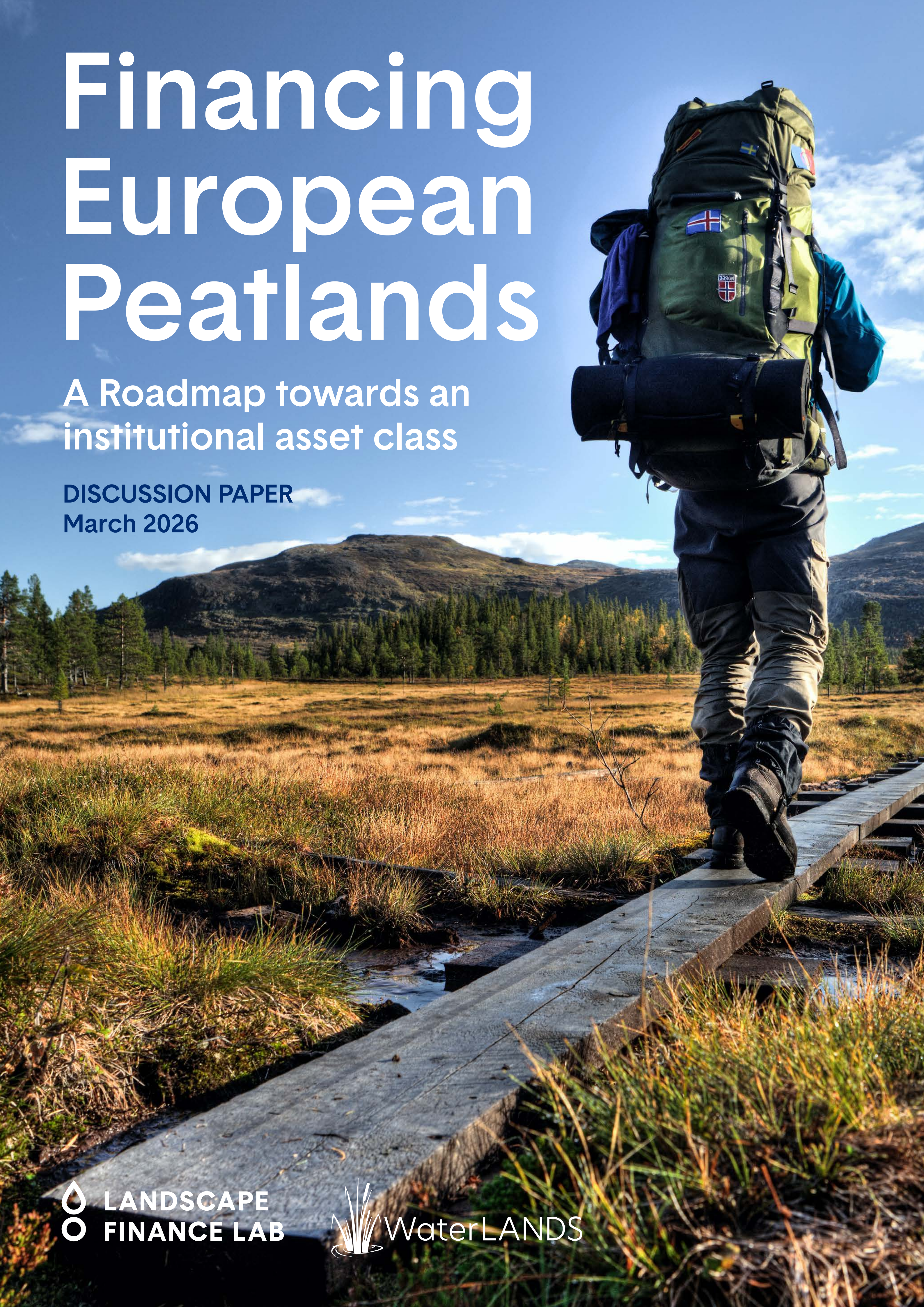
# Financing European Peatlands

## A Roadmap towards an institutional asset class

DISCUSSION PAPER
March 2026



LANDSCAPE FINANCE LAB

WaterLANDS

# Acknowledgements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## CONTRIBUTORS & REVIEWERS

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# Foreword

Europe's peatlands sit at the intersection of three defining policy priorities of this decade: climate neutrality, water resilience, and the restoration of nature. Few ecosystems offer such a powerful combination of near-term climate resilience, long-term carbon storage, improved water quality and quantity, flood risk reduction, and nature recovery. Peatlands are not only climate and nature assets: they are working landscapes that underpin local livelihoods, social stability and human wellbeing. Yet despite their strategic importance, peatlands remain one of Europe's most under-financed climate and nature assets.

