Manes-Rossi *et al.*, 2020; Niemann and Hoppe, 2018) and significance of the process (Joseph *et al.*, 2014; Manes-Rossi *et al.*, 2020; Vinnari and Laine, 2013) by using a longitudinal approach to analyse the interconnections across time of the changes. There has been a call for studies on the meaning, quality and accountability in organisational reporting and communication to understand how organisations construct their accounts and their potential consequences (Tregidga *et al.*, 2012).

This research presents a new approach to the study of environmental accounting and reporting by considering official documents that need to be developed by law and, at the same time, documents voluntarily developed that contain environmental-related information. Compulsory documents are usually not considered in sustainability accounting and reporting studies because they are developed to achieve a specific purpose defined in the legislation. In Italian local

governments, official documents regulated by law are mostly used for internal communication and supporting decision-making. These documents can provide valuable information on how local governments conceptualise and implement changes as the public sector in Italy, and similar countries, is characterised by a high formalism and primacy of the law.

Consequently, documents that present different phases of organisational processes, including planning, accounting and reporting, are analysed. Previous studies have stressed that these phases are rarely analysed as dependent organisational practices, which can jeopardise the understating of the entire process (see, e.g., Kaur & Lodhia, 2018; S. Schaltegger, 2012; Stefan Schaltegger & Wagner, 2006).

The present research uses a variety of official documents that include environmental information to analyse their complementary, answering the call for studies in PSO on the role of sustainability disclosures and the relationship between various reporting formats (Fusco and Ricci, 2019) and the assessment of inconsistencies between the information (Manes-Rossi *et al.*, 2020).

The remaining sections of the thesis are organised in the following chapters. Chapter two addresses a literature review. It begins by laying out the background on how environmental aspects started to be considered in organisational reports, particularly in local governments (2.1). Sustainability accounting and reporting practices in PSO are analysed considering research developed on why PSO, particularly local governments, develop voluntarily sustainability accounts and reports (2.2), what information is included in the documents (2.3), and stakeholder engagement (2.4). An international background is pictured to understand the status quo and future developments needed to support the analysis of the significance of changes in accounting and reporting practices (2.5). The research gaps identified in the literature are highlighted at the end of chapter two. Chapter two addresses practices in the local government in particular, but also in other PSO, and private sector organisations when evidence from local governments or other PSO is scarce.

Chapter three is concerned with the main characteristics of the Italian context, in particular, the legal framework applicable to Italian local governments. It starts by describing voluntary initiatives to report environmental aspects (3.1). It also addresses the compulsory regulations aimed at Italian local governments that may include environmental information (3.2).

Chapter four explains the methodology adopted. This chapter details the research questions and research design used to answer them, including the criteria used to select case studies. It also encompasses the research methods used for data collection and analysis.

## CHAPTER ONE: INTRODUCTION

Chapter five presents the findings of the present research. In this chapter, changes are identified and analysed for each dimension related to the context (5.1), content (5.2) and process (5.3) framework. For each dimension, elements of change and their interconnections across time are identified within each case study. At the end of each section (5.1 – 5.3), a cross-case analysis is presented, including an analysis of the significance of the changes. The multiple elements help to explain why local governments incorporate environmental aspects in accounting and reporting practices, what is the content of accounting and reporting practices in local governments related to environmental aspects, and how local governments go about conceptualising and implementing changes towards the incorporation of environmental aspects in accounting and reporting practices.

Chapter six discusses the findings from the case studies with the literature presented in chapter two and three. The analysis encompasses changes in each dimension of the context-content-process framework, the interconnection of changes and their significance.

Chapter seven illustrates the main conclusion relating to the purpose of this research, including contributions, practical implications, limitations and future research directions.

## **Chapter Two: Literature review**

This chapter analyses the literature on sustainability accounting and reporting and how it reflects managerial actions implemented towards sustainability in the public sector context, in particular in local governments. Literature focused on private sector context is also used when scarce evidence is available regarding the public sector, particularly local governments.

The term 'sustainability accounting and reporting' is used in the present research as a collective term to describe forms of disclosure containing environmental information. Among multiple forms of sustainability disclosure are (i) social and environmental reporting; (ii) corporate social responsibility reporting (when including also environmental information); (iii) environmental, social and governance reporting; (iv) integrated reporting; and (v) other forms of non-financial reporting. These documents can disclose information related to social and environmental aspects, as well as economic information. The term 'environmental accounting and reporting' is used in the present research when referring only to environmental information.

Section 2.1 presents background information in order to understand how environmental aspects started to be integrated into accounting and reporting mechanisms in local governments. Section 2.2 illustrates why local governments develop sustainability accounts and reports voluntarily. Section 2.3 portrays the content of the sustainability accounting and reporting adopted voluntarily, including the amount of environmental information in comparison to financial and social aspects, and the use of guidelines, frameworks and standards. Section 2.4 refers to the sustainability accounting and reporting process in particular on elements related to stakeholder engagement and the 'materiality' of the information included in the reports. Section 2.5 analyses the significance of changes in accounting and reporting practices. At the end of section 2.5, the research gaps are summarised, as well as how the present research aims to contribute to the gaps.

### **2.1. Background**

The relationship between societies and business organisations became a primary concern around the middle of the 20<sup>th</sup> century, which resulted from a social awareness of years of industrialisation and consequent environmental impacts in western societies. Exhibit 2.1-1 presents the milestones within Western societies in the evolution of the debate on the environment and sustainability that lead to their inclusion within organisations.



## CHAPTER TWO: LITERATURE REVIEW

*Exhibit 2.1-1. Milestones regarding the evolution of the debate on environment and sustainability in Western organisations.*

Year	Event	Main features
1970	<ul style="list-style-type: none"> <li>USA National Environmental Policy Act</li> <li>USA Environmental Protection Agency</li> </ul>	<ul style="list-style-type: none"> <li>Creation of the first public institution for the protection of the environment.</li> </ul>
1972	<ul style="list-style-type: none"> <li>1<sup>st</sup> Global Environmental Conference on the Human Environment</li> </ul>	<ul style="list-style-type: none"> <li>Stockholm Declaration: Creation of the United Nations Environmental Programme (UNEP).</li> </ul>
1987	<ul style="list-style-type: none"> <li>World Commission on the Environment and Development published '<i>Our common future</i>' (also known as the Brundtland report)</li> </ul>	<ul style="list-style-type: none"> <li>The concept of the Sustainable Development was defined;</li> <li>The UN demanded action from multinational corporations to be responsible for their negative impacts.</li> </ul>
1990	<ul style="list-style-type: none"> <li>United Nations World Congress of Local Governments for Sustainable Future</li> </ul>	<ul style="list-style-type: none"> <li>The International Council for Local Environment Initiatives (ICLEI) was founded. The main goal was to support the implementation of the urban sustainability agenda at the local level.</li> </ul>
1992	<ul style="list-style-type: none"> <li>United Nations Conference on Environment and Development (known as the Earth Summit)</li> </ul>	<ul style="list-style-type: none"> <li>Rio Declaration on Environment and Development;</li> <li>Creation of Agenda 21. It consists of a plan of actions to be implemented at different levels (global, national, local) to address impacts from human activities on the environment;</li> <li>Two multilateral treaties were opened for signature: (i) the United Nations Framework Convention on Climate Change, and (ii) the Convention on Biological Diversity.</li> </ul>
1994	<ul style="list-style-type: none"> <li>European Conference on Sustainable Cities and Towns organised by ICLEI</li> </ul>	<ul style="list-style-type: none"> <li>Aalborg Chapter based on Agenda 21 to commit local governments to urban sustainability initiatives.</li> </ul>
1997	<ul style="list-style-type: none"> <li>Extension of the 1992 United Nations Framework Convention on Climate Change</li> </ul>	<ul style="list-style-type: none"> <li>Creation of an International treaty 'Kyoto Protocol' to reduce greenhouse gas (GHG) emissions.</li> </ul>
1998	<ul style="list-style-type: none"> <li>Aarhus Convention</li> </ul>	<ul style="list-style-type: none"> <li>EU signs the United Nations Economic Commission for Europe (UNECE) Convention on access to information, public participation in decision-making and access to justice in environmental matters.</li> </ul>
2008	<ul style="list-style-type: none"> <li>Creation of the EU Covenant of Mayors</li> </ul>	<ul style="list-style-type: none"> <li>Network to support local governments in achieving the EU climate and energy targets.</li> </ul>
2015	<ul style="list-style-type: none"> <li>United Nations Sustainable Development Summit</li> </ul>	<ul style="list-style-type: none"> <li>Creation of the document 'Transforming our world: the 2030 Agenda for Sustainable Development';</li> <li>Adoption of the UN Sustainable Development Goals by the majority of countries worldwide.</li> </ul>

The end of the Second World War in 1945 offered the means for the first modern multinational companies to emerge, which can define the beginning of the golden age of western capitalism. The environmental impacts of these industries started

to be felt by society in the 50s and 60s. During these decades, national and international organisations started to arrange ways to restrict the impacts of multinational corporations due to the increasing public awareness regarding their negative impacts on the environment and society.

The United States of America (USA) were the biggest supporters of the international environmental treaties and commitments that emerged in the 60s and 70s (Kelemen and Vogel, 2010). The specific notion of environmental assessment (at project level and policy, planning or programme level) emerged when the USA Congress enacted the National Environmental Policy Act in 1970, which was rooted in rational planning theory. At the end of the same year, the USA were responsible for the creation of the first Environmental Protection Agency.

In 1987, the World Commission on the Environment and Development (created in 1983) prepared a report for the United Nations (UN) general assembly based on a 4-year study entitled *Our Common Future*, also known as the Brundtland report. The Brundtland report emerged in a decade of globalisation, liberalisation and privatisation of the public services. The UN tried with this report to control the impacts of multinational corporations (Gray *et al.*, 2014). In the Brundtland Report, sustainable development is defined as follows:

*'Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987, p.16).*

This definition of sustainable development still stands today as the most widely accepted in the political sphere with the quality seal of the UN. However, the notion of limitation of resources concerning future generations has been around for longer, as noted by Baeten (2000). This aspect had already been addressed in the report *World Conservation Strategy* prepared by the International Union for Conservation of Nature (IUCN, 1980) and, even before, during the 18<sup>th</sup> century, in the context of forest management (for details see, e.g., Wiersum, 1995). IUCN's report stated that the economic development needed to consider the limitation of resources and the carrying capacities of ecosystems and 'must take account of the needs of future generations'.

The novelty of the sustainable development concept in the late 80s was that it became central to environmental policies the notion that natural resources needed to be managed in a way that non-renewable resources would have time to re-establish. At the same time, the need to use renewable resources was established. The idea seemed to be that business could continue as usual if considerable cautions were to be implemented. This reflects the subsistence of the economic establishment in Western societies and the political success of the term sustainable development as a way to continue economic growth at the same time of ecological preservation.

In 1992, the UN Conference on Environment and Development (UNCED) created Agenda 21. It consisted of a plan of actions to be implemented at different levels (global, national, local) to address impacts from human activities on the environment. Chapter 28 of Agenda 21 creates a spotlight on the importance of local government initiatives 'as the level of governance closest to the people. They play a vital role in educating, mobilising and responding to the public to promote sustainable development'. One of the results was the creation of a Local Agenda 21 in the Aalborg Conference.

In this context, local governments gained an additional role as 'stewards of the environment' (Ball *et al.*, 2014). It became part of the organisational mission to address environmental, social and sustainability issues (Marcuccio and Steccolini, 2009). Along with creating public value, particularly in co-creation with stakeholders (Deidda Gagliardo, 2007) and considering inter-generational impacts (Montecalvo *et al.*, 2018; Thomson *et al.*, 2018).

In 1994, participants of the European Conference on Sustainable Cities and Towns in Aalborg (Denmark) used the Agenda 21 plan to develop the Aalborg Charter. The Aalborg Charter comprises an urban sustainability initiative that commits local governments to tackle sustainable impacts in the territory managed by them. In the Aalborg Charter, the natural capital (environmental aspects) is considered a 'limiting factor' for economic development, so local governments commit to investing in natural capital as follows:

*'We, cities & towns, understand that the limiting factor for the economic development of our cities and towns has become natural capital, such as atmosphere, soil, water and forests. We must, therefore, invest in this capital' (Aalborg Charter, 1994, p.2).*

The European Conference on Sustainable Cities and Towns was organised by the International Council of Local Environmental Initiatives (ICLEI). It marked the foundation for a series of commitments to achieve environmental goals at a local level.

ICLEI was founded in 1990 at the World Congress of Local Governments for a Sustainable Future at the UN headquarters in New York. It aims to coordinate, align, share knowledge, aggregate and be an instrumental element in the implementation of the urban agenda (Frantzeskaki *et al.*, 2019). According to these authors, ICLEI exercises mainly three roles: (i) knowledge sharing as translator, educator and integrator; (ii) relational as a connector and mediator; and game-changer as a path breaker and co-creator. It works to implement a global environmental and sustainability agenda. Members of this network are considered leaders in adopting sustainability strategies and practices. In Europe, two hundred and fifty-seven (257) local governments located in thirty-three (33) countries are members of this network (ICLEI, 2020).

ICLEI is one of many networks to support urban agents in adopting a common environmental and sustainability agenda. Other examples are Eurocities (founded in 1986), United Cities and Local Governments (founded in 2004, it is currently the most extensive network in terms of members), C40 Cities: Climate Leadership Group (founded in 2005), and URBIS Urban Biosphere Initiative (founded in 2010). ICLEI is the one with the most long-standing operations and operating agent of change (Frantzeskaki *et al.*, 2019).

From the 1990s, the EU started to be a promoter of adopting sustainability-related initiatives, whereas beforehand the USA was the frontrunner. The EU has promoted the adoption of sustainability-related policies in different levels of governance (Siboni and Sangiorgi, 2013). For instance, the EU has drafted recommendations for local governments to promote sustainability policies. Since 2000, it has allocated one-third of the global budget to fund initiatives related to sustainability in member states and local governments, namely through its structure and cohesion, and regional development funds (Sangiorgi *et al.*, 2017). This allows PSO to generate or to be allocated additional funds and adds to the reputation of public managers and politicians. The existence of financial incentives from the EU, and central governments, support local governments adopting environmental initiatives and improve sustainability integration in their budgetary strategy (Gesso, 2020).

Sangiorgi *et al.* (2017) and Mazzara, Sangiorgi, & Siboni (2010) analysed strategic plans adopted voluntarily by Italian local governments, concluding that overall there is low compliance of the EU policies relating to sustainable development. Nevertheless, considerable information is included in a declarative manner (Mazzara *et al.*, 2010). According to Sangiorgi *et al.* (2017), command and control is needed to include sustainable development into Italian local governments' strategic plans. Integrating sustainability into strategic planning could work as a transformative reform in local governments to bring about change (Zeemering, 2018).

Until now, the EU has opted to adopt the role of a facilitator, leaving each member state to decide to which extent incorporate sustainability into governments (Siboni and Sangiorgi, 2013). Nevertheless, the EU develops multiple incentives to influence the adoption of the environmental agenda using collaborations with other networks. The EU Covenant of Mayors<sup>1</sup> is one of the EU initiatives to incentivise local governments to commit to reducing Greenhouse Gas (GHG) emissions and improve climate resilience by adopting a Sustainable Energy and Climate Action Plan. Particularly, since 2015 local governments have committed to reduce GHG emissions more than 40%, increase resilience to the impacts of

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<sup>1</sup> It includes continuous updates such as Mayors Adapt and Covenant of Mayors for Climate and Energy.

climate change, and enhance renewable and affordable energy sources' offered by 2030 (Covenant of Mayors Office, 2020).

By the end of 2015, the majority of countries worldwide agreed about committing to seventeen (17) UN Sustainable Development Goals (UN SDG) and respective targets to decrease economic disparity, environmental degradation and social inequalities by 2030. Even though still displaying the word 'development', these goals are grounded on the 'human survival' instead of 'infinite development' or maintenance of the development.

The UN SDG are aimed at tackling the intertwining nature of sustainability aspects in the growth of business organisations. Organisations have a crucial role to play as they conduct different operations in order to achieve their goals, namely by providing services and goods. Operations are numerous associated with negative externalities that are not accountable by organisations. PSO have a heavy responsibility in the pursuit of UN SDG, due to their role in global economic activities, their responsibility in promoting welfare and equity, as well as to their regulatory power (Bebbington and Unerman, 2018; Farneti *et al.*, 2019; Farneti and Guthrie, 2009).

Local governments are intermediaries to implement international and national goals and visions at the local level (Gustafsson and Mignon, 2020). These authors studied the strategies implemented by three Swedish municipalities, concluding that municipalities mostly participate or create coalitions to translate international or national visions into local actions. Coalitions include the participation in international, national or regional networks to interact with other municipalities and gain, e.g., access to knowledge, resources, and visibility.

As a result of the implementation of the environmental and sustainability priorities, a few local governments adopt sustainability accounting and reporting to assess and monitor the conceptualisation and implementation of changes. However, the development of sustainability accounting and reporting is voluntary in most EU member states for local governments. While mandated reporting serves a socio-political producer oriented process, voluntary report emerges due to a recognition of the need to provide information that is useful for stakeholders (Burritt, 2002).

However, when sustainability reports are published, they are often not as relevant, detailed, rigorous and reliable as financial statements (Gray and Milne, 2002). PSO are unlikely to adopt comprehensive sustainability performance measures while they remain voluntary, and there is no perceived need to be competitive (Adams *et al.*, 2014).

The following section addresses why a few local governments in particular, and other PSO, adopt sustainability accounting and reporting practices voluntarily.

## 2.2. Drivers of sustainability accounting and reporting

The elements of context allow analysing why organisations develop non-financial reporting (Adams, 2002; Lozano, 2015). Contextual elements refer to specific external and internal characteristics of the organisation, including legal, political and cultural aspects. The development of performance management systems needs to be considered with a greater understanding of the outer and inner context of PSO (Bracci *et al.*, 2017). Without a broader theoretical engagement in the social and organisational context, research on the public sector is likely to be misguided (Lodhia *et al.*, 2012).

A variety of theories have been used to explain why private sector organisations engage in voluntary sustainability accounting and reporting processes, such as institutional theory, legitimacy theory and stakeholder theory. The literature from the private sector stresses that organisations disclose environmental information more on their websites when faced with an environmental crisis, and more in annual reports when dealing with a bad environmental-related reputation (de Villiers and van Staden, 2011). Other studies, also related to the private sector, stress that organisations gain legitimacy by articulating their identity to be in line with the specific context.

Organisations change their organisational identity every time the context changes in order to maintain their legitimacy and reflecting changes in the documents (Laine, 2009; Tregidga *et al.*, 2014). The social context, in combination to organisational factors, plays a key role in the decision to adopt sustainability reporting processes as an ‘appropriate’, ‘normal’ activity, ‘the right thing to do’, but also to ‘fit in’ (Bebbington *et al.*, 2009).

Institutional and non-institutional forces drive changes in organisations (Dillard *et al.*, 2004). Organisations can be conceptualised as a combination of interpretative schemes, design archetypes and sub-systems (Laughlin, 1991). According to this author, interpretative schemes can be divided into three levels, being the broader the set of beliefs, values and norms; followed by the mission/purpose of the organisation; and finally, the metarules. The design archetypes can include the organisational structure, decision processes and the communication system. The sub-system is composed of tangible organisational elements such as people, machinery and buildings. The model of organisations, according to Laughlin (1991), is illustrated in exhibit 2.2-1.

*Exhibit 2.2-1. Model of organisations (Laughlin, 1991).*

Interpretative schemes	<ul style="list-style-type: none"> <li>▪ Level 1: Beliefs, values, norms;</li> <li>▪ Level 2: Mission/purpose;</li> <li>▪ Level 3: Metarules.</li> </ul>
Design archetype	<ul style="list-style-type: none"> <li>▪ Organisation structure;</li> <li>▪ Decision processes;</li> <li>▪ Communication system.</li> </ul>

## CHAPTER TWO: LITERATURE REVIEW

Sub-system	▪ Tangible organisational elements (e.g., people, machinery, buildings).
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Laughlin (1991) proposed four models of organisational change, specifically 'rebuttal', 'reorientation', 'colonisation', and 'evolution'. The first two encompass mostly cosmetic changes ('morphostatic' changes), while the remaining address more transformational changes ('morphogenetic' changes). Changes are caused by 'kicks/jolts', which may be in the form of institutional-level pressures (Laughlin, 1991). These are represented in exhibit 2.2-2.

*Exhibit 2.2-2. Model of organisational change and location of changes according to Laughlin (1991).*

Type of change Model of organisational change	<b>Morphostatic</b>		<b>Morphogenetic</b>	
	<b>Rebuttal</b>	<b>Reorientation</b>	<b>Colonisation</b>	<b>Evolution</b>
Where the change occurs	Design archetype: Changes can bounce back when kicks/jolts are not present anymore.	Design type Sub-system	Organisation is forced to change the design archetype, which modify the sub-system and the interpretative schemes.	Organisation chooses to change in the interpretative scheme, which affect the design archetype and the subsystem.

In 'rebuttal' changes, only the design archetypes are modified, but the change may be reverted once the 'kicks/jolts' are not presented. In 'reorientation', both design archetypes and sub-systems change, but the interpretative schemes maintain the same. 'Rebuttal' changes have been identified in previous research on environmental accounting (Gray *et al.*, 1995; Larrinaga-Gonzalez and Bebbington, 2001). These authors discuss how private organisations change their organisational practices, but the *modus operandi* stayed the same.

In 'colonisation' changes, the organisation is forced to change, starting by changing the design archetypes which modify the sub-systems and the interpretative schemes. Often changes related to 'colonisation' are linked to changes due to fear. 'Evolution' changes are a choice of the organisation in the interpretative schemes which affect the design archetypes and the sub-systems. In a New Zealand city council, Fraser (2012) discusses that a 'colonisation' pathway was conducted even though temporarily due to the introduction of sustainability assessment models throughout time. Changes to design archetypes influenced changes to the interpretative scheme.

The adoption of environmental accounting and reporting in the public sector can take any form of change identified. Nevertheless, only 'colonisation' or 'evolution' will reflect a change in the interpretative schemes. A radical, transformational or 'deep-seated' change is often associated with changes at the level of interpretative schemes (Narayanan and Adams, 2017). Studies on PSO show 'morphostatic' and

'morphogenetic' changes through the adoption of the integrated reporting framework and integrated thinking (Guthrie *et al.*, 2017).

The notion of interpretative schemes can be linked to the notion of institutional logics (Narayanan and Adams, 2017). The interests, identities, values and assumptions of individuals and organisations are embedded within prevailing institutional logics (Thornton and Ocasio, 1999). Multiple institutional logics compete to drive specific organisational changes. Non-institutional forces also influence institutional change, such as resource dependencies, political struggles and social movements (Thornton and Ocasio, 1999).

In the public sector context, researchers have often used theories to justify the engagement of PSO with sustainability reporting processes, mostly based on the legitimacy theory (see, e.g., Farneti *et al.*, 2019; Greco *et al.*, 2015; Hossain, 2018). The pursuit of legitimacy in the public sector is not related to the survival of the organisation in the same sense it is perceived in the private sector. Instead, it is relating to PSO's capacity to enhance a competitive profile to compete to public funds.

Legitimacy is dependent on the social system where it is inserted, i.e., depends on the perception that the organisational actions and activities are in line with the social system's norms, values, beliefs and definitions; and it is time and place specific (Deegan, 2007; Suchman, 1995). Organisations change their objectives and methods over time due to their need to show their activities are still legitimised. As organisations belong to a broader system (the social system), they do not have an inherent right to resources (Guthrie and Parker, 1990). Legitimacy is a resource (Dowling and Pfeffer, 1975; O'Donovan, 2002) or "status" that the social system confers to the organisation (Deegan, 2002).

Despite the explanatory value of legitimacy theory in understanding the sustainability accounting and reporting phenomenon in PSO, it would be simplistic to consider only this theory. Internal and external elements play also a key role in driving sustainability accounting and reporting in PSO (Marcuccio and Steccolini, 2009; Williams and Lodhia, 2021). From the analysis of the literature, it is possible to distinguish five main elements that drive local governments to develop sustainability accounting and reporting voluntarily. Firstly, as a strategy to anticipate the implementation of legislation. Secondly, as a fashion and 'fad' mechanism. Thirdly, as the result of adopting the Local Agenda 21. Fourthly, due to a political commitment and organisational culture.

Firstly, local governments can use voluntary disclosure of information as a strategy to anticipate the implementation of regulation on the matter. In the private sector context, organisations increase voluntary disclosure of social and environmental information on the verge of losing legitimacy, e.g., due to media and NGO scrutiny, supplemented with possible regulation, monitoring and taxation.



Organisations try to avoid the threat of regulation or communicate the systemic corporate change to defend their legitimacy (Tilling, 2004). In the public sector, legislation and government-regulation play a more prominent role than legitimisation strategies, namely in Australian Commonwealth Departments (Lodhia *et al.*, 2012). For instance, in New Zealand, local governments started to disclose more social and environmental information before the possible inclusion of legislation on the matter (Othman, Nath, *et al.*, 2017).

Secondly, at the beginning of the 2000s, the adoption of sustainability reporting by Italian local governments was seen as a managerial fashion (Marcuccio and Steccolini, 2005). According to these authors, it emerged during the public sector reform processes, which increased society's expectations of efficiency, effectiveness and innovativeness of public managers. A recent study highlights that voluntary disclosure of non-financial information was perhaps a 'fad' adopted in Italian local governments that is no longer of interest (Farneti *et al.*, 2019).

Thirdly, the commitment to Local Agenda 21 seems to be correlated to the disclosure of environmental information. In Malaysian local governments, Local Agenda 21 lead to the disclosure of more sustainability information on the local governments' websites (Joseph *et al.*, 2014; Joseph and Taplin, 2012a). In the case of Italian local governments, the Local Agenda 21 facilitated policy innovation in terms of internal arrangements and the way to deal with the community (Sancassiani, 2005).

Fourthly, literature often refers to the decision to engage in sustainability reporting mainly driven internally due to its voluntary status (e.g., Alcaraz-Quiles *et al.* (2015) in the context of online sustainability reporting in Spanish local governments; also Adams, 2002; Luque-Vílchez, Mesa-Pérez, Husillos, & Larrinaga, 2019). Two internal contextual elements are related to political commitment and organisational culture.

Research has shown that a key individual or group, considered a 'sustainability champion', drives sustainability reporting in PSO (Farneti and Guthrie, 2009; Maroun and Lodhia, 2018). In the case of sustainability commitments, an individual or group is also responsible for the involvement of the municipality (Garcia-Sanchez and Prado-Lorenzo, 2008). Relating to an English city council, key cabinet members, and personal commitment of officials was essential to adopt a variety of policies, performance structures and measurement tools related to the sustainability agenda (Grubnic and Owen, 2010). The 'sustainability champion' can refer to a politician or managers with decision-making power.

A study of an Italian local government developing social reports for ten years discusses that this process was dependent on the political context (Farneti *et al.*, 2019). Notably, a key individual was responsible for the decision to disclose non-financial information, which was suspended after he/she left the local government.

This suggests that voluntary actions are driven by key-individuals that influence governance.

Often it is seen that various local governments that start sustainability reports stop the process after a short period of time. According to Farneti et al. (2019), once the key individual responsible for decisions to disclose non-financial information had departed, the process was suspended. Actions are shaped by the government in office and are subject to change following elections (Ball *et al.*, 2014). Sustainability reporting practice is fragmentary, and it does not involve the engagement of the local government as a whole, but a part that becomes responsible for delivering a report.

According to Niemann & Hoppe (2018), sustainability reporting is normally abandoned after a few experiments due to fatigue and dissatisfaction. Internal organisational factors mainly drive the loss of interest due to the use of the reporting practice to symbolise something, disconnected from management control systems; and a lack of pressure from external stakeholders<sup>2</sup> (Vinnari and Laine, 2013).

In English city councils, the disclosure of aspects related to biodiversity seems to be explained by multiple factors, including their institutional context (Gaia and Jones, 2019). One of them is the presence of councillors from parties related to the environment which reflects interests on environmental aspects in the jurisdiction. In Australian local governments, it is also discussed that the response to climate change depends on their specific context (Quayle *et al.*, 2020). In New Zealand's local governments, the sustainability report has been adopted due to leadership, accountability, financial incentive and to support internal stakeholders<sup>3</sup> (Bellringer *et al.*, 2011). On the contrary, the presence of conservative governments and intense electoral rivalry may be a barrier to sustainability reporting in local governments (García-Sánchez *et al.*, 2013).

Also, the existence or absence of civil servants with specific knowledge on sustainability measurement and reporting can play a role in the adoption of sustainability reporting practices (Domingues *et al.*, 2017). In Malaysian local governments, the lack of people with specific knowledge on environmental reporting practices are used to justify in part the lack of environmental information disclosures (Che Ku Kassim *et al.*, 2019).

Finally, the organisational culture, driven by the prevailing institutional logics, influences the decision to communicate sustainability-related information.

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<sup>2</sup> External stakeholders are individuals or groups who are affected by or can affect organisational actions, even though they are not engaged with direct economic exchanges with the organisation.

<sup>3</sup> Internal stakeholders are groups that engage in economic transactions with the organisation as it carries out its main purpose.

Organisational culture is defined as the set of shared values and norms that shape interactions within the organisation and with others (Jones *et al.*, 2013). According to Jones *et al.* (2013), the shared meanings and norms of behaviour are based on organisational ethics and structure, property rights, and the characteristics of people within the organisation. Organisational culture shapes organisational reality (DiMaggio and Powell, 1991).

The prevailing institutional logic will depend on the influential power (voting, economic, political, legal, and information) of various stakeholder groups. The individuals that possess the power to determinate what is included in the organisational accounts have the resources to articulate and diffuse their values and concerns. This also accounts for monitoring, observing and regulating the actions of those that are now accounted for (Hopwood, 1984).

In sum, a variety of contextual elements can drive local governments to adopt sustainability accounting and reporting. These elements can be divided into external and internal drivers. External drivers include strategies to anticipate the implementation of legislation, fashion and 'fad' motives, and the adoption of the Local Agenda 21. Internal drivers encompass political commitment and organisational culture.

### **2.3. Content of the sustainability accounting and reporting**

Besides the elements analysed in 2.2, the literature on the sustainability accounting and reporting in local governments has also addressed the content of the voluntarily developed documents. Research is mostly related to the amount of information disclosed in comparison to financial aspects and the occasional use of guidelines, frameworks and standards.

Sustainability, environmental or social responsibility measures are the least used performance measures in the public sector (Adams *et al.*, 2014). Overall, local governments (e.g., in England and Malaysia, Joseph *et al.*, 2014) have disclosed a low amount of sustainability information across different contexts (Gaia and Jones, 2019).

Environmental information is the least disclosed when compared to financial and social aspects. Environmental information is mostly inexistent in reports from Australian local governments (Williams *et al.*, 2011) and on websites of Spanish local governments (Alcaraz-Quiles *et al.*, 2015).

In Australian local governments, financial aspects are the dominant areas in sustainability reports (Goswami and Lodhia, 2014). According to these authors, who studied four local governments in South Australia, financial aspects are dominant due to substantial compliance requirements and the importance of financial resources for local governments. Similar findings are expected in Europe

due to the multiple regulations local governments need to fulfil related to financial aspects.

Numerous guidelines, frameworks and standards have been developed to support organisations in order to collect, analyse and communicate their sustainability performance, but there is no evidence of their holistic use.

The Global Reporting Initiative (GRI) guidelines is a popular framework used worldwide to harmonise the representation of sustainability performance. A few PSO use GRI guidelines due to its international reputation as a legitimate tool (Farneti and Guthrie, 2009). In 2005, GRI published a pilot sector supplement for public agencies requiring three types of information (i) organisational performance, (ii) public policies and implementation measures, and (iii) organisational context or state (i.e., in the jurisdiction).

As highlighted by Niemann & Hoppe (2018), it is difficult to know how many PSO have developed and are still developing sustainability reports as it has so far been a voluntary activity. There is no need to complete a registry or assure the content of the information. The GRI database includes less than two hundred and eighty (280) organisations registered as public agencies (as of April 2021), but no more than twenty (20) are local governments. Worldwide this represents an insignificant number of local governments developing sustainability reports according to the GRI.

The sector supplement of public agencies has not been seen as a comprehensive framework to be adopted. Indicators from the GRI guidelines are cherry-picked, and the pilot sector supplement for public agencies is too generic and can be applied by any organisation (Domingues *et al.*, 2017; Guthrie and Farneti, 2008). This supplement has been used generically and descriptively. PSO do not provide detailed policy descriptions, how measures are implemented and how performance assessments relate to objectives (Guthrie and Farneti, 2008).

Also, criticisms have emerged on how GRI guidelines (i) represent a Western view of nature (Journault *et al.*, 2020), (ii) omit negative aspects (Adams, 2004; Boiral, 2013; Journault *et al.*, 2020), (iii) focus on a managerial approach (Dumay *et al.*, 2010; Farneti *et al.*, 2019), and (iv) maintain business as usual due to its thinking of sustainability as silos (see, e.g., Milne & Gray, 2013).

There are no frameworks nor standards explicitly crafted for PSO's characteristics. One might point this out as one of the reasons why PSO are behind in the development of sustainability reports when compared to the private sector. However, it would be challenging to create a list of sustainability issues that would be 'material' for all PSO at the same moment in time.

PSO reflect different contexts and areas of operations. At the local level, Pepe, Paternostro, & Monfardini (2018) suggest local governments could be the creators of a local sustainability standard to reflect the specific characteristics of the jurisdiction that would be implemented by organisations working in the territory. Whereas current guidelines, frameworks and standards are grossly divided by the type of organisational sector, a local standard could reflect the characteristics of a specific territory and be applied by organisations working in that area. Nevertheless, the presence or absence of specific sustainability issues needs to consider what is 'material' for key stakeholders of each organisation, as discussed by Unerman & Zappettini (2014).

Researchers have suggested that International Integrated Reporting <IR> Framework may be an opportunity for the public sector to present integrated thinking. For instance, showing through the integrated reporting how value is created for society (see, e.g., Lodhia, Kaur, & Williams, 2020), and increase accountability and stakeholder engagement in local governments (Manes Rossi and Orelli, 2019).

Also, Brusca & Montesinos (2006) and Cohen & Karatzimas (2015) suggest broadening out the scope of financial accounting to adopt 'popular financial reports', which are aimed at non-specialists. According to Brusca & Montesinos (2006), citizens and voters are potentially relevant for local governments financial reporting.

The EU created the 2014/95/EU Directive in 2014 to regulate the disclosure of non-financial and diversity information as part of operations' reports. Each member state identified which type of organisations would fall within the scope of the Directive. For instance, in Italy, listed companies, banks, insurance companies and other companies designated by national authorities as public-interest entities, with more than 500 employees, are required to include non-financial statements in their activity reports since 2018. The information disclosed needs to relate to policies implemented to environmental protection, social responsibility and treatment of employees, respect for human rights, anti-corruption and bribery, and social and employee-related information (age, gender, educational and professional background of the company boards).

A significant number of organisations in the EU member states represent Small and Medium Enterprises (SME) which are out of the scope of this Directive. The same happens with PSO, namely local governments.

The AA1000 Stakeholder Engagement Standard (AA1000SES) 2015 provides a guideline to assess, design, implement and communicate quality stakeholder engagement processes based on principles of inclusivity (people should have a say in the decisions that have impacts on them), 'materiality' (decision-makers should identify issues), and responsiveness (organisations should act

transparently). This standard defines stakeholder engagement as the ‘process used by an organisation to engage relevant stakeholders for a clear purpose to achieve agreed outcomes’. It is a behaviour engagement approach. This can be a source of innovation and new partnerships (Accountability, 2015). This standard could give a competitive advantage to the organisations that can create value and improve their performance collaboratively (Accountability, 2015).

The existence of a variety of guidelines, frameworks and standards could hinder the ability of stakeholders to assess the information as it is difficult to compare different approaches (Schneider *et al.*, 2014). There is evidence that international standards and guidelines like AA1000 and GRI are not being used by local governments (Kaur and Lodhia, 2014). Sustainability reports developed by the local government are usually tailored-made, not following international guidelines, frameworks or standards (see, e.g., Greco *et al.*, 2012, 2015; Niemann & Hoppe, 2018).

Local governments illustrate a low disclosure of non-financial information, environmental aspects being the least disclosed. This is in line with its voluntary status. Also, no guidelines, frameworks or standards are used, which can risk the potential comparability of the measures and the integration of stakeholder engagement processes into the sustainability accounting and reporting process. The possible absence of stakeholder engagement in the sustainability reporting process can jeopardise the inclusion of ‘material’ information in the sustainability reports. This element is analysed in more detail throughout the next section.

## **2.4. Stakeholder engagement in sustainability accounting and reporting**

Multiple stakeholders can influence changes in accounting and reporting practices, also known as agents of change. Internal managers attempt to conceptualise and implement changes to address problems, while external agents, such as academics and legislators, claim legitimate knowledge on what should change (Miller, 1991; Miller *et al.*, 1991).

Other agents of change may also play a role in changes across time, such as ‘social reformers’. These are not associated with positions of power, but produce a critique of society and try to influence primary stakeholders to engage in changes (Berland and Chiapello, 2009). Similarly, stakeholders belonging to elite groups can influence changes due to their influence and positions of authority in conceptualising tools that will help them maintain their status quo (see, e.g., Gibassier, 2017).

Stakeholder engagement of groups, including public managers, consultants, citizens and members of a working group, can be characterised by a variety of ‘governance games’ (Källström *et al.*, 2020). According to these authors, who

conducted a study involving a Swedish municipality, 'governance games' can include dynamics and meaningful actions to obtain (i) political consensus (political games); (ii) professional recognition, reputation and legitimacy (reputation and professional games); (iii) visibility in the city in the media and by establishing an emotional link with participants (spectacle games); and (iv) making social contacts and engaging in collective activities (social games).

Considering the variety of potential stakeholders in influencing changes across time, stakeholder engagement has been identified as an essential component of the sustainability reporting process in order to consider information needs and expectations of key stakeholders (Kaur and Lodhia, 2018; Unerman, 2007; Venturelli *et al.*, 2018). As the communication of information is not enough (Hörisch *et al.*, 2015), stakeholder engagement is needed to guarantee that the organisation is being accountable for the aspects that are 'material' to key stakeholders.

The guidelines, framework and standards mentioned in 2.3 emphasise the importance of stakeholder engagement to define and prioritise the 'material' information to be disclosed. These documents include practices for the engagement of stakeholders in the process to increase transparency and legitimacy of the sustainability reporting process. GRI guidelines include multi-stakeholder participation. One of the guiding principles in the International <IR> framework is related to stakeholder relationships, according to which organisations should communicate the details of these relationships, namely if it considers needs and interests from legitimate stakeholders (the ones needed for achieving organisational purpose and value creation). The AA1000 framework encompasses stakeholder management during the whole process.

The 'materiality' argument is used to engage stakeholders in a variety of ways to decide which sustainability aspects are relevant for the different groups in order to choose what information to disclose. It has the potential to allow alternative voices to be heard and can potentially expose the conflict between the pursuit of economic objectives and the pursuit of social and environmental ambitions (Gray *et al.*, 2014). Nevertheless, there is no assurance to which extent stakeholders' needs and expectations are followed. The 'materiality' matrix is often portrayed as a neutral and value free concept and as stakeholder groups have a unified understanding of what is considered important (Puroila and Mäkelä, 2019). In practice, it would be difficult to meet the needs and expectations of all stakeholders (see, e.g., Boesso & Kumar, 2009).

The selection of key stakeholders to engage to the sustainability reporting process depends on the conjunction of three aspects that compose stakeholder salience: power, legitimacy and urgency (Agle *et al.*, 1999; Mitchell *et al.*, 1997). Managers' perceptions in identifying the relevant stakeholders are fundamental (Mitchell *et al.*, 1997). They need to identify stakeholders and consider their

interests (Schwab & Kroos, 1971), but they are also a stakeholder themselves (Donaldson and Preston, 1995). According to Donaldson (1989), managers have the responsibility of prioritising the interests of the different stakeholders. A few authors suggest ways to do this. For instance, Unerman (2007) stresses that organisations should prioritise the needs and expectations of stakeholders who may be affected by negative impacts resulted from organisational operations.

However, as highlighted by Unerman (2007) (i) some of the relevant stakeholders may not have the possibility to participate; (ii) some of the participating stakeholders may articulate their needs and expectations better than others; and (iii) some of the participating stakeholders may intend to pursue their interests regardless of possible impacts on other stakeholders. It is a decision of the organisation who are the key stakeholders to engage in the process. These are usually related to powerful groups that can provide legitimacy to the organisation, and both parts have an urgent aspect they need to integrate. As a result, external stakeholders may risk being left out of the sustainability reporting process and face the possible negative impacts of decisions considered by the organisation and a limited number of stakeholder groups.

