

External Review – Methodology

ICMA Green Bond Standard

Second Opinion

WaVeritas AG

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1 Introduction

There are various reasons and ways for issuers to seek external input on their green, blue, social, or sustainability-linked bond framework (referred to as ESG bonds in this brochure henceforth). Among the most widely recognized forms of external input is the *Second Opinion External Review*, particularly for green bonds issued in alignment with the ICMA Green Bond Principles (GBP).

A Second Opinion is an independent assessment conducted prior to bond issuance, evaluating the alignment of the issuer's green bond framework with established market standards. This review typically covers the use of proceeds, project evaluation and selection, management of proceeds, and reporting commitments. It provides investors with a credible, third-party perspective on the environmental integrity and ambition of the bond.

The benefits of obtaining a Second Opinion are manifold. It enhances transparency and accountability, supports investor confidence, and helps mitigate reputational and greenwashing risks. For issuers, it demonstrates a commitment to best practices in sustainable finance and can facilitate broader market access and pricing advantages.

This methodology paper outlines the principles, scope, and approach used in conducting Second Opinion External Reviews for green bonds, in line with ICMA guidelines and evolving market expectations.

2 Organization

2.1 Corporate code of conduct and values

At WaVeritas all employees and directors must adhere to the Code of Conduct and the ESG policy. WaVeritas is committed to high ethical standards in all business relationships. Our core values form the foundation of our ethical corporate culture:

- Teamwork
- Respect
- Fairness
- Openness
- Dedication
- Integrity
- Initiative

2.2 Research Code of Conduct

Employees must adhere to the Research Code of Conduct which outlines the mandatory requirements and expectations regarding integrity and ethical conduct in our work.

Among other aspects the research standard set forth the following:

- Employees must adhere to recognized international professional conduct standards for the financial industry and research work in general.
- Research work is conducted with absolute objectivity and independence as this constitutes the foundation of meaningful research work.
- Employees use the principle of reasonable basis, due diligence and care in all aspects of work.
- Employees will not engage in any research misconduct, in particular plagiarism and misrepresentation.
- Research is conducted with integrity as it reflects on the individual person, the project, the employer and the community as a whole.

2.3 Relevant experience, qualifications and credentials

The operational team in charge for the green bond assessment combines long standing relevant experience and background.

Partner research & development	Rafael Waldmeier, MSc HKUST Rafael started his career in the financial industry 18 years ago and worked with various teams in asset management and private banking internationally. Since 2010, he has enjoyed working in the area of sustainable finance, finding new solutions to link social and environmental impact with investment decisions. Before joining WaVeritas he worked with different sustainable finance research teams in RobecoSam, Notenstein Asset Management, Association of Sustainable and Responsible Investments in Asia and Invera Research and Advisory AG. Rafael graduated from the Hong Kong University of Science and Technology with a Master of Science in Environmental Sciences (thesis: robustness of environmental indicators in investment decisions). Bachelor of Science in Business Administration with major in Finance(thesis: sustainable investments in water markets). He obtained the CFA Institute Certificate in ESG investing.
ESG Research Manager	Trinh Nguyen, MSc Trinh has worked as an ESG consultant for eight years. She has experience in various projects, especially in the energy industry. Trinh helped clients in the thermal power, hydropower, waste-to-energy, and renewable energy sectors identify potential impacts and risks associated with their projects and develop actionable mitigation measures to reduce these impacts. She also ensured that the projects complied with national and international environmental and social performance requirements, such as the World Bank Group - IFC Performance Standards. In addition to her consultancy work, Trinh served as an ESG Manager for a leading renewable energy company in Southeast Asia. She worked with different teams and engaged with stakeholders, including investors, authorities, and local communities, to integrate ESG activities into the company's business operations. Trinh also implemented new ESG initiatives and aligned the company's sustainability strategy with international best practices and standards. Trinh holds a Bachelor of Environmental Science from Vietnam and a Master of Urban and Regional Planning from Australia.

2.4 Statement of independence

At WaVeritas we put clients' interests before our own and we never let personal interests influence our work and dealings with clients.

Employees must abide by the research code of conduct in which the objectivity and independence of research work is a core aspect.

WaVeritas employees and directors don't offer or accept improper gifts or payments from clients and partners. No employee may offer or grant unauthorised benefits to others in connection with business activities - directly or indirectly - either as monetary payments or other benefits. At the same time, no employee may use his or her official position to solicit, accept, obtain or be promised advantages. This does not include accepting occasional gifts of small value; other gifts must be refused or returned. The acceptance and giving of monetary gifts is generally prohibited.

The members of WaVeritas governing bodies and its employees, as well as other persons working for WaVeritas are obligated to treat customer information as strictly confidential. We keep information secure and safe and protect client's privacy rights. We are determined to handle all data appropriately and with due care.

2.5 Alignment with sustainability initiatives

In our work with clients, as well as throughout our internal processes, we aim to achieve the greatest possible alignment with international standards and practices as well as regulations. Benchmarking our work to recognized industry standards is an essential tool for us to ensure we consistently apply best-practices. WaVeritas is an active participant and signatory to several sustainability initiatives including the UN PRI, for example.

