

Welcome

Natural Capital Expedition

'Built Environment'

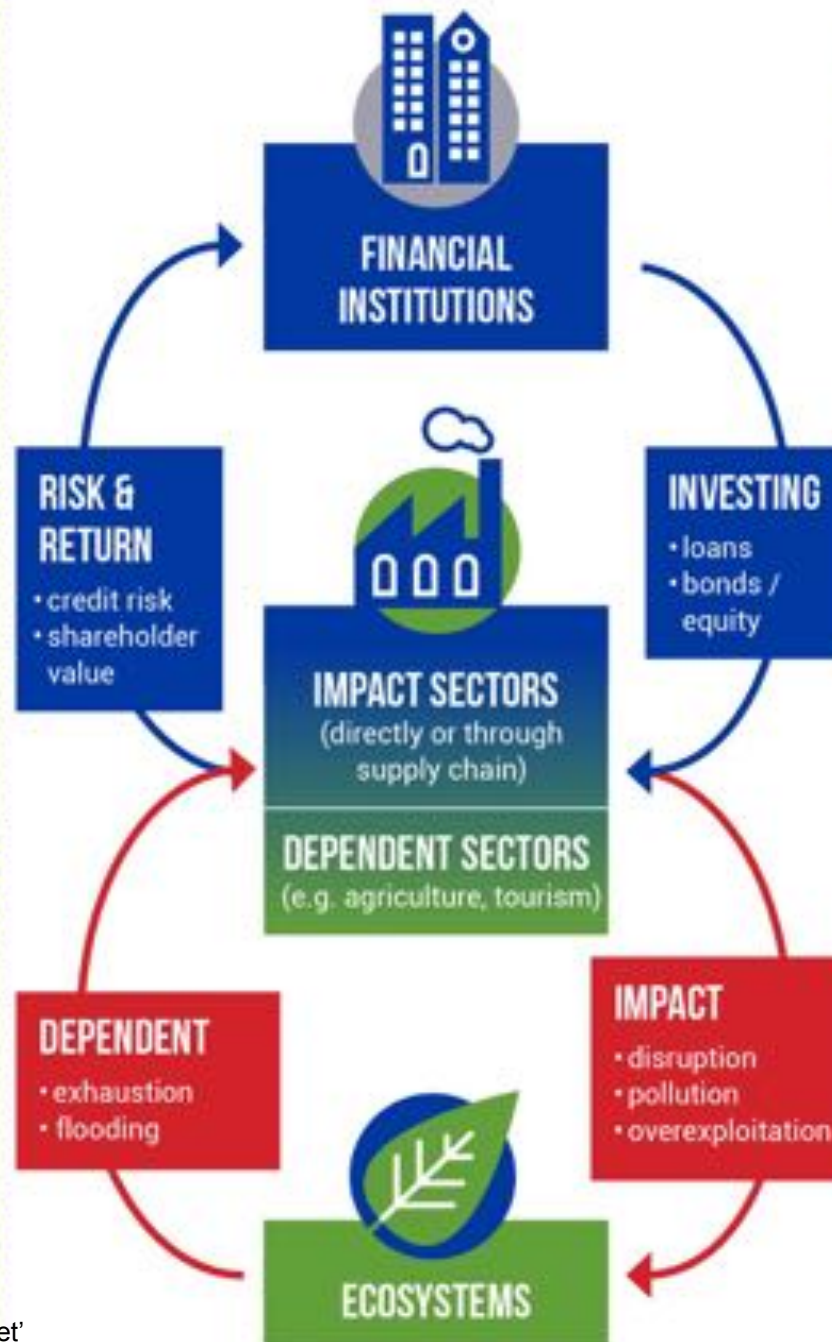


Angélique Laskewitz, VBDO



Liuzhou Forest City





Source: 'Finance for one planet'



What is natural capital?

The **stock** of renewable and non-renewable **natural resources**, (e.g. plants, animals, air water, soils, minerals)

that combine to yield a **flow**

of **benefits** to people



Natural Capital therefore includes all environmental aspects including, water, climate change, waste, and biodiversity

Examples of ecosystem services

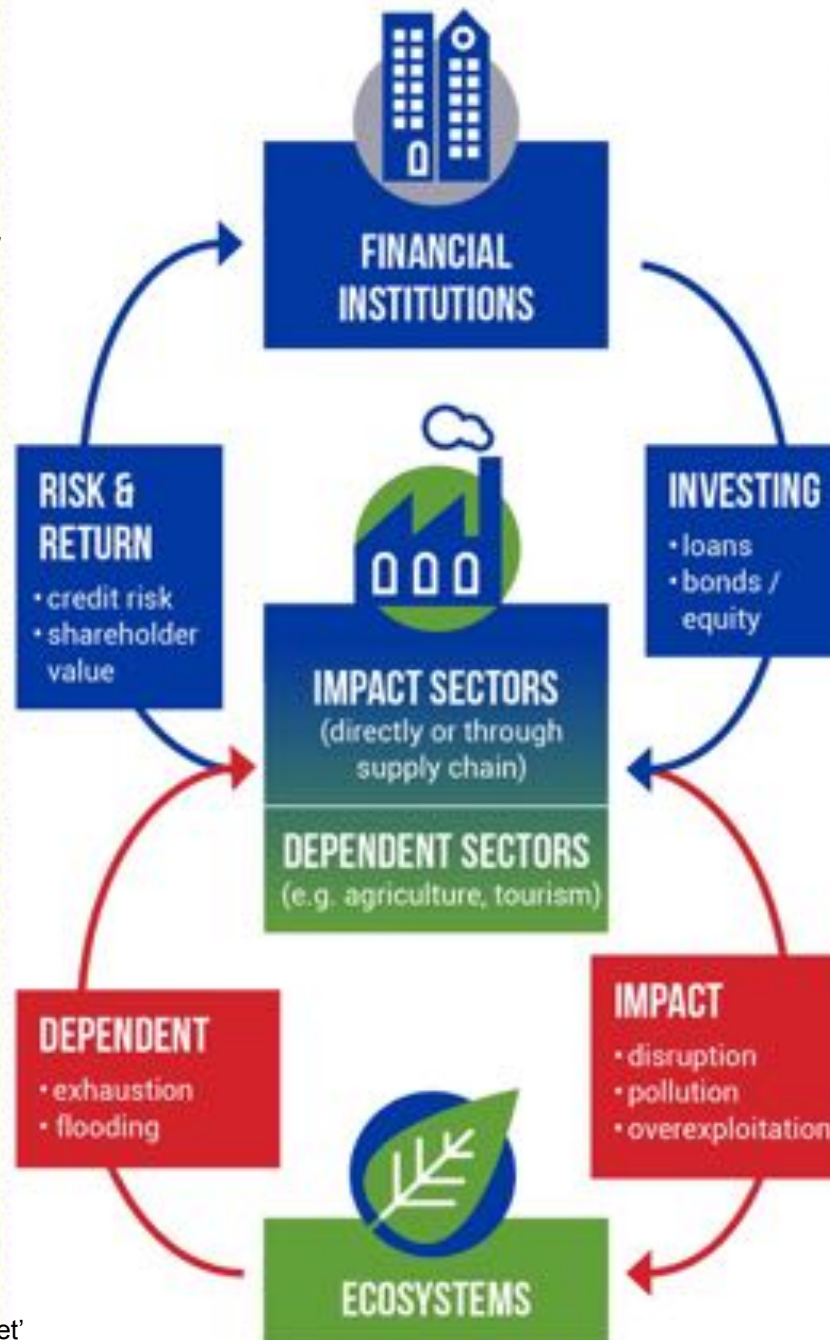
- Production services
- Regulating services
- Cultural services
- Supporting services



Source: PBL

Q1: Which **opportunities** can you think of when investing from a natcap perspective?