In order to enhance the transparency of the sustainability reporting process, who is responsible for the agenda, process and outcomes of the engagement need to be identified in the reporting process (Thomson and Bebbington, 2005). These authors highlight that if the selection of stakeholders and the prioritisation of their needs is a choice of the organisation, the potentially transformative effect of this process can be compromised. In the context of Australian local governments analysed by Kaur & Lodhia (2014), there is no evidence on the prioritisation or how key stakeholders were identified in the sustainability reporting process.

Most evidence on stakeholder engagement in sustainability reporting processes is from Australia. In this context, mainly internal and/or powerful stakeholders are engaged in the sustainability reporting process, with a few external stakeholders in the planning phase, where local governments often involve the local community (Kaur and Lodhia, 2018). The local community is the most common external stakeholder group engaged in sustainability reporting processes by local governments due to their legitimacy (Kaur and Lodhia, 2018) and direct accountability reasons (Kaur and Lodhia, 2014), such as environmental groups, ratepayers, universities and local community organisations (Kaur and Lodhia, 2014). Nevertheless, Kaur & Lodhia (2018) found evidence in two Australian local governments on the engagement of stakeholder groups in the latter phases, such as prioritising the final list of sustainability indicators.

Australian local governments state that in sustainability reports, the use of stakeholder engagement was under state legislation to engage stakeholders in the reporting process (Kaur and Lodhia, 2014, 2016). Managerial commitment and



professional bodies' have an active role in how and to what extent stakeholders are engaged in the sustainability reporting process (Kaur and Lodhia, 2016).

Considering sustainability reports are stakeholder-oriented, several authors have discussed their potential to become instruments of dialogue to broaden out the discourse (e.g., Higgins & Coffey, 2016). However, the groups engaged do not have an active role in the process, they are usually informed or consulted regarding decisions in a one-way communication channel (Kaur and Lodhia, 2014; Williams, 2015). The limited stakeholder engagement has been identified as another possible explanation for the sustainability reporting difficulties in PSO (Maroun and Lodhia, 2018).

Furthermore, local governments are failing to communicate their sustainable development agenda. A study on the communication of Australian local governments in New South Wales, Victoria and Queensland shows there is a lack of clarity in the communication process, using inconsistently formal and informal reporting approaches (Williams, 2015).

Informal reporting methods have been suggested to reach a wider audience. A few authors have stressed how the internet and in particular social media or online fora could potentially enhance the dialogue between the organisation and a broader forum (see, e.g., Kaur & Lodhia, 2014). These tools have the potential to engage with different stakeholder groups as information can be shared quicker (Lawrence and Weber, 2016). However, as no formal mechanism is implemented on how sustainability information is considered and disclosed, organisations cannot directly receive sanctions.

Rocca, Giacomini, & Zola (2020) have shown that social media is used by Italian local governments as a mere communication tool, without a two-way dialogue with citizens. In the absence of a transparent process, a web forum can be used as a strategy to show that the organisation is contemplating the opinions of a broad range of stakeholders, even though only the opinions of the most powerful stakeholders are considered (Unerman and Bennett, 2004).

Jesse Dillard & Vinnari (2019) suggests that critical dialogic accountability could offer the means to develop a meaningful accountability system, by reflecting the needs, norms and values of key stakeholder groups articulated as evaluation criteria, to hold the power holder accountable. According to Puroila and Mäkelä, (2019), a critical dialogic accounting perspective would support the transition from a managerial to a democratic approach. Given the limited discretion that corporations have to diverge from the interests of the economic base, the more autonomous elements of civil society may be the most appropriate change agents in enacting an emancipatory accounting (Spence, 2009).

Currently, there is scarce evidence that stakeholder engagement is being conducted in the public sector context throughout the sustainability reporting process. From a managerial perception, several suggestions emerge on the limited stakeholder engagement in sustainability reporting in local governments, including (Kaur and Lodhia, 2019): (i) limited resources (financial, staff and time), (ii) lack of commitment from internal stakeholders, (iii) political factors, (iv) heterogeneous concerns, (v) inadequate representation, and (vi) unwillingness of particular stakeholder groups to engage.

At the same time, several authors warn about the potential rhetorical nature of stakeholder engagement processes at the current time (see, e.g., Archel, Husillos, & Spence, 2011; Jeffrey Unerman & Bennett, 2004). For instance, Archel, Husillos, & Spence (2011) show how stakeholder engagement processes can serve to legitimise the dominant discourse, by giving the impression that all stakeholders' views were considered and management decisions are the outcome of the democratic process. According to Archel, Husillos, & Spence (2011), stakeholders are engaged in institutional processes which condition their interests as power asymmetries characterise them, and the dominated interests adopt the dominant discourse.

Limited stakeholder engagement can jeopardise the significance of sustainability accounting and reporting practices. As mainly a voluntary process, the identification of 'material' aspects for stakeholders can minimise sustainability reporting's potential generic nature, increase accountability, and creation of value in line with societal expectations and needs (as well as the integration of the planning and management control and information system). At the same time, there is a risk of thinking that all groups that may affect or be affected by the decisions made by the local governments can be integrated into the process. The organisation will select only the most powerful groups that can legitimise specific decisions concerning legitimacy and urgent aspects.

## **2.5. The significance of changes in accounting and reporting practices**

In the public sector, sustainability reporting practices are mostly still voluntary. Nevertheless, alternative reports have emerged in a tentative of reaching a broader scope of users, particularly in countries where New Public Management (NPM) reforms demand a more participative role of citizens in the decision-making process of PSO (Manes Rossi and Orelli, 2019).

Multiple forms of accountabilities can emerge from different accounting and reporting practices, which depend on the nature of the actor (the organisation), the forum (stakeholder groups) and the conduct. The emergence of specific stakeholder groups to make organisations accountable for their environmental

pressures created the need to account for the key stakeholders interested in the organisation's environmental conduct. Environmental pressures refer to aspects associated with a variety of environmental areas on the territory under local governments' jurisdiction, the immediate surrounding area, the organisational performance and externalities caused by their operations. Stakeholders have an essential role in holding organisations accountable (Kaur and Lodhia, 2019) for the different environmental pressures.

Accountability is a relational phenomenon, where an actor is responsible for providing an account to a forum (Bovens, 2007; Bovens, Schillemans, & Goodin, 2014). The forum can ask questions, require explanations and make judgments concerning the information being reported, resulting potentially in consequences to the actor. Exhibit 2.5-1 illustrates the characteristics of the social relation in accountability considering (i) informing the forum about the conduct, (ii) question the actor about the conduct, and (iii) pass judgment on the conduct of the actor.

*Exhibit 2.5-1. Characteristics of social relation in accountability (based on Bovens, 2007).*

<b>Social relation in accountability</b>	<b>Characteristics</b>
Inform the forum about the conduct	<ul style="list-style-type: none"> <li>▪ Provide data concerning the performance of tasks, outcomes or procedures;</li> <li>▪ Provision of explanations and justifications in case of failures or incidents.</li> </ul>
Question the actor about the conduct	<ul style="list-style-type: none"> <li>▪ The forum can question the actor and the adequacy of the information or the legitimacy of the conduct.</li> </ul>
Pass judgement on the conduct of the actor	<ul style="list-style-type: none"> <li>▪ Approve the report, denounce a policy, or publicly condemn the behaviour of the entity;</li> <li>▪ In case of misconduct, there is the possibility of implementing sanctions.</li> </ul>

Accountability is 'a duty to provide information to those who have a right to it' (Gray *et al.*, 2014). According to these authors, the responsibility to render an account increases when an organisation has significant power over people, resources and communities. Under a democratic society, this is a right as a more powerful actor is asked to be accountable for the least powerful. The nature of the relationships will define the type of responsibility. According to Gray *et al.* (2014), for each relationship, full accountability needs to describe (i) the parameters of the relationship, (ii) the information required by context and contract, (iii) the stakeholder voice on what the organisations need to accountable for, and (iv) the organisational voice.

Accountability presupposes responsibility among the contractual duties. However, the environmental and sustainability agenda goes beyond formal contracts to include a responsibility on the externalities that organisational operations may have on the environment and society. The organisation does not define its responsibility; this is defined by society. The combination of the nature of the relationship, the context and 'rules' governing that relationship leads to an 'ethic

of accountability' (Dillard, 2007). However, if there is no legal force, accountability on the environmental pressures created by the organisation will rarely be satisfied.

Few researchers mention the inclusion of externalities in sustainability accounting and reporting (Bebbington and Gray, 2001). The boundaries of sustainability reporting are a critical aspect rarely mentioned in the literature of local governments analysed.

The latest example is a recent study conducted by Antonini, Beck, & Larrinaga (2020), who addressed how boundaries affect the definition and distribution of risks on human rights and working conditions along the supply chain (e.g., children's work, salary below the legal minimum). Antonini, Beck, & Larrinaga (2020) demonstrate how the definition of boundaries can be endless as 'the more is measured, the more is required to be measured'. Nevertheless, and despite this scenario, Antonini, Beck, & Larrinaga (2020) are optimistic regarding the importance of improving sustainability reporting boundaries, as sustainability reporting is used by a variety of organisations worldwide, it is regulated in variously jurisdictions, and it illustrates working conditions in the global supply chain which is an essential element for multiple stakeholders.

The definition of boundaries is an essential step as it defines what needs to be accounted for, supporting the limitation of responsibilities. Numerous research has highlighted that what conventional accounting and reporting leaves out of what is accountable leads to significant environmental and human rights' impacts, as well as higher inequality (see, e.g., Gray, 2006, 2010; Milne, 1996; Russell & Thomson, 2009).

Organisations do not consider environmental aspects as assets of society that are used for organisations and for which they are responsible for maintaining (Saravanamuthu, 2004). The GRI sector supplement for public agencies proposes the boundaries of the sustainability report, including organisational performance, public policies and implementation measures, and the organisational context or state in the territory managed by the PSO.

Management that relies on conventional accounting will not consider environmental impacts, namely because natural resources are not included in balance sheets, and the depreciation of natural capital is not internalised (Schaltegger and Burritt, 2017). Environmental impacts are considered externalities as they are events that take place outside the accounting entity. For this reason, environmental pressures are not included in conventional accounting.

The exclusion of externalities from conventional accounting leads to an incomplete portrayal of reality because costs associated with externalities are passed down to external parties and are not included in decision-making (Schaltegger and Burritt, 2017). This highlights again the importance of engaging

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external stakeholders. Managers support decision-making in processes with the lowest internal costs, not necessarily the lowest total costs to society (including internal and external costs) (Schaltegger and Burritt, 2017).

Traditionally, capitalism has favoured the provision of information through conventional accounting to only one major group, the capital itself. As a result of the law, stakeholders with the most power and influence are given a unique service of information. There is no other group in a democratic society that has such a privileged and legally required supply of information to support their decisions and preferences (Gray *et al.*, 2014). The uneven distribution of information can, to a considerable degree, be taken as reflecting an unequal distribution of power.

Consequently, a variety of accounting and reporting practices emerge by the application of law but also voluntarily, depending on the type of actor, the forum and the nature of the account. Exhibit 2.5-2 depicts types of accountability according to the nature of the forum, the actor, the conduct, and the obligation.

*Exhibit 2.5-2. Types of accountability as defined by Bovens (2007) and Bovens, Schillemans, & Goodin (2014).*

Nature of the accountability	Type of accountability
Accounting to whom (nature of the forum)?	<ul style="list-style-type: none"> <li>▪ Political accountability: elected representatives, political parties, voters, media;</li> <li>▪ Legal accountability: courts;</li> <li>▪ Administrative accountability: auditors, inspectors, controllers;</li> <li>▪ Professional accountability: professional peers;</li> <li>▪ Social accountability: interest groups, charities, other stakeholders.</li> </ul>
Who should render an account (nature of the actor)?	<ul style="list-style-type: none"> <li>▪ Corporate accountability: the organisation as an actor with an independent legal status;</li> <li>▪ Hierarchical accountability: the pyramidal image of organisations; the process of account starts at the top with the highest official;</li> <li>▪ Collective accountability: PSO as collectives of individual officials;</li> <li>▪ Individual accountability: each official is held proportionately liable for his/her contribution to the conduct of the organisation.</li> </ul>
About what is account to be rendered (nature of the conduct)?	<ul style="list-style-type: none"> <li>▪ Financial accountability;</li> <li>▪ Procedural accountability;</li> <li>▪ Product, output or outcome accountability.</li> </ul>
Why does the actor feel compelled to render an account (nature of the obligation)?	<ul style="list-style-type: none"> <li>▪ Vertical accountability (compulsory): the forum formally has power over the actor;</li> <li>▪ Diagonal accountability: Audit offices, inspectorates, supervisory authorities and accountants do not have a hierarchical relationship to PSO, but they report to the hierarchical structure to enforce compliance;</li> <li>▪ Horizontal accountability (voluntary): lack of formal hierarchical relationship between the forum and the actor, as well as formal obligations to render an account.</li> </ul>

Local governments have multiple accountability roles, namely to the central government, citizens and suppliers. Their operations have an impact on the economy, society and the environment. At the same time, among their tasks is monitoring the behaviour of others in their jurisdiction. Political accountability is related to the principal-agent relationship in that voters choose whom to give decisional power to elected bodies — these delegate authority to civil services and authorities to provide accounts. Legal accountability is performed throughout the application of the law.

As a result of the NPM and post-NPM reforms, managerial accountability emerged. In this case, the forum is composed of delegated authorities that answer based on how tasks are carried out in line with performance criteria defined (Day and Klein, 1987). While in managerial accounting, the focus is on monitoring outputs and results; administrative accountability focuses on monitoring the process or procedures where inputs are transformed (Byrkjeflot *et al.*, 2014). Managerial accounting is mainly measured in financial and budgetary terms; what could potentially give more flexibility for public sector managers to operate, often becomes politicised (Parker and Gould, 1999). Civil servants provide professional accountability to their respective professional associations. For criticisms to the application of NPM in the public sector context, please see, e.g., Carnegie & West (2005).

Social accountability is associated with developing accounts to a variety of groups in society, including lobbyists, NGO, and associations. Sustainability accounting and reporting is framed within this type of accountability, but it could also be under political accountability if voters hold the organisation accountable for its performance and effects.

Multiple forms of accountability in the public sector context makes accountability fragmented as one form may require compromises of other types of accountability (Sinclair, 1995). Some type of accountabilities can complement each other, while others can potentially compete. Political accountability and managerial accountability can potentially compete as the first involves a debate between politicians and voters on what should be conducted; and the latter relates to efficiency and effectiveness of results achieved (Christensen and Lægreid, 2015). Likewise, stakeholders may have conflicting information needs and ask for a diverging type of accountabilities.

A variety of accountabilities and fora lead to a change in power relations between the actor and the forum. In the particular context of PSO, change is not only managerial but also depends on the distribution of powers in terms of civil servants, politicians and society (Ricotta, 2002).

Sustainability accounting and reporting is a horizontal type of accountability as (i) there is a lack of formal hierarchical relationship between the forum and the

actor, (ii) neither a legal nor formal obligation to render an account. In most EU countries, local governments are not obliged to construct sustainability accounting and reporting. As a result of the lack of regulation, the forum has a limited influence to ask questions, require explanations and make judgments concerning the information being reported, resulting in few consequences to the actor. In the absence of legitimate responsibility networks, relevant standards, and account holders with power, and transparency, disclosure, or accountability will have little impact (Dillard and Vinnari, 2019).

Consequently, there is a significant potential that local governments conceptualise and implement changes to sustainability accounting and reporting with no significance. Organisations that publish sustainability reports cherry-pick information to be included (Gray & Milne, 2002; Guthrie & Farneti, 2008); and when faced with trade-offs, financial performance is prioritised (Gray and Milne, 2002).

Remarkably, after the 2008 financial crisis, which led to the implementation of austerity measures in EU countries, PSO needed to reconcile conflicts between these measures and the need to deal also with environmental and social aspects (Ball *et al.*, 2014). The inclusion of trade-offs in environmental management accounting has been suggested by Christ, Burritt, & Varsei (2016).

In 2020, international organisations adopted discourses on how economic disparities, social inequalities and environmental degradation can be tackled by managing all aspects in a balancing exercise. The UN SDG and the EU 7<sup>th</sup> Environmental action programme to 2020 – ‘Living well, within the limits of our planet’ define several priorities for EU cities, including improving air quality and reducing noise, traffic congestion and GHG emissions. The discourse is also masked under the umbrella of ‘green growth’ and ‘green economy’. The definition accepted globally takes for granted the meaning of sustainable development and dominates its competing conceptions. This is problematic because the idea sustains business as usual and avoids a transition to a different type of society.

Organisations worldwide adopt this dominant environmental agenda by conceptualising and implementing changes accordingly. The reporting of environmental information is part of the process to enable organisational changes (Larrinaga-Gonzalez and Bebbington, 2001). Some organisations unite efforts to change the environmental agenda to ensure their operations are continued in the accepted environmental framework (institutional appropriation) (Larrinaga-Gonzalez and Bebbington, 2001).

The discourse has been identical across time despite evidence on how the impacts of resource use and economic growth cannot be decoupled (Hickel and Kallis, 2020) and how alternative policy packages, such as degrowth, can be a better alternative (see, e.g., D'Alessandro, Cieplinski, Distefano, & Dittmer, 2020). It can be seen in the studies developed by Hopwood, Mellor, & O'Brien (2005) and

Milne, Tregidga, & Walton (2009) that the EU and the Brundtland report (adopted by the EU) is located in the map of views on sustainable development away from increasing concerns for wellbeing and equality, and environmental quality. The debate on current environmental conflicts should be within the current generations so that the political consensus underpinning sustainable development can be problematised (Baeten, 2000).

The construction of sustainable development as a concept that allows economic growth while protecting the environment and tackling social inequalities has been discussed within the private sector, e.g., in the Finish private sector context (Laine, 2010). According to Spence (2009), social accounting is closely tied to the economic base of society which limits its autonomy and consequently omits the contradictions of the current hegemony of business.

In this context, researchers have voiced considerable doubts on the role and significance of sustainability reporting discourse and accusations of its superficial nature and the hypocrisy of presenting the environment through the lens of business as usual (see, e.g., Cho, Laine, Roberts, & Rodrigue, 2015; Springett, 2003; Tregidga & Milne, 2006).

Researchers have called for critical studies into the use of social and environmental accounting elaborated by corporations as possible distortions of the reality (Owen, 2008). Often economic aspects are prioritised under the 'sustainability' umbrella (see, e.g., Farneti, 2012; B. R. Williams, 2015). The prevalence of specific conceptions and discourses of accountability illustrate the hegemony of particular languages and distributions of power in society (Sinclair, 1995). As a result, the environment is seen as a source of value to serve economic interests, amplifying an anthropogenic and instrumental approach to the environment (Tregidga and Milne, 2006). International and national organisations adopt a similar approach to sustainability by ignoring almost wholly the tension existent between economic growth and environmental degradation and social inequalities.

In the context of the private sector, Tregidga, Milne, & Kearins (2014) identified three identities that capture key organisational representations over time that organisations adopt as (i) environmental responsible and compliant organisations; (ii) leaders in sustainability, and (iii) strategically 'good'. Organisations articulate their identity to be in line with the specific context, requiring a new version of the organisational identity every time the context changes in order to maintain their legitimacy (Tregidga *et al.*, 2014). This study shows the chameleon nature of organisation's approach to sustainability.

It is not clear how local governments are developing sustainability accounting and reporting practices if the current political context still prioritises economic growth, jeopardising wellbeing and equality, and environmental quality. Few



authors have criticised the credibility of the information in the public sector. Among the few are Chiba, Talbot, & Boiral (2018), who analysed the annual reports of provincial government's ministries and agencies in Quebec (Canada), concluding that the information disclosed is incomplete and inconsistent, and the monitoring system flawed. Also, in a study on English local governments, Gaia and Jones (2019) show they provide a low amount of information on biodiversity, and when they do, they lack to acknowledge how policies and action plans are implemented. Local governments may be interested in using the information on biodiversity as a tool to manage stakeholders' impressions rather than to improve transparency (Gaia and Jones, 2019).

Organisations belonging to different legal and political contexts adopt similar discourses suggesting the rhetoric used is similar in order to belong to the global accepted environmental agenda. For instance, Joseph & Taplin (2012b) show that Malaysian local governments copy each other's' websites to report sustainability information. According to Vinnari & Laine (2013), organisations strategy of copy-pasting environmental accounts is consistent to fashion and 'fad' perspectives of late adopters in a tentative of copying similar practices.

The current attempts to improve sustainability disclosures are based on an increase of accounting-based accountability, which is designed to meet the needs of financial capital providers (Dillard and Vinnari, 2019). While early versions of sustainability reports would reflect sustainable management of natural resources, later versions represent regressive forms as organisations trying to show sustainability is compatible with business as usual (Tregidga and Milne, 2006). The regressive role of current accounting is due to its close ties to the economic base of society (see, e.g., Spence, 2009).

Sustainability reports need to be supported by an accounting and performance management system in order to contain credible and substantiated information (Schaltegger, 2012). Information related to sustainability aspects must contain qualitative descriptions of operations complemented with quantitative measures of environmental and social impacts and achievements to increase its quality and potential outcomes (Schaltegger, 2012). Lastly, the information needs to be useful to stakeholder needs and expectations (Schaltegger, 2012). Several researchers discuss the potential of counter-accounts to serve as a way of showing the ambiguity of organisational documents created by civil society organisations (Spence, 2009).

Niemann & Hoppe (2018) identify three potential outcomes of sustainability reporting. Firstly, an instrumental use and managerial impact as sustainability report can provide evidence to support informed policymaking and decision-making. Secondly, sustainability reporting can be used as a communication tool for political use on agenda-setting, to gain legitimacy and justify action or non-

action. Thirdly, sustainability reporting has the potential to support organisational change due to its conceptual use for the implementation of knowledge, enhance networks, motivation and efficiency. Until now, research in the public sector has shown that the primary function of sustainability reports is an internal communication tool for managerial use (see, e.g., Farneti & Guthrie, 2009).

Considering the literature described throughout chapter two, it is possible to distinguish at least four significant gaps that this research aims to contribute to.

Firstly, research on sustainability accounting and reporting in local governments has been focused on why organisations voluntarily develop these tools and what is the content of the documents. There is a dearth of studies relating how contextual elements influence the emergence or absence of specific content in the documents across time.

Secondly, the process of developing sustainability accounts and reports in local governments is unknown, including who are the agents of change, and how the content reflects 'material' issues for key stakeholders.

Thirdly, research has been focused on stand-alone reports. In many legal and political contexts, local governments are part of high formalism and bureaucratic systems. Thus, information is often communicated through different official documents that can reflect how changes occur and the significance of those changes. Research is lacking on how the different documents account and report on environmental aspects.

Fourthly, it has been described that the significance of the environmental information disclosed is possibly low. Boundaries are not clearly defined, and externalities are out of the scope of conventional accounting. Evidence is mostly related to the private sector. Less is known regarding the definition of boundaries by local governments and the significance of the information included in accounting and reporting. Inspired by many writings such as Gray (2006), this thesis questions the current accounts and reports that local governments develop beyond their efficiency in achieving goals and targets.

This research aims to contribute to the research gaps by focusing the analysis considering the environmental component of the sustainability accounting and reporting processes; and using as lens three dimensions that emerge from the literature as essential in understanding changes across time in accounting and reporting practices in local governments. Key contextual elements drive the adoption of voluntary sustainability accounting and reporting. The content of the documents reflects changes. The process of developing sustainability accounting and reporting influences also the content of the documents which depend on the agents of change and stakeholders engaged in the process. These three elements

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will influence the significance of changes across time-related to environmental aspects.

Considering the importance of context, content and process, the present research uses the context-content-process framework suggested by Pettigrew & Whipp (1993) to distinguish changes and analyse their interconnections across time. These dimensions support the understanding of changes to accounting practice in local governments related to environmental aspects and the significance of changes across time.

## Chapter Three: Italian local governments' context

This chapter presents the Italian context on sustainability accounting and reporting in local governments. It identifies the national guidelines to voluntarily adopt sustainability reports and the legislative framework of formal accounting and reporting in local governments that can include environmental aspects.

In Italy, there are no formal requirements on how and what to report regarding environmental information in local governments. The legislation on formal accounting and reporting in local governments is mostly focused on financial aspects. Nevertheless, multiple initiatives emerge voluntarily in local governments on social and environmental accounting and reporting. For this reason, chapter three addresses the national guidelines towards a form of social accountability regarding environmental information (section 3.1); and the legal framework to render an account in line with national and EU laws (section 3.2).

### 3.1. Environmental and sustainability reporting

In Italy, the central government considered to introduce an environmental accounting system and reporting in PSO that would be integrated with the strategic plan and annual reports. From 2001 to 2004, several discussions took place to create regulation (see, e.g., Bellesia & Pierobon, 2007). In 2007, the cabinet approved a bill, delegating the government to introduce the environmental accounting and reporting in PSO. However, the bill never passed to law. Hence, environmental accounting and reporting is still voluntary for Italian local governments as there are no national or EU laws demanding this information.

Across the same time (2001-2004), a few Italian local governments started voluntarily to conduct experiments<sup>4</sup> by joining projects with Italian and other EU local governments. Different reforms in Italy have led to a higher demand for transparency, accountability and responsiveness to stakeholders (Greco *et al.*, 2015; Marcuccio and Steccolini, 2005).

A few Italian local governments were supported by EU funding through the LIFE programme in a time the European Commission (EC) was funding projects to implement environmental policies and legislation in the environmental context. LIFE programmes provided funding to local governments to test the application of environmental accounting systems and environmental reports that would substitute the state of the environment reports. With this funding, only eighteen (18) Italian local governments implemented the system CLEAR (City and Local Environmental Accounting and Reporting), and two (2) implemented the system ecoBudget. Few

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<sup>4</sup> For regional governments, the first experiment in Italy was conducted in 1996 with the project Cont.a.re '*Contabilità ambientale regionale*'.

Italian local governments implemented experiments. A considerable amount was developed and based on Local Agenda 21.

Local Agenda 21 leads municipalities to share with key stakeholders policies and projects that promote sustainable development in the jurisdiction (Siboni, 2014). According to Greco et al. (2015), local Agenda 21 boosted the adoption of environmental reporting tools by Italian local governments.

EU funding served to run the first experiments of environmental reports in local governments. Few continued to adopt the same practice. Currently, only three Italian local governments continue to develop environmental reports. For others, it was either a single experiment; or something discarded after publishing multiple reports, coherent to the fashion and 'fad' arguments (see, e.g., Farneti et al., 2019; Marcuccio & Steccolini, 2005a; Vinnari & Laine, 2013).

Italian local governments are composed of municipalities (*comune*) and provinces/metropolitan cities (*provincia/città metropolitana* – NUTS III). Currently, Italy has more than 8,000 municipalities. The development of planning and accounting practices as well as reporting, including environmental aspects, can have a significant impact in PSO internal management and their territory. The considerable number of municipalities makes them significantly heterogeneous.

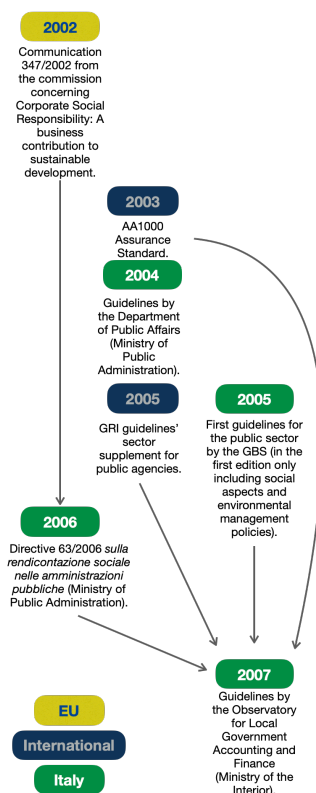
According to the last Census 2011, the population of municipalities varies between thirty (30) in Pedesina (NUTS II: Lombardy) and 2,617,175<sup>5</sup> inhabitants in Rome (NUTS II: Lazio) (Istat, 2011). Also, 91% of the municipalities have less than fifteen-thousand inhabitants (15,000); and less than one percent (only 0.6%) of the municipalities have more than one-hundred inhabitants (100,000) (Istat, 2011). The population influences the amount of human and financial resources available in each municipality, which may influence what municipalities decide to do beyond what is regulated and how priorities are identified.

Moreover, one might argue that the lack of specific guidelines for PSO explains why PSO are still lagging in sustainability reporting when compared to private companies. Several guidelines have emerged to guide local governments to voluntarily develop accounts and reports containing at least social (social reports), environmental information (environmental reports), and sometimes these combined with economic information (sustainability reports). Exhibit 3.1-1 presents the evolution of guidelines to support local governments in developing voluntarily environmental and sustainability reports. Yellow, blue and green highlight represent respectively EU, international and national guidelines. Arrows symbolise the use of guidelines to create others.

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<sup>5</sup> Two-million six-hundred seventeen thousand one-hundred seventy-five inhabitants.

Exhibit 3.1-1. Guidelines to report non-financial aspects by PSO.



EU policies drive part of the national guidelines. At EU level, the EC presented in 2002 the Communication 347/2002 concerning corporate social responsibility: a business contribution to Sustainable Development<sup>6</sup>. This document includes a section dedicated to all levels of PSO to encourage them to integrate social and environmental priorities within management, including public procurement and assess their social and environmental performance by publishing social and environmental reports by 2004.

The Communication 346/2002 was transposed to the Italian context by the Ministry of Public Administration in 2006 (Directive 63/2006)<sup>7</sup>. This Directive motivates PSO to voluntarily create an account of their commitments, results and social effects of their operations and create a dialogue with stakeholders (Presidenza del Consiglio dei Ministri - Dipartimento della Funzione Pubblica, 2006). It presents guidelines for the reporting process, including a description of the scope and the general content of the document. No indicators were suggested. This Directive states to be accounting-driven to be in line with the other economic-financial systems, and it is aimed at a broader audience of stakeholder groups.

<sup>6</sup>Based on the Communication 366/1 Green Paper 'Promoting a European framework for Corporate Social Responsibility' and 2001/453/EC European Commission Recommendation on recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of EU companies.

<sup>7</sup> Directive 63/2006 sulla rendicontazione sociale nelle amministrazioni pubbliche.

Although the application of Directive 63/2006 is not enforced by law, a few PSO in Italy have voluntarily adopted social and environmental accounting and reporting tools by using a variety of guidelines. These are in part driven by this directive, or other international guidelines identified in Exhibit 3.1-1.

In the Italian context, three main guidelines are used to develop and adopt social and environmental accounting and reporting tools. One of the rare practices in Italian PSO is the guidelines from the GBS (*Gruppo di Studio per il Bilancio Sociale*). In 1998, a group of academics, practitioners and accountants decided to create this network to define principles and guidelines for social reporting<sup>8</sup> in Italy. In 2001, GBS presented the first general guidelines for any organisation, and later in 2005 specific guidelines for PSO. These guidelines suggest PSO to create a report including the characterisation of the surrounding area, the value created for society, the socio-environmental characteristics and stakeholder engagement.

Also, two other guidelines were developed by governmental entities from the central public administration. Even though these guidelines were developed by governmental bodies, they are still not compulsory. The first was created in 2004 issued by the Department of Public Affairs – Ministry of Public Administration (Tanese, 2004), which contains examples in Italy and information on how to create sustainability reports.

Later in 2007, the Observatory for Local Government Accounting and Finance – Ministry of the Interior – developed guidelines specific for local governments based on the EC Communication 347/2002, the guidelines from the GBS, the GRI (sector supplement for public agencies), and the AA1000 standards (Osservatorio per la finanza e la contabilità degli enti locali - Ministero dell' interno, 2007). These include guidelines to report environmental policies, and particular attention is given to green public procurement.

The above-described guidelines could potentially support PSO to develop reports voluntarily to show how their decisions influence sustainability dimensions, including economic, social and environmental aspects. However, they are mainly managerial, related to strategy, governance and the general profile of the organisations; and they are still sustained mainly on economic, and to a lesser extent social aspects (Farneti, 2012).

All guidelines described have a strong influence from advisors and auditing firms; and also legislators. As a result, they remain vastly associated with conventional accounting and annual accounts (Contrafatto and Rusconi, 2005).

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<sup>8</sup> Social reporting is a rough translation from the Italian '*bilancio sociale*'. In Italian, it usually refers to reports that include social aspects, but in some cases also environmental aspects resembling to the denomination in English of 'sustainability report' as portrayed, e.g., in the GRI guidelines.

For instance, even though the national guidelines represent managerial information relating to the organisation following international guidelines like GRI, the link with social and environmental aspects is mostly missing (Farneti and Siboni, 2011).

To tackle this problem, other guidelines focused on environmental aspects that have emerged. For instance, national guidelines were created in 2009 by the National Institute for the Environmental Protection and Research ISPRA<sup>9</sup> to support the voluntary development of environmental reports by local governments. The guidelines are generic, but the document provides examples of a few local governments in Italy that are already developing environmental reports.

The existence of different guidelines is aimed at supporting local governments that have decided to develop sustainability reports. At the same time, it reflects an absence of general agreement on how sustainability should be accounted for and reported at the local level and other PSO. This is, however, expected due to the heterogeneity of local governments.

Stakeholder engagement aspects are mostly missing from the above-mentioned guidelines, as they provide general information on what should be included in the documents and the need to include 'material' information for stakeholders. The quality of these documents depends on the process of sharing and comparing indicators with stakeholders (Matacena and Mattei, 2008). Thus, the decision to engage stakeholders and include 'material' information depends on the specific characteristics of the local governments. For this reason, it is expected that sustainability reports at the local level will be considerable different in order to reflect a variety of realities.

Sustainability reporting in Italian local governments remains voluntary. Few guidelines have been developed to support specific environmental planning, accounting and reporting. The potential impact of these tools is significant as local governments can influence other sectors of activity in the territory managed by them and monitor their organisational environmental performance.

Despite the absence of regulation on formal accounts, Italian local governments need to disclose publicly on their official websites the environmental information presented in Exhibit 3.1-2. EU law is responsible for the inclusion of regulation of the right to environmental information.

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<sup>9</sup>Istituto Superiore per la Protezione e la Ricerca Ambientale – Dipartimento Stato dell'ambiente e metrologia ambientale.



## CHAPTER THREE: ITALIAN LOCAL GOVERNMENT'S CONTEXT

*Exhibit 3.1-2. Environmental information that by law needs to be disclosed publicly online (based on Legislative Decree 195/2005).*

Type of report	Type of information to be provided online (informal reporting)
Online <sup>10,11</sup>	Environmental information is any information held by or for PSO (including local governments), specifically relating to: <ul style="list-style-type: none"><li>▪ the state of the elements of the environment;</li><li>▪ factors, such as substances, energy, noise, radiation or waste, affecting or likely to affect the elements of the environment;</li><li>▪ measures (including administrative measures), such as policies, legislation, plans, programmes, environmental commitments, and activities affecting or likely to affect the elements and factors referred identified as well as measures or activities designed to protect those elements;</li><li>▪ reports on the implementation of environmental legislation;</li><li>▪ cost-benefit and other economic analyses and assumptions used within the framework of the measures and activities identified.</li></ul>

In the early 1990s, the EU approved the first Directive on the freedom of access to information on the environment. The EU reinforced its commitment in 1998 by signing the United Nations Economic Commission for Europe (UNECE) Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention). This process resulted in the creation of the Directive 2003/4/EC, being transposed to the Italian context by the Legislative Decree 195/2005 on public access to environmental information held by or for public authorities. Usually, regional agencies are responsible for collecting this information. The local governments' role is to gather information related to their territory and make it publicly available on their official websites.

This is the only compulsory rule on reporting information related to environmental aspects by Italian local governments. It does not constitute a formal reporting system, neither is linked with other reporting tools. Similar to what has been seen in Exhibit 3.1-1, this regulation is also driven by EU legislation.

Section 3.2 exposes the specific characteristics of the Italian context mandated documents that potentially include information on environmental aspects.

### 3.2. Legal framework

A high formalism characterises Italian PSO based on the primacy of the law and administrative process, which must follow abstract rules and legal instructions

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<sup>10</sup> Legislative Decree 195/2005, 19<sup>th</sup> August, implementation of Directive 2003/4/EC on public access to environmental information.

<sup>11</sup> Legislative Decree 33/2013, 14<sup>th</sup> March, reorganisation of the regulations concerning the right of civic access and the obligations of publicity, transparency and dissemination of information by public administrations (13G00076) (modified by Legislative Decree 97/2016, 25<sup>th</sup> May).

(Catalano *et al.*, 2015). For this reason, it is expected that the documents developed by local governments are mainly driven by legislation.

Legislation on planning, accounting and reporting is mostly focused on financial aspects. Italian local governments have been under pressure to increase transparency in the use of public resources since the 1990s (see, e.g., Steccolini, 2004). During this decade, the central government started to discuss the need for a constitutional reform inspired by the NPM to influence all levels of public governance. This was a result of financial and political scandals; social pressure to reduce the role of politicians; dissatisfaction with the quality and effectiveness of services; decentralisation process of political decision making, public finance and provision of public services; and integration of Italy in the EU's economic and monetary union (Grossi and Mussari, 2008).

Consequently, in the 90s, multiple legislative reforms took place to establish the new management rules for all local governments. Legislative Decree 267/2000<sup>12</sup> (TUEL – *Testo Unico degli Enti Locali*) integrated a legacy of legislative reforms encompassing the regulation of accounting focused on (i) procedures and financial aspects; (ii) management control based on efficiency and effectiveness; (iii) evaluation of results by an independent commission; and later (iv) strategic planning in order to assess planned operations and results achieved.

In 2001, the central government started a reorganisation of the PSO by approving Legislative Decree 165/2001<sup>13</sup>. In the same year, it introduced a harmonisation of public budgets, coordination of public finance and the tax system (Mussari, 2018). According to this author, this occurred in a time when Italy seemed to be moving towards a federal model. Thus, there was a need to increase the comparability of the accounting systems. The central government started a process to establish regulation to be followed by all levels of governance.

A common framework was created, which was applicable to all levels of government to harmonise the accounting and reporting system in the Italian PSO. A collaboration with the State General Accounting Department, the Bank of Italy and the National Institute of Statistics Istat (*Istituto Nazionale di Statistica*) created an information system for public entities' operations called SIOPE (*Sistema Informativo sulle Operazioni degli Enti Pubblici*). SIOPE is aimed at establishing functions under which all PSO<sup>14</sup> need to report financial and economic data<sup>15</sup>.

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<sup>12</sup> Legislative Decree 267/2000, 18<sup>th</sup> August, Consolidated text of the laws governing local authorities.

<sup>13</sup> More recently reviewed by the Legislative Decree 75/2017.

<sup>14</sup> Defined in Article 1, paragraph 2, of Legislative Decree 165/2001 30th March 2001.

<sup>15</sup> Article 28 of Law no.289/2002 '*Disposizioni per la formazione del bilancio annuale e pluriennale dello Stato*' and governed by Article 14 '*Controllo e monitoraggio dei conti pubblici*' of Law no.196/2009 '*Legge di contabilità e finanza pubblica*'.

SIOPE also represents one of the indirect responses from the Italian government to the need to comply with Article 104 of the Maastricht Treaty (e.g., to avoid excessive deficit). The central government needs to report to the EU the state of the public finances. By establishing standard functions to account for, the internal harmonisation of the public accounts could potentially support the central government to gather and monitor the information from the different governance levels and report the status of the public finances back to the EU.

The central government has a significant influence on local governments. Despite having more autonomy than before, local governments' decisions and operations are still limited due to financial restrictions. Municipalities are allowed to raise taxes and charge tariffs for the services they provide, but a significant percentage of inflows is still from higher levels of the government (Anessi-Pessina and Steccolini, 2005; Steccolini, 2004).

In 2008, the financial crisis led to a disruption of the financial system, affecting various dimensions of society. The crisis exposed national, regional and local governments that could not manage their deficit and debt, compromising their commitment to Article 104 of the Maastricht Treaty. Multiple EU countries were unable to pay or finance their debt which led the EU to conduct profound changes to tackle the problem and avoid future effects, using political and financial criteria and targets.

Consequently, the EU implemented multiple measures, including the Stability and Growth Pact (SGP) with rules to ensure member states implemented policies and practices to manage public finances (focused on controlling the excessive deficit and debt). The implementation of austerity measures imposed a narrow vision of public sector accounting and accountability, focused on financial resources, which has implications in society beyond financial aspects (Bracci *et al.*, 2015).

