Green Assets Wallet
绿色资产钱包

Phase one recap and phase two plans

第一阶段总结和第二阶段计划

Climate-KIC

MISTRA
The Swedish Foundation for Strategic Environmental Research

CICERO Shades of Green

Öhman

SEB

ChromaWay

Stockholm Green Digital Finance

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

EMERGING MARKETS DIALOGUE ON FINANCE

Federal Ministry for Economic Cooperation and Development

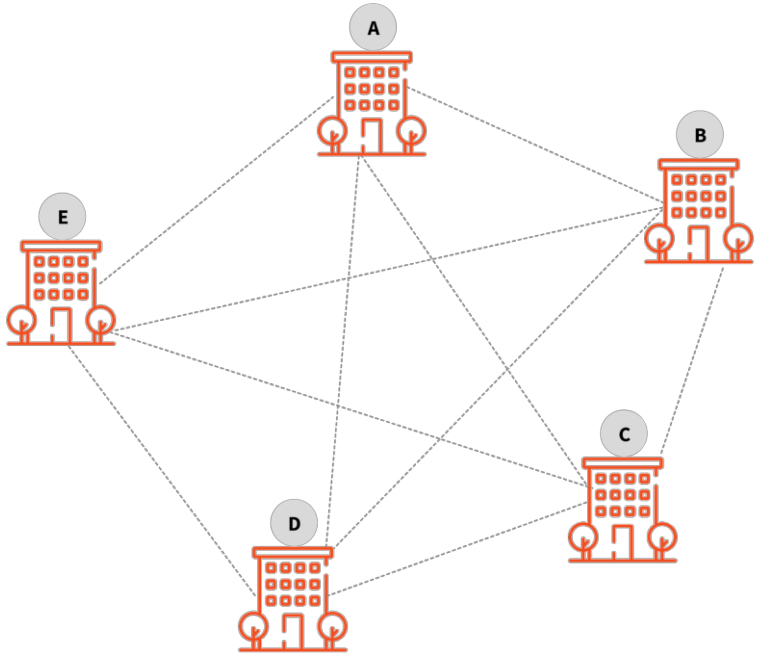
Green bond issuance

Barriers	Opportunities
For issuers - Administration - Increased costs	**For issuers** + Automatisation + Lower costs
For investors - Time consuming - Trust in issuers needed	**For investors** + Efficient aggregation + Accessible and trusted information
For the market - Avoided green issuance - Developed market bias	**For the market** + Increased volume and diversity + Increased capital to green investments

Öhman

Blockchain basics

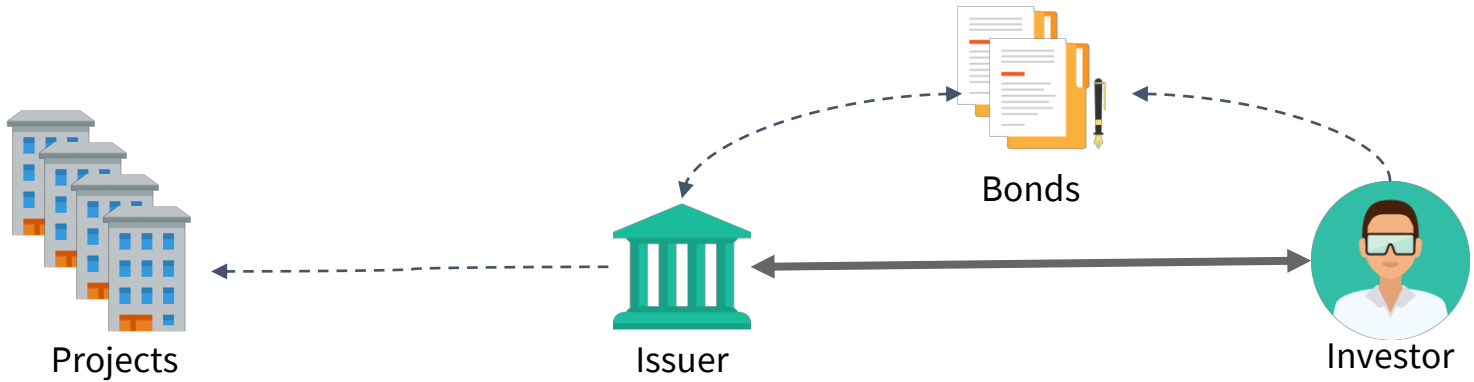
- Distributed network - no centre
- Immutable data store
- A way of ensuring that all the data stores remain in sync
- A way of checking that committed transactions meet validity requirements
- Really good for recording shared information securely and transparently



