



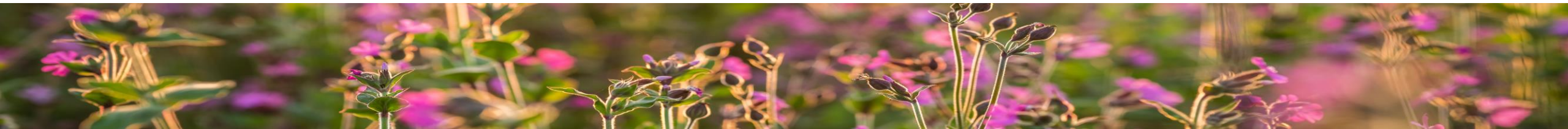
How can insurance enable NBS for wildfire?

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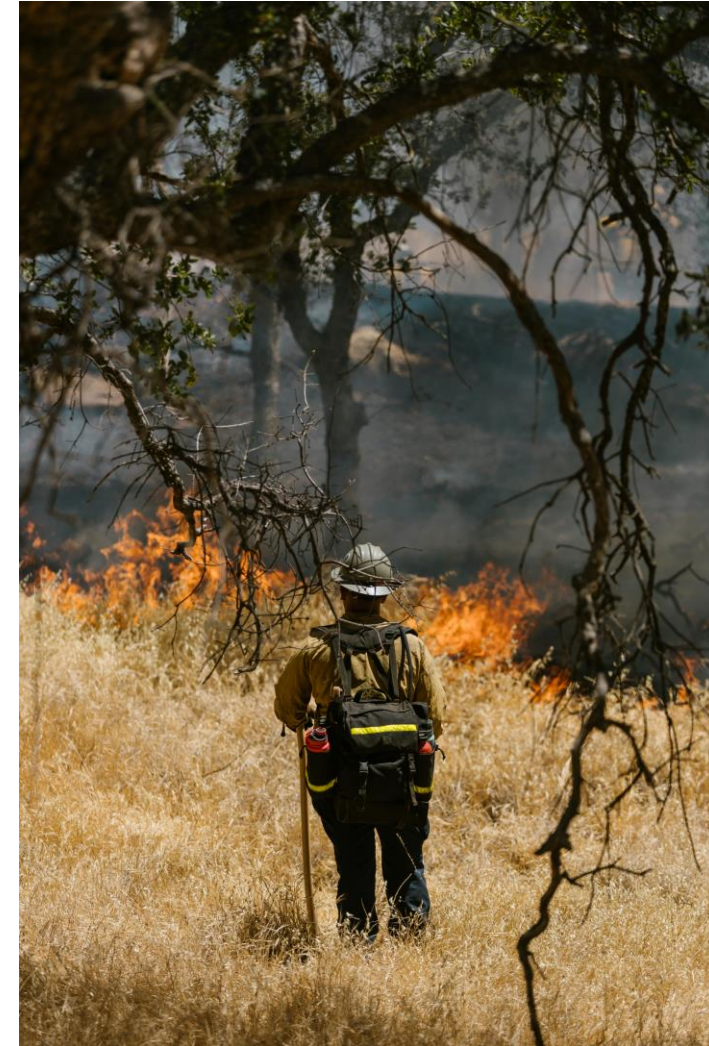


Wildfire insurance

Compared with earthquakes, storms and floods, global wildfire losses have accounted for the smallest share of economic losses (3%) and the highest level of insurance coverage (63%).*

Largest insurance gap expected in Europe, where there are diverse private and public systems, none of which explicitly encourage NBS.

*Munich Re, 2022



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What IS an NBS for wildfire?