This short account of the last years aims to show how the implementation of reforms and consequently, numerous laws from the EU and national initiatives influenced the dominance of financial-oriented documents in local governments. The formalism on the primacy of the law and administrative processes seem to dominate the current practice. Planning and control relating to financial aspects became the priority to show how financial resources were being used due to the financial and political scandals in the 90s and the financial crisis in 2008. In Italy, similar to most industrialised western societies, most organisations use economic efficiency as the primary rationale for legitimacy (Dillard *et al.*, 2004).

Local governments develop financial criteria and targets in order to show how financial resources are allocated and to report back to central governments and, these to the EU. All documents need to be audited (internally and externally) to certify that the content is in line with the accounting principles and rules. Under

austerity, accounting was towards international institutions and other public sector entities to reduce expenditure, deficit and debt with a purely financial focus (Bracci *et al.*, 2015).

In this context, financial documents dominate local governments' administrative processes with multiple rules and processes that need to be complied. Conversely, sustainability reporting may be seen as a less critical aspect due to its voluntary status. The national guidelines presented in the previous section are voluntary and general (e.g., no performance indicators are specified). This can potentially lead to the voluntary adoption of reports flexible and adequate for each specific context. However, it can also potentially be associated with selective reporting and a misrepresentation of reality.

Even though compulsory documents are mostly focused on financial aspects, they can be used to include environmental aspects. For instance, by showing (i) what is planned and achieved, (ii) including performance indicators beyond efficiency and effectiveness, and (iii) owing to the need of reporting under categories *Missioni* and *Programmi* related to environmental aspects<sup>16</sup>.

The central administration created *Missioni* and *Programmi* categories (see Appendix I for the detailed list) to enhance the harmonisation of the accounting systems. It is based on the Classification of the Functions of Government (COFOG) level two and SIOPE. *Missioni* represent the main functions and strategic goals selected by the PSO. *Programmi* aggregate operations aimed at pursuing the objectives defined under the categories *Missioni*.

Local governments need to provide financial information under the different categories of *Missioni* and *Programmi*. However, they can also include non-financial information by describing how services and projects were planned, how they were performed and what were the impacts. Non-financial information is considered the most critical information by politicians and managers from Italian local governments (Liguori *et al.*, 2014). According to Liguori, Sicilia, & Steccolini (2014), this type of information reflects the results and external impacts of the operations conducted by the organisations, which are evaluated by other stakeholders.

The following sections present a summary of the main two-phases of compulsory reporting for local governments that can potentially contain

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<sup>16</sup> *Missioni* 09 'Sustainable development and protection of the territory and the environment'; *Missioni* 10 'Transport and right to mobility'; *Missioni* 17 'Energy and diversification of energy sources'.

environmental information: programming phase (3.2.1) and performance management phase (3.2.2).

### 3.2.1. Programming phase

The Legislative Decree 118/2011<sup>17</sup> (and consequent modifications) establish the current rules on the harmonisation of the accounting systems and balance sheet formats for regional and local governments. Although this legislation lacks a conceptual framework, it establishes a chart of accounts to support regional and local governments to make the transition from cash-based data to an accrual-accounting system (the latest only for reporting and cost accounting) (Manes Rossi, 2015).

The regulation was effectively implemented in 2014 to establish accounting principles to government statistics concerning the territory (that will be used by the EU statistical institute Eurostat), financial reporting (relating to the entity itself), accrual financial accounting, budgetary and financial accounting. According to Manes Rossi (2015), the accounting system adopted by Italian local government is mainly a modified cash-basis to focus the attention on the control of financial resources and debt; and accrual information complements the budgetary accounting data. The Legislative Decree 118/2011 regulates the 'Programming phase', mostly focused on how financial resources are allocated considering the goals established by each local government.

The process is regulated by law to ensure greater transparency of the information regarding the process of allocating public resources to sectoral public policies. At the same time, it aims to compare financial data under the economic and functional classifications identified by the EU and national regulations.

All municipalities with more than five thousand (5,000) inhabitants need to comply with the regulation on the 'Programming phase', leaving out of the scope 70% of the Italian municipalities (Istat, 2011). For the remaining 30%, a simplified version needs to be developed.

The *DUP* – *Documento Unico di Programmazione* (named from now on as 3-year plan) is the main component of the programming phase. It needs to show the planning operations for the next 3-years and expected results that the local government aims to achieve concerning the categories *Missioni* and *Programmi* of the budget.

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<sup>17</sup> Regulated by the Legislative Decree 118/2011, 23<sup>rd</sup> June, on provisions relating to the harmonisation of the accounting systems and financial statements of the Regions, local governments and their bodies, following articles 1 and 2 of the law of 5<sup>th</sup> May 2009, n.42.

The document must be composed by two sections: (i) strategic section with a time horizon equivalent to the administrative mandate (usually five years); and (ii) operational section with a time horizon equal to the budget (one and three years). Exhibit 3.2-1 presents the main content that each section should entail.

*Exhibit 3.2-1. Summary of the content of the 3-year plan (based on Legislative Decree 118/2011).*

Strategic section	Operational section
<ul style="list-style-type: none"> <li>▪ Strategic goals for the whole duration of the mandate;</li> <li>▪ Characterisation of the contextual characteristics within the organisation and its surroundings;</li> <li>▪ Guidelines for the management of the public services (including services no directly managed by the local government);</li> <li>▪ Human and financial resources, namely in terms of public works, quality of the services and their management, management of heritage.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Operational goals that need to reflect the strategic goals;</li> <li>▪ Budget by <i>Missioni</i> and <i>Programmi</i> (Appendix I) – similar to the state and regional budgets.</li> </ul>

Overall, local governments must identify financial, human and instrumental resources available and needed, and related responsibilities of management and control. Also, the political decisions that characterise the institution and the economic, financial and social impact that it may have must be clearly expressed in this document.

In the strategic section, the first step is to define strategic goals based on the content of the programme of the mandate. This is a document elaborated at the beginning of a new mandate by the mayor<sup>18</sup>. It is a binding document, but the structure is not defined by law<sup>19</sup>. It is a political instrument where the mayor, supported by the cabinet<sup>20</sup> and approved by the council<sup>21</sup>, present a general list of intentions for the period of the mandate (usually five years).

Another essential component of the strategic section is the analysis of the internal and external context of the municipality. Particularly, strategic plans applied to the territory (e.g., regional and local legislation) to describe the current situation and plan future operations considering a time horizon of three years. This is crucial to show not only the accounting effects of the choices made but also their

<sup>18</sup> Mayor (*sindaco* in Italian) is directly elected by the citizens resident in the area managed by the municipality.

<sup>19</sup> Legislative Decree 267/2000, 18<sup>th</sup> August, consolidated text of the laws governing local authorities.

<sup>20</sup> Cabinet (*Giunta comunale* in Italian) is composed by cabinet members responsible for specific areas, e.g. culture, environment, social services. These are appointed by the mayor and approved by the council.

<sup>21</sup> Council (*Consiglio comunale* in Italian) is composed by councillors from different parties that are elected by their constituencies.

motivation and consistency with the programme of the mandate, the economic-financial context and the rules established for the public finance.

Nevertheless, this goes beyond the authorisation of expenses. It is aimed at enhancing reliability and incisiveness of policies and programmes to clarify the objectives and the correct and efficient use of resources. By explaining and clarifying the purpose and management objectives, it is possible to plan the resources needed.

In the operational section, local governments need to show the effectiveness and efficiency of the management objectives in which the PSO's policies, programmes and projects are developed. Effectiveness can be measured by the quality of the services or users' satisfaction. At the same time, efficiency is the relationship between the resources used, and the quality of services provided, or operations carried out.

The 3-year plan needs to be adopted every year. Legislation on the matter requires the inclusion of information on the allocation of financial resources related to environmental aspects. It does not specify how environmental information should be reported, remaining a decision of the local governments.

### **3.2.2. Performance management phase**

The year 2011 marked the creation of the performance management phase<sup>22,23,24</sup>. More documents needed to be elaborated to show how local governments optimise the productivity of public work, efficiency and transparency using non-financial indicators and targets. It resulted in the creation of two additional documents with information on what the strategic and operational goals were, how they related to expected results and performance indicators (*Performance plan*), and what the performance indicators' results were (*Performance report*).

The performance plan needs to identify measures, methods and initiatives aimed at implementing the goals defined in the 3-year plan; including the definition of non-financial performance indicators and expected results (descriptive and

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<sup>22</sup> Legislative Decree 150/2009, 27<sup>th</sup> October, implementation of Law n.150, 4<sup>th</sup> March 2009, on the optimisation of the productivity of public work and on the efficiency and transparency of public administrations (09G0164) (modified by Legislative Decree 74/2017, 25<sup>th</sup> May).

<sup>23</sup> Legislative Decree 118/2011, 23<sup>rd</sup> June, provisions relating to the harmonisation of the accounting systems and financial statements of the Regions, local authorities and their bodies, following articles 1 and 2 of the law of 5<sup>th</sup> May 2009, n.42 (including later legislation).

<sup>24</sup> Legislative Decree 33/2013, 14<sup>th</sup> March, reorganisation of the regulations concerning the right of civic access and the obligations of publicity, transparency and dissemination of information by public administrations (13G00076) (modified by Legislative Decree 97/2016, 25<sup>th</sup> May).

specific targets). Indicators and targets should reflect the operational goals defined in the 3-year plan.

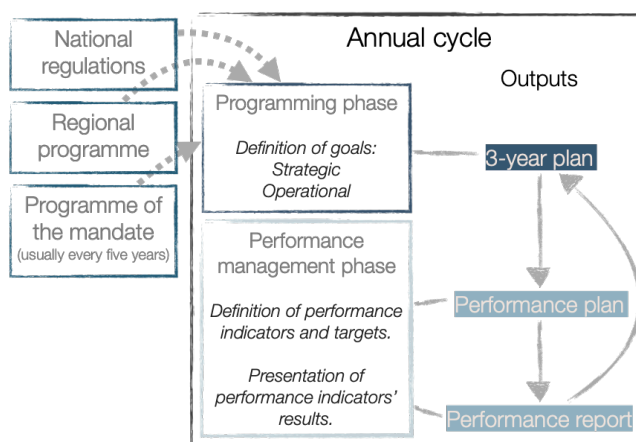
The performance report details the results based on non-financial indicators and targets defined in the performance plan. The performance report also includes the results of the assessment of managers and other employees' performance to allocate compensation based on the profile and performance.

The information presented in this phase should fulfil the following characteristics (Legislative Decree 150/2009):

- Be relevant to the needs of the community, to the institutional mission, to the political priorities and strategies of the administration;
- Be specific and measurable in concrete terms;
- Determine a significant improvement in the quality of the services provided;
- Be specific of a specific time, usually one year (but defined for a 3-year horizon);
- Be commensurable regarding values deriving from standards defined at a national and international level, as well as by comparisons with similar PSO;
- Be comparable with the productivity trends of the PSO with reference, when possible, at least to the previous three years; and
- Be related to the quantity and quality of available resources.

Local governments plan and control what changes. Changes are reflected in the priorities defined in the programme of the mandate, the goals in the 3-year plan and performance indicators that need to be monitored in the performance plan. The formal documents that need to be developed by local governments are illustrated in exhibit 3.2-2.

*Exhibit 3.2-2. Integrated system regulated by law on planning, accounting and reporting that include information beyond financial aspects.*



Despite the dominant tradition focused on financial aspects, the most recent regulation allows local governments to plan, account and report non-financial



aspects. In the Italian context, regulation on sustainability reports is absent. The overall traditional approach on formalism based on the primacy of the law and administrative processes may limit the adoption of sustainability reports voluntarily. Even though governmental entities created multiple guidelines to support local governments in developing sustainability reports, the fact this is still voluntary may play a significant role in the lack of interest in this type of reports and the loss of interest after a sporadic adoption (for details see section 2.2).

The documents presented in exhibit 3.2-2 are the main compulsory formal outputs created by local governments that may contain information on environmental aspects. Exhibit 3.1-2 presents environmental information that also needs to be disclosed publicly by local governments, but this is an informal reporting mechanism that only needs to be presented on the official websites. It is not part of the annual cycle illustrated in exhibit 3.2-2 aimed at supporting decision-making.

The 3-year plan is expected to contain mostly descriptive information, and it could include performance indicators in the characterisation of the territory under local governments' jurisdiction and their immediate surrounding area. The performance plan can include specific goals, performance indicators and targets related to environmental aspects, but the specific set depends on the priorities and goals defined in the 3-year plan. The performance report should include the performance indicators' results and comparison with targets defined under the environmental aspects identified by the local government. It is also expected that the environmental issues identified are in line with the environmental categories *Missioni*, which are associated to a specific allocation of financial resources.

For instance, in the characterisation of the context of the 3-year plan, a local government can identify that the consumption of energy has been increasing. In the same document, it can define as a goal to decrease energy consumption and plan measures to use renewable energy sources. In the performance plan, it could identify performance indicators such as the percentage of energy consumption in the organisation's facilities, and the number of households or organisations in the territory that adopt renewable energy decentralised production facilities. Targets are defined in the performance plan to measure the achievement of the goals. In the performance report, results are presented through the use of performance indicators and targets. Therefore, these documents, that already need to be complied by local governments can represent the related priorities defined by local governments and monitor performance. The scope of measures implemented will depend on the organisational boundaries defined by the local government.

The present research analyses the documents identified in exhibit 3.2-2 in order to study how environmental aspects are presented across mandatory documents. These documents have not been integrated into previous studies on sustainability

reporting in Italian local governments, which limits the understanding of how multiple documents present information and how they are linked.

## Chapter Four: Methodology

Chapter four details the methodology adopted in this thesis. It starts by describing the main aim of the research and framework used to structure the research questions. The use of an interpretative approach and qualitative methods for data collection and analysis is also explained. Section 4.1 presents the research design used and its limitations. Section 4.2 illustrates the methods adopted for data collection and analysis.

This research aims at contributing to a better understanding of changes across time in accounting and reporting practices in local governments. Particularly, 'why', 'what' and 'how' environmental aspects are incorporated in accounting and reporting practices, and the significance of the changes across time. Environmental aspects refer to information associated with pressures in a variety of environmental areas addressing the territory under local governments' jurisdiction, their immediate surrounding area, organisational performance and externalities caused by their operations.

The methodological approach adopted in this study considers the conceptualisation and implementation of change a continuous and iterative process as defined by Mintzberg (1978) and Pettigrew (1985). Managerial decisions combine across time with the effects caused by contextual elements, resulting in changes in local governments.

Changes are muddling and challenging. The context-content-process framework (Pettigrew and Whipp, 1993) is used to distinguish changes for each dimension that emerged from the literature review as important and analyse their interconnections across time. Previous studies have shown the usefulness of this framework in addressing the complexity of the public sector by moving away from static and functional approaches to the study of management accounting practices (see, e.g., Lapsey & Pettigrew, 1994).

This study encompasses the guiding principles of the character of the strategy process discussed by Pettigrew (1992), including (i) exploring strategic choices and changes in the organisation embedded in the outer and inner context of the organisation, (ii) identifying recurrent patterns in the process, for structures and underlying logics (temporal interconnectedness), (iii) analysing the interplay between context and action in shaping and constraining changes, (iv) considering time through a combination of retrospective and real-time analysis using a longitudinal comparative case study design, and (v) linking process analysis to the location and explanation of outcomes.

The present research conducts a longitudinal analysis of changes in accounting and reporting practices across time to answer the following research questions:

*Research Question 1: Why do local governments incorporate environmental aspects in accounting and reporting practices?*

*Research Question 2: What is the content of accounting and reporting practices in local governments related to environmental aspects?*

*Research Question 3: How do local governments go about conceptualising and implementing changes towards the incorporation of environmental aspects in accounting and reporting practices?*

The interconnections across time and between changes allow analysing their significance. A processual analysis creates possible explanations on 'why', 'what', and 'how' based on the associations between context, content and process (Pettigrew, 1997). From this analysis, empirical patterns and theoretical propositions emerge about change, about patterns of change and the dynamics of changing (Pettigrew, 1985).

An interpretive lens is used to uncover, describe and theoretically interpret actual meanings that social actors use in a specific context (Gephart, 2004). The interpretative approach considers that 'objectivity in accounting is largely a myth' (Morgan, 1988). According to this author, this approach allows the researcher to be actively 'engaged in a complex web of reality construction'. Interpretivism is used because the phenomenon does not represent itself; instead, it is the result of elements of a specific context.

The present work also assumes the following (Saunders *et al.*, 2019): (i) the nature of reality is complex, socially constructed, with multiple interpretations and fluctuation of processes, experiences and practices; (ii) there is a focus on narratives, stories, perceptions and interpretations, which constitutes adequate knowledge; and (iii) it is value-bound research as researchers' interpretations are critical to the analysis.

Lastly, the present research constitutes a qualitative research study, both in terms of its design, and research methods used for data collection and analysis. Qualitative research is adequate to collect and analyse data and answer the research questions. This type of research aims to provide evidence on a particular context rather than create general rules concerning how a phenomenon works (de Villiers *et al.*, 2019). It assumes that social phenomena are a social construction that is a result of their interaction, and it is in a constant state of revision (Bryman, 2016). A significant value of this type of research is precisely the description and understanding of human interactions, meanings and processes that compose real-life organisational contexts (Gephart, 2004).

## 4.1. Research design

This thesis follows a case-study design, with an in-depth analysis of a contemporary phenomenon in a real-life context (Robson, 2002; Saunders *et al.*, 2019). Case studies can provide depth, high conceptual validity, understand the context and process, the causes of a phenomenon, and fostering new hypotheses and new research questions (Flyvbjerg, 2011).

At the same time, case studies enable to establish access to meanings and comprehensive understanding of the phenomenon being studied (Saunders *et al.*, 2019). Specifically, a longitudinal comparative case study design is adopted to conduct an in-depth study of the actions, adopting a process thinking design as a social reality is a dynamic process (Pettigrew, 1997).

The present study identifies two case studies that represent extreme situations concerning accounting and reporting practices (as suggested by Pettigrew, 1990). One to two case studies are typically used in qualitative studies on changing processes of management accounting practices in the public sector (see, e.g., Caccia & Steccolini, 2006; Farneti *et al.*, 2019; Fraser, 2012; Lapsey & Pettigrew, 1994). In the present research, two case studies are considered an adequate number to detail the context where changes occur and the role of these constructs in a particular setting, as stressed by Dyer & Wilkins (1991). The description of the patterns from these case studies' data (as suggested by Ahrens & Dent, 1998) allows to illustrate the dynamics of the phenomenon and support the identification of similar dynamics in other cases (Dyer and Wilkins, 1991).

The research design may introduce limitations as two case studies are assessed; the findings are not necessarily generalisable and are dependent on the interpretation of the author. The evidence from the present study applies to the specific case studies and local governments in a similar context and with identical organisational characteristics. Findings are not necessarily generalisable to realities facing other political, managerial and social pressures. In order to portray the applicability of the findings, section 4.2 shows a detailed account of the research methods used for data collection and analysis. Also, the evidence is presented comprehensibly in chapter five, including extracts from official documents and interviews to support the description of patterns and the creation of meaning.

The selection of case studies is made within the specific population of Italian local governments to control extraneous variation and support the definition of limits for generalising findings (Eisenhardt, 1989). Specifying the scope helps to portray how a phenomenon has taken place in a specific context. Hence, the smallest unit of Italian local governance, municipalities, is used as the initial

population. Municipalities are the local governments that are closest to citizens in the provision of services and development of projects.

Two case studies were carefully selected using theoretical sampling to identify patterns in the accounting and reporting processes in municipalities committed to sustainable development. The selection started by identifying the one hundred and seven (107) municipalities that represent the capitals of the Italian provinces NUTS III (as of January 2019). These Italian municipalities are among the ones with the highest population, which is often associated with more resources to conceptualise and implement changes. Larger local governments are associated with higher disclosure relating to sustainability (Alcaraz-Quiles *et al.*, 2015; García-Sánchez *et al.*, 2013; Marcuccio and Steccolini, 2009; Ribeiro *et al.*, 2017). Similar to the occurrences in the private sector, organisational size may influence the disclosure of information.

The official websites of the one hundred and seven (107) municipalities were analysed to support the selection of Italian frontrunners in the commitment to sustainable development. The majority of the municipalities analysed disclose online information associated with environmental aspects (at least related to air, water, energy and waste). This represents a direct response to the EU Directive 2003/4/EC (European Parliament and Council Directive, 2003) and the Aarhus Convention (Aarhus Convention, 1998) on public access to environmental information, as seen in 3.1.

The selection of two case studies followed three steps. Firstly, all municipalities that were formally committed to international initiatives related to sustainable development were considered. In the context of local governments, two initiatives stand out from the literature (for details see section 2.1): the EU Covenant of Mayors and ICLEI membership. Local governments can adopt multiple EU initiatives, but these are the ones most referred to in the literature as a possible reflection of changes related to environmental aspects. The goals of these initiatives are continually monitored by international organisations and can potentially lead to external funding opportunities for local governments. They represent a compromise from the local governments and are associated with specific planning instruments.

Secondly, the information gathered from the websites was analysed. Among the one hundred and seven (107) municipalities, eighteen (18) are signatories of the EU Covenant of Mayors and six (6) out of the eighteen (18) are members of the ICLEI. Within the six (6) municipalities, only one has adopted a stand-alone report voluntarily with environmental information consistently throughout the years. Thus, this municipality was selected as case study A (further named municipality A).

Thirdly, the second case study was identified among the remaining five (5) municipalities, identified in the previous step, considering to which extent it could

provide contrary or complementary evidence. Therefore, case study B (further called municipality B) was identified considering that (i) it is located in a different region (NUTS II), to include a potentially different political and social context<sup>25</sup>; (ii) it has not developed a voluntary stand-alone report with environmental information; and (iii) it has a political landscape considerably different from municipality A.

The main characteristics of these municipalities are shown in exhibit 4.1-1, including the number of inhabitants, density, cabinet members and councillors. Both cases are located in urban areas.

*Exhibit 4.1-1. Characteristics of both local governments (Istat, 2011).*

	<b>Municipality A</b>	<b>Municipality B</b>
Population in the jurisdiction (number of inhabitants)	371,337	111,500
Density in the jurisdiction (inhabitants/km <sup>2</sup> )	2,636	1,384
Cabinet (n. of cabinet members)	Mayor and vice-mayor; nine (9) cabinet members.	Mayor and vice-mayor; eight (8) cabinet members.
Council (n. of councillors)	36 councillors	32 councillors

The selection of the two cases also considered aspects that would affect the understanding of the processes and the contexts, including high experienced levels of the phenomenon under study and the probabilities of negotiating access (Pettigrew, 1990).

It was essential to select two case studies with different approaches to environmental accounting and reporting but with similar commitments to sustainable development. Both cases studied are likely to provide fruitful information to clarify and extend relationships and logic among the issues being studied (Eisenhardt and Graebner, 2007).

## **4.2. Research methods**

### **4.2.1. Data collection**

Longitudinal data was collected by analysing official documents from each municipality and by conducting semi-structured interviews. Multiple sources were used to triangulate data. For each case study, retrospective and real-time data was collected to study change as a continuous process within the specific contexts. The precedents of each case study were considered in order to include ongoing developments of the context influencing and influenced by specific changes (Pettigrew, 1985).

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<sup>25</sup> Even though Italian local governments are under the same national legislation; they may be under different regional laws. Regional governments in Italy have autonomy to implement specific legislation. In addition, Italian regions often reflect historical social, political and cultural differences.

Despite the literature presented in the previous chapters encompassing sustainability accounting and reporting processes, the present research is focused on the environmental component of the processes. This decision is mainly to do with time restrictions to analyse the vast amount of information available in the context of longitudinal studies when using more than one case study. Also, environmental aspects are time over left out of the scope of accounting and reporting studies in the public sector context.

#### **4.2.1.1. Archival material**

A preliminary analysis of a broad scope of documents was performed to understand the context of each case study and identify events where accounting changes had occurred. The primary sources of evidence included official documents such as strategic plans and performance reports, budget and financial statements, voluntarily adopted reports, and other administrative documents, as well as official statistics, minutes of the council meetings and information from the official websites. Accordingly, a timeline of significant events was created for each case study including the identification of documents published annually containing environmental aspects.

Municipalities' official documents are useful sources of information as they reflect accounting practices. Accounting practices are central in studies of organisations and management as they play a crucial role in organising and economising, i.e., representing how people, processes and organisations are shaped (Miller and Power, 2013). By constructing and presupposing, (i) they reflect the physical and abstract spaces inhabited within organisations and society (territorialisation); (ii) they link distinct actors, aspirations and arenas (mediation); (iii) they measure performance (adjudication); and (iv) they are an individualising practice in the extent that it is to be adopted 'freely' within the established controls and regulations (subjectivity) (Miller and Power, 2013).

Environmental information included on the internet was not considered as it does not constitute a formal reporting system with a document as the output. The environmental aspects publicly available online are focused on the 'state of the environment' of the territory, as presented in exhibit 3.1-2. The environmental information needs to be disclosed publicly online by law (based on *Legislative Decree 195/2005*), which might justify its absence in the official documents. Nevertheless, the official documents should reflect all information that is considered important for local governments.

Documents were selected based on the information available on the official websites of the two municipalities under the topic 'Transparent Administration' (*Amministrazione trasparente*). These archives are official representations of the



municipalities. At the same time, they are publicly available as a result of the reforms described in section 3.2 on public sector accounting<sup>26</sup>.

Most documents identified for data collection are driven by law with accountability purposes and for controlling public expenditure. They are not purposefully created with an environmental lens, but they contain information related to environmental aspects. In addition, voluntarily adopted reports containing environmental aspects were considered.

For municipality A, data collection started in 2002 in order to detect possible 'before' and 'after' accounting changes resulting from the adoption of a preliminary voluntary environmental report in 2003. It ends in 2018 as the latest year for which the final documents were available at the time of the analysis. The analysis of the context includes events before 2002 as they are essential in understanding changes reflected in the documents.

The list of documents considered for municipality A is included in exhibit II-1 and exhibit II-2 (Appendix II). Exhibit II-1 includes documents developed due to legislation (section 3.2) divided in 'Programme of the mandate', 'Programming phase', and 'Performance management phase'. Exhibit II-2 shows the list of documents considered that are voluntarily developed. The 'social report/activities' report shows how operations are achieved and the value-added to society. The 'environmental report' contains performance indicators and targets on the state of the environment in the jurisdiction and the organisational environmental performance.

Data collection in municipality B included documents from 2007 to detect possible 'before' and 'after' practices resulted from the implementation of new legislation on accounting practices in 2011. It finishes in 2018 as, at the time of data collection, it represented the latest year for which the final reports had been published.

The documents' list used for data collection and analysis of municipality B is illustrated in exhibit II-3 (Appendix II). All documents presented are compulsory. The content may have additional information beyond what is mandated. These documents were selected because they contain information on environmental aspects. This municipality does not develop voluntarily documents including environmental information.

In the case of municipality B, three types of documents are represented. The first group presents the main output of the 'Programming phase' where the municipality describes the activities planned. The second group characterises the 'Performance management phase' that was implemented in the Italian PSO in

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<sup>26</sup> Legislative Decree 33/2013.

2011. For details on the rules of the documents see, respectively, 3.2.1 and 3.2.2. In the third group of documents, represented by the 'activities' report', the organisation describes the activities performed.

For municipality B, activities related to what was achieved related to environmental aspects (and others) are described in reports '*Relazione della giunta comunale al rendiconto*' and '*Rediconto dell' ano xxxx – Relazione sulla gestione e nota integrativa*'. In the case of municipality A, these reports only contained financial-related information, so they were not considered for data collection in case of municipality A. These reports are compulsory, but the requirements are only related to financial information. Municipality A described the activities performed in the social reports until 2010, and from 2011 in the performance report.

In both case studies, the programme of the mandate is used as a complementary source of information as it is a public document on the intentions of the politicians governing the municipality. It is published at the beginning of every new mandate, which usually happens every five years. All other documents are created annually.

#### **4.2.1.2. Semi-structured interviews**

Semi-structured interviews were conducted to complement, and triangulate information that emerged from the archival material. Semi-structured interviews can complement other methods for the collection of qualitative data, being a flexible method to identify the interviewee's perspective (Bryman, 2016). As stories matter in this research, it was crucial to gather data from key stakeholders' experience on the current and past elements related to environmental accounting and reporting.

Interviews are essential to identify changes as a two-way dialogue can be established between interviewer and interviewee. During the interviews, the interviewer collects insights or understanding of opinions, attitudes, experiences, processes, behaviours and predictions (Rowley, 2012). It is assumed that the participants are knowledgeable agents, as highlighted by Gioia et al. (2012). In order to limit bias from data gathered from the interviews, multiple and highly knowledgeable informants who view the phenomenon from various perspectives were interviewed, as suggested by Eisenhardt & Graebner (2007).

The profiles of the interviewees are summarised in exhibit 4.2-1. Interviewees were identified based on their role within the municipalities and to which extent they could provide specific and complete information to understand the phenomenon being studied. The first interviews allowed to identify other possible interviewees that could provide more data to identify changes. A diversity of profiles of the interviewees (different roles, experience, backgrounds) provided useful insights to complement data, which supported the understanding of the process.

## CHAPTER FOUR: METHODOLOGY

The most important criteria for interviewee's selection was their engagement in previous changes related to environmental aspects during the period of analysis.

Following the ethical considerations defined by Fontana and Frey (2003), all informants were guaranteed confidentiality, and the goals and use of their responses were explained. Interviewees personal name and the identity of the municipality is not disclosed to guarantee the confidentiality of the information provided during the interviews. The order of the profiles illustrates the chronologic order when the interviews took place.

*Exhibit 4.2-1. Profiles of interviewees at case studies A and B.*

<b>Interviewees' code</b>	<b>Position and department</b>	<b>Number of participants in the interview</b>
<b>Municipality A</b>		
▪ A0	▪ Head of the financial reports: Financial Resources Office.	▪ Two-to-one person (between two researchers and one participant).
▪ A1a	▪ Coordinator at the Planning and Control Office.	▪ One-to-one person.
▪ A2	▪ Coordinator and project manager at the Environmental Quality Office: Sector Environment and Green Areas, Department.	▪ One-to-one person.
▪ A3	▪ Senior administrator at the Statistics Office: Sector Planning, Control and Statistics.	▪ One-to-many (between the researcher and two participants).
▪ A1b (same as A1a)	▪ Coordinator at the Planning and Control Office.	
▪ A4	▪ Project manager and trainer at the entity responsible for stakeholder engagement processes.	▪ One-to-one person.
▪ A5	▪ Project manager of projects with environment and social impacts at the entity responsible for stakeholder engagement processes.	▪ One-to-one person.
▪ A6	▪ Member of the cabinet for Urban Planning, Private Building, Environment, Protection and Rehabilitation of the Historic City.	▪ One-to-one person.
<b>Municipality B</b>		
▪ B1	▪ Head of the Finance and Economic Office.	▪ One-to-one person.
▪ B2	▪ Senior administrator at the Community Policies Office.	▪ One-to-one person (other people were in the same room, but they did not intervene).
▪ B3	▪ Coordinator of projects on environment and mobility at the Community Policies Office.	▪ One-to-one person (other people were in the same room, but they did not intervene).
▪ B4	▪ Senior administrator at the Urban Environment Office: Sector Environment, Energy and Urban Planning.	▪ One-to-many (between the researcher and three participants).
▪ B5	▪ Coordinator at the Urban Environment Office: Sector Environment, Energy and Urban Planning.	
▪ B6	▪ Project manager at the Community Policies Office.	

In the case of municipality A, seven people were interviewed. A0 was interviewed at the beginning of this study in order to understand the potential of this case study providing rich information regarding accounting and reporting practices related to environmental aspects. A1a and A1b are the same person, questioned in different moments in time. In the second interview, A1b and A3 were interviewed at the same time in order to detail information related to more operational aspects.

For municipality B, six people were interviewed. The cabinet member for the environment was not interviewed as the current member of the cabinet had taken the seat only in 2019, and at the time the interviews took place he/she had just started the new role.

The number of interviewees is associated with the moment when the saturation of data was achieved. While interviews were taken place, data collected was being analysed. The interviews stopped when it was possible to gather enough evidence from different sources that complemented and confirmed evidence also found in the archival material.

An interview guide was developed to conduct the semi-structured interviews, based on the literature presented in chapters two and three. Themes and critical questions composed a flexible interview guide to support dialogue between interviewer and interviewee (Bryman, 2016). It was essential to create a guideline that would be flexible enough to adapt to the responses from each interviewee (Saunders *et al.*, 2019).

During the interviews, interviewees were asked questions concerning their experience to avoid generic or concrete questions that could show bias in the findings. Interviewees were asked for concrete examples in order to increase the authenticity of the data collected. Questions included 'why', 'what' and 'how' environmental accounts and reports were developed in a specific way, and what were the barriers to their development. Interviews allowed an understanding towards changes in municipalities, (i) how environmental aspects are identified, (ii) what are the reasons for the continuity or discontinuity of the processes, (iii) what is conducted in addition to what is mandatory, and why, or why it is not, (iv) what are the roles of the agents of change and how they conceptualise and implement change; and (v) what is the role of stakeholder engagement processes and who is engaged.

All interviews were scheduled by email, where the aim and scope of the interview were detailed. A few of the interviewees were contacted by phone in case it was necessary a re-schedule, confirmation, or additional information. Some of the interviews were conducted between the researcher and more than one interviewee owing to agenda restrictions. There were no significant restrictions in accessing documents (most available online) and interview schedules.

All interviews were conducted face-to-face between March and November 2019 at the interviewees' offices. Notes were taken during the interviews to complement the information of the initial interview guide. There was no limitation of time. The interviews ranged from 30 to 90 minutes in a total of thirteen interviews. Interviews were audio-recorded and transcribed in order to support the analysis of the data, which resulted in 480 minutes of audio recording and thirteen transcriptions. Data from interviews was used as complementary data information, mostly to triangulate information gathered from documents and complement contextual information.

#### **4.2.2. Data analysis**

Each case study was examined separately in order to build a sequence of events that could explain how environmental accounts and reports are constructed. After this, a cross-case analysis was performed based on data that emerged from the analysis within each case study.

Firstly, all documents presented in Appendix II (Exhibit II-1, Exhibit II-2 and Exhibit II-3) were read in order to understand the overall structure, content and identify possible elements of context.

Secondly, the volume of the entire document was reduced to a focused set of extracts related to environmentally related information. By reading all documents, it was possible to identify all environmental aspects addressed and how they were represented. This step was crucial to let data emerge from text without preconceived categories. Nevertheless, the environmental aspects correspondent to the categories *Missioni* 09, 10, 17 and respective *Programmi* were considered as guidelines (for details see Appendix I).

Thirdly, a worksheet was created containing sections in which to record extracts related to each dimension considered in the context-content-process framework by type of document, the section under which it appears, and by year. Each extract is related to information on what was planned and what was achieved. To this end, tables and charts were also added to the worksheet when these could illustrate better than words how case studies represent environmental aspects. Unerman (2000) emphasises that images are an essential component of disclosures as they are a powerful tool in narratives for stakeholders who just take a glance throughout the report. Also, what was not mentioned was noticed, significantly when a different type of documents referring to the same year reported information differently.

The various extracts were compared firstly within documents belonging to the same year (i.e., throughout the annual cycle of reporting) and later between the same type of document across time. The analysis of the context in the process of change considers vertical and horizontal levels of the phenomenon and the interconnections between these across time (Pettigrew, 1990). This approach allowed to identify changes between higher and lower levels of analysis and the

sequential interconnectedness between events. Different stages based on the continuity or discontinuity of changes were identified, namely, by the inclusion of indicators, or by using other reporting instruments. This allows comparing how different documents are developed, how each document is related to each other, and how the environmental accounting practices change throughout time.

Fourthly, the analysis focused on when information on specific environmental aspects emerged; and whether it became dominant across time. Particularly, events that led to the presence of a specific type of information or the specific way it is presented were identified, along with who was engaged in changes and how information was presented.

The quality of disclosure is also assessed by analysing the emphasis on each environmental aspect and the location of the information (the type of document) (Guthrie *et al.*, 2004). This allows analysing to which extent, for instance, environmental activities planned are performed.

Concerning interviews, these were analysed through a sense-making and interpretive process. This was also conducted separately for each case study. Data from interviews was identified based on how well they could explain or predict ongoing interpretations and their relevance (Suddaby, 2006). This involves a constant comparison between data from interviews, documents and the identification of contextual factors in order to give meaning to the data and the positioning of meaningful and significant findings (Mahama and Khalifa, 2017).

All transcriptions were read in order to develop an understanding of what interviewees stated. Information was organised in extracts by identifying data that could help to answer the research questions and support the development of knowledge concerning the specific contextual factors, specifically on answering 'why' specific changes were made, 'what' changed, and 'how' changes took place. Several quotes from interviews were used to either confirm or contradict one another and the information from documents. By comparing the information between documents and changes, it was possible to identify patterns.

The analytical framework on context-content-process used to guide the identification of changes is portrait in exhibit 4.2-2. Pettigrew (1992) defines two contextual levels, including the outer context related to the economic, business and political environment; and the inner context referring to the culture (e.g., beliefs, values, norms), politics (e.g., distribution of power), relationships and structures produced by actions of the individuals of the organisation within the organisation. The interplay between these changes influence 'what' and 'how' environmental accounting and reporting practices change across time. Change is influenced by internal and external stakeholders' attitudes and relationships, and by mobilising support for a change within the power structure (Pettigrew, 1985).

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*Exhibit 4.2-2. Analytical framework (based on the context-content-process framework).*

Dimensions	Elements associated with the dimensions
Context	<p><b><u>Outer context</u></b></p> <ul style="list-style-type: none"> <li>▪ Legal framework (management control system and reporting obligations);</li> <li>▪ Political system (national and local political agenda);</li> <li>▪ Local characteristics, including accounting practices and innovations of other PSO.</li> </ul> <p><b><u>Inner context</u></b></p> <ul style="list-style-type: none"> <li>▪ Organisational structure;</li> <li>▪ Political commitment, leading change (existence of a local 'sustainability champion', complementary and multi-faceted change), distribution of power;</li> <li>▪ Organisational culture, including the beliefs, values and norms used to legitimate action together with the languages, codes and rules which inform those decisions.</li> </ul>
Content	<ul style="list-style-type: none"> <li>▪ Environmental aspects addressed;</li> <li>▪ Use of specific guidelines, frameworks and standards;</li> <li>▪ Scope, length, indicator use to support data.</li> </ul>
Process	<ul style="list-style-type: none"> <li>▪ Stakeholder engagement (who has engaged the process and to which extent);</li> <li>▪ Communication channels.</li> </ul>

Finally, changes are analysed for each case study considering the five interrelated factors to explain the successful management of change (Pettigrew and Whipp, 1993), including (i) environmental assessment (continuous monitoring of internal and external context), (ii) human resources as assets and liabilities (employees are shown their value and feel trusted by the organisation), (iii) linking strategic and operational change (plans are implemented and transformed across time), (iv) leading change (creating the right conditions for change, coordinating activities and steering by setting the agenda for the right vision and values), and (v) coherence (consistent – with clear goals – consonant with the context, provide a competitive edge and be feasible).

Findings from documents and interviews enabled to conduct an in-depth description of the processes within cases, and a cross-case analysis using divergent techniques. The theoretical comparison between the two case studies is developed by analysing data in divergent ways (Eisenhardt, 1989). According to this author, this helps to undermine the danger of reaching premature or false conclusions owing to information-processing biases.

In the cross-case analysis, the two case studies are compared, considering the elements identified under the dimensions' context-content-process framework for each case study. The findings create theoretical replication by identifying the patterns associated with the dimensions. Patterns were interpreted for meaning creation (Mahama and Khalifa, 2017; Patton, 2002), particularly on (i) how findings were supported by data (interpretation of findings – Chapter five); (ii) how findings

contributed to understanding the phenomenon (identifying and comparing changes across time – Chapter five); (iii) how findings relate to other studies (discussion with the literature review – Chapter six); and (iv) how findings contributed to the further understanding of the phenomenon (Chapter six and seven).

It should be noted that the literature analysed in chapter two refers mostly to documents that are developed voluntarily. This literature is used in the discussion of the findings (chapter six) to analyse the environmental information provided within compulsory and voluntary documents that goes beyond the legal requirements defined in chapter three.



## Chapter Five: Findings

Chapter five is divided into three sections correspondent to the content-content-process framework. Each dimension presents findings relative to each municipality and a cross-case analysis. Changes and their interconnections are investigated, as well as the significance of the changes across time.

### 5.1. Context

#### 5.1.1. Municipality A

The most significant events in the development of municipality A's documents are represented in Exhibit 5.1-1. Municipality A voluntarily adopted a preliminary environmental report in 2003 and a social report in 2005. In 2011, it implemented a new structure for the 3-year plan. At the same time, municipality A created a new set of documents belonging to the performance management phase as a result of the application of legislation. The social report was abandoned in 2011, while the environmental report has been continually developed annually since 2006.

