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Second Opinions – what, why, when & how?

CICERO's approach and methodology for Second Opinions – practical experiences in the case of Modern Land

Beijing, March 2nd 2017

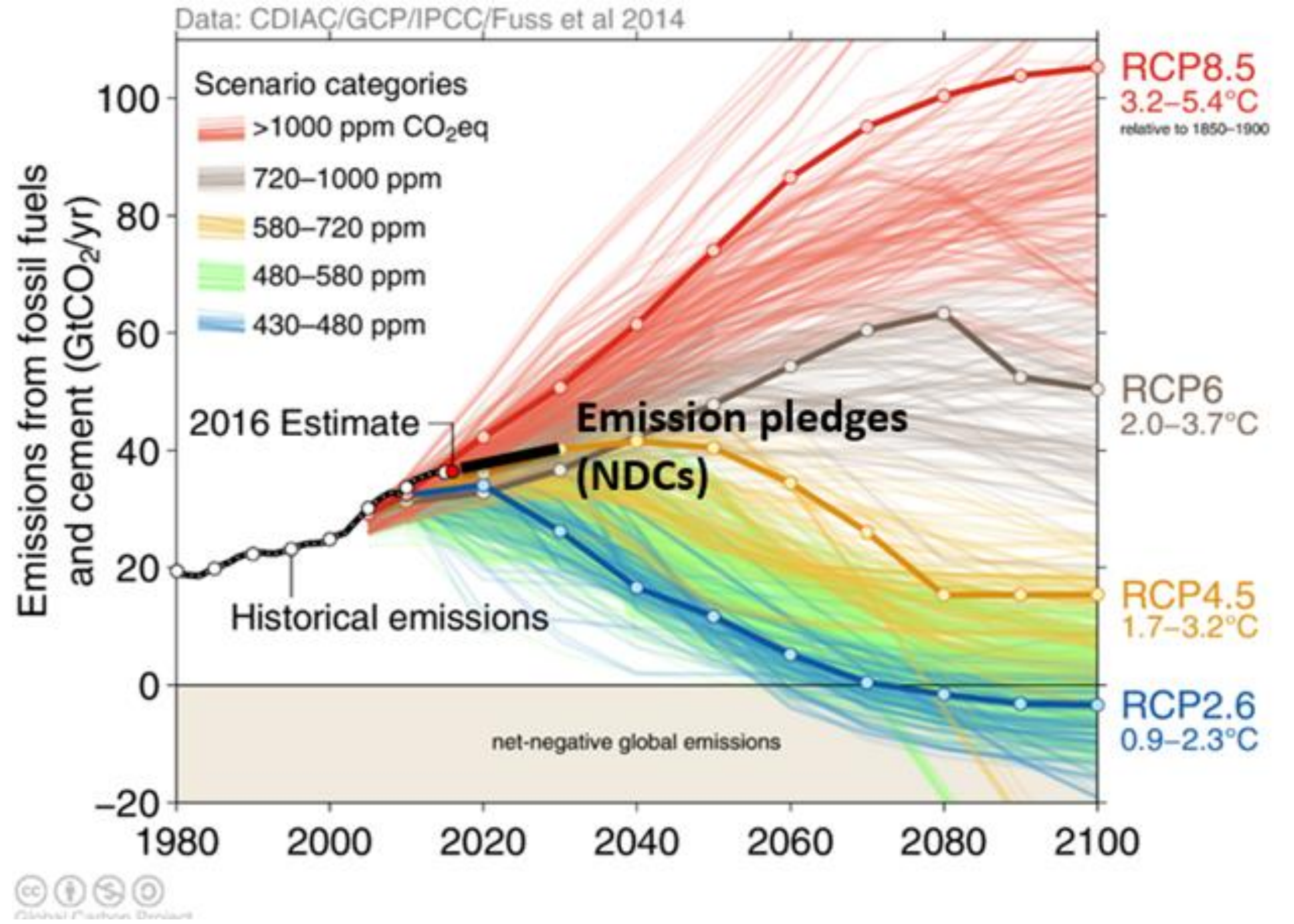
Knut H. Alfsen, Senior Researcher, CICERO

Outline

- I, me, mine – who am I and what is CICERO?
- CICERO/ENSO's second opinions – what are they?
- The future – what to expect?



We have a problem!



