

## **6** Venice case study

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The city of Venice, Italy is working towards further integrating climate and environment considerations into its budget. Though not currently engaged in a green budgeting practice, the municipality has shown interest in developing new budgeting practices and increasing links between climate and environmental science, indicators, and the budgetary decision-making processes. However, there are some considerable challenges faced by the municipality due to its unique climate change vulnerabilities and financial constraints. Any green budgeting approach must therefore be closely linked with other ongoing regional and national climate initiatives that the municipality is a part of, to enhance synergies and avoid creating additional human and financial resource burdens.

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## Introduction

In recent decades, several initiatives to integrate climate and environmental considerations into budgetary decision-making have emerged at national, regional, and local levels, taking into account country specificities and environmental objectives and commitments. The OECD has been engaged in the development and dissemination of several of these initiatives.

These initiatives can be referred to as “green budgeting” based on a broad definition of the term put forward by the Paris Collaborative on Green Budgeting (PCGB):<sup>1</sup> “[...] using the tools of budgetary policy making to provide policy makers with a clearer understanding of the environmental and climate impacts of budgeting choices, while bringing evidence together in a systematic and co-ordinated manner for more informed decision making to fulfil national and international commitments” (OECD, 2021<sup>[1]</sup>).

Italy is a pioneer in Europe in terms of national-level green budgeting practices dating back to the late 1990s. In Italy, green budgeting tools have been based on environmental accounting methodologies and have evolved over time to be better adapted to the national environmental strategy. At the regional and local levels, green budgeting experiences were also carried out in the early 2000s with the development of the City and Local Environmental Accounting and Reporting (CLEAR) method (see Chapter 3). The 2006 report *Bilancio ambientale del Comune di Venezia* (Environmental Reporting of the City of Venice), developed by the Italian environmental agency (APAT, now called ISPRA), is another example of an early green budgeting experience and led in 2009 to the definition of a national environmental accounting and reporting methodology for Italian municipalities.

Despite active participation early on from numerous Italian subnational governments, environmental budgeting practices are now limited to only a handful of these subnational governments. Some of these remaining practices are centred on the use of physical environmental indicators to measure the environmental impact of the administration’s actions. Others try to measure financial commitments favourable to environment; however, most of them do not estimate environmentally harmful commitments within their budgets and the application of green budgeting principles, as defined by the Paris Collaborative on Green Budgeting, remains to be developed among regional and local governments in Italy.

The municipality of Venice is deeply committed to environmental protection and has joined numerous initiatives to this effect over the two last decades. The municipality has shown interest in implementing green budgeting practices to increase links between environmental and climate scientific knowledge, indicators, and municipal budgetary decision-making processes. The stocktake of existing subnational green budgeting practices presented in Chapter 3, as well as the accompanying self-assessment tool, can serve as a resource for Venice to develop its own green budgeting methodology and practice.

This case study aims to highlight the various green budgeting initiatives previously undertaken in Italy and Venice, and to analyse the possibilities for the development of green budgeting practices within the municipality.

## Italy has had a long-standing interest for green budgeting at national and local levels

Green budgeting practices have been developed in Italy beginning in the early 2000s. At the national government level, green budgeting encompasses the production of three main documents: the *ecobilancio dello Stato* (Ministry of Economy and Finance, 2022<sup>[2]</sup>) based on draft budgets (hereafter called the eco budget or *ecobilancio*), the *ecorendiconto dello Stato* (Ministry of Economy and Finance, 2021<sup>[3]</sup>) based on closed accounts (hereafter called the eco report or *ecorendiconto*) and the *Catalogo dei sussidi ambientalmente dannosi e dei sussidi ambientalmente favorevoli* (Catalogue of Environmentally Friendly Subsidies and Environmentally Harmful Subsidies, hereafter called the catalogue).

Green budgeting practices have also been launched at the regional and municipal levels during the past two decades and have led to the development of a methodology designed for Italian municipalities, presented in more detail below. However, there are few examples of comprehensive green budgeting practices, based on the Paris Collaborative on Green Budgeting's framework, exist at subnational level.

### ***Environmental commitments and subsidies are measured at national level***

*Eco-budgets have been developed since the early 2000s at the national level*

Italy has a long practice of eco-budgeting. In 1999, Parliament instructed the government to undertake an experimental environmental accounting approach and to highlight all environmentally-related resource (budget) allocations for the 1999 budget and for the three-year period between 1999 and 2001 (Ministry of Economy and Finance, 2016<sup>[4]</sup>). The scope of the exercise was large and defined “environmentally related resource allocations” as all resources used for environmental protection purposes, including protection, conservation, restoration and sustainable use of resources and natural heritage.

The exercise has continued since 2000 and the results are presented annually in an eco-budget (*ecobilancio*) which is an appendix to the central government budget. The government published its latest *ecobilancio* in 2021, which covers the planned environmental expenditure for the financial years 2021-23.

In 2008, an eco-report (*ecorendiconto*) detailing the executed central government environmental protection expenditure for the year 2007 was added to the *ecobilancio*. This *ecorendiconto* practice has been institutionalised by the Public Finance Accounting Reform Law of 31 December 2009 (Camera dei deputati, 2009<sup>[5]</sup>), which requires the State General Accounts to include an appendix presenting the results of all expenses related to programmes having an environmental nature or content. The first *ecorendiconto* resulting from the 2009 law was released in reference to the final balance of the 2010 financial year. The latest *ecorendiconto* presents the 2020 results.

The 2009 law insisted on the fact that the findings should be represented “in accordance with the relevant European Union (EU) guidelines and regulations” (Italian Parliament, 2009<sup>[6]</sup>). Both the *ecobilancio* and the *ecorendiconto* are thus based on the European System for the Collection of Economic Information on the Environment (commonly referred to as SERIEE from the French acronym).<sup>2</sup> This system identifies two types of expenditures: those relative to environmental protection, classified according to the CEPA (Classification of Environmental Protection Activities); and those relative to the use and management of natural resources, classified according to CRUMA (Classification of Resource Use and Management Activities) (Box 6.1).

The *ecobilancio* and *ecorendiconto*, together referred to as the environmental budgets, are presented by missions (34 missions for the 2020 budget including public infrastructure, justice, etc.) and programmes (103 programmes for the entire 2020 budget), to be consistent with the functional approach of the central government budget. Each programme is assigned to a responsibility centre.

#### **Box 6.1. CRUMA and CEPA classifications**

Environmental accounting was developed in the 1990s as a field of international statistics. The purpose of environmental accounting is to physically measure and evaluate the evolution of the natural environment and of the impact of human activities on it, but also to estimate and provide a monetary accounting vision of the financial flows related to natural resource use and the effects of human interaction with the environment.

Different environmental accounting approaches have been developed to complement traditional accounting systems, to construct separate environmental financial statements, or to produce environmental physical indicators describing the state of the environment and damages resulting from human activities.

In Europe, environmental accounting practices were developed mainly for statistical purposes. Eurostat's SERIEE system (Système européen pour le rassemblement des informations économiques sur l'Environnement — European system for the collection of economic information on the environment) sets out a framework for a monetary description of environmental protection activities. SERIEE is based on the:

- European Classification of Environmental Protection Activities (CEPA) which covers seven main areas and two transversal activities: ambient air and climate protection, wastewater management, waste management, protection and remediation of soils, groundwater and surface water, noise and vibration abatement, protection of biodiversity and landscapes, protection against radiation, research and development, environmental protection and other environmental protection activities.
- And the Classification of Resource Use and Management Activities and expenditure (CRUMA) to cover expenditure linked to the management of natural resources in the following fields: water, forest resources, flora and fauna, fossil energy, raw materials, research and development, others (administration, training, information, etc.).

For each reference year and environmental sector of CEPA and CRUMA classifications, the SERIEE system then produces accounting tables describing the supply of environmental services and the way they are produced, the uses of environmental services (by categories of users), the transfers redistributing the environmental expenditures among the different institutional sectors.

Source: Eurostat (1994<sup>[7]</sup>) (1994), *SERIEE European System for the Collection of Economic Information on the Environment*, <https://ec.europa.eu/eurostat/documents/3859598/5859717/KS-BE-02-002-EN.PDF.pdf/468a0ed9-bdf2-4772-aa21-e04ed45c2f74?t=1414780447000> (accessed on 1 May 2022).

*The central government's eco-budget methodology has been disseminated across the administration*

The Italian Ministry of Finance has developed methodological and technical instructions to guide other ministries on how to prepare and provide the necessary information on environmental expenses related to their portfolios. The analysis is carried out at the programme level. Each programme is attributed to an administrative responsibility centre and divided into actions in order to give more information on the related activities.

The entirety of the budget is screened to detect environmental expenses, whether the budgetary item has an explicit environmental purpose or not. The environmental finality of any expense is determined using Table 6.1.

For each programme, current expenditure is initially classified as “uncertain” if not related to a specific environmental programme while capital expenses are classified according to the above table. Then, each programme's current expenditure is reviewed and attributed to a classification broadly similar to that of the attached capital expenditure. At this stage, most current expenditure can be classified, with the exception of transfer programmes for which the administration does not have sufficient information on the final purpose of the expense.

This methodology does not measure expenditures with a negative impact on the environment but it can be used, in a further step, to adopt a consistent system of parameters and indicators for measuring the results of environmental policies and not just reporting expenses planned or incurred.

**Table 6.1. Central government *ecobilancio* methodology for the detection of environmental expenses, multi-scope**

Non-environmental expenses Management plans that surely contain exclusively non-environmental expenses	
<b>At least partly environmental expenses.</b> Management plans that contain environmental expenses aggregated with other expenses (non-environmental and/or for uncertain purposes)	Uncertain purpose expenses. Management plans for which, given the information available, it is not possible to understand whether the expenses are attributable to the area of environmental protection, nor to understand if they are entirely excluded from it
Environmental expenses	
<b>Exclusively environmental expenses.</b> Management plans that only include environmental expenses	Partly environmental expenses. Management plans that only include both environmental expenses and other finality expenses

Source: Ministry of Economy and Finance (2011<sub>[8]</sub>), *Allegato 1*.

