



Webinar series: Green bonds – an innovative and efficient way of financing green investments

Module III: Safeguarding – Definitions, external review & impact reporting

GIZ & SEB Strategic Alliance on Green Bond Market Development

Module III:

Safeguarding – Definitions, external review & impact reporting

Content & learning objectives

External reviews

- Who defines green?
- Investor dialogue
- External reviews in the Green Bond Principles
- Range of external reviews
- Ethical and professional standards
- Second opinions in focus

Impact reporting

- Relevance, content and granularity
- Impact metrics
- Guidelines
- Digital innovations

Part 1: External review of green bonds

Who defines green?



Voluntary principles for issuing a green bond that the vast majority of issuers align with *across all markets*



Country level guidelines in *some markets*

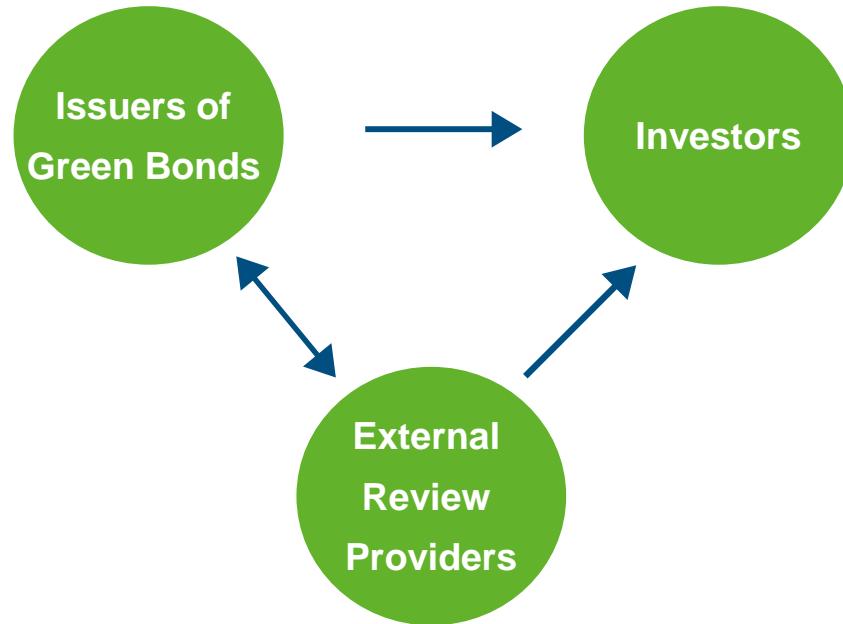


Stock exchanges with green bond lists set *criteria for listing*



Green bond indices and funds *have criteria for inclusion*

Green bonds open a communication channel to investors



- The green bond market builds capacity among market actors on what is green.
- Creating a common language for investors, scientist and companies is key
- GBP recommend that issuers appoint an external review

Green Bond Principles (GBP) group external reviews into four categories

1. Second Party Opinion (e.g. CICERO, Sustainalytics, Vigeo/Eiris)
2. Verification (e.g. Accountancy Firms)
3. Certification (e.g. against CBI-standard)
4. Green Bond scoring/rating (e.g. Moody's, S&P, CICERO)

Range of external review approaches – pre-issuance

	Pre-Framework		Pre-issuance	
Type	Framework consulting	Second Opinions	Green Scoring/ Ratings	Certification against standard
Approaches	Help issuer develop green bond framework	Most follow the GBP. Some follow accounting for proceeds only, some look into environmental criteria and governance	Some ratings allow only a portion of proceeds used for green projects, some take a broader climate risk approach	Current standards available only for carbon emissions in certain project types in energy, transport, utilities and buildings sectors
Potential challenges	Conflict of interest with fully independent second opinions	Wide range of approaches and quality	Wide range of approaches and quality	Possibility that standard locks out best practices (e.g. resiliency in mitigation projects), or new technology development necessary for transition (e.g. electric car battery development)

Adapted from: Clapp, Christa, "What is Green and the Developing Green Bond Standards", Green Bond Evolution, Environmental Finance.