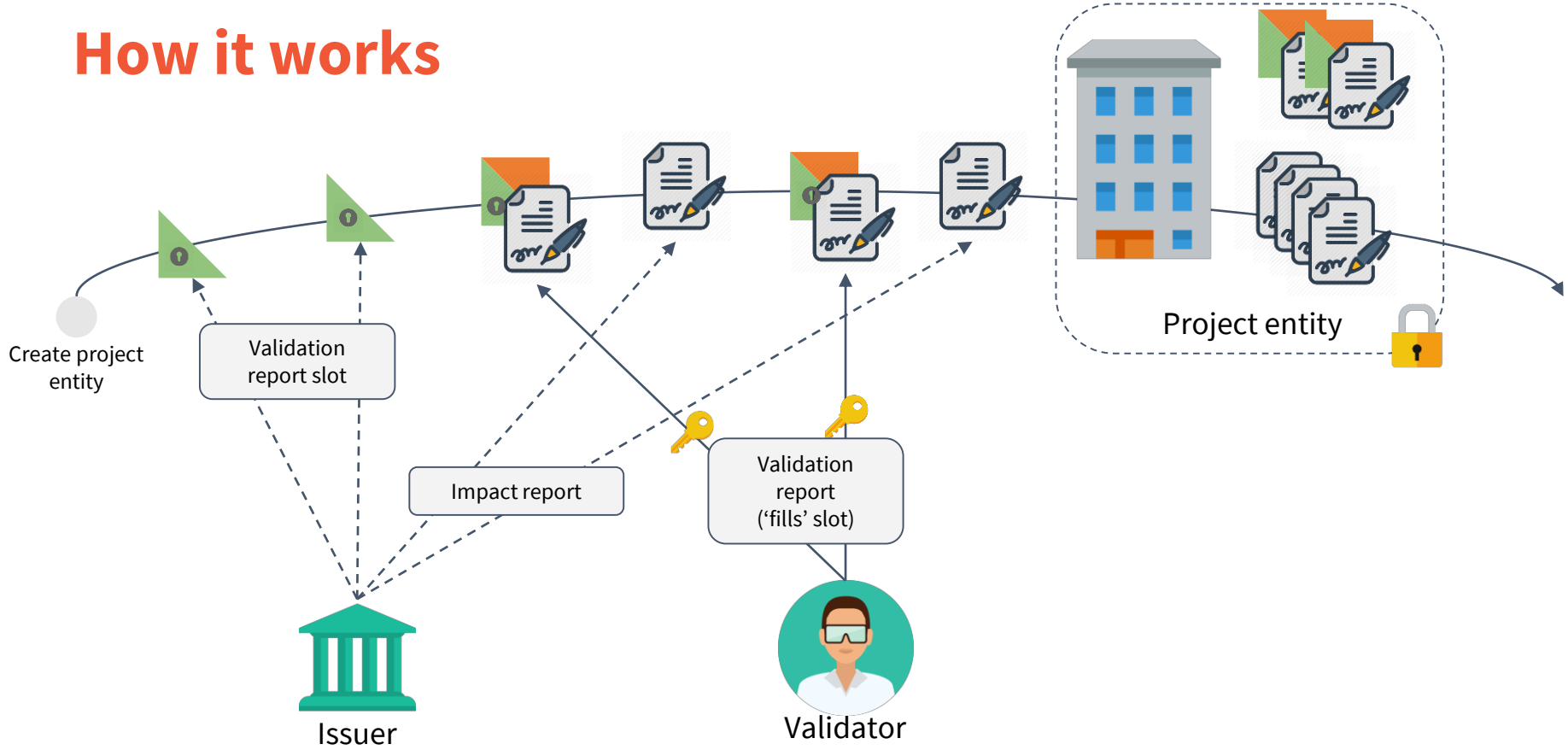
The concept

Green bonds introduce additional ***conditions*** to the traditional relationship between issuer and investor

The Green Assets Wallet platform ***tracks*** those conditions, ***records*** their fulfillment, and by doing so ***strengthens*** the relationship