3 Methodology

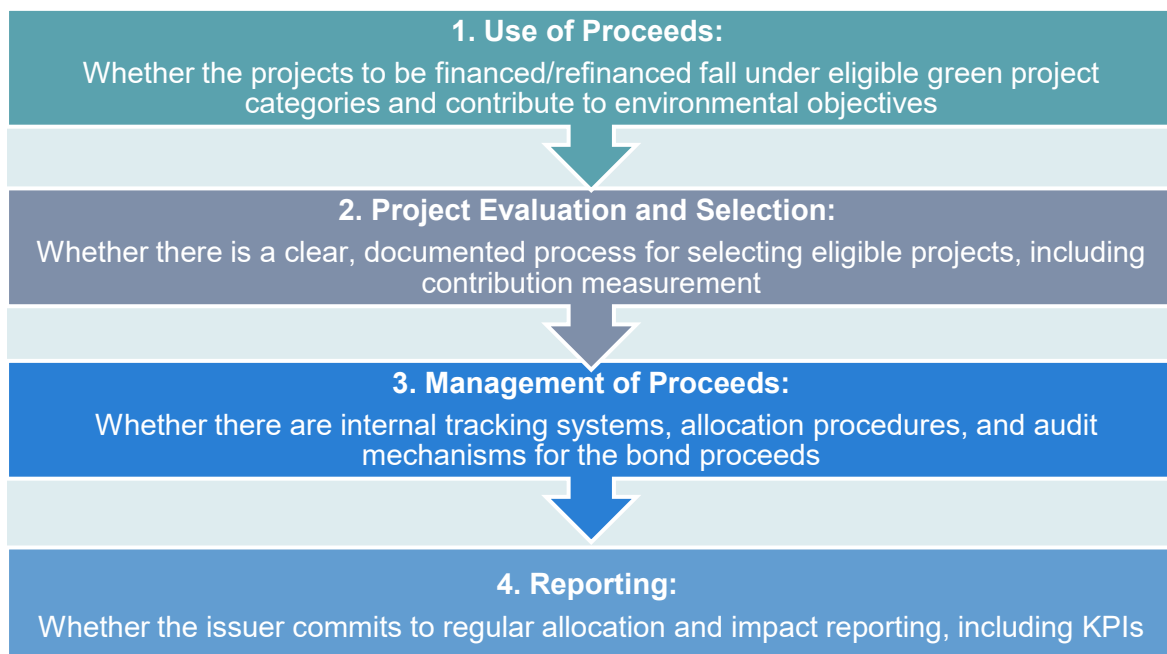
3.1 Scope and ICMA references

This chapter outlines the methodology applied by WaVeritas AG when conducting a Second Party Opinion (SPO) for green bonds in line with the “Guidelines for Green, Social and Sustainability Bonds External Reviews Principles”, issued by ICMA in June 2020. Furthermore, we reference, whenever applicable, the following additional guidance documents issued by ICMA during the process:

- “Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds (GBP)”, June 2025.”
- “Pre-issuance Checklist for Green Bonds / Green Bond Programmes”, June 2023.
- “Guidance Handbook”, November 2024
- “Green Project Mapping” June 2021
- “Handbook: Harmonized Framework for Impact Reporting”, December 2020

3.2 Core assessment structure

The core of the SPO is to assess the issues green bond framework alignment with the four core pillars of the Green Bond Principles:



3.3 Analytical and detailed process

From a more applied perspective, the SPO process references in particular the Pre-Issuance Checklist for green bonds to ensure quality, transparency, and comparability. The core stages. This checklist-based approach enables consistent assessments across issuers and sectors. The methodology aims to identify both strengths and gaps in the Framework, ensuring the environmental contribution is material, verifiable, and aligned with market expectations.

Each SPO issued by WaVeritas is based on thorough document review, issuer discussion (if needed), benchmarking, and internal sectoral expertise—ensuring consistency, credibility, and value for investors and stakeholders alike.

Particular sub-steps include:

- Initial screening of the Green Bond Framework and supporting documents
- Review of issuer materials, such as policies, environmental impact methodologies, and governance processes.
- Assessment of framework and detailed answers to assess the alignment with the 4 core principles
- Focused assessment of the environmental benefits and social/environmental risks including KPI measurability and anchoring in the process
- Audit of process documents and samples
- Strategic sustainability coherence: how well does the bond framework align with the issuer's overall sustainability journey.
- UN SDG Contribution: Optionally, we evaluate how the green bond supports the advancement of specific Sustainable Development Goals (SDGs), based on sectoral relevance and measurable environmental or social co-benefits.
- EU Taxonomy Alignment: Optionally, we evaluate the projects alignment with the EU Taxonomy.
- Offering optional post-issuance engagement for continuous alignment review

3.4 Issuance of opinion and related disclosures

Our External Review Certificate includes the assessment results and comments as recommended in the Guidelines for External Reviews. This includes the evaluation of environmental benefits & risks and the confirmation of alignment with the four pillars.

We encourage the issuers to publish the certificate on their website and to list their bond in the relevant green bond database.

