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PART II: State of play of green finance practices and good practices in European Regions

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GOVERNANCE

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PART II: State of play of green finance practices and good practices in European Regions

After building up an inventory of the EU sustainable finance regulatory framework, accompanied with a selection of national and regional legislative frameworks and initiatives regarding GreenGov topics, **a "good practice" criteria grid** was dressed up based on regulatory requirements and market practices observed (**presented in Appendix 4**).

Indeed, Part 2 of this initial study aims at identifying green finance "good practices" in order to **provide concrete illustrations and replicable examples** of GreenGov topics implementation in European regions. As a reminder, Interreg Europe Programme[1] defines a "good practice" as an initiative related to regional development policy which has proved to be successful in a region and which is of potential interest to other regions.

The methodology involved gathering insights from European regions' feedback based on a predefined sample (presented in Chapter 1) to **create a structured inventory of good practices**, that is both informative and practical (presented in Chapter 2.3). Besides the good practices, and to the extent possible, the project also tried to identify the **main patterns, as well as the challenges encountered** by regional and local authorities in the implementation of GreenGov topics (presented in chapter 2.1 et 2.2).

Chapter 1: Methodology and approach for the initial survey on green finance practices in European regions

To collect the information, the work was both **based on a survey** conducted by the GreenGov project among 12 of European national, regional and local authorities, as well as **on publicly available information on the topics and surveyed stakeholders**. In the end, **11 answers** were received. In addition, public sector experts from Natixis Green and Sustainable Hub[2] were interviewed to collect their view on the implementation of sustainable finance instruments by public authorities (including regions).

1.1. Scoping work of European regions for the initial survey

The selection of 10 European regional and local authorities for the survey was done considering:

- The geographical distribution of regions,
- The coverage of all GreenGov topics, and

[1] Good practice template can be found on Interreg Europe Programme website.
[2] Natixis GSH website: https://gsh.cib.natixis.com/

- To the extent possible, their recognition in green finance fields / specific GreenGov topics, on desk-based research.

In addition, **two national authorities** were selected due their particular advancement in green finance practices: The **Swiss Confederation** on the one hand, regarding the issuance of green bonds, and **Lithuania** on the other hand, for the implementation of the EU green Taxonomy and the DNSH principal (cf. table 1 below).

The table 1 below introduces these 12 public authorities picked for the initial survey, to which were sent questionnaires made for the present GreenGov initial study. It also elaborates on the reasons for selecting them.

Table 1: National, regional and local authorities selected for the initial survey

GreenGov topic	Focus cases identified during the desk-based research
EU Taxonomy and DNSH implementation	**Lithuania [national authority]:** **Governance:** A pivotal aspect of Lithuania's Strategy and Action Plan is the **creation of a coordinating body for the sustainable finance ecosystem**, the Green Finance Institute. The Ministry of Finance has initiated a working group that brings together various public and private financial stakeholders to identify the most pressing challenges and find suitable solutions to advance sustainable finance in Lithuania. **EU Taxonomy implementation**: The Lithuanian Strategy and Action Plan on sustainable finance[3] provides for the following recommendations: - Launch consultations and draft clarifications for both private and public stakeholder regarding EU Taxonomy usability, - Extend the disclosure requirement of Taxonomy-aligned activities to legal entities which apply for financing from public funds, including Recovery and Resilience Fund (RRF) and other EU funds while implementing the National Progress Plan (NPP), - Define eligible assets for such bonds as any loan financing activities compliant with the EU's Taxonomy. **South Moravian Region:** DNSH and climate proofing are gaining more visibility in the Czech Republic. Starting October 1st 2024, three organizations (Charles University in Prague, Czech Globe, and the Czech Hydrometeorological Institute) have begun working on software to address these topics. South Moravian Region was picked to try to illustrate the level of advancement of the EU Taxonomy and the DNSH principle's implementation at regional level.
Climate proofing of infrastructure	**Autonomous Province of Trento (Italy): Governance**: Although this newly established process requires more time, the regional government of Trentino has initiated a transformative method for shaping the Region's

[3] Lithuania's Strategy and Action Plan, 2021. Available here.

	climate strategy in 2021. The strategy outlined in this study was developed through a multi-level cooperative process, guided by a methodological framework based on recommendations from the European Commission and the European Environment Agency (EEA), provided through the EU Mission Climate Adaptation Platform Climate-ADAPT and its Regional Adaptation Support Tool (RAST), designed to assist regional authorities in adaptation planning (see the good practice n°6 explained in Appendix 6). **Mazovia Region (Poland):** The Mazovia Energy Agency is part of an Interreg project for the period 2021-2027 called "Smart Management and Green Financing for Sustainable and Climate Neutral Buildings in Central Europe" (MESTRI-CE)[4]. This project **aims to develop methodology to support transposition of new EU requirements for each element in the buildings (re)construction investment process**: building standards and tools, data management, technical and economic assessment, underwriting processes, forecasting savings potential, measurement, verification and reporting.
Green budgeting practices	**City of Vienna (Austria): Governance and green budget topic**: In early 2022, the municipality **introduced a participatory budget aimed at climate action**. To achieve its goals, it created four new positions specifically to facilitate citizen involvement and build the capacity of civil servants. This effort runs alongside other complementary green measures implemented at the municipal level, such as the introduction of a climate budget.
Green and sustainable bonds issuance	**Municipality of Resita (Romania):** The Municipality has issued the first emission of green municipal bonds in Romania, in addition to have a green bond framework[5] taking into account the EU Taxonomy. It could prove good practice for similar local authorities i.e., limited access to bank loans, no previous experience in green debt, no pre-existing capacity, etc. **Wallonia (Belgium):** Wallonia's Green, Social and Sustainability Bond Framework[6] incorporates the EU Taxonomy. **Swiss Confederation [national authority]:** The Swiss Confederation first included Green Confederation Bonds in 2021 into its funding strategy. The authorities have set a "Green Bond Working Group" who carries out most of all the processes related to the issuance of green bonds, headed by the Federal Finance Administration together with the Federal Office for the Environment.