Notes: Table reflects author's opinion based on: CICERO Second Opinion Framework, GBP 2017, and available methodology descriptions for CBI, Moodys, Oekom, Sustainalytics, S&P, and Vigeo.

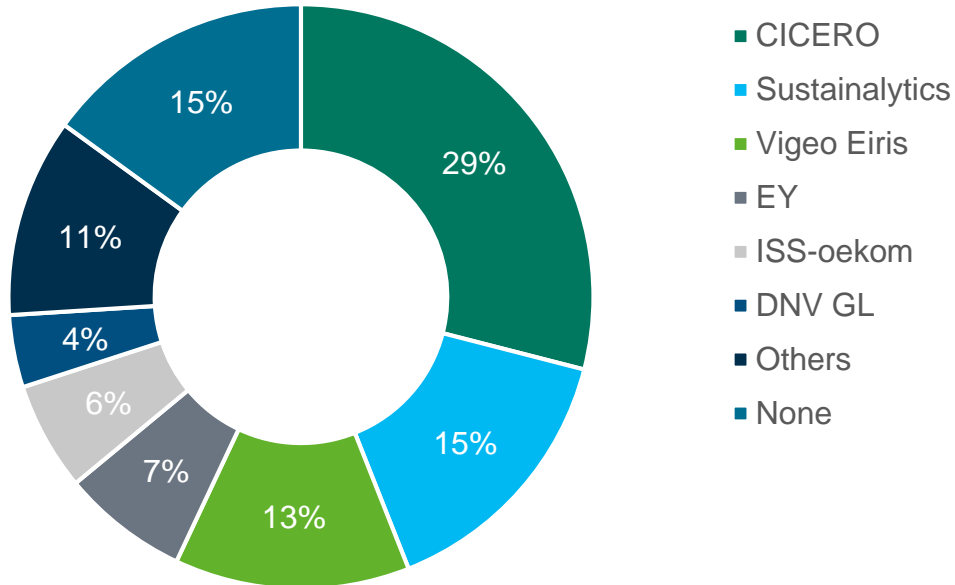
Range of external review approaches – pre-issuance

Type	Verification of use of proceeds	Verification of environmental impacts	Updates of ratings and second opinions
Approaches	Follow accounting of financial flows for green projects	Measure realized carbon emissions or other environmental metrics of projects	Annual renewals can result in upgrades or downgrades of ratings or opinions
Potential challenges	Does not consider how green projects are	Can be overly focused on emission reduction accounting	Unclear if scope of updates includes realized impacts

Source: Clapp, Christa, "What is Green and the Developing Green Bond Standards", Green Bond Evolution, Environmental Finance.

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Marketshare of external reviewers



Market Shares of External Reviewers by cumulative value of bonds issued from 2008-2018. Data from CBI (July 2018).