### *The State 2020 *ecorendiconto* highlighted EUR 4.7 billion of environmental expenditure*

The 2021 State government *ecobilancio* is broken down by environmental objectives and by type of expenditure. Planned environmental expenditure for 2021 is roughly EUR 6 billion (EUR 4.7 billion in 2022 and EUR 4.9 billion in 2023). Three-quarters of this expenditure is capital expenditure (mainly transfers) and only EUR 1.4 billion is current expenditure. About half of this EUR 6 billion in planned expenditure concerns soil and water protection management as well as research and development (30% and 19% respectively). The air and climate category ranks third accounting for less than 12% of the total planned expenditure (Ministry of Economy and Finance, 2020<sub>[9]</sub>).

The *ecorendiconto*, which reports the environmental expenditure of the closed accounts, also details the allocations by the ministry and by environmental objective. In 2020, executed environmental expenditure amounted to EUR 4.7 billion (Ministry of Economy and Finance, 2021<sub>[3]</sub>).

### *The state also produces a catalogue of environmentally friendly and harmful subsidies*

In 2017, Italy adopted its National Sustainable Development Strategy, in accordance with the 2030 United Nations (UN) Sustainable Development Goals (SDG). To support its strategy, the government publishes a catalogue of environmentally friendly and harmful subsidies and a report on the state of natural capital.

The catalogue is legally mandated via the December 2015 law no. 221 disposition (Camera dei deputati, 2015<sub>[10]</sub>), which tasked the Ministry of Environment, Land & Sea to produce a Catalogue of Environmentally Friendly Subsidies (EFS) and Environmentally Harmful Subsidies (EHS). The purpose of this catalogue is to support the Parliament and the government in the development of environmental policies compliant with national, European and international recommendations and to provide policy-makers with information they can act upon to gradually remove environmentally harmful subsidies and strengthen favourable ones.

Both direct subsidies (resulting from spending laws) and indirect subsidies (tax expenditures) are examined in the catalogue. The catalogue relies on a broad definition of subsidies as “incentives, benefits, subsidised loans, and exemptions from taxes directly related to environmental protection (Camera dei deputati, 2015<sub>[10]</sub>)”, which aligns with the OECD definition of a subsidy (OECD, 2013<sub>[11]</sub>).<sup>3</sup> Subsidies are classified

by economic sectors: agriculture, energy, transport, VAT and other subsidies. For its third edition, released in 2019, the catalogue also tracked specific subsidies with uncertain net environmental effect isolated in the category “uncertain”.

The impact and price of subsidies included in the Catalogue are quantified using several different methodologies (such as price gap and social marginal cost) detailed, mainly developed by the OECD and the European Commission.<sup>4</sup>

The last catalogue was released in December 2019 using 2018 data. It estimated favourable subsidies to amount to EUR 15.3 billion and unfavourable subsidies to amount to EUR 19.7 billion (fossil fuel subsidies represent nearly 90% of the total amount) (Ministry of Ecological Transition, 2022<sub>[12]</sub>). Another EUR 8.7 billion in subsidies were labelled as having an uncertain effect. The 2019 results are not comparable to those from previous catalogues due to changes in the scope of subsidies analysed as well as a partially revised methodology. As the Catalogue is produced by the Ministry of Environment, it is not attached to budgetary documents.

The report on the state of natural capital (Ministry of Ecological Transition, 2018<sub>[13]</sub>) presents the state of conservation of water, soil, air, biodiversity and ecosystems through biophysical evaluation. It underlines the fact that Italy’s significant natural capital value has not yet been fully taken into account in other national accounting and statistical systems. In addition, threats and steps to be taken to improve the assessment of the effects of public policies on natural capital are also identified in the report.

### ***Subnational green budgeting practices are still relatively underdeveloped***

Green budgeting presents several opportunities for subnational governments. Initiating a green budgeting approach can align financial decisions with environmental and climate goals. Green budgeting also helps governments prioritise low-carbon and resilient investment projects and spending. Green budgeting tools can also assist subnational governments to mobilise additional sources of public and private finance to bridge funding gaps and help respond to a growing demand for transparency and accountability on subnational government public action.

No comprehensive experience of green budgeting adhering to all four building blocks of the OECD Green Budgeting Framework (Chapter 2) has been identified so far among Italian subnational governments, despite several promising experiments that took place in the early 2000s.

*At the beginning of the 2000s, a subnational environmental accounting and reporting methodology was developed in Italy*

In the early 2000s, the European Commission launched several studies on the opportunity to design and enforce environmental accounting and reporting systems at the local level. The City and Local Environmental Accounting and Reporting (CLEAR) methodology was developed in this context through a project co-financed by the European Commission as part of the LIFE-Environment programme.<sup>5</sup>

The CLEAR methodology was developed between 2001 and 2003 with the support of 18 Italian municipalities and provinces,<sup>6</sup> the region of Emilia-Romagna and the OECD (which carried out monitoring and comparison with similar experiments carried out elsewhere). These subnational governments were chosen because of their variety in terms of location, population and specificities.

The project scope was to design a single instrument – the environmental budget – that would allow local governments to visualize and measure all of their policies and commitments with an environmental impact using both physical and monetary indicators. This environmental budget would serve as a decision-making tool for local officials. It would follow the same approval process as the financial budget and be closely linked to it. To ensure national and international comparability of practices, the methodology for classifying

environmental policies and expenditure was based on the European SERIEE system and adapted to the specificities of the local authorities implementing it.

Among the municipalities and provinces that participated in the CLEAR project, only three (Bergeggi in 2022, Varese Ligure in 2019, and Reggio Emilia in 2018) have recently published documentation showing that they are still continuing with the methodology in some form, and these documents mainly included environmental physical indicators. In some cases, a link is created with local environmental policies and objectives, but no example was found of a link with the corresponding financial budgets.

*Only a few Italian subnational governments publish estimations of budgetary environmental expenditures*

In 2020, the Italian region of Sardinia constructed an eco-budget inspired by the national government's *ecobilancio*. The region screened its own budget expenses relating to programmes having an environmental nature or content, defined as the resources used for the purpose of environmental protection, conservation, restoration and sustainable use of resources and natural heritage. To define and classify environmental expenses, the region used SERIEE and the CEPA and CRUMA classifications. Primary expenditures (all expenditures excluding financial expenses) have been analysed to determine the share attributed to environmental preservation and natural resource use. Like the CLEAR methodology, unfavourable expenditure is not included in the screening.

The regional *ecobilancio* presents the resources by function, by department and by nature of expenses. It showed that in 2020, EUR 705 million, out of a total regional budget of EUR 8.5 billion, was allocated to environmental protection and natural resource use and management. Water use and management, and forest use and management, each represented one-third of these expenses, while soil, ground and surface water protection and remediation accounted for 16% (Regione autonoma de Sardegna, 2020<sup>[14]</sup>).

The region also identified the government departments with the most environmental protection and natural resource use and management expenditure; the Departments of Environment, Public Works and Industry accounted for, respectively, 42%, 29% and 11% of the total identified expenditures (Regione autonoma de Sardegna, 2020<sup>[14]</sup>).

### **Box 6.2. Synthesis: A long-standing interest for environmental accounting and reporting practices**

The Italian central government, as well as local and regional authorities, have been interested in environmental accounting and reporting methodologies since the late 1990s. These reflections and the Italian regulatory context have led the State to produce estimates of its environmental expenditure both for draft budgets and closed accounts. In recent years, subsidies have also been analysed to identify those that are favourable or harmful to the environment.

An important reflection was also carried out at municipal level to define a methodology that would help to develop tools linking the environmental objectives of a territory, its environmental policies (adopted within the various programmatic documents), the budgeted expenditure and finally, and eco-efficiency indicators (indicators that measure the environmental outcome achieved based on the level of resources used). The City and Local Environmental Accounting and Reporting (CLEAR) methodology is not widely used by the group of municipalities that were part of the initial project. Some of the municipalities at the origin of the experiment nonetheless still produce environmental reports (*bilanci ambientali*), but these documents focus on physical indicators related to the environment without making the link with the fiscal policy of the local authority.

## Subject to strong environmental and climate pressures, the city of Venice is at the centre of many initiatives

### ***Venice is committed to a national and regional strategy for sustainable development***

Venice, with its very large territory and its unique ecosystem, is particularly concerned by global warming, sea-level rise, and other consequences of climate change. Considering the “water town” status of the historical city centre, Venice also has to respect specific regulations in terms of urban planning, environment, transport, and river and sea traffic and ports. Moreover, despite a decreasing and limited number of inhabitants, the city centre is a global tourist destination which places major environmental pressures on the city.

#### *Venice’s special status creates specific environmental challenges*

The city of Venice has a population of approximately 255,000 inhabitants across all six districts of the city: Chirignago Zelarino, Favaro Veneto, Lido Pellestrina, Marghera, Mestre Carpenedo, Venezia Murano Burano. This territory thus includes islands, mainland, urbanised and rural areas. With economic activity mostly driven by the tourism industry, the municipality’s environmental challenges are huge and magnified its unique natural and cultural attributes (Venice has been registered as UNESCO world heritage site since 1987) and vulnerabilities (the city was close to being listed as a world heritage site in danger in 2021).<sup>7</sup> The municipality’s territory also includes a commercial port, an international airport, and industrial areas. This diversity adds to the environmental and climate challenges the city faces.

Most of these environmental challenges, however, clearly exceed the municipal geographical perimeter – the ecosystem of the Venetian lagoon is shared by four provinces and over 100 local authorities and the responsibility for its preservation rests with the metropolitan area – but also its financial surface and its population contribution capacity. Many local projects thus have regional and even national dimensions. An example of this is the Mose project (*MOdulo Sperimentale Elettromeccanico*), an electromechanical experimental module which aims to isolate the Venetian lagoon from the Adriatic Sea during high tides and protect Venice from floods (*acqua alta*). Initiated in 2003 and operational in 2020, the project was conducted under the supervision of the Italian Ministry of Infrastructure and Transport in co-operation with the public company Venice Water Authority (now the Interregional Superintendence of Public Works).

Another relevant example is the Porto Marghera reconversion project to redevelop the large industrial wasteland at the entrance of the Venice lagoon. The project, which was launched in 2014 and is still under development, includes, among other initiatives, the creation of an alternative energy production centre. This project is part of a larger development plan, called “Venice, World Capital of Sustainability” (*Venezia Capitale Mondiale della Sostenibilità*), supported by the national government and promoted by the region of Veneto (Regione de Veneto, 2021<sub>[15]</sub>). This initiative brings together the municipality, cultural and academic institutions (*Ca’ Foscari* and the IUAV Universities of Venice, the “*Benedetto Marcello*” State Conservatory of Music, the Academy of Fine Arts, the Cini Foundation), companies and associations (*Confindustria Veneto*, regional industrial companies, Generali, and the Boston Consulting Group).