[4] MESTRI-CE project overview. Available here.
[5] Municipality of Resita, Green Bond Framework, January 2023. Available here.
[6] Wallonia, Green, Social and Sustainability Bond Framework, July 2021. Available here.

	Region Stockholm (Sweden): According to the Region Stockholm's green bond framework[7], the Region is conducting a taxonomy and DNSH implementation on a best effort basis.
Financing the sustainable transition of SMEs	**Region of Central Macedonia (Greece):** The Region of Central Macedonia is active in two Interreg European Programmes related the circular economy of SMEs: - Enhancing the Entrepreneurship of SMEs in Circular Economy of the Agri-Food Chain (SinCE-AFC), and - Circular Economy for SMEs. **Community of Madrid (Spain):** In March 2024, the regional government of Madrid and the European Investment Bank (EIB) signed a loan of 265 million euros for green, social and digital projects under its 2021-2027 European Regional Development Fund programme. In addition, it is one of the largest regions in terms of sustainable bond issuance volume in Europe. **Canton of Vaud (Switzerland):** The Canton of Vaud is very active in financing the sustainability transition of the regional ecosystem. For instance, it has launched Viva[8] in June 2023, alongside economic and regional associations, a collaborative project and platform dedicated to **facilitating the sustainable transition of regional companies**. Among other characteristics, the platform presents public fundings available for these thematic.

In addition to this scope of national, regional and local authorities, to which questionnaires were sent, the research was enlarged to **other European public authorities where good practices were identified.** Good practices that would be quoted in the inventory, observed in these out-scope authorities, are therefore fully based on publicly available information.

1.2. Initial survey questionnaires' content

The questionnaires sent to the in-scope national, regional and local authorities were all structured the same, despite tackling different sustainable finance topics. Made of about **fifteen questions**, they were structured around **three parts**:

1) **The regional sustainable finance context** and general approach to GreenGov topics, in order to grasp local legislative framework (if any).
2) **The region's experience in one specific GreenGov topic**, including its feedback on its implementation in practice, the identification of good practices, eventual challenges encountered, and solutions put in place by the Region to overcome these issues.

[7] Region Stockholm, Green Bond Framework, 2022. Available here.
[8] https://www.viva-vaud.ch/fr/a-propos/

3) **Recommendations and prospective** regarding the implementation of GreenGov topics, and more generally in the implementation of sustainable finance tools.

Among the 12 questionnaires sent, **11 answers were collected**, covering all the GreenGov topics, providing a practical view of the implementation of GreenGov policy instruments by regional authorities. Fulfilled questionnaires are available in **appendix 5.**

However, the identification of good practices that would be thoroughly described turned out to be more difficult than expected, due to the rather **limited information provided in the answers collected**. Therefore, the project had to deepen the good practices identified or quoted in the questionnaires with publicly available information.

The identification and analysis of existing practices and lessons learned tried to be done on the basis of the "good practice" criteria grid previously introduced (see the introduction of Part II of the study), **reflecting both on existing "good" practices, and on the main challenges** around the application of the different GreenGov topics.

Chapter 2: Survey feedback and identification of "good practices" among European regions

2.1. General comment regarding the level of appropriation of sustainable finance instruments by European regions

Talking about public authorities' level of appropriation of sustainable finance instruments, in particular the EU Taxonomy, the implementation of the DNSH principle, the issuance of green bonds and climate proofing of infrastructures, public sector experts from Natixis Green and Sustainable Hub observe that *"while awareness is growing, there is still significant room for improvement in the understanding and implementation of these critical sustainability concepts among public authorities. There is a need for training to enhance public authorities' understanding and capacity. Partnerships with academic institutions, NGOs, and the private sector can facilitate knowledge sharing and best practices"*.

This analysis of the state of the market for public actors reflects quite well the feedback collected from the GreenGov initial survey. The answers provided by the Regions and national authorities were very heterogeneous, reflecting different level of appropriation of sustainable finance instruments and the EU regulatory framework.

Motivations for implementing sustainable finance instruments

Regions are using sustainable finance tools for various reasons, whether on a mandatory or a voluntary basis. While the DNSH principle is mainly implemented to comply with **regulatory requirements** (Common provisions Regulation for the 2021-2027 period), the issuance of green and/or sustainable bonds and the implementation of a green budget will more often seek to **help achieve national climate objectives**.

Challenges observed in the implementation of sustainable finance instruments

One of the main challenges in implementing sustainable finance instruments lies in the **availability and quality of the data** required for accurate assessments, which is exacerbated by **limited resources and**

expertise needed to navigate these frameworks efficiently. This is true for the effective implementation of the EU Taxonomy and the DNSH principle, but also to the European Commission climate proofing analysis as well as the issuance of green and sustainable bonds.

Additionally, the process of **gathering and managing information is often complex, involving multiple stakeholders across different sectors** (e.g., dealing with both finance and climate/environment departments of the Region for the establishment of a green budget or to issue a green bond). Each stakeholder may adhere to distinct data reporting standards, timelines, and methodologies, complicating the consolidation of information necessary for effective reporting.

Also, the frameworks sometimes turn out the be very complex. For instance, one of the main challenges in implementing the EU Taxonomy lies in its **complexity**, often leading to misunderstandings and making it difficult to apply the DNSH principle effectively.

Finally, when it comes to supporting the transition of regional SMEs, despite the existence of regional financing and funding tools, **administrative burden for SMEs** (the collection of climate-related data for instance) is preventing them from applying is an obstacle. This constitutes a challenge for regional authorities as they try to lighten these burdens and enhance SMEs' access to sustainable finance instruments.