Q2: Which **risks** are relevant when investing from a natcap perspective?



Source: 'Finance for one planet'

Q3: Which **criteria** are relevant when integrating natural capital into investment decisions?

Q4: What do business and finance **need** to create better investments for ecosystems / natural capital?



Source: 'Finance for one planet'

Sustainable Banking

Corporate Strategy & Sustainability
Jan Raes

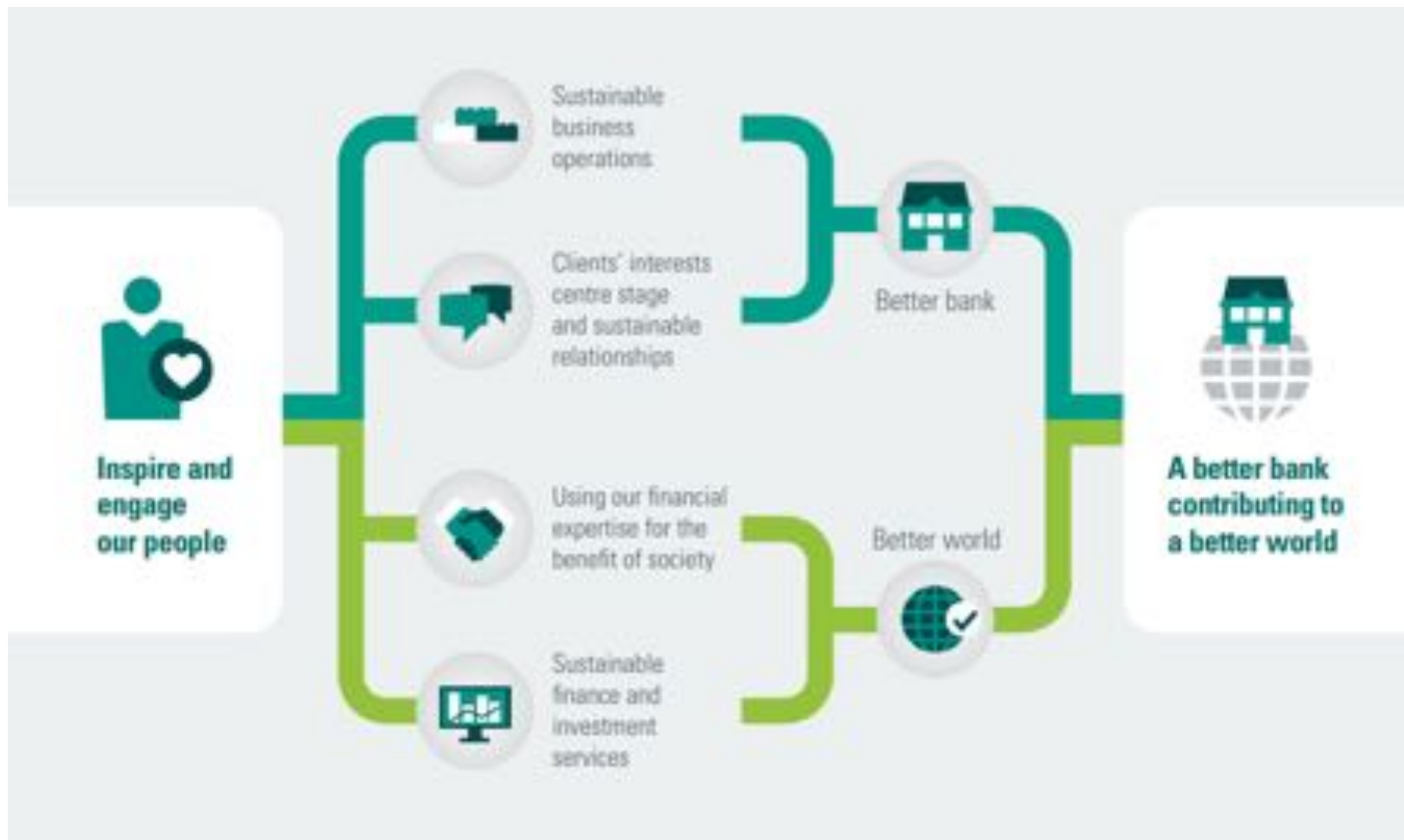
Content

- 1 ABN AMRO strategy & sustainability strategy
- 2 Key impact: sustainable finance and investment services
- 3 Natural Capital
- 4 Q&A

ABN AMRO: purpose and strategic priorities



ABN AMRO: sustainability strategy and ambitions



Sustainability strategy: four focus themes

Climate change



Human rights



Circular economy



Inclusion



Content

-
- 1 ABN AMRO strategy & sustainability strategy
 - 2 Key impact: sustainable finance and investment services
 - 3 Natura Capital
-
- 4 Q&A
-

Mission 2030: Ambition real-estate & mortgages



- ABN AMRO finances more than 10% of the total built environment in the Netherlands.
- A large part of the Netherlands' carbon emissions are produced by the use of natural gas to heat homes and offices and by the use of electricity.
- The energy label shows how energy-efficient a building is compared with similar buildings. There are different categories, ranging from A (ultra-efficient) to G (very inefficient). An energy-efficient home is well insulated, has double glazing or even has solar panels. The more energy-efficient your building is, the less carbon it emits.
- Raising all of these buildings to an average energy label A would result in an enormous reduction in carbon emissions (about 1 third less carbon emissions).
- Total loan amount of 185 Billion euro two thirds of the balance sheet (66%) of loan portfolio

Ambition Sustainable Investments



ABN AMRO has some 8 billion euros in sustainable client assets, making it the Netherlands' number one bank in this respect. The bank's ambition is to grow its sustainably invested assets to 16 billion euros in the next three years. In addition, ABN AMRO intends to make its range of investments more sustainable.

ABN AMRO's CEO Kees van Dijkhuizen explains: 'ABN AMRO wants to contribute to a better world, and we see that sustainability is becoming increasingly important to our clients. Last August, we announced targets for the sustainable conversion of residential and commercial properties in our real estate portfolio, and we're now doing the same for investments.'