Ecological forest management

- Thinning
- Grazing
- Controlled burns
- Mixed forests

Conservation/biodiversity

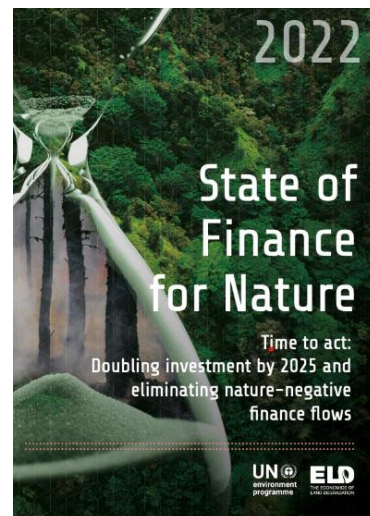
- Ecological thinning
- Rewilding
- (Cultural controlled burns)
- Mixed forests
- Outside of WUI, let it burn
- Limit development



Sources: Plana, 2021; Catalan Fire and Rescue Service (CFRS)

The NbS funding gap

“Climate, biodiversity, and land degradation goals will be out of reach unless investments into nature-based solutions quickly ramp up to \$384 billion/year by 2025, more than double of the current \$154 billion/year.”



https://www.freepik.com/premium-ai-image/elephant-room-neural-network-generated-photorealistic-image_62044440.htm#from

Why insurance?



Underwriting
pillar



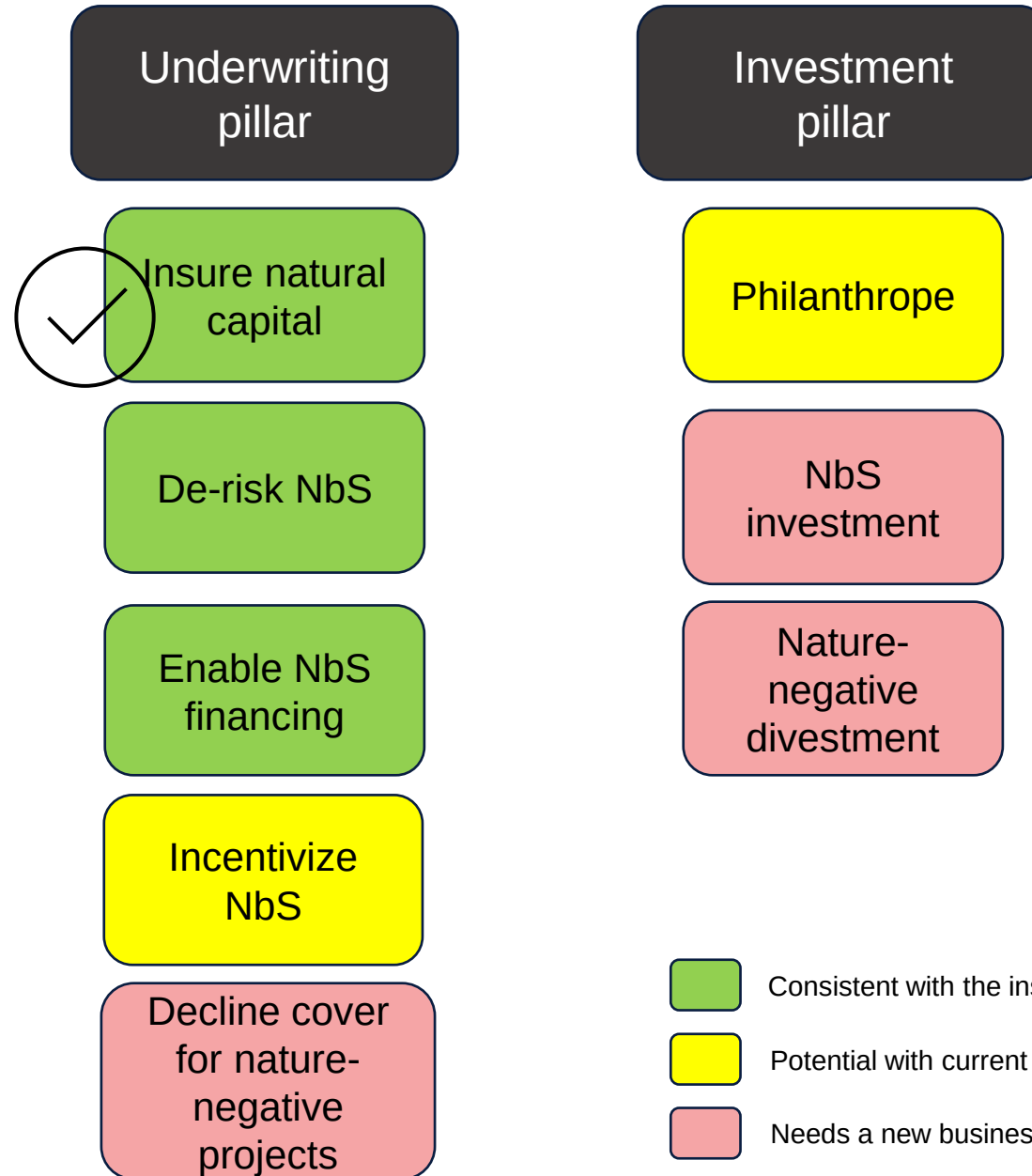
Worldwide annual premiums well over \$150 billion*, more than half the global NbS financing gap