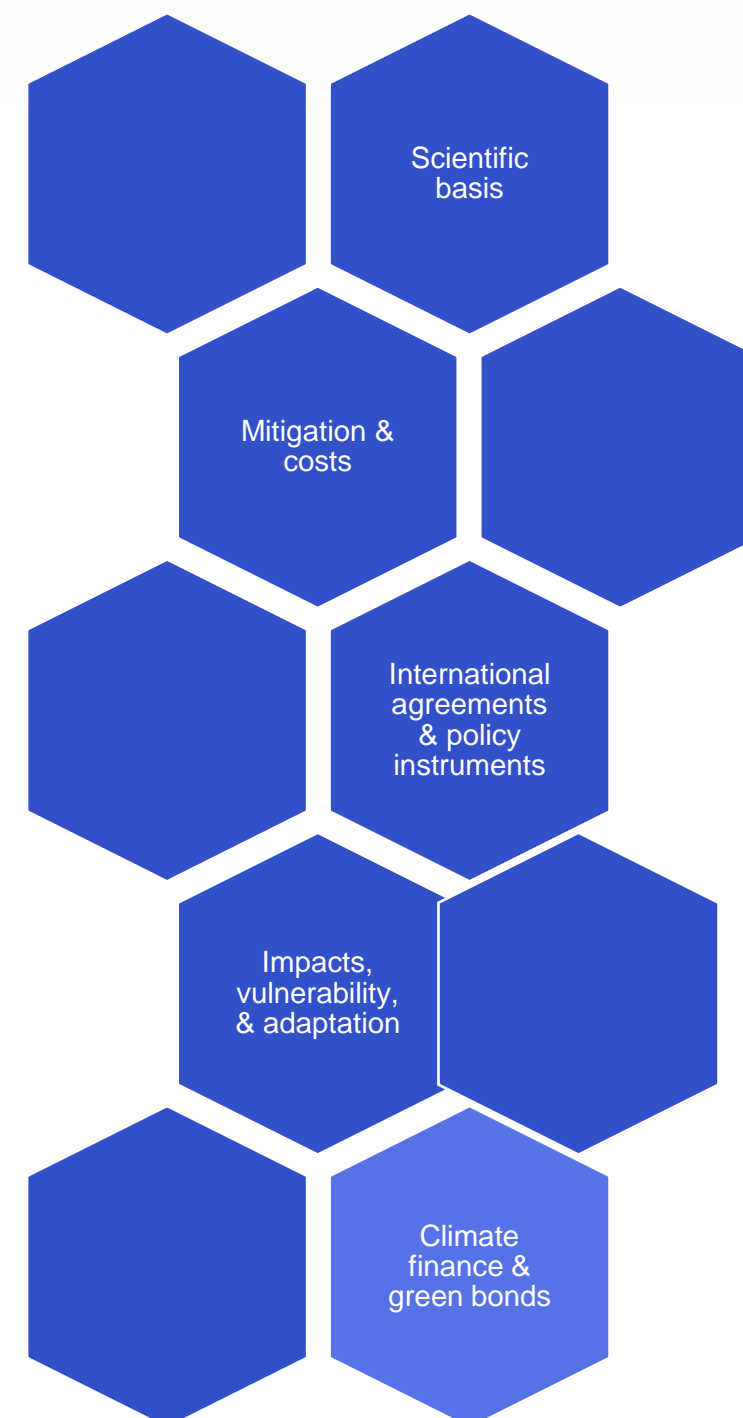
Knut H. Alfsen

- Education:
 - PhD theoretical physics
 - 25 years as economist
- Former:
 - Research Director, Statistics Norway
 - Director, CICERO
 - Research Director, Institute for Energy
 - Head Research Director, CICERO
- Current:
 - Chief Advisor's Group, CCICED
 - Senior Researcher, CICERO



CICERO

Center for International
Climate Research



Independent non-profit climate change research center

- Approximately 70 people
- Located in Oslo, Norway
- Trans-disciplinary climate research:
 - Climate system
 - Climate economics & finance
 - Climate policy
 - Climate solutions

CICERO's motivation for "doing climate finance"

Creating a bridge from *science* to *finance* through:

1. Research
2. Platform for Dialogue: CICERO
Climate Finance Center
3. Market actions: Green Bonds
Second Opinions



°CICERO Climate Finance



How can investors better secure the value of their portfolios against climate change risk?

Shades of Climate Risk

Categorizing climate risk for investors



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Climate Finance



BLACKROCK®



Norwegian Ministry of Foreign Affairs



Finans Norge

SEB

storebrand



Key Messages from Climate Risks report



- Physical impacts observed in all regions today with abrupt consequences
- Likely to continue in next 10-20 years, regardless of the scenario
- 2°C is not the most likely scenario