This report addresses that gap. It sets out how the restoration of Europe's peatlands can move from being largely grant-dependent and small-scale to becoming a scalable, investable proposition—capable of mobilising private capital alongside public resources. In doing so, it speaks directly to the core challenges facing European resilience and preparedness today: how to translate ambition into delivery at the scale and pace required.

For the European Investment Bank, this report is timely. The EIB is already supporting peatland restoration investments and market frameworks, notably in Ireland and the Baltic countries, and has positioned peatlands as critical natural infrastructure within the Climate Bank Roadmap II and the Water Resilience Strategy. EIB is also engaging with the Global Peatlands Initiative supported by the Convention on Wetlands and the UNFCCC.
As the EU Climate Bank, the EIB has a mandate not only to finance individual projects, but to help crowd in private capital and reduce structural barriers to investment. Peatland restoration exemplifies a category of transition investment where public finance can play a catalytic role—de-risking early stages, supporting standardisation and aggregation, and enabling the shift towards infrastructure-style financing models once revenues become predictable and contractable.

What distinguishes this report is its explicit focus on financeability. It examines the conditions under which peatland restoration can meet the requirements of institutional investors, lenders, and asset managers. By analysing revenue models, cost structures, risk profiles and aggregation mechanisms across Europe, it demonstrates that the challenge is not a lack of impact or opportunity, but the absence of mature financial architecture. In particular, the report highlights the critical role that diversified and stabilised revenues—especially from water-related benefits—can play in complementing carbon and nature markets and unlocking lower-cost capital.

The Roadmap provides a practical agenda for action. It identifies what needs to change, who needs to act, and how progress can be sequenced over the coming decade. For policy-makers and financiers, it underscores the importance of moving beyond one-off capital grants towards market-enabling instruments that improve revenue certainty. For corporates and infrastructure operators, it points to the opportunity to procure ecosystem services through long-term, outcomes-based contracts. For investors, it frames peatlands as a credible component of diversified natural capital and climate-aligned portfolios.

The task now is to match that momentum with financial innovation and market design, so that restoration can be delivered at scale, with durability and integrity. This report makes a valuable contribution to that effort. It provides a shared analytical foundation for dialogue between policymakers, public financiers, innovators, developers and private investors—and, crucially, a pathway to move from ambition to implementation. The real journey begins here. Let's turn ambition into action and making peatland restoration investable, scalable and real across Europe.

**Ambroise Fayolle**
Vice-President of the EIB

European Investment Bank

# Executive Summary

Europe's peatlands, covering around 6% of its landmass or an area larger than France, represent one of the continent's most powerful yet under-utilised climate and nature assets. When degraded, they are a major source of greenhouse gas emissions. When restored, they deliver durable emissions reductions alongside significant water, biodiversity and resilience benefits. Yet their restoration remains episodic and largely grant-dependent, rather than structured as a scalable, long-duration investment opportunity.

This report sets out how peatland restoration can evolve into a **genuine, infrastructure-like asset class**, capable of attracting capital from institutional investors — complementing, but no longer constrained by scarce public and philanthropic funding.

## The opportunity is significant even in the next decade

Europe's peatlands span at least eight major archetypes, from UK blanket bogs and Irish raised bogs, to Dutch peat meadows, German fens and Scandinavian forested peatlands. While the total technical restoration potential is far larger, this report conservatively estimates that around **1.1 million hectares of peatland restoration is realistically deliverable across these eight archetype over the next decade**, given current policy and delivery capacity today.

Even this conservative estimate of peatland restoration would reduce **over 300 $MtCO_2e$ of emissions over project lifetimes**. This is equivalent to the long-term removal of approximately 1.3 million passenger cars from Europe's roads. Beyond carbon, restored peatlands will generate a host of other benefits – spanning water, biodiversity, and ongoing productive opportunities (paludiculture, wet-grazing and restoration-linked value-added processing such as biochar).