Investment
pillar



US insurance industry, alone, has \$1.5 trillion in capital, making it one of the largest institutional investors

*<https://www.insurancetimes.co.uk/news/worldwide-delegated-underwriting-authority-groups-revenue-increases-by-217-insuramore/1441477.article>



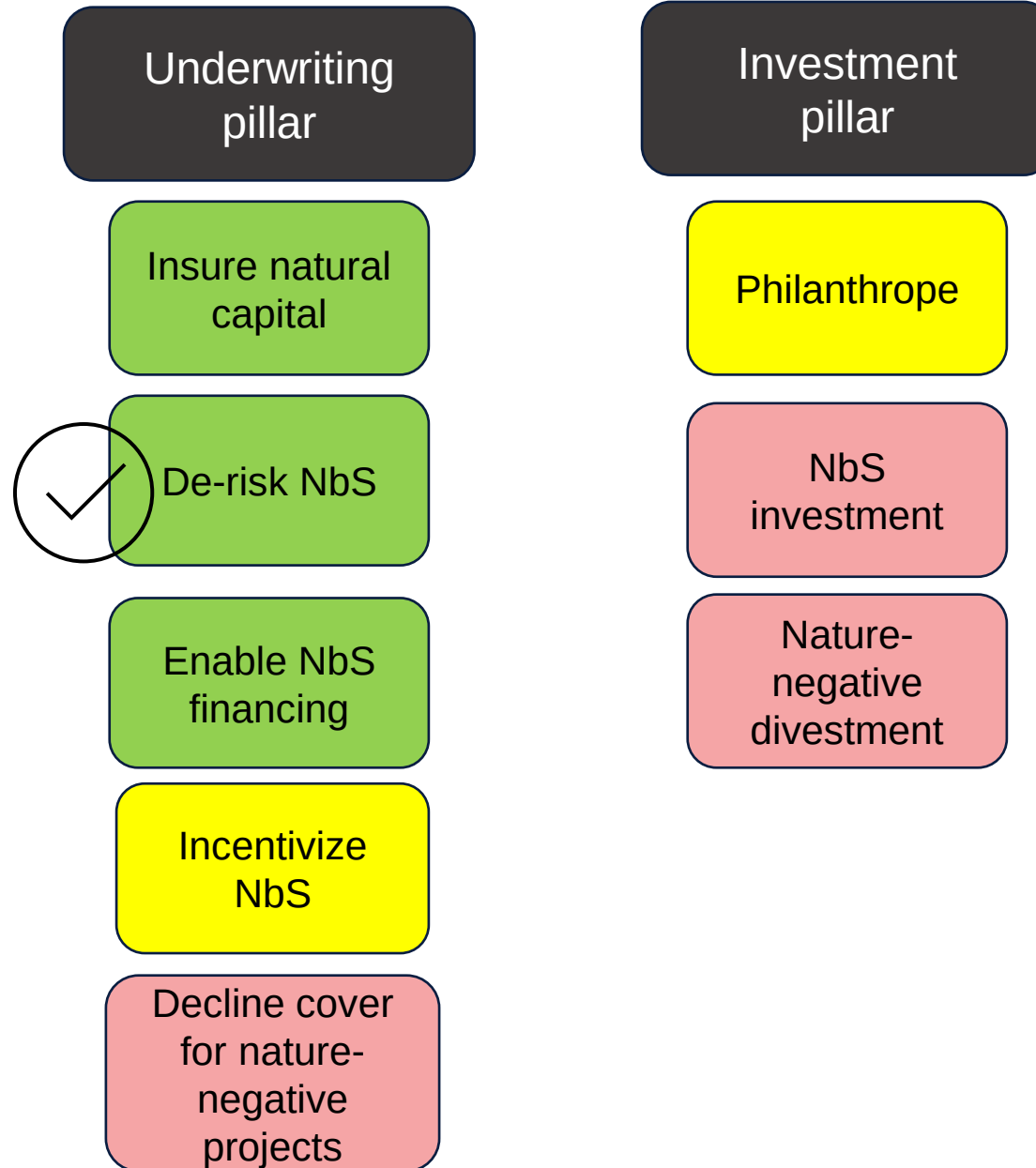
Insuring coral reefs

Swiss Re and WTW are offering innovative insurance products to insure coral reefs in Mexico, Hawaii and elsewhere against storm damage - the first natural ecosystem to be insured.

Parametric: if windspeeds reach a pre-specified level, this triggers a payout, which goes to paying divers to repair the reef.