Impact on regional governance

However, overall, the implementation of sustainable finance instruments has proved to **enhance the regional governance context.** One of the key benefits is the **promotion of multi-stakeholder** involvement, which encourages collaboration among local communities, businesses, and environmental organizations. In addition, authorities have often established **dedicated bodies** to oversee the implementation of these frameworks, ensuring rigorous evaluation and adherence to established standards (for instance, the DNSH Division for the Recovery and Resilience Plan in Spain (see good practice n°3), or the green bond committee in Wallonia).

This observation is supported by Natixis Green and Sustainable Hub public sector experts, whose comment regarding the issuance of green and sustainable bonds is that ***"this process often necessitates collaboration across various government departments, promoting interdepartmental coordination and a more integrated approach to policy implementation.*** *Moreover, green bond initiatives typically include community engagement efforts, raising public awareness and support for sustainability initiatives. Overall, these frameworks lead to a governance model that is more responsive, inclusive, and effective in addressing environmental and social challenges."*

Finally, the sustainable finance tools, such as the EU Taxonomy, provide a clear set of criteria for evaluating projects, which **enhances accountability and transparency**.

2.2. Key findings regarding the implementation of GreenGov topics

1) Feedback and observations regarding the implementation of the EU Taxonomy in European regions

[The authorities asked about this topic were: **Lithuanian national authorities** and **the South Moravian Region**]

Practices observed:

The EU Taxonomy is regarded as a leading standard for classification and reporting by public actors, increasingly anticipated and requested by investors. It enhances the credibility, transparency, and comparability of products, facilitating the identification and promotion of top-tier practices.

In practice, public sector experts from Natixis Green and Sustainable Hub (GSH) observed that *"many public authorities are becoming increasingly familiar with the EU Taxonomy as it is critical for aligning investments with sustainability goals. However, the depth of understanding can vary, with some authorities having a solid grasp of the taxonomy's requirements, while others only having a surface-level awareness. […] Authorities are* ***beginning to incorporate the Taxonomy's Technical Screening Criteria for substantial contributions*** *(DNSH is less used) in specific sectors into their policies (urban planning, economic recovery, sustainability plans, etc.). Out of the 6 European environmental objectives,* ***almost only the Climate Change Mitigation is used.***

This is often seen in investment plans or sustainability strategies where authorities aim to track their progress in aligning with EU goals. While many authorities are addressing climate objectives of the EU Taxonomy, ***they may not fully consider other environmental objectives*** *(biodiversity, water quality, etc.). This reflects a more climate-centric approach that prioritizes immediate decarbonization over broader environmental concerns."*

This is in line with the results of the GreenGov survey, from which the application of the EU Taxonomy seemed to vary significantly across regions, often being implemented **in a segmented or partial manner** i.e., using parts of its whole framework. Used on a voluntary basis, some regions for instance incorporate the **EU Taxonomy** into their bond issuances. According to the Platform on Sustainable Finance[9], *"public issuers are gradually aligning bond allocations with the EU Taxonomy on a voluntary basis. Public actors issued over 40% of green bonds with assurance in the EU, 90% of them referenced the EU Taxonomy (source: Bloomberg)".* However, the alignment is often done on a best effort basis, reflecting flexibility in the integration of this tool (e.g., Region Stokholm green bond framework[10]). Many regions, such as Wallonia, only demonstrate the substantial contribution to the **EU Taxonomy objectives** into their frameworks, and **do not integrate the DNSH principle**, which has proved more difficult to implement.

However, despite being partially implemented, the EU Taxonomy can also be used as an **assessment tool** in the context of green bonds issuance. For instance, the Community of Madrid, despite making no reference to the EU Taxonomy in it Sustainable Finance Framework, **has assessed its 2021 green bonds use of proceeds against it** to evaluate if it is aligned or not (good practice n°2).

Some regions seem to also employ **alternative methodologies** integrating the "spirit" of the EU Taxonomy, namely the fact to qualify the contribution to one environmental objective while minimizing the impact on other environmental stakes. For instance, the South Moravian Region uses a methodology based on **environmental impact assessment process**, further compliance with local plans, and **delineation that the project does not encroach on protected areas**, when evaluating investments projects for operational programmes (i.e., Integrated Regional Operational Programme[11]) and under sustainable public procurement.

[9] Platform on Sustainable Finance (PFS), Compendium of Market Practices: How the EU's Taxonomy and sustainable finance framework are helping financial and non-financial actors transition to net zero, 2024. Available here.
[10] Region Stokholm, Green Bond Framework, 2022. Available here.
[11] Integrated regional operational programme 2021-2027, General rules for applicants and beneficiaries. Available here.

Challenges & solutions reported:

Finally, it has been specified in the questionnaires that one important challenge **lies in the regulatory instability of the EU Taxonomy**, with alignment-criteria begin regularly updated[12], and **the confusion surrounding its mandatory** application (the Taxonomy Regulation and its delegated acts are used, but they are not equally mandatory in different regulatory contexts, such as in regional funds enforcing the use of the DNSH principle). These factors can hinder smooth and consistent project evaluations under the DNSH principle, both from project promoters and evaluators sides. In Lithuania, sustainable finance tools' implementation, including the use of the EU Taxonomy, has led, in the spring of 2024, the Green Finance Institute to **establish a working platform** (Sustainable Finance Forum) for professionals in different sectors in order to identify relevant problems and collaborate in findings solutions together.