The protagonists of the project are committed to developing a shared and integrated action with impacts and positive effects for the whole Veneto region in terms of sustainable development, job creation, improvement of the living and working conditions of the population, and industrial and energy transition. The project’s main areas of action are: energy transition and environmental sustainability, education, evolution towards a sustainable tourism model, and a plan for trade and countering of illegal activities. Beyond the re-structuration of the industrial zone of *Marghera*, the project includes urban renovation programmes and Venice artistic and cultural heritage promotion. The purpose is also to position the municipality as a point of reference or best practice for solving environmental, social, governance, and



sustainability problems. Through this sustainability project, the municipality also hopes to access new investment funds and a larger share of the European recovery funds allocated to Italy.

Though the municipality has significant funding needs to launch new projects, it is also clear that a large part of the environmentally-related projects, though institutionally or regulatory supported by the municipality, are conducted by local partners, such as utilities, or even regional or national institutions. The municipality also collaborate with private investors for some of its projects; for instance, as part of the *Marghera* port development project and the Mestre railway station project, investors received construction rights that came with “public good” conditionalities such as the expansion of a city park (*Piraghetto parco*) by approximately two hectares or the expansion of via Ulloa by approximately three hectares or the construction of parking lots and public transport facilities.

Those various projects consequently do not appear in the city budgets, or as current expenditure or capital expenses. This reinforces the fact that any green budgeting practice is one of several tools available to municipalities to implement their sustainable development policies and improve the coherency of municipal action in this regard.

*Venice is a member of several initiatives to share and improve environmental and climate-related projects and actions*

Since 2011, Venice has been a member of the Covenant of Mayors, a European movement for local climate and energy action. Covenant of Mayors members commit to:

- Setting mid and long-term targets, consistent with the EU objectives, and at least as ambitious as national targets and with ultimate target to achieve climate neutrality by 2050.
- Engage citizens, businesses and governments at all levels in the implementation of this vision and in the transformation of local social and economic systems.
- Act to get on track and accelerate the transition which implies developing action plans on how to mitigate and adapt to climate change though remaining inclusive.
- Create networks with mayors in Europe and beyond.

Between 2014 and 2021, the municipality was also a member of the C40 Cities Climate Leadership group. Although they are no longer a member of the Climate Leadership group, the municipality remains an active member of the broader C40 Network. C40 is an international network of large cities committed to addressing climate change. It supports city collaboration, helps to share knowledge, and drives action on climate change in order to reach Paris Agreement goals at the local level. C40 has nearly 100 members representing about 800 million inhabitants globally; Venice is the smallest member in terms of population.

*Venice’s green objectives are followed-up within its programmatic documentation*

Since 2012, Venice has had a validated Sustainable Energy Action Plan (SEAP), a requirement of its membership in the Covenant of Mayors. This plan is based on a baseline greenhouse gas (GHG) inventory, conducted according to the Covenant of Mayors’ guidelines and the European Joint Research Centre indications.<sup>8</sup> The inventory includes municipal buildings and facilities, building equipment facilities of the tertiary sector, residential buildings, public lighting, municipal vehicle fleet, public transport and private and commercial transport but excluded electricity production, industry, agriculture and waste. Within the SEAP, the greenhouse gas inventory is linked to a list of precise actions with an overall objective of reducing Venice’s GHG emissions by 20% in 2020 (compared to 2005 levels). Each action in the SEAP lists the objectives, benefits, costs and financing, and the GHG reductions related to each action. A follow-up inventory was done in 2018, which showed that the municipality had achieved its 20% emissions reduction target ahead of schedule.

The Sustainable Energy Action Plan (SEAP) was not stopped: the actions that are not yet concluded still continue and Venice is currently preparing a new Sustainable Energy and Climate Action Plan<sup>9</sup> (SECAP) for 2022 with a new intermediate GHG reduction target for 2030 (more than 40% decrease) and a carbon neutrality objective for 2050 in accordance with the Paris Agreement targets. The GHG inventories are also being updated to include more sectors and improve the measurement of existing ones according to C40 recommendations.

Similarly, the municipality is also developing other concrete climate adaptation and mitigation actions. These include political support and commitments (i.e. a commitment to C40 to prepare Venice's first climate adaptation plan), as well as the allocation of human resources (a Director for Strategic and Environmental Projects was appointed, a new municipal department dedicated to the environment was created as well as an environmental observatory). The municipality has also identified scientific support and other potential supports both at national and European levels. Green budgeting clearly enters in these dynamics; however, to have the greatest success it must be linked with all the current initiatives of the municipality to enhance synergies between them and avoid creating additional human and financial resource burdens.

### **Venice's 2006 *bilancio ambientale***

In 2006, the national environmental agency, then called APAT but currently called ISPRA,<sup>10</sup> chose the city of Venice as a case study for the development of an environmental budgeting methodology. With the support of the municipality, the agency developed a "*bilancio ambientale*" based on the CLEAR methodology and using municipal environmental and financial data from the year 2004.

The purpose of the project was to experiment with creating a methodology to quantify the costs and benefits of municipal environmental management policies, the first step towards the development of an environmental budgeting process to be used by all Italian local authorities. The scope of the project was to create a framework for a tool that assisted subnational governments to collect long-term information and analyse trends related to environmental expenditure. Overall, the tool would help to assess whether the amount of environmental expenditure allocated by a municipality is adapted to the scale of the environmental problems a municipality is facing and if the resource allocation could be improved. Guidelines for developing a *bilancio ambientale* were published by APAT in 2009.

#### *Constructing a bilancio ambientale requires a step-by-step approach*

The APAT project aimed to construct rigorous reporting and assessment tools in order to measure both the use of environmental resources and the environmental impact of public policies. The tool was not intended to measure all legal and regulatory activities of the municipality, although it was quite comprehensive, but instead to provide more transparency on the type and efficiency of its public policies and the nature of its expenditures.

The *bilancio ambientale* methodology proposed by APAT consisted of several steps (Figure 6.1).

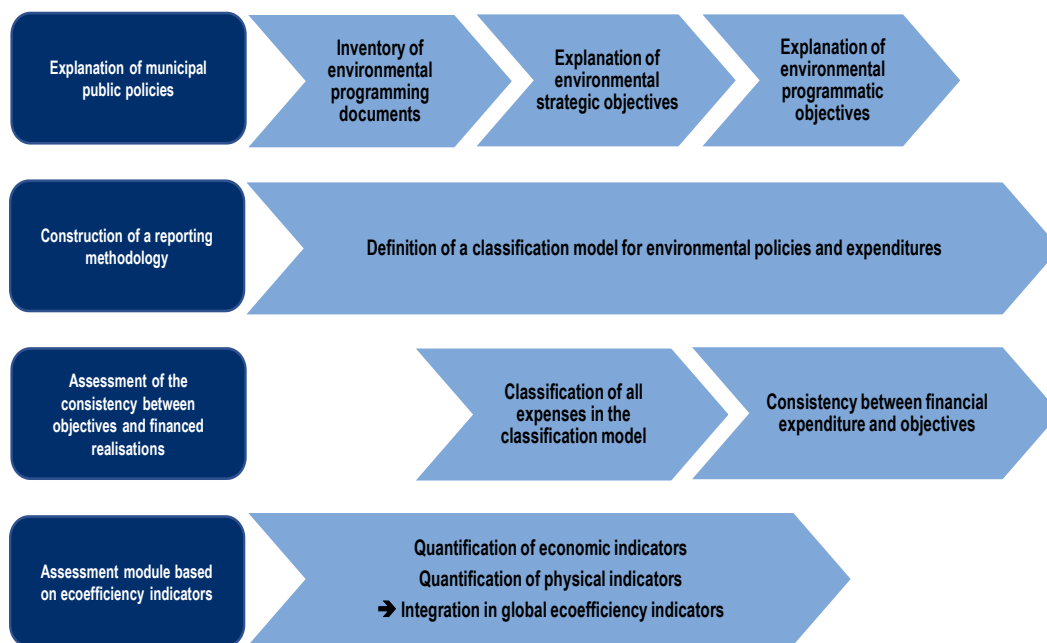
The first step was the identification and analysis of all the environmental policies defined and formalised in a municipal administration's programmatic documents. Environmental policies are all those policies that have a direct or indirect impact on the environment. Examples of administrative programmatic documentation include a work programme for the Department of the Environment or a Planning Forecast Report for a given period.

Simultaneously, a system for classifying the environmental policies identified in the programmatic documentation, and their associated expenditure allocations, was constructed. A broad definition of environment was retained, including prevention, mitigation and restoration actions but also sustainable urban development interventions. Both direct and indirect expenditures were considered. APAT was careful to make a direct link between financial data, environmental indicators, and environmental policy

objectives. The resulting classification system had two levels that encompassed both the municipality's legal competences and programmatic priorities: ten broad first-level categories of classification (e.g. waste) and 44 second-level categories (e.g. waste management, urban and environmental hygiene, etc.).

- Example of a first-level classification: waste.
- Example of second-level categories for waste: waste management, urban and environmental hygiene, staff expenditure, current expenditure.

Figure 6.1. APAT's environmental budget process



Source: Agenzia per la Protezione dell'ambiente e per i Servizi Tecnici (2006<sup>[16]</sup>), *Il bilancio ambientale del Comune di Venezia*, <http://www.apat.it>, (accessed on 13 September 2021).

As part of the second step of the methodology, the entire municipal organisation was analysed, including partially or totally owned municipal enterprises, in order to identify the public entity in charge of the management of each field of environmental competence. In the case of Venice, this work confirmed that in some fields, the municipality's direct financial commitments can be quite insignificant compared to the expenditures of the municipal enterprise responsible for that field. It was decided not to include utilities' expenditure in the analysis but rather the financial relationship between the municipality and its utilities.

- Example for waste: waste management and urban and environmental hygiene are managed by the municipal enterprise, VESTA.

The first and second level environmental categories that APAT included in its classification system aligned closely with an internal city of Venice environmental planning document, entitled *rendiconto ambientale 2001-2005*. This report tracked the city's progress towards meeting previously set environmental targets between 2001 and 2005. It was structured in 13 thematic areas within which the city's current objectives, actions and results of their environmental policies were presented. It was published by the municipality of Venice (but is not available online).