Guidelines for external reviews of green bonds

1. Integrity
2. Objectivity
3. Professional Competence and Due Care
4. Confidentiality
5. Professional Behaviour



Guidelines for Green, Social and
Sustainability Bonds External Reviews

June 2018

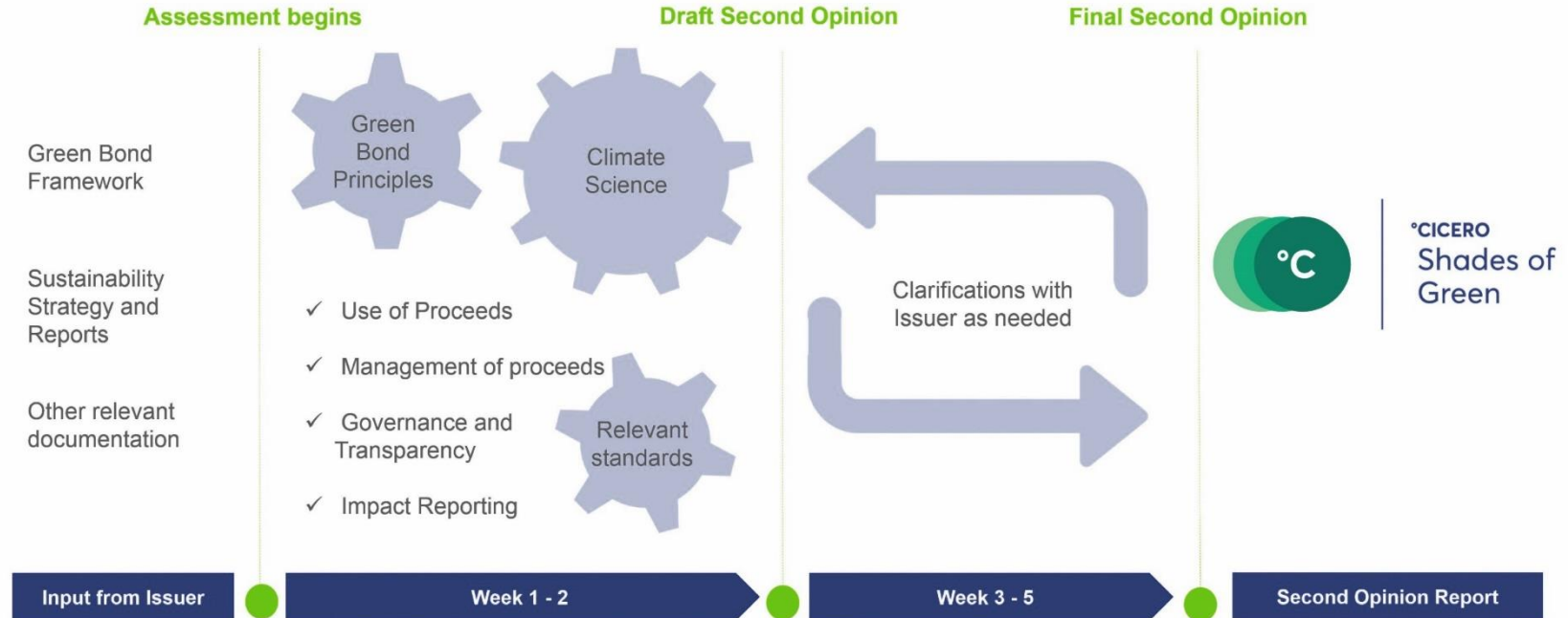


Source: <https://www.icmagroup.org/green-social-and-sustainability-bonds/external-reviews/>

Part 2:

External review – second opinions in focus

The Second Opinion Process



Green Rating on Climate Risk

SHADES OF GREEN

EXAMPLES



Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future.



Wind energy projects with a governance structure that integrates environmental concerns



Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet.



Plug-in hybrid busses



°CICERO
Shades of
Green



Light green is allocated to projects and solutions that are environmentally friendly but do not by themselves represent or contribute to the long-term vision.



Efficiency in fossil fuel infrastructure that decreases cumulative emissions



Brown for projects that are in opposition to the long-term vision of a low carbon and climate resilient future.



New infrastructure for coal

Example project rating: Tadau Energy *World's first Green Sukuk*

Renewable energy

Eligible project types

Solar power

- The financing, design, engineering, procurement, construction, installation, testing, commissioning, ownership, operation, and maintenance of solar photovoltaic plants
- Associated interconnection facilities