Ambition Circular Economy Finance



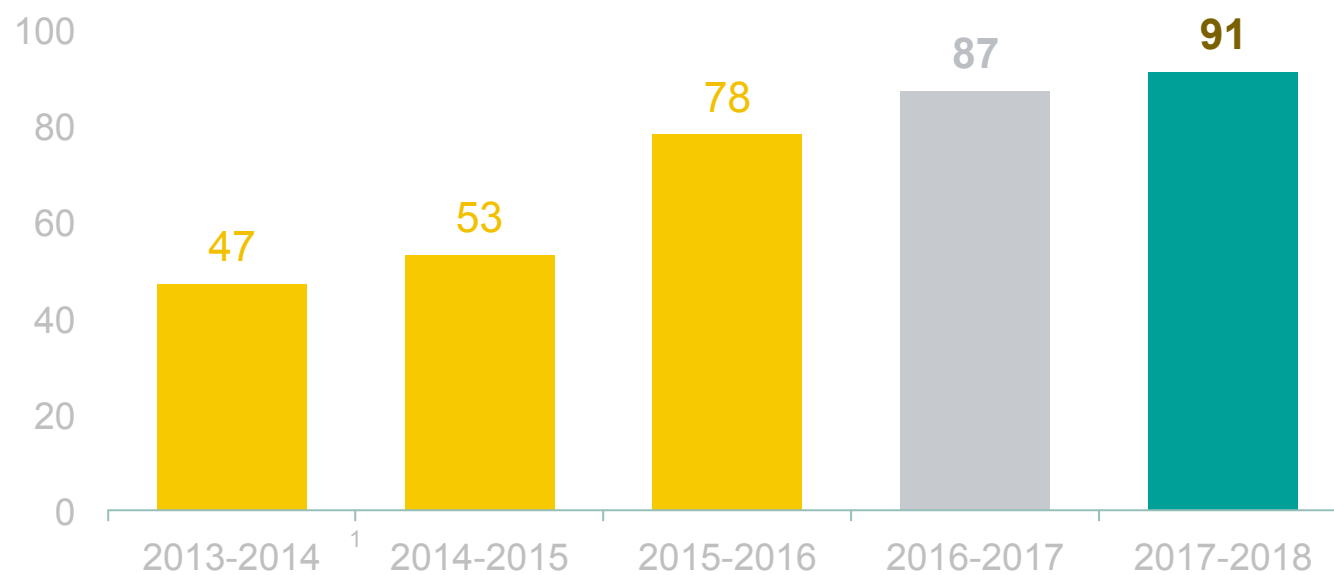
ABN AMRO wants to achieve three goals by 2020:

- finance 1 billion euros in circular assets,
- finance 100 circular loans,
- cut CO2 emissions by 1 million tons.

Dow Jones Sustainability Index

Dow Jones Sustainability Index

(Schaal 1 tot 100)









¹ Cijfers zijn gebaseerd op publiekelijk beschikbare informatie

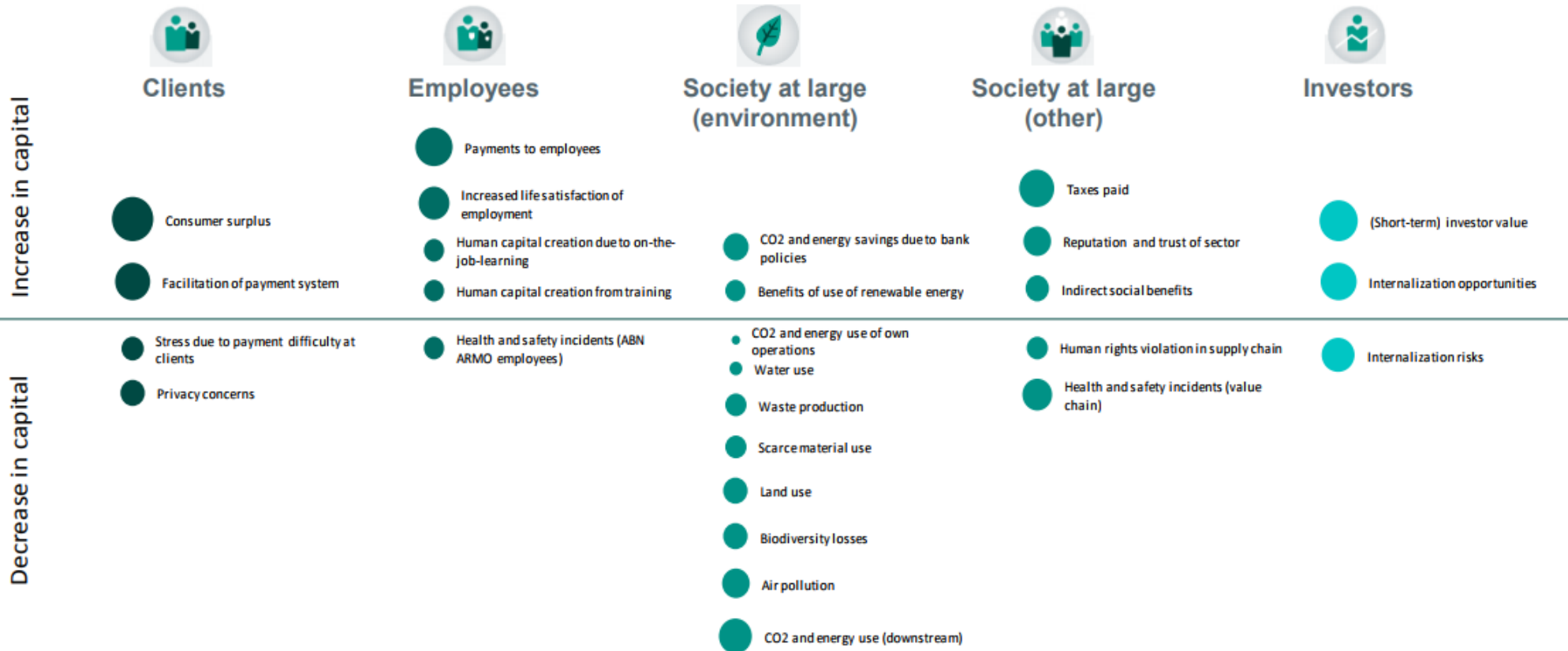
Content

-
- 1 ABN AMRO strategy & sustainability strategy
 - 2 Key impact: sustainable finance and investment services
 - 3 Natural Capital**
 - 4 Q&A
-