*Exhibit 5.1-1. Timeline of contextual milestones related to municipality A's documents.*

Year	Event	Main features
2003	Voluntary adoption of an environmental report.	<ul style="list-style-type: none"> <li>▪ EU co-funded project to implement an environmental reporting system (2002-2004);</li> <li>▪ A preliminary environmental report published in 2003.</li> <li>▪ From 2006, an environmental report is developed annually.</li> </ul>
2005	Voluntary adoption of a social report.	<ul style="list-style-type: none"> <li>▪ From 2005 to 2010 a social report is developed annually;</li> <li>▪ Environmental information is included in the social report from 2007 to 2010.</li> </ul>
2011	New regulated structure of the 3-year plan is adopted.	<ul style="list-style-type: none"> <li>▪ Inclusion of strategic and operational goals and allocation of resources by <i>Missioni</i> and <i>Programmi</i>.</li> </ul>
2011	Performance management phase is implemented.	<ul style="list-style-type: none"> <li>▪ Inclusion of performance indicators and targets linked to strategic and operational goals defined in the 3-year plan.</li> </ul>

##### 5.1.1.1. Outer context

In municipality A, it is possible to identify two elements related to changes correspondent to the outer context: the legal framework and the specific local context.

The legal framework depicted in section 3.2 is applicable to municipality A. As stated in 3.2, throughout the years, Italian local governments have been faced with more strict rules to show how financial resources are allocated. Simultaneously, local governments have suffered a significant restriction on the amount of financial resources allocated from the central government, which limits its engagement in

activities beyond what is mandatory by law. Despite having its sources of revenue, financial resources allocated by the central government have significant impacts on the municipality's decisions to implement changes.

In the 2000s, the Italian central government discussed a bill to introduce a compulsory environmental accounting system to PSO in order to monitor the achievement of environmentally related goals. The existing accounting systems were failing to provide an account relating to environmental aspects. Nevertheless, a law was never approved. At EU/national level, legislators have minimised the impact of the law on the scope and boundaries of accounting and reporting practices related to environmental aspects. In the absence of legislation, it is municipality A's choice to implement strategies and operations towards accountability under its autonomous governance status.

The outer context in municipality A is also characterised by stakeholder engagement initiatives. Multiple projects are developed with key stakeholders aimed at the municipality and metropolitan/province level (NUTS III). A variety of local governments in the same region proactively implement environmentally related changes. In municipality A's jurisdiction, a foundation is responsible for managing local efforts to develop specific projects.

A foundation was established in 2018, which resulted from a partnership between municipality A and the local University. Before 2018, an equivalent entity promoted culture and local urban initiatives. Currently, the foundation's activities are primarily sustained by PSO within the metropolitan area and local companies.

In this non-profit organisation, different members of the civil society are engaged in public participation initiatives and co-design efforts to create and implement projects in the jurisdiction of municipality A and the metropolitan area. Depending on the projects, different groups are engaged, such as local associations, trade unions, local committees or other public entities through participatory processes.

The projects are based on initiatives from top-down approaches from municipality A's cabinet members, regional laws, and EU projects; as well as bottom-up initiatives created by specific stakeholder groups. The emergent projects depend on the 'political orientation', 'funding' and 'strategy of the city' as described by interviewee A4 as follows:

*'If there is some funding in some areas, we decide to invest in those topics because there is the possibility of having resources to develop stakeholder engagement initiatives. In the case of the general urban plan, there is a regional law that states as compulsory to do this, including hearing citizens, so we need to do it. In sum, there is political orientation, but also the funding*

*available and the strategy of the city. Also, some districts<sup>27</sup> may ask about specific things the next year, like mobility. Then the member of the cabinet also adds that topic; mainly, because it is also a strategic priority area' (Interviewee A4).*

These initiatives are only possible due to a favourable local context to conceptualise and implement changes towards environmental aspects. Local PSO and companies support the foundation with people exclusively working towards the implementation of multiple projects. At the same time, local stakeholder groups have an interest in participating in decision-making. Besides stakeholder engagement initiatives in the territory, the region where municipality A is located is also associated with different local governments proactively implementing environmentally related changes.

#### **5.1.1.2. Inner context**

Municipality A reflects two elements related to changes relative to the inner context: the political commitment and organisational culture.

The decision to engage in environmentally related initiatives, as well as to voluntarily develop an environmental report was an internal decision pushed forward by the cabinet member for the environment and supported by the council. Interviewee A2 highlights that the council supports the development of the environmental report since its first implementation. In the first experiment, the council considered it was a useful tool to discuss environmental aspects:

*'When we started, it was fantastic. It works very well with the council. The council was delighted when we started. In the meetings, they would start talking about trees, water, everything' (Interviewee A2).*

In the environmental report 2006, the cabinet member for the environment states that an environmental report is a valuable tool for planning, monitoring and evaluating environmental policies that are being implemented by municipality A.

*'The work carried out on ten indicators led to very significant results on the evaluation of the choice of actions, but first of all on the attention to be paid in the selection of the indicators and in the definition of the targets to be achieved. This confirms the critical support function that the environmental accounting tool can give to the planning, monitoring and evaluation of environmental policies' (Quote from the cabinet member for the environment, Final environmental report 2006, p.3).*

The voluntary environmental report continued to be adopted throughout the years due to the continuous support of the cabinet member for the environment and the

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<sup>27</sup> District (*quartiere* in Italian) is a smaller division within medium and large municipalities in Italy.

council. They consider the environmental report a useful tool to summarise the state of the environment in the territory:

*'It is a voluntary instrument that could have died after a few years. However, it is something that first impassioned the cabinet member for the environment, and later also the council. They see it as an instrument that gives a valuable snapshot of the current state of some environmental aspects that they do not often find' (Interviewee A2).*

The programme of the mandate 2016-2021 illustrates the political commitment towards an active role in Europe and in achieving the international commitments in implementing efforts towards changes:

*'[name of the city] should maintain its European role, not only through strategic infrastructures but also through its contribution to the achievement of the objectives deriving from international commitments (Paris COP 21 which establishes the reduction of GHG by 40% by 2030) and from regional commitments' (Programme of the mandate 2016-2021, p.19).*

A continuous political commitment present in municipality A supports the consistency towards the conceptualisation and implementation of changes across time. Evidence also shows the municipality's position in monitoring its contribution to achieve international commitments and maintain its 'European role'.

The organisational culture is another change within the inner context. It is associated with the dominant logics of integration with the EU environmental policies. Municipality A is characterised by a political continuity that has led to the adoption of consistent environmental policies and practices across time. The current mayor (who took the seat in 2011) was the cabinet member for the environment from 2004 to 2010. From 2011, the cabinet member for the environment had been previously an environmental consultant for municipality A.

According to interviewee A6, the fact that the same people have been working in the local government supports the continuous implementation of similar beliefs, values and norms in the organisation. This can be seen from the comment below.

*'In this political continuity, a continuity of people that have had different roles, in these ten years it has structured the idea of having a city in which the environment is an essential part of the communication and vision. The environment is part of the objectives in the programme of the mandate' (Interviewee A6).*

Municipality A joins efforts towards changes that are in line with EU policies and legislation. Thus, the environmental report is implemented to contribute to the

‘development, implementation and updates’ of the EU policy and legislation related to environmental aspects:

*‘The purpose of this instrument [the environmental report] is to contribute to the development, implementation and updates of Community policy and legislation in the field of the environment, particularly as regards the integration of the environmental aspect into other policies and to contribute to sustainable development in the Community’ (Social report 2006, p.189).*

Municipality A has possessed a dominant logic and set of beliefs, values and norms, favourable towards the implementation of environmental strategies and practices to monitor changes in line with the EU environmental priorities.

### 5.1.2. Municipality B

The most significant events in the development of municipality B’s documents throughout the analysis are depicted in exhibit 5.1-2. It includes only documents regulated by law as no voluntary documents with environmental information are annually developed. In 2011, municipality B implemented the new rules on the structure of the 3-year plan and created the performance management phase documents, as required by law. Despite not mandatory by law, municipality B includes what was achieved regarding environmental aspects in the activities’ report. This document is mandatory by law, but the rules are limited to financial aspects.

*Exhibit 5.1-2. Timeline of contextual milestones related to municipality B’s documents.*

Year	Event	Main features
2011	New regulated structure of the 3-year plan is adopted.	<ul style="list-style-type: none"> <li>▪ Inclusion of the allocation of resources by <i>Missioni</i>.</li> </ul>
2011	Performance management phase is implemented.	<ul style="list-style-type: none"> <li>▪ Inclusion of performance indicators and targets linked to strategic and operational goals also defined in these documents.</li> </ul>

#### 5.1.2.1. Outer context

Within the outer context, environmentally related changes in municipality B are associated with the legal framework and the occurrence of an environmental emergency.

The legal framework presented in section 3.2. is applicable to municipality B. The implementation of environmental accounting and reporting is voluntary for local governments. Municipality B, like other municipalities, is considerably dependent on the financial resources allocated from the central government and the rules on the legal documents that need to be developed annually.

At the end of 2010, the territory managed by municipality B was devastated by floods due to extreme weather conditions. Multiple areas in the northeast of Italy and

other countries endured severe floods that had significant impacts, including the loss of human lives and destruction of infrastructure. This event forced the Italian central government to activate the state of emergency in the region during at least two years.

After this, local and regional governments in the Northeast of Italy, as well as countries in the centre of Europe, engaged in specific projects and services to minimise the impacts. The regional government, where municipality B is located, was actively engaged in EU funded projects to face the impacts of floods and to prevent future impacts. This event has an impact on municipality B's changes towards environmental aspects.

### **5.1.2.2. Inner context**

Two elements related to changes relative to the political commitment and organisational culture are intrinsic in the inner context. Municipality B has been mostly governed by right-wing parties, except from 2008 to 2017, which represents the majority of the period of analysis of the present research.

In the programme of the mandate 2008-2013 (before the environmental emergency) municipality B recognised the vital role of the EU as most legislation applicable to Italy is based on EU policies as follows:

*'It is the European factor that has transformed the Italian legal system in depth; and that requires local authorities to confront a new situation in many sectors' (Programme of the mandate 2008-2013, p.51-52).*

Municipality B documented the need to create a 'more European' city 'that takes care of its environmental future' by decreasing traffic congestion, improve air quality and adopt a different mobility system.

*'We want a city that takes care of its environmental future. We want to fight urban traffic congestion and air pollution that has now reached unsustainable levels. We want to build a city with a different local mobility system: more European, more efficient and compatible with the environment' (Programme of the mandate 2008-2013, p.12).*

As seen in section 3.2, local governments need to guarantee the achievement of environmentally related legislation and make the information publicly available. Municipality B's documents reflect a political commitment on the fulfilment of the legislation and the implementation of an environmental agenda in line with EU environmental policies.

The organisational culture in municipality B demonstrated limitations in its environmentally related changes. Interviewee B1 stressed that municipality B is

restricted in engaging in activities beyond being mandatory due to the limited financial resources available:

*'In the last years, the municipalities in Italy have had a big problem with human resources. There was a block to the turnover that caused an increase in the average age and paused the replacement of people. This is, in my opinion, the reason why currently, activities beyond what is compulsory are not conducted' (Interviewee B1).*

At the same time, civil servants show a perception that an internal commitment towards environmentally related efforts is missing to conceptualise and implement changes and monitor the environmental changes.

*'It is a matter of internal programming. There is a lack of internal will. Nobody in the political spectrum, independently of the party, pushed to have a type of non-financial report or plan. Having only a report is one thing, but having a plan is another, for the municipality and for the city. There is no report neither a planning instrument' (Interviewee B5).*

Data from interviews reflect a lack of organisational culture concerning changes in the environmental context. At the same time, municipality B illustrates a political commitment to implement EU environmental priorities.

### **5.1.3. Cross-case analysis**

Both cases studies are located in the same country. Thus, they are under the same legal framework and face the same rules and restrictions imposed by national law on accounting and reporting practices. This context also confers them the same degrees of freedom to conceptualise and implement changes across time in addition to regulated accounting and reporting practices.

The Italian municipalities analysed need to develop accounting and reporting practices to show how operations are planned and achieved as well as the costs related to each cycle of documents. Consequently, both apply the law by developing accounting and reporting practices according to the categories *Missioni* presented in Appendix I, which include environmental aspects related to the state of the environment in the territory. Each municipality can activate different *Missioni* according to their priorities. *Missioni* 09 is associated with the 'sustainable development and protection of the territory and the environment', including, soil protection; environmental protection, enhancement and recovery; waste management; integrated water service; protected areas, natural parks, naturalistic protection and forestation; protection and enhancement of water resources; sustainable development of mountain areas in small municipalities (if applicable); and air quality and pollution reduction. *Missioni* 10 is connected with 'transport and right to mobility', including rail transport; local public transport; water transport; other modes of transport; and viability

and road infrastructure. *Missioni* 17 addresses 'energy and diversification of energy sources'.

The scope of the regulated documents is limited to a variety of environmental areas addressing the territory under local governments' jurisdiction and their immediate surrounding area. Organisational environmental performance and externalities caused by their operations are out of the scope of the regulated documents, which makes them less important for local governments as there are no rules to follow neither penalty for misconduct. By leaving out of the reporting boundaries organisational environmental performance and externalities caused by their operations, the legal framework supports an incomplete account of the reality and the full costs associated with the development of activities by local governments.

The legal framework applicable to Italian local governments defines the boundaries of environmental aspects addressed in accounting and reporting practices. Considering the primacy of following rules and legal instructions, it is unlikely that environmental aspects considering organisational environmental performance and externalities caused by their operations are addressed in Italian local governments. The rules are defined by legislators and other key stakeholders from the central government as applicable to all Italian local governments.

Nevertheless, each municipality interprets the degrees of freedom within the legislation in different ways due to other elements identified in the outer context but also differences associated with the inner context. The interplay between outer and inner contextual elements influence why local governments incorporate environmental aspects in accounting and reporting practices across time. The contextual characteristics of each municipality induced 'what' and 'how' to conceptualise and implement changes across time to accounting and reporting practices.

In the case of municipality B, this municipality applies the legal framework as it is described. It selects environmental aspects that are considered relevant by internal stakeholders within the boundaries defined by the law. In the case of municipality A, findings show an expansion of the boundaries considered in the legal framework through the adoption of a voluntary stand-alone environmental report including organisational environmental performance indicators.

This difference is in part explained by the local outer context that characterises municipality A. This municipality is located in a region characterised by various local governments that implement changes related to environmental aspects in addition to what is regulated. In addition, multiple projects are developed with key stakeholders at the municipal and metropolitan level. This is possible due to a foundation responsible for conceptualising and implementing voluntary projects funded by local PSO and companies. Key stakeholders participate in co-creation initiatives related to urban planning. The use of participation in co-creation initiatives is a practice in Nordic countries who have implemented forms of public participation and an orientation



towards citizens needs beyond what is mandatory. It is less common in countries like Italy and other southern European countries associated with a more hierarchal and technocratic approach rather than participatory.

This context influenced the participation of municipality A in an EU project to implement an environmental report, with the participation of other PSO from the same region. The project emerged during a time that the Italian central government was discussing a bill to introduce a compulsory environmental accounting system to PSO. Municipality A and other governmental entities in the same region looked for ways to implement an environmental reporting system. This could have been a joint effort to anticipate the implementation of legislation.

In the end, the bill was not approved. Nevertheless, municipality A continued developing across time, voluntarily, the environmental accounting and reporting, expanding the boundaries of environmental aspects considered in the legal framework. The continuous adoption of municipality A across time is explained by the dominant institutional logics, within the political commitment and organisational culture, that supports the voluntary practice.

In the case of municipality B, the existence of an environmental emergency that municipality B did not predict helps to explain why changes occurred in a municipality characterised by an inner context associated with an organisational culture bounded to changes beyond what is regulated by law. The fact that an environmental emergency occurred in a broader area (not only in the territory of municipality B) also influenced municipality B in the joint work towards implementation of change needed in the territory.

An environmental emergency has the specific characteristics of an event that happens suddenly and with devastating and irreversible impacts for the population, such as the loss of human lives. Thus, municipality B did not have any other option than to act. It was not possible to maintain its inertia due to the strength of the environmental, social and economic impacts which force municipality B to respond. The response included the need to search for external funding to implement changes needed to minimise the impacts.

Besides changes in accounting and reporting practices due to legislation, both case studies conceptualised and implemented changes when 'kick/jolts' were presented in their local outer context. In the case of municipality A, the decision to start voluntarily developing the environmental report emerged at a time that the Italian public sector was being asked for more transparency, accountability and responsiveness to stakeholders. In the case of municipality B, the occurrence of the environmental emergency led municipality B to search for external funding to minimise impacts on climate change effects. However, it will be later seen that changes in accounting and reporting practices in municipality B were mainly 'cosmetic', while in municipality A led to more transformational changes.

In both case studies, the political commitment helps to explain why both municipalities recognise the importance to align changes to the EU environmental priorities and agenda. The organisational culture has an important influence on changes. Both municipalities reflect a different organisational culture.

Municipality A is characterised by a continuity of similar people in decision-making roles which explain the continuous adoption of the voluntary stand-alone environmental report. Similar parties have been in power in municipality A, which associates it with similar changes across time and continuous political support of past changes that had been conceptualised and implemented. In terms of organisational culture, the dominant logic is characterised by a set of beliefs, values and norms in line with the EU environmental priorities. The fact also influences organisational culture as similar people has taken the seat in relevant positions to influence change in the municipality.

In municipality B, the presence of a left-wing party influenced the commitment to the EU environmental policies at the beginning of 2008. This municipality had been governed mostly by conservative governments except for the period from 2008 to 2017, which constitutes the majority of the period of analysis of the present research. The fact that a left-wing party took the seat in 2008 influenced a change in the position of municipality B towards their determination to adopt policies related to EU environmental priorities.

The occurrence of the environmental emergency in municipality B also helped to conceptualise and implement changes in this municipality due to the need to find external funding to face impacts. However, as mentioned before it will be seen that the implementation of projects is not significantly related to accounting and reporting practices.

Contrary to municipality A, municipality B presents a limited organisational culture to implement changes beyond the ones regulated and needed by sheer necessity due to environmental emergencies. Municipality B justifies the lack of changes in accounting and reporting practices with the financial restrictions that Italian local governments have faced and consequent limitation of human resources to implement changes in addition to the ones required by law.

The elements identified in the outer and inner context help to explain why local governments incorporate environmental aspects in accounting and reporting practices and also why they implement changes in environmentally related practices. It would not have been possible to understand why changes emerge without the elements of context identified. These elements need to be contextualised in the specific case study where they are represented. Exhibit 5.1-3 summarises the main elements of context influencing changes across time in municipality A and B.

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*Exhibit 5.1-3. Elements of context influencing changes across time in municipalities A and B.*

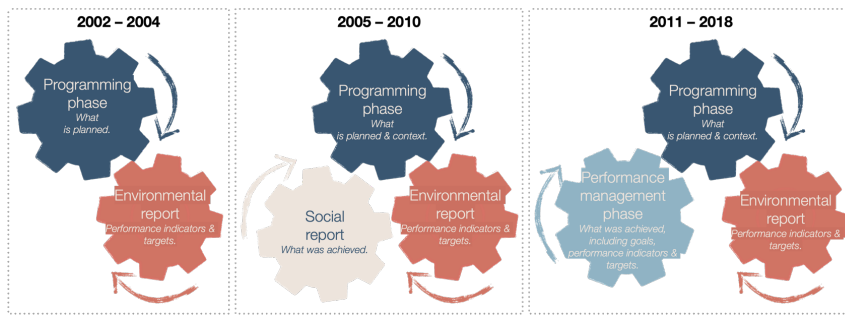
Dimensions associated with the framework	Elements influencing changes across time	
	Municipality A	Municipality B
Context	<p><b><u>Outer context</u></b></p> <ul style="list-style-type: none"> <li>Legislation to incorporate strategic and operational goals, as well as non-financial indicators and targets.</li> <li>Stakeholder engagement initiatives at the local and metropolitan area level; and local governments in the same region implementing environmentally related changes.</li> <li>Variety of local governments in the same region proactively implementing environmentally related changes.</li> </ul> <p><b><u>Inner context</u></b></p> <ul style="list-style-type: none"> <li>Political commitment to integrating EU priorities and a voluntary stand-alone environmental report.</li> <li>Organisational culture in line with EU environmental policies.</li> </ul>	<p><b><u>Outer context</u></b></p> <ul style="list-style-type: none"> <li>Legislation to incorporate strategic and operational goals, as well as non-financial indicators and targets.</li> <li>Environmental emergency related to floods had significant impacts that lead to 'cosmetic' changes to accounting and reporting practices.</li> </ul> <p><b><u>Inner context</u></b></p> <ul style="list-style-type: none"> <li>Political commitment to minimise the significant impacts caused by floods.</li> <li>Reserved organisational culture to implement changes beyond mandatory or needed due to the environmental emergency.</li> </ul>

## 5.2. Content

### 5.2.1. Municipality A

Four elements related to changes characterise the content of the sources of information analysed for municipality A: (i) the adoption of the dominant environmental agenda, (ii) mobility and air quality as the dominant topics; (iii) the complementarity of the documents; and (iv) organisational environmental performance. These elements address the main content of the documents analysed, how environmental information is structured and dealt with, and what changes across time. Exhibit 5.2-1 illustrates the type of documents developed by municipality A during the period of analysis.

Exhibit 5.2-1. Type of reports analysed in municipality A.



### 5.2.1.1. Adoption of the dominant environmental agenda

The first change relates to the adoption of the dominant environmental agenda, which is adopted by municipality A over time. The discourses in the first documents are based on the need to manage natural resources, defended at the beginning of the 2000s by international organisations, to the focus of achieving sustainable development by considering the UN SDG.

Municipality A's documents reflect the notion that natural resources are a 'limiting factor for the economic development' of cities as established in the Aalborg Charter. For instance, in the 3-year plan 2002-2004, municipality A stated that it aimed to develop a 'sustainable urban model' to 'guide and commit its future decision-making process' that implies 'the desire to consider the environment as the foundation of the (economic, social and cultural) development of the local community' as follows:

*'Regarding environmental policies, the municipal administration intends to plan and program a sustainable urban model that will guide and commit its future decision-making process. The sustainable urban model implies the desire to consider the environment as the foundation of the (economic, social and cultural) development of the local community. It is also aimed at stopping environmental degradation, satisfying the needs not only of the present population but also of the future population, in order to achieve a higher quality of life and more significant equity in future generations' (3-year plan 2002-2004, p.26).*

At the same time, in the above-cited extract, the municipality states that the 'sustainable urban model' will allow 'satisfying the needs not only of the present population but also of the future population', which consists of the widely accepted definition of sustainable development defined in the UN Brundtland report.

This rhetoric is presented in the programming phase documents, but also in the voluntarily adopted environmental and social reports. In 2003, the preliminary environmental report was based on the need to manage natural resources as follows:

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*‘The creation of an environmental report constitutes a system of management of natural resources, on a local scale that allows planning and control in the use of the resources themselves’ (Preliminary environmental report 2003, p.6).*

Municipality A considers natural resources are being used at a higher speed than their capacity of reposition, and for this reason, they need to be managed.

*‘There is good awareness of the limitation of “artificial resources”<sup>28</sup>, so much so that they are subject to systematic planning by companies and entities. On the contrary, the limitation of natural resources is usually underestimated. The most recent publication on the subject, The Living Planet, edited by the WWF, shows how over 20% more natural resources are used each year than their capacity of regeneration’ (Preliminary environmental report 2003, p.6).*

In order to manage natural resources, the environmental report uses EU legislation, transposed to national law to define some of the targets. Targets, like waste and air quality, are built on the notion of ‘ecological limits of our planet’<sup>29</sup>.

Municipality A’s plans are consistent across time and aligned with the environmental aspects considered essential in the EU. For instance, in 2010, municipality A commits to energy savings and to promote renewable energies as follows:

*‘The current Energy Program has the objective of reducing energy needs and climate-changing emissions as a local implementation of European, national and regional commitments on energy saving and the promotion of renewable energies, confirmed by the adhesion (...) to the Covenant of Mayors promoted by the European Union’ (3-year plan 2010 – 2012, p.74).*

The results for ‘energy’, ‘climate stability’, ‘air quality’ and ‘raw materials’ in the final environmental report 2010 are shown in exhibit 5.2-2. Each environmental area is associated with one to three indicators. For energy, it is not clear what the reference is for the targets at this stage. CO<sub>2</sub>-eq emissions’ target is based on the commitment made in the context of the EU Covenant of Mayors in 2008 on reducing CO<sub>2</sub>-eq emissions in the EU. Air quality and raw material indicators on recycled material are defined by national legislation (which is also based on EU law).

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<sup>28</sup> ‘Artificial resources’ are infrastructures created by humans such as factories, buildings, roads.

<sup>29</sup> The ‘ecological limits of our planet’ is defined in the European decision No 1386/2013/EU of the European Parliament and of the Council of 20th November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’. In this programme, the ‘planet’s ecological limits’ are the basis, for instance, to enhance the circular economy, and reducing GHG emissions.

## ENVIRONMENTAL ACCOUNTING AND REPORTING IN ITALIAN LOCAL GOVERNMENTS

Exhibit 5.2-2. Presentation of performance indicators results for 'energy', 'climate stability', 'air quality' and 'raw material' in municipality A (final environmental report 2010, p.16).

RISORSA	Indicatore ambientale	Valore bilancio precedente 2009	Valore bilancio 2010	Target bilancio 2010	Valore di riferimento per la definizione del target annuale
<b>ENERGIA</b>	Produzione energia elettrica da fonti rinnovabili e cogenerazione (Mwh)	222.759	222.502	220.259	249.078 (2014)
	di cui:				
	Fonti rinnovabili	9.789	11.000	8.977	24.637
	Cogenerazione a gas	57.634	58.502	57.842	70.441
	Cogenerazione da rifiuti	155.336	153.000	153.440	154.000
<b>STABILITÀ DEL CLIMA</b>	Emissioni CO2 (ton/anno)*	2.173.797*	2.168.820	2.260.711*	1.830.808 Patto dei Sindaci (2020)
<b>QUALITÀ ARIA</b>	Concentrazioni di PM10 centralina (µg/m³)	37	34	40	40 D.M. 60/2002
	Concentrazioni di PM2,5 centralina (µg/m³)	25	21	25	25 DIR 2008/50/CE
	Concentrazione NO <sub>2</sub> – centralina (µg/m³)	52	52	40	40 D.M. 60/2002
<b>MATERIE PRIME</b>	Raccolta differenziata: incidenza sulla produzione totale RSU(%)	33,78	34,84	37,1	60 D.Lgs 152/06

In 2014, municipality A includes targets related to energy resulted from the Sustainable Energy Action Plan (SEAP – PAES) approved in 2012. PAES is a requirement from the commitment to the EU Covenant of Mayors and consists of a planning instrument to plan activities related to energy and climate change. Exhibit 5.2-3 depicts how results are presented in the final environmental report in 2014.

Exhibit 5.2-3. Environmental performance results on 'energy' for municipality A (Final environmental report 2014, p.7).

TAB.2 Bilancio Ambientale Consuntivo 2014					
RISORSE	Indicatori ambientali	Valori bilancio precedente 2013	Valori bilancio 2014	Target bilancio 2014	Valori di riferimento per la definizione del target annuale
<b>ENERGIA</b>	Produzione energia elettrica da fonti rinnovabili e assimilate (Mwh)	249.338	234.081	260.712	249.078 (2014)
	di cui rinnovabili in senso stretto	31.628	39.738		24.637
	Cogenerazione a gas	68.454	54.089		70.441
	Cogenerazione da rifiuti	149.306	138.373		154.000 Patto dei Sindaci (PAES)
	Consumi elettrici nel settore residenziale (usi domestici) (MWh)	488.242 (2012)	467.831	469.379	Patto dei Sindaci (PAES)

Climate change starts to be a matter of concern for municipality A after its commitment to the Mayors' Adapt and the conceptualisation and implementation of the 'Climate Change Adaptation Plan'. This plan results from an EU-funded project being an 'adaptation strategy and an action plan' based on targets on energy and climate change.

*'Drafting the Climate Change Adaptation Plan consists in an adaptation strategy and an action plan, resulted from the activities of [name of an EU-funded project] and the adhesion of the municipality and European initiative Mayors Adapt – the Covenant of Mayors Initiative on Adaptation to Climate Change' (3-year plan 2016-2018, p. 137).*

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Municipality A identified multiple vulnerabilities to be addressed in the 'Climate Change Adaptation Plan', including drought and water scarcity. Municipality A planned to develop an adaptation plan to increase the resilience of the city to heatwaves, such as by increasing green areas.

*'Drought and water scarcity. Climate change will lead to an extension of the periods of absence of rain in the summer, aggravating the already critical state present today. (...) Heatwaves in urban areas. To limit the increase in temperatures in urban areas, a widespread increase in green surfaces is needed (...). Extreme rain events and hydrogeological risk. The municipality (...) has an extensive urban area: more than 50% of the territory is characterised by an inadequate and feeble hydrological response' (3-year plan 2018-2020, p.81).*

The results from the project 'Climate Change Adaptation Plan' are included in the performance report 2018 and presented in exhibit 5.2-4. The structure is similar to other services and projects. It includes the specific *Missione* and *Programme* related to the project where resources are allocated. It also identifies the respective guideline included in the programme of the mandate, the strategic scope, and the member of the cabinet and office responsible for this project.

Exhibit 5.2-4. Presentation of the results for the project 'Climate Change Adaptation Plan' in municipality A (Performance report 2018, p.55-56).

<b>Progetto</b> Attuazione piano di adattamento ai cambiamenti climatici
<b>Missione di Bilancio</b> 17 Energia e diversificazione delle fonti energetiche
<b>Programma di Bilancio</b> 1701 Fonti energetiche
<b>Linea di mandato</b>
<b>Ambito strategico</b> Qualità ambientale e urbana, sostenibilità e resilienza
<b>Responsabilità politica principale</b>
<b>Responsabilità tecnica principale</b> SETTORE AMBIENTE E VERDE
<b>Descrizione del progetto</b> La Strategia Locale di Adattamento ai Cambiamenti Climatici fa corrispondere ad ognuna delle vulnerabilità individuate uno o più indirizzi: - Siccità e carenza idrica. Il cambiamento climatico porterà a una estensione dei periodi di assenza di pioggia in estate, andando ad aggravare la criticità già oggi presente. A livello comunale i consumi idrici più significativi sono di gran lunga quelli civili. E' quindi necessario attivare azioni integrate per una graduale riduzione di questi consumi. - Ondate di calore in area urbana. Per limitare l'aumento delle temperature in area urbana è necessario un incremento diffuso delle superfici verdi, dai grandi parchi periurbani alle alberature stradali, ai piccoli spazi interstiziali delle aree urbane più strutturate. - Eventi estremi di pioggia e rischio idrogeologico. presenta aree impermeabilizzate molto estese: più del 50% del territorio è caratterizzato da una risposta idrologica scarsa e molto scarsa. Le soluzioni per migliorare la risposta idrologica consistono nel rendere permeabili le pavimentazioni (ad es. di parcheggi o cortili) e nel favorire l'accumulo diffuso delle acque di pioggia, ad esempio attraverso coperture verdi dei tetti o la creazione di volumi di accumulo (cisterne interrate o vasche a cielo aperto). Nell'ambito dell'attuazione del piano di adattamento, un aspetto importante è legato agli interventi di forestazione urbana, volti ad aumentare la fitomassa arborea e, di conseguenza, in migliorare il microclima locale. Già attraverso il progetto , proseguito anche al fuori della fase legata al progetto europeo, sono stati attuati i primi interventi di forestazione, che hanno portato alla messa a dimora di quasi 1.500 nuovi alberi. Il progetto prosegue secondo lo stesso metodo, ossia il coinvolgimento attivo delle imprese locali che, attraverso la sottoscrizione di un protocollo di intesa, sono invitate a compensare le proprie emissioni attraverso un contributo per la messa a dimora di nuovi alberi in città. Al progetto , di recente, si è aggiunto il progetto Radici, attraverso il lancio di una piattaforma per la raccolta di fondi aperta anche alla cittadinanza che così ha la possibilità di contribuire economicamente alla messa a dimora di nuovi alberi.
<b>Finalità del progetto</b> Il ha provveduto, prima Amministrazione comunale in Italia, a redigere il Piano di adattamento ai cambiamenti climatici, composto da "strategia di adattamento" e da "piano di azione", attraverso le attività del progetto , e come conseguenza dell'adesione del Comune e all'iniziativa europea "Mayors Adapt – the Covenant of Mayors Initiative on Adaptation to Climate Change". L'insieme delle azioni che sono state definite dal Piano di Adattamento andrà ad aumentare la "resilienza" della città rispetto agli impatti dei cambiamenti climatici. Le azioni del piano avranno anche l'obiettivo di integrare politiche e strumenti propri dell'Amministrazione comunale con livelli di governance sovramunicipale. Gli interventi di forestazione attuati in tal senso hanno lo scopo di contrastare i cambiamenti climatici attraverso la piantumazione di alberi direttamente sul territorio comunale in aree di proprietà . Il verde urbano può portare grandi benefici in termini di mitigazione e adattamento alle emissioni climateranti grazie alle funzioni biologiche delle piante che permettono l'assorbimento della CO2 e la depurazione dell'aria dagli inquinanti, contrastando l'effetto "isola di calore" tipico delle città.
<b>Profili di governance</b> Molte delle azioni sono basate sulla concertazione e sul rapporto di sussidiarietà con altri enti pubblici e con il settore privato. In questo senso sono essenziali stretti rapporti con chi si occupa più in generale del territorio: . Da segnalare la recente sottoscrizione, da parte del cosiddetto Contratto di Fiume, incentrato sul ma che può avere risvolti su altre ampie porzioni del sistema idrico della città.
<b>Principali risultati raggiunti al 31/12/2016</b> 1) Aggiornamento sito PAES e gestione newsletter PAES. 2) Avvio progetto per due studi di fattibilità con la BEI.
<b>Principali risultati raggiunti al 31/12/2017</b> - Completamento studio fattibilità bei - Realizzazione linee guida schede interventi NES - Attuazione Progetto - Realizzazione evento e
<b>Principali risultati raggiunti al 31/12/2018</b> • Nuovi interventi di forestazione urbana nell'ambito del protocollo • Partecipazione al tavolo di lavoro regionale ed alla "cabina di regia" istituita sempre dalla Regione per la gestione della risorsa idrica. • Definizione delle azioni di resilienza all'interno del progetto • Definizione Action Plan nell'ambito della partnership dell'Agenda Urbana Europea

Municipality A also describes the motivation for the project, including the need to address drought, heat waves, extreme events of rain and hydrologic risk in the territory (as stated in the 3-year plan). Activities described include forestation, which has been in place in the territory for several years. Finally, it refers to the involvement of other entities at the regional and local level in order to achieve the goals of this project, including the activities performed over the last three years.

Climate change is an essential environmental aspect that needs to be minimised. Nevertheless, other environmental aspects are equally as important in the territory managed by this municipality. The decision to address climate change is in line with EU environmental priorities reflected in the commitments made by municipality A.

In 2018, municipality A started to include also the UN SDG into their official documents to show their commitment to the 'environmental challenges' in particular



on the 'adaptation to climate change, sustainable energy and development of ecological networks' as follows:

*'Environmental challenges are central to the United Nations' Sustainable Development Goals. Therefore, there are numerous references to policies that the administration has long undertaken and supports with particular reference to the adaptation to climate change, sustainable energy and the development of ecological networks' (3-year plan 2018-2020, p.80).*

At this time, the inclusion of the UN SDG was still being made ad-hoc to pre-existent goals. Evidence demonstrates the adoption of the timely accepted dominant environmental agenda by municipality A.

### **5.2.1.2. Dominance of mobility and air quality aspects**

The second change reflects the dominance of mobility and air quality aspects in the documents. Despite addressing multiple environmental aspects, mobility and air quality are the dominant topics of concern in the documents analysed from municipality A, including the only environmental aspect addressed in the social reports.

At the beginning of the analysis, mobility was the only environmental aspect addressed in the 3-year plan 2003-2005 and the 3-year plan 2004-2005. A particular focus is given to the urban planning of mobility in the territory throughout the improvement of the already established ZTL (Restricted Driving Zone – *Zona a Traffico Limitato*) in the city centre to limit traffic.

*'Issue and management of the markings for access to the ZTL of remote controls and smart-cards for access to areas protected by automated control systems' (3-year plan 2003-2005, p.36).*

This intention is explained under a section named 'priority projects' in the context of the 'general urban traffic plan' (PGTU – *Piano Generale del Traffico Urbano*), justifying that it is aimed at reducing the environmental impact from polluting emissions of vehicles.

*'Definition of measures aimed at reviewing the allocation of permits for the ZTL, in order to allow a reduction in the environmental impact with particular reference to pollutant emissions of the vehicles accessing the ZTL' (3-year plan 2003-2005, p.42).*

The ZTL is justified in the 3-year plan 2003-2005 as the need to decrease the use of private vehicles and increase the use of collective public transport, associated with the 'strategic plan for the urban quality' and contributing to the 'health plan of the territory. Similar information is found in the following 3-year plan 2004-2006. The 3-

year plan does not include information on (i) the expected impact of these measures; and (ii) the fact that the PGU is a result of legislation to decrease air pollution in city centres.

While the 3-year plan includes measures being aimed at improving air quality and health, with generic information, the environmental report complements the information by using indicators to monitor the achievement of targets based on legislation, as shown in Exhibit 5.2-5.

*Exhibit 5.2-5. Environmental indicators for air quality in municipality A (Preliminary environmental report 2003, p.20).*

RISORSA	Indicatore ambientale	Valore dell'indicatore nell'anno base	Valore attuale	Target 2003	Target medio termine	Attori coinvolti	Azioni per il raggiungimento del target	Riferimento normativo / programmatico
Qualità Aria	Concentrazioni di PM10	64 µg/m³ (2000)	53 µg/m³	45 µg/m³	40 µg/m³ (2005)	Regione Comune Provincia	<ul style="list-style-type: none"> <li>Implementazione PGU (rinnovo tecnologico mezzi privati e mezzi trasporto merci, metanizzazione veicoli comunali);</li> <li>Rinnovo parco mezzi pubblici</li> </ul>	D.M. 2.04.02 PGU Comune di Protocollo con Regione
	Concentrazioni di Benzene	9.7 µg/m³ (2000)	10.3 µg/m³	10.0 µg/m³	5 µg/m³ (2010)	Regione Comune Provincia	<ul style="list-style-type: none"> <li>Azioni previste nel protocollo con la Regione</li> <li>Implementazione pulizia strade,</li> <li>Limitazione accessi mezzi a elevata emissione all'interno della ZTL;</li> </ul>	
	Concentrazione Ossido di Azoto (NO2)	79 µg/m³ (2000)	88 µg/m³	- <sup>9</sup>	40 µg/m³ (2010)	Regione Comune Provincia	<ul style="list-style-type: none"> <li>Mobility management d'area;</li> <li>Car Sharing (Progetto Ministeriale)</li> <li>Car Pooling</li> </ul>	

Municipality A adopts specific plans focused on mobility and air quality across time. For instance, in the 3-year plan 2005-2007, municipality A approves a plan for 'air quality and sustainable mobility' as a way to address the 'emergency of traffic and air pollution in the urban area':

*'In the first months of 2005, an extraordinary plan for air quality and sustainable mobility (...) will be approved aimed at addressing the emergency of traffic and air pollution in the urban area (...) through a series of integrated actions to prioritise less impacting mobility systems and to contain the excess of fine dust' (3-year plan 2005 – 2007, p.58).*

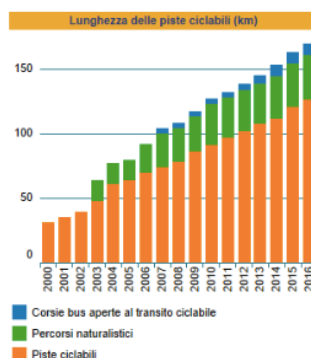
From 2011, mobility is addressed in the 3-year plans in greater detail. Municipality A describes the mobility context of territory and what is planned; being presented separately from other environmental aspects (such as water, noise, waste), which are presented in an aggregated approach in line with *Missioni* and *Programmi* established by law. *Missioni* 09 encompasses *Programmi* related to soil, environmental protection, waste, water, natural parks and air quality, and a different *Missione*, *Missione 10*, is related to mobility (for details see Appendix I). Energy also has its own *Missione*, *Missione 17*, but it has not the same detailed information in the 3-year plans as mobility.