Photo 149121556 © Conchasdiver | Dreamstime.com



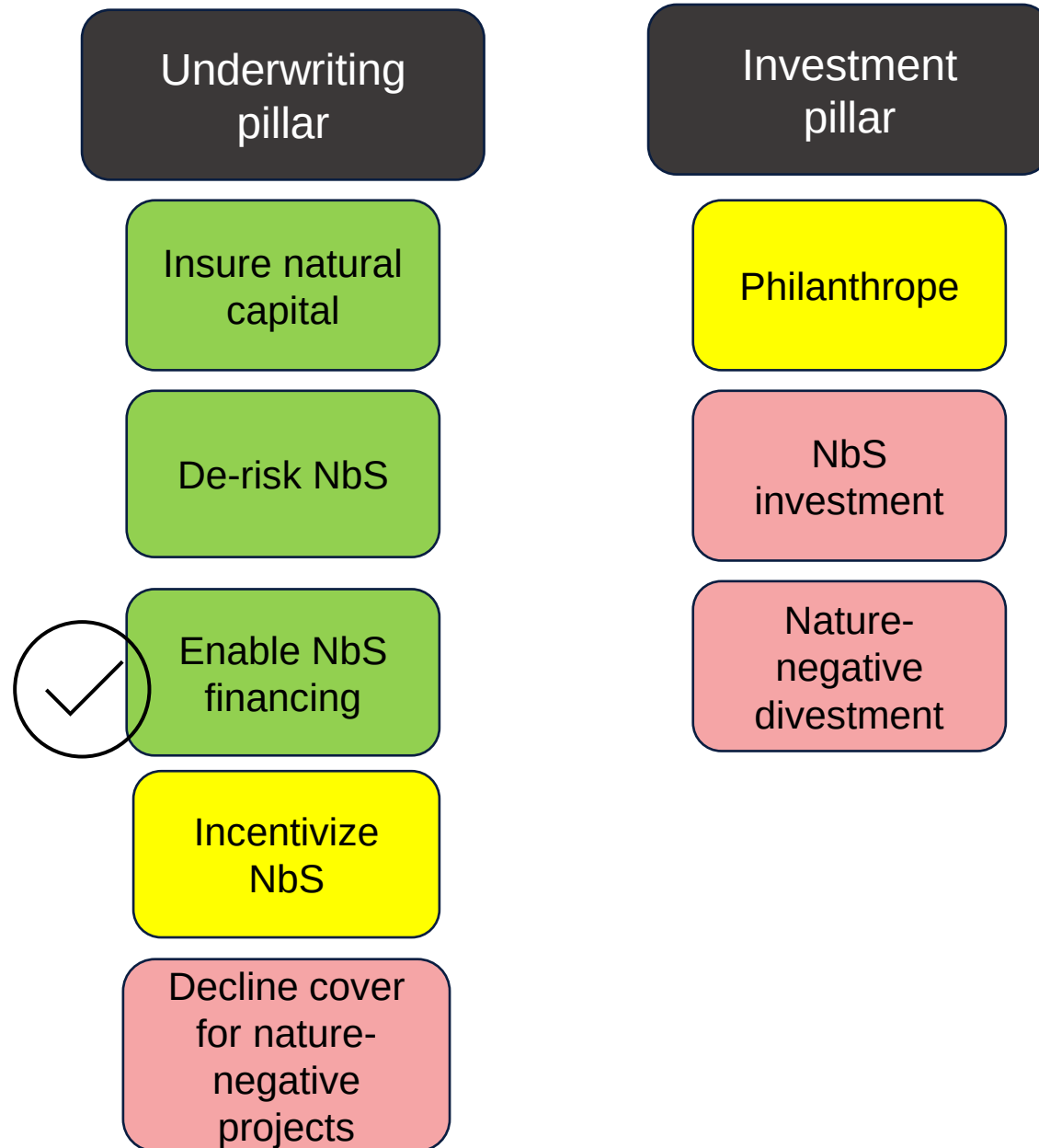
Insuring liability for prescribed burns

A prescribed burn by Colorado's Department of Natural Resources

- Destroyed 22 homes and killed three persons
- \$18 million compensation paid

Until recently, no liability insurance for prescribed burns in the US, but a new carrier, Forest