2) Feedback regarding the implementation of the transversal Do Not Significant Harm principle (DNSH)

[The authorities asked about this topic were: **Lithuanian national authorities** and **the South Moravian Region**]

Practices observed:

Natixis GSH public experts have also observed that the *DNSH principle is often less understood [than the EU Taxonomy] due to the many requirements it sets out and reference to EU regulation, which often requires specialized knowledge to be interpreted. Some authorities may struggle to fully comprehend its implications, especially in assessing projects' environmental impacts. Training and guidance are essential to improve knowledge in this area. We can observe a lack of data when it comes to demonstrating DNSH compliance in extra financial document".*

This observation also aligns with feedback collected from the GreenGov survey on the implementation of the DNSH principle. It seems like it is not applied with the criteria provided in the EU Taxonomy, but following the EC technical guidances on implementing the DNSH under certain funding programmes. The DNSH is in this way more used as **an exclusion criterion** when evaluating **projects**. Overall, for EU Structural Funds and Recovery and Resilience Facility (RRF) projects, DNSH evaluations are **based on the DNSH technical guidance for the Recovery and Resilience Facility[13].** These guidelines structure the assessment to ensure compliance with the DNSH principle.

Besides the selection of funded projects under the European Regional Development Fund (ERDF) programmes, DNSH can also be used in other regional policies. In South Moravian Region, the "spirit" of the (environmental) DNSH principle is **integrated within the regional framework of responsible public procurement**. The framework encourages the use of renewable energy sources, economical use of water, reduction of raw material consumption, and minimisation of environmental impacts. DNSH is also partially integrated through the **Region's strategic environmental assessment (SEA)** process for investment projects and strategic documents at the regional level.

Challenges & solutions reported:

[12] For instance, the 2021 Climate delegated act has been amended in 2023. The 2023 is available here.
[13] EC, Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation, 2021. Available here.

Feedback on the implementation of the DNSH has nevertheless underlined several **challenges in the implementation** of the DNSH at regional and national level.

First, regions like the South Moravian Region, rely heavily on national legislation for advancing DNSH compliance and acknowledge that **national regulatory frameworks must be adapted to meet evolving EU requirements**. In addition, the Region underlines the **need for practical guidance** (examples of good and bad practices) on the DNSH principle, as many regions struggle with practical implementation. For instance, the Walloon Region has created a section dedicated to the implementation of the DNSH on its website, with documentations aiming at informing both the implementing authorities and project owners (Good practice n°5). A 2023 Trinomics work on drafting a methodology for the application of the DNSH principle at the national level in Czechia[14] supports this feedback, and especially identifies the **development of efficient *ex-ante* screening methodologies**, as well as to put **boundaries to the assessment** (when is it compliant? when is it not?) as a huge issue. One solution can be to define sectoral implementation guidelines, as suggested by good practice n°4.

Additionally, despite the Trinomics work provides that establishing efficient and **transparent governance systems for implementing the DNSH principle** is a challenge itself (technical consultations with Member States were led by Trinomics), it eventually allows to **minimise the administrative burden** and ensure the **consistency of DNSH assessments** across authorities (e.g., good practice n° 3 introduces the creation of a DNSH division for the Recovery and Resilience Plan in Spain).

Finally, as formalized by Lithuanian authorities in the GreenGov questionnaire, one of the major challenges is the **lack of consistency in how DNSH principles are applied** across different EU funding sources. For example, different requirements are applied for the same type of investments (e.g., infrastructure or transport) depending on the funding source (e.g., EU investment programs implemented by Regions vs. Recovery and Resilience Facility at national level). To overcome this issue, the Lithuanian authorities also suggest in their feedback that the DNSH principle should be **applied in a harmonized manner for all funding sources** with the right balance between added value and excessive administrative burden, as the DNSH evaluation is not necessarily relevant for all investments in every economic sector.

Governance impact:

Regarding the impact on public authorities' governance, Lithuanian authorities mentioned **positive governance impacts** related to the implementation of the DNSH. They have reported that he implementation of the new rules regarding the DNSH principle required **active involvement of the Ministries of Finance and Environment**, allowing to create a tight network of public servants working in this field. The South Moravian Region has estimated it was still **too early** to assess the full impact of DNSH implementation, as the process is in its initial stages.

The good practices related to the implementation of the DNSH (n°3 and 4) were documented in the above-mentioned 2023 Trinomics work, which has made a benchmark of good practices at national level regarding the implementation of the DNSH principle. These good practices have been reported in this study as they can be considered as replicable at regional level.

[14] Trinomics, Methodology for the application of the DNSH principle at the national level in Czechia, Report on the existing practices - application of DNSH principle by EU peer Member States, 2023. Available here.

3) Feedback regarding the implementation of the regulation relating to the Adaptation of the infrastructures to climate change

[The Regions asked about this topic were: the **Autonomous Region of Trento** and **Mazovia]**

Practices observed:

The general observation of Natixis GSH public sector experts is that *"Public authorities generally recognize the importance of climate-proofing infrastructure to mitigate risks associated with climate change. Some agencies have yet to fully integrated climate resilience into their planning processes. Fostering increased collaboration, providing training, and enhancing access to tools can effectively bridge potential existing gaps between regions".*

From a methodological standpoint, the GreenGov initial survey revealed that the Autonomous Region of Trento implements the European Commission's methodology on the climate proofing of infrastructure[15] . However, the Region has adopted a mixed approach (Good practice n°6), enabling the Region to better grasp all project's climate hazards at local level.

Challenges & solutions reported:

The Autonomous Region of Trento related that the Climate Proofing approach however has significant **administrative burden**, especially for local communities. In particular, the main challenge encountered by the Region is said to be **the collection of data** for local climate change "long-term scenario", in order to fulfill the infrastructures' exposure analysis, as required by the 2021 EC notice. In addition, the Region considers the National Climate Change Adaptation Plan (PNACC) is not useful enough for exposure mapping at regional level.