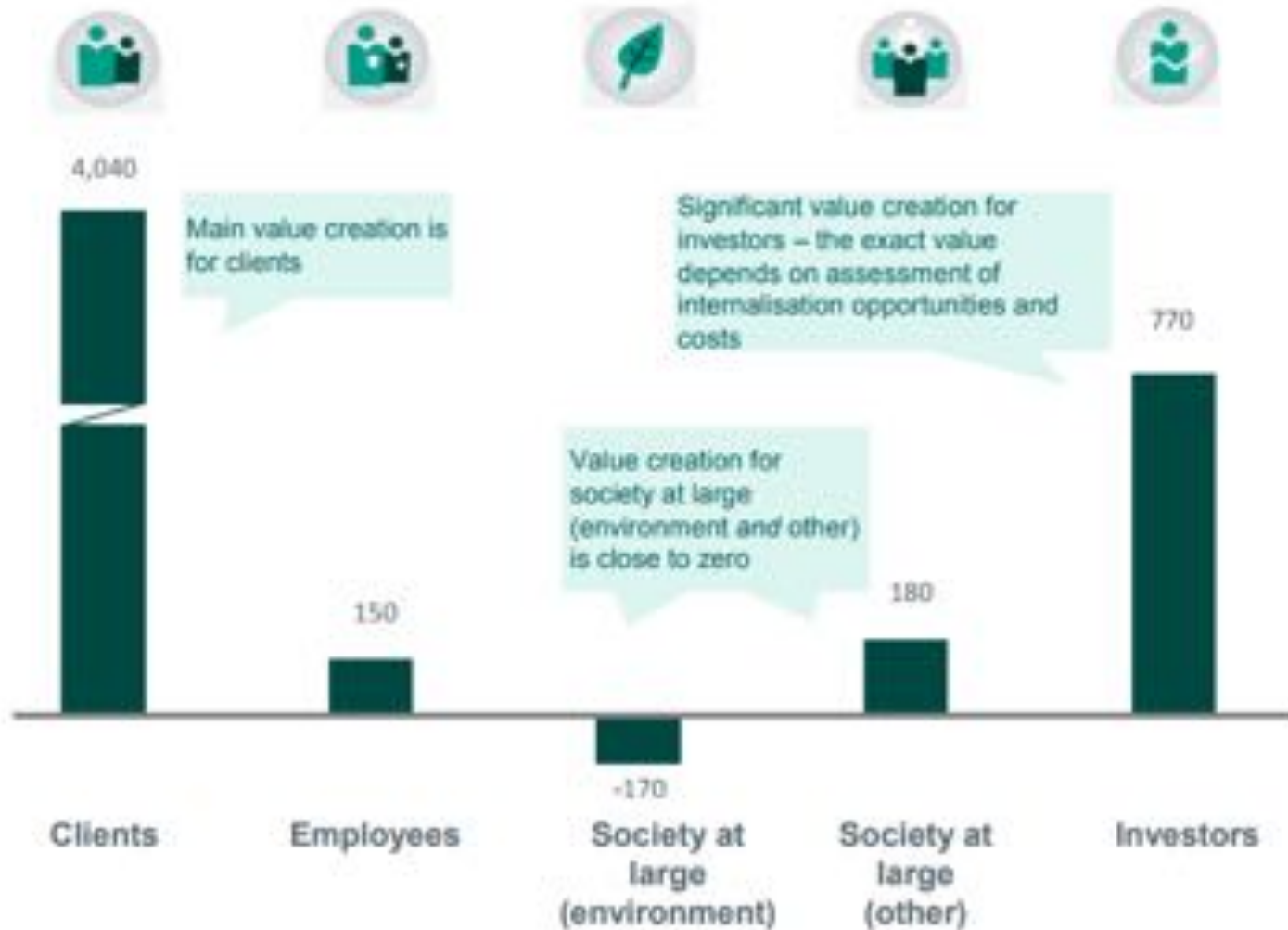
6 capitals of the IIRC

Capital	Examples
 Financial	Profits, salaries, taxes
 Produced	New buildings, transportation, products
 Intellectual	Patents, data
 Natural	Climate change, water use, materials use
 Social	Social activities, nuisances to local communities
 Human	Health, job satisfaction, labour productivity

True price of mortgages



IP&L ABN AMRO mortgage provision 2016 (EUR million)



(unintended) eco-services of biodiversity in built environment



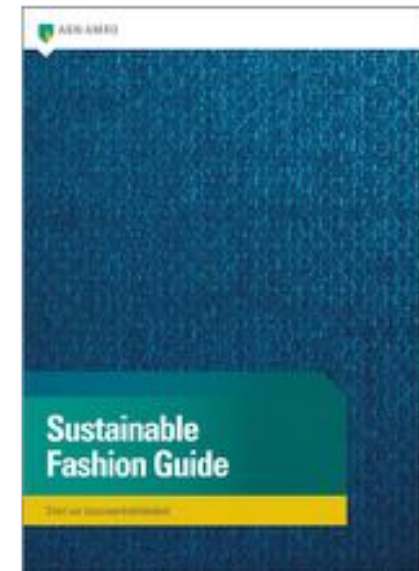
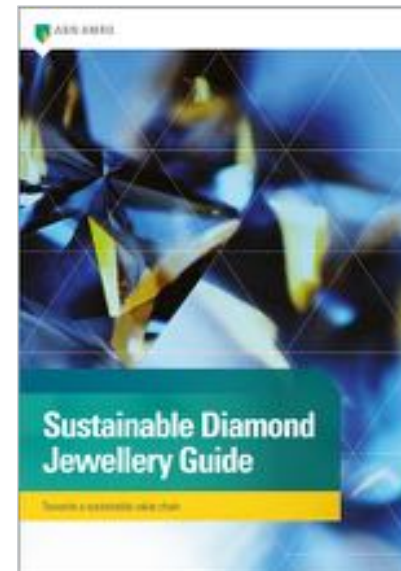
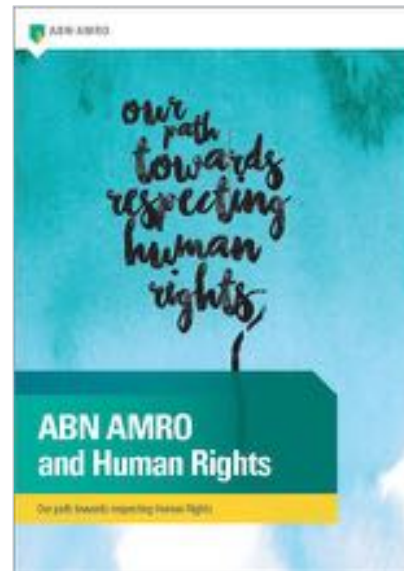
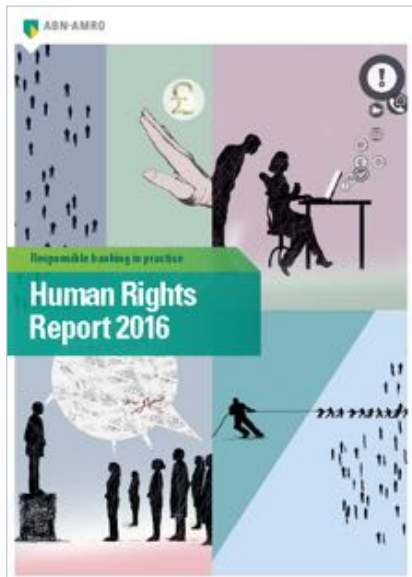
**IJburgse nieuwbouw lokt
vleermuizen, waarvan één
zeer zeldzame**



De foto bovenin is afkomstig uit de reportage 'Nieuwbouw op IJburg, 10 Mei 2014'

More information online

- ▶ We publish policies, sector guides, newsletters and blogs
- ▶ ABN AMRO's Trueprice Integrated P&L
- ▶ Available on: www.abnamro.com/en/sustainable-banking





Natural Capital Expedition:

Built environment

Van Nieuwpoort Groep | Arie-Dirk Blom CFO

January 23 | 2018

This pictures captures the high water level in one of the side channels of the river Waal in Nijmegen. Mainly used for flood protection. But occasionally, a playground for canoers.



van nieuwpoort



Cradle to cradle philosophy:

- the sources of many raw materials are **not infinite**, yet they are treated as if they are in traditional construction and design processes

The Alps still erode: so what about sand and gravel along the rivers?

Principles of CIRCL:

- sustainable and circular**
- energy efficient
- easy to **disassemble**
- Re-use of materials; from a **previous life** to **new use**



What does such a challenge for just one single project mean for a whole industry and supply chain?