In 2016 municipality A's 3-year plan include charts on the characterisation of the context related to environmental aspects specific on mobility. Exhibit 5.2-6 illustrates a chart presented under the topic 'mobility' to show the evolution and length of bike lanes throughout the years in the territory. Data on mobility has been measured by a

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specific department at least since 2000, but it was only included in the 3-year plan from 2016.

*Exhibit 5.2-6. Characterisation of the surrounding area on 'sustainable mobility' in municipality A (3-year plan 2016-2018, p.35).*



Mobility becomes one of the strategic goals in the 3-year plan 2016-2018 to create cycle accessibility and decrease traffic in the city centre as follows:

*'The aim is to create widespread cycle accessibility, which allows cyclists to safely access the central area where they can move freely, thanks to the decrease in traffic' (3-year plan 2016-2018, p.197).*

Municipality A plans to continue promoting cycle mobility through continuing adhering to the European Week of Sustainable Mobility and creating touristic and cultural cycling routes as detailed:

*'Initiatives aimed at promoting cycle mobility linked to national and European events (for example the European Week of Sustainable Mobility) and the creation of tourist and cultural cycling routes' (3-year plan 2016-2018, p.197).*

The three indicators established in the context of 'sustainable mobility' in the performance plan 2018 and the expected results are illustrated in exhibit 5.2-7. These indicators reflect the strategic goal of the 'widespread cycle accessibility' by measuring the increase of bike length and other indicators.

*Exhibit 5.2-7. Presentation of the indicators and results expected for the service 'sustainable mobility' in municipality A (Performance plan 2018, p.309).*

Indicatori	Unità di misura	Previsione		
		2018	2019	2020
Nr. complessivo abbonamenti annuali di  venduti o comunque erogati nell'ambito delle varie convenzioni anno x / Nr. complessivo abbonamenti annuali di  venduti o comunque erogati nell'ambito delle varie convenzioni anno x -1	Perc.	3,0%	3,0%	3,0%
Km di piste ciclabili anno x / Km di piste ciclabili anno x -1	Perc.	3,0%	3,0%	3,0%
Nr. di stalli biciclette anno x / Nr. di stalli biciclette anno x -1	Perc.	3,0%	3,0%	3,0%

In the performance report 2018, the results achieved can be seen throughout the years on mobility. Exhibit 5.2-8 details the main results since 2016, including which

activities were performed to achieve the goal of ‘promoting mobility’. Among the activities are the implementation of bike-sharing ‘C’entro *in Bici*’ and later ‘Mobike’, and environmental education in schools.

*Exhibit 5.2-8. Presentation of the results for the service ‘sustainable mobility’ in municipality A (Performance report 2018, p.74).*

<p>Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2016</p> <ul style="list-style-type: none"> <li>- Servizio di bike sharing "C'entro in Bici": implementazione della flotta che nel 2016 è stata portata a 216 bici</li> <li>- Gestione della sosta ciclabile su suolo pubblico (rastrelliere): nel triennio 2014-2016 l'offerta di posti bici è passata da 7.706 a 11.319 posti bici con un aumento di circa il 47%</li> <li>- Partecipazione all'European Mobility Week con anche attività di educazione stradale per i ragazzi delle scuole, in collaborazione con il corpo di Polizia Municipale</li> </ul>
<p>Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2017</p> <ul style="list-style-type: none"> <li>- Servizio di bike sharing "C'entro in Bici": consolidamento e gestione del servizio esistente</li> <li>- Gestione della sosta ciclabile su suolo pubblico (rastrelliere): aumento dell'offerta di sosta ciclabile per un totale di circa 300 posti bici aggiuntivi nel 2017. Manutenzione del parco rastrelliere esistente.</li> <li>- Partecipazione all'European Mobility Week con anche attività di educazione stradale per i ragazzi delle scuole, in collaborazione con il corpo di Polizia Municipale</li> <li>- Modifica percorso linea [redacted] fino al CNR anche in relazione al nuovo polo dell'Università</li> <li>- Modifica percorso linea [redacted] finalizzato ad un miglioramento dei tempi e della regolarità</li> <li>- Interventi all'incrocio via dell'Ospedale e [redacted] al fine di decongestionare il traffico e migliorare la regolarità del servizio</li> <li>- Attivati interventi concordati in tavolo sindacati [redacted]</li> </ul>
<p>Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2018</p> <ul style="list-style-type: none"> <li>- Servizio di bike sharing: implementazione del nuovo servizio di bike sharing a flusso libero Mobike</li> <li>- Gestione della sosta ciclabile su suolo pubblico (rastrelliere): aumento dell'offerta di sosta ciclabile per un totale di circa 650 posti bici aggiuntivi nel 2018. Manutenzione del parco rastrelliere esistente.</li> <li>- Partecipazione all'European Mobility Week con anche attività di educazione stradale per i ragazzi delle scuole, in collaborazione con il corpo di Polizia Municipale</li> <li>- prolungamento serale della linea [redacted] e corsa aggiuntiva di linea [redacted]</li> <li>- prolungamento serale linea [redacted];</li> <li>- corsa aggiuntiva linea [redacted];</li> </ul>

Mobility and related impacts on air quality are associated with a strategic goal of municipality A and are described in greater detail in the different documents than other environmental aspects. Particularly, the characteristics of the territory under local governments’ jurisdiction and the characterisation of the surrounding area.

### 5.2.1.3. Complementarity of the documents’ content

The third change conveys to the complementarity of the content of the documents, particularly after the implementation of legislation in 2011. Before 2011, environmental information in mandatory documents was mostly generic, including information towards subsidiary entities.

In the 3-year plan 2003-2005, the municipality designated the local public transportation entity to ‘reduce the causes of environmental pollution by favouring the use of less polluting means, technologies and fuels’ (3-year plan 2003-2005, p.75). The number of vehicles that will be running in the city is not precise (might be more but with fewer pollutant technologies and fuels) neither it is clear what are ‘fewer pollutant means’. The information addressed to subsidiary entities is mainly related to financial resources. Environmental information is mostly non-existent, and when present, it is generic. It remains mostly beyond municipality A’s decision how to manage environmental aspects, even though it owns more than 50% of these entities.

In 2011, the Legislative Decree 118/2011 created two main sections to structure the 3-year plan: strategic and operational. The components that previously

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represented the 3-year plan became part of the strategic section, including the definition of strategic goals. Municipality A presented an operational section detailing operational goals (created from strategic goals) and specific services and projects.

In the operational section, municipality A's 3-year plan allocates projects and also services under the categories *Missioni* and *Programmi* of the budget scheme as required by law (see section 3.2 for more details). Municipality A selects which *Missioni* and *Programmi* should be activated, based on the strategic goals defined.

Categories *Missioni* and *Programmi* are linked to specific projects and services for the case of 'Missioni 09 – Sustainable development and protection of the territory and the environment' and *Programme* 'Waste', as shown in exhibit 5.2-9.

*Exhibit 5.2-9. Services and projects activated under Programme 'waste' in municipality A (3-year program 2014-2016, volume 7, p.8-9).*

<b>Missione di Bilancio</b>	<b>Programma di Bilancio</b>	<b>Servizi/Progetti</b>
09 Sviluppo sostenibile e tutela del territorio e dell'ambiente	0903 Rifiuti	<ul style="list-style-type: none"> <li>▪ Servizio: Servizio gestione rifiuti</li> <li>▪ Progetto: Estensione della raccolta porta a porta nel centro storico</li> <li>▪ Progetto: Potenziamento dei centri di raccolta e smaltimento rifiuti</li> <li>▪ Progetto: Qualificazione della raccolta differenziata nelle aree periferiche</li> </ul>

In the 3-year plan 2014-2016, municipality A presents as one of the strategic goals to reduce the amount of solid waste generated in the territory, increase reuse of goods, door-to-door waste collection, and also improve a functional plant for reuse and recycle as described:

*'It is a matter of operationally translating the community [the EU] priorities, by implementing interventions in support of the reduction of the production of municipal waste, reuse of goods and door-to-door collection. Also, through punctual facilitations and a functional plant for reuse and recycling' (3-year plan 2014-2016, p.126).*

While before the 2011 legislation waste management was left to the subsidiary companies to manage, from 2011 municipality A defines strategic and operation goals, as well as services and projects to achieve waste-related goals. In the performance plan, indicators and targets are defined in order to monitor the accomplishment of the goals in line with legislation.

Projects and services are represented in the 3-year plan, as shown in exhibit 5.2-10 for the service 'waste management'. Municipality A provides information on (i) the categories *Missione* and *Programme* they refer within the budget; (ii) their respective guideline and specific programme defined in the programme of the mandate; (iii) the member of the cabinet and the office in the municipality responsible for the achievement of the project or service; (iv) a description of the project/service; (v) a

description of its the goal; (vi) how the project or services is managed; and (vii) the expected results.

*Exhibit 5.2-10. Presentation of results expected for the service 'waste management' in municipality A (3-year plan 2014-2016, volume 7, p.235-234).*

Servizio: Servizio gestione rifiuti				
Missione di Bilancio 09 Sviluppo sostenibile e tutela del territorio e dell'ambiente				
Programma di Bilancio 0903 Rifiuti				
Linea di mandato				
Area di intervento Pianificazione, valutazione e controllo ambientale				
Responsabilità politica principale				
Responsabilità tecnica principale SETTORE AMBIENTE E ENERGIA				
Descrizione del servizio				
<p>Il servizio è stato istituito con finalità di coordinamento e gestione del contratto di servizio per la gestione dei rifiuti urbani ed assimilati, per redigere rapporti e svolgere un monitoraggio periodico.</p> <p>Si occupa inoltre dello sviluppo dei rapporti per la partecipazione all'Agenzia territoriale regionale per il servizio rifiuti, Provincia e Regione in materia di rifiuti per piani e progetti di competenza comunali.</p> <p>Ha il presidio dell'attività di vigilanza sui rifiuti urbani svolta sul territorio (attraverso il coordinamento delle Guardie Ecologiche Volontarie, degli accertatori, etc.).</p> <p>Finalità del servizio La gestione del servizio di gestione dei rifiuti solidi urbani e speciali assimilati agli urbani, così come viene definita dalla legislazione vigente, si articola per macro interventi quali: raccolta differenziata, spazzamento e lavaggio strade pubbliche, rimozione rifiuti abbandonati, trasporto dei rifiuti ad impianti di trattamento e/o recupero o smaltimento, gestione rifiuti pericolosi. La raccolta differenziata deve essere finalizzata al raggiungimento degli obiettivi disposti dalle norme nazionali garantendo la migliore e più razionale modalità organizzativa volta alla massimizzazione dei risultati e al decoro urbano. Analoga finalità di qualità igienica è prevista per lo spazzamento e lavaggio stradale, atti a garantire la massima igienicità e agibilità dello spazio pubblico.</p> <p>Modalità organizzativa del servizio</p> <p>Attività della U.I. Gestione Ciclo Rifiuti con le risorse di personale di cui è attualmente dotato.</p> <p>Gestisce i rapporti con per quanto concerne i progetti che devono venire implementati sul territorio per potenziare la raccolta differenziata e/o migliorare il decoro urbano (in termini di spazzamento ed assimilati) nell'ambito del quadro formale della convenzione sottoscritta nel 2004.</p> <p>A risorse date non viene eseguito un controllo territoriale e prestazionale.</p> <p>Dispone inoltre interventi a carattere contingente per la gestione ordinaria del servizio.</p> <p>Gestisce le richieste della cittadinanza per quanto riguarda la gestione dei rifiuti ed il rapporto con le Guardie Ecologiche Volontarie per quanto riguarda l'attività sanzionatoria.</p>				
Indicatori				
Indicatori	Unità di misura	Previsione		
		2014	2015	2016
Raccolta differenziata sul totale dei rifiuti raccolti	Perc.	43,5%	47,5%	47,5%
Differenziata a smaltimento in un anno	Kg	8.000.000,00	10.000.000,00	10.000.000,00
lavati in un anno	Mq	390.000,00	390.000,00	390.000,00
Raccolta differenziata a recupero in un anno	Kg	79.000.000,00	85.000.000,00	85.000.000,00
Rifiuti non differenziati in un anno	Kg	113.000.000,00	105.000.000,00	105.000.000,00
Rifiuti prodotti in un anno	Kg	200.000.000,00	200.000.000,00	200.000.000,00
Sanificazione e disinfezione di aree critiche in un anno	Mq	3.900.000,00	3.900.000,00	3.900.000,00
Principali risultati attesi in termini di efficienza/efficacia/qualità del servizio per il triennio 2014 - 2016				
Con l'implementazione dei sistemi approvati ed in corso di implementazione si conferma l'ipotesi di obiettivo di raccolta differenziata al 47%.				

The results of the indicators are presented under the service 'waste management' in the performance report 2014 (exhibit 5.2-11). These indicators are defined in the 3-year plan and also presented in the performance plan. A brief description of what was achieved in the last three years is provided.

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*Exhibit 5.2-11. Presentation of the results for the service 'waste management' in municipality A (Performance report 2014 volume 1, p.208-209).*

Servizio: Servizio gestione rifiuti				
Indicatori	Unità di misura	Consuntivo		
		2012	2013	2014
Raccolta differenziata sul totale dei rifiuti raccolti	Perc.	35,4%	39,2% <small>dati validati da [redacted]</small>	40,9% <small>dati validati da [redacted]</small>
Rifiuti prodotti in un anno	Kg	197.395.892,00	204.491.247,00 <small>dati validati da [redacted]</small>	214.111.854,00 <small>dati validati da [redacted]</small>
Rifiuti non differenziati in un anno	Kg	127.430.641,00	124.286.219,00 <small>dati validati da [redacted]</small>	126.483.445,00 <small>dati validati da [redacted]</small>
Raccolta differenziata a recupero in un anno	Kg	65.579.091,00	75.975.414,00 <small>dati validati da [redacted]</small>	83.396.362,00 <small>dati validati da [redacted]</small>
Differenziata a smaltimento in un anno	Kg	4.386.160,00	4.229.614,00 <small>dati validati da [redacted]</small>	4.232.009,00 <small>dati validati da [redacted]</small>
[redacted] lavati in un anno	Km	390,00	435,00 <small>dati validati da [redacted]</small>	435,00 <small>dati validati da [redacted]</small>
Sanificazione e disinfezione di aree critiche in un anno	Mq	3.838.155,00	3.900.000,00 <small>dati validati da [redacted]</small>	4.600.000,00 <small>dati validati da [redacted]</small>

Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2012  
L'andamento della raccolta differenziata, su dati non ancora definitivi, si attesta come consuntivo 2012 attorno al 36%, in sostanziale continuità con il dato complessivo dell'anno precedente. Molto importanti sono i dati incrementali della modalità di raccolta avviata verso la seconda metà del 2012 rispetto alla raccolta a sacchi di carta e plastica e dedicata alle attività produttive del cartone nel centro storico, oltreché gli andamenti nei sistemi porta a porta periferici. Non sono stati realizzati significativi incrementi del servizio di spazzamento, se non quelli inerenti la sanificazione nei mesi estivi.

Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2013  
la raccolta differenziata risulta incrementata di 4 punti percentuali in esito alle modificazioni poste in essere.

Principali risultati raggiunti in termini di efficienza/efficacia/qualità del servizio al 31/12/2014  
L'obiettivo di raccolta differenziata raggiunto al termine del 2014 è stato del 40%

The voluntarily adopted environmental report also contains indicators' results for 'waste management' (exhibit 5.12-12). After the creation of the performance management phase, the information provided in the performance report and the voluntarily adopted environmental report is partly overlapping. Part of the information is overlapping due to the use of similar indicators and targets to assess results (e.g., the amount of recycled waste).

*Exhibit 5.2-12. Environmental performance results on 'raw material' in municipality A (Final environmental report 2014, p.6).*

TAB.1 Bilancio Ambientale Consuntivo 2014						
RISORSE	Indicatori ambientali	Valori bilancio precedente 2013	Valori bilancio 2014	Target bilancio 2014	Target mandato 2016	Valori di riferimento per la definizione del target annuale
MATERIE PRIME	Raccolta differenziata: incidenza sulla produzione totale RSU (%)	39	41	38	50	65 D.Lgs 152/06
	Raccolta differenziata: centro storico	27	29	25	50	65 (D.Lgs. 152/2006)

One explanation of this overlapping of information is the fact that the council uses the environmental report as a summary of the state of the environment in the territory (and to a lesser extent the environmental performance of the organisation). The performance report is also used by the council but includes environmental and non-environmental information.

Alternatively, environmental performance indicators presented in the environmental report are not the sole result of services and projects developed by municipality A. Indicators illustrate the state of the environment in the territory which results from policies and practices adopted by different organisations and individuals. Consequently, the environmental indicators' results are not exclusively inherent to services and projects developed by municipality A and presented in the performance management documents.

Municipality A has increased the number of details and data provided across time, using the documents regulated by law and voluntary reports as a summary of the environmental information mostly related to the territory.

#### **5.2.1.4. Organisational environmental performance**

The fourth, and last change refers to organisational environmental performance. In 2007, a new type of indicators was included in environmental reports related to the environmental performance of the organisation itself. Municipality A provides information on the (i) consumption of water, (ii) electric and thermal energy consumption; (iii) recycled waste; (iii) sustainable mobility (e.g., use of public transportation by civil servants and use of electric and hybrid vehicles); (iv) use of recycled paper; and (v) green public procurement (the latest discontinued in 2009).

Exhibit 5.2-13 illustrates how indicators considered in the final environmental report 2010 are presented. Municipality A benchmarks these values with information available from similar Italian municipalities. However, there are no targets established for these indicators; and activities performed to achieve the results are absent from the report.

Thus, besides reducing overall consumption, it is not clear what the municipality plans to achieve by monitoring these indicators. It could be more related to financial motivations than to minimise environmental impacts of municipality A's activities.



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*Exhibit 5.2-13. Organisational environmental performance results in municipality A (final environmental report 2010, p.20).*

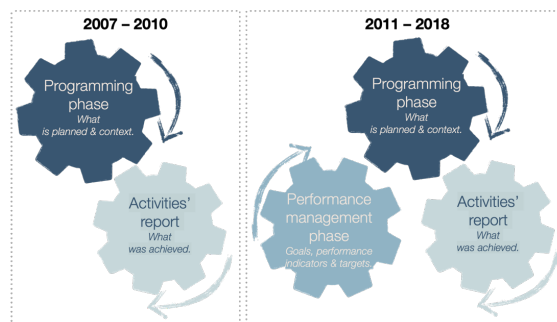
Risorsa	Indicatori ambientali	Valore 2008	Valore 2009	Valore 2010
<b>Acqua</b>	Consumi acqua -sede unica contatore generale (m3)	-	30.489	24.411
<b>Educazione Ambientale nelle scuole</b>	Attività showroom + cielo in un'aula (numero Alunni coinvolti)	7.010	1.637 <sup>1</sup>	6.900
<b>Energia</b>	Consumi Energia termica - sede unica (kWh)	-	*	3.944.071
	Consumi Energia per raffrescamento - sede unica (kWh)	-	*	2.860.679
	Consumi energia elettrica - sede unica (kWh)	-	*	3.093.986
<b>Materie prime</b>	Utilizzo carta riciclata ,carta ecologica (%)	6,5	10,1	6,6
<b>Materie prime</b>	Utilizzo carta riciclata, carta ecologica consumo tot risme	37.445	31.930	28.625
<b>Materie prime</b>	Utilizzo di stoviglie lavabile nelle scuole ( numero scuole)	-	-	20
<b>Materie prime</b>	Recupero cibo nelle mense scolastiche Last minut market (numero scuole)	-	-	11
<b>Mobilità sostenibile</b>	Veicoli ecologici benzina/metano, benzina/GPL, ibridi %, (numero)	40 (su 189 autovetture)	41 (su 245 autovetture)	63 (su 182 autovetture)
<b>Mobilità sostenibile</b>	Utilizzo del mezzo pubblico (numero abbonamenti atc+FER)	1.771	1.711 (36% aventi diritto)	1.622 (31,2% aventi diritto))

Organisational environmental performance indicators were monitored across the period of analysis, but they were abandoned in the environmental report 2018. No justification for its renouncement is provided in the documents.

### 5.2.2. Municipality B

Two elements related to changes in the content embody the sources of information analysed for municipality B: (i) the adoption of the dominant environmental agenda, and (ii) mobility and air quality as the dominant topics. These elements encompass the main content of the documents analysed, how environmental information is structured and dealt with, and what changes across time. Exhibit 5.2-14 illustrates the type of documents developed by municipality B during the period of analysis.

Exhibit 5.2-14. Type of reports analysed in municipality B.



### 5.2.2.1. Adoption of the dominant environmental agenda

The adoption of the dominant environmental agenda is reflected in the documents after the implementation of legislation in 2011 and the impacts caused by floods. The 3-year plan was divided into a strategic and an operational section. The activities planned were described under the categories *Missioni*. The specific *Programmi* categories are not mentioned. The strategic and operational goals, as well as the non-financial indicators and targets, are described in the performance plan.

In 2011, municipality B included 'energy policies' aspects in the 3-year plan to reduce CO<sub>2</sub>-eq emissions and 'implement good practices in terms of energy efficiency and use of renewable energy resources' (3-year plan 2011-2013, p.109). As a result, in 2012, the 3-year plan 2012-2014 proposes to develop the PAES(SEAP).

The approval of the PAES was aimed at reducing CO<sub>2</sub>-eq emissions, as a result of the commitment made within the EU Covenant of Mayors as follows:

*'Continuing the process, that started with signing the "Covenant of Mayors" (...), the Sustainable Energy Action Plan (SEAP) was approved to reduce CO<sub>2</sub> emissions by 115,514 t CO<sub>2</sub> /year (compared to 2006 - reference year) to 2020' (Activities' report 2013, p. 93).*

Similar information is found in the activities' reports of the following years (also, in line with the 3-year plans).

In the 3-year plan 2016-2018, municipality B plans to develop an 'energy audit of some municipal buildings' for the continued achievement of the goals in the PAES and allow access to funding from other governmental entities. Municipality B engages in the voluntary initiatives to gain access to 'regional, state and EU funding for the execution of energy efficiency interventions'.

*'We will continue the actions planned by the Sustainable Energy Action Plan (SEAP), collecting the necessary for the 2<sup>nd</sup> monitoring related to the years 2015-2016. Among the actions are energy audits' performance of some municipal buildings for the preparation of a diagnosis framework that allows*

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*rationalising the interventions in buildings, also to access forms of regional, state and European funding for the execution of energy efficiency interventions’ (3-year plan 2016-2018, p.107).*

The performance plan includes strategic and operational goals for a 3-year term and performance indicators and targets to be achieved. In the performance plan 2011, environmental aspects were related to waste, energy policies and water, while in the performance plan 2012 only aspects related to waste and energy policies were addressed. Municipality B does not identify services nor projects to achieve the goals, which undermines the significance of the information provided as it is not clear how activities planned will be materialised.

Performance indicators monitor the achievement of operational goals. Exhibit 5.2-15 illustrates performance indicators related to the strategic goal ‘reduction of waste and recycle’ in the performance plan 2012. Municipality B presents three strategic areas (illustrated at the bottom right-hand side of exhibit 5.2-15). The department and person responsible for managing the achievement of the goals are identified at the top left-hand side of exhibit 5.2-15.

*Exhibit 5.2-15. Performance indicators to monitor the achievement of operational goals related to the strategic goal ‘reduction of waste and recycle’ in municipality B (Performance plan 2012, p.71).*

ASSESSORATO: AMBIENTE				ASSESSORE: <input type="text"/>						
DIPARTIMENTO: TERRITORIO				DIRIGENTE: <input type="text"/>						
SETTORE: AMBIENTE TUTELA DEL TERRITORIO ED IGIENE										
CENTRO DI RESPONSABILITA': AMBIENTE TUTELA DEL TERRITORIO ED IGIENE										
OBIETTIVO STRATEGICO: RIDUZIONE RIFIUTI E RACCOLTA DIFFERENZIATA				TIPO: MIGLIORAMENTO SERVIZIO		CODICE 1.03				
FINALITA' OB.VO STRATEGICO: ESTENSIONE DEL SERVIZIO DI GESTIONE DEI RIFIUTI URBANI AD ALTRE ZONE/QUARTIERI E INCREMENTO PERCENTUALE DI RACCOLTA DIFFERENZIATA										
OBIETTIVI OPERATIVI				2012		2013		2014		
1.03.01 Miglioramento servizio porta a porta o prossimità										
1.03.02 Miglioramento raccolta differenziata										
INDICATORI DI PERFORMANCE				STATO 2011	TARGET MIN	TARGET MAX	TARGET RAGG.	TARGET MIN	TARGET MAX	TARGET RAGG.
1.03.01 Nuove utenze servite				14.000	13.000	17.000		10.000	13.000	
1.03.02 Aumento percentuale raccolta differenziata				55	58	59		60	61	
				AREA STRATEGICA 1			AREA STRATEGICA 2		AREA STRATEGICA 3	

From 2013, the only strategic and operational goals related to environmental information are related to the commitment made within the EU Covenant of Mayors in 2011 and Mayors' Adapt in 2014. Municipality B develops educational, and awareness campaigns in the context of energy efficiency, e.g., ‘in order to raise citizens’ awareness of energy saving, the Municipality of (...) has joined the initiatives promoted by the EU such as the “Energy days”’ (Activities’ report 2013, p.94).

Exhibit 5.2-16 shows how the information is presented for the strategic goal ‘energy policies’ in the year 2013, under which five operational goals are defined (from 1.04.03 to 1.04.07; the first two to be achieved in 2013 and objectives 1.04.01 and 1.04.02 were already achieved in the previous year). It also enumerates seven performance indicators, including the year planned for its achievement, and targets in line with the commitment made within ‘energy policies’ commitments.

## ENVIRONMENTAL ACCOUNTING AND REPORTING IN ITALIAN LOCAL GOVERNMENTS

Exhibit 5.2-16. Performance indicators to monitor the achievement of goals related to the strategic goal 'energy policies' in municipality B (Performance Plan 2013, p.75).

DIPARTIMENTO/TERRITORIO  
SETTORE: AMBIENTE TUTELA DEL TERRITORIO ED IGIENE  
DIRIGENTE RESPONSABILE:

OBIETTIVO STRATEGICO: POLITICHE ENERGETICHE

TIPO: MIGLIORAMENTO SERVIZIO

CODICE 1.04

FINALITA' OB.VO STRATEGICO: AVVIO PROCEDURE PER LA RIDUZIONE DELLE EMISSIONI IN ATMOSFERA DI CO2 DEL 20% ENTRO IL 2020

OBIETTIVI OPERATIVI	2013	2014	2015
1.04.03 Attuazione dell'azione n.6 del Piano d'Azione per l'Energia Sostenibile: Promozione uso elettrodomestici efficienti			
1.04.04 Attuazione 1° stralcio dell'azione n.8 del Piano d'Azione per l'Energia Sostenibile: realizzazione rete ricarica veicoli elettrici			
1.04.05 Attuazione dell'azione n.4 del Piano d'Azione per l'Energia Sostenibile: Promozione uso razionale dell'energia nel terziario			
1.04.06 Monitoraggio delle azioni del PAES			
1.04.07 Attuazione dell'azione n.13 del Piano d'Azione per l'Energia Sostenibile: Promozione diffusione impianti fotovoltaici nel territorio			

INDICATORI DI PERFORMANCE	STATO 2012	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.
1.04.01 Approvazione PAES	si									
1.04.02 Approvazione PICIL	si									
1.04.03 Grado di soddisfazione workshop azione 6 (scala 1-6)		3	4							
1.04.04 Realizzazione rete ricarica veicoli elettrici: n.colonnine attive (tot 3)		1	2							
1.04.05 Grado di soddisfazione workshop azione 4 (scala 1-6)					2	3				
1.04.06 Percentuale riduzione CO2 azioni 6 e 8					1	3				
1.04.06 Percentuale riduzione CO2 azione 4								1	3	
1.04.07 Grado di soddisfazione workshop azione 13 (scala 1-6)								2	3	

AREA STRATEGICA 1	AREA STRATEGICA 2	AREA STRATEGICA 3
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The performance report depicts indicators' results. Exhibit 5.2-17 illustrates how municipality B presents the performance indicators' results and achievement of the targets in the performance report 2013 (defined in the performance plan 2013). Municipality B considers achieving strategic goal 'energy policies' in 2013 by giving 40% of weight to the operational goal 1.04.03 and 60% to the operational goal 1.04.04.

Exhibit 5.2-17. Report of results related to environmental aspects achieved in 2013 by municipality B (Performance report 2013, p.9).

OBIETTIVO STRATEGICO	PESO	OBIETTIVO OPERATIVO	PESO	Indicatori Performance	Target atteso	Ragg. Indicatori	Ragg. Obiettivi strategici
1.04 POLITICHE ENERGETICHE	0,40	1.04.03 Attuazione dell'azione n.6 del Piano d'Azione per l'Energia Sostenibile: Promozione uso elettrodomestici efficienti	40,00	1.04.03 Grado di soddisfazione workshop azione 6 (scala 1-6)	4	100,00	40,00
		1.04.04 Attuazione 1° stralcio dell'azione n.8 del Piano d'Azione per l'Energia Sostenibile: realizzazione rete ricarica veicoli elettrici	60,00	1.04.04 Realizzazione rete ricarica veicoli elettrici: n.colonnine attive (tot 2)	2	100,00	60,00
1.04 POLITICHE ENERGETICHE							100,00

Municipality B narrows down the identification of goals, indicators and targets to energy aspects resulted from commitments defined in the EU Covenant of Mayors and Mayors' Adapt. Energy consists of the only environmental aspect for which non-financial indicators and targets are created to monitor the achievement of goals.

Only waste (until 2012) and energy policies have specific strategic and operational goals, indicators and targets in the performance management phase. Other environmental information for which activities are planned (in the 3-year plans) and achieved (in the activities' report) are not based on indicators and targets, which suggests the absence of monitoring of their results and jeopardises the significance of the changes across time. In particular, it is presented below that mobility and air quality

(also in line with the EU agenda) are the dominant topics in the 3-year plan and the activities' report, but for which indicators and targets are not defined.

#### **5.2.2.2. Dominance of mobility and air quality aspects**

Throughout the analysis, mobility and air quality have been the dominant environmental aspect addressed, but the information is mostly generic. At the beginning of the analysis, the 3-year plan and the activities' report focused on air quality, linked to mobility, leaving out other environmental aspects. For instance, waste is managed by a subsidiary company of municipality B, but information on environmental aspects related to the entity are absent from the documents analysed. Only since 2011 have more environmental aspects been included in the documents, but most information provided is still generic.

The 3-year plans only include generic descriptive information related to what is planned; and few indicators to characterise the territory, including the number of green areas/parks/gardens; and the amount of waste generated.

Municipality B justifies what is planned under environmental aspects as something that benefits the territory and its society owing to a 'growing demand for quality' as the following extract from the 3-year plan 2010-2012 shows:

*'It is intended to encourage and promote a green policy that prefigures the satisfaction of a growing demand for quality, above all the air and environmental conditions of our city' (3-year plan 2010-2012, p.97).*

This extract emerges under the 'green areas' topic, being used to justify the need to requalify the green public areas. However, it is not clear what will be the impact on 'air and environmental conditions' resulted from the requalification of areas that already exist.

Under the topic of 'mobility' more concrete activities are planned concerning air quality improvements such as the creation of a ZTL in the city centre and the creation of an office to encourage cycle mobility among citizens:

*'In the historic centre, it will start the control of access to the ZTL'. (3-year plan 2007-2009, p.44).*

*'It is planned to establish a "Bicycle Office" to promote actions in favour of cycling mobility' (3-year plan 2007-2009, p.44).*

Municipality B intends to control vehicles' access to the historic city centre and to promote 'actions' that can enhance cycle mobility in the territory. Municipality B represents these initiatives to improve the quality of life and air quality, but they are generic. Initiatives are focused on what citizens 'should' do to improve air quality and leaving out the role of the direct activities of the municipality.

The activities' report embodies a similar generic approach to environmental aspects. Cycling mobility is the dominant environmental aspect addressed in the activities' reports from 2007 to 2010. Municipality B has tried to influence a change in citizens' behaviour to adopt cycling mobility. It promoted the European sustainable mobility week and applied for regional funding for a bike-sharing project as follows.

*'As part of the activity's incentive for cycling mobility, it was decided to join the European sustainable mobility week, which included various promotional activities (...). A bike-sharing project has been prepared for which regional funding has been requested' (Activities' report 2008, p.115).*

These initiatives represent examples of sporadic actions that only have a short-term impact on the improvement of the environmental quality of the territory. An environmental strategy or policy for the territory and the entity itself was at this point missing. Municipality B focused its changes in trying to change the population's behaviour. Even though the behaviour of citizens has a crucial role to play in decreasing air pollution, the choices made from policymaking to project management by the municipality can potentially have a more significant impact in the long-term.

The following example embodies how the municipality states it achieved mobility planned activities in 2010.

*'We received funding from the Ministry of the Environment to acquire three new eco-buses' (Activities' report 2010, p.140).*

The use of the term 'eco-buses' could suggest the municipality was engaging in environmentally 'friendly' acquisitions, since acquiring fewer pollutant buses to decrease air quality. However, the text does not detail what type of vehicles were bought, neither if they were to replace others or to increase the fleet. Considering there is no more available information on this topic, via this document or others, one may assume this was an isolated action. Consequently, it has limited impact on the improvement of the environmental quality of the territory. The above-quote exemplifies how generic information sprouts this document, similar to what was described for the 3-year plan. Municipality B attempts to show something is being conducted, even if generic and without showing its significant impact.

In the activities' report 2010, the municipality starts to identify more concrete measures to tackle air pollution in the historical city centre such as limiting circulation to vehicles with engines classified as Euro 0 and 1 due to the need of reducing air pollution. At the same time, it continues to adhere to the European sustainable mobility week initiatives, and others such as 'Sundays without cars' to increase 'citizens' awareness of the use of public transport and environmentally sustainable lifestyles' as follows.

*'During 2010, as part of the actions implemented to prevent and reduce pollutants in the urban atmosphere, others to the usual traffic limitation actions for the most polluting vehicles, four Sundays were organised without cars (...), to implement emergency measures to limit PM10 and increasing citizens' awareness of the use of public transport and environmentally sustainable lifestyles' (Activities' report 2010, p.142).*

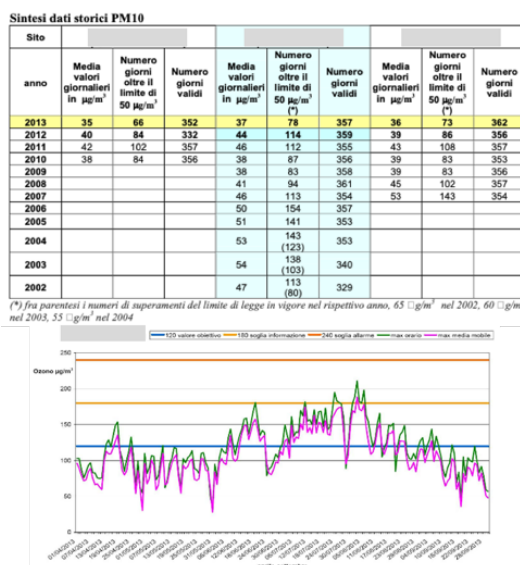
From the analysis of the documents, 'environmentally sustainable lifestyles' are described as a way to reduce private vehicles in the city centre. For that reason, municipality B developed initiatives to increase awareness on the impacts of air pollution through 'two "ecological Sundays"'.

*'In order to enhance citizens' awareness of environmental issues with particular reference to the use of public transport and promote eco-sustainable lifestyles, two "ecological" Sundays will be scheduled' (3-year plan 2017-2019, p.128 & 3-year plan 2018-2020, p.137).*

At least since 2014, municipality B has promoted 'ecological Sundays' to influence citizens behaviours towards the use of more sustainable vehicles. The adoption of initiatives to promote 'sustainable lifestyles' is a regular practice that has been consistent across time since a left-wing party took the seat. These initiatives are aimed at increasing the use of bicycles, reduce the use of energy and increase recycling. Municipality B communicated this information on the radio (Rai 2 radio) or by joining environmentally related events in the territory.

Also, in 2014, municipality B introduced more data in the performance plan to characterise the environmental context in the territory. The performance plan presented a description and also indicators illustrating the current situation in tables and charts. Environmental information included green areas, air quality (e.g., PM10 and ozone which have compulsory monitoring by law), waste management (amount of waste recycled), mobility (e.g., bike lanes' length), and water supply (number of users). Exhibit 5.2-18 illustrates the information provided for air quality in 2014 (similar to more recent performance plans).

Exhibit 5.2-18. Characterisation of the surrounding area on 'air quality' in municipality B (Performance plan 2014, p.36-38).



Initiatives related to mobility have been the dominant environmental topic where municipality B demonstrated changes by trying to change the behaviour of the population to adopt soft modes of mobility, namely by supporting the acquisition of electric bikes:

*'A call for a contribution for the purchase of electric bicycles (city bike model) has also been provided to incentivise the use of alternative means to the car' (Activities' report 2017, p.174).*

The activities' report 2017 states that a call was opened in order to support the purchase of electric bicycles by citizens. However, this does not constitute an initiative from the municipality alone, which is absent from the documents. It was a funding opportunity adopted by various Italian local governments made available by the Italian Ministry of the Environment.

Throughout time mobility and air quality aspects are the primary matter of concern under the environmental aspects for municipality B. These aspects are structured and dealt generically, not providing data to support the information. The documents reflect the conceptualisation and implementation of sporadic actions driven by EU/national initiatives.

### 5.2.3. Cross-case analysis

The documents of both municipalities reflect identical changes in terms of content related to their position in line with EU environmental priorities. Other changes are only identified in municipality A, resulted from the complementarity across documents and support of statement with data throughout time, and the expansion of the boundaries defined in the legal framework to address also organisational environmental



performance indicators. Both case studies present information mandatory by law, but municipality A provides additional information voluntarily.

Firstly, for both municipalities, the adoption of the dominant environmental agenda is identified as one of the changes. Both municipalities use voluntary commitments made in the EU context and external funding to present changes in the accounting and reporting practices related to environmental aspects.

At the beginning of the period of analysis, municipality A started to use rhetoric on the need to manage natural resources, evolving from 2016 to the integration of the UN SDG, showing their adoption of the timely dominant environmental agenda. Municipality B started to integrate the environmental agenda at a later date, particularly after a left-wing party had taken the seat, and after the floods that devastated the territory at the end of 2010.

Part of the information included in the official documents is regulated by national law (in part driven by EU law). Another part is a result of international commitments made voluntarily at EU and International level (Kyoto protocol, Local Agenda 21, Aalborg charter and commitments in municipality A and the EU Covenant of Mayors and Mayors Adapt in both municipalities). Climate change and energy-related aspects started to be introduced in the documents of both municipalities after their commitment to the EU Covenant of Mayors and Mayors Adapt.

The adoption of the dominant environmental agenda can potentially constitute a problem if environmental priorities are decided without considering the relevant environmental aspects in each municipality. The municipalities analysed are located in different Italian regions and associated with different political and social contexts, which suggests their environmental priorities and overall agendas will not necessarily be similar.

Findings from the case studies show that the content of accounting and reporting practices reflect identical environmental aspects. Municipalities change their agenda across time, reflecting changes in the dominant environmental agenda. Conflicts and related trade-offs within environmental aspects and others are not mentioned, which minimises the significance of the changes made.

The EU, also based on the UN's initiatives, emphasises the role of local governments in influencing citizens' behaviour to adopt a more 'sustainable' lifestyle. Both municipalities adopt this agenda. Their documents focus on what the municipality does for a 'better environment' or to change citizens' behaviour to improve environmental quality, health and the quality of life. The boundaries used are in line with the legal framework discussed previously, focused on the territory under local governments' jurisdiction and their immediate surrounding area. The scope of the dominant environmental agenda is to focus on the territory under local governments' jurisdiction and how citizens can change behaviour to improve it.

These findings suggest that environmental aspects addressed may not necessarily be the most relevant for the specific cases. Particularly, in the absence of stakeholder engagement, it is not clear how municipalities create value in line with the expectations and needs of key stakeholders. Even though key environmental aspects might be transversally important to different municipalities, they are associated with different stages of development which leads to different goals and targets to be achieved.

Consequently, despite the relevance of the dominant environmental agenda, its adoption shows other reasons are important for both municipalities, including access to funding due to the financial restrictions they face due to public reforms and the financial crises. Adopting a dominant environmental agenda, related to international commitments made, supports municipalities access to international networks to conceptualise and implement changes that would be limited without external support.

Secondly, mobility and air quality are the dominant environmental topics in both municipalities. Mobility is consistent with the priorities defined by the EU at the local level on the need to change individual behaviours towards more sustainable mobility options as a way to improve air quality. Besides recommendations, the EU also created regulation to limit the concentration of air pollutants.