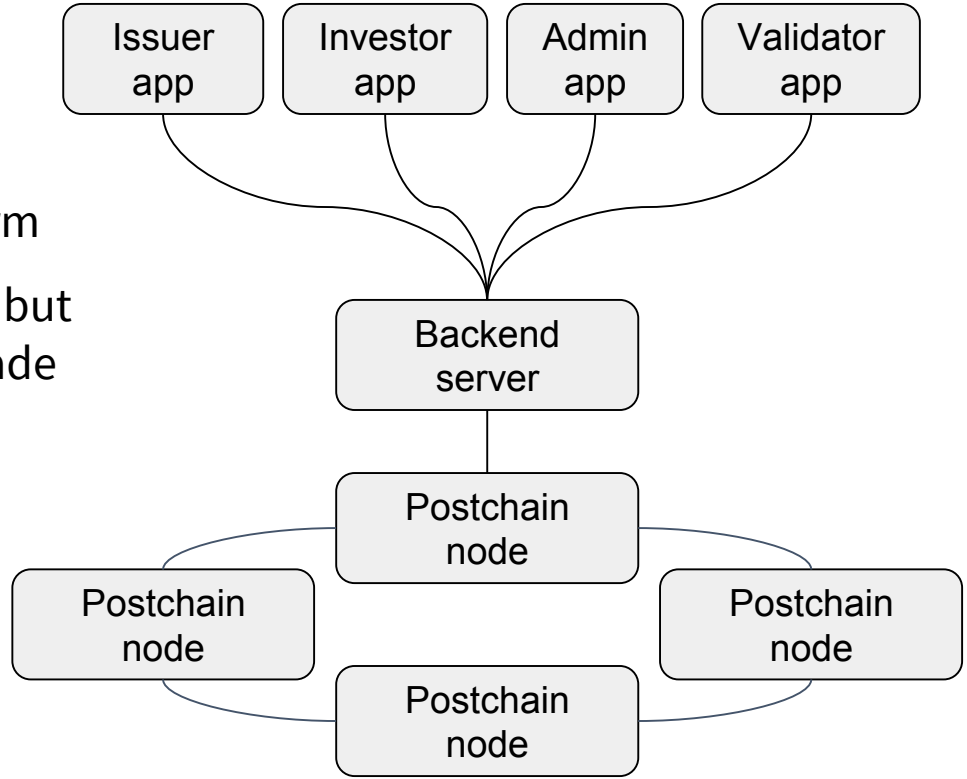


How it works


Create project entity
Validation report slot
Impact report
Validation report ('fills' slot)
Issuer
Validator
Project entity

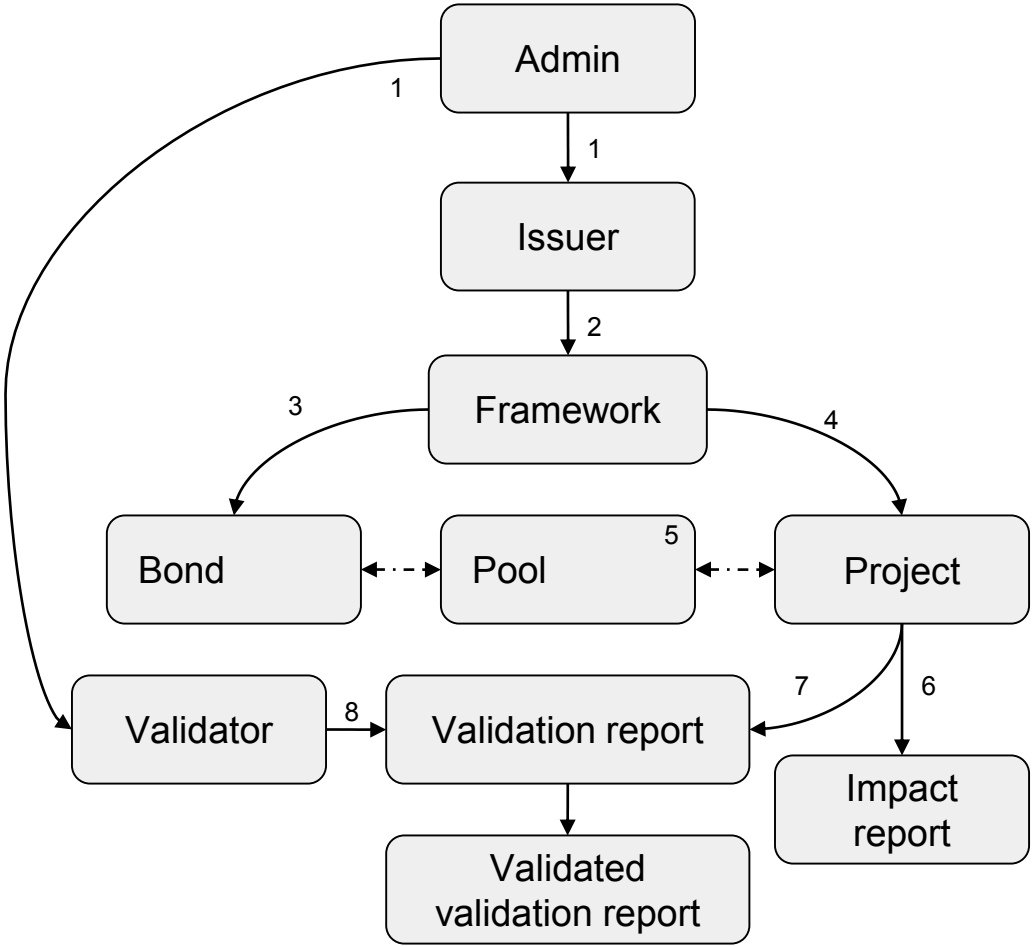
Architecture

- Web apps for accessing the platform
- Signing architecture is centralised but transparent and with a clear upgrade path
- Postchain network made up of stakeholders in the green finance industry