To overcome this challenge, the Environment Agency of Autonomous Province of Trento is working with the University of Trento in order to carry out the scientific **feeds and studies on climate change future scenario. They also jointly draft the regional Climate Change Adaptation Plan,** which should be the best policy instrument to understand regional climate adaptation long-term scenario – and should be reportedly adopted by the end of year 2024. Until then, the main regional climate mitigation policy instrument was the **Environmental Provincial Plan on Energy (PEAP)** (see good practice n°7). As explained by Natixis Green and Sustainable Hub experts in their interview, *"Addressing [the adaptation of infrastructure to climate change] challenges requires targeted efforts in capacity building, stakeholder engagement, and* ***supportive regulatory frameworks to foster effective governance*** *in the face of environmental and climate challenges".*

Effects & governance impact:

Indeed, according to the Region's feedback, it seems like the **policymaking governance** involved new stakeholders, as the regional Climate Adaptation Plan is being jointly drafted with the University of Trento.

[15] EC, Technical guidance on climate-proofing of Infrastructures in the period 2021-2027, 2021. Available here.

Regarding otherwise the effects observed by the Autonomous Region of Trento in implementing the EC climate proofing analysis, the Region considers that the Climate Proofing approach is helpful in order to **identify major climate hazards at an early stage and on a local scale**.

4) Feedback regarding the integration of green budgeting principles into budgetary exercises

[The Region asked about this topic was: the **City of Vienna**]

Extensive research and literature are available on green budgeting. The practices and challenges highlighted in the City of Vienna's feedback could thus be greatly supplemented with publicly accessible reports and information.

Practices observed:

As introduced in Part 1 of the study, green budgets are not uniform, and there is no one single definition when it comes to practice. For instance, the European Commission in its 2023 green budgeting survey[16] said that is has, for the purpose of the survey, "relied on a narrow definition of green budgeting as it considers as green budgeting practices: (i) **green budget tagging**, (ii) ***ex-ante* environmental impact assessments**, and (iii) ***ex-post* environmental evaluations**". This illustrates the broad understanding and therefore the different ways of implementing green budgeting in the EU.

One first observation regarding green budgeting practices is that this constitutes a policy instrument mostly **used to help achieve climate targets**. For instance, since 2020, the City of Vienna has a climate budget attached to its estimate of expenditure, aiming at foreseeing all crucial measures **necessary to fulfil Vienna's climate targets** (climate neutrality and climate-resilience by 2040) that lie within the City's competence as Municipality and Federal Province. Both, climate targets and the climate budget as instrument of implementation are foreseen to be enshrined in Vienna's Climate Law, currently under public consultation (questionnaire feedback). 2022 OECD stock take on green budgeting practices at subnational level in EU countries[17] supports this feedback. It reveals that **most current green budgeting practices focus primarily on climate change adaptation and mitigation**, with less emphasis on wider environmental goals such as biodiversity, water quality, and air pollution. It also highlights that there is no universal approach to green budgeting.

Green budgeting can both **arise from a voluntary initiative**, as it is the case in the City of Oslo (see Good practice n°8), or **in response to legal obligation**, as for France for local authorities starting in 2025[18].

A range of innovative practices is emerging among subnational governments (see the above-mentioned 2022 OECD study for details), including some practices that combine green budgeting with other priority budgeting approaches, such as **SDG budgeting, social budgeting, and gender budgeting** (see Good practice n°11).

Challenges & solutions reported:

[16] EC, Key insights from the 2023 European Commission survey of green budgeting practices, 2023. Available here.
[17] OECD, Aligning Regional and Local Budgets with Green Objectives, 2022. Available here.
[18] French Decree of 16 July 2024 issued in application of article 191 of law no. 2023-1322 of 29 December 2023 on finance for 2024. Available here.

The City of Vienna however mentioned three main sources of challenge related to the implementation of green budgeting:

- With **resource and time constraints**, expected climate effects of submitted projects could not always be reviewed/verified for plausibility in depth in the past.
- Regarding the methodology, taking into account **delayed mitigation effects** of climate action when **coupling** the City's climate budget with the financial planning cycles and evaluating their potential costs and benefits (both, monetary & non-monetary) across time, turns out to be difficult.
- Finally, timing climate policy planning with different budgetary planning cycles of the **administrative body and other public bodies** belonging to the City of Vienna is not easy.

On this basis, the City of Vienna recommends that regional authorities should take the time to **build a shared basis of understanding and transparent goals among key stakeholders** (financial department and climate/sustainability department). As an interdisciplinary topic, green budgeting requires both, finance administration and climate administration to work together synergistically. As a long-term investment, the City of Vienna considers **the development of competences and staffing resources** internally as key.

Effects & governance impact:

Regarding green budgeting impact, the OECD report highlights that **green budgeting is most effective when combined with other tools available to subnational governments**, such as regulatory policies and environmental planning instruments.

In addition, Vienna's feedback made clear that the implementation of a green budgeting **has advanced the up-build of climate-related coordinative structures** across different administrative bodies/resorts on the administrative and political level. It also helped **mainstreaming of the topics of climate relevance and non-financial impacts of expenses** within the administration and in public regarding the political communication along the budgeting process.

5) Feedback regarding sustainable debt management and, in particular, the emission of green and sustainable bonds

[The Regions asked about this topic were: **Wallonia**, the **Region Stockholm**, the **Swiss Confederation,** and the **Municipality of Resita**]

Practices observed:

In the context of the interview conducted for the initial survey with Natixis Green and Sustainable Hub (GSH)[19], they observed that *"**there is a growing interest in green and sustainable bonds among public authorities, particularly as they seek financing for climate-related projects**. Authorities may face challenges in understanding the criteria for eligible category green bonds, ensuring compliance with standards, and effectively communicating the benefits to stakeholders. Capacity-building initiatives and collaboration with financial institutions can enhance public authority knowledge and better prepare them in accessing the sustainable finance market".*

[19] Natixis GSH website: https://gsh.cib.natixis.com/

Regarding the GreenGov survey's results, European regions exhibit common features regarding the issuance of green and sustainable bonds. Most regions adhere to the **International Capital Market Association (ICMA) standards**, ensuring compliance with established global frameworks for sustainable finance. Regarding the format, green and sustainable bonds are being issued. When it comes to the format, Green would predominant (41%) among Sovereign, supranational and agencies (SSA), explains the public sector experts from Natixis GSH, with a significant growth of the Sustainability (33%) and Social (24%) formats over the past five years. Sustainability-Linked and Transition transactions are less common (1% each).