## The underlying economics are understood and the investment case is emerging

Meeting this restoration activity implies a minimum capital requirement of **over €2 billion** in the next decade—well beyond what public grants and philanthropic funding are willing or able to provide.

The analysis shows that some peatland archetypes, particularly lowland fens and polder landscapes, can **already generate project-level returns consistent with private investment**, even on carbon revenues alone. Others, such as blanket bogs and forested peatlands, are not yet investable on a carbon-only basis but move materially closer to viability when water payments, biodiversity revenues or modest price-certainty mechanisms are layered in.

Crucially, **water benefits emerge as a potential second anchor revenue stream**, comparable in scale, and in some contexts superior, to carbon. Unlike carbon, water benefits accrue to identifiable local beneficiaries such as water utilities, infrastructure operators, regulators and insurers, creating the conditions for long-term, contractable revenue streams. If carbon is the currency of climate mitigation, water is increasingly becoming the currency of climate adaptation and resilience.

## But peatland financing is held back by uncertain revenues, limited aggregation and no project finance

Despite strong fundamentals, peatland restoration has yet to attract private capital at scale. The binding constraints are not ecological, or even economic, but structural:

- **Revenue bankability remains weak**: carbon demand is volatile and policy-constrained, while water and biodiversity markets are fragmented and largely bespoke.
- **Lack of aggregation** means projects are typically too small and idiosyncratic for institutional investors.
- **Limited use of project-finance structures** keeps peatland finance reliant on scarce grants and high-cost equity and landowner balance sheets, to the exclusion of lower-cost and more plentiful debt capital.

As a result, most peatland restoration remains grant-led or developer-equity-financed, despite having characteristics that closely resemble infrastructure assets once revenues are stabilised.

## The Roadmap of actions to build this asset class is clear, and broken-down for key actors

Achieving this transition requires coordinated action:

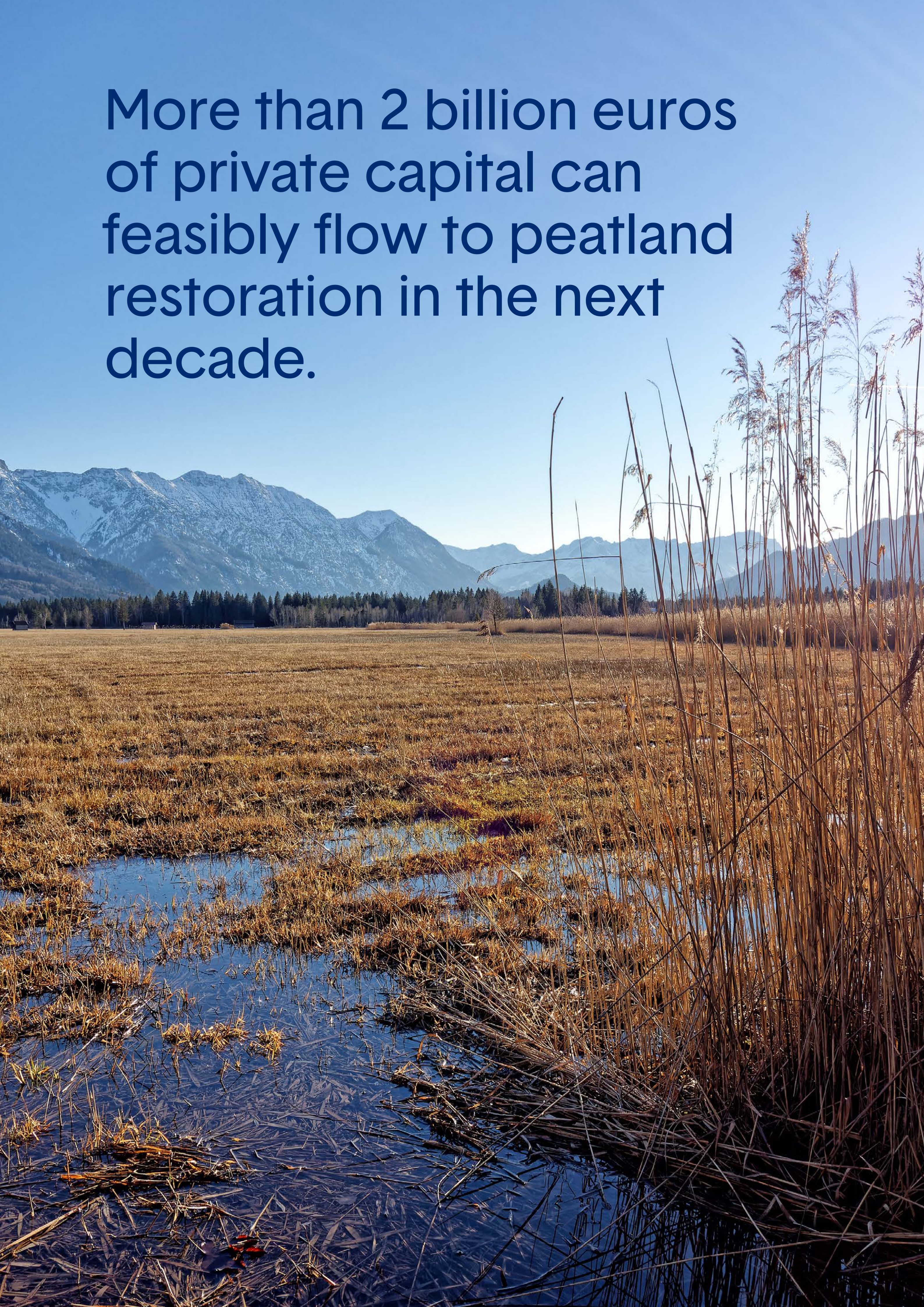
- **Standards-setters and registries** should improve transparency, harmonise methodologies and enable interoperability across Europe.