Specialty Underwriters, Ltd., along with Lloyds of London, has recently marketed a product.



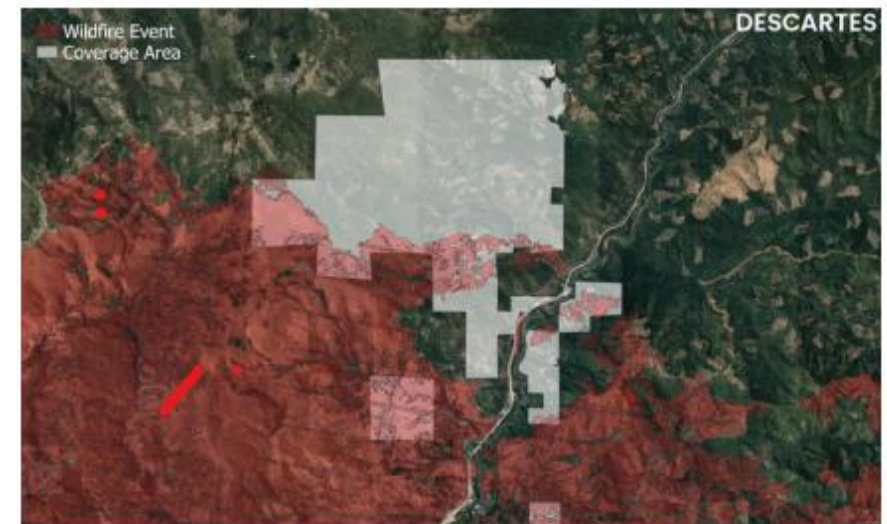


Protect biodiversity offsets against wildfire

In the UK, it is mandatory for all major developments requiring planning permission to demonstrate a biodiversity net gain (BNG) of 10%. Important to insure the offsets against wildfire.