Green Shading and some concerns

Dark Green

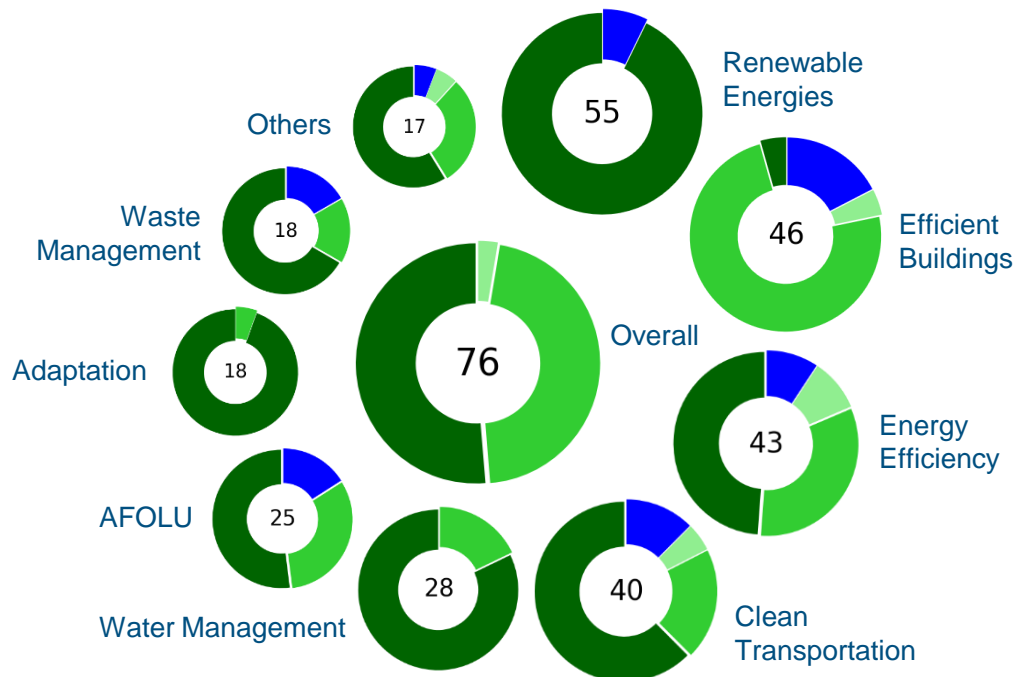
- Solar power is key to a low-carbon transition. Supportive activities for solar power generation include e.g. financing, design, and interconnection.
- Potential concerns regarding supply-chain emissions partially addressed through the use of life cycle criteria in supplier selection
- Potential concerns regarding site selection partially addressed through selection process and re-zoning reports. An Environmental Impact Assessment (“EIA”) could have provided assurance to investors of the environmental soundness of the site selection and construction phase
- All construction projects can have adverse local environmental impacts



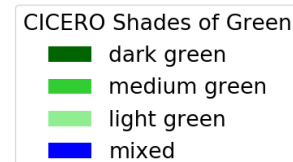
°CICERO

Dark Green

Rating by project categories



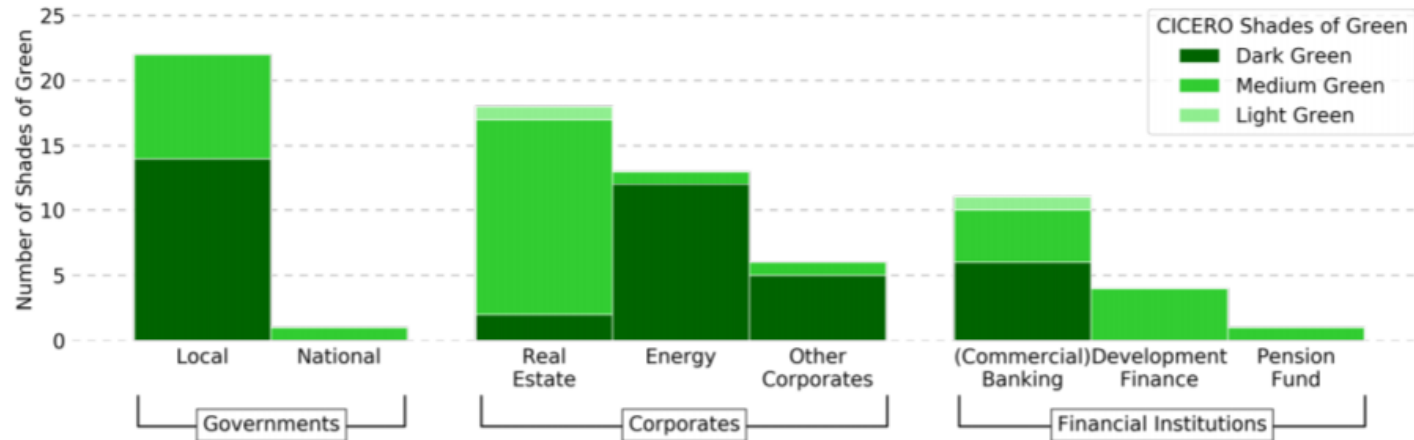
- Green projects come in all shades, but clear trends by sector
- Fewer light green projects so far, these projects are essential to a successful transition



Note that the mixed category includes all shades of green

CICERO's Absolute Number of Assigned Shades of Green (2013-2018) per Involved GBP Project Category

Rating by issuer type



Number of Assigned Shades of Green (2015-2018) per Issuer Type (local governments include municipality banks) (July 2018).