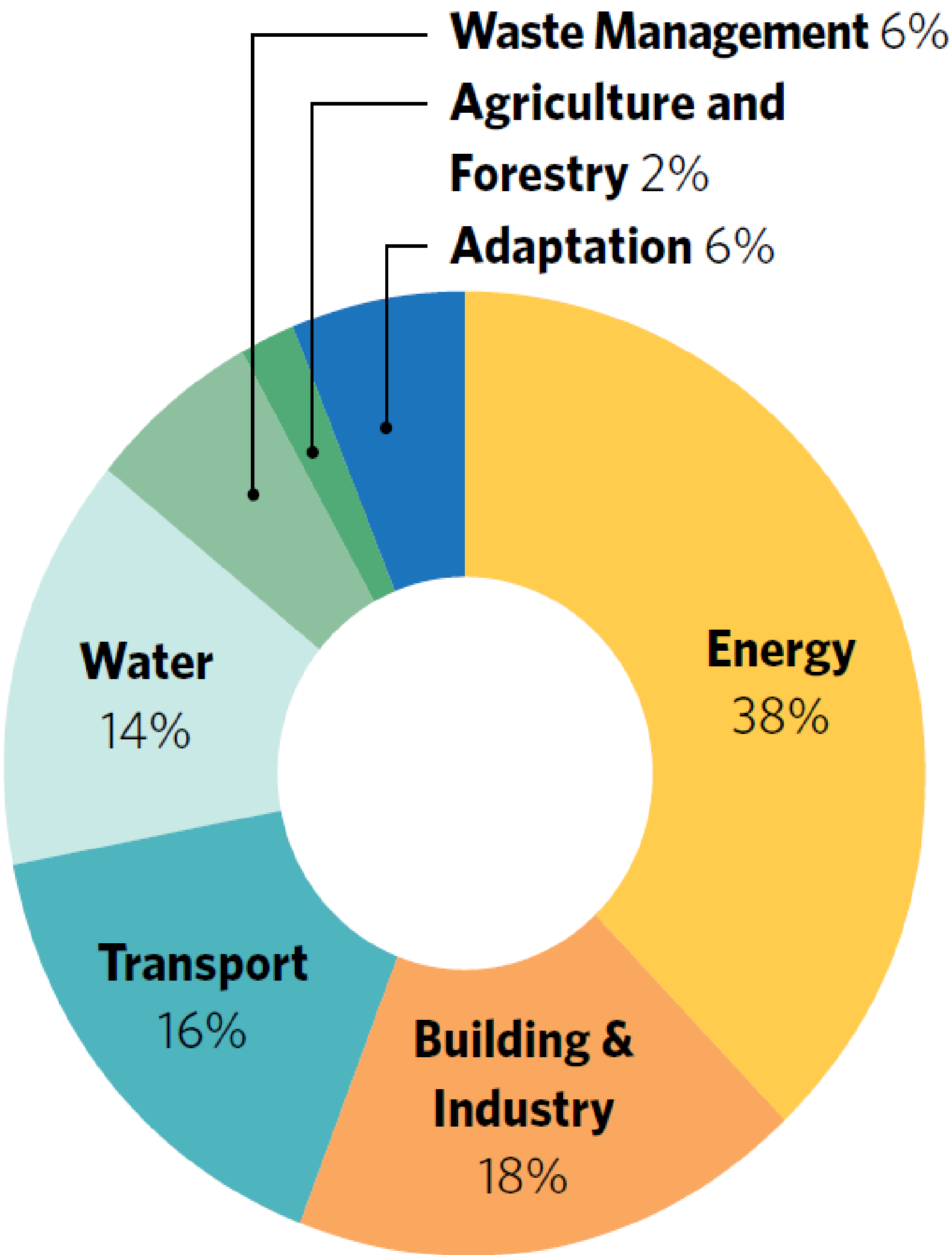
Climate finance research



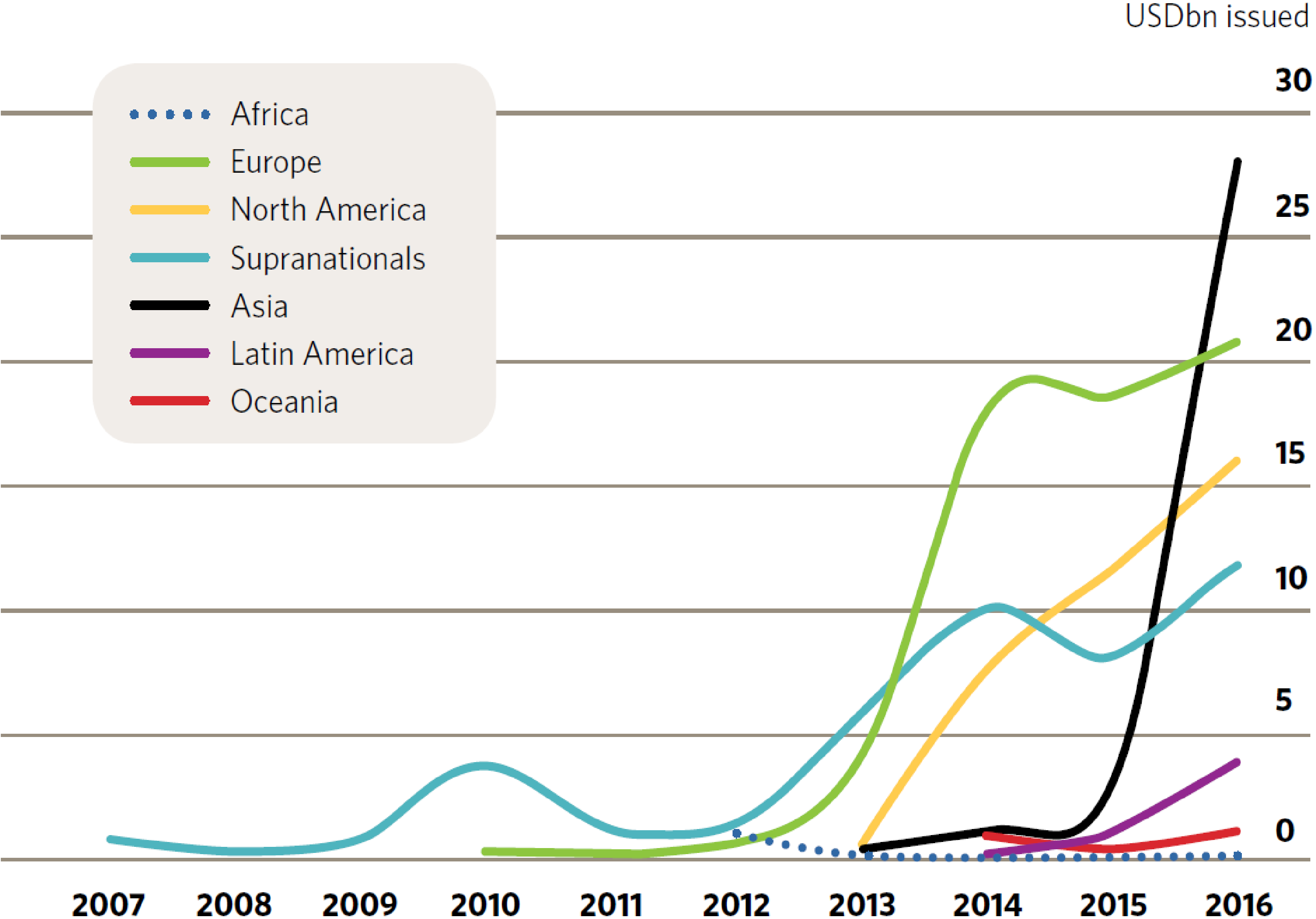
Some examples:

- Leveraging private capital
- Investor motivations
- Soil remediation finance
- Disinvestment in fossil fuels
- ...

There was a broad range of use of proceeds in 2016



Green bond issuance by region



Green Bonds: What is Green – Who Decides?

Voluntary Principles



Recommends external review

Funds & Indices

STANDARD
& POOR'S



MSCI

Standards

Climate Bonds INITIATIVE

Stock Exchanges



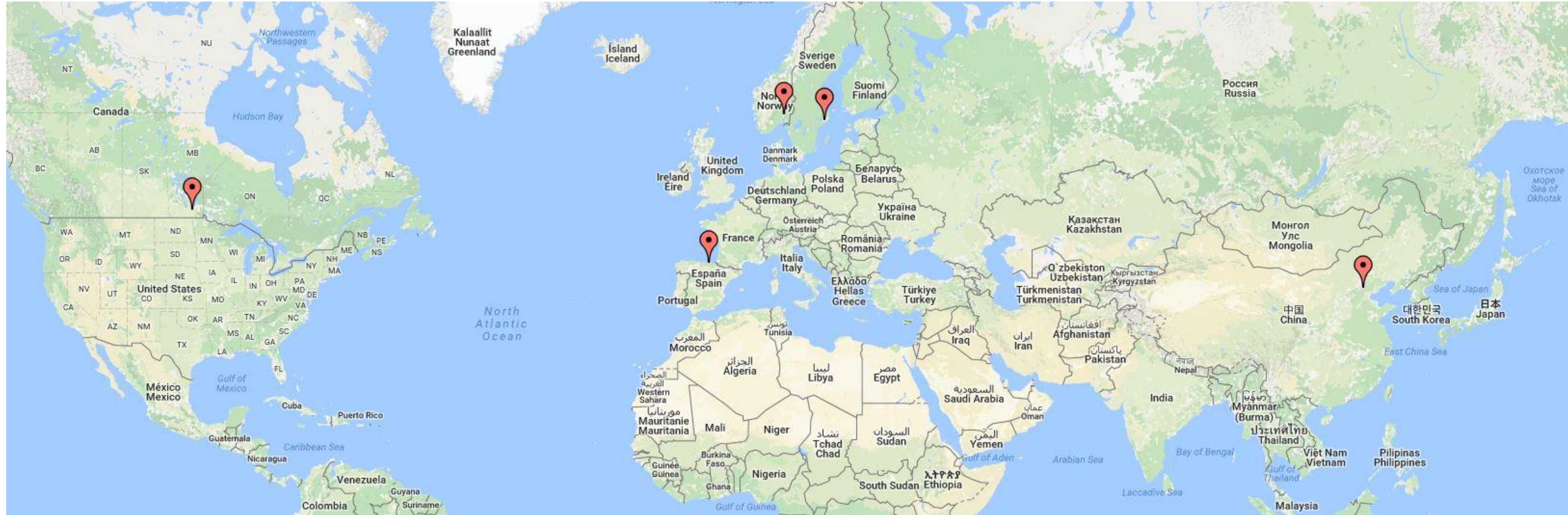
Require independent second opinions

Second Opinions

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Expert Network on Second Opinions (ENSO)



iisd International Institute for Sustainable Development
Institut international du développement durable