- Example of strategic objective for waste: Increase separate collection, discourage the use of "disposable" and start recovery projects and local reuse of waste (edible oils, etc.).

- Example of programmatic objective for the waste management programme: Remove micro-landfills along municipal roads.

Current and capital expenditures were identified for each second level environmental category and linked to each programmatic goal. The existing accounting system used by Italian municipalities in 2004 was exclusively based on the nature of expenditure which made APAT's work more difficult as additional qualitative data from municipal departments and costs centres had to be sought out in order for expenditure to be linked to programmatic goals.

- Example of waste current expenditure: EUR 9.3 million including EUR 9.2 million of transfers.

The APAT produced examples of efficacy and efficiency indicators that could be used by municipalities; indicators may need to be adapted to match with municipal policies and fields of competences.

- Example of efficiency indicator: indication of the productivity of the intervention in terms of reducing the pressure on the environment: incinerated waste/capital expenditure.
- Example of efficacy indicator: tons of incinerated waste/waste to incinerate.

*Methodological and operational difficulties were underlined by APAT*

The methodology developed by APAT with Venice highlighted methodological and operational issues, in particular regarding the distribution of expenditure within the environmental classification system. APAT used the city of Venice's 2004 *Rendiconto* (closed administrative account) to experiment with applying the methodology but the functional accounting presentation did not allow for directly identifying environmental expenditure, except for the environmental activities carried out by the municipal Department of Environment. Reclassification of the expenditure was thus necessary but complex due to lack of information on commitments and in some cases because of the heterogeneity of the information available. The possible subjectivity of APAT's classification system was also underlined.

To address these issues, APAT collaborated closely with municipal personnel to carry out the reclassification. The information available in information technology (IT) management control systems, in particular in the cost-accounting systems, was very valuable to the exercise, especially for the reclassification of current expenditure since it helped individualise responsible directions and cost centres.

*The experimentation led to the ISPRA 2009 bilancio ambientale framework*

The Venice *Bilancio ambientale* experiment was not internalised by the municipality and consequently not updated after APAT published its report. This highlights the necessity of conducting such kinds of exercises in-house, rather than externalising them, in order to ensure there is adequate internal capacity for the project to continue over time.

In 2009, ISPRA (formerly known as APAT) published operational guidelines for the implementation of environmental reports (*bilancio ambientale*) in order to help municipalities to reach their environmental strategic and operational goals, improve policy coherence, and communicate internally and externally about their achievements.

Nevertheless, environmental reporting practices have not developed comprehensively in Italy. Some municipalities still publish environmental indicator reports (generally associated with social data in socio-environmental reports), however, no example of a practice linking those indicators with budget expenditures was found and no public information shows that these practices have developed since ISPRA published its methodology.

### Box 6.3. Synthesis: The city of Venice is at the centre of many environmental initiatives

The municipality of Venice is confronted with several climate and environmental challenges. To overcome them, the municipality is involved in various national and international initiatives such as the Covenant of Mayors and the C40 Cities Network. The city's programmatic documents also incorporate these concerns; for example, Venice is currently reviewing its Sustainable Energy and Climate Plan (SECAP) in order to enhance its concrete actions for climate mitigation and adaptation and, ultimately, align the plan with the city's new target of carbon neutrality by 2050.

Venice also participated in a national pilot programme to develop environmental accounting and reporting which led to the development of a “bilancio ambientale” for the city in 2006 and, in 2009, to national guidelines for the implementation of global environmental reports at the subnational level, published by the Italian environmental protection agency ISPRA (*Istituto Superiore per la Protezione e la Ricerca Ambientale*). Despite a very promising methodology, there is no evidence available that it was followed up on and disseminated to other Italian municipalities.

### The municipality showed genuine interest in developing more climate and environmentally focused budgeting processes

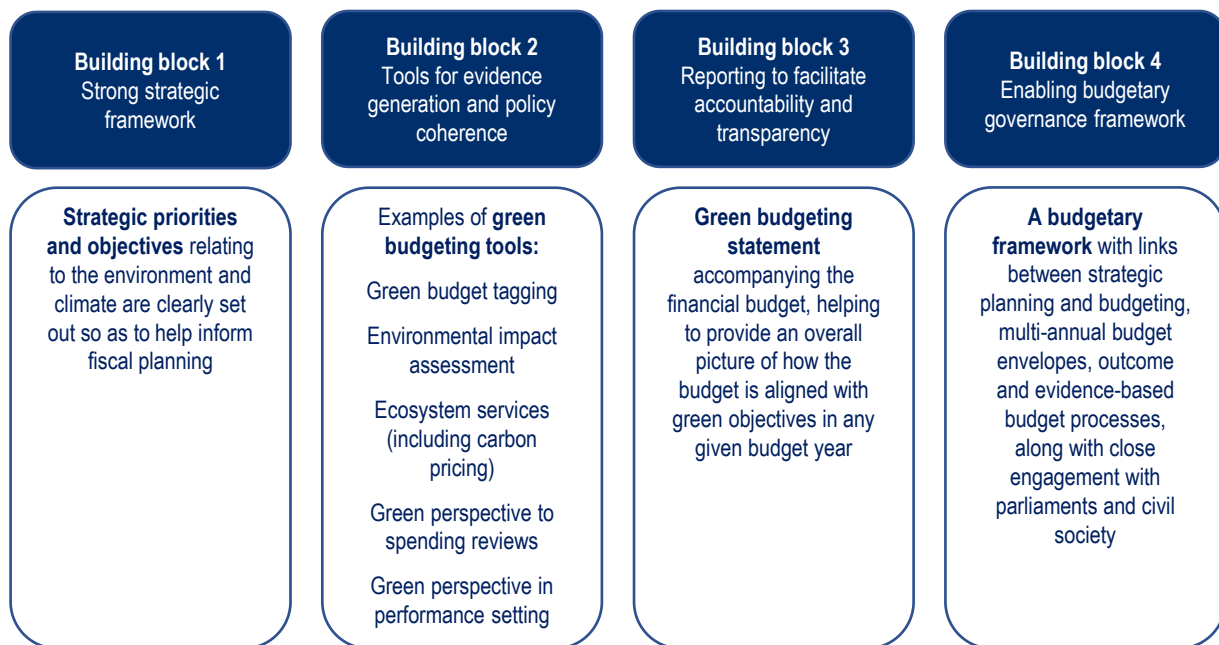
The Paris Collaborative on Green Budgeting (PCGB) defines green budgeting as “using the tools of budgetary policy making to achieve environmental and climate goals” (OECD, 2020<sup>[17]</sup>). Based on this definition, the PCGB has developed a green budgeting framework composed of four building blocks: institutional arrangements; methods and tools for evidence generation and policy coherence; accountability and transparency; and an enabling environment in budgeting (Figure 6.2). Green budgeting helps policy makers to, among other things:

- Evaluate the coherency of the budget with a region or city's stated environmental and climate objectives, such as those defined in its programmatic documentation; these objectives can relate to climate (mitigation or adaptation) but also to biodiversity, water usage and pollution, air pollution, circular economy, etc.
- Integrate environmental and climate concerns throughout the entire budgetary process: budget construction, authorisation, review and reporting.
- Analyse the trajectory and efficiency of the budget in contributing to achieving a subnational government's green objectives by assigning and following up on environmental and climate indicators.

Green budgeting is a voluntary tool to support decision-making and reporting processes. It is important to note, however, that it is not a silver bullet. For green budgeting to be most effective, a subnational government must define the green budgeting tools to be used, the purpose, the scope, the implementation process, and the usage criteria of its green budgeting practice according to the government's own priorities and budgeting context. Green budgets should also complement a government's other environmental tools such as regulatory action, subsidies or procurement policies and be part of a broader green strategy for a given region of city.

The city of Venice is part of numerous initiatives to help it to better integrate climate and environmental concerns into its regulatory policies and to help the city to align itself with regional, national and international climate commitments. Furthermore, the municipality also showed interest in developing a green budgeting methodology to help achieve these same goals by better linking its financial budgetary procedures with its direct or indirect environmental and climate policies.

Figure 6.2. OECD building blocks for an effective approach to green budgeting



Source: OECD (2020<sup>[17]</sup>), *Paris Collaborative on Green Budgeting: OECD Green Budgeting Framework*, <http://www.oecd.org/environment/green-budgeting/>.

***The scope of a green budgeting practice can be partial but it must rely on the municipality's environmental and climate programmatic documentation***

In Italy, no municipality (or region) has publicly communicated on a systematic and comprehensive green budgeting practice, meaning that it:

- Assesses the impact of the budget on all six climate and environmental domains set out in EU Taxonomy.
- Assesses both positive and negative impacts of expenditures.
- And that includes both expenditure and revenues within the scope of the practice.

It would be extremely demanding to consider implementing all the above-mentioned elements of a green budgeting strategy simultaneously. A phased approach, both in terms of the environmental and climate concerns covered and in terms of the use of green budgeting tools and processes, could be a suitable solution (see Guideline 4 of the OECD Subnational Green Budgeting Guidelines).

*Implementing green budgeting procedures can be a step-by-step project*

There have been several interesting environmental reporting methodologies developed in Italy in the past few decades, including Venice's 2006 *bilancio ambientale*, the methodology subsequently developed by ISPRA, as well as the CLEAR methodology (see Chapter 3). None of these methods, however, seem to have been comprehensively adopted by municipalities following their initial release. Some of the municipalities involved in the CLEAR methodology publish *bilanci ambientale* (environmental reports) but those reports merely include physical environmental indicators that are not linked with budget practices, and only three municipalities published documentation related to CLEAR in the four years. Venice's last *bilancio socio-ambientale* (socio-environmental report) covers the 2012-14 period; it summarised the municipality objectives for the three-year period and the corresponding achievements and expenditure.

Current subnational green budgeting practices in France, which mainly consist of a line-by-line assessment of the climate impact of budget expenditures, have been briefly presented to Venice by the OECD and generated a high level of interest. If Venice were to adopt a similar approach, it would face the same key methodological encountered by French municipalities. Such challenges include the lack of availability of qualitative information, in particular for transfer expenditures, as well as the need to define the scientific hypotheses to be used to classify the climate impact of each budget line. This approach remains an interesting example for Venice and budget tagging could be retained as a first step by the municipality when developing its own green budgeting practice.

