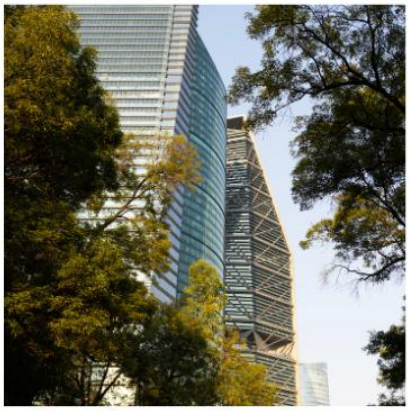
PROSPECT





Green Bonds - Learning Handbook at a Glance

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About the project

PROSPECT aims to strengthen the capacity of local and regional authorities (LRAs) across Europe to implement sustainable energy and climate actions by reducing reliance on public funding and increasing the use of innovative financing schemes (e.g., one-stop-shops, energy agencies, energy communities). The project offers a peer-to-peer Capacity Building Programme (CBP) tailored to the needs and time constraints of LRAs, available in multiple languages and structured in adaptable learning modules. Through large-scale outreach, including very small and remote LRAs, PROSPECT CUBE acts as an entry point to EU programmes and financing opportunities for authorities with limited experience in the field.

PROSPECT CUBE builds upon two successful Horizon 2020 initiatives: PROSPECT (2017–2020) and PROSPECT+ (2022–2025).

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1. About this guide

This concise guide highlights the key concepts, applications and takeaways of the full PROSPECT CUBE Learning Handbook on Green Bonds, introducing market-based debt instruments designed to finance investments with positive environmental and climate impacts. It explores how local and regional authorities (LRAs) can use them to support long-term sustainable energy, climate and infrastructure investments.

Drawing on the experience of the PROSPECT initiative and broader European practices, the publication outlines key financing arrangements, operational requirements and implementation considerations for Green Bond schemes.

1.1. What the full learning handbook covers?

The full learning handbook is structured as a learning and reference resource covering:

- The fundamentals and operational principles of Green Bonds
- Main issuance arrangements, bond types and key characteristics
- The role of Green Bonds within the broader sustainable finance ecosystem
- Benefits and added value for LRAs
- Sectoral applications and investment opportunities
- Main stakeholders and their respective roles
- A step-by-step guide to Green Bond issuance and implementation
- EU-level case studies, critical success factors, barriers and risks

It combines conceptual explanations with practical guidance and illustrative examples, helping readers identify suitable approaches for their investment needs and capacities.

1.2. Who should use the full learning handbook?

The full learning handbook is designed for both newcomers and experienced practitioners involved in energy-related investments. Developed within the framework of PROSPECT initiative, it primarily targets LRAs and energy agencies, while also being relevant to financial institutions, investors and funding bodies, public utilities, intermediary organisations, Energy Service Companies (ESCOs), consultants and project developers involved in local and regional sustainable investment initiatives.

Its purpose is to provide readers with a practical reference for informed decision-making, effective stakeholder engagement and coordinated action throughout the Green Bond lifecycle.

2. What are green bonds?

Green Bonds are debt instruments designed to finance or refinance projects with positive environmental and climate impacts. Like conventional bonds, they allow issuers to raise capital from investors, with an obligation to repay the principal and interest over an agreed period. What distinguishes them is that their proceeds are earmarked exclusively for eligible green investments, selected according to defined environmental criteria.

Their credibility is further supported by:

- Transparent project selection based on environmental criteria
- Management and tracking of proceeds to ensure proper allocation
- Regular allocation and impact reporting throughout the bond lifecycle
- External review and verification to strengthen investor confidence
- Alignment with recognised standards, including the ICMA Green Bond Principles and the European Green Bond Standard, where applicable

Unlike grants or concessional loans, Green Bonds do not inherently offer subsidised financing conditions. Instead, they provide access to capital markets while promoting transparency, accountability and measurable environmental outcomes. For LRAs in particular, they can support larger investment programmes, provided that sufficient project scale, institutional capacity and financial readiness are in place.

2.1. How do green bonds work in practice?

Green Bonds follow a structured process involving the identification of eligible projects, financial preparation, bond issuance, allocation of proceeds and ongoing monitoring and reporting. Their implementation typically involves three main phases:

- Pre-issuance preparation involving the identification of eligible investments, assessment of financing needs, development of a Green Bond framework and establishment of governance arrangements.
- Issuance and market placement involving financial structuring, external review, preparation of legal documentation, investor engagement and capital raising.
- Post-issuance management and reporting involving the allocation and tracking of proceeds, monitoring of environmental impacts and regular reporting to investors.

Depending on the issuer's profile, investment objectives and institutional capacity, Green Bonds can be structured through different issuance arrangements:

- Sovereign issuance by national governments to finance green investments.
- Municipal or regional issuance by LRAs to finance local green projects.
- Development bank-supported issuance with financial, technical or guarantee support from development banks.
- Aggregated or pooled issuance combining projects from multiple LRAs to achieve sufficient scale and share costs.
- Corporate or utility-led issuance by public utilities, municipal enterprises or corporations.
- Special Purpose Vehicle (SPV)-based issuance through dedicated entities.

Green Bonds can also take different forms, including standard green use-of-proceeds bonds, green revenue bonds, green project bonds and green securitised bonds.

2.2. Where can green bonds be applied?

Green Bonds can finance a wide range of sustainable energy, climate and environmental investments, particularly capital-intensive projects requiring substantial upfront and long-term funding. Typical applications include:

- Energy upgrades in public buildings, including heating and cooling improvements and renewable energy installations.
- Large-scale renovations in residential buildings, including energy-efficient housing and district-level retrofits.
- Sustainable mobility investments, including public transport electrification, charging infrastructure, cycling networks and low-emission fleets.
- Renewable energy and energy infrastructure projects, including smart grids and energy networks.
- Water and environmental infrastructure projects, including water management, wastewater treatment and resource-efficient facilities.
- Climate adaptation and resilience measures, including flood protection, climate-resilient infrastructure and environmental restoration.
- Integrated territorial investment programmes, combining green projects across sectors or municipalities.

Green Bonds are particularly relevant where individual projects or aggregated portfolios can demonstrate sufficient investment scale, financial viability and measurable environmental outcomes.

2.3. Why do green bonds matter?

Green Bonds offer LRAs a strategic financing instrument to mobilise long-term capital, diversify funding sources and support the implementation of sustainable energy, climate and infrastructure investment programmes. They can operate alongside grants, guarantees, concessional financing and technical assistance within broader investment strategies, offering several key benefits:

- Capital mobilisation and funding diversification by connecting local green investment programmes with institutional investors and capital markets.
- Support for large-scale and long-term investments by financing infrastructure programmes that may exceed the capacity of conventional municipal funding approaches.
- Strategic policy alignment by linking capital allocation to defined environmental objectives and local energy and climate priorities.
- Greater transparency and investor confidence through dedicated use-of-proceeds requirements, external verification and regular sustainability reporting.
- Improved institutional capacity and financial planning by encouraging stronger governance, project monitoring and coordinated long-term investment strategies.
- Market development and stakeholder cooperation by strengthening engagement among LRAs, financial institutions, investors, technical advisors and implementation partners.

Realising these benefits requires a well-prepared project pipeline, sound financial planning, strong governance and reliable environmental reporting. With these foundations in place, LRAs can strengthen investor confidence, access long-term capital and turn their sustainability priorities into tangible investments.

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