In Australia, DESCARTES insurers are protecting carbon credit offsets with

- A parametric bushfire product
- Payout triggered by area burned
- Utilizing satellite imagery to detect burnt areas and bushfire severity



An example visualisation of our product live in action

Underwriting pillar

Insure natural
capital

De-risk NbS

Enable NbS
financing

✓ Incentivize
NbS

Decline cover
for nature-
negative
projects

Investment pillar

Philanthrope

NbS
investment

Nature-
negative
divestment

Potential to incentivize NBS with premium reductions

Study by The Nature Conservancy and WTW showed that ecological forestry (thinning and controlled burns) in California's French Meadows national forest could lead to a decrease in insurance premiums by 41% for homes.

The Nature Conservancy, 2019



Photo: Catalan Fire and Rescue Service (CFRS)

Decline insurance for properties in high-risk areas

State Farm(largest insurer) announced it will not renew 72,000 policies. *

Since fire insurance is required for a mortgage, this will dis-incentivize building in high-risk areas (unless the government insures) thus freeing land for NBS.

*Reuter et al., 2022



Source: Handmer 2021

Underwriting pillar

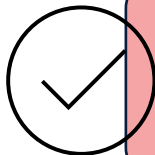
Insure natural
capital

De-risk NbS

Enable NbS
financing

Incentivize
NbS

Decline
insurance for
nature-negative
projects



Investment pillar

Philanthrope

NbS
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Major insurers pull out of the East African Crude Oil Pipeline

Thus far, 25 banks and 23 (re)insurers have ruled out support for the project.*

According to Ugandan law, all major infrastructure project must be insured from external insurers.

**The Insurer, 2023*



<https://www.natureguardian.org/2023/05/insurance-firm-marsh-mclennan-targeted-by-activists-around-the-world-over-eacop/>

Underwriting pillar

Insure natural capital

De-risk NbS

Enable NbS financing

Incentivize NbS

Decline cover for nature-negative projects

Investment pillar

Philanthrope

NbS investment

Nature-negative divestment



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Strong motivation for nature-positive investing and nature-negative divesting

‘Nature’ is increasingly viewed as essential for insurers’ long-term viability (financial materiality)

“...over half of global GDP depends on nature and the services it provides...biodiversity loss could lead to between €1.7 trillion and €3.9 trillion losses each year (WEF, 2023)”



EBRD, Smith, 2016

BlackRock drops ESG approach for 'transition investing' focus

BlackRock manages over \$10 trillion in assets and was a first mover in ESG, but CEO has announced a switch to 'transition' investing.

"the backlash against greenwashing, which came from the left, and a backlash against politicizing investment processes that are governed by legal obligations like fiduciary duty coming from the right", this is a natural transition where you just kind of take the parts of ESG that actually somewhat do make sense and dispense with the marketing and move forward."

Tariq Fancy, Former BlackRock Chief Investment Officer of Sustainable Investing



<https://www.flaticon.com/free-icons/esg>
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ESG: Big barriers

Investment: Most NBS are public goods

Divestment: What is nature-negative?

The recent EU sustainable finance taxonomy (TNFD) has published its recommendations on how (re)insurers address nature-related risks and opportunities by identifying, assessing, managing and where appropriate, disclosing nature-related issues. It is the cornerstone of the EU sustainable finance framework.



<https://www.flaticon.com/free-icons/traffic-light>
title="traffic light icons">Traffic light icons created by xnimrodx - Flaticon

Underwriting pillar

Insure natural capital

De-risk NbS

Enable NbS financing

Incentivize NbS

Decline cover for nature-negative projects

Investment pillar

Philanthrope

NbS investment

Nature-negative divestment

-  Consistent with the insurance business model
-  Potential with current insurance business model
-  Needs a new business model



Ideas emerging from the Firelogue WG



Insurance to
enable
wildfire NBS

- Compulsory adoption of TNFD?
- Require differentiated premiums to reward NBS?
- Extend the EUSF to provide subsidized reinsurance to MSs that take NBS measures?
- Reform the Solvency II Directive to assure that insurance investment policies reflect biodiversity goals of the EU?



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Thank you!