- **Corporate and infrastructure buyers** of environmental services must move from grant programmes and spot purchases to long-term offtake agreements for carbon, water and biodiversity services.
- **Project developers** must continue to scale pipelines, aggregate projects and test project-finance structures.
- **Investors and asset managers** should increasingly view peatlands as part of diversified natural-capital and infrastructure allocations.
- **Governments and public agencies** must shift fiscal support from one-off capital grants towards revenue-stabilisation tools, while continuing to fund enabling science and MRV.

## Conclusion

Peatland rewetting and restoration is a nature based solution par excellence. It offers Europe a rare opportunity to deliver near-term climate mitigation, water security, biodiversity recovery and rural economic resilience, while mobilising private capital at scale. With coordinated action—particularly around water markets, aggregation and project finance—Europe can transform peatlands from degraded liabilities into investable natural infrastructure, anchoring climate and nature recovery for decades to come.

## More than 2 billion euros of private capital can feasibly flow to peatland restoration in the next decade.



# Introduction

## What does this report cover?

This report examines European peatland landscapes and how to scale more finance for their restoration. It covers:

- **How big is the impact and investment opportunity of restoring peatlands in Europe?** (section A)
- **Why European peatlands can become an investible asset class?** (section B)
- **What does a Roadmap look like that accelerates the development of the asset class? Who needs to do what?** (section C)
- 

## Who is the report aimed at?

This report starts from an unapologetically high bar: the requirements of institutional investors. That choice is deliberate. The scale of Europe's peatland restoration opportunity is vast, and only the deep, patient pools of capital stewarded by pension funds and insurers can ultimately finance it at the level required. Public and philanthropic capital remain essential catalysts, but they are too constrained — and often too short-term — to build a durable, self-sustaining market on their own.

Accordingly, this report speaks directly to providers of repayable capital. It positions peatland restoration as a natural capital opportunity grounded in a credible impact thesis and an increasingly investable business model. In many respects, peatland finance shares core characteristics with infrastructure project finance: long-duration assets, policy alignment, contracted or quasi-contracted revenues, and measurable performance. Infrastructure has absorbed hundreds of billions of euros from institutional portfolios over decades. The argument here is that, in time, peatland restoration can do the same.

Yet important conditions for scale are still missing. Most notably, revenue streams from ecosystem services lack sufficient stability, standardisation and price confidence. Markets for carbon, water and biodiversity benefits are evolving, but they are not yet structured to meet institutional thresholds for risk, return and scale.