Both Wallonia and the Region Stockholm, questioned on their green and/or sustainable bonds frameworks, said drivers for issuing was to promote environmentally responsive policymaking, and to **help achieve national climate commitments or goals**. While some regions incorporate the **EU Taxonomy** into their bond issuances, this alignment is often done on a best effort basis, reflecting flexibility in the integration of this tool (e.g., Stokholm). Many regions, such as Wallonia, only demonstrate the substantial contribution to the **EU Taxonomy objectives** into their frameworks, and do not integrate the DNSH principle. However, it seems like these regions are seeking to progressively integrate the EU Taxonomy in a more comprehensive way, even sometimes to **prepare for potential EU Green Bonds Standard (EUGBS) issuance** (e.g., Region Stockholm).

Challenges & solutions reported:

One of the main challenges in issuing green and sustainable bonds are on the one hand the **identification of all eligible expenditures**, and on the other hand, the **complexity of information sharing,** and **data collection** as underlined by Wallonia. Many contacts and meetings are required, but inadequate sharing of information on eligible expenses (e.g., for reporting their impact) hinder the development of a structured process. Collecting both **budgetary and environmental impact data** is described as particularly difficult, exacerbated by frequent changes in contact points and the fact that expenditures often involve numerous sub-projects. The granularity and **complexity of regional budgets** further complicate the task of gathering reliable environmental impact data.

Both the Swiss Confederation and Wallonia authorities therefore underlines that **stakeholder engagement** throughout the process is essential, including market participants. The Region recommends having **clear process in place**, enabling to explain the process to any new person involved, to overcome the frequent change of **points of contact.** In addition, proper monitoring and a **strong understanding** of the green and/or sustainable finance framework also help facilitate the issuance of sustainable, green, and social bonds. In that sense, the Swiss Confederation authorities recommend **not to set too binding goals** in sovereign green bond frameworks as standards and requirements are evolving quite fast.

Effects and governance impact:

One observation is that green and sustainable bond elaboration process leads to **collaboration** between regional and local stakeholders. It can thereby **strengthen** (if no already existing process in place) **sustainable governance** and the development of contact procedures. In addition, both Wallonia and the Swiss Confederation have a **dedicated body** to monitor the issuance of green and sustainable bonds. Finally, the Region Stockholm explains that green bonds allow the Region to get **lower funding costs.** However, regarding the impact on spending and on the financing of more environmenetal projects, it seems like it can vary significantly from one region or country to another. While the Region

Stockholm has issued all debt in green format for twos years, in Switzerland, issuance of sovereign green bonds **has very little impact on the number of impacting projects** financed by the Confederation.

6) Feedback regarding the implementation of innovative financing tools to support the sustainable transition of regional SMEs

[The Regions asked about this topic were: **Central Macedonia**, the **Canton of Vaud**, and the **Community of Madrid**]

Practices observed:

Financing tools for the sustainability transition of regional SMEs are arising in varying forms in European regions. Based on the answers collected through GreenGov questionnaires, key findings on their practices include the existence of **dedicated tools for SMEs**. These have the following patterns:

- **The use of integrated approaches**, as European regions seem to make use of **a combination of financial tools** (green bonds, as the Community of Madrid (Good practice n°13); co-financing; public grants or public loans, etc.) and **non-financial support** (technical assistance, mentoring, etc. as displayed in good practice n°14) to help SMEs transition to sustainable practices.
- **Certain measures focus on simplifying demonstrative burden and administrative processes for SMEs.** Making efforts to reduce bureaucratic hurdles to help SMEs access to sustainability programs.
- **Public-private collaboration/engagement with private sector** in policy instruments implementation, so as to grasp best the SMEs ecosystem and to enhance the effectiveness of financing tools, particularly in innovation-driven projects.

Challenges & solutions reported:

The main challenges observed is on the one hand the administrative burden for SMEs, related to **paperwork** (bureaucratic burdens). Public grants must be correctly **audited** and require the provision of **many documentations** which sometimes proves **overwhelming for SMEs** and entails outsourcing to bigger consultancy companies. In addition, **low awareness among regional SMEs about sustainable finance opportunities** is brought forwards, as well as **the regulatory barriers** slowing down the adoption of green technologies. Overall, the **gap between the initial policy and the final implementation** is therefore presented as a challenge to overcome.

Consistency between regional, national, and European **policy frameworks** seems essential for the effective implementation of financing tools for regional SMEs. The different answers collected among regions also highlight that **support beyond financing is key to support SMEs** i.e., non-financial assistance, particularly as they navigate complex regulations and new technologies. For instance, the Community of Madrid has created a "**line against hyper-regulation**" (available here), so anyone can relay hyper-regulation issues. On the other hand, the Region of Central Macedonia has focused on **increasing awareness about sustainability and simplifying the application process for SMEs.** Through a better coordination between the authorities and the entities that are able to affect the policy instruments, more specific calls for SMEs should follow, filling the gap between the theory and the final implementation.

<u>*Governance impact:*</u>

The Region of Central Macedonia admits that financing tools and policies have a dominant role in supporting the **sustainable transition of SMEs**. Therefore, the Region as well as the Regional Development Fund of Central Macedonia authorities have **participated to a lot of European projects** on the periods 2014-2020 and 2021-2027, that aim to develop these supporting policies. This experience allows them to say that *"the policy enhancing process (including the choice in financing tools) needs the **contribution, both from the law-making authorities**, but also from **stakeholders and enterprises** that are already informed and have their sustainable plan".*

2.3. Good practices identified

Building on the previous work of grasping European regions' practices in sustainable finance, and in particular in the implementation of GreenGov subjects, the project was able to identify **16 good practices**.