Air quality is particularly significant in both municipalities analysed. They are located in an area named *Bacino Padano*, which is considered the most air polluted in Italy due to the high concentration of inhabitants and industries, and its orographic and weather-climatic conditions. Hence, both municipalities recognise the importance of implementing measures to tackle air quality and use EU funding to implement related projects, but also in line with regional priorities.

Mobility and air quality are transversal issues to local governments across EU member states due to the pressure cities face caused by the high concentration of operations and associated impacts related to the pollution of diverse areas, associated with health problems. Nevertheless, for similar reasons pointed out concerning the adoption of the dominant environmental agenda, municipalities may prioritise mobility and air quality due to the multiple incentives from the EU to conceptualise and implement changes. Among the initiatives is the European week of sustainable mobility which gives municipalities visibility at EU level, and through funding at national and EU level to implement cycle mobility.

Another reason for mobility and air quality dominance is the legal framework applicable to the municipalities. One of the environmental categories considered as *Missione 10* is related to mobility, which legally advocates mobility and air quality, while other environmental aspects, except for energy, are under the same category *Missione 09* ('sustainable development and protection of the territory and the environment').

Both voluntary and regulated documents of the two case studies reflect the dominant environmental agenda, as well as the supremacy of mobility and air quality aspects to influence citizens in changing behaviours. The scope of both change elements is focused on the territory under local governments' jurisdiction and their immediate surrounding area, similarly to what is defined in the legal framework.

These findings provide additional evidence on the position of national regulation, influenced by the EU, on the limitation of the boundaries of PSO to the 'management' of the territory. One of the reasons may be the fact that the majority of PSO are service organisations, which are generally considered to have fewer impacts than multinational companies. PSO are also associated with significant impacts, and they have a key role in influencing other sectors of society.

Thirdly, with the implementation of legislation in 2011, municipality A incorporated more specific information to support activities planned and what was achieved. On the contrary, in municipality B, the presence of data was limited to climate change and energy targets, while at the same time planning mobility and air quality changes without the support of data.

Despite having regulated and voluntarily adopted documents, municipality A complements the information presented across documents. The 3-year plan presents what is planned, including from the legislation implemented in 2011 also strategic and operational goals. The performance plan defines indicators and targets based on the strategic and operational goals defined in the 3-year plan, while the performance report presents the results for all indicators. The environmental report presents a summary of the state of the environment in the territory and to a lesser extent the organisational environmental performance.

Part of the information presented in the voluntary report in municipality A repeats information also found in the performance report. The voluntary environmental report is used by the council as a summary of the state of the environment in the territory, including also indicators on organisational environmental performance. The performance report presents information resulted from services and projects developed by municipality A and their value created in the territory beyond environmental aspects.

As a complement, the environmental report addresses the state of the environment in the territory, which extends the boundaries of the legal framework, as the results do not depend exclusively from municipality A, but are also a result of the impacts caused by other individuals and groups in the territory.

Municipality B's documents are not complementary throughout time even though only using mandatory documents. In municipality B, the definition of strategic and operational goals is included only in the performance plan, where indicators and targets are also defined. Indicators do not monitor the achievement of all activities

planned in the 3-year plan neither what was achieved in the activities' report. In the absence of a management control system, it is not clear how results are monitored, and future operations are planned.

The implementation of legislation was used by municipality A to support and complement information across documents. In contrast, municipality B narrowed down the support of the information reported with indicators related only to voluntary international commitments made. Municipalities use the degrees of freedom within the legislation to implement changes in line with the dominant institutional logic.

Fourthly, and lastly, municipality A's documents reflect changes to include an environmental performance system to account for the environmental performance of the organisation. This element shows municipality A's efforts to implement changes in accounting and reporting practices. The environmental reporting system reflects that municipality A defines its boundaries beyond the management of the territory, also considering the consumption of natural resources in the facilities. In municipality B, this element is not identified due to the contextual factors analysed in 5.1.3.

Municipality A monitors a broader scope of indicators related to environmental aspects when compared to municipality B. Municipality A includes organisational environmental performance indicators, which were used during the majority of the period of analysis, but goals and activities performed for their achievement were never clear. One of the reasons may be the absence of standards of organisational environmental performance.

The analysis of the relationship between various documents shows there is a need to improve the consistency of the information and prevent the use of statements without the support of data. Currently, the documents analysed in both municipalities are focused on the change of behaviours of citizens in line with the dominant environmental agenda and the value created on the territory under local governments' jurisdiction and their immediate surrounding area. In the case of municipality A, it is also considered the state of the environment and organisational environmental performance.

Despite different extents, both case studies limit their accountability boundaries to their role as 'managers' of the territory and, in the case of municipality A, as monitors of the environmental quality in the jurisdiction and to a lesser extent its organisational environmental performance. Exhibit 5.2-19 elucidates the main elements of content influencing changes across time in municipality A and B.

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*Exhibit 5.2-19. Elements of content influencing changes across time in municipalities A and B.*

Dimensions associated with the framework	Elements influencing changes across time	
	Municipality A	Municipality B
Content	<ul style="list-style-type: none"> <li>Adoption of the dominant environmental agenda adapting the rhetoric throughout time.</li> <li>Mobility and air quality as the dominant topics. Information is based on data.</li> <li>Complementarity of the content of documents through the use of voluntary and compulsory documents.</li> <li>Despite not regulated by law, assessment of organisational environmental performance in the voluntary stand-alone environmental report.</li> </ul>	<ul style="list-style-type: none"> <li>Adoption of the dominant environmental agenda addressed by the EU through the integration of indicators and targets related to EU voluntary commitments on climate change and energy.</li> <li>Mobility and air quality as the dominant topics. Information is mostly generic.</li> <li>Uncomplimentary of the content of documents. Statements are not supported by data or monitored.</li> <li>Simplification of the role of the municipality as 'manager' of the territory.</li> </ul>

### 5.3. Process

#### 5.3.1. Municipality A

The long-term pattern of events by which strategies and their purposes are conceived and implemented are put into operation through three elements: (i) municipality A's engagement in international networks; (ii) the decision to adopt voluntarily additional reports; and (iii) the implementation of legislation.

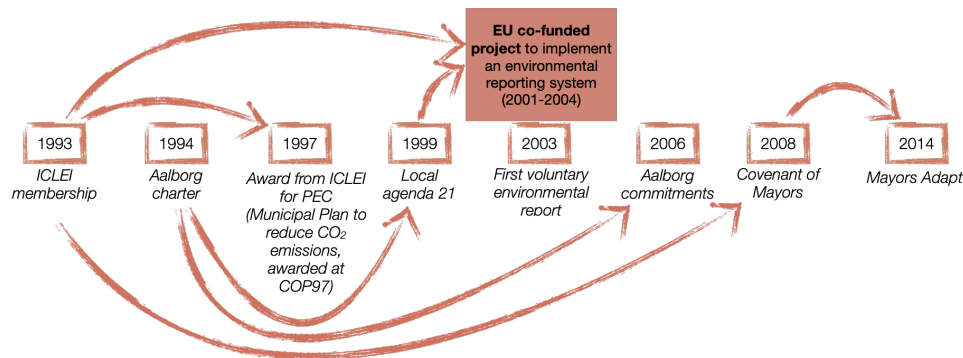
The three elements are implemented mostly by internal stakeholders, who act as agents of change. The cabinet member for the environment plays a key role, supported by the cabinet and the council. Municipality A implemented changes due to the decision to integrate into international networks and increase chances to find external funding. Besides the agents of change, the existence of managers and civil servants with adequate skills to conceptualise and implement changes supported the process of change.

Documents mention the engagement of other stakeholders into the change process such as economic partners, trade unions and associations. For instance, associations and representatives of groups of citizens are mentioned in the social reports (in the context of urban planning). However, it is not possible to distinguish in the document how they influence the conceptualisation and implementation of change.

The first change refers to the engagement in international networks. Municipality A's engagement in international networks since the early 90s influenced the process of conceptualisation and implementation of changes across time.

Since the beginning of the 90s, municipality A has engaged in international networks related to environmental initiatives at the local level. Municipality A was the first Italian local government to join the ICLEI<sup>30</sup> network in 1993. Municipality A's active role within EU and other international organisations influenced the incorporation of beliefs, values and norms concerning environmental policies and practices established at the international level. Exhibit 5.3-1 illustrates the most significant engagement initiatives.

*Exhibit 5.3-1. Adoption of international and EU-specific initiatives by municipality A.*



In 1994, municipality A was one of the participants of the European Conference on Sustainable Cities and Towns, in Aalborg (Denmark), and one of the signatories of the Aalborg Charter (and its commitments later in 2006). The Aalborg Charter is an essential element for local governments to implement the strategic change envisaged at the UNCED in 1992, as it adapts the Agenda 21<sup>31</sup> to the reality at the local level. By signing the Aalborg Charter, municipality A adopted the Local Agenda 21 in 1999.

In 1997, the cabinet member for the environment attended the Conference of the Parties (COP 97 – where the Kyoto Protocol was signed<sup>32</sup>) where municipality A received an award by ICLEI for its municipal plan to reduce CO<sub>2</sub>-eq emissions. The participation and award received by municipality A reflected its engagement within ICLEI due to a plan adopted voluntarily to reduce CO<sub>2</sub>-eq emissions in the territory. The award also enforced the continuous implementation of the dominant logic established by the environmental agenda promoted by the UN, EU and other international organisations.

<sup>30</sup> ICLEI (International Council for Local Environmental Initiatives) was founded in 1990 at the World Congress of Local Governments for a Sustainable Future in the headquarters of the United Nations in New York (USA).

<sup>31</sup> Agenda 21 is one of the important outputs from the United Nations Conference on Environment and Development (UNCED) in 1992 that is still being implemented. It consists on a plan of actions to be implemented at different levels (global, national, local) to address impacts from human activities on the environment. Chapter 28 of Agenda 21 creates a spotlight on the importance of local government initiatives 'as the level of governance closes to the people, they play a vital role in educating, mobilising and responding to the public to promote sustainable development'.

<sup>32</sup> Kyoto Protocol was an international treaty to decrease GHG emissions.

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In the 3-year plan 2005-2007, municipality A announced to continue the implementation of a municipal energy plan in line with the Kyoto Protocol to reduce GHG emissions, as described:

*'The Municipal Energy Plan aims to reduce municipal energy needs and climate-changing emissions as a local implementation of the Kyoto protocol, national and regional European directives on energy saving and the promotion of renewable energies, as designed in the Municipal Energy Plan approved in 1998' (3-year plan 2005 – 2007, p.65).*

The commitment to the Kyoto protocol was omitted in the documents from 2002 to 2004. This period coincides with the time a different political party governed municipality A. Municipality A has been characterised by a long record of political continuity of left-wing and centre-left-wing parties. A different party took over from 1999 to 2004. A centre-left party was elected from 2004, same year Kyoto protocol arguments emerge again in the documents.

Due to the commitment at this point with the Kyoto protocol, multiple planning instruments were developed to reduce CO<sub>2</sub>-eq emissions in the territory, such as the air quality remediation plan:

*'The air quality remediation plan has the objective of reducing the concentrations of pollutants in the atmosphere concerning the limits defined by current legislation, which must be achieved by 31.12.2005, to avoid incurring European sanctions' (3-year plan 2005 – 2007, p.65).*

In order to implement changes in the territory, municipality A decided to diversify the sources of external funding through regional, national and EU sources, which influenced the adoption of the dominant environmental agenda and prioritised sustainable mobility, in line with EU policies as follows:

*'During 2009, the municipality (...) committed to finding additional economic resources in a complement of the ones already allocated by the administration through participation in various regional, national and European calls. The co-funded projects were approved in particular in the area of sustainable mobility, in compliance with the policies and indications issued by the EU and by the other funding entities' (Environmental report 2009, p.5).*

As a result, mobility is one of the dominant topics. Also, energy and climate change are addressed in the documents resulted from the voluntary commitments made with the EU Covenant of Mayors in 2008 and the Mayors' Adapt in 2014.

The engagement of municipality A with international but also national entities was crucial to conceptualise and implement changes. For instance, municipality A coordinated an EU-funded project on an adaptation strategy for a resilient city, which

resulted in the 'Climate Change Adaptation Plan' (as planned in the 3-year plan). This project involved other entities such as the regional environmental protection agency (also engaged in the environmental reporting project), the Kyoto Club (an Italian non-profit organisation for the achievement of the targets defined in the Kyoto Protocol) and a consulting company with experience in EU-funded projects.

The second change refers to the voluntary adoption of additional reports, which is in part as a result of municipality A's engagement in international networks.

Municipality A was among one of the first EU local governments to develop an environmental reporting system. This was possibly due to a project promoted by ICLEI and co-funded by the EU that took place from 2001 to 2004. Inspired by the Aalborg Charter and the Local Agenda 21, EU local governments within the ICLEI decided to develop an environmental reporting system aimed at managing the natural resources. Among the participants was another local government in the region where municipality A is located, and the regional environmental protection agency was also an observer.

The project emerged during a time several discussions took place in the Italian central government on the possibility of introducing a compulsory environmental accounting system in PSO. Consequently, various Italian regional and local governments used external funding to apply a few experiments, including other local governments in the region where municipality A is located. This could have been an opportunity to implement an environmental accounting system in the local government and a joint strategy to anticipate the implementation of legislation on the matter.

Besides the environmental report, municipality A also adopted a social report. Despite multiple experiences since 1997 supported by local associations, in 2005 municipality A decided to develop the social report gathering for the first time in one document information on the activities resulting from education and social policies, culture, and associations that work in the territory to 'represent the whole entity in a single document' (Social report 2005, p.7).

From 2005 to 2010, social reports were implemented to inform citizens regarding what was achieved by implementing policies and services as follows.

*'(...) every policy and service of the municipality will finally be brought to the attention of citizens and their forms organised in a single general relationship. The intention is to come up with a document that - in addition to informing citizens – can support the planning phase of activities for the following year, providing concrete reporting bases and forward-looking indications' (Social report 2005, p.7)*

As a stand-alone document, the social report aims to portray what was achieved for the local society, which was absent at the time in other documents. It is a document drafted for a broader public, including citizens. For this reason, it has less technical or



complex information. However, there is no evidence on the existence of stakeholder engagement. It fails to present evidence on the process of engaging key stakeholders and, consequently, the significance of the information presented is uncertain.

The implementation of legislation is identified as the third change. In 2011, municipality A adopted the structure of the 3-year plan as a result of the Legislative Decree 118/2011. At the same time, it included two new documents belonging to the performance management phase (performance plan and performance report) due to the implementation of the Legislative Decree 150/2009 that included non-financial indicators and targets. The use of indicators and targets supported the information portrait by providing data.

The voluntary social report was abandoned in 2011 when the performance management phase was implemented by municipality A. The information presented in the social reports was partly included in the documents of the performance management phase. Despite not being specified in the legislation, municipality A decided to include a description of what was achieved under the specific services and projects in the performance report (performance management phase). Interviewee A3 explains that the social reports were aimed at 'telling the story' and were in 2011 replaced by the performance report.

*'Social reporting is more about telling the story, not accounting. We have conducted some work to synthesise the experiences of social reporting in the municipality. The idea has always been much more about listening to people. We now do it through the performance report' (Interviewee A3).*

The disappearance of the social report (that was aimed at a broader public) and its replacement by a highly technical report was made at the expense of narrowing down the potential audience. Nevertheless, there was no evidence that the social report reflected the needs and expectations of a broader audience.

On the contrary, environmental reports continued to be adopted, representing a summary of the state of the territory and to a less extent of the organisational performance. According to interviewee A2, the environmental report provides 'straightforward information' on the 'most critical environmental thematic areas'.

*'The environmental report is aimed at developing a document with specific information that can be scanned. Also, it provides information on the progress of the most critical environmental thematic areas' (Interviewee A2).*

At the same time, the environmental report seems to replace the previous state of the environment reports, including indicators to characterise the environment of the jurisdiction. State of the environment reports have a high amount of information, but this is often not useful for decision-makers owing to information overload. Consequently, according to interviewee A2, the environmental report gathers a lower

amount of data that represents the most significant aspects for the municipality. Consequently, indicators that may be useful to internal decision-makers are identified.

*‘The State of the Environment Report would include hundreds of indicators. The report would be beautiful, full of colours; but it would end up in a library forgotten. It was a complete data source but with low utility. Instead of collecting indicators to compete with who collects more, the evolution was to try in identifying which indicators are useful’ (Interviewee A2).*

Municipality A combines the continuous development of the voluntary environmental report whilst at the same time implements the new rules established by law to develop additional mandatory documents. All documents provide complementary information. Municipality A adapts its efforts to include information previously presented in the social report in the performance report, while continuing to develop the environmental report as a summary of the state of the environment in the territory.

### **5.3.2. Municipality B**

In the case of municipality B, mostly internal stakeholders are engaged in the organisational changing process. The 3-year plan mentions the engagement of other stakeholder groups such as citizens and trade associations, namely in the context of EU projects. However, no information is provided on the significance of their role in changes across time.

The long-term pattern of events by which strategies and their purposes are conceived and implemented are put into operation through two elements: (i) municipality B’s engagement in international networks; and (ii) the implementation of legislation.

Municipality B created a Community Policies Office to look for external funding to implement EU funded projects that could minimise the floods’ effects. The first EU funded projects were related to mitigating the environmental impacts of climate change-related consequences. Later, EU funded projects were aimed at enhancing the resilience of the systems (in line with the EU position). Before the floods, municipality B had only been engaged in one EU project related to environmental awareness.

Despite having its revenues, local governments are significantly dependent on the allocation of financial resources from the central government to conceptualise and implement changes. Thus, the existence of the environmental emergency prompt municipality B to broaden its financial sources and implement changes to mitigate the impacts in joint work with other local entities in the region affected. Exhibit 5.3-2 portrays the most significant environmental initiatives municipality B engaged with to gain access to external funding.

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Exhibit 5.3-2. Adoption of international and EU-specific initiatives by municipality B.



In 2011, municipality B joined the EU Covenant of Mayors to gain access to a network close to the EU. On the official website, a statement made by the cabinet member for the environment in 2011 highlights that the commitment to the EU Covenant of Mayors was a favourable opportunity to be under strict monitoring from Brussels. It is considered a strategy to access EU funding to conduct activities related to the environment that do not affect the stability pact applicable to local governments:

*‘The Covenant of Mayors is an essential commitment because it is subject to strict monitoring in Brussels which leads to public evictions if the objectives assigned are not gradually achieved. It is also an opportunity to access the funding that Europe allocates for the promotion of sustainable energy without affecting, for now, the stability pact of local authorities’ (Cabinet member for the environment, 2011, source: official website of the municipality).*

The cabinet member for the environment illustrates that the strict financial restrictions due to the SGP (for details see section 3.2) influence municipality B’s to apply to external funding. The same entity that imposes the stability pact and restricts financial resources allocates extra funding to implement changes.

The cabinet member for the environment played an essential role in the decision to drive the municipality B to commit to targets on climate change and energy. In 2014, a new commitment was made focused on climate change, this being the Mayors Adapt, with new goals and targets set to be achieved. In the 3-year plan 2015-2017, municipality B states that the ‘Mayors Adapt’ was an opportunity to be ‘registered on the portal dedicated to members’ and ‘evaluate its participation in any new European programming calls’ as follows:

*‘As part of the Mayors’ Adapt initiative, which the municipality (...) joined in September 2014, the municipality (...) is registered on the portal dedicated to members. In collaboration with the Community Policies Office, it will evaluate its participation in any new European programming calls (Horizon 2020)’ (3-year plan 2015-2017, p. 100).*

As a result of municipality B engagement in EU projects and consequent meetings with other partners in Brussels, in 2017, municipality B planned to join ICLEI to enhance the diversity of financial funding opportunities of projects and policies. From the analysis of the performance report 2017, it can be confirmed that municipality B

joined ICLEI and also a network of representatives from the region where the municipality is located, headquartered in Brussels.

The network of representatives from the region is aimed at being geographically and strategically close to the EU headquarters, e.g., to monitor legislative processes in progress, report them to the critical stakeholders in the Italian region, and to lobby towards specific priorities for the region (source: official website of the network).

Municipality B created a strategic goal 'optimisation of the use of community resources in order to consolidate the international credibility of the municipality' in the performance plan 2017, including an operational goal, performance indicators and targets (Exhibit 5.3-3).

*Exhibit 5.3-3. Strategic and operational goals of the municipality B towards joining ICLEI (Performance plan 2017, p.150).*

DIPARTIMENTO: RISORSE ECONOMICHE E FINANZIARIE  
SETTORE: PROGRAMMAZIONE, CONTABILITÀ ECONOMICA E SERVIZIO FINANZIARIO  
DIRIGENTE RESPONSABILE:

OBIETTIVO STRATEGICO: OTTIMIZZAZIONE DELL'IMPIEGO DELLE RISORSE COMUNITARIE  
AL FINE DI CONSOLIDARE LA CREDIBILITÀ INTERNAZIONALE DEL COMUNE

TIPO: MIGLIORAMENTO SERVIZIO COD 3.56

FINALITÀ OB.VO STRATEGICO: Aderire alle reti europee e internazionali più vicine al territorio e rispondenti alle esigenze del Comune che possano condurre a nuove opportunità di finanziamento dei propri progetti e delle proprie politiche e ampliare ancor più l'efficacia e l'impatto a livello europeo del proprio operato locale.

OBIETTIVI OPERATIVI	2017				2018			2019		
3.56.01 Ampliamento progressivo di una rete di eccellenza attraverso l'adesione a reti/oggetti istituzionalmente riconosciuti a livello internazionale										
INDICATORI DI PERFORMANCE	STATO 2016	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.	TARGET MINIMO	TARGET ATTESO	TARGET RAGG.
3.56.01 Numero di adesioni reti/oggetti riconosciuti a livello internazionale – massimo risultato ottenibile 2 documenti di adesione (Domiciliazione presso Regione, UO Rapporti UE e Stato, sede di Bruxelles (Belgio) e Adesione alla Rete Internazionale ICLEI, sede di Friburgo (Germania))		1	2							

AREA STRATEGICA 1

AREA STRATEGICA 2

AREA STRATEGICA 3

Municipality B states in the performance plan 2017 that joining ICLEI was a strategic goal to optimise the use of resources from the EU in order to consolidate its international credibility, effectiveness and impact at EU level. The fact that ICLEI constitutes a network of local governments working towards sustainability did not seem to play a significant role in the decision to join the network.

The process of engagement in international networks started after the floods that impacted the territory managed by municipality B and served as a way to gain access to external funding to implement changes beyond legal requirements. At the same time, municipality B's engagement is aimed at optimising the use of EU resources and consolidate its international credibility.

In 2011, the inclusion of legislation led municipality B to include indicators and targets to monitor the achievement of strategic and operational goals. Municipality B used the degrees of freedom within the legislation to limit the use of environmental indicators. Consequently, it decided to include goals, indicators and targets in the

performance management documents mostly related to the international commitments made in the context of the EU Covenant of Mayors and the Mayors Adapt.

Municipality B narrows down the scope of environmental indicators to the ones defined in the voluntary commitments made associated with specific targets. Despite mobility and the air quality are the dominant topics in the other documents, no specific goals, indicators and targets are associated with the activities planned and achieved.

### **5.3.3. Cross-case analysis**

In both cases studied, mostly internal stakeholders that are engaged in accounting and reporting changes in both municipalities. Formal stakeholder engagement is absent from the documents analysed. Informally, other key-stakeholders such as trade unions, associations, economic partners may have a role in the conceptualisation and implementation of changes. These groups, associated with economic and political power, are mentioned in the documents of both municipalities. However, information on how they influence changes and how specific groups are engaged is omitted.

In both municipalities, the cabinet members for the environment are the main drivers for change, supported by the other cabinet members, the council and managers and civil servants with the adequate skills to conceptualise and implement changes. International organisations also play an essential role in influencing changes across time. The information is selected by municipalities, but external funding opportunities play a significant incentive on what is included.

In the case of municipality A, the political commitment associated with continuity of similar people in positions of power led to the continuous development of the voluntary environmental report. In the case of municipality B, the presence of a left-wing party in power led to the inclusion of EU priorities in the official documents. The need to deal with an environmental emergency influenced municipality B to apply for EU funding in order to minimise the impacts the territory was facing.

The present research shows that local governments conceptualise and implement changes due to their engagement in international networks and the implementation of legislation. In the case of municipality A, the voluntary adoption of the environmental reports influenced also changes across time. The long-term pattern of events by which strategies and their purposes are conceived are put into operation through these three elements analysed below.

The first element involves engagement in international networks. It influences the conceptualisation and implementation of change in both municipalities. Multiple international networks like ICLEI disseminate the dominant environmental agenda at the local level by creating opportunities to exchange practices in a network of local governments.

In the case of municipality A, the engagement in international networks influenced the content related to the dominant environmental agenda and dominance of mobility and air quality in line with EU specific priorities. At the same time, voluntary commitments related to climate change and energy were also made due to the EU's support.

In municipality B, changes took place when it decided to engage in EU funding projects, in line with the political system that was in power over the majority of the period of analysis and to face the environmental emergency. As a result of the EU projects, municipality B decided to integrate with more international networks to optimise the use of resources and consolidate its international credibility.

The main difference between municipalities is the extent to which the changes resulted from a long history of engagement with international networks in case of municipality A, and a shorter period of engagement with sustainability-related networks in case of municipality B.

In the case of municipality A, since the 90s it has been engaged in international networks. From becoming a member of ICLEI in 1993, including an award in COP97 for its plan to reduce CO<sub>2</sub>-eq. emissions in 1997, committing to the Local Agenda 21 in 1999, to more recently committing to the Covenant of Mayors in 2008 and subsequent updates. This continuous change is associated with a dominant institutional logic in line with the incorporation of environmental aspects into municipality A's operations, which is represented by a change not only in the design archetypes but also in the interpretative schemes.

In the case of municipality B changes have been more recent. Change in the environmental agenda happened when a left-wing party took the seat in the governance. Also, the application for external funding coincides with the occurrence of the environmental emergency related to floods at the end of 2010. The EU funded projects led to the spread of municipality B's network and its ICLEI membership.

As a result of the organisational culture that characterises municipality B, changes have been mostly superficial, or 'cosmetic' as the inclusion of goals and targets resulted from the engagement in international networks is decoupled from the planning instruments as well as the activities' report.

The engagement in international networks led to the incorporation of a variety of environmental aspects within the various documents. In particular, goals and targets related to the international commitments made became part of municipalities' commitments.

Despite the fact international commitments address environmental aspects that need to be prioritised by a variety of PSO, as seen before, they may not be the most relevant or 'material' for key stakeholders in every PSO. Thus, their adoption is the

result of the engagement in international networks mostly as a strategy to gain access to external funding.

Considering the financial restrictions Italian local governments' have faced, both municipalities engage in international networks to support their chances of additional funding to implement changes. While the EU imposes financial restrictions to member states, it also provides extra funding for an elite of local governments to implement changes following the priorities established by the steering entities.

The financial restrictions that both local governments face urge a dependence on external funding (either from national or international sources) to implement environmentally related changes. This leads to the adoption of the environmental agenda defined by external entities that provide funding according to their priorities.

The inexistence of a forum to account for jeopardises the significance of the environmental reporting process due to its potential rhetorical use to gain extra funding and be in line with the EU and dominant environmental agenda without the implementation of a long-term policy.

Stakeholder engagement is absent from the reporting process. Thus, it is not clear how the content, and more specifically, the projects and services provided, respond to society's needs and expectations, or if it is only an internal vision of what is adequate for the territory.

Also, the engagement in international networks is used as a strategy to complement municipalities' hierarchical structure to access to opportunities. This strategy has been identified under the new public governance literature as a response to the first wave of reform-related problems in the early 2000s. In order to face the problems found, PSO voluntarily cooperate with networks and partnerships to conceptualise and implement changes across time.

The second element of the process is only identified in municipality A regarding its conceptualisation and implementation of voluntary environmental and social reports.

The adoption of voluntary reports by municipality A allowed monitoring the environmental state of the territory managed by municipality A and the organisational environmental performance. It provides a summary of the state of the environment to be discussed by the council.

The environmental report was the result of municipality A's engagement in international networks, in particular, due to an EU co-funded project that originated from its membership with ICLEI, signing the Aalborg Charter and committing to the Local Agenda 21.

Furthermore, the elements analysed in the context played a fundamental part in the adoption of the first report due to the possibility of compulsory environmental

accounting was being discussed in the central government. Municipality A's constant political commitment explains the continuous adoption of the voluntary environmental report in discussing the report in the council. It can also be seen as a way to use an innovative accounting tool within the region. Local PSO in the same region as municipality A are renown nationally due to their engagement in voluntary accounting tools, such as the participatory budgeting in a way of enhancing their perceiving transparency.

The social reports were developed by municipality A from 2005 to 2010 to show which activities were performed and its impact on society, but these are focused on mobility-related initiatives. After the implementation of legislation in 2011, part of the information presented in the social reports was included in the performance report.

Social reports are more common than environmental reports in the Italian context. However, municipality A considered the social reporting process could be integrated into documents that needed to be developed compulsory. With this decision, municipality A left behind the only practice aimed at showing the creation of value to a broader audience. Nevertheless, documents did not provide evidence on how the content of the document reflected a stakeholder engagement process. Thus, it is not clear if the information were in line with key stakeholders' needs and expectations.

The third change related to the process refers to the implementation of legislation in 2011, used by change agents to introduce non-financial indicators, and targets and the inclusion of strategic and operation goals. Municipalities interpreted the degrees of freedom, within the legislation, resulting in different processes.

Municipality A uses the 3-year plan to identify critical aspects based on the programme of the mandate, and consequently, identify strategic and operation goals linked to *Missioni* and *Programmi* related to specific services and projects. The performance plan is used to identify specific indicators and targets. Results are presented in the performance report linked to the efforts made to achieve changes.

Municipality B only defines strategic and operational goals in the performance plan and respective indicators and targets. However, the 3-year plan and the activities' report present activities planned and achieved, respectively, without necessarily any management control system to monitor changes through the use of indicators and targets. Environmental indicators and targets are only related to climate change and energy.

The legislation is considered an element of change by imposing specific processes defined by legislators, policymakers and public managers. These stakeholders also act as agents of change for Italian PSO, without necessarily considering the contextual elements of each local governments.



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The legal framework can be a barrier to the development of environmental accounting and reporting practices. Italian PSO are associated with high formalism, the primacy of the law and administrative processes. Environmental accounting and reporting is not regulated, which might suggest that environmentally related information is not considered as important as financial aspects. Municipalities are under financial restrictions which limit their engagement in activities beyond mandatory. Also, a formal forum to account for environmental accounting is absent.

The primacy of financial accounting practices may limit the significance of changes related to environmental aspects, and its inclusion in accounting and reporting practices. New initiatives, such as the voluntary environmental report adopted by municipality A, seems to try to adapt to the current systems that are regulated, which may play a regressive role even if it can expand the boundaries considered in the conventional accounting.

The present thesis provides evidence on the limited scope of environmental accounting and reporting in municipalities. The cases studied are committed to sustainable development through their engagement in international networks for sustainability at local governments, and are also engaged in EU funded projects to implement changes. The integration of externalities caused by their operations is absent.

Exhibit 5.3-4 illustrates the main elements of process influencing changes across time in municipality A and B.

*Exhibit 5.3-4. Elements of process influencing changes across time in municipalities A and B.*

Dimensions associated with the framework	Elements influencing changes across time	
	Municipality A	Municipality B
Process	<ul style="list-style-type: none"> <li>▪ The cabinet member for the environment act as agent of change, supported by other cabinet members, the council and managers, and civil servants, with the necessary skills to implement change.</li> <li>▪ Change has taken place since the decision to engage in international networks in the early 90s and the continuous adoption of voluntary commitments.</li> <li>▪ Voluntary adoption of environmental and social reports.</li> <li>▪ Implementation of legislation by providing complementary information in combination with voluntary documents.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The cabinet member for the environment acts as the leading agent of change, supported by the council.</li> <li>▪ Change takes place through the decision to engage in international networks and commit to voluntary agreements to optimise the use of EU resources and consolidate its international credibility.</li> <li>▪ Implementation of legislation by using targets defined in the voluntary commitments made related to energy and climate change.</li> </ul>

In sum, municipality A manages change by continuously assessing its environment and by identifying possibilities of networking to support the implementation of change. It was the first Italian local government integrating ICLEI. The existence of other local governments in the region, in the metropolitan area and regional organisations implementing environmental projects, played an essential role in the municipality A's changes. The successful implementation of the political and organisational dominant logics across time was supported by the existence of human resources with the adequate skills to conceptualise and implement changes. Municipality A shows a coherence in its strategic change as goals are consistent throughout time, in line with its position to adopt the dominant environmental agenda. Changes are consonant with municipality A's integration in international networks, and they depend on the priorities towards change defined by the steering entities.

In the case of municipality B, it monitored opportunities in the environment to implement changes due to the existence of an environmental emergency. It created an office dealing exclusively with the conceptualisation and implementation of environmentally related changes using EU funded projects. Change is consonant with the environment as municipality B responded to environmental emergencies related to climate change, implemented local changes to improve air quality within the legal framework and adopted the dominant environmental agenda through monitoring energy and climate change-related aspects. Nevertheless, findings show there is a lack of coherence in managing change. There is no consistency between the information presented in the different documents as, e.g., activities that are planned under mobility and air quality are not monitored through indicators and targets, and the information is mostly generic. Information related to indicators and targets is exclusively related to the voluntary commitments within EU initiatives. Consequently, changes will be set by the agenda implemented by international organisations which are responsible for steering changes as they will decide where external funding is allocated.

## Chapter Six: Discussion

Chapter six presents a discussion of the changes identified and analysed in chapter five. The present chapter considers the critical review of the literature detailed in chapter two and three. This study set out with the aim of investigating changes across time in accounting and reporting practices in local governments related to environmental aspects, and the significance of changes across time.

Considering the aim of the present research and the findings from the application of the context-content-process framework, section 6.1 sought, with the literature, to examine why local governments incorporate environmental aspects in accounting and reporting practices. Section 6.2 distinguishes what is the content of accounting and reporting practices in local governments related to environmental aspects. Section 6.3 examines how local governments go about conceptualising and implementing changes towards the incorporation of environmental aspects in accounting and reporting practices. Section 6.4 focuses on the interconnection of changes across time and the analysis of their significance.

### 6.1. Context

#### 6.1.1. Outer context

In this section, three elements related to changes in the outer context and their interconnections across time are discussed to explain why local governments incorporate environmental aspects in accounting and reporting practices. The first addresses the legal framework applicable in Italy and its reflection in both case studies. The second element encompasses the local context in municipality A characterised by stakeholder engagement initiatives and a variety of local governments in the same region proactively implementing environmentally related changes. The third element of the outer context refers to the occurrence of an environmental emergency in municipality B.

The first change relates to the legal framework, which has an important role to play on accounting practice in Italian local governments and other PSO. A high formalism characterises Italian PSO based on the primacy of the law and administrative process, which must follow abstract rules and legal instructions (Catalano *et al.*, 2015). These characteristics lead to the institutionalisation of processes to develop multiple documents that comply with the requirements which are aimed, in principle, to reflect how decisions are reached. Compulsory requirements are understood as administrative procedures to be complied with, leading to uniformity in behaviour and conformity with the law (Steccolini, 2004).

In this scenario, Italian PSO are characterised by bureaucratic accounting and reporting processes. In Italy, like other industrialised western societies, most

organisations use economic efficiency as the primary rationale for legitimacy (Dillard *et al.*, 2004). While financial accounting is compulsory in local governments, the same does not happen with environmental accounting and reporting.

Findings from the present research show that environmental aspects are included in regulated documents. Official documents include what is planned and what is achieved to justify the costs associated with environmental aspects according to categories *Missioni*, and also *Programmi* in case of municipality A. Both case studies squeeze information concerning environmental aspects considering the pre-established categories into the documents that need to be developed by law. *Missioni* and *Programmi* categories constitute standard functions and harmonise the accounting and reporting system in Italian PSO.

Through the categories *Missioni* and *Programmi*, legislators and other key stakeholders defined the scope of 'material' environmental aspects that can be included in the official documents by all PSO. The same group of stakeholders define the boundaries of the official documents, which are limited to the territory under local governments' jurisdiction and their immediate surrounding area. Organisational environmental performance and externalities are excluded from the requirements. Environmental pressures are not included in conventional accounting because they are considered events that take place outside the accounting entity (Schaltegger and Burritt, 2017).

Numerous researches have highlighted that what conventional accounting does not account leads to significant environmental and human rights' impacts, as well as higher inequality (see, e.g., Gray, 2006, 2010; Milne, 1996; Russell & Thomson, 2009). For instance, the exclusion of externalities in accounting results leads to an incomplete portray of reality because costs associated with externalities are passed down to external parties and are not included in decision-making (Schaltegger and Burritt, 2017).

Information on financial aspects is given priority through conventional accounting. The legal framework procedure requires both municipalities to show how they allocate financial resources for accountability purposes. The system distinguishes categories of costs, including costs related to activities associated with environmental aspects, such as waste, natural areas, mobility, energy sources (for details, see Appendix I). Environmentally related costs are referred to as expenses in activities related to environmental aspects, leaving out costs resulted from externalities caused by the activities developed (Bracci and Maran, 2013). The internalisation of costs resulted from externalities is not compatible with the financial accounting system currently adopted by local governments.

Local governments prioritise the law and administrative processes that are regulated. Thus, even though in different extents, both municipalities studied consider what is not mandatory less important. The economic logic of decision-making leads to

a mostly financial representation of nature (Weir, 2019). The environment is seen as a source of value to serve economic interests, amplifying an anthropogenic and instrumental approach to the environment (Tregidga and Milne, 2006).

The representation of the environment as a commodity is problematic in the public sector. Particularly, in the case of local governments, these have gained an additional role as 'stewards of the environment' (Ball *et al.*, 2014). It became part of the organisational mission to address environmental, social and sustainability issues (Marcuccio and Steccolini, 2009). Along with creating public value, particularly in co-creation with stakeholders (Deidda Gagliardo, 2007) and considering inter-generational impacts (Montecalvo *et al.*, 2018; Thomson *et al.*, 2018).

Local governments need to publicly disclose environmentally related information on their websites related to the fulfilment of environmental legislation relative to the state of the environment in the territory. However, no requirements exist to develop formal mechanisms regarding the measurement of environmental performance, neither to be accountable for non-compliance nor for creating externalities. For this reason, environmentally related information disclosed by local governments is low compared to financial aspects, as discussed by, e.g., Alcaraz-Quiles *et al.*, 2015; Brusca, Rossi, & Aversano, 2016; Gaia & Jones, 2019; Goswami & Lodhia, 2014; Joseph *et al.*, 2014; B. Williams *et al.*, 2011.

Also, local governments are dependent on the financial resources allocated by the central government. Despite having the autonomy to fund their activities, a significant percentage of inflows of local governments is still from higher levels of the government (Anessi-Pessina and Steccolini, 2005; Steccolini, 2004), which limits their engagement in activities beyond mandatory.

The legal framework could be a barrier to the significance of environmental accounting and reporting changes. Firstly, Italian local governments are associated with a legalistic tradition and bureaucratic culture, which limit the engagement in voluntary activities. Secondly, besides the multiple rules to follow, Italian local governments are significantly dependent on financial resources allocated by the central government to specific activities, which can limit what they can do in addition to what is regulated. Thirdly, a formal forum to hold local governments accountable, similar to what is conducted for financial aspects, is absent. Consequently, both case studies analysed benefit accounting practices in line with the legal framework.

According to Sangiorgi *et al.* (2017), legislation is needed to implement changes in local governments' accounting and reporting practices related to environmental aspects. The findings of the present research contradict this suggestion, as municipality A develops voluntarily a stand-alone environmental report expanding the boundaries of environmental aspects, addressing also organisational environmental performance indicators. The particular characteristics of the local outer context of

municipality A partly justify the conceptualisation and implementation of this change, while municipality B only adopted documents regulated by law.

The second change related to the outer context refers to the stakeholder engagement initiatives and other changes related to environmental aspects in local governments in the same region as municipality A. Municipality A was among Italian local governments to implement an environmental reporting system voluntarily during a time of a discussion relating to the possibility of implementing mandatory requirements on environmental accounting and reporting in Italian PSO. This finding is consistent with studies of local governments in other countries, including New Zealand (Othman, Nath, *et al.*, 2017), and the UK (Ball, 2005), where the possible inclusion of legislation changed the management of specific environmental aspects like waste management and transport. Also, the expectation of legislation on GHG emissions in Australia is pointed out by Goswami & Lodhia (2014) as the reason why a few local governments started an emission management system, including information on carbon equivalent emissions in the official documents.