bc³
BASQUE CENTRE FOR CLIMATE CHANGE
Klima Aldaketa Ikergai

°CICERO
Climate Finance

SEI



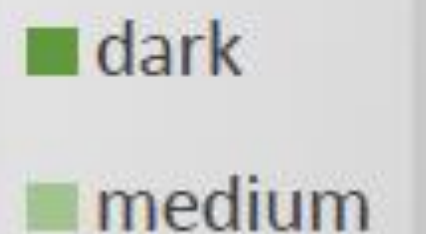
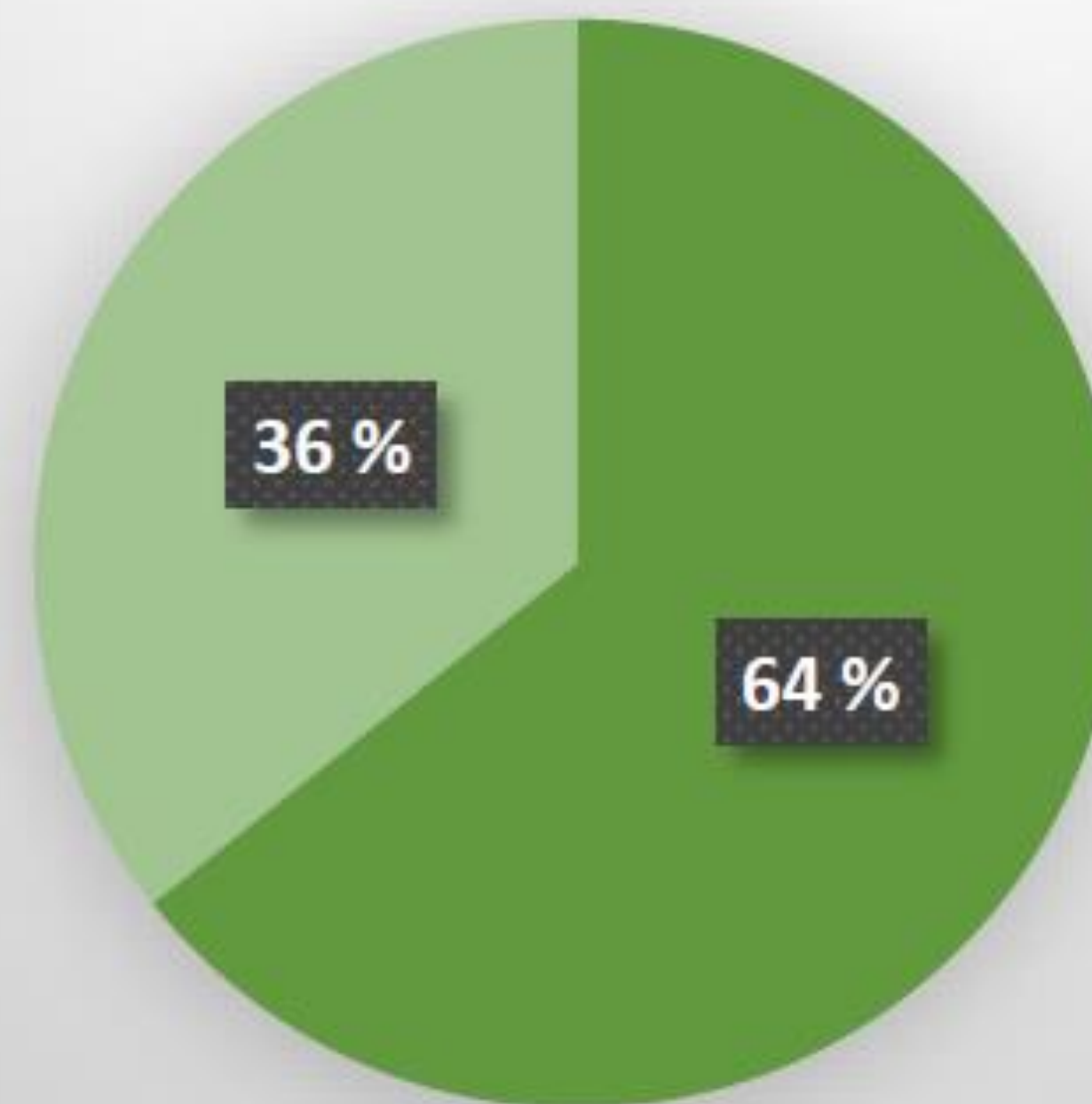
清华大学
Tsinghua University