Part 3: Impact reporting

Why report on environmental impacts?

- Transparency is key to the integrity of the green bond market
- Pre-issuance external review provides insights on framework, post-issuance reporting on implementation and actual environmental impact
- Investors increasingly expect impact reporting for green bonds

The impact report - what to include

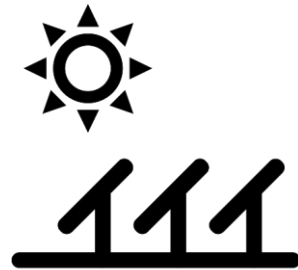
- List of the projects or areas financed
- Brief description of the projects (or a selection of project examples)
- The amounts allocated and share of green bond funding
- Actual or expected environmental impact based on qualitative and, where feasible quantitative performance indicators
- Reporting should include relevant and comparable indicators
- Underlying methodologies, assumptions and benchmarks

The emerging best-practice is to have green bond reporting reviewed by a third-party

Impact metrics

Numeric measurements of expected/actual impact.
Issuer is encouraged to include "green metrics" in addition to emissions.

Examples:

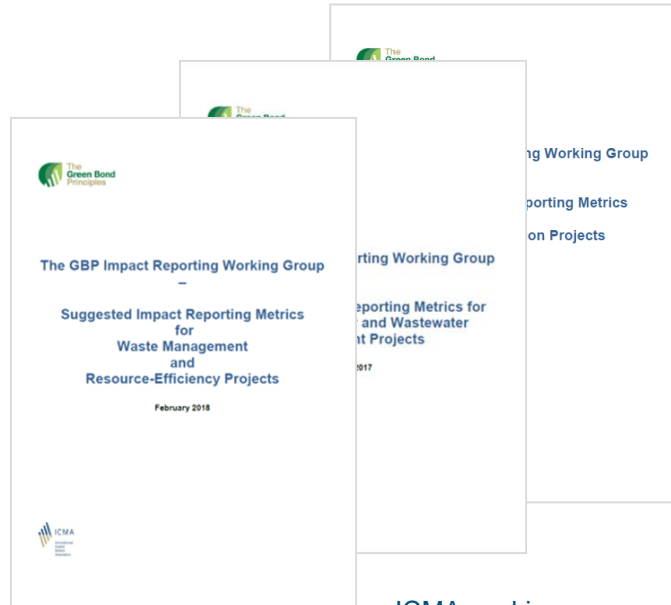


Mwh of
electricity
produced



Reduction of
CO₂-equivalents
emissions

Guidelines for impact reporting



ICMA working groups have suggested metrics for some sectors



Nordic Public Sector issuers 2017 Position Paper



MDBs Harmonized Framework for Impact Reporting from 2015

Example reporting commitments: ICBC

“Subject to the nature of Eligible Green Assets and availability of information, ICBC aims to include, but not limited to, the following Impact Indicators”

Eligible Green Asset Categories	Impact Indicators
Renewable energy	<ul style="list-style-type: none"> • KWh of power generated from renewable energy • Tonnes of CO₂ (or other GHG) avoided
Low Carbon and Low Emission Transportation	<ul style="list-style-type: none"> • Tonnes of CO₂ (or other GHG) avoided • Km of tracks built • No. of passengers
Energy efficiency	<ul style="list-style-type: none"> • KWh of energy saved per year • Percentage energy efficiency achieved
Sustainable water and wastewater management	<ul style="list-style-type: none"> • Amount of water saved • Amount of waste water treated