In the 2000s, the Italian public sector was being pressured to increase transparency, fairness and accountability to stakeholders as a consequence of financial scandals in the private sector (Greco *et al.*, 2015; Marcuccio and Steccolini, 2005). Public sector reforms increased society's expectations of efficiency, effectiveness and innovativeness of public managers (Marcuccio and Steccolini, 2005). Municipality A may have wanted to be seen as innovative and progressive by using management techniques that are not adopted by the majority to monitor non-financial performance. This phenomenon is not verified in all Italian local governments such as the case of municipality B.

Contrary to municipality B, municipality A' metropolitan area is characterised by an active engagement of groups of key stakeholders that participate in co-creation initiatives related to urban planning. Also, it belongs to a region where a variety of local governments engage in environmentally related changes. Municipality A's region is composed of local governments associated with innovative practices, such as the participatory budget and environmental reports, linked to the co-creation of public value. This context influenced the participation of municipality A in the EU co-funded project that led to the implementation of the voluntary environmental report, where other PSO from the region also took part.

The characteristics of the local context play an important role in changes to accounting practice in Italian local governments related to environmental aspects. Despite being located in the same country, both municipalities studied reveal different changes. These findings support previous research from Bebbington *et al.*, (2009) who highlight the crucial role of the interaction between social and organisational factors in influencing the adoption of the sustainability reporting as an activity.

The adoption of voluntary reports by local governments can be seen as a managerial fashion that started in the 2000s (Marcuccio and Steccolini, 2005). Few local governments continued to adopt consequent environmental reports as it was either a single experiment or something left behind after publishing a small number of reports, coherent to the fashion and ‘fad’ arguments (Farneti *et al.*, 2019; Marcuccio and Steccolini, 2005; Vinnari and Laine, 2013). In the case of municipality A, the continuous adoption of the voluntary report is explained by its political commitment and organisational culture discussed in 6.1.2.

The third element identified in the outer context is related to the environmental emergency that devastated the territory of municipality B. Municipality B’s changes started when faced with the impacts of the environmental emergency related to floods. At this point, municipality B recognised the importance to find external funding to implement projects to minimise the impacts and enhance the resilience of the territory. It decided to apply for EU funding in order to enhance the resilience of the systems through education and awareness and preventing future impacts resulted from climate change.

Political leaders may confine resilience to emergency management, blaming the lack of financial resources and budget constraints on bypass policy changes (Sciulli *et al.*, 2015). In the case of municipality B, EU funded projects are used to complement the financial resources available. Projects were focused on the resolution of the environmental emergency. More recently (from 2017), additional strategies were implemented in joint work with other local governments and PSO in the region to conceptualise and implement a cooperative strategy to prevent future impacts.

The environmental emergency led to ‘cosmetic’ changes in the accounting and reporting practices as it will be seen in 6.2, while changes in accounting and reporting practices by municipality A led to more transformational changes. These differences are related to the political commitment and organisational culture, addressed in the inner context. The inner context elements also play a key role in changing processes, not only of the accounting and reporting mechanisms but also on the implementation of environmentally related initiatives.

### **6.1.2. Inner context**

Two elements related to changes in the inner context are discussed to support why local governments incorporate environmental aspects in accounting and reporting practices and also their barriers. The first refers to the political commitment and the second to the organisational culture.

The political commitment influences prevailing institutional logics that support changes. Both municipalities recognised, at differing moments in time, the importance of integrating the EU environmental priorities into their plans and activities.

Municipality A has had a continuous political commitment owing to similar parties and people in decision-making roles, who benefitted the continuous adoption of the EU environmental priorities. At the beginning of the 2000s, the cabinet member for the environment was the primary person responsible for supporting the implementation of a voluntary environmental report. This person was supported by the other cabinet members and the council to continue developing the voluntary system. The municipality relied on civil servants with the necessary skills to conceptualise and implement changes.

The importance of a specific person to promote sustainability reporting in local governments is essential in the absence of legislation, as noted by Greco et al. (2012, 2015). Findings also corroborate the idea of Ball (2005), who suggested that officers responsible for the environmental services support the environmental development agenda in UK local governments.

In municipality B, the cabinet member for the environment also recognised municipality B's dependence on EU funding to implement projects that minimise the impacts of floods and future environmental emergencies they might face. For this reason, it started to adopt EU environmental priorities and consequent voluntary commitments. However, changes to accounting and reporting practices were mainly 'cosmetic'.

Before the environmental emergency, a left-wing party took the seat in the municipality B, which showed a higher alignment with the EU priorities, even though no significant changes have been applied to accounting and reporting practices.

Throughout the relevant literature, it is often referred that the decision to engage in sustainability reporting is mainly driven internally due to its voluntary status. In particular, an internal key individual considered a 'sustainability champion', drives sustainability reporting in PSO (Farneti and Guthrie, 2009; Maroun and Lodhia, 2018). A similar phenomenon happens with the involvement of the municipalities in sustainability commitments (Garcia-Sanchez and Prado-Lorenzo, 2008). This 'champion' can refer to politicians or managers with decision power.

Nevertheless, it can be a fragmentary change process as the practices can be abandoned when a specific person or group of people that support the prevailing institutional logics ceases its role in the internal power mechanism, as suggested by Farneti et al. (2019). Internal organisational factors drive the loss of interest due to the use of the reporting practice to symbolise something, disconnected from management control systems and external stakeholders (Vinnari and Laine, 2013). Actions are shaped by the government in office and are subject to change following elections (Ball et al., 2014).

Previous studies show that sustainability accounting and reporting practices are fragmentary, and they rarely involve the engagement of the local government as a



whole, but a part that becomes responsible for delivering a report. Accounting practices are voluntary and when internal stakeholders are replaced, they may cease to exist. This suggests that voluntary accounting practices only involve internal stakeholders. External stakeholders, such as citizens, are not engaged in the process.

In the case of municipality A, the environmental report continued to be adopted due to the continuity of a dominant logic that supported the voluntary environmental report. The fact that the voluntarily developed environmental report is not abandoned in municipality A reflects the continuity of people that have been in power in this municipality and the maintenance of the dominant institutional logic. However, it does not provide evidence on the alignment of the practice with information that is 'material' to external stakeholders, and, consequently, to the significance of the environmental information in the creation of value for society. Accounting and reporting practices are used mostly to support internal decisions, as suggested by Bellringer, Ball, & Craig (2011) and Farneti (2012).

The second change in the inner context relates to the organisational culture. Organisational culture is defined as the set of shared values and norms that shape interactions within the organisation and with others (Jones *et al.*, 2013). Local governments avoid uncertainty, so they are often change-resistant unless they need to change.

In general, decision-makers tend to not engage in activities beyond the legal requirements, or that they are not pressured to engage with (Greco *et al.*, 2012). The different organisational culture of both municipalities helps to understand why the case studies adopt changes on different occasions, for different reasons and in different ways.

Municipality A is associated with the continuity of people within the organisation in multiple roles which supported the longevity of similar beliefs, values and norms to conceptualise and implement coherent changes across time. For this reason, the voluntary environmental report continued being developed, as well as the integration of EU priorities.

By contrast, in municipality B, changes occurred when faced with the need to change after an environmental emergency. Municipality B was also associated with a political change in the majority of the period of analysis, which was more in line with the inclusion in the EU environmental priorities to implement changes when compared to previous parties in power.

Municipality B justifies the lack of activities beyond legal requirements with financial restrictions (including human resources) and lack of internal culture towards voluntary activities.

Insufficient resources including time, funding, data and human resources, and no mandated requirements are pointed out by Williams et al. (2011) as the main reasons for part of Australian local governments not developing environmental reports. In New Zealand's local governments, the availability of funding and resources also stand a significant challenge (Othman, Laswad, *et al.*, 2017). The findings of the present research are consistent with data concerning Malaysian local governments, where the inexistence of people with specific knowledge was a barrier to environmentally related disclosures (Che Ku Kassim *et al.*, 2019).

The argument of the lack of funding for the absence of action on sustainable development suggests it can only be pursued outside of the current range of activities, as suggested by Ball (2005). Municipality B position reflects its vision of environmental reporting as something that may need a fundamental change to be included in the current activities.

Municipality A shows it is possible to change accounting and reporting practices within the current activities developed by local governments. Politicians often tend to overstate the constraints they face as they fail to identify, do not know how to use, or are unwilling to use their degrees of freedom (Anessi-Pessina and Steccolini, 2005).

While both municipalities conceptualise and implement environmentally related projects funded by the EU, only municipality A adopted a voluntary environmental report, expanding the boundaries considered in the legal framework by including organisational environmental performance. The different organisational culture justifies this difference as municipality B does not recognise the value of having additional documents to monitor the environmental performance of different aspects, justifying it with limited resources available to engage in activities beyond mandatory.

The findings of the present work extend the scope of the contextual elements that justify why local governments incorporate environmental aspects in accounting and reporting practices. Evidence shows an interplay between changes in the outer and inner context that is in line with the theoretical conceptualisation of institutional logics. Within the same legal framework, the cases studied reflect different changes to accounting practice due to the characteristics of their local outer context, including the existence of similar practices in other PSO, and organisational characteristics.

The political commitments and organisational culture towards changes also help to explain their different use of the degrees of freedom within the legal framework both need to comply, resulting in environmentally related changes in different occasions, for different reasons and in different ways. In both municipalities, multiple institutional logics exist. Their changes reflect the dominant logic in each municipality.

## 6.2. Content

Both municipalities include in their documents environmentally related information mandatory by law (as stated in section 3.2). This section discusses the four elements related to changes identified under the content of the documents analysed. The first element relates to the adoption of the dominant environmental agenda by both municipalities. The second element addresses the case of mobility and air quality as the dominant topics in the documents analysed. The third element illustrates changes by municipality A related to the complementarity of the content of the documents, particularly after the implementation of legislation in 2011. The fourth element addresses the use of organisational environmental performance indicators by municipality A.

The first change conveys the adoption of the dominant environmental agenda by both municipalities. Municipality A's documents reflect the dominant environmental agenda since the beginning of the period of analysis due to the long history of engagement in international networks. It addresses environmental aspects like the need to manage natural resources and more recently includes the integration of the UN SDG into its strategic and operational goals. The inclusion of the UN SDG was at the time of the analysis still made ad-hoc, but this practice shows how they can be integrated into strategic planning, as suggested by Guarini et al. (2021).

In case of municipality B, following the environmental emergency, and need to fund additional activities, it started to integrate goals and targets related to climate change and energy aspects as a result of its commitment to international commitments. Previous studies have demonstrated similar findings. For instance, local governments in the state of Victoria in Australia expanded the scope of reporting after being devastated by droughts and rising temperatures (Greco *et al.*, 2012).

Both municipalities engage voluntarily in international commitments to achieve specific targets related to climate change and energy through the EU Covenant of Mayors and Mayors Adapt and implement EU funded projects in various environmental thematic areas. The EU adopts environmental principles defended by the UN.

Hopwood, Mellor, & O'Brien (2005) and Milne, Tregidga, & Walton (2009) stress that the EU vision on sustainable development is located away from increasing concerns for wellbeing, equality, and environmental quality. Consequently, the reflection of the EU agenda in municipalities' content suggests its adoption is used as a strategy to enable organisational change, as suggested by Larrinaga-Gonzalez & Bebbington (2001). The adoption of the dominant environmental agenda provides accountability and legitimacy to the municipalities analysed, increasing their chances of external funding within the EU. This adoption of the dominant environmental agenda also reflects the dependence of using external funding to implement changes.

Baeten (2000) underscores that the political consensus underpinning sustainable development is not problematised, and the debate on current environmental conflicts should be within the current generations. Sustainability accounts are often (re)constructions of reality by powerful groups that omit any conflicts inherent to the natural resources in which it needs to be understood (Gray, 2010)

If environmental conflicts and consequent externalities were discussed within the current generations, it would be difficult to reach a consensus on the environmental agenda to be adopted. The lack of consensus on the environmental agenda would not necessarily happen because the significant environmental aspects would be different between local governments, but because their activities are associated with different impacts which result in different goals and targets to be achieved. Generic and non-local accounting tools drawn from the programmatic level and based on their governing potential may lack effectiveness (Thomson *et al.*, 2014).

The construction of sustainable development as a concept that allows economic growth while protecting the environment and tackling social inequalities has been problematised in the literature of private sector (see, e.g., Cho, Laine, Roberts, & Rodrigue, 2015; Springett, 2003; Tregidga & Milne, 2006), but not in the public sector. As mainly a service provider (van Dooren *et al.*, 2015; Farneti and Guthrie, 2009; Ramos *et al.*, 2007), PSO impacts, namely on the environment, are seen as less significant when compared to multinational companies. Thus, their use of environmentally related information and changes is variously ignored. Nevertheless, PSO are associated with longer lives than private organisations, and their decisions can impact other sectors of activity, including health, safety, education, and security (Bozeman, 2004).

The adoption of the dominant environmental agenda by both municipalities analysed demonstrate changes in line with the EU priorities. This phenomenon is explained by legitimacy theory as both municipalities' actions and activities are in line with the social system's norms, values, beliefs and definitions and are time specific (Deegan, 2007; Suchman, 1995).

Both municipalities' documents show how activities can continue to be performed as usual if environmental aspects are monitored in the territory, and considerable projects related to the environment are implemented. Many projects are not associated with policies or strategies which limits their significance.

Also, even though environmental aspects considered important by both municipalities can be similar, there is no evidence that they are in line with 'material' information for stakeholders. Different regions face different environmental issues which are associated with different priorities (Adams, 2017; Larrinaga *et al.*, 2020; Luque-Vílchez and Larrinaga, 2016).

PSO could do better than private sector organisations because they are not subject to the demands of the market and could take a steering role (Ball and Bebbington, 2008). In the cases studied, this opportunity is not taken as the financial restrictions make the local governments dependent on external funding from other entities to conceptualise and implement changes in addition to the legal requirements. External entities became then stewards of what the environmental priorities should be, and consequent funding associated with the changes needed.

Changes steered by international organisations and adopted by both municipalities maintain the boundaries adopted by the legal framework, which limits the representation of reality related to environmental aspects. The adoption of a dominant environmental agenda does not necessarily reflect the environmental aspects that are important in each municipality's reality; neither the inclusion of organisational environmental performance and externalities caused by their operations, which necessarily involves conflicts and need to consider trade-offs.

When faced with trade-offs, financial performance is usually prioritised (Gray and Milne, 2002). This issue cannot be analysed in detail in the case studies as their documents do not refer to the conflict between different sustainability aspects and what was done to overcome them. The absence of conflicts, as reflected in the documents, shows municipalities use of boundaries defined by the legal framework. Even in the case of municipality A, that expands the boundaries to involve aspects related to the state of the environment and the organisational environmental performance, conflicts are not mentioned. This finding is significant because municipalities need to define short and long-term priorities, which are based on incomplete information as full environmental accounting is not considered. 'This level of incompleteness would not be tolerated in financial reporting' (Adams, 2004).

The absence of conflicts in the documents and how decisions were reached limits the significance of the changes implemented by both municipalities. Environmental aspects, when combined with social and economic aspects, are part of 'wicked problems', including the inexistence of a definitive formulation. It is difficult to know when a solution has been reached, and there is no objective solution (Rittel and Webber, 1973). The conflict between the different aspects is part of the explanation of why externalities are created. The absence of rhetoric by both municipalities on how decisions were made considering the inherent conflicts shows each sustainability aspect is treated as silos which jeopardise the significance of the decisions made. Previous research has shown the limitations of adopting a silos approach rather than an integrated thinking and effective change (see, e.g., Brunelli et al., 2021; Milne and Gray, 2013; Williams and Lodhia, 2021).

The second change associated with the content is mobility and air quality as the dominant topics. These are topics of concern in public opinion at least since the beginning of the 2000s. For instance, air pollution in major cities has led to traffic

restrictions (Marcuccio and Steccolini, 2005) and residents point out traffic as their leading environmental concern (Bowerman and Hutchinson, 1998).

EU local governments have promoted mobility options such as public transport and bike mobility schemes. Documents of both municipalities focus on what they do to change citizens' behaviour for better air quality through the implementation of mobility-related initiatives. Environmental information is mostly represented as something that municipalities engage with to do something 'good' for the environment in general and in particular for its citizens.

Consequently, one may assume that citizens are among the members of the accountability forum. However, there is no evidence of external stakeholder engagement in the reporting process. Both municipalities fail to enable debate and judgement by citizens. Documents are developed and discussed by internal stakeholders, which can jeopardise the potential of value creation in line with external stakeholders' needs and expectations.

By focusing the information on what citizens 'should do', municipalities undervalue their responsibility as organisations associated with significant impacts in the environment. Environmental aspects are treated as something that needs to be monitored to provide good air quality in the territory, but for which the organisational environmental performance and externalities caused by operations are not considered. Both municipalities reflect narrow accountability in perspective detailed by Bovens (2007).

The control mechanisms of the measures implemented are limited. Municipality A monitors the achievement of the targets through the performance management documents since 2011. In the case of municipality B, it does not include indicators to monitor the achievement of practices implemented that are related to mobility and air quality. These findings are consistent with data obtained from local governments located in Belgium, where control mechanisms are related to, e.g., non-updated key performance indicators and measurement system, informal discussions, awareness campaigns and reward/compensation actions (Crutzen *et al.*, 2018).

Sustainable mobility is a concept widely accepted internationally, nationally and locally. However, the conflicting character of transport planning is mostly absent from the discourse (Baeten, 2000). Both cases analysed use 'sustainable mobility' as the dominant topic to reduce traffic in the city centres and impose fees for non-compliance. Marginalised or low-income social groups are impacted by the environmental problems resulted from a transport system designed to fulfil the transport needs of the dominant groups of society (Baeten, 2000). This conflict is absent from the documents analysed as 'sustainable mobility', and respective measures to limit vehicle access is present as a positive measure for all citizens.

The use of economic criteria to limit environmental impacts amplifies the dominance of financial aspects on how decisions are made. What is often missing from the documents is how environmental inequalities reinforce and are reinforced by social inequalities (Baeten, 2000). Information on mobility is mostly related to the city centres, which leaves out the surrounding area, where marginalised and low-income social groups usually live.

Also, information on air quality is a macro analysis as there are few places for data collection, which may result in an abstract representation of reality on air quality. For instance, local governments focus on the air quality of the city centre and jeopardise the impacts in the surrounding area.

The dominance of mobility and air quality reflects the EU priorities associated with specific funding to conceptualise and implement changes. International and national funding is available to implement specific initiatives, such as the acquisition of electric bikes to support the achievement of air quality legislation. Other environmental aspects like waste and water are also under restrictive legislation from the EU. These aspects are managed in both municipalities by subsidiary entities. In the case of municipality A, after the inclusion of the performance management documents, more information based on data is provided. On the contrary, municipality B leaves the responsibility to the entity directly responsible.

Even though air quality is not an asset owned by local governments, it is managed like it was. Air quality can be considered an intangible asset used by organisations and individuals for free to create value (in this case, good air quality and consequent society's health). On the contrary to assets considered in financial accounting, air quality is not owned by any entity, which locates it beyond the boundaries of traditional accounting and reporting practices.

Local governments use their role as managers of the quality of the territory by choosing to prioritise their role as influencing changes in the behaviour of citizens to guarantee better air quality. However, the development of activities by other organisations and the local government itself can cause externalities, which are not considered by the municipalities analysed, jeopardising their environmental accounting.

The third change denotes the complementarity of the content of the documents created by municipality A, particularly after the implementation of legislation in 2011. Before 2011, documents from both municipalities were mostly descriptive, providing few data to support claims. Only the environmental report developed by municipality A provided additional data on the environmental performance of the territory.

Mazzara et al. (2010) discusses that parts of information in the strategic plans of Italian local governments are included in a declarative manner. Similar findings are shown in the context of Australian PSO, even though having a different legal system,

it is also voluntary to disclose environmental information. As a result, most information in sustainability reports is descriptive (Guthrie and Farneti, 2008).

From 2011, stricter rules emerged with the inclusion of mandatory non-financial indicators and targets in Italy. The legislation was still focused on the efficiency and effectiveness of the local governments in achieving goals. Less attention was given to the impact of the local government in the environment and society.

Findings from the present research show that municipality A presented complementary information across documents, mostly facilitated by the legislation introduced in 2011. Municipality A used the performance management documents to support strategic and operational goals (included in the 3-year plan) with indicators and targets based on legislation and voluntary commitments made. The complementarity of the information provided in municipality A reflects integrated thinking, and consequently incremental changes. Similar findings have been reported by Guthrie, Manes-Rossi, & Orelli (2017) in the Italian context due to the use of cross-functional departments, while Australian local governments reflect a low level of integrated thinking (Williams and Lodhia, 2021).

Only the environmental report, voluntarily developed by municipality A, provides partly overlapping information when compared to the performance report. At the same time, the environmental report completes the information by providing data related to actions from the local government but also from other entities in the territory. The environmental report is an adaptation of the state of the environmental report adopted at the national level, as also discussed by Dalmazzone & La Notte (2013). The environmental report adopted by municipality A is independent of the internal accounting process, also discussed by Frost & Seamer (2002).

On the contrary, municipality B uses the degrees of freedom of the legislation to fulfil the requirements, but by only using indicators and targets referred to voluntary commitments made related to climate change and energy. Municipality B presents a discrepancy between the activities planned and achieved (3-year plan and activities report) and the indicators and targets measured in the performance report.

Findings from municipality B support previous studies of local Italian governments, namely on the relatively modest use of performance information (Grossi *et al.*, 2016). Spanish local governments assessed by Brusca & Montesinos (2013) also fail to use performance indicators for decision-making or accountability. In Italian and Spanish local governments, the use of performance indicators is mostly symbolic of increasing transparency (Montesinos *et al.*, 2013). Chiba, Talbot, & Boiral (2018) analysed the annual reports of provincial government's ministries and agencies in Quebec (Canada), concluding that the information disclosed is also incomplete and inconsistent, and the monitoring system flawed. Thus, it is unclear how local governments plan without monitoring results concerning specific targets.



Porta et al. (2018) suggest that strategic goals are variously not reflected in indicators, jeopardising the measurement and monitoring of the achievement of goals. In both case studies, goals are reflected in indicators. However, in the case of municipality B, other activities that are not associated with goals and any control systems are planned in the 3-year plan and described in the activities' report.

Even though managers and politicians are accountable for both financial and non-financial results (Liguori *et al.*, 2014), they are the ones defining the goals. Consequently, the commitment made from the local governments will influence the usefulness of information retrieved from goals and performance indicators (Montesinos *et al.*, 2013). Nevertheless, the accounting and reporting practices in place in Italian PSO are focused on the efficient achievement of the goals and less on the significance of the goal itself. Findings support the claims of the dominance of management accounting practices focused on efficiency discussed by Bebbington and Thomson (2013).

Previous studies have discussed to what extent mandatory documents in Italian local governments are useful. According to Porta, Berardi, & Ziruolo (2018), Italian local governments are developing the 3-year plan as a formal instrument that needs to be developed to fulfil the requirements of the law; and less as a planning/programmatic tool. There is a risk that the development of multiple documents can turn them challenging to understand and detached from the management processes. For this reason, Porta, Berardi, & Ziruolo (2018) argues for the need to integrate various tools. The present study shows that the usefulness of the documents depends on the municipality. While municipality A complements and supports changes in accounting and reporting practices related to environmental aspects, municipality B does not offer the same approach. Thus, the present research show that each municipality uses the degrees of freedom within legislation to define the significance of the information related to environmental aspects in regulatory documents.

Henri & Journeault (2010) highlights multiple ways to integrate environmental performance into existing management control systems, such as using performance indicators and specifying goals in the budget for the environmental expenses, incomes and investments. Italian local governments adopt a similar approach through the use of the categories *Missioni* and *Programmi*, in which goals are defined, and resources need to be allocated. However, the content, especially the support of information with data, can vary considerably between municipalities. While municipality A presents multiple goals and indicators under each category, municipality B mostly presents goals related to the voluntary commitments made concerning climate change and energy and a small number of indicators.

Multiple arguments have emerged in the literature on how integrated reporting can contain all information in one report. Researchers have been suggesting that

integrated reporting may be an opportunity for the public sector to present integrated thinking. For instance, through integrated reporting of how value is created for society (see, e.g., Lodhia, Kaur, & Williams, 2020), and increased accountability and stakeholder engagement in local governments can be shown (Manes Rossi and Orelli, 2019).

Both municipalities faced similar regulation with the inclusion of a new structure of the 3-year plan and the performance management documents. Municipality A used the inclusion of legislation to provide data to support the decisions made under the environmental aspects by defining goals and indicators. In contrast, municipality B limited the fulfilling of legislation to the international commitments made and leaving out of the monitoring process other environmentally related changes.

These findings suggest that the use of possible regulation on sustainability accounting and reporting does not necessarily guarantee a specific quantity and quality of the information provided as local governments will use the degrees of freedom within the legislation to reflect their dominant institutional logic. A similar discussion is conducted by Larrinaga, Luque-Vilchez, & Fernández (2018), who discuss the fact sustainability reporting is mandatory for state-owned corporations and public business entities, controlled by central governments, does not enhance the quantity and quality of sustainability accounting practices.

The fourth, and last, change related to content addresses organisational environmental performance. Both municipalities focus environmental accounting and reporting on the territory under local governments' jurisdiction and their immediate surrounding area, neglecting environmental externalities of their operations.

In the case of municipality A, the voluntary environmental report includes indicators on the state of the environment and organisational environmental performance. The latest is related to the organisational facilities (mainly on the consumption of energy and paper) which were abandoned in 2018. Results from indicators on the organisational environmental performance are benchmarked with other similar Italian local governments due to the inexistence of standards for organisational environmental performance. However, the comparison is not included in the reports.

Also absent from the reports is information related to what was conducted to achieve the results on the organisational environmental performance and the specific goals they were aimed to achieve. Similar findings were obtained by Burritt & Welch (1997), who show that environmental disclosures by Commonwealth PSO fail to provide standards against which to compare actual environmental performance.

Several authors have stressed the need to redefine the boundaries of the organisation in order to understand its full impacts (e.g., Bebbington, Gray, Hibbitt, & Kirk, 2001). According to Dillard & Vinnari (2019), the current attempts to improve

sustainability disclosures are based on an increase of accounting-based accountability, which is designed to meet the needs of financial capital providers.

The primacy of financial accounting can constitute a barrier to the evolution of environmental accounting and reporting in local governments. New initiatives always seem to try to adapt to the current systems that are regulated, which plays a regressive role. The regressive role of current accounting is due to its close ties to the economic base of society (see, e.g., Spence, 2009).

It is out of the scope of the present research to disentangle how externalities could be internalised (for a recent discussion, see Taïbi, Antheaume, & Gibassier, 2020; Jeffrey Unerman, Bebbington, & O'Dwyer, 2018). What is essential in the present work is to highlight that, despite different extents, the current accounting and reporting practices by both municipalities lead to an incomplete account of the reality.

Environmental information is presented in both case studies in tailor-made documents that use regulation as guidelines. International guidelines such as the GRI or the International Integrated Reporting <IR> Framework are not used. Similarly, national guidelines, including from the Italian central public administration, are not followed as no requirement for their use exist. The fact that case studies do not follow an international guideline is not a surprise as they remain significantly associated with conventional accounting and annual accounts, as argued by Contrafatto & Rusconi (2005).

Other authors found similar findings. Local governments usually create tailored-made reports to account for sustainability aspects (Farneti *et al.*, 2011; Greco *et al.*, 2012, 2015; Kaur and Lodhia, 2014; Niemann and Hoppe, 2018). In Australia, GRI is used by PSO, yet in a fragmentary way (Guthrie and Farneti, 2008).

At the same time, Pepe, Paternostro, & Monfardini (2018) underline that a global sustainability standard is not suitable for accounting and reporting practices for the environment. What is important is what is 'material' for stakeholders (Unerman & Zappettini, 2014). In the following section, the extent to which the environmental aspects incorporated in the practices are 'material' for key stakeholders is analysed.

### **6.3. Process**

This section firstly analyses the role of the agents of change in the process. Secondly, the three elements related to changes identified in the case studies regarding how local governments go about conceptualising and implementing changes are analysed.

The agents of change in both municipalities are internal stakeholders, particularly the cabinet member for the environment, supported by the other cabinet members and the council. These agents, also supported by managers and civil servants,

conceptualise and implement changes. Nevertheless, international organisations also play an important role in influencing changes across time.

The accounting and reporting instruments used by the case studies are mostly oriented to internal stakeholders related to the municipalities but also within the public sector governing system. Findings are consistent with studies on sustainability reporting in Italian local governments (Greco *et al.*, 2012, 2015), European local governments frontrunners (Niemann and Hoppe, 2018) and Australian local governments (Kaur and Lodhia, 2018). Marcuccio & Steccolini (2005) discuss that the internal process is essential to make known activities developed in the context of the environment by other colleagues in the local government. Farneti (2009) highlights the limit value these documents have for external stakeholders.

The social report adopted by municipality A from 2005 to 2010 is an example of a document aimed at a broader audience. However, no evidence is provided on how external stakeholders' needs and expectations are reflected in the final document. Stakeholders have an essential role in holding organisations accountable (Kaur and Lodhia, 2019). In the absence of a forum to hold organisations accountable, it is not clear what the significance is regarding the environmental information disclosed as there are no formal mechanisms of compliance.

Considering the variety of potential stakeholders in influencing changes across time, stakeholder engagement has been identified as an essential component of the reporting process in order to consider information needs and expectations of key stakeholders (Kaur and Lodhia, 2018; Unerman, 2007; Venturelli *et al.*, 2018).

According to Greco *et al.* (2012), mostly internal stakeholders that are engaged in the sustainability reporting process, but meetings with specific stakeholders also take place, including trade unions and charities in Italian local governments from Tuscany (Italy); and communities in Australian local governments. Kaur & Lodhia (2018) also stress that a few external stakeholders are engaged in the planning phase, where Australian local governments involve the local community.

The findings of the present research highlight that considerable powerful stakeholder groups (e.g., in terms of economic, knowledge, political values) like trade unions and associations were engaged in the process. However, there is no information relating to which extent their expectations and needs are represented in the documents, nor why these specific groups were involved or given privileged information. Following the present findings, a previous study in Australian local governments discusses that reports omit how key stakeholders were identified and prioritised (Kaur and Lodhia, 2014).

Stakeholder engagement could be used to signal that external views were integrated into the process. However, in reality, the marginalised and less salient, powerful and emergent groups are not integrated. At the same time, even if there is a

chance of integrating the reporting process, external stakeholders may feel that their opinions do not affect the final decision (Greco *et al.*, 2015).

In a different context, Sciulli (2011) shows that community demands for information changed the content of the annual report in an Australian coastal local government in Southwest Victoria. Local changes contributed to a degradation of the quality of life, due to, e.g., more traffic as more people live in the area contrasting a previous slower pace (Sciulli, 2011). The combination of multiple factors, including awareness for environmental issues and demand for preventive and mitigating changes to the local government, led the local government to consider community demands in the annual report.

In other countries, there is evidence of the engagement of external stakeholders in the sustainability reporting process. For instance, Niemann & Hoppe (2018) states that in the design phase of the sustainability report in Zurich (Switzerland), Dublin (Ireland) and Freiburg (Germany) key-external stakeholders were consulted, namely universities. Academics provided knowledge to be integrated into the sustainability report to legitimise its content. In the case of Dublin, Nuremberg (Germany) and Freiburg sustainability reports triggered contact and requests with other national and international cities (Niemann and Hoppe, 2018) that wanted to apply a similar framework. A similar phenomenon is seen in municipality A, as key experts are engaged in local initiatives in co-creation projects. However, this information is not included in the official documents neither initiatives are created to decide what information is 'material' for key stakeholders, which jeopardises the creation of public value.

Most research on stakeholder engagement in local governments' sustainability reporting has been focused on Australia. In this context, also mostly internal stakeholders that are engaged in the process (Kaur and Lodhia, 2018), but the local community is also engaged sporadically, including environmental groups, ratepayers, universities and local community organisations (Kaur and Lodhia, 2014) due to legitimacy (Kaur and Lodhia, 2018) and direct accountability reasons (Kaur and Lodhia, 2014). In the present research, only internal stakeholders of both cases are engaged. Other groups are also possibly engaged, but how the engagement influenced changes is not included in the official documents.

As stakeholder engagement is not mandatory by law, it is an internal decision regarding whether to engage or not with key stakeholders and how to go about this. Similar findings are discussed in Australia. Managerial commitment and professional bodies' have an active role in how and to what extent stakeholders are engaged in the sustainability reporting process (Kaur and Lodhia, 2016).

As a result of its voluntary status, external stakeholders are usually informed or consulted regarding decisions in a one-way communication channel (Kaur and Lodhia, 2014; Williams, 2015), which shows local governments are failing to communicate

their sustainable development agenda and using inconsistently formal and informal reporting approaches (Williams, 2015).

Dillard & Vinnari (2019) suggests that critical dialogic accountability could offer the means to develop a meaningful accountability system, by reflecting the needs, norms and values of key stakeholder groups articulated as evaluation criteria, to hold the power holder accountable. This would able the creation of value in line with the most significant aspects applicable to the characteristics of the local governments and the area of their jurisdiction.

All in all, documents developed by both municipalities are managed by internal stakeholders to support internal communication and decision-making, to provide an account to other levels of governance, and gain support for external funding. The member of the cabinet acts as the primary agent of change and the 'sustainability champion' (also discussed by Farneti and Guthrie, 2009 and Maroun and Lodhia, 2018), supported by other cabinet members, the council, managers and civil servants. External stakeholders are not engaged in the reporting process.

Concerning the elements related to changes in the process, the first element relates to the engagement in international networks. The second element addresses the adoption of a voluntary environmental report. The third element reflects the implementation of legislation.

The first element characterising the process of change in the case studies relates to their integration in international networks.

Italy and other EU member states are required to implement EU legislation. As a consequence of the 2008 financial crisis, the EU created the SGP, which included additional rules to ensure member states implemented policies and practices to manage public finances (by controlling the excessive deficit and debt). One of the new approaches was to harmonise the public accounting systems across all member states to monitor public finances of the different governmental levels.

The financial restrictions led to an increase of rules to account on how financial resources are allocated and a dominance of the need to account for financial aspects. Alternatively, the EU continued to create opportunities for extra funding within the dominant environmental agenda defined by itself and other international organisations like the UN.

Financial support from the EU and national governments have helped local governments to incorporate environmental aspects (Gesso, 2020; Sangiorgi *et al.*, 2017; Siboni and Sangiorgi, 2013). According to Sangiorgi, Mazzara, & Siboni (2017), since 2000, one-third of the global budget to fund initiatives in the EU is related to sustainability in member states and local governments. Hence, due to financial restrictions, local governments find in EU projects a way of funding environmental-

related projects that are not mandatory or for which there is a lack of financial resources at a national level.

The same entity that enforces financial restrictions also provides extra funding that an elite group of local governments can apply to implement changes. Thereby, Italian local governments are captive of the environmental agenda adopted by the EU and consequent funding allocated to EU priorities.

In this context, local governments develop strategies to access to the EU funds as stressed, e.g., by Goldsmith (1993) and Zerbinati (2004). These include building formal and informal links with the EU, employing full-time EU officers and joining local authority networks. Both municipalities analysed have offices to deal exclusively with EU projects-related activities and engage in international networks to join voluntary commitments that give access to a network of partners to enhance chances of funding additional projects. It is a way local governments find extra funding, significantly as an alternative source of finance when national resources have been reduced (Zerbinati, 2004).

After the environmental emergency that devastated municipality B, this municipality started to apply for external funding to face the negative impacts in the territory in joint work with other entities in the same region, adjacent regions and other countries. Following this, municipality B considered the integration in international networks essential to gain access to external funding due to the existent financial restrictions resulted from the public sector reforms. The participation of the cabinet member for the environment in an event promoted by ICLEI led to the inclusion of municipality B in the network and consequent possibility to enhance its participation in EU funded projects. In the case of municipality A, its integration occurred at the beginning of the 90s and continued due to the contextual elements discussed in 6.1.

ICLEI is the international network with the longest-standing operations and operating agent of change (Frantzeskaki *et al.*, 2019). This network supports change operationalised by local governments. It is not mandatory to conduct changes, but local governments like the Italian cases studied see in these networks a way of accessing to external funding to apply changes that would not be possible without their support. ICLEI's impact in the implementation of the environmental agenda was also pointed out in the context of Australia and New Zealand by (Strengers, 2004).

Local governments have an important role as intermediaries to implement international and national goals and visions at the local level (Gustafsson and Mignon, 2020). These authors studied the strategies implemented by three Swedish municipalities, concluding that municipalities mostly participate or create coalitions to translate international or national visions into local actions. Coalitions include the participation in international, national or regional networks to interact with other municipalities and gain, e.g., access to knowledge, resources, visibility.

Findings from both case studies show they engage in international networks as a complement to their hierarchical structure. Local governments use a network to collaborate towards 'wicked problems', such as environmental aspects. The use of networks as a complement to hierarchies has been discussed in the literature as a way to face the need to a broad spectrum of managerial capabilities to face 'wicked problems' (see, e.g., Ferlie, Fitzgerald, McGivern, Dopson, & Bennett, 2011).

Consequently, both municipalities engage in strategies to be integrated into international networks and gain access to funding that allows them to conceptualise and implement changes. As a consequence, the environmental agenda is adopted to reflect the priorities for which the EU or national sources have allocated funding.

The significance of changes conducted will depend on the extent they are reflected in the interpretative schemes, besides changes on the design archetypes (accounting and reporting practices). The detailed case studies contribute to amplify the nature of the models of organisational change developed by Laughlin (1991). Municipality A shows an 'evolutionary' change ('morphogenetic' change), while municipality B reflects a 'rebuttal' change ('morphostatic' change).

In municipality A, the interpretative schemes are related to a set of beliefs, values, norms, mission and metarules that are reflected in the decision to adopt an environmental accounting and reporting voluntarily. Municipality A reflects transformational changes, which is associated with the necessary shift to significant changes (Guthrie *et al.*, 2017; Narayanan and Adams, 2017). This finding contributes to the literature on the public sector as until now; rarely studies have shown 'morphogenetic' changes in local governments. One of the few examples is a study in a New Zealand city council. Fraser (2012) discusses that a 'colonisation' pathway was conducted in New Zealand even though temporarily.

In the case of municipality B, it was forced to change due to the environmental emergency in order to implement projects to minimise the impacts. However, there was no significant change to the design archetypes, and consequently to subsystems and interpretative schemes, which continue to consider environmental accounting and reporting not a priority. Municipality B's changes are 'cosmetic'. This finding is in line with previous research on environmental accounting that also finds 'rebuttal' changes the most common (Gray *et al.*, 1995; Larrinaga-Gonzalez and Bebbington, 2001). Slight changes to design archetypes are conducted, but once disturbances have been rebutted, the change may revert. Evidence from municipality B also supports previous research on how changes implemented due to a variety of managerialism reforms did not change substantially how Italian PSO operate (Fattore *et al.*, 2018).

The second element of the process shows how municipality A conceptualised and implemented change through the adoption of a voluntary environmental report supported by an EU co-funded project. In municipality A, the voluntary reports containing only environmental information were developed due to its integration in the



1990s in international networks like ICLEI and engagement in multiple environmental initiatives, such as the Kyoto Protocol, Local Agenda 21 and the EU Covenant of Mayors.

Similar findings were discussed by Marcuccio & Steccolini (2005), who stated that external pressures and opportunities had influenced the adoption of environmental reporting in Italian local governments. In particular, the commitment of municipality A to the Local Agenda 21 influenced the adoption of environmental reporting practices, also discussed by Greco et al. (2015).

Other studies stress how the commitment of local governments to the Local Agenda 21 (i) influenced the disclosure of more sustainability information on the websites (Joseph *et al.*, 2014; Joseph and Taplin, 2012a), (ii) facilitated policy innovation in terms of internal arrangements and the way to interact with the community (Sancassiani, 2005), (iii) shared policies and projects with key stakeholders to promote sustainable development in the jurisdiction (Siboni, 2014). Municipality A adopted the Local Agenda 21 to show its commitment with the implementation of the UN Brundtland report at the local level.

In the case of municipality B, no voluntary reports were adopted due to the contextual elements discussed in 6.1. Italian local governments engage in different journeys, resulting in a high diversity of voluntary documents to highlight their political programme, or governance and management issues, as discussed by Marcuccio & Steccolini (2009).

The voluntarily adopted environmental report by municipality A became a management routine, supported by the cabinet and council, which influences the local government to conceptualise and implement changes by monitoring the state of the environment in the territory and monitoring organisational environmental performance (even though no standards exist for the later). The conceptualisation and implementation of the voluntary process was facilitated by the fact that few civil servants are needed to develop the report as information is gathered from external sources.