Prior to launching its green budgeting practice, Venice needs to define the scope of the practice and the first steps to implement it. The previous Italian environmental reporting experiences can be used as a starting point. Budget tagging could be an interesting first step since it does not initially imply major changes in terms of organisation or tools for the municipality. It must also be underlined that the French climate tagging methodology is well documented and widely shared, which facilitates its adoption by other interested municipalities.

#### Box 6.4. Green budgeting tools for evidence generation

A large set of tools and practices are available to incorporate a green perspective into budget processes, both at national and subnational levels. The first step in green budgeting is to gather evidence on how climate and environmental impacts and objectives are taken into account in the budgetary decision-making process. The following is a non-exhaustive list of green budgeting tools that can be used to generate evidence about the climate and environmental impact of expenditure and revenues:

- **Green budget tagging:** a method of classifying budget expenditure according to its environmental and/or climate impact. This tool is widely used in France (for tagging climate expenditure) among regions, departments, and municipalities.
- **Environmental or climate impact assessments:** can be applied to individual budget programmes, measures, or even to the entire budget itself, and can vary with regards to the scope from purely carbon dioxide emissions to biodiversity impacts as well. Methodologies have been developing over the last decade at both the national and subnational levels.
- **Ecosystem services pricing (including carbon pricing):** putting a price on environmental externalities, such as greenhouse gas emissions, often through taxes and emissions trading systems, to facilitate achievement of environmental and climate goals. According to the World Bank's Carbon Pricing Leadership Coalition, 27 subnational governments (including cities, states and regions) are using carbon pricing through emissions trading system or carbon taxes.
- **Adding a green perspective to spending reviews:** Green spending reviews consider the extent to which ministries and governmental agencies can transition to net-zero emissions and environmentally sustainable operations. Similarly, some governments carry out reviews of their environmentally harmful subsidies and tax expenditures, although this seems to be less developed among subnational governments.
- **Adding a green perspective in performance setting:** when performance budgeting is used, this involves integrating performance objectives related to regional or local environmental and climate goals.

Source: OECD (2020<sup>[17]</sup>), *Paris Collaborative on Green Budgeting: OECD Green Budgeting Framework*, <http://www.oecd.org/environment/green-budgeting/>; OECD (2020<sup>[18]</sup>), *Inventory of Building Blocks and Country Practices for Green Budgeting: The OECD Framework for Green Budgeting*, OECD, Paris.

*Green budgeting processes must rely on a municipality's environmental and climate programmatic documentation and targets*

The city of Venice's strategic objectives in terms of sustainable development and protection of the environment are summarised in Mission 9<sup>11</sup> of its single programming document (DUP), and include four operational objectives valid for a three-year period. These objectives are also detailed in municipal action plans, such as the executive management plan and its attached performance plan.

The municipality's climate objectives, covering both mitigation and adaptation actions, are presented in the Sustainable Energy and Climate Action Plan (SECAP), reviewed in 2021, which gives a roadmap for the municipality to achieve carbon neutrality by 2050.

Tagging the climate impact of expenditure and revenue would help Venice to estimate the contribution of its budget to the achievement of its climate and environmental targets set out in its DUP, SECAP, and other programmatic documentation. For instance, the municipality may question the coherency of each expenditure item with its 2050 carbon-neutrality goal and with its 2030 intermediary target. Likewise, an analysis of the existence of climate adaptation measures consistent with Venice climate risk and vulnerability assessment (an evaluation carried out by the municipality with the support of CO.RI.LA, a consortium for co-ordination of research activities concerning the Venice lagoon system) could also be checked.

The first step for Venice in developing its own green budget practice is thus to define the environmental and climate priorities to be measured and the key performance and follow-up indicators to be monitored. A step-by-step green budgeting methodology that gradually expands to include all of the municipality's various environmental and climate objectives is a realistic solution. Given the municipality's acute vulnerability to climate change, it is foreseeable that Venice's green budgeting practice initially focuses on climate adaptation and mitigation concerns.

**Figure 6.3. Municipal budget programme documentation**

<b>Programmatic lines</b> ( <i>Linee programmatiche</i> )	Mayor's programme presented to the municipal council	Start of the term
<b>Programmatic single document</b> ( <i>Documento unico di programmazione – DUP</i> )	Three-year programme, annually approved by the municipal council ( <i>consiglio comunale</i> ) → Strategic section (SES, for the mandate) → Operational section (SeO, three-year period of the provisional budget)	31/07 (adoption)  15/11 (update if necessary)
<b>Provisional budget and attached supplementary note</b> ( <i>Bilancio di previsione + Nota Integrativa</i> )	Three-year financial forecasts approved by the municipal council ( <i>consiglio comunale</i> ) → For each of the three DUP SeO years → Resource allocation between programmes and activities → Supplementary note: explanatory report on the <i>bilancio</i> content + complementary data unavailable in accounting documents	31/12
<b>Executive management plan</b> ( <i>piano esecutivo di gestione</i> ) <b>Performance plan</b> ( <i>piano della performance – PdP</i> )	→ Gestione: objectives assigned to each responsibility center manager (objectives/indicators/targets) → PdP: resource allocation between programmes and activities (human, material, financial)	Within 20 days of budget approval

Source: Servizio programmazione e controllo di gestione (2020<sup>[19]</sup>), *Relazione sulla performance e referto del controllo di gestione 2020*, Servizio programmazione e controllo di gestione, Citta' di Venezia.



### ***An official project launch at a high political and administrative level gives the necessary priority to a green budgeting project***

At this point in time, Venice has not implemented any green budgeting practices. Formally launching such a practice needs confirmed support from both political and administrative officials to bring the necessary impetus to the project and allow personnel to free up the necessary time and resources to work on the project.

An official start, including the validation of a project organisation report by the local political authority and an internal and external high-level communication is needed to give the necessary priority to the project.

The project organisation report should include information on:

- The project scope: what is expected from green budgeting, which tools would be used, what perimeter (the entire budget or just certain departments; capital and operating expenditure, or just one; etc.), and green domains would be covered;
- Who will lead the project at both the political and administrative levels;
- An implementation roadmap outlining the main stages of the project and timeline for implementing them.
- The team in charge of defining and implementing the green budgeting procedure, including a first estimate of the expected workload.
- Who the operational teams will report to on the project's progress and submit any questions regarding methodological and technical issues that may arise?

Political responsibility can be a direct prerogative of the mayor or the official in charge of environmental and climate issues, but in either case the representative in charge of the budget must also be directly involved and a real stakeholder in the organisation and validation process. An analysis of existing subnational green budgeting practices identified in the stocktake in Chapter 3, showed that the technical manager of a green budgeting practice can be either an administration's general manager or a joint task shared between the high-level personnel from the departments of environment and budget.

Venice indicated that the project could be promoted by the counsellor in charge of the environment and co-ordinated by the Director of Territorial Development and Sustainability as project leader. With a strong political mandate, the project leader would be in position to ensure the transversal collaboration of all municipal departments to be involved in the project.

### ***Green budgeting needs the widespread involvement of municipal department personnel***

When this case study was proposed to the municipality by the OECD, city officials at both the political and administrative level expressed real interest in developing a green budgeting practice. Key administrative officials from various departments including the budget, mobility, public works, and environment departments, have been involved in the strategic reflections on green budgeting opportunities, under the supervision of the municipal counsellor in charge of the environment, urban planning and private construction.

*The budget and environment departments are essential to a green budgeting practice*

In light of the financial and organisational constraints the municipality already faces, which have been exacerbated by the response to the COVID-19 pandemic, there is a need for any green budgeting exercise to have a light project organisational structure that does not create a significant additional burden on staff, particularly those in the budget department. The green budgeting experiences conducted in other countries, especially in France, showed that, at least for the early stages of the project, transversal working

groups limit the individual additional burden and help to spread awareness of environmental and climate issues among different administrative departments.

Although though various administrative departments are called upon to manage environmental and climate issues, and must therefore participate in the green budgeting approach, the strong involvement of the Department of Environment remains necessary as well as that of the Budget Department and the management control team. One-off assistance, such as trainees or consulting services, can be considered, however, a green budgeting practice needs to be internalised to last over time and to contribute to ensuring internal personnel have the capacity and know-how to integrate climate and environmental issues into budgeting procedures.

An important consideration for Venice in developing its own green budgeting practice is the human and financial cost of such a project. However, no precise public evaluation of the workload is available and such a calculation might not be relevant since it depends on the project scope, on the data availability and the external methodological support that can be found (such as I4CE in France). The municipality thus has to make its own calculation and adjust the project initial scope to its internal and external available means

In this regard, insights can be drawn from other subnational green budgeting practices. For instance, in France, the region of Brittany's first assessment of the climate adaptation and mitigation impact of its 2020 closed financial accounts consisted of analysing approximately 27 000 budgetary lines. An initial analysis of the closed accounts took approximately six months; however, the region estimates that nine months were needed to construct a robust methodology. A team of 12 people, including six trainees working full time under the supervision of six main operating managers (including finance and environment), carried out the initial analysis. More information on Brittany's green budgeting practice is presented as a case study in Chapter 5 of this report.

Another example includes the municipality of Paris, which developed its green budgeting practice in collaboration with the think tank I4CE. A project team primarily made up of staff from the Department of Finance, piloted the climate budget tagging methodology on the city's 2019 closed accounts. To enlarge the scope of the project to the mandate multiannual investment plan, the government departments (specifically financial correspondents, those who work in a department but liaise with the Department of Finance) have been solicited (through training actions and temporary working groups) to validate or complement the project team works.

The municipality of Venice has indicated that, considering the current workload of their internal personnel, it would be essential for them to have external support to launch a green budgeting exercise and that they would therefore also need to find financing for the project.