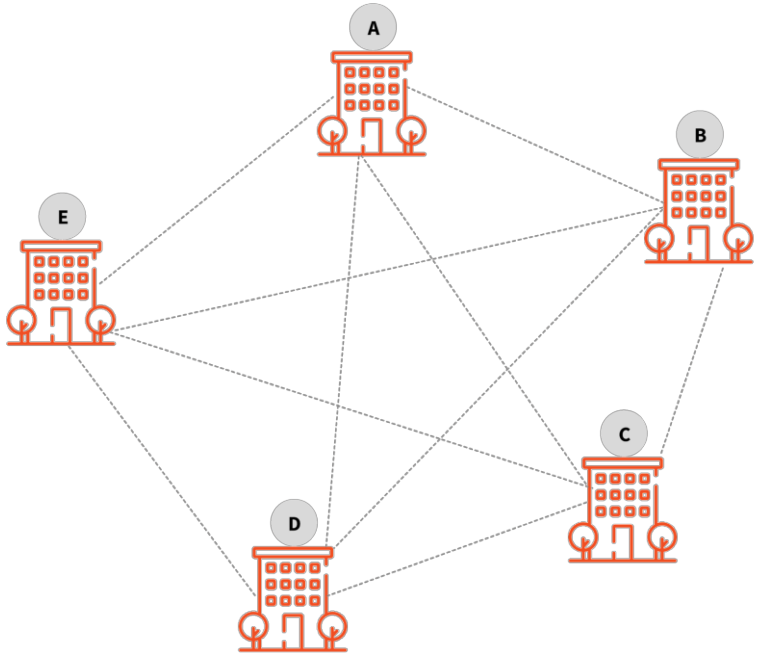
Action diagram

1. Admin creates issuer/validator
2. Issuer creates framework
3. Issuer creates bonds
4. Issuer creates projects
5. Bonds and projects *must* have a pool
6. Issuer or certifier creates an impact report for a project
7. Issuer creates a validation report for a project
8. Validator validates validation report