The third element of change related to the process is expressed through the implementation of legislation. The implementation of legislation led to the use of non-financial indicators and targets by both municipalities. Municipalities decided to use voluntary commitments to show the fulfilment of legislation. Municipality A defined specific goals in different environmental areas, while municipality B focused indicators and targets on climate change and energy.

The documents analysed show that changes are implemented mostly without the support of specific policies. The implementation of performance management legislation was used by municipality A to support decisions made with data. On the

contrary, it has been described that municipality B used the degrees of freedom within the legislation to use data limited to voluntary commitments made.

Findings show the importance of considering the various documents developed by local governments beyond the ones exclusively related to environmental aspects. The high formalism that characterises PSO needs to be considered as documents developed by law contain information on how local governments go about conceptualising and implementing changes related to environmental aspects, and their significance.

Traditional approaches to management accounting systems may lead to sustainability being marginalised in favour of traditional, financially-oriented factors (Bouten and Hoozée, 2013; Narayanan and Boyce, 2019). The present research shows that the implementation of legislation can be a barrier to the adoption of full accountability as PSO naturally prioritise rules in place.

The findings of the present research show that the process is changed through the integration in international networks, which influence the inclusion of environmentally related information in the documents. The voluntary adoption of environmental reports prompts an additional reporting tool to discuss, mostly, the state of the environment at council meetings. Lastly, the implementation of legislation is used as a framework by both municipalities, using the degrees of freedom to fulfil legislation at the same time they reflect the elements of the content expressed in 6.2 and as a result of the interplay of the contextual elements discussed in 6.1.

#### **6.4. Interconnection of changes across time and their significance**

Section 6.4 illustrates the interconnections of changes across time and their significance. The present section also reconnects the discussion of the findings with the literature to highlight the research's implications of the findings.

The present thesis shows that environmental-related information is included mainly in mandatory documents. On the one hand, to fulfil the requirements defined by law and associated with the categories *Missioni* and *Programmi*. On the other hand, the level of detail reflects the priorities defined by international networks that local governments belong to voluntarily.

In both cases studied, environmental aspects are identified by stakeholders from entities external to the local governments. Thus, they do not necessarily represent relevant environmental aspects considering the local characteristics. Findings from the present thesis support previous claims that sustainability accounts can reflect (re)constructions made by powerful groups of the reality and omit conflicts related to the natural resources (Gray, 2010).

The documents analysed omit the existence of conflicts, which shows that environmental aspects are considered as silos, which can jeopardise the significance of the decisions made. This finding corroborates previous research on the limitation of adopting a silos approach rather than integrated thinking and effective change (see, e.g., Brunelli et al., 2021; Milne and Gray, 2013; Williams and Lodhia, 2021).

The (re)construction of reality by powerful groups is a problem because local governments will be dependent on external entities to implement changes. Local governments are already dependent on external financial resources due to restrictions applied across the years in the EU context. Consequently, local governments will engage in changes beyond mandatory due to the existence of specific funding allocated to the implementation of the dominant environmental agenda. Changes related to the environment and accounted and reported for will depend on the criteria that external organisations defined as aspects to be considered relevant.

Findings from this thesis supports previous research on how financial funding from the EU and national governments influence local governments to incorporate specific environmental aspects (Gesso, 2020; Sangiorgi *et al.*, 2017; Siboni and Sangiorgi, 2013). An elite of local governments has access to extra funding to adopt changes. On the one hand, the EU implements financial restrictions to member states with consequences to the different governance levels. On the other hand, it provides extra funding accessible to a specific group to implement changes in line with the environmental aspects considered priorities. Consequently, changes implemented at the local level do not necessarily represent the local environment's actual priorities and needs.

The present study supports previous research developed by Goldsmith (1993) and Zerbinati (2004) on how local governments develop strategies to access the EU funds, namely through creating formal and informal links with the EU, and how these strategies are implemented to gain extra funding when national resources have been restricted. These strategies can have a significant impact on environmental accounting and reporting as they can support the adoption of additional processes to expand the accounting boundaries established by law, as shown in the case of municipality A.

The present thesis highlights the use of economic efficiency as the rationale for legitimacy by local governments. The local governments studied include specific environmental information in their accounting and reporting processes to obtain or maintain legitimacy by their peers to enhance chances to gain additional funding. Dillard et al. (2004) have previously highlighted that most organisations use economic efficiency as the primary rationale for legitimacy in industrialised Western societies. The findings of the present thesis support previous research by providing evidence on a similar phenomenon in the public sector context.

Also, findings add to the current research evidence that local governments mainly focus on obtaining or maintaining legitimacy from international organisations by

integrating and supporting existing networks. International networks like ICLEI have a significant influence in local governments' environmental-related changes and monitoring achievements through accounting and reporting processes. Findings from the present research support studies conducted in the Australian and New Zealand context by Strengers (2004), and a study on Swedish local governments (Gustafsson and Mignon, 2020) that showed that local governments participate or create coalitions to gain access to knowledge, resources, and visibility. Consequently, local governments engage in international networks to form coalitions to complement their hierarchical structure and broaden the spectrum of their managerial capabilities as discussed by, e.g., Ferlie, Fitzgerald, McGivern, Dopson, & Bennett (2011).

Networks play a crucial role in expanding accounting and reporting boundaries mandatory by law, which leads to the adoption of the dominant environmental agenda. Local governments' inclusion in international networks is caused by political commitment and continues due to an organisational culture in line with the same values. In the absence of an organisational culture in line with the implementation of initiatives beyond mandatory, environmental-related emergencies can boost the need to find external funding and consequent inclusion of the dominant environmental agenda. However, it does not necessarily change organisational culture. An emergency that acts as a 'jolt/kick' leads to 'cosmetic' changes to accounting and reporting practices, while the existence of organisational culture in line with the environmental changes required leads to 'transformational' changes.

The present thesis supports previous research on the possibility of 'transformational' changes in the public sector highlighted by Fraser (2012) even though possibly temporary. At the same time, findings from this thesis contribute with evidence on the existence of 'cosmetic' changes in the public sector, which are referred as the most common in the private sector context (Gray *et al.*, 1995; Larrinaga-Gonzalez and Bebbington, 2001).

Besides the role of national and international organisations, the cabinet member for the environment, supported by the cabinet and the council, acts as 'sustainability champion' in driving changes in accounting and reporting practices. Previous research highlights how the process is fragmentary as voluntary reporting ceases when people are replaced by others (Farneti *et al.*, 2019). The present research supports previous findings by showing that the continuous adoption of voluntary processes is dependent on the maintenance of a dominant institutional logics in line with the changes, which usually happens due to the permanence of similar people in decision-making roles.

Internal stakeholders are the ones primarily included in the process, which is consistent with previous studies on sustainability reporting in Italian local governments (Greco *et al.*, 2012, 2015), European local governments frontrunners (Niemann and Hoppe, 2018) and Australian local governments (Kaur and Lodhia, 2018). At the same time, findings from this thesis present evidence on the role of international

organisations in the process as the steers of the information to be considered 'material' due to the available funding to implement changes. Consequently, internal stakeholders and international organisations have a more significant influence on what changes than the possible changes required from citizens/voters/taxpayers, who are absent from the environmental accounting and reporting process.

As previously mentioned, the adoption of the dominant agenda and equivalent funding available might not address the most relevant environmental aspects at a local level. Each case has specific characteristics and levels of development, which results necessarily in different priorities. The absence of stakeholder engagement makes the situation worse. It is not clear whether the environmental aspects addressed by the cases studied are in line with the local governments' needs, and it is also absent from the documents if the information reflect 'material' issues for key stakeholders. Consequently, the significance of changes may be irrelevant as they might not reflect specific local needs and expectations.

Contextual factors play a significant role in explaining 'why', 'what' and 'how' environmental aspects are included in accounting and reporting practices. The present research contributes to understanding the phenomenon of sustainability accounting and reporting in PSO's context, incentivised by Grubnic, Thomson, & Georgakopolous (2018, 2015), by focusing on the environmental aspects.

Findings from this thesis show that context influences the expansion of boundaries beyond legal requirements based on the local context's specific characteristics, political commitment, and organisational culture. Evidence from the present research support previous work on the importance that contextual dynamics play in the sustainability accounting and reporting process (Manes-Rossi *et al.*, 2020; Qian *et al.*, 2011).

Caccia and Steccolini (2006) stressed that change in the accounting systems occurred due to external events, crises, and often law requirements. The present research highlights that changes to environmental accounting and reporting practices occurred due to legislation, the characteristics of the local context and urgency, and the possibility of legislation. The elements of context identified support previous research and specify the elements of context influencing change on Italian local government accounting and reporting related to environmental aspects.

Previous research has shown that due to the voluntary status, environmental information is scarce in accounting and reporting practices in local governments (Alcaraz-Quiles *et al.*, 2015; Williams *et al.*, 2011), and it is more often found in larger municipalities (Alcaraz-Quiles *et al.*, 2015; García-Sánchez *et al.*, 2013; Marcuccio and Steccolini, 2009; Ribeiro *et al.*, 2017). The findings of this thesis underscore that the scarcity of information may not be the main issue. Environmental information is included in various documents developed by the municipalities analysed. However,

aspects are primarily in line with the EU priorities associated with specific funding opportunities and its scope is limited.

It remains voluntary to conceptualise and implement changes related to environmental aspects. As a result, most local governments will continue to adopt changes strictly necessary due to legislation. Environmental aspects are limited to the territory under local governments' jurisdiction and their immediate surrounding area. The content of the documents focuses on what citizens 'should do' to improve environmental quality in the territory.

Previous research has highlighted that what conventional accounting does not account for leads to significant environmental and human rights impacts, as well as higher inequality (see, e.g., Gray, 2006, 2010; Milne, 1996; Russell & Thomson, 2009). The present research reinforces previous findings from the private sector context by showing the same is happening in the public sector. The local governments studied provide an incomplete portray of reality as (i) accounting and reporting boundaries mandatory by law exclude environmental organisational performance and externalities caused by their operations, (ii) the adoption of the dominant environmental agenda may not reflect significant aspects at the local level, and (iii) there is no evidence of stakeholder engagement in the process, which jeopardies the significance of the environmental aspects considered.

The adoption of a longitudinal study allowed to identify the impact of the information disclosed by PSO, as suggested by Manes-Rossi et al. (2020) and Niemann and Hoppe (2018) and the significance of the process, as suggested by Joseph et al. (2014), Manes-Rossi et al. (2020) and Vinnari and Laine (2013).

Findings show that local governments can use the degrees of freedom within the legislation to provide an incomplete portray of reality. Evidence from the present study underscores that even though performance indicators beyond efficiency were introduced as mandatory in the annual reporting cycle, these only reflect the goals defined by local governments. Local governments engage in multiple operations to fulfil their mission and specific goals, which can create significant negative impacts that are not internalised. Operations involve transportation, consumption of materials, among other environmental pressures.

Even if local governments consider adopting additional documents to complement environmental accounting and reporting, such as the case of municipality A, currently, the representation of reality would still be incomplete. For instance, at the moment, there are no standards for organisational environmental performance. Therefore, local governments usually adopt a benchmarking approach to analyse their results. Similar findings are reported in a previous study in the Commonwealth context developed by Burritt & Welch (1997).

This thesis illustrates a new approach to the study of environmental accounting and reporting by considering official documents that need to be developed by law and, at the same time, documents voluntarily developed that contain environmental-related information. Previous studies have stressed that these phases are rarely analysed as dependent organisational practices, which can jeopardise the entire process (see, e.g. Kaur & Lodhia, 2018; S. Schaltegger, 2012; Stefan Schaltegger & Wagner, 2006).

The present research uses a variety of official documents that include environmental information to analyse their complementary, answering the call for studies in PSO on the role of sustainability disclosures and the relationship between various reporting formats (Fusco and Ricci, 2019) and the assessment of inconsistencies between the information (Manes-Rossi *et al.*, 2020). Findings from the case studies show that local governments use the degrees of freedom within the legislation to provide documents with complementary information or not. It is shown that local governments can fulfil the legal requirements without necessarily providing complementary information throughout the documents.

Considering the limited scope of the environmental aspects regulated, the present research intensifies the doubts identified in previous research regarding the significance of the environmental information included in PSO documents (Chiba *et al.*, 2018; Gaia and Jones, 2019). Environmental accounting and reporting is voluntary. The omission of rules on environmental accounting and reporting (besides showing how costs are allocated) signals that environmental accounting is less important when compared to financial aspects. Similarly, no legal or formal forum exists to account for, limiting consequences for misconduct, as discussed by Dillard & Vinnari (2019) in the private sector context.

The significance of environmental aspects addressed in PSO accounting and reporting practices have not been problematised in the public sector as it has been in the private sector. Although private sector organisations are associated with significant impacts that are often more visible, PSO are a significant component of economic activities by creating value for society and having longer lives than private sector organisations (Bozeman, 2004).

The present thesis suggests the expansion of the boundaries of accounting and reporting processes to provide a more adequate representation of reality in PSO. It supports previous studies from the private sector context on the importance of redefining the boundaries of the organisation to understand its full impacts (e.g., Bebbington, Gray, Hibbitt, & Kirk, 2001). Even though boundaries are never perfect, they shall be adequate considering the role they need to play as constructs conceived towards full accountability in order to achieve the UN SDG. Boundaries will necessarily be different between local governments as these depend on the geographical areas and the stakeholders to be included.

In sum, local governments incorporate environmental aspects in accounting and reporting practices by the legal framework applicable and characteristics of the local context. Also, political commitment and organisational culture act as drivers or barriers to the implementation of changes.

Environmental aspects are incorporated in accounting and reporting processes regulated by law. The content reflects the dominant environmental agenda's adoption, where mobility and air quality are the dominant topics. While municipality A reflects complementary documents, including organisational environmental performance in a voluntary report, municipality B's documents' content is uncomplimentary, and the boundaries used reflect exclusively legal requirements.

Local governments conceptualise and implement changes towards incorporating environmental aspects in accounting and reporting practices. They engage in international networks, deciding to adopt voluntarily additional reports, and using the degrees of freedom of the legal requirements to implement changes in line with their specific contextual characteristics.



## Chapter Seven: Conclusion and future research

This thesis contributes to a better understanding of changes across time in accounting practices in local governments. The rationale of the present study was based on the need to understand better how PSO are incorporating environmental aspects in their accounting and reporting practices as most research has been focused on the private sector or in isolated elements of context and content of stand-alone documents. PSO are an important component in the creation of value for society, and in influencing other sectors which justifies the importance of addressing the present study.

The present research was aimed at contributing to four research gaps: (i) how contextual elements influence the emergence or absence of specific content in the documents; (ii) how accounting and reporting processes are developed, comprising who are the agents of change and how the content reflect 'material' issues for key stakeholders; (iii) how environmental aspects are incorporated in different documents that PSO need to develop compulsory as well as voluntarily; and (iv) what are the boundaries used by PSO in addressing environmental aspects, and the significance of changes across time.

Thus, understanding 'why', 'what' and 'how' environmental aspects are accounted and reported was essential to contribute to the research gaps. Two case studies related to local governments in Italy were identified and analysed by answering three specific research questions. The research questions were drafted considering the framework of context-content-process to support the identification of changes, including (i) why local governments incorporate environmental aspects in accounting and reporting practices; (ii) what is the content of accounting and reporting practices in local governments related to environmental aspects; and (iii) how local governments go about conceptualising and implementing changes towards the incorporation of environmental aspects in accounting and reporting practices.

The Italian local governments analysed incorporate environmental aspects in accounting and reporting practices due to the need to show what activities related to the environment are developed, which are associated with the allocation of specific financial resources. In the Italian context, PSO need to develop documents including environmental aspects addressing planned operations and related costs, and later in the year what was achieved.

A specific framework resulted from legislation defines specific categories for which PSO can account for by selecting the ones that are relevant for their operations. Despite a variety of environmental areas addressed, the legal framework defines the boundaries of the accounting information on the territory under local governments' jurisdiction and their immediate surrounding area. Organisational environmental performance and externalities are excluded from the regulations.

Local governments focus on their role as ‘managers’ of the territory, which is the focus of legislation, undermining their role as active actors in society to influence and be accountable for their environmental externalities. Despite important stewards of the environmental quality of the territory, PSO, in particular local governments, are associated with significant impacts caused by their operations. The exclusion of organisational environmental performance and externalities from legal requirements signals they are less important (due to their voluntary status).

Considering the primacy of fulfilling the law in the public sector context, this thesis shows how local governments can reflect an incomplete representation of reality as the effects of organisational operations in the environment are excluded from legal requirements. The boundaries defined by law are applicable to local governments, but also other governance levels in Italy as the legal framework was created to harmonise the accounting system in various PSO.

Besides being aimed at harmonising the accounting system in Italy, similar categories are used by other EU member states due to the requirements on the harmonisation of the accounting system among member states. Hence, full accountability may not be adopted in various EU member states, which jeopardises the achievement of the UN SDG. PSO may be promoting services and projects aimed at specific sustainability-related goals that cause externalities. As a result, local governments in other EU countries could be providing an incomplete representation of reality as well.

It is understood from the case studies that the elements of the local outer context plays a key role in the decision in conceptualising and implementing practices beyond mandatory. Evidence from municipality A shows specific local outer context and inner contextual elements can influence the use of the degrees of freedom within the legislation to incorporate accounting and reporting practices beyond the boundaries that are regulated. This change was driven by the possibility of legislation on environmental accounting being implemented in Italy. Findings show there was a joint effort at local level, funded by an EU project to implement a voluntary system.

Municipality A develops a voluntary environmental report continuously to monitor the state of the environment and organisational environmental performance. Previous research has shown that the voluntary adoption of environmental and sustainability reports is a solo practice. The present research provides evidence on the possibility of being developed continuously, mainly driven by a continuous political commitment and organisational culture, extending the boundaries of accounting and reporting practices established by law.

The content of the documents reflects that both cases incorporated a variety of environmental aspects in various documents. Previous research in the public sector had discussed the low incorporation of environmental aspects in PSO reports. The

present research shows that environmental aspects are incorporated in the regulated documents.

Environmental aspects and their boundaries follow national legislation and the dominant environmental agenda. This is a result of the engagement of local governments in international networks as a strategy to complement their hierarchical structure and gain access to external funding due to financial restrictions they face. Local government's engagement in international networks influenced the adoption of the dominant environmental agenda, which is associated with specific funding to implement changes according to the priorities defined at the EU. The members of the cabinet for the environment are the main agent of change, supported by the cabinet and the council.

This study contributes to the still emerging field on environmental and sustainability accounting and reporting research in the public sector. The present research contributes to the legitimacy theory by providing evidence on the engagement in environmental accounting and reporting due to the specific contextual characteristics of local governments. Particularly, the influence of the international organisations and networks on environmental related changes. In the context of the public sector, legitimacy is seen as a way to increase chances of funding.

The adoption of changes to obtain legitimacy is potentially problematic because local governments will adopt a common agenda while being in different stages of development. Each local government is associated with specific characteristics that correspond to variously needs. The adoption of the dominant environmental agenda will exclude less 'powerful' key stakeholders from the identification of 'material' aspects. Documents do not detail how different key stakeholders were engaged in the process. Thus, it is not clear whether the environmental aspects addressed are in line with the expectations and needs at local level, which jeopardises the significance of changes across time.

This thesis presents a novel methodology by applying the context-content-process framework to analyse multiple documents and transcriptions of interviews from local governments. Most research has been focused on the content of the reports and possible drivers to voluntarily develop stand-alone reports. In many legal and political contexts, local governments are part of high formalism and bureaucratic systems. Hence, information is often communicated through different regulated documents that can reflect how changes occur and their significance. This study shows how different documents account and report on environmental aspects. The use of a longitudinal study allowed to analyse the interaction of the elements of context, content and process, but also the interconnection of changes across time and their significance.

Better accounting and reporting practices involve accounting to risks and opportunities which presupposes the internalisation of operations and organisational environmental performance. Also, the engagement of stakeholders in the process is

necessary to guarantee local governments' creation of value is in line with their expectations and needs. Despite the limitations of accounting, full cost accounting is already a reality. However, it is shown in the present research that local governments are behind the conceptualisation and implementation of changes that would reflect full accountability including environmental aspects.

The use of environmental accounting and reporting practices by the Italian local governments studied remains limited. The present study shows the significance of the information disclosed is low. Boundaries are limited and externalities are out of the scope of conventional accounting. Financial aspects are still prioritised and there is no evidence on how conflicts managed and trade-offs achieved.

Nevertheless, evidence from municipality A shows signs of transformational changes due to its specific contextual factors that led to the expansion of the accounting boundaries. Accounting and reporting boundaries have been rarely discussed in environmental accounting and reporting in public sector's research.

Evidence from the present study has implications in policymaking, decision-making and management as it suggests the expansion of the environmental accounting and reporting boundaries in PSO. A full accountability requires the use of a transdisciplinary lens to enable the transition from conventional accounting to a broader and holistic approach.

Findings of the present research need to be analysed in light of the contextual and organisational reality studied. Despite possible similarities with other local governments in Italy and other EU states, each case study should be analysed separately in order to properly acknowledge multiple possible explanations concerning changes resulted from the interconnections between context, content and process. The two case studies represent contrasting realities on accounting and reporting practices concerning environmental aspects of two local governments committed to international initiatives related to sustainable development but associated with different contextual factors, which influence the content and processes.

Data sources are dependent on what documents state and how the interviews were conducted. Documents are representatives of the organisational identity, but a specific group of people writes them. The content may be influenced by individual actors' perception of environmental issues as there are no strict rules on how local governments report environmental information. Nevertheless, the official mandated documents are audited, and the voluntarily adopted documents are discussed and approved by the council.

The way the interviewer presented the topic and the questions during the interviews may have been associated with biases. A positive relationship with the interviewee was given priority to avoid omission of information that could be relevant for this study. If needed, in the end, additional questions not addressed were asked. The

interviewees' attitude towards the PSO may also have influenced a more positive or negative reflection of the municipality's practices. Nevertheless, reporting sustainability-related information is still mostly a voluntary practice. Thus, interviewees are considerably open to sharing shortcomings and critical reflections, as also noticed by Niemann & Hoppe (2018).

Only internal stakeholders were asked regarding their perceptions which limit the acknowledgement of the effects of these documents. External stakeholders' perceptions could complement information on how environmental information is received throughout the variety of documents and how changes occur. This step was not achieved due to the limitation of identifying the specific audience of the official documents beyond internal stakeholders.

As an external researcher to the organisations studied, there is always the issue of limited access to data which may lead to a lack of information. Thus, the information provided is based on what is available and what interviewees stated. Multiple sources of information were used to learn regarding each case study, including different documents but also by interviewing people with different roles within the local governments.

PSO have multiple ways to report environmental information, such as social networks and multiple websites. Only official documents and interviews with internal stakeholders were used as sources of information to enhance the reliability of the data. Other forms of communication could also play an essential part in identifying elements of context, content and process. However, other sources were excluded due to the limitation in assessing the reliability of the information.

The inclusion of the different type of documents can be seen as problematic as they are potentially associated with different audiences, and they present different formats. The use of a broad scope of documents is aimed at understanding how environmental aspects are included throughout the planning to reporting process using a holistic approach. Previous studies have highlighted the need to consider how changes occur through from planning to reporting.

Despite the limitations, this study provides valuable insights and several policymaking implications on 'why', 'what' and 'how' environmental aspects are incorporated in accounting and reporting practices, and the significance of the changes across time.

Future research should study local governments associated with different contexts, including the existence of regulation on environmental accounting and reporting and stakeholder engagement processes.

Among the relevant topics, it is important to investigate to what extent the inclusion of regulation on environmental accounting and reporting improves or weakens the

significance of the environmental information. The inclusion of regulation could deteriorate or support the potential engagement of multiple stakeholders that belong to groups with less representation in the usual decision-making process. It has been discussed with the adoption of the dominant environmental agenda that the incorporation of a set of environmental aspects decided outside the area of influence may jeopardise the relevance of those aspects for the local context.

An additional critical study would be to understand how different stakeholder groups could integrate the process. The lack of interest from external stakeholders is a perception that can emerge from internal stakeholders. At the same time, it is also assumed that stakeholder engagement in the sustainability reporting process could be beneficial to improve accountability. However, key stakeholder groups can have conflicting needs and expectations among each other and not considering a holistic approach to sustainability.

Finally, considering the current relevance of the UN SDG, future research should relate the information disclosed by PSO with the thematic areas addressed by the UN SDG. Besides possibly providing additional evidence on the adoption of the dominant environmental agenda, it would be useful to understand to which extent, in particular local governments, operationalise the UN SDG into concrete services and projects and their impact.

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## Appendices

### Appendix I: Categories *Missioni* and *Programmi* to be adopted in the 3-year Plan, based on Legislative Decree 118/2011 Appendix n. 15

<b><i>Missioni</i></b>	<b><i>Programmi</i></b>
01 Servizi istituzionali, generali e di gestione	1. Organi istituzionali 2. Segreteria generale 3. Gestione economica, finanziaria, programmazione e provveditorato 4. Gestione delle entrate tributarie e servizi fiscali 5. Gestione dei beni demaniali e patrimoniali 6. Ufficio tecnico 7. Elezioni e consultazioni popolari - Anagrafe e stato civile 8. Statistica e sistemi informativi 9. Assistenza tecnico-amministrativa agli enti locali 10. Risorse umane 11. Altri servizi generali
02 Giustizia	1. Uffici giudiziari 2. Casa circondariale e altri servizi
03 Ordine pubblico e sicurezza	1. Polizia locale e amministrativa 2. Sistema integrato di sicurezza urbana
04 Istruzione e diritto allo studio	1. Istruzione prescolastica 2. Altri ordini di istruzione non universitaria 3. Istruzione universitaria 4. Istruzione tecnica superiore 5. Servizi ausiliari all'istruzione 6. Diritto allo studio
05 Tutela e valorizzazione dei beni e delle attività culturali	1. Valorizzazione dei beni di interesse storico 2. Attività culturali e interventi diversi nel settore culturale
06 Politiche giovanili, sport e tempo libero	1. Sport e tempo libero 2. Giovani
07 Turismo	1. Sviluppo e valorizzazione del turismo
08 Assetto del territorio ed edilizia abitativa	1. Urbanistica e assetto del territorio 2. Edilizia residenziale pubblica e locale e piani di edilizia economico- popolare
09 Sviluppo sostenibile e tutela del territorio e dell'ambiente	1. Difesa del suolo 2. Tutela, valorizzazione e recupero ambientale 3. Rifiuti 4. Servizio idrico integrato 5. Aree protette, parchi naturali, protezione naturalistica e forestazione 6. Tutela e valorizzazione delle risorse idriche 7. Sviluppo sostenibile territorio montano piccoli Comuni 8. Qualità dell'aria e riduzione dell'inquinamento
10 Trasporti e diritto alla mobilità	1. Trasporto ferroviario 2. Trasporto pubblico locale 3. Trasporto per vie d'acqua 4. Altre modalità di trasporto 5. Viabilità e infrastrutture stradali
11 Soccorso civile	1. Sistema di protezione civile

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<b>Missioni</b>	<b>Programmi</b>
12 Diritti sociali, politiche sociali e famiglia	2. Interventi a seguito di calamità naturali 1. Interventi per l'infanzia e i minori e per asili nido 2. Interventi per la disabilità 3. Interventi per gli anziani 4. Interventi per soggetti a rischio di esclusione sociale 5. Interventi per le famiglie 6. Interventi per il diritto alla casa 7. Programmazione e governo della rete dei servizi sociosanitari e sociali 8. Cooperazione e associazionismo 9. Servizio necroscopico e cimiteriale
13 Tutela della salute	1. Servizio sanitario regionale - finanziamento ordinario corrente per la garanzia dei LEA 2. Servizio sanitario regionale - finanziamento aggiuntivo corrente per livelli di assistenza superiori ai LEA 3. Servizio sanitario regionale - finanziamento aggiuntivo corrente per la copertura dello squilibrio di bilancio corrente 4. Servizio sanitario regionale - ripiano di disavanzi sanitari relativi ed esercizi pregressi 5. Servizio sanitario regionale - investimenti sanitari 6. Servizio sanitario regionale - restituzione maggiori gettiti SSN 7. Ulteriori spese in materia sanitaria
14 Sviluppo economico e competitività	1. Industria, PMI e artigianato 2. Commercio - reti distributive - tutela dei consumatori 3. Ricerca e innovazione 4. Reti e altri servizi di pubblica utilità
15 Politiche per il lavoro e la formazione professionale	1. Servizi per lo sviluppo del mercato del lavoro 2. Formazione professionale 3. Sostegno all'occupazione
16 Agricoltura, politiche agroalimentari e pesca	1. Sviluppo del settore agricolo e del sistema agroalimentare 2. Caccia e pesca
17 Energia e diversificazione delle fonti energetiche	1. Fonti energetiche
18 Relazioni con le altre autonomie territoriali e locali	1. Relazioni finanziarie con le altre autonomie territoriali
19 Relazioni internazionali	1. Relazioni internazionali e cooperazione allo sviluppo
20 Fondi e accantonamenti	1. Fondo di riserva 2. Fondo crediti di dubbia esigibilità 3. Altri Fondi
21 Debito pubblico	1. Quota interessi ammortamento mutui e prestiti obbligazionari 2. Quota capitale ammortamento mutui e prestiti obbligazionari
22 Anticipazioni finanziarie	1. Restituzione anticipazioni di tesoreria
23 Servizi per conto terzi	1. Servizi per conto terzi - Partite di giro 2. Anticipazioni per il finanziamento del sistema sanitario nazionale

## Appendix II: List of official documents used to analyse the case studies

*Exhibit II-1. Reports used for data collection and analysis of case study A (compulsory).*

<b>Name of the document</b>		<b>Date of publication</b>
<b>Original name (in Italian)</b>	<b>Name adopted in the present research (in English)</b>	
<b>Programme of the mandate</b>		
Linee programmatiche di mandato 2011-2016	Programme of the mandate 2011-2016	2011
Linee programmatiche per il mandato 2016-2021	Programme of the mandate 2016-2021	2016
<b>Programming phase</b>		
Relazione previsionale e programmatica 2002 – 2004	3-year plan 2002 – 2004	2001
Relazione previsionale e programmatica 2003 – 2005	3-year plan 2003 – 2005	2002
Relazione previsionale e programmatica 2004 – 2006	3-year plan 2004 – 2006	2003
Relazione previsionale e programmatica 2005 – 2007	3-year plan 2005 – 2007	2004
Relazione previsionale e programmatica 2006 – 2008	3-year plan 2006 – 2008	2005
Relazione previsionale e programmatica 2007 – 2009	3-year plan 2007 – 2009	2006
Relazione previsionale e programmatica 2008 – 2010	3-year plan 2008 – 2010	2007
Relazione previsionale e programmatica 2009 – 2011	3-year plan 2009 – 2011	2008
Relazione previsionale e programmatica 2010 – 2013	3-year plan 2010 – 2013	2009
Relazione previsionale e programmatica 2011 – 2014	3-year plan 2011 – 2014	2010
Relazione previsionale e programmatica 2012 – 2013	3-year plan 2012 – 2013	2011
Relazione previsionale e programmatica 2013 – 2015	3-year plan 2013 – 2015	2012
Documento unico di programmazione 2014-2016	3-year plan 2014 – 2016	2013
Documento unico di programmazione 2015-2017	3-year plan 2014 – 2016	2015
Documento unico di programmazione 2016-2018	3-year plan 2016 – 2018	2016
Documento unico di programmazione 2017-2019	3-year plan 2017 – 2019	2017
Documento unico di programmazione 2018-2020	3-year plan 2018 – 2020	2018
<b>Performance management phase</b>		
Piani di attività - Anno 2011 – Obiettivi trasversali e per Dipartimento, Area e Settore/Quartiere	Performance plan 2011	2011
Piani di attività - Consuntivo anno 2011 – Obiettivi trasversali e per Dipartimento, Area e Settore	Performance report 2011	2012
Piani di attività - Anno 2012 – Obiettivi per Dipartimento, Area e Settore	Performance plan 2012	2012

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Piani di attività - Consuntivo anno 2012 – Obiettivi trasversali e per Dipartimento, Area e Settore	Performance report 2012	2013
Piano dettagliato degli obiettivi – Anno 2013 – Obiettivi assegnati per Dipartimento, Area, Settore, Istituzione e Quartiere	Performance plan 2013	2013
Piano dettagliato degli Obiettivi – Consuntivo Anno 2013 – Obiettivi assegnati ai Dipartimenti, alle Aree, ai Settori, alle Istituzioni e ai Quartiere	Performance report 2013	2014
Piano dettagliato degli obiettivi – Anno 2014 – Obiettivi per Dipartimento, Area, Settore e Quartiere	Performance plan 2014	2014
Consuntivo Piano degli indicatori e dei risultati attesi di bilancio 2014 – Schede sintetiche relative ai servizi e progetti riclassificate secondo lo schema di bilancio per Missioni e Programmi	Performance report 2014 volume 1	2015
Consuntivo Piano degli indicatori e dei risultati attesi di bilancio 2014 – Schede sintetiche relative ai servizi e progetti riclassificate secondo le 5 linee programmatiche di mandato e le aree d'intervento (per i servizi) e le 5 linee programmatiche di mandato e i programmi (per i progetti)	Performance report 2014 volume 2	2015
Piano dettagliato degli obiettivi Anno 2015 – Obiettivi per Dipartimento, Area, Settore e Quartiere	Performance plan 2015	2015
Piano degli indicatori e dei risultati attesi di bilancio 2015 – Schede sintetiche relative ai servizi e progetti riclassificate secondo lo schema di bilancio per Missioni e Programmi	Performance report 2015 volume 1	2016
Piano degli indicatori e dei risultati attesi di bilancio 2015 – Schede sintetiche relative ai servizi e progetti riclassificate secondo le 5 linee programmatiche di mandato e le aree d'intervento (per i servizi) e le 5 linee programmatiche di mandato e i programmi (per i progetti)	Performance report 2015 volume 2	2016
Piano dettagliato degli obiettivi 2016 – Obiettivi per Area, Dipartimento, Settore e Quartiere	Performance plan 2016	2016
Relazione sulla performance 2016	Performance report 2016	2017
Piano dettagliato degli obiettivi 2017 – Obiettivi per Area, Dipartimento, Settore e Quartiere	Performance plan 2017	2017
Relazione sulla performance 2017	Performance report 2017	2018
Piano della performance 2018 – Piano delle attività 2018	Performance plan 2018	2018

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Relazione sulla performance 2018	Performance report 2018	2019
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*Exhibit II-2. Reports used for data collection and analysis of case study A (developed voluntarily).*

<b>Name of the document</b>		<b>Date of publication</b>
<b>Original name (in Italian)</b>	<b>Name adopted in this document (in English)</b>	
<b>Social report/Activities' report</b>		
Bilancio sociale edizione 2005	Social report 2005	2005
Bilancio sociale edizione 2006	Social report 2006	2006
Bilancio sociale edizione 2007	Social report 2007	2008
Bilancio sociale edizione 2008	Social report 2008	2009
Bilancio sociale edizione 2009	Social report 2009	2010
Bilancio sociale consuntivo 2010: Entrate e spese correnti, servizi offerti ai cittadini, investimenti e opere pubbliche	Social report 2010	2011
<b>Environmental report (only environmental aspects)</b>		
Bilancio ambientale preventivo 2003	Preliminary environmental report 2003	2003
Bilancio ambientale preventivo 2006	Preliminary environmental report 2006	2006
Bilancio ambientale consuntivo 2006	Final environmental report 2006	2007
Bilancio ambientale preventivo 2007	Preliminary environmental report 2007	2007
Bilancio ambientale consuntivo 2007	Final environmental report 2007	2008
Bilancio ambientale preventivo 2008	Preliminary environmental report 2008	2008
Bilancio ambientale consuntivo 2008	Final environmental report 2008	2009
Bilancio ambientale preventivo 2009	Preliminary environmental report 2009	2009
Bilancio ambientale consuntivo 2009	Final environmental report 2009	2010
Bilancio ambientale preventivo 2010	Preliminary environmental report 2010	2010
Bilancio ambientale consuntivo 2010	Final environmental report 2010	2011
Bilancio ambientale preventivo 2011	Preliminary environmental report 2011	2011
Bilancio ambientale consuntivo 2011	Final environmental report 2011	2012
Bilancio ambientale preventivo 2012	Preliminary environmental report 2012	2012
Bilancio ambientale consuntivo 2012	Final environmental report 2012	2013
Bilancio ambientale preventivo 2013	Preliminary environmental report 2013	2013
Bilancio ambientale consuntivo 2013	Final environmental report 2013	2014
Bilancio ambientale preventivo 2014	Preliminary environmental report 2014	2014
Bilancio ambientale consuntivo 2014	Final environmental report 2014	2015
Bilancio ambientale preventivo 2015	Preliminary environmental report 2015	2015
Bilancio ambientale consuntivo 2015	Final environmental report 2015	2016
Bilancio ambientale preventivo 2016	Preliminary environmental report 2016	2016
Bilancio ambientale consuntivo 2016	Final environmental report 2016	2017
Bilancio ambientale preventivo 2017	Preliminary environmental report 2017	2017
Bilancio ambientale consuntivo 2017	Final environmental report 2017	2018
Bilancio ambientale consuntivo 2018	Final environmental report 2018	2019

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*Exhibit II-3. Reports used for data collection and analysis of case study B (compulsory).*

<b>Name of the document</b>		<b>Date of publication</b>
<b>Original name (in Italian)</b>	<b>Name adopted in this document (in English)</b>	
<b>Programme of the mandate</b>		
Linee programmatiche di governo relative al mandato amministrativo 2008-2013	Programme of the mandate 2008-2013	2008
Linee programmatiche di mandato 2013-2018	Programme of the mandate 2013-2018	2013
<b>Programming phase</b>		
Relazione previsionale e programmatica per il periodo 2007-2009	3-year plan 2007 – 2009	2006
Relazione previsionale e programmatica per il periodo 2010-2012	3-year plan 2010 – 2013	2007
Relazione previsionale e programmatica per il periodo 2011-2013	3-year plan 2011 – 2014	2010
Relazione previsionale e programmatica per il periodo 2012-2014	3-year plan 2012 – 2013	2011
Relazione previsionale e programmatica per il periodo 2013-2015	3-year plan 2013 – 2015	2012
Documento unico di programmazione 2014-2016	3-year plan 2014 – 2016	2013
Documento unico di programmazione 2015-2017	3-year plan 2014 – 2016	2014
Documento unico di programmazione 2016-2018	3-year plan 2016 – 2018	2015
Documento unico di programmazione 2017-2019	3-year plan 2017 – 2019	2016
Documento unico di programmazione 2018-2020	3-year plan 2018 – 2020	2017
<b>Performance management phase</b>		
Piano della performance 2011	Performance plan 2011	2011
Piano della performance 2012	Performance plan 2012	2012
Relazione della performance 2012	Performance report 2012	2013
Piano della performance 2013	Performance plan 2013	2013
Relazione della performance 2013	Performance report 2013	2014
Piano della performance 2014	Performance plan 2014	2014
Relazione della performance 2014	Performance report 2014	2015
Piano della performance 2015-2017	Performance plan 2015	2015
Relazione della performance 2015	Performance report 2015	2016
Piano della performance 2016-2018	Performance plan 2016	2016
Relazione della performance 2016	Performance report 2016	2017
Piano della performance 2017-2019	Performance plan 2017	2017
Relazione della performance 2017	Performance report 2017	2018
Piano della performance 2018-2020	Performance plan 2018	2018
Relazione della performance 2018	Performance report 2018	2019
<b>Activities' report</b>		
Relazione della giunta comunale al rendiconto per l'esercizio 2007	Activities' report 2007	2008
Relazione della giunta comunale al rendiconto per l'esercizio 2008	Activities' report 2008	2009

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Relazione della giunta comunale al rendiconto per l'esercizio 2009	Activities' report 2009	2010
Relazione della giunta comunale al rendiconto per l'esercizio 2010	Activities' report 2010	2011
Relazione della giunta comunale al rendiconto per l'esercizio 2011	Activities' report 2011	2012
Relazione della giunta comunale al rendiconto per l'esercizio 2012	Activities' report 2012	2013
Rendiconto dell'anno 2013 – Relazione sulla gestione e nota integrativa	Activities' report 2013	2014
Rendiconto dell'anno 2014 – Relazione sulla gestione e nota integrativa	Activities' report 2014	2015
Rendiconto dell'anno 2015 – Relazione sulla gestione e nota integrativa	Activities' report 2015	2016
Rendiconto dell'anno 2016 – Relazione sulla gestione e nota integrativa	Activities' report 2016	2017
Rendiconto dell'anno 2017 – Relazione sulla gestione e nota integrativa	Activities' report 2017	2018
Rendiconto dell'anno 2018 – Relazione sulla gestione e nota integrativa	Activities' report 2018	2019