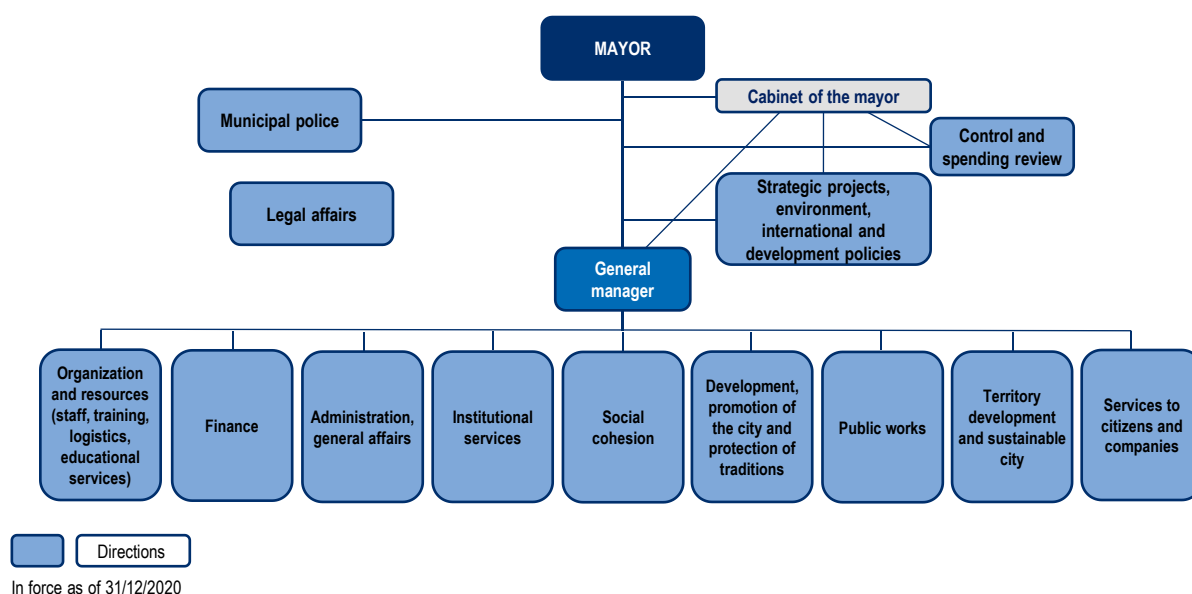
#### *Main operational teams in term of expenditure can help developing a green budgeting methodology*

Municipal departments whose policy areas indirectly or directly relate to the environment (i.e. city parks, transportation, or urban planning) as well as those departments that represent a significant portion of city expenditure should be involved in Venice's green budgeting project. Identifying all these departments and ensuring they are included first requires analysing the municipality's main expenditure flows.

In 2020, Venice's total expenditure amounted to EUR 710 million, of which approximately 80% was current expenditure and 20% capital expenditure (Citta' Di Venezia, 2020<sub>[20]</sub>). This distribution is comparable to previous years despite a 4,6% decrease in expenditure between 2019 and 2020, due to the COVID-19 pandemic. Moreover, this distribution shows the necessity of including current expenditure, and not just capital expenditure, within the scope of an analysis of the climate and environmental impact of expenditure. Ready-made classification methodologies are less developed for current expenditure.

Municipal accounting and reporting systems give detailed information on Venice's expenditure that can be analysed by nature (personnel, taxes, goods and services), by department (see Figure 6.4 for the municipal organisational chart), by budget missions (health, justice, transportation, etc.) and cost centres. Detailed expenditure information can also be gathered through budget programme descriptions and individual management objectives that are attributed to each department director. Some environmental and climate-related programmes and objectives are attached to Mission 9 (sustainable development, protection of the territory and the environment) while others are managed by other departments and through other missions. Crossing these different entry points provides interesting information on the destination of an expenditure item.

**Figure 6.4. Municipality of Venice organisational chart**



Source: Servizio programmazione e controllo di gestione (2020<sup>[19]</sup>), *Relazione sulla performance e referto del controllo di gestione 2020*, Servizio programmazione e controllo di gestione, Citta' di Venezia.

It should be noted that since 2018, Venice has implemented a new management software (SGOV, management system for objectives and evaluations) which has enabled better data cross-referencing by integrating the entire financial cycle (programming-reporting-evaluation of objectives) into a single IT interface. The municipality's accounting software is also being replaced.

A breakdown of Venice's 2020 current expenditure by nature shows that about 63% of it concerns the acquisition of goods and services which are fees that mainly benefit the casino (despite a huge decrease in 2020 due to the pandemic) and the transportation and waste services (Box 6.5). Another 19% is related to staff expenditure (Figure 6.5).

### Box 6.5. The City of Venice Group

In 2020, Venice had direct or indirect control over 20 companies which formed, together with the city, the City of Venice Group. Three groups make up the larger municipal group:

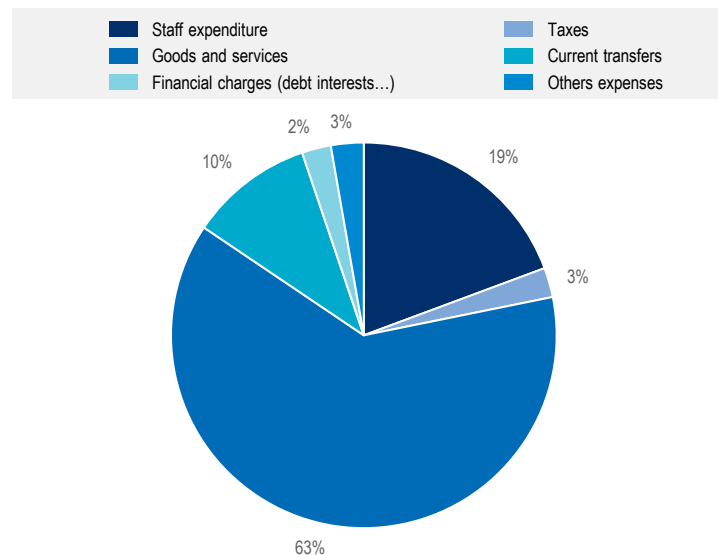
- The mobility group with AVM S.p.A (100% controlled by the city of Venice) which controls Actv S.p.A. (public transport) and Vela S.p.A. (tourism promotion of the city).

- The casino group with CMV S.p.A. (100% controlled by the city of Venice) which has full control over the Casino di Venezia Gioco S.p.A. (casino management and related activities).
- The Veritas S.p.A. group with Veritas S.p.A. as the main company and several controlled entities operating in water services, waste management, and other complementary services.

Other companies, directly controlled by the municipality are contractors for services such as the management of municipal pharmacies, school catering, information systems, and more.

Source: Citta' Di Venezia (2020<sub>[21]</sub>), "Relazione sulla performance 2020".

**Figure 6.5. Breakdown of Venice's current expenditure: 2020**



Source: Citta' Di Venezia (2020<sub>[21]</sub>), *Rendiconto 2020, analisi dei dati economico finanziari*, <http://www.comune.venezia.it>, (accessed on 15 September 2021).

Three-quarters of current expenditure falls under four departments: the Department of Strategic Projects, Sustainable Development, Environment, and International Policy, the Department of General Resources (which includes human resources and educational services), the Department of Citizen and Business Services, and the Department of Finance (Citta' Di Venezia, 2020<sub>[20]</sub>).

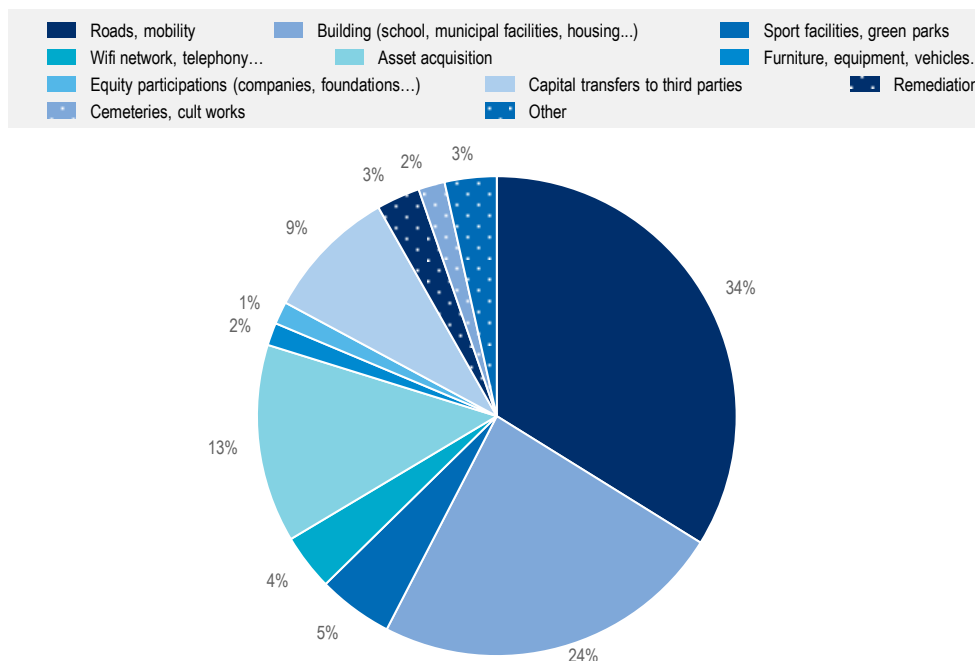
Capital expenditure includes assets acquisition (3.5%), debt capital repayment (4.8%), and equipment (greater than 90%) (Figure 6.6). One-third of equipment expenditure concerns roads and mobility while about a quarter concerns buildings and 13% concerns asset acquisition (Citta' Di Venezia, 2020<sub>[20]</sub>).

The Public Works Department accounted for more than half of Venice's capital expenditure in 2020 while the Department of Administrative Services and General Affairs accounted for 13%.

When appointing a team to develop and implement green budgeting, Venice should ensure that its makeup mirrors the broad distribution of expenditure across municipal departments, cost centres, and activities in order to be sure to include personnel who best understand and can define the impact of the municipality's expenditure. The municipality mentioned that the Director of Territorial Development and Sustainable City could be the green budget project co-ordinator and with the support of an external consultant, they could define a transversal working group composed of personnel from the budget, environment, urban planning, public works and mobility departments.

The technical database aspect of the project linked to the collection and processing of budget data should not be neglected either.

**Figure 6.6. Breakdown of Venice's capital expenditure in 2020**



Source: Citta' Di Venezia (2020<sup>[21]</sup>), *Rendiconto 2020, analisi dei dati economico finanziari*, <http://www.comune.venezia.it> (accessed on 15 September 2021).