Theses good practices reveal a **strong emphasis on transparency, stakeholder engagement, and structured governance**, designed to inspire and guide other European regions. The practices highlighted provide not only successful case studies but also frameworks that demonstrate the feasibility and **benefits of integrating sustainable finance into regional policies**. Their replicability and alignment with EU standards make them valuable resources for regions striving to implement sustainable finance practices.

Table 2 below lists the 16 good practices identified. **In appendix 6 can be found all good practices identified, with their description.** Also, four good practices "factsheets" have been provided in the same appendix.

Based on the identification work of the above-mentioned 16 good practices, it was possible to classify them by **typology, effect and potential of replicability**.

The good practices identified broadly fall into three typologies:

1. **Structured governance and frameworks**: Several practices focus on establishing specific governance structures and framework to enhance sustainable finance implementation. Examples include Spain's DNSH Division (**Good practice n°3**), as well as Oslo's climate budgeting framework designed to fit into the Region's annual budgetary process (**Good practice n°8**). This also includes practices such as awareness plans, made to monitor the implementation and involve staff at all levels, such as the Andalusian awareness plan (**Good practice n°11**). Finally, this typology of good practice can also be shaped into dedicated frameworks for specific topics,

Table 2: List of good practices identified	
N°	**Title of the good practice**
N°1	EU Taxonomy assessment of Region Stockholm's green bond framework
N°2	EU Taxonomy alignment assessment of the Community of Madrid's green bonds use of proceeds
N°3	A DNSH Division for the Recovery and Resilience Plan in Spain [national practice with potential for regional replication]
N°4	A sectoral approach to DNSH principle implementation for investments in buildings in Slovakia [national practice with potential for regional replication]
N°5	A dedicated section for the DNSH on the Walloon website, including a Q&A on the implementation of the DNSH
N°6	The adoption of mix approach regarding the adaptation of infrastructure to climate change in the Autonomous Region of Trento
N°7	Participatory process for the elaboration of the Environmental Provincial Plan on Energy (PEAP) in the Autonomous Region of Trento
N°8	Oslo's climate budget elaboration process and communication on it
N°9	A participatory budget for climate action in the City of Vienna
N°10	Sustainable public procurement set of criteria in the South Moravian Region
N°11	Annual gender budgeting "Awareness-raising Plans" in Andalusia
N°12	Elaboration of project sheets for funded projects by green and social bonds
N°13	A dedicated section for SMEs in the Community of Madrid's Sustainable Finance Framework
N°14	A digital platform in the Canton of Vaud to support entrepreneurs' transition to a sustainable economy
N°15	A Catalogue of Best Practices in circular economy [national practice with potential for regional replication]
N°16	The elaboration of a co-crowdfunding guide to promote the crowd funding of SMEs in Central Macedonia *(not yet implemented)*

as embodied by the financing section for SMEs in the Community of Madrid's Sustainable Finance Framework (**Good practice n°13**).

2. **Methodological tools and technical assessments**: Practices in this category offer structured approaches to sustainability, often through technical guidance or methodological frameworks. Examples include Region Stockholm's EU taxonomy assessment of its Green Bond Framework and Community of Madrid's use of proceeds assessment (**Good practices n°1 and 2**), and Slovakia's sectoral guidelines for DNSH in building investments (**Good practice n°4**).

3. **Stakeholder engagement and information**: Many practices emphasize transparency and engagement with stakeholders to promote sustainable practices. This can take the form of information sharing, with the example of by Wallonia's dedicated section on the implementation of the DNSH, addressing both the administration and project owners (**Good practice n°5**), Canton of Vaud's digital platform to support entrepreneurs' transition, fed with information for local stakeholders (**Good practice n°14**), and the projects factsheet made by Wallonia to inform on the projects funded with green bonds (**Good practice n°12**). This can also be shaped by participatory processes, like the participatory budgeting for climate actions in Vienna (**Good practice n°9**), and the Autonomous Community of Trento's elaboration process of the Environmental Provincial Plan on Energy (**Good practice n°7**).

Regarding their implementation aim, overarching purposes of these good practices are to **enhance credibility and transparency**: by integrating transparency measures and external reviews (as seen with Region Stockholm and Community of Madrid's green bonds), these practices seek to build investor trust and public confidence. They also look to **optimize resource use and impact**, with many of them ensuring that funds allocated for sustainable purposes achieve the maximum environmental and social benefits pursued. Examples include the sustainable public procurement criteria in South Moravia, which optimize resource efficiency and environmental impact (**Good practice n°10**), and the drafting of a climate adaptation hazard mapping in Trento alongside the implementation of the EC guidance on climate proofing[20] (**Good practice n°6**).

Overall, the good practice identified enhance the **empowerment of local stakeholders,** with several practices focusing on empowering citizens, local economies and SMEs by providing financial support or facilitating sustainable practices, such as Madrid's sustainable finance framework dedicated section for SMEs, or Canton of Vaud's digital platform to provide financial and non-financial support for entrepreneurs' sustainability transition. This also goes with the promotion of **inclusivity and local ownership:** the participatory budgeting model in Vienna, as well as the participatory process for drafting climate-related strategy in Trento, underscore a trend toward inclusivity, allowing civil society and local stakeholders to participate directly in climate action planning.

Why these good practices can be a source of inspiration for European Regions?

Overall, the good practices identified in this initial study exhibit substantial potential to positively influence regional integration of sustainable finance tools and enhance governance by:

- **Setting replicable standards and demonstrating success**: These practices serve as benchmarks for success, with proven impacts (for most of them) and displaying frameworks that can be adapted by other regions. For instance, the climate budgeting model from Oslo and the

[20] EC Technical guidance on climate-proofing of Infrastructures in the period 2021-202, 2021. Available here.

participatory process in Vienna offer replicable models of inclusive and sustainable governance (observed in other regions).