3.5 Data sources

WaVeritas relies on the official recommendations, guidelines and standards published by the ICMA and information provided by the client. For aspects related to the SDG's or the EU Taxonomy, we refer to the official publication on the respective websites.

3.6 Review and Updates

WaVeritas may update the SPO if:

- The issuer's Green Bond Framework is materially amended
- There are significant regulatory or market developments
- The issuer requests a formal re-evaluation or post-issuance verification

Post-issuance reviews may include checks on allocation reporting, impact disclosure, and ongoing compliance with GBP and Taxonomy expectations. This iterative engagement strengthens transparency and enhances market trust in green finance instruments

4 Score interpretation

5	Governance structure is well setup. The impact framework covers all relevant aspects. KPI performance is good and all related information is disclosed.
4	Governance structure is well setup. The impact framework covers relevant aspects and policies are in place. KPI performance is not entirely disclosed, or certain aspects are improvable.
3	The governance structure is well setup, and the framework covers relevant aspects. However, essential impact metrics are not yet monitored or disclosed in detail yet. This implies that more data is needed to assess the impact profile on a granular level.
2	The governance and framework structure is not complete what indicates that there are not adequate measures in place to manage material ESG risks and opportunities.
1	Substantial elements of the governance structure or impact framework are missing, indicating heightened ESG risk.

5 Eligible project categories

Green Projects

Category	Description
Renewable energy	including production, transmission, appliances and products);
Energy efficiency	new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
Pollution prevention and control	including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste-to-energy
Environmentally sustainable management of living natural resources and land use	including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes
Terrestrial and aquatic biodiversity conservation	including the protection of coastal, marine and watershed environments
Clean transportation	electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions
Sustainable water and wastewater management	sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation
Climate change adaptation	including efforts to make infrastructure more resilient to impacts of climate change, as well as information support systems, such as climate observation and early warning systems
Circular economy adapted products, production technologies and processes and/or certified eco-efficient products;	such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services
Green buildings	that meet regional, national or internationally recognized standards or certifications for environmental performance.

Social Project

Category	Description
Affordable basic infrastructure	e.g. clean drinking water, sewers, sanitation, transport, energy
Access to essential services	e.g. health, education and vocational training, healthcare, financing, and financial services
Affordable housing	e.g. low-and-middle-income housing. low-cost housing. market-rate housing. public-sector housing
Employment generation and programmes	It is designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, climate transition projects and/or other considerations for a “just transition” (such provision and/or promotion could include SME financing and microfinance)
Food security and sustainable food systems	e.g. physical, social, and economic access to safe, nutritious, and sufficient food that meets dietary needs and requirements; resilient agricultural practices; reduction of food loss and waste; and improved productivity of small-scale producers
Socioeconomic advancement and empowerment	e.g. equitable access to and control over assets, services, resources, and opportunities; equitable participation and integration into the market and society, including reduction of income inequality
Note	
Examples of target populations (but are not limited to)	<ol style="list-style-type: none"> 1. Living below the poverty line 2. Excluded and/or marginalized populations and/or communities 3. People with disabilities 4. Migrants and/or displaced persons 5. Undereducated 6. Underserved, owing to a lack of quality access to essential goods and services. 7. Unemployed and/or workers affected by climate transition. 8. Women and/or sexual and gender minorities 9. Ageing populations and vulnerable youth 10. Other vulnerable groups, including because of natural disasters, climate change, and/or climate transition projects that cause or exacerbate socioeconomic inequity

6 Sources and references

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ICMA (2020) Handbook: Harmonized Framework for Impact Reporting”, retrieved June 2025,
<https://www.icmagroup.org/sustainable-finance/impact-reporting/green-projects/>

7 Definitions

Term	Description
Principles	The Principles are a collection of voluntary frameworks, including The Green Bond Principles (GBP), together with the Social Bond Principles (SBP), the Sustainability Bond Guidelines (SBG) and the Sustainability-Linked Bond Principles (SLBP)
Green Bonds	Is a type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects.
The Green Bond Principles (GBP)	A project bond for a single or multiple Green Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer, and that is aligned with the GBP.
Green Projects	These projects contribute to environmental objectives such as: climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.
Social Bond	Social Bonds are any type of bond instrument where the proceeds, or an equivalent amount, will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Social Projects
Social Projects	These projects provide clear social benefits, address, or mitigate a specific social issue and/or seek to achieve positive social outcomes. Some examples of social projects are affordable basic infrastructure, access to essential services, affordable housing, employment generation; food security and sustainable food system; socio-economic advancement and empowerment
EU Taxonomy	A classification system under EU law that defines environmentally sustainable economic activities based on six environmental objectives and DNSH criteria.
EU Green Bond Regulation	A regulatory framework that standardizes what constitutes a "European Green Bond," ensuring alignment with EU Taxonomy and stricter reporting obligations.
Second Party Opinion (SPO)	An independent review of a bond's alignment with sustainability frameworks, such as the GBP or EU Taxonomy, typically issued by an external ESG evaluator.

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About us

WaVeritas provides ESG research services to asset managers, family offices and businesses.

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