### ***The project schedule depends on the project's scope and first steps***

At the national government level, the two most common green budgeting tools are green budget tagging and *ex ante* environmental cost-benefit analyses (OECD, 2021<sup>[22]</sup>). The stocktake carried out in Chapter 3 of this report is a first attempt at understanding what green budgeting tools are commonly used by subnational governments. Given the large number of subnational governments in the OECD and EU alone, this is a complex task and the results of the stocktake remain non-exhaustive. However, it is possible to discern that green budget tagging, environmental expenditure reviews, and environmental and climate cost-benefit analyses are green budgeting tools commonly used at the subnational level. However, it seems that the most common green budgeting practices are also budget tagging, sometimes limited to investment plans tagging (favourable and harmful expenditure), environmental expenditure reviews and investment cost-benefit analysis. Most existing subnational green budgeting practices focus on analysing the climate adaptation and mitigation impact of the budgets, and analyses of other environmental impacts (e.g. biodiversity, water and air pollution) remain limited for the moment.

#### *Green budgeting should gradually cover the complete budget process*

Green budget tagging or other evidence generating tools can be applied to draft budgets and investment plans (*ex ante*) as well as to closed accounts (*ex post*). However, as green budgeting is a decision-making tool, it is particularly useful when used *ex ante*, for example in preparing annual or multi-annual budget forecasts (for instance on the *bilancio di previsione*).<sup>12</sup>

Green budgeting can also be applied to closed accounts (for instance on the *rendiconto sulla gestione*) to measure the progress being made towards achieving the municipality's green commitments. An analysis of favourable and unfavourable expenditure within closed accounts can be used to develop a preliminary methodology that can then be extended to include the draft budget and investment forecasts.

Ideally, a green budgeting practice should cover expenditure and revenues, and apply to both current and capital expenditure. In some existing green budgeting practices, to simplify the initial stages of the project, an expenditure threshold was used for the analysis to reduce the number of budget lines that needed to be examined. Furthermore, as mentioned previously, many existing practices do not include revenues in their initial green budgeting practice as they are more complex to analyse and there is limited existing documentation on how to do so.

Venice could consider starting its green budgeting by analysing the draft municipal budget and Executive Management Plan (*piano esecutivo di gestione*), which sets out the financial resources that are assigned to managers. This plan is more granular than the draft budget and helps with understanding it.

### *The definition of a realistic timeline depends on the available means*

To launch a green budgeting practice, an appropriate timeline must be defined. Given that green budgeting inherently requires significant engagement from the budget department, it would be very challenging for them if a green budgeting process directly overlaps with the regular budgetary process. In this regard, Venice informed the OECD that an eventual green budgeting practice could not start during the budget approval period which takes place during the last quarter of the year.

In the event that Venice chooses to use green budget tagging as part of its green budgeting practice, a choice should be made as to whether the methodology should be developed on the 2021 *rendiconto sulla gestione* (closed accounts) or on the 2023 *bilancio di previsione* (draft budget). The experiences of other municipalities (especially in France) showed that an initial budgetary analysis using green budget tagging can be realised in a relatively short period – about six months at most from the project launch to the release of a green budget. It is important to note that these French experiences mainly focused on climate budget tagging, which is just one possible step in a green budgeting process. Moreover, French subnational governments also benefited from having budget tagging methodological guides available to them, including one developed for the national government budget and one developed specifically for municipal budgets.

The municipality of Venice expressed interest in developing a green budget tagging methodology to apply to its three-year draft budget.

### ***Revenues are usually set aside in the first stages of a subnational green budgeting approach***

Among existing subnational green budgeting experiences, revenues are commonly not included within the scope of the practice, considering the generally limited room for manoeuvre that local and regional governments have regarding their revenue source and the difficulty for subnational governments to adjust revenues according to environmental criteria when they are mainly designed to balance their spending responsibilities.

Green revenues can be defined as:

- Revenues (taxes or assimilated such as fees) based on a physical unit that has a proven negative impact on the environment or climate (e.g. energy taxes, transport taxes, pollution taxes). These kinds of revenues normally have an impact on consumer behaviour and their tax bases decrease as the efficiency of the tax improves.

- Revenues that are created or targeted toward the environment or climate-related projects such as green bonds or loans, but also environmental subsidies or special purpose taxes (which have no environmental impact but finance environment or climate-related projects or actions).

Even for local governments with no room for manoeuvre regarding their revenues, a green budgeting process can include a revenue analysis component. This analysis can help them to measure the coherency of their revenues with their environmental policies and the municipality perspectives in that field.

### *Venice's revenue resources are mainly current revenues*

The financial resources Venice needs to cover both its administrative expenses and its expenses for the provision of services to citizens mainly come from current revenues such as taxes or fees (83%). These are complemented by capital revenues (12%) and loans (5%) (Corte di Conti, 2021<sup>[23]</sup>).

Taxes are Venice's main source of revenue; in particular the IMU<sup>13</sup> and TASI<sup>14</sup> (municipal property taxes which have been merged in January 2020), TARI<sup>15</sup> (a municipal tax financing the cost of waste collection and disposal services), IRPEF<sup>16</sup> (a municipal additional personal income tax), and tourist taxes.

The TARI is the main source of tax revenue for Venice (roughly 30% total tax revenues in 2020) (Citta' Di Venezia, 2020<sup>[20]</sup>). This tax is managed by the municipal-owned enterprise, Veritas, and finances the costs of waste collection and disposal services. TARI does not include an incentive part; in Italy, municipalities that have put in place systems for measuring the quantity of delivered waste delivered can charge a fee instead of the tax.

IMU-TASI is the second largest source of tax revenues for Venice (about 27%) (Citta' Di Venezia, 2020<sup>[20]</sup>). Several IMU tax exemptions have environmental purposes in order to promote energy efficiency or anti-seismic building renovation measures, solar panel installations, and electric vehicle charging points.

In normal circumstances, the tourist tax (implemented by Venice in 2011 on tourists' overnight stays) represents more than 10% of Venice's total tax revenues; however, the amount of revenue generated by this tax drastically decreased in 2020 due to the COVID-19 pandemic. In Venice, most tourist visits are day trippers who are not covered by the tourist tax and have reduced consumption in the city, but they generate a large part of the environmental damages or costs incurred by the municipality. Currently, the municipality is considering putting in place an entrance fee, variable according to the number of visitors, that would be requested from tourists and excursionists to ensure the maintenance and safety costs of the historic city and islands. It would be collected by public and private transport companies and repaid to the municipality. The tourists that are staying in Venice, who already pay the tourist tax, would be exempt.

National and regional transfers are the second largest source of municipal revenues in Italy (in particular a part of the national income tax attributed to municipalities). In the case of Venice, about 65% of the transfers it received in 2020 came from the national government (but this amount nearly doubled in 2020 due to extraordinary crisis transfers) and for 34% from the region, to finance local public transport.

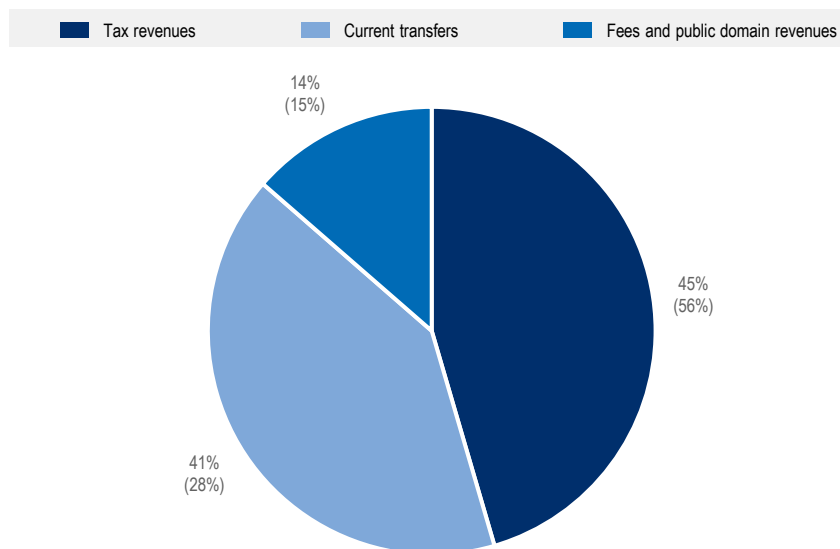
Italian municipalities also generate revenue from public services pricing such as school canteens and buses, sports activities, real estate management (rentals), and fines (traffic violations, building code violations, etc.). In the case of Venice, services and property revenues mainly come from transportation, such as passes for the limited traffic zones and payments from the Venice transportation company. In the years leading up to 2020, the municipality was trying to increase its sources of revenues as well as total revenues by combatting tax evasion recovery and boosting income from marine navigation, transport tickets, and tourist taxes.

Municipalities in Italy can also sell real estate, receive state or regional grants and contributions for investment purposes, and generate income resulting from financial assets sales or debt recovery.

Loans and bond issuances can complement investment revenues. For the last few years, Venice has implemented a debt reduction policy and therefore new borrowing is limited. The main part (67%) of the municipality's outstanding debt is made up of bonds issued on the international market.

The COVID-19 pandemic affected the structure of Italian municipal revenues and the Italian government intervened to safeguard the liquidity of the sectors most affected by the crisis, such as the tourism and hospitality sectors. Local tax exemption measures were introduced and additional resources have been allocated to municipalities to cover their loss of revenue.

**Figure 6.7. Venice's structure of current revenues compared to the national average**



Note: Percentage in brackets = national average.

Source: Authors' elaboration based on Corte di Conti (2021<sup>[23]</sup>), *Corte dei Conti, Relazione sulla gestione finanziaria degli enti locali, Comuni, Province e Città metropolitane (national average), Esercizi 2019-2020*.

### *Environmental taxes might develop in the future at national and local levels*

Tax reform is one of the components of the “National Recovery and Resilience Plan” issued in January 2021 by the Italian government. This reform has several stated objectives including to “review the environmental tax system so that it contributes to the goals of Agenda 2030” (Senato della repubblica/Camera dei deputati, 2021<sup>[24]</sup>). Some changes could occur over the next few years that would specifically concern municipalities, such as a reconfiguration of the TARI in the form of tariffs, which might be considered, thus giving incentives for a more responsible use of public and environmental resources.

The COVID-19 pandemic also had an impact on taxation, since the legislature introduced local tax exemption measures for the sectors most affected by the crisis (in particular, the tourism and hospitality sectors). Resources have been allocated to municipalities to compensate them for the loss of revenues.