For that reason, this report does more than assess investability. It sets out a ten-year Roadmap (Section C) for market-building: actions for standards-setters and market designers; for corporate buyers; for landowners and developers; for governments and regulators; and for investors themselves. Without coordinated progress across these groups, peatland finance will remain fragmented and sub-scale. With it, the market can mature into one capable of mobilising the depth of capital that Europe's peatlands — and climate goals — require.

## How has this report been developed?

This report builds upon the Landscape Finance Lab's substantial involvement in European Peatlands since 2016, including facilitating a UK & Ireland Peatland Finance Community of Practice, incubating Peatland Finance Ireland and the Flow Country Partnership's Green Finance Initiative, and supporting the Great North Bog landscape as part of the EU Horizon WaterLANDS project. This paper also develops in greater depth, through modelling and analysis, some of the themes originally explored in the Lab's 2023 publication *Investing in Peatlands*.

This paper has researched the economics of peatland restoration via a literature review, selected interviews with key market participants, and the assembly of a bespoke database of 400+ European peatland projects [see Annex D]. Key findings are illustrated in tables throughout the report, with all sources described in the Annex. Findings are then used as inputs into simple cashflow models to test how close peatland restoration already is to an investable proposition. The modelling outputs should be interpreted as directional and correct within an order of magnitude only. Suggestions for how to further develop this report, and deepen the data and evidence it currently uses in financial modelling, are given at the end of Section C.

# A. What is the impact and investment opportunity of European peatland restoration?

## A.1 What are peatlands, and which European peatlands are in scope?

Natural peatlands are wetlands where waterlogged conditions slow the decomposition of plant material, allowing organic matter to accumulate as peat over thousands of years. They represent the largest terrestrial carbon store globally – holding more carbon in their soils than all the world's forests combined – while also regulating and filtering water, reducing flood, fire and drought risk, and supporting unique biodiversity

Peatlands cover approximately 5–6% of Europe's land area, according to UNEP and European peatland mapping datasets[1,2], representing an area around the same size as France. Peatland is present in every European country except Malta. Europe is also the continent that has so far lost the most natural peatlands. Some 10 percent of its former peat cover has been lost entirely through drainage, and of the remaining peatland area at least one-quarter is degraded or damaged.[3] Damaged peat leads to decomposition and decomposition emits stored carbon – flipping peatlands from a carbon sink to a source of carbon emissions.

The European peatlands in focus for this report have been partly selected based on the scale of their footprint, as shown in Table 1:

**Table 1- Summary of key European peatlands, by indicative footprint**

| Type of peatland | Climate / Landform | Use & ownership Pattern | Total pan-Europe footprint | Typical Landscape Scale | Typical location |
|---|---|---|---|---|---|
| Boreal aapa mires | Boreal, lowland patterned fens | Semi-natural, forestry and some drainage; large state forests | 10–15 Mha | 0.5–5 Mha | Finland, Sweden, NW Russia |
| Forested peatlands | Boreal/ temperate, lowland | Drained for timber production; consolidated state/ industrial ownership | 3–5 Mha | 50–200 kha | Finland, Sweden, Baltics, NW Russia |
| Fen meadows & drained fenlands | Temperate, river valleys, deltas, fed by ground or spring water | Drained for intensive arable/ dairy; fragmented smallholders + consolidated estates | 2–4 Mha | 5–100 kha | The Netherlands (polders), Germany, UK Fens, Irish Midland, Poland |
| Blanket bogs | Oceanic temperate, upland, fed by high rainfall | Extensive grazing, grouse moors, some wind farms; estate/ private + public conservation | 2–3 Mha | 10–200 kha | W Ireland, Northern Ireland, Scotland, Wales, NW England |

Table Note: See Annex B for sources for Table 1.

This report then overlays specific jurisdictions and locations in order to analyse specific markets for underlying ecosystem services and productive uses. This generates eight key peatland archetypes that are a nexus of peatland habitat and location, and which are shown in Table 2. These eight archetypes are the basis of all subsequent analysis in this report. The exclusion of other large peatland areas in Europe, for example in the Baltics or Ukraine, from the analysis in this report is no reflection of their relative ecological or economic importance.