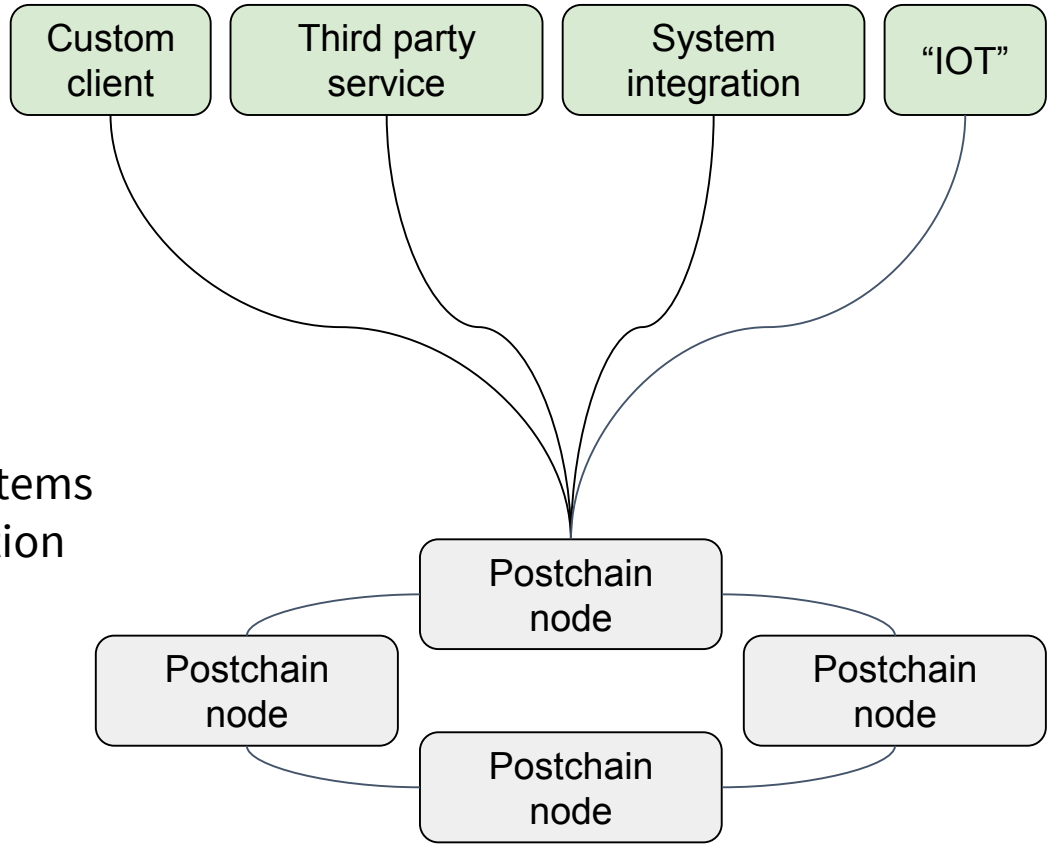
Phase 2 goals

- More decentralised architecture
- Better APIs for ecosystem development
- More sophisticated impact statistics
- Better standards for impact reporting
- Better UX
- Consortium expansion -- public platform?
- Versioning, track record, and transparency



More decentralised, better ecosystem, direct signing

- Local private key storage
- Ecosystem of service providers
- Integrations with existing IT systems for batch transactions, automation
- Automated data input



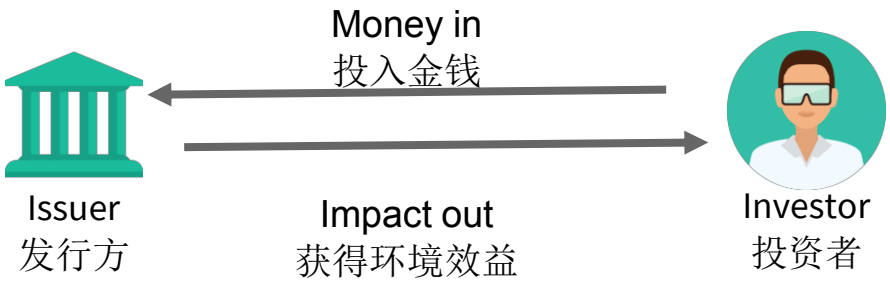
Move to public?

- Ease of use
- Built in economic hosting incentives
- (Theoretically) better security
- Global scalability
- Cutting edge
- Better admin UX

Track record, versioning, transparency

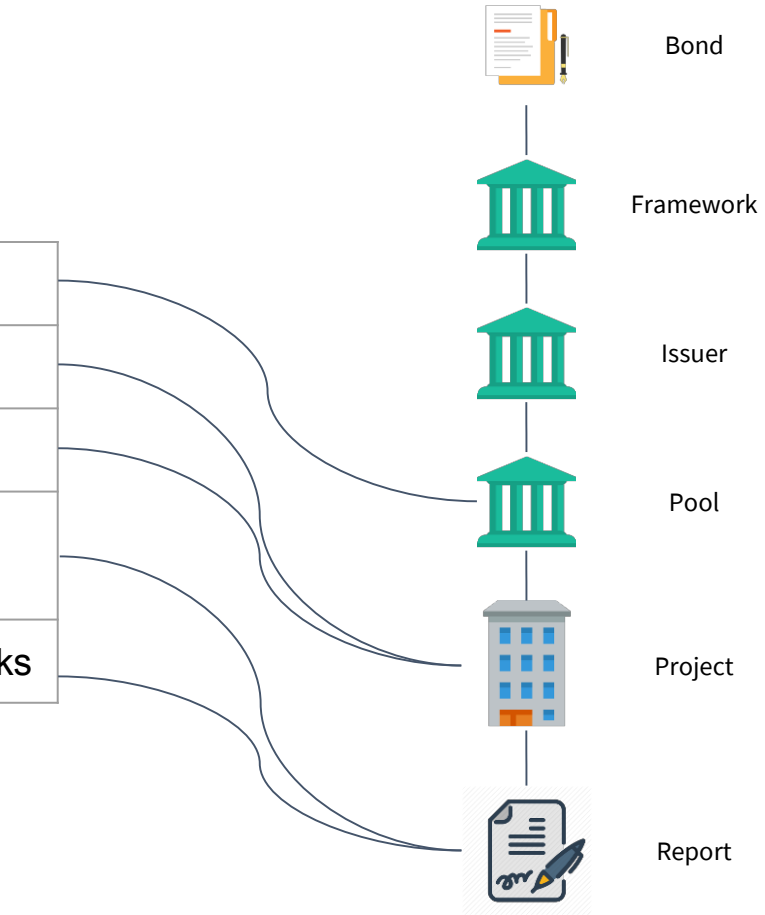
- Implement row versioning in Postchain
- Design a visual metaphor for versioned information
- Expose the track record of issuer and validator actors to investors in an intuitive way
- More intensive UI/UX design