CICERO Second Opinions on Green Bonds

CICERO/ENSO have provided Second Opinions to almost 60 issuers since 2007

Key words: Low cost and flexibility while preserving integrity

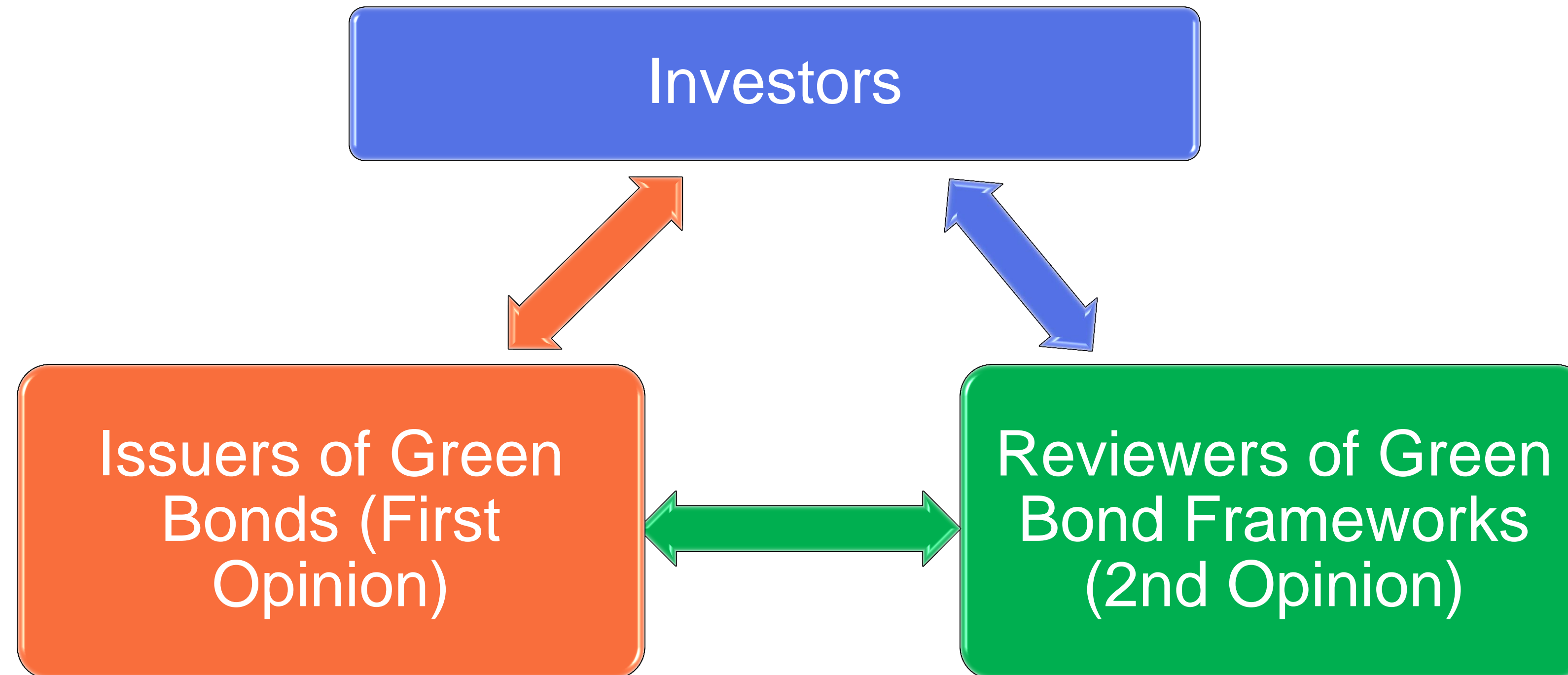
28 Second Opinions with shades of green



Environmental Finance: Cicero is biggest second opinion provider in 2016

Second Opinion Provider	Total Value of issuances for second opinions provided over 2016 (\$billions)	Number of issuances in 2016	Value of new second opinions provided in 2016 (\$billions)	Number of new issuers
Cicero	14.106	56	2.762	10
Sustainalytics	11.234	21	10.728	19
Vigeo-Eiris	7.430	14	3.391	8
Oekom	6.301	10	1.850	3
DNV	0.640	4	0.592	3

The role of Second Opinions



Green Bond Framework

1. Use of proceeds (definitions)
2. Selection process (governance)
3. Management of proceeds
4. Reporting

Green Bond Framework

Four sections:

1. Use of Proceeds

2. Process for Project Evaluation and Selection

Evaluation and Selection

3. Management of Proceeds

4. Reporting & verification

Supporting documents

June 2016

KBN GREEN BOND FRAMEWORK

The purpose of this document is to describe KBN's Green Bond Framework built on KBN's overall environmental strategy. KBN is a member of ICMA's Green Bond Principles¹ (GBP) and is also aiming to comply with the "Harmonized Framework for Impact Reporting" developed by 11 Multilateral Development Banks in December 2015².

The framework has four components:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

1. Use of Proceeds

"Eligible Projects" means a selected pool of projects determined as eligible according to this Framework. Projects might be funded in whole or in part by KBN. Eligible Projects promote the transition to a low-carbon and climate resilient Public Sector. Such projects may target (a) mitigation of climate change through reduction of emissions from buildings, transportation and energy production, (b) adaptation to climate change, including investments in climate-resilient infrastructure, or (c) to a smaller extent (limited to 10%), projects related to a sustainable environment on a local scale.

Eligible Project categories

Please refer to "KBN Green Bonds: Supplementary guidelines for project selection, documentation and reporting"³ for detailed criteria and requirements of the Eligible Project categories.

- **Renewable energy (a):** to reduce the use of fossil fuel, KBN is financing installations for production of renewable energy. Please note that if the installation is part of a new construction it will fall under the "Green buildings" category.
- **Energy efficiency (a):** KBN is promoting projects aiming to lower both emissions from energy production and energy bills for the municipal sector by upgrading to higher energy standards or installing climate friendly technology such as heating or control systems.
- **Green buildings (a):** new buildings or additions to buildings with an energy performance superior to current energy standards according to the supplementary guidelines may qualify for KBN's green lending rate.
- **Waste management (a/b):** sustainable waste management is an important environmental initiative as it both reduces emissions and returns scarce resources to the value chain. KBN finances either new or upgrading of plants.
- **Land use (b/c):** projects including sustainable redevelopment of recreational and other areas.
- **Low-carbon transportation (a):** low emission or emission free public transportation. The category also includes pedestrian and bicycle lane projects.
- **Water and wastewater management (b):** a robust water and sewage infrastructure is important to handle increased pressure on existing systems due to heavier rainfall and population growth. Projects include replacing and upgrading of water and sewage pipes in addition to financing equipment of handling sludge and contaminated discharge.
- **Climate change adaption (b/c):** natural disaster warning systems, landslide security systems, climate research and education programs.