### **Sharing methodologies and practices at the national level enables economies of scale**

Environmental and climate concerns should be integrated into Venice's budgeting process in the same way, and at the same time, as the municipality's other concerns, such as economic or social concerns. Green budgeting is thus most successful when it is carried out as an internal procedure to be defined within and by the municipality. But to ensure there is sufficient project buy-in, the city must also rely on recognised



scientific hypotheses,<sup>17</sup> shared green budgeting practices, and all internal and external stakeholders must have knowledge of climate and environmental issues as well as the methodology.

*The use of taxonomies helps to create a robust and agreed upon scientific basis*

The use of existing sustainable taxonomies to define the scientific hypotheses that underlie a green budgeting practice can help to ensure the objectivity of the exercise and the robustness of the assumptions. It also responds to the necessity of a common language on what constitutes a sustainable activity that positively contributes to achieving environmental and climate objectives. A robust and shared classification system can also help to give the necessary transparency to the green budgeting practice and to better orient financial flows toward green activities.

Several recognised sources of information are available, mainly created, until now, for financial investments or the labelling of green bonds.<sup>18</sup> For instance, the EU Taxonomy for Sustainable Activities classifies activities having a positive contribution to six environmental objectives.<sup>19</sup> The entry point for the taxonomy is the classification of an activity based on economic sector using the NACE system.<sup>20</sup> Although the EU taxonomy is primarily designed for private investors, it can also be useful for subnational governments when analysing, for instance, the destination of their transfer or their equity investments expenditure but also for their own activities since the taxonomy covers important sectors such as transport, water, waste, building.

The EU taxonomy doesn't cover all activities that fall within regional and municipal government competences and in some cases, it is not precise enough to be of direct use, but it is a robust starting point; all the more so since this taxonomy covers six green objectives, includes basic social criteria, integrates transition activities and, as a result, has inspired many national classification initiatives.

Other green budgeting reference documents defined at national or international levels can be used, but they should be based on recognised scientific sources and be publicly available.

*Sharing methodologies ensures the robustness and recognition of practices*

While working to update its SECAP, Venice identified several potential sources of technical and scientific support, for example through the C40 Connecting Delta Cities (CDC) network<sup>21</sup> and other C40 initiatives, but also on local matters with research groups such as the CORILA<sup>22</sup> consortium. The municipality also identified additional support from EU sources such as the LIFE programme Veneto ADAPT, which encouraged networking between central Veneto metropolitan cities, municipalities and inter-municipal co-operation bodies, in order to develop replicable climate change adaptation methodologies and operational tools. Other methodological support can come from private or public organisations working on climate and environmental issues (universities, think tanks, etc.).

An analysis of existing subnational green budgeting practices showed that green budgeting methodological issues are both complex and relatively similar from one municipality to another. There is therefore a real interest in pooling the work and solutions at the national level, for instance through associations of local and regional elected representatives. In Italy, the National Association of Italian Municipalities (ANCI – *Associazione Nazionale Comuni Italiani*) could be brought on board to help create a national network of municipalities working on green budgeting. Think tanks and academics can also be involved in the process.

Joining a municipal network that is already actively working on disseminating green budgeting or participating in the creation or mobilization of such network could help Venice to launch its own green budgeting project and maintain the practice over time.

*Regular training of internal personnel on environmental and climate issues is essential*

Green budgeting is a framework to link decision-making to scientific knowledge. It is thus essential to share the objectives and methodology of a green budgeting practice internally with all personnel involved in the budgeting process, both at the decision and implementation levels. This requires having meetings to share knowledge and technical know-how. Working groups can also be helpful, on the one hand to ensure there is a common understanding of the mechanisms and issues and on the other hand so that the procedures put in place are feasible from an operational point of view.

Sharing information and undertaking frequent training sessions are both important steps to take in order to stay up to date with technological and climate science developments and avoid making decisions that could create technological lock-in for the municipality.

**Defining a green budgeting method requires a robust validation process**

A green budgeting process and methodology must be well-documented to ensure their robustness and their viability over time. The green budgeting approach must also be audited, ideally both externally and internally, periodically to ensure it remains up-to-date. The scientific hypotheses used to classify the impact of expenditure should be reviewed regularly, in light of scientific progress and the evolution of climate risks.

Venice's programming and control department could take charge of the internal auditing process.

**Communication on the results is an essential part of a green budgeting process**

Both internal and external communication are important aspects of a green budgeting practice. Communication on the results and the methodology are not regulatory requirements as green budgeting is a voluntary approach, but it is crucial to be transparent on the process in order to associate all territorial actors in the process and to credibly show the municipality's trajectory over time.

**Box 6.6. Venice's green budgeting methodology is still to be developed**

Venice's green budgeting practice is still to be developed by the municipality. The project's scope must be defined to choose which municipal departments, municipal enterprises, and third-party contractors should be included in the process, on what documents the analysis could be carried out, and which environmental and climate axes the municipality will cover. This scope can and should be scalable. A team, made up of at minimum the budget and environment departments must also be formed. The project's schedule will depend on the scope and on the size of the team available to work on the project, but it must be sufficiently ambitious and realistic and it must assume that green budgeting is not a one-off experience but a long-term change in the budget processes.

The methodology must also be specified. To analyse the environmental and climate impact of its expenditure, the municipality should rely on existing taxonomies and try to find support among researchers within think tanks, municipal associations, and universities to combine efforts and give more weight and visibility to the process.

Communication on the methodology and the results of the green budgeting process is very important as green budgeting is the fiscal aspect of a green transition. It goes together with the other issues (economic, social) the municipality must deal with and conflicts of interest may arise. Green budgeting thus includes a territorial analysis of the effects of the green transition on local stakeholders, especially the most vulnerable societal groups.

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## Notes

<sup>1</sup> The [Paris Collaborative on Green Budgeting](#) was launched in 2017, by the OECD and the governments of France and Mexico during the One Planet Summit. The PCGB develops concrete and practical guidance to help governments at all levels embed their climate and environmental goals within their budget frameworks.

<sup>2</sup> SEREE is an environmental accounting developed by Eurostat in 1994. This model aims to determine, define and quantify the economic actions undertaken by a community to protect the environment. The SEREE provides data on environmental expenditure, on the actors and sectors that make this expenditure and on the outputs of the activities aimed at protecting environment (Eurostat, 1994<sup>[7]</sup>).

<sup>3</sup> A subsidy is a measure that keeps consumers prices below market levels, keeps prices for producers above market levels or reduces costs for producers and consumers, through direct or indirect support.

<sup>4</sup> OECD methodologies such as Quickscan (developed in 1998, a tool designed to help policy makers to identify and explore alternatives to solve problems), Checklist (developed between 2003 and 2005, an integrated assessment tool), Integrated framework assessment (2007), Driving Force-Pressure-State-Impact-Response; Environmentally Harmful Subsidies reform tool (2009) for the European Commission.

<sup>5</sup> LIFE programme is the EU's funding instrument for the environment and climate actions through annual calls for proposals.

<sup>6</sup> The municipalities of Ferrara (project lead), Bergeggi, Castelnovo ne' Monti, Cavriago, Grosseto, Modena, Pavia, Ravenna, Reggio Emilia, Rovigo, Salsomaggiore, Varese Ligure and the provinces of Bologna, Ferrara, Reggio Emilia, Modena, Naples and Turin.

<sup>7</sup> UNESCO changed its position after the municipality prohibited the largest and most polluting boats to enter the Saint-Marc basin and canal as well as the Giudecca canal. These boats will have to moor in the industrial port of Marghera, where new infrastructure is being developed.

<sup>8</sup> The Joint Research Centre (JRC) is the European Commission's science and knowledge service. The JRC employs scientists to carry out research in order to provide independent scientific advice and support to EU policy.

<sup>9</sup> SECAPs are the new version of SEAPs, to incorporate climate change considerations.

<sup>10</sup> APAT (*Agenzi per la protezione dell ambiente e per iservizi tecnici*) was the Italian Environment Protection and Technical Services public agency. It has been replaced (together with other environmental public bodies) by the Italian Institute for Environmental Protection and Research ISPRA (*Istituto Superiore per la Protezione e la Ricerca Ambientale*) in 2008. The Institute acts under the vigilance and policy guidance of the Italian Ministry for the Environment and the Protection of Land and Sea (*Ministero dell'Ambiente e della Tutela del Territorio e del Mare*).

<sup>11</sup> Mission 9 covers sustainable development and protection of the territory and the environment.

<sup>12</sup> *Bilancio de previsione* refers to a prevision and authorisation of the municipality's expenditure and revenues for the coming year.

<sup>13</sup> IMU: *Imposta Municipale Propria* (Unique municipal tax).

<sup>14</sup> TASI: *Tributo per i Servizi Indivisibili* (Tax for indivisible services).

<sup>15</sup> TARI: *Tassa sui rifiuti* (waste tax).

<sup>16</sup> IRPEF: *Imposta sul reddito delle persone fisiche* (personal income tax).

<sup>17</sup> The hypothesis used to assess whether an expenditure is favorable or unfavorable to a given environmental or climate objective.

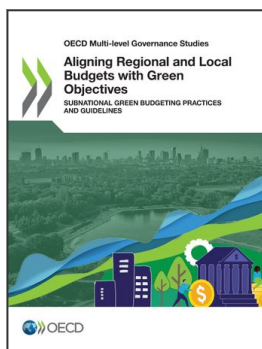
<sup>18</sup> For instance, the Climate Bonds Initiative published a taxonomy of climate aligned assets and projects a tool for issuers, investors, governments and municipalities to help them understand what key investments can deliver a low carbon economy.

<sup>19</sup> The six environmental objectives of the EU taxonomy are: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, waste prevention and recycling, pollution prevention and control, and protection of healthy ecosystems (EC, 2021<sup>[25]</sup>).

<sup>20</sup> NACE is the “statistical classification of economic activities in the European Community” and stands for “*Nomenclature statistique des activités économiques dans la Communauté européenne*”

<sup>21</sup> CDC is a network of delta cities active in the field of climate change related spatial development, water management, and adaptation, in order to exchange knowledge on climate adaptation and share best practices that can support cities in developing their adaptation strategies. The purpose of the network is to share innovative adaptation among its members.

<sup>22</sup> CORILA: *Consorzio per il Coordinamento delle Ricerche Inerenti al Sistema Lagunare di Venezia* (consortium for co-ordination of research activities concerning the Venice lagoon system).



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