About impact
关于影响力

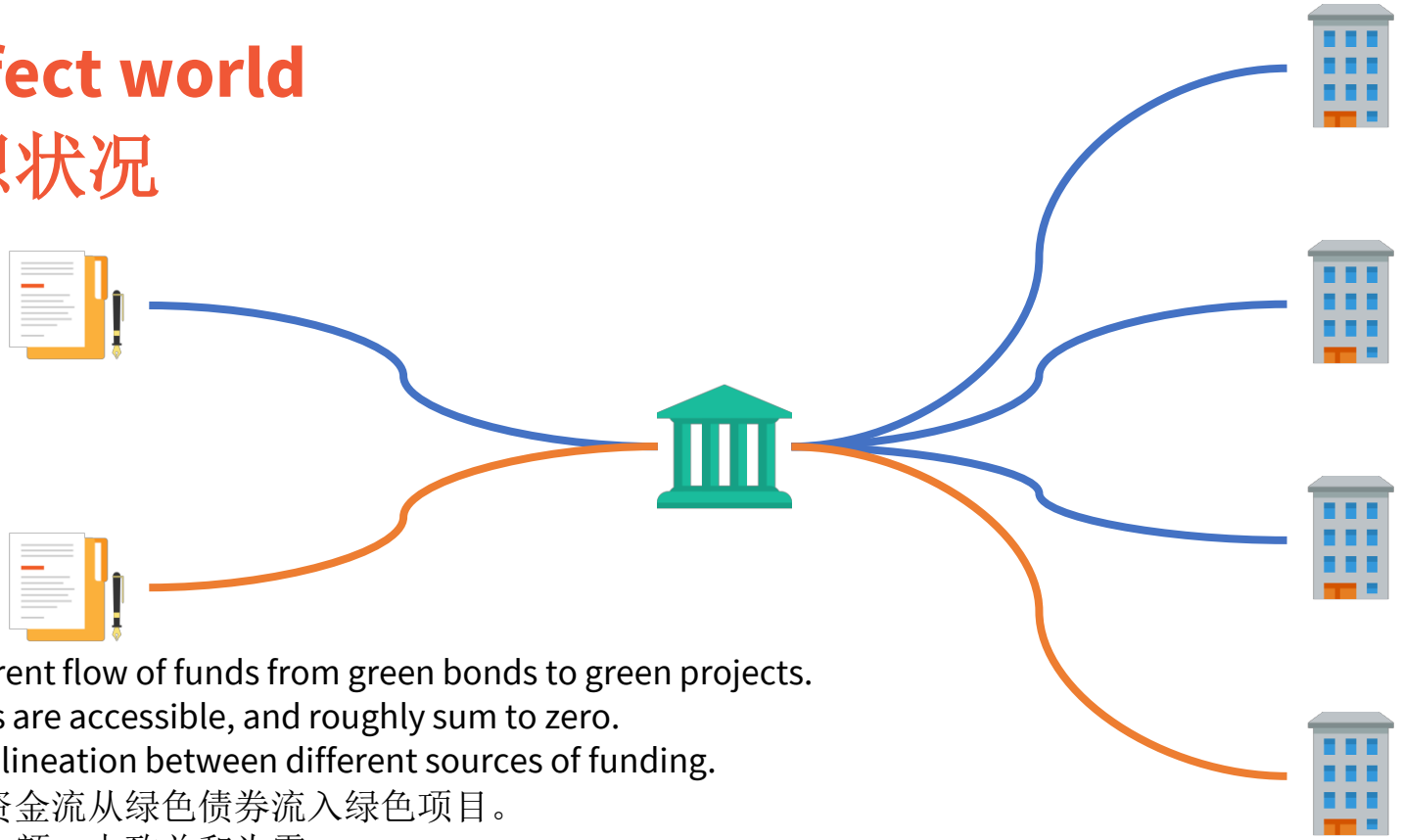


Impact reporting

List of projects or areas financed
Brief description of the projects
Amounts allocated, share of green funding
Actual or expected impact, ideally quantitative indicators
Underlying methodology, assumptions, benchmarks