Stakeholders & industry associations





Aggregates - mining

- Project area development for own account
- Project area development in joint ventures
- Dredging & quarrying operations



Aggregates – trading

- Trading positions in NL, BE & GER
- Balancing opportunistic own mining optimisation versus trading position
- Transportation



Ready-mixed concrete

- 8 RMC plants in business lease to Mebin (HeidelbergCement)
- Multiple shareholdings, 2 dry-mortar plants



Precast concrete elements – production and sales

- Precast concrete omnia floors, hollowcore slabs and insulated precast concrete floors, specials and EPS insulation and foundation elements
- Multiple shareholdings



Aggregates

Aggregates (sand & gravel) business is a project driven industry; the symbiosis of:

- **Natural and social goals** (such as flood protection, nature development and high quality living environments)



- **Long lead times** from opportunities to actual mining permits
- In association with government and **numerous stakeholders**
- **Long operating life times** under different (construction) market conditions
- **Joint ventures to mitigate** large scale (often as a result of social goals such as flood protection) and concentration of risk



Ready-mixed concrete (we withdraw from actively operating RMC-plants)

- **Value driver** of the ready-mixed concrete business is **cement**
- Sustainability efforts **focus on recycling of sand and gravel** from demolished concrete
- **Innovation** for sustainable **cement/new binding products** needs an impulse
- **Betonakkoord partners**

2-R Recycling, BAM, BASF, Bosch Beton, BRUIL, Cascade, CRH, Dekkergroep, DGBC, DuraVermeer, HeidelbergCement Nederland, Heijmans, Heros Sluiskil, Ministerie BZK, Ministerie EZ, Ministerie I&M, Movares, Orcem, ProRail, REKO B.V., Rijkswaterstaat, RVB, SBRCURnet, SER, Spijker, Strukton, TBI Mobilis, Theo Pouw Groep, Van Gansewinkel Minerals, Van Nieuwpoort, VBI, VERAS, Vereniging Hulpstoffen, Vliegasonie, Volker Wessels

- Of which local (Dutch) family owned businesses (such as aggregates mining companies) and multinational conglomerates (e.g. cement producers)





Precast concrete

- Lean manufacturing of precast omnia concrete floors and insulated precast concrete floors in a **carrousel factory** (like car production)
- High tech carrousel plant based on sustainability & energy management
 - sand & gravel from recycled concrete
 - sustainable energy supply mainly for the 43°C drying room:
 - solar panels (2.500 m²)
 - heat exchanger piles used for foundation
 - rain water storage use
 - **anticyclical investment** during downturn period





Precast concrete

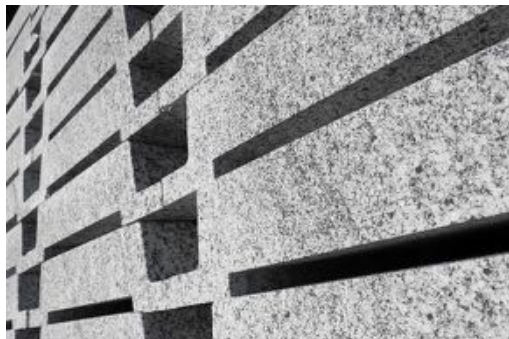
- Innovation towards **ready-to-use concepts**:
 - together with major family owned construction companies e.g. Dijkstra Draisma (<https://www.bgdd.nl/nieuws/dijkstra-draisma-innoveert-met-gevelfabriek/1>)
 - **disassembling** possibilities for complete houses
 - solution for lack of qualified work force on the construction site
 - **industrialised** production with less cost of failure
 - less transportation movements





Polystyrene foam (EPS/Airpop)

- Focus on growth in concrete floor insulation elements and road foundation elements for areas with soft ground conditions
- Optimise and enlarge the **use of recycled EPS** in the production of EPS elements
- New initiatives for the recycling of EPS
 - newly built factory for 3.000 ton/year (exceeding the brominated EPS volume)
 - Investment amount EUR 8,5 million financed by a Life(EU) grant of EUR 2,7 million, Rabobank loan of EUR 4,5 million, resulting in an over-leveraged investment competing traditional businesses





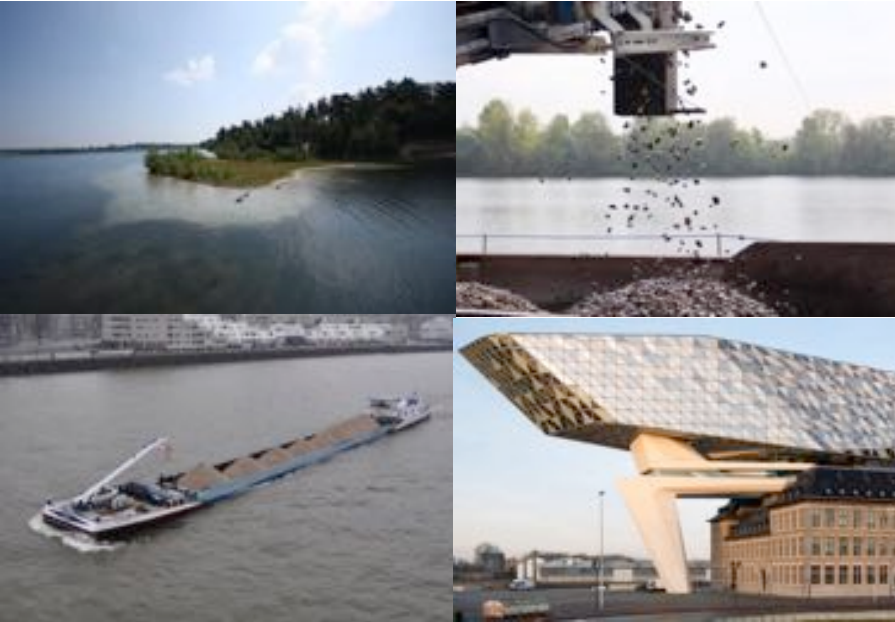
Sustainability and circularity in the refinancing process

- Refinancing of the group with a 50:50 club deal:
 - ABN AMRO Bank
 - Rabobank
- The club deal made LMA documentation necessary, discussions focused on joint ventures and other permitted transactions, showing friction between our business model and the LMA standardized view on credit structuring
- Sustainability and circularity just popped up at the first meeting and in the KYC questionnaires



Resource for development

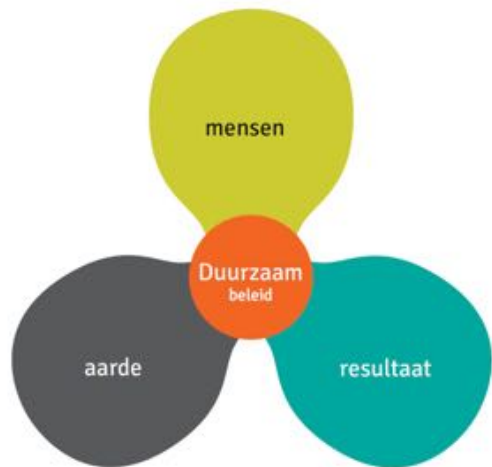
Creating positive impact with extracting aggregates