## A.2 What is the restoration potential?

To assess the practical restoration potential in Europe across in-scope peatlands over the next decade, this report has conducted a 'TAM-SAM-SOM' analysis, shown in Table 2, whereby:

- **Total Addressable Market (TAM)** = the total land area of the peatland archetype in question
- **Serviceable Addressable Market (SAM)** = the total land area that can be technically restored (often linked to the proportion of total peatland/ TAM that is damaged/drained, which is typically the majority)
- **Serviceable obtainable market (SOM)** in the next 10 years = an estimate of the amount of peatlands that can be restored given existing policy and financing frameworks, and developer capacity. It is often a small proportion of SAM, sometimes as small as 5%.

**Table 2 - Serviceable Obtainable Market (SOM) for key European peatlands**

| **Peatland archetype** (nexus of type & country) | **TAM** (Mha) | **SAM** (Mha) | **SOM** (Mha, 10-yr totals) | **SOM calculation basis** (see Annex A for more details) |
|---|---|---|---|---|
| Blanket bogs (UK) | 2.37 | 1.66 | 0.33 | Set at 20% of SAM over 10 years. Reconciled with national targets/plans. |
| Fenlands (UK) | 0.33 | 0.24 | 0.04 | Set at 15% of SAM over 10 years. Reconciled with named projects. |
| Blanket bogs (Ireland)* | 0.77 | 0.52 | 0.11 | Set at 15% of SAM over 10 years. Reconciled with National peatland pipeline. |
| Fenland / polder (Netherlands) | 0.28 | 0.2 | 0.1 | Derived from Dutch target of abated emissions from peatland. |
| Fenland / polder (Germany) | 1.04 | 0.83 | 0.1 | Set at 12% of SAM to reflect current funding/programme momentum. |
| Fenland / polder (Poland) | 1.37 | 1.18 | 0.06 | Set at 5% of SAM to reflect earlier stage programme and finance readiness (versus NL/DE). |
| Boreal aapa mires (Scandinavia) | 2.7 | 1.5 | 0.15 | Set at 10% of SAM. Reconciled with stated policy goals. |
| Forested peatland (Scandinavia) | 11 | 5.8 | 0.25 | Set at < 5% of SAM. |
| **TOTAL** | **20** | **12** | **1.14** | |
| | | 59% of TAM | 9.5% of SAM | |

Table note: See Annex B for assumptions and sources used in Table 2. No uptick from future policy/financing developments (such as a recommended in section C of this report) is assumed. Not all peatland types in Europe are considered. Nor is any emissions reduction beyond 50 years counted, nor is any long-term sequestration benefits of peatland restoration assumed. As such, Table 2 likely underestimates the carbon benefits of restoration efforts possible over the next decade. *For Ireland, this report has focused on the larger area of upland Blanket bogs for simplicity. There is also restoration potential among lowland fen-like peatlands in Ireland.

This report estimates that 1.1 million hectares of peatland could be realistically restored across these eight key archetypes in Europe over the next decade. This represents an area four times the size of Luxembourg or half the size of Slovenia. It implies that c. 800 new projects per year would need to enter restoration efforts across Europe, if future projects continue at the median size of current initiatives (c. 120 ha[4]), representing a significant acceleration relative to recent delivery rates.

It is important to stress the 1.1m hectare estimate is for a *finance-constrained Serviceable Obtainable Market* (SOM) over the next ten years. It builds from current policy frameworks, developer capacity, landowner participation, and the existing structure of ecosystem service markets. It is deliberately conservative and does not represent Europe's technical restoration ceiling, which is closer to the *Serviceable Addressable Market* (SAM) estimates. Longer-term initiatives such as the Peatland Breakthrough articulate substantially higher restoration ambitions. However, those targets are typically not yet underpinned by detailed financing architectures capable of mobilising the scale of private capital required. The purpose of this report is therefore to identify a credible and investable first decade of scaling, which, if the market shifts outlined in Section C are enacted, could enable significantly larger and potentially non-linear expansion in the decades that follow.

## A.3 What is the impact potential?

The impact opportunity of restoring European peatlands span two main categories. First, there are the significant ecosystem service benefits: reducing future carbon emissions; a range of water benefits, and a range of biodiversity benefits. Second, there can be productive benefits, in the form of paludiculture, wet grazing or infrastructure uses on otherwise marginal-quality agricultural land.