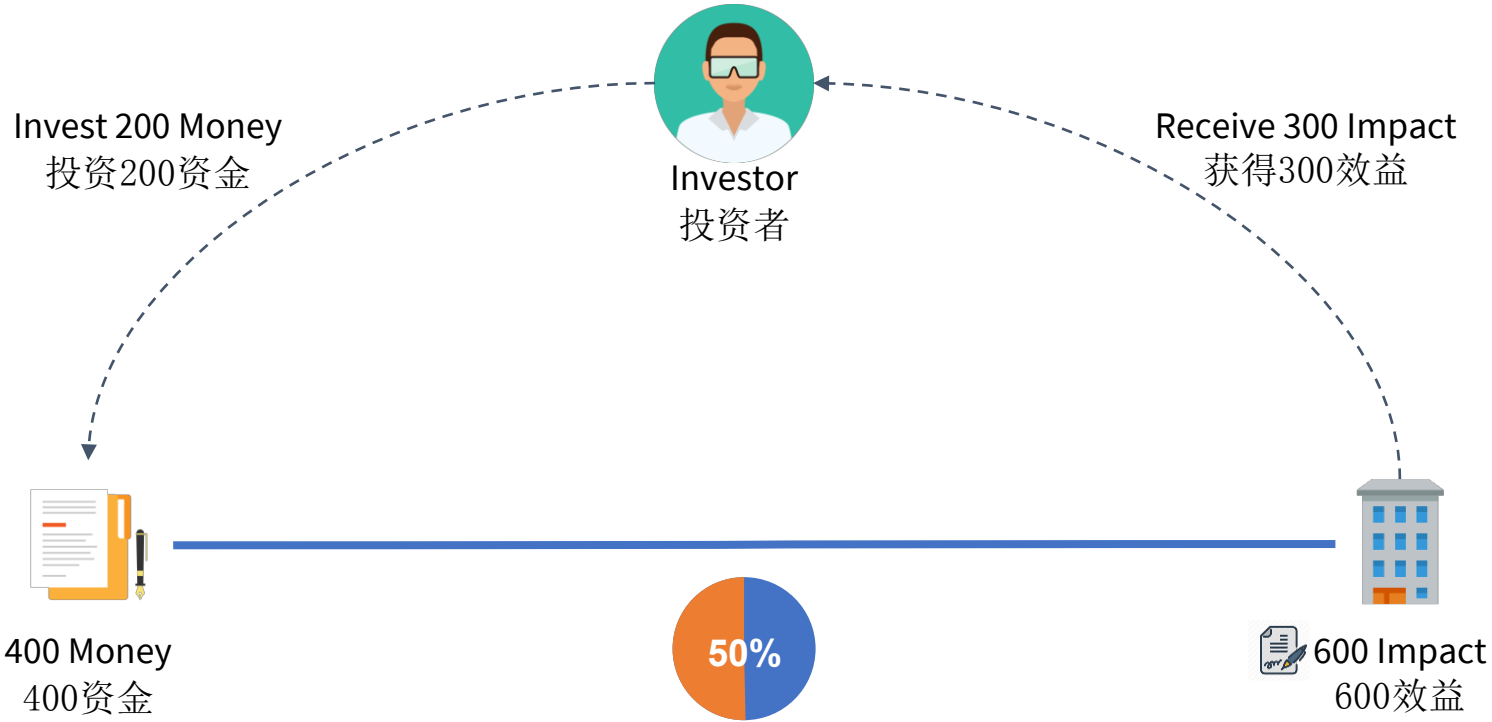


Perfect world
理想状况



Transparent flow of funds from green bonds to green projects.
Amounts are accessible, and roughly sum to zero.
Some delineation between different sources of funding.
透明的资金流从绿色债券流入绿色项目。
可获得金额，大致总和为零。
不同资金来源之间有一定划分。

Allocating impact proportionally
按比例分配影响力



Baselines and reporting standards?

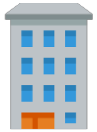
Average building of this type:
150kWh/m2
Actual consumption:
0kWh/m2

No building

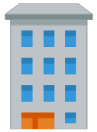
New building

Actual consumption:
90kWh/m2

Actual consumption:
150kWh/m2



Old building



New building

Actual consumption:
90kWh/m2

How to achieve transparency?
Applying a grid factor

search by bond isin

ISSUER/ISIN	ISSUE/MATURITY DATE	VOLUME	
Universiti Teknologi MARA (UiTM) MYBVJ1801732	27-04-2018 26-04-2024	10000000 MYR	add to portfolio

FRAMEWORK

Green Commitments

The Research Center to receive a "Green Building Index" (GBI) rating

Proceeds from the SRI Green Sukuk will not be used to finance any fossil or nuclear power projects.