Richard van den Berg
Director Landscape development

Landscape development
Sand, gravel, clay
Trade & logistics
Concrete

Our vision on sustainability



Sustainability pillars Dekker



Investing in employees

Talent development

Sustainable employability

Safe workplace



Reducing impact on the environment

Energymanagement &
CO₂-reduction

Re-use & waste reduction

Extraction with care and attention



To enrich the environment

Stakeholdermanagement

Creating landscapes with value to society, nature
and economy

Social engagement



Our business case

Symbiosis



&



Extracting aggregates and creating social & environmental impact



High water safety



Recreation



Landscape improvement

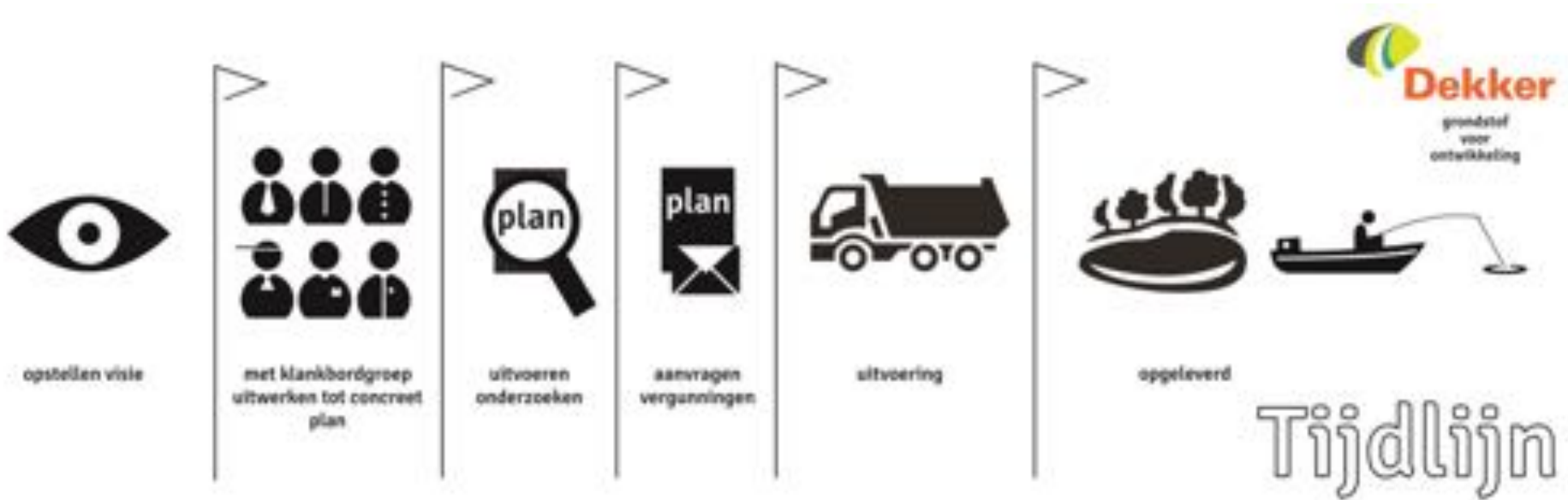


Biodiversity &
new nature

Our industry invests in building Natural Capital

How we work

Investing in building strong relationships



low risk projects due to stakeholdermanagement

Extraction with care



Permits, procedures and a lot of common sense

Investing in aggregate projects

Opportunities

- Delivering positive **social & environmental impact**
 - Through aggregate extraction
 - **Without** government spendings/public money
 - Development of **Natural Capital / biodiversity / new nature**
 - Reducing **NO_x deposition**
 - Measurable through **nature value points system**
 - High water safety (Room for the river, Deltaplan)
 - Increasing **wellbeing** - recreational & green areas

Investing in our aggregate projects

Opportunities



- Sustainable production processes
 - **-80% CO₂ emissions** by 2020
 - Energy management
 - **100%** green energy
 - Safety first
 - Aggregates are no scarce natural resources
- Low risk
 - Thorough **stakeholdermanagement**

What we leave behind





Sustainability and circularity in the refinancing process

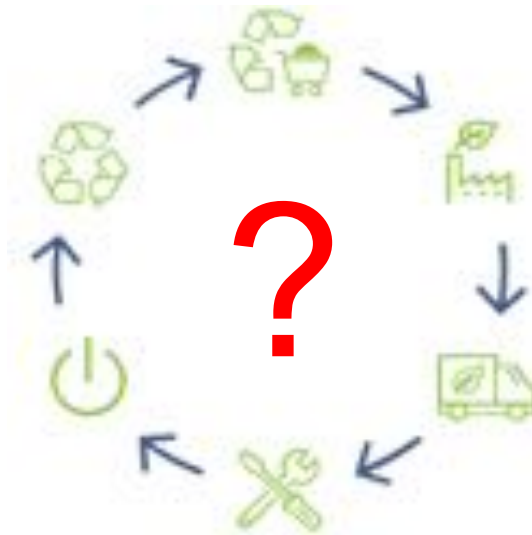
- Lead times, scale, concentration of risk and operating life cycles often require a joint venture set-up for project area development (preferably without venturing involvement of social stakeholders). This is not in line with the bankers trying to contractually prevent entering into joint ventures aiming to mitigate (financial) structure risks
- Financial institutions need to ensure that initiatives which are financially overleveraged and subsidized do not harm or disrupt pure business initiatives
- Lending should follow normal financial and business rules with some stimulating (not regulating) reward for sustainable and circular initiatives.





Summary

Driven by sustainability and circular ambitions, trivialities occur in the built environment with regard to natural & social goals, (traditional) business models, joint ventures and other co-operations, recycling, innovations and investments



On our expedition to natural capital, our next speaker 'Dekker Grondstoffen' will also show our industry's passion to social entrepreneurship.



**NATURAL
CAPITAL
COALITION**



**Natural Capital
Finance Alliance**
Finance sector leadership on natural capital



Secretariat:



Connecting Finance and Natural Capital: A Supplement to the Natural Capital Protocol

**VBDO Natural Capital Expedition: Built Environment
Amsterdam, 23 January 2018**

**Marta Santamaria, Technical Director
Natural Capital Coalition**

This project has been made possible by generous funding and support from The Rockefeller Foundation, International Finance Corporation (IFC) with the support of the Swiss State Secretariat for Economic Affairs (SECO) and the Ministry of Foreign Affairs of the Government of the Netherlands, United Nations Environment Program (UNEP), and the Dutch Ministry of Agriculture, Nature and Food Quality.



What is the Finance Sector 'Supplement'?

At present, there is no agreed framework for financial institutions to measure and value their impacts and dependencies on natural capital.

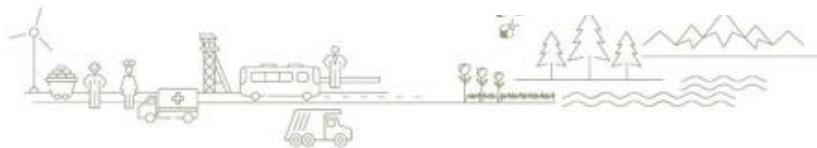
The Finance Sector Supplement will help financial institutions incorporate consideration of natural capital **impacts and dependencies**, and to better **assess risks and opportunities**, into their **banking, investment and insurance** practices and processes.





What is natural capital?

The **stock** of renewable and non-renewable **natural resources**,
(e.g. plants, animals, air water, soils, minerals)
that combine to yield a **flow**
of **benefits** to people



Natural Capital therefore includes all environmental aspects including, water, climate change, waste, and biodiversity



The Natural Capital Protocol

The Natural Capital Protocol was launched in July 2016.

It provides a standardized framework for businesses to integrate natural capital into their decisions.