Example impact report: World Bank

Sample of project metrics reported

13 COMPLETED PROJECTS IN RENEWABLE ENERGY & ENERGY EFFICIENCY



67,460 GWh
IN ANNUAL ENERGY SAVINGS

EQUIVALENT TO

THE TOTAL ELECTRICITY CONSUMED IN 2015 IN
NEW ZEALAND & BULGARIA COMBINED

ABOUT 32.4 MILLION TONS OF CO₂ EQUIVALENT AVOIDED



5,980 GWh
ANNUAL ENERGY PRODUCED FROM
RENEWABLE RESOURCES

EQUIVALENT TO

THE TOTAL POWER GENERATED BY 1,126 WIND TURBINES
RUNNING FOR ONE YEAR IN THE US



1,470 MW
RENEWABLE CAPACITY FROM SOLAR,
WIND, AND HYDRO TECHNOLOGIES

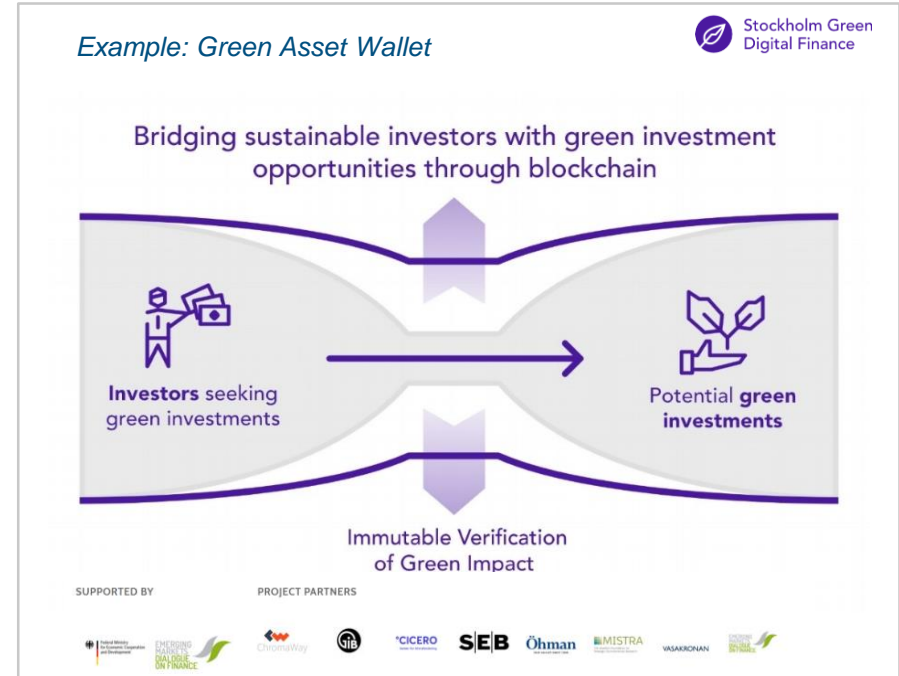
EQUIVALENT TO

THE TOTAL INSTALLED ELECTRICITY GENERATION
CAPACITY IN NICARAGUA IN 2016

Source: <http://documents.worldbank.org/curated/en/343311520466168445/pdf/report-impact-green-bond-2017.pdf>

Can technology aid impact reporting?

- Several technology enabled platforms are emerging to enable efficient and transparent reporting in the green bond market.
- These solutions have the potential to reduce costs and improve access to investors.





Part 4: Wrap-up



Webinar 3: Safeguarding – Definitions, external review & impact reporting

Learnings

External reviews

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Impact reporting

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Missed a previous webinar?

- Webinar 1: Green bonds – what, why & how
- Webinar 2: Setting up a green bond framework

Webinar 3: Safeguarding – Definitions, external review & impact reporting

More information

- [ICMA: Guidelines for Green, Social and Sustainability Bonds External Reviews](#)
- Impact Reporting:
 - [The Green Bond Principles – Guidelines for impact reporting](#)
 - [MDB's: Green Bonds – Working towards a Harmonized Framework for Impact Reporting \(Dec 2015\)](#)
 - [Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting \(Oct 2017\)](#)
- [Stockholm Green Digital Finance: The Green Assets Wallet](#)

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