The Construction, Commissioning and Operation of a Solar Research Center on the premise for the conduct of academic research, training and R & D for Solar Power and Renewable Energy

Use of Proceeds Category

Renewable energy

Impact Report

Report does not exist

Files

USPSB Green Bond Framewor… Second-Opinion-UiTM-020120…

Sustainable Development Goals

SDG 7 SDG 8 SDG 13

ASSOCIATED PROJECTS

Name	
Large Scale Solar Photovoltaic Power Plant	open

Vasakronan

VASAKRONAN

Company Description

Vasakronan is the leading property company in Sweden. Our strategy is to focus on Sweden's major regions: Stockholm, Uppsala, Gothenburg, Malmö and Lund.

vasakronan.se

FRAMEWORK

Green Commitments

New construction and major renovation of buildings owned and managed by subsidiaries of Vasakronan that have an energy performance at least 25 percent below the current building regulation (Swedish BBR code) and that have or will receive a certification of either LEED New Construction or Core and Shell (minimum certification level "Platinum"), or BREEAM-SE (minimum certification level "Outstanding")

Existing buildings owned and managed by subsidiaries of Vasakronan that have an energy performance under 100 kWh/sqm and either have a certification from the construction phase (as stated in section 1 above) that is not older than ten years or have received a LEED Existing Buildings:Operations and Maintenance certification (minimum certification level "gold").

Proceeds from the Vasakronan Green Bonds will not be used to finance any fossil or nuclear power projects.

Use of Proceeds Category

Energy efficiency

Clean transportation

Sustainable water management

Climate change adaptation

Eco-efficient products, production technologies and processes

Impact Report

Report does not exist

Files

Vasakronan_Green_Bo… Cicero-Second-Opinion-…

Sustainable Development Goals

SDG 9 SDG 11 SDG 12 SDG 13

FRAMEWORK IMPACT

All Years

Reporting on 1 projects
Out of 4 projects total (25%)

Latest report submission by Vasakronan 2018-10-17

Energy Generation	Emission Avoidance	Energy Consumption
0 kWh	0 t/CO2e	0 kWh

Bonds Project

ISSUER/ISIN	ISSUE/MATURITY DATE	VOLUME	
Vasakronan SE0006452553	18-11-2014 18-11-2019	500000000 SEK	add to portfolio
Vasakronan SE0009607013	14-02-2017 28-08-2019	490000000 SEK	add to portfolio
Vasakronan SE0009241425	24-10-2016 24-04-2019	1000000000 SEK	add to portfolio
Vasakronan SE0005798816	19-03-2014 19-03-2019	500000000 SEK	add to portfolio
Vasakronan SE0005798824	19-03-2014 19-03-2019	750000000 SEK	add to portfolio

PROJECT

Large Scale Solar Photovoltaic Power Plant

PROJECT DESCRIPTION

ABOUT THE PROJECT

50 MWac Construction - Build, Operate & Own for 21 years under a Power Purchase Agreement with the national electricity provider Tenaga Nasional Berhad. Constructed in the district of Gambang in the State of Pahang, Malaysia

Green Bond Framework

REGION

Asia

BONDS

ISIN	ISSUER	ISSUE DATE	MATURITY DATE	ISSUE VOLUME
MYBVJ1801732	Universiti Teknologi MARA (UiTM)	2018-04-27	2024-04-26	10000000 MYR
MYBVI1801742	Universiti Teknologi MARA (UiTM)	2018-04-27	2023-04-27	10000000 MYR
MYBVH1801751	Universiti Teknologi MARA (UiTM)	2018-04-27	2022-04-27	1000 EUR
MYBVG1801761	Universiti Teknologi MARA (UiTM)	2018-04-27	2021-04-27	10000000 MYR
MYBVF1801771	Universiti Teknologi MARA (UiTM)	2018-04-27	2020-04-27	10000000 MYR

PROJECT VALIDATION

GREEN COMMITMENT

The Construction, Commissioning and Operation of a Solar Research Center on the premise for the conduct of academic research, training and R & D for Solar Power and Renewable Energy

DESCRIPTION

GIB to provide verification of construction by means of satellite images of the site taken over several years.

NAME

Satellite verification of construction

VALIDATOR

Geografiska Informationsbyrån

STATUS

Validated

DOCUMENTS

validation_gib_bef…

validation_gib_aft…

MY IMPACT

Energy Generation

0 kWh

Energy Consumption

0 kWh

0%

Emission Avoidance

0 t/CO2e

Markets

ASIA

100% 290010410 MYR

Image of solar installation site, 2017-10-07.
Image courtesy of Planet Labs, Inc.

太阳能安置场地2017年10月7日影像

Image of solar installation site, 2018-10-02.
Image courtesy of Planet Labs, Inc.

太阳能安置场地2018.10.2影像

Questions?
问题？