A capitals approach does three things

Impacts → Dependencies

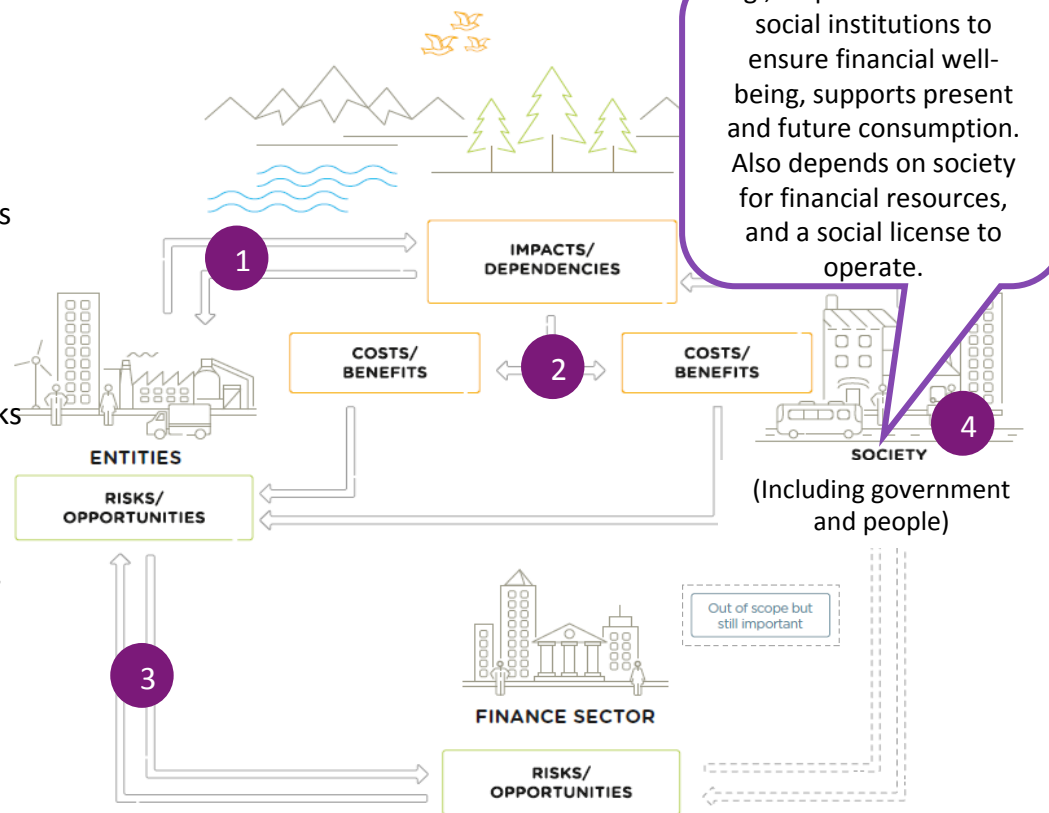
Measure → Value

Separate issues → A systems approach



The conceptual model (Figure 1.1)

1. All entities impact and depend upon natural capital.
2. This relationship delivers costs and benefits back to themselves and to society.
3. These in turn lead to risks and **risks and opportunities**, which reach the finance sector via banking, investment, and insurance activities.
4. Finance also interacts with society. This is out of scope for this Supplement.

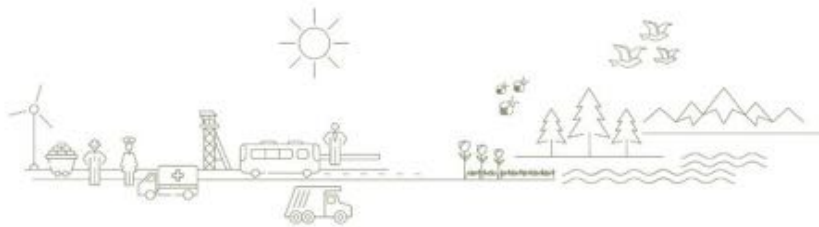




What does natural capital bring?



The Finance Sector is already very active on measuring its environmental impact. The Supplement builds on these existing approaches, into one standardized framework.





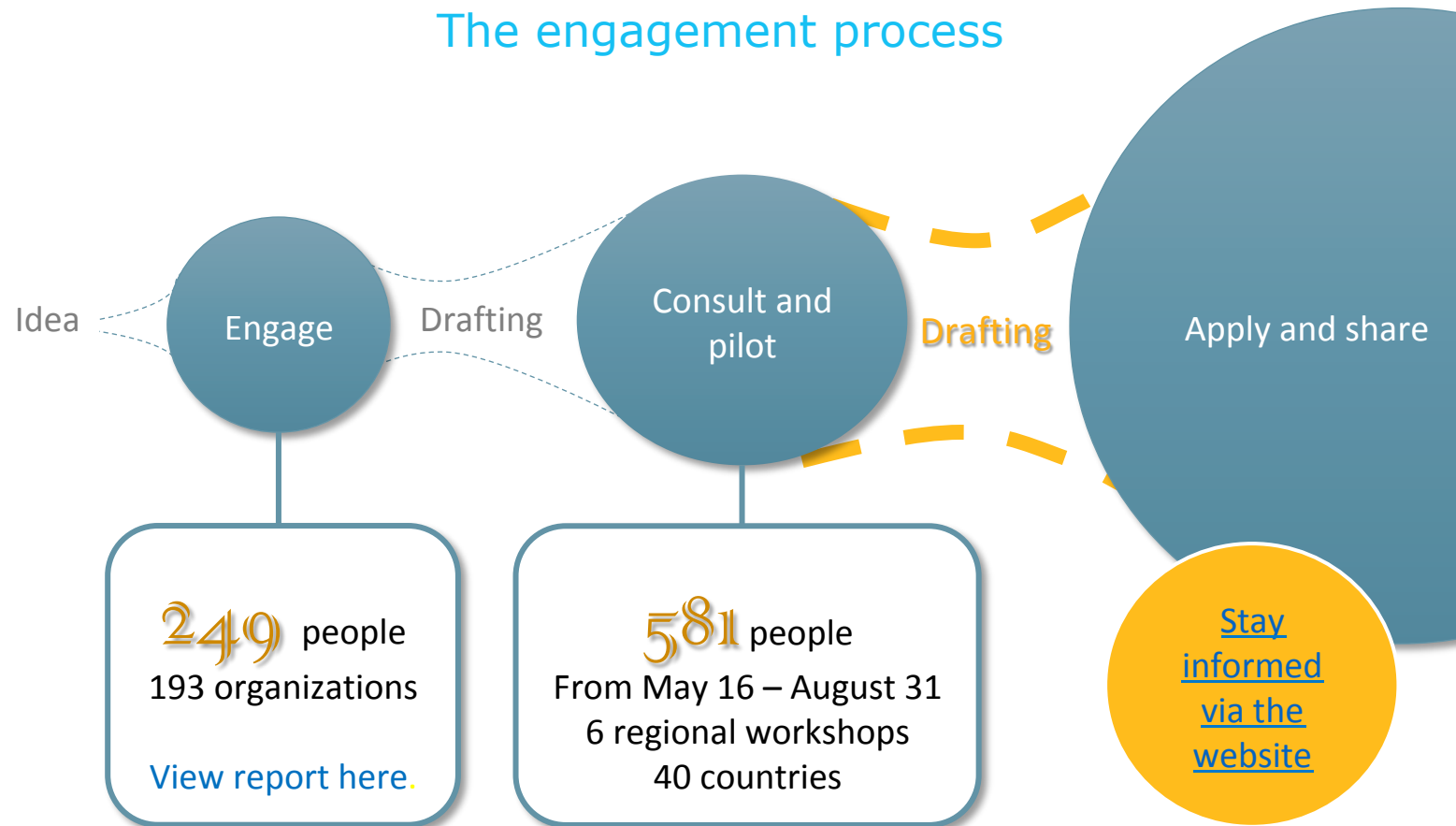
What does the Finance Sector Supplement offer?