- **Fostering systematic governance for sustainable finance**: By establishing structured frameworks, regions can ensure that sustainability principles are systematically applied across various sectors, which aligns with sustainable finance goals. This creates a consistent and resilient governance model that other regions can emulate.
- **Promoting long-term sustainability in financing and policy**: By embedding sustainability into financial instruments, such as green bonds with a Taxonomy review or participatory budgets, these practices ensure that funding aligns with long-term climate and sustainability goals. They help transition regions toward sustainable finance, balancing economic, social, and environmental dimensions in local and regional planning. This for example has proved successful in the Region Stockholm with lower funding costs thanks to the issuance of green bonds.

Conclusion and proposals

Below have been compiled the key recommendations to implement each of the six GreenGov green finance instruments, based on the recommendations formulated by the regions who participated to the survey. These are practical recommendations, focusing on **enhancing governance, building capacity, engaging stakeholders, and fostering transparency:**

1. **Regarding the implementation of the EU Taxonomy**:
   - **Gradually adopt the EU Taxonomy for green bonds**, as recommended by the Platform on Sustainable Finance[21] regarding public issuers. This for instance can help public issuers to **prepare for the EU Green Bond Standard** (EU GBS), entering into application as of December 2024.
   - Where possible, as mentioned as a "best practice" by Natixis Green and Sustainable Hub's interview, **the demonstration of a complete alignment** of the eligible asset with the EU Taxonomy, with granular and thorough assessment of the departments beyond the funding team.
2. **Regarding the implementation of the DNSH (Do No Significant Harm) Principle**:
   - **Develop practical guidance with clear examples of good and bad practices** to facilitate regional implementation.
   - Establish efficient **internal governance systems** to reduce administrative burdens and ensure consistent DNSH assessments.
   - Where possible, **harmonize DNSH application across funding sources** for relevance and balanced effort.
3. **Regarding the implementation of the EC climate proofing analysis**:
   - Build capacity and **engage stakeholders** to support climate adaptation governance.

[21] Platform on Sustainable Finance (PFS), Compendium of Market Practices: How the EU's Taxonomy and sustainable finance framework are helping financial and non-financial actors transition to net zero, 2024. Available here.

- **Collaborate with scientific institutions** for climate scenario studies and long-term adaptation planning. This is what has engaged the Autonomous Community of Trento with the University of Trento "*in order to carry out the scientific feeds and studies on climate change future scenario and to jointly draft the regional Climate Change Adaptation Plan".*
- **Integrate climate proofing within regional policy frameworks** to prioritize resilience. Natixis Green and Sustainable Hub experts say that to address Climate proofing of infrastructure challenges, *"supportive regulatory frameworks [help] to foster effective governance in the face of environmental and climate challenges".*

4. **Regarding the implementation of green budgeting**:

- Establish a **shared understanding and transparent goals across finance and climate departments**.
- **Develop internal competencies** and allocate resources as long-term investments in green budgeting.

The two above-mentioned recommendations are supported by the City of Vienna saying in its questionnaire that *"it is a highly interdisciplinary topic drawing from two already highly transversal working areas, being finance & climate policies, which requires both, finance administration and climate administration to work together synergistically. Develop competences and staffing resources internally rather than engaging external consultants, as it is a long run, not a sprint".*

- **Take a stepwise approach**, integrating green objectives within existing budgeting frameworks for sustainability. This is mainly recommended by the OECD, working alongside the European Commission on green budgeting, which has elaborated a 6 steps approach for regional authorities to put in place and to implement efficiently a green budget[22].

5. **Regarding the issuance of green and sustainable bonds**:

- **Engage investors through investor roadshows and transparent reporting** to build trust and credibility, as recommended by Natixis Green and sustainable Hub in their interview: *"Engaging with investors is crucial. Every issuer should hold investor roadshows to communicate its GSS bond offerings to achieve successful bond sales. Furthermore, robust reporting, such as those implemented by Région Île de France, enhance transparency by providing annual reports detailing the projects funded by green bonds, which builds trust with investors."*
- **Engage internal stakeholders throughout clear documentation processes** to maintain clarity and continuity in bond issuance, and in order to implement clear monitoring and robust understanding of the Region's sustainable finance framework. Indeed, *"proper monitoring and a strong understanding of the framework also help facilitate the issuance of sustainable, green, and social bonds"* says Wallonia in its questionnaire.
- **Avoid overly rigid goals** to adapt flexibly to evolving standards and requirements, as recommended by the Swiss Confederation authorities in their questionnaire: *"We recommend not to set too detailed and binding goals in the GB framework [including because] the market is still developing, and it is unclear where it is headed in a few years or what the standard/requirements will be in the future".*

6. **Regarding the implementation of financing tools to support the transition of regional SMEs**:

[22] OECD, Aligning Regional and Local Budgets with Green Objectives, 2022. Available here.

- **Streamline application processes** for SMEs. This is supported and implemented both by the Community of Madrid and the Region Central Macedonia. For instance, the Community of Madrid has simplified "*some administrative procedures […] by involving Statements of Compliances and other similar document and limiting as minimum as possible the documents to be provides, as well as obtaining necessary data from already existing public databases within the different Administrations.*
- **Offer non-financial assistance** (e.g., regulatory guidance, technology support) to complement funding. This for instance can help SMEs to prepare for the entry into force of the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CS3D) – even though not all SMEs must report. By comparing their reporting, public authorities could for instance in the future identify the ones that could receive greater public support.
- **Enhance awareness to facilitate SME engagement** in sustainability. *"The Region of Central Macedonia has focused on increasing awareness about sustainability and simplifying the application process for SMEs. Through a better coordination between the authorities and the entities that are able to affect the policy instruments, more specific calls for SMEs […] follow, filling the gap between the theory and the final implementation".*
- Enhance **public-private collaborations** for effective support.