¹ <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practices/green-bonds/green-bond-principles/>

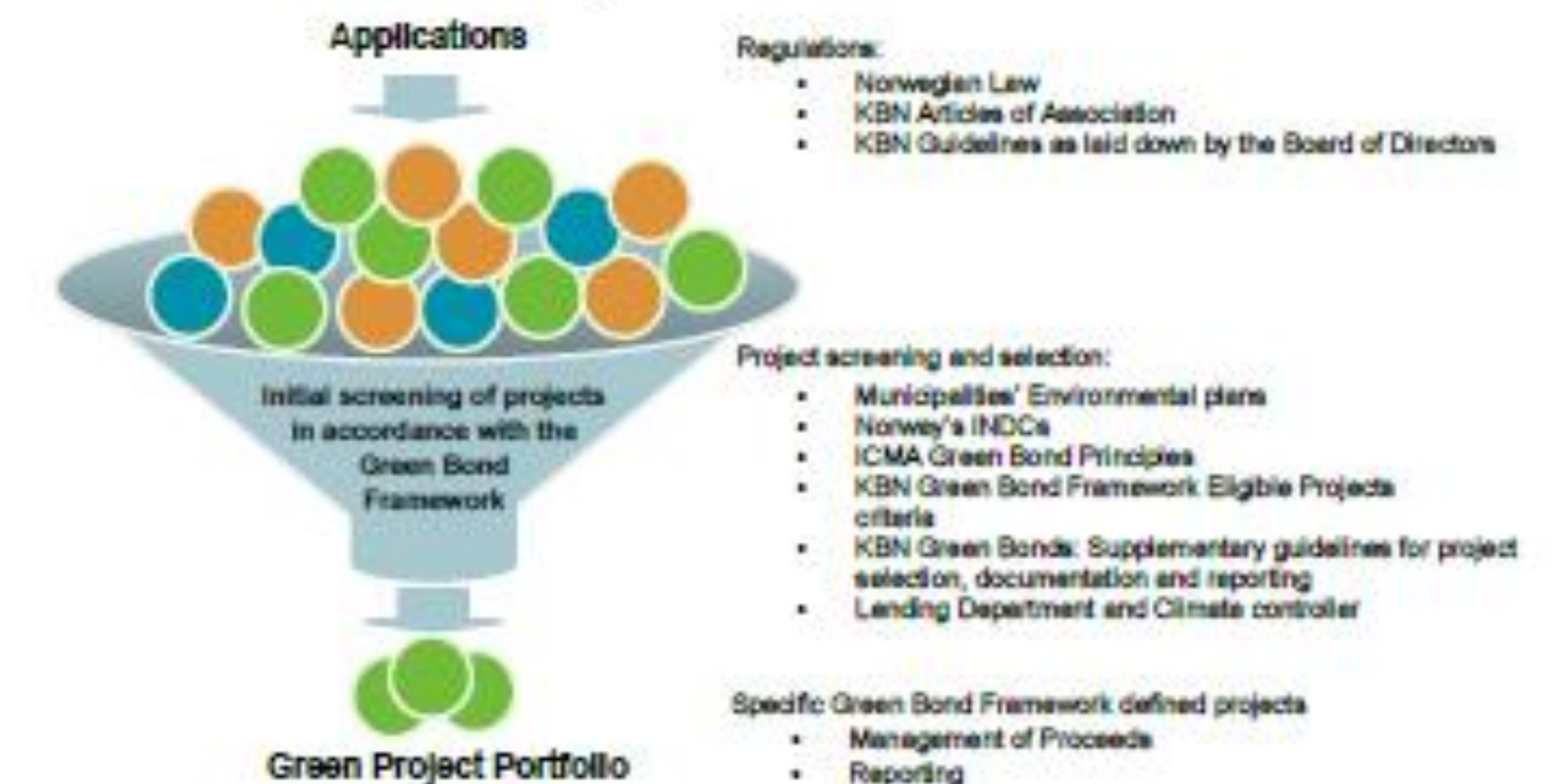
² <http://treasury.worldbank.org/cmd/pdf/InformationonImpactReporting.pdf>

³ <http://www.kommunalbanken.no/greencriteria>

2. Process for Project Evaluation and Selection

For a project to be included in the Eligible Projects pool, it shall comply with a) the categories listed in section 1 above and in the "KBN Green Bonds: Supplementary guidelines for project selection, documentation and reporting", b) the Municipality's Environmental Plan and c) Norway's Intended Nationally Determined Contributions (INDCs) according to the Paris Agreement. Applicants are required to declare eligibility by filling in a designated section in the loan document. Additionally, relevant documents indicating the Project's estimated environmental performance shall be provided. A project's eligibility is assessed by the Lending Department and approved by two Climate controllers. Approved Green Projects are entitled to KBN's Green Lending Discount and included in the bank's portfolio of Green Projects.