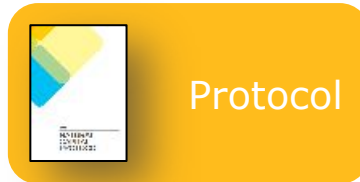
General approach	Finance Sector Supplement
Commonly looks at Impacts only	Assesses both impact and dependency simultaneously
Focuses on a specific set of issues (water, carbon, soil), and assesses independently .	Considers natural capital stocks and ecosystem services , and the interconnectivity between them.
Range of issues is quite limited (e.g. less attention to regulating services and cultural values)	Range of issues is much broader (e.g. includes issue that might vary by context)
Typically measurement only	Considers measurement and valuation



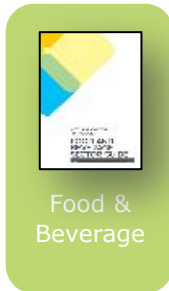


The engagement process

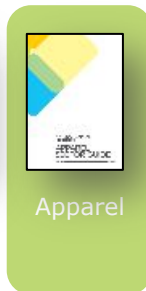




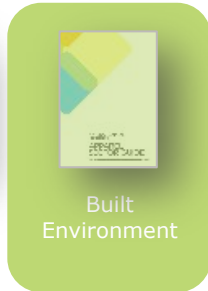
Protocol



Food & Beverage



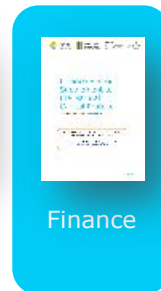
Apparel



Built Environment



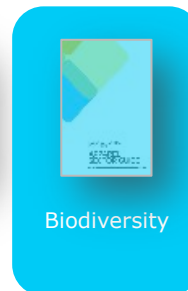
Forest products



Finance



Oceans



Biodiversity



Data

Sector Guides

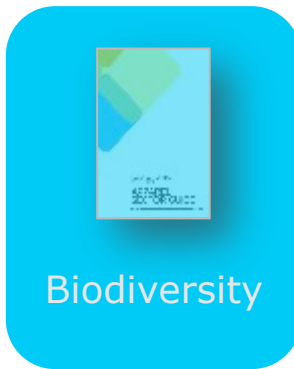
Supplementary Information



The Coalition Organizations are broadening the Protocol with supporting work.



Biodiversity ‘Supplement’



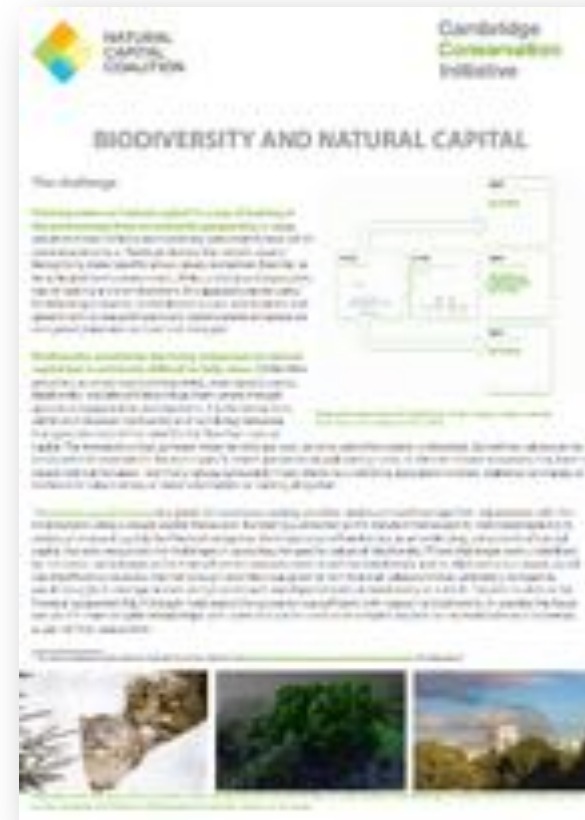
Biodiversity is often a major challenge for natural capital assessments, with many of its benefits missing, hidden or complex to quantify.

The Biodiversity Supplement aims to strengthen the way biodiversity is covered in the Protocol.

Project is in scoping phase and stakeholder engagement

Developed by the Cambridge Conservation Initiative (CCI), on behalf of the Coalition.

Please register for updates on the [project webpage](#)



Built Environment Sector Guide

Why Natural Capital In the Built Environment Matters



For public & private sector investors:

- Increased value and profitability from investment in sustainable building and infrastructure projects

For Design & Building Professionals:

- Increased awareness of natural capital impacts and dependencies during the design and build process.
- Improved capacity to design and build assets that are more risk resilient and adaptive to a changing climate.

For policy makers:

- Ability to understand and measure policy impacts on natural capital



NATURAL
CAPITAL
COALITION



Natural Capital
Finance Alliance

Secretariat:



Protocol Application: Built Environment sector

SKANSKA



Scope

Direct operations, with impacts including: carbon, water consumption, waste, air pollution and **biodiversity**

Outcomes... and what next?

Overview of their business impacts on natural capital, and highlighted the impacts for which the company needs to work on improving suitable metrics (biodiversity).



NATURAL
CAPITAL
COALITION



Natural Capital
Finance Alliance

Secretariat:



GCP
GLOBAL CLIMATE PLATFORM



To find out more:

Website:

[http://naturalcapitalcoalition.org/
projects/finance-sector-
supplement/](http://naturalcapitalcoalition.org/projects/finance-sector-supplement/)

Mail:

info@naturalcapitalcoalition.org



Heijmans NV
Robert Koolen
23 januari 2018

heijmans

Building the contours of tomorrow

Sustainability – Natural Capital - Monetisation





Projects
#Fenixloodsen-Rotterdam

Projects
#Muziekpaleis Vredenburg-
Utrecht



Projects
A4 Delft – Schiedam

Our view on sustainability and integration of natural capital



Products and services



Operation and construction



Supply chain



National Military Museum



Heijmans ONE



Heijmans ONE



heijmans



Greenway LE



Self healing asphalt



Building with nature

Spatial quality that includes nature



A12 Veenendaal Ede Grijsoord



Monetisation

The value of sustainable measures

Monetisation provides issues for discussion with the clients about sustainable measures

Based on GPR and extra measures on top of construction legislation (Bouwbesluit)

Method includes four categories:

- CO₂ emission during lifespan
- Environmental damage of used materials
- Extra user value and future proof design
- More healthy living environment



Monetisation

Pilot at the building complex of Karel de Grotelaan Eindhoven (Woonbedrijf)

Value CO₂- reduction approx. €100.000,-

Value of avoided materials/environmental approx. €300.000,-

Value of avoided health care costs approx. €300.000,-

Total avoided costs during lifespan €700.000,-

Costs which would have been payed by society and tax payers

Monetisation

Second project: total asset of social housing corporation

ZOwonen is a social housing corporation with an asset of 14.000 dwellings in six communities in the south of Limburg.

By achieving its's environmental goals the corporation saves the community 3,7 million euro's per year on CO2-related and health care related costs.

Not taken in to account the individual cost savings of house holds and capitalisation of better more comfortable living environment.

Lessons learned monetisation Heijmans

- Monetisation of sustainable value is possible
- Existing methods provide solid basis (GPR)
- It leads to different topics in discussions with clients
- There is still a gap towards real integrated financial decision making



heijmans



www.heijmans.nl