Green Bond Project Selection Process Flowchart



3. Management of Proceeds

An amount equal to the net proceeds of the issue of the Notes will be credited to a special budget account that will support KBN lending for Eligible Projects, according to section 3 in the GBP. KBN will carefully manage the balance between green funding outstanding and green lending to make sure the green funding is disbursed in a timely manner. KBN aims to direct the predominant part of net proceeds to new projects. However, refinancing of selected projects with particularly high environmental or climate benefits is considered if in line with this framework.

4. Reporting

To enable investors to follow the development and provide insight into prioritized areas KBN will provide an annual SRI report linked to the annual financial results report. The SRI report will include a section on the progress of the Green Bond program. KBN will also keep the dedicated Green Bond webpages continuously updated with: 1) a list of projects financed; 2) a selection of project examples "Green Bond Stories" and; 3) a summary of the KBN Green Bond development including statistics on our Green Project portfolio with impact reporting, aiming to comply with the issuer group' "Harmonized Framework for Impact Reporting" (Dec 2015).

KBN has appointed an advisory board, "The Green Committee", whose mandate will be to provide advice and guidance in matters related to the Bank's Green Bond Framework. The committee will primarily draw on external expertise in related fields, but will also include members of the KBN staff. Our Green Bond process will be audited by KBN's internal auditor, currently KPMG.

Standard structure of a second opinion report (~10 pages)

- Summary and recommendations (a concise overview for investors)
- Introduction and background (aim and approach of the second opinion)
- Disclaimer (CICERO is not liable for specific project validation)
- List of documents and brief description of the green bond framework
- Assessment of framework in terms of
 - ✓ Strengths
 - ✓ Weaknesses
 - ✓ Pitfalls (areas where issuer should be aware of potential challenges)
- References



清华大学能源环境经济研究所
INSTITUTE of ENERGY ENVIRONMENT and ECONOMY
TSINGHUA UNIVERSITY



‘Second Opinion’ on Modern Land’s Green Bond Framework

Based on the overall assessment of the project types that will be financed by the green bond and governance and transparency considerations, Modern Land’s Green Bond Framework gets a Medium Green shading. We recommend that Modern Land (China) seek the highest building certification ratings possible to further support climate-friendly buildings.

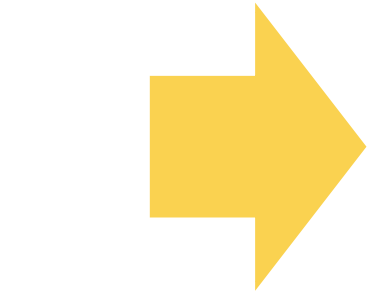
Eligible project types	Specific requirements	Likelihood of Meeting Objective
Energy efficient commercial and residential buildings	<ul style="list-style-type: none"> ▪ New construction and renovation of existing buildings meeting one of two following standards: <ul style="list-style-type: none"> – Chinese Green Building Label (minimum 2-Star for Green Design Building Label or Green Building Operation Label) – LEED (minimum “Gold”), – Or any other equivalent green building label, that is an equivalent of the standard as above ▪ New construction must additionally have energy saving / performance data evidenced through 3rd party energy reports, or equivalent sources and provide at least: <ul style="list-style-type: none"> – For new construction of buildings, 15% energy performance improvement or greater – For renovation of existing buildings: 30% energy performance improvement, depending on location and other justifiable building benefits 	<p>Medium – Dark Green. Those certifications include aspects important for energy efficiency improvement and greenhouse gas mitigation, e.g. carbon emissions calculation. Modern Land (China), as the pacesetter of energy efficiency buildings in China, has already established internal procedures for optimizing the energy systems, with carbon emissions as one of the major considerations in investment decision making. However, the highest possible ratings are not always sought by Modern Land (China).</p>
Research and development on energy efficiency design and technologies for housing and construction		<p>Medium Green. Research and development on energy efficiency design and technologies will indirectly facilitate the use of such technologies in the building and facilitate energy efficiency improvement and GHG mitigation. These project types are limited to 10% of the bond financing.</p>

CICERO's Second Opinion Process



Issuer's information

- Green bond framework
- Sustainability reports
- Information on selection & reporting



CICERO's assessment criteria

- Use of Proceeds
 - ✓ Technologies and project types
 - ✓ Consideration of macro-impacts
- Management of proceeds
- Governance
 - ✓ Project selection and evaluation
 - ✓ Transparency
 - ✓ Reporting



CICERO recommendations and rating

Light green

Medium green

Dark green



CICERO's Shades of Green

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Dark green	Implementing the long-term solutions
Medium green	On the way to the long-term solutions
Light green	Short-term benefits, but not long-term solutions

The Future: Emerging Best Practice



- Improved internal dialogue between finance and environmental experts
- Increased focus on supply chains and life cycle analysis
- Impact reporting – also beyond emission reductions

Looking forward: further harmonization or regionalization of second opinions and standards?

The future: Disclosure recommendations



Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

For Discussion: Flexible Frameworks vs. Standards

1. How to capture that both science and green bond market are *dynamic* in nature?
2. Could issuer specific frameworks be combined with international and regional standards with more fixed definitions (building standards etc.)?

Thank you for your attention!

Knut H. Alfsen

www.cicero.oslo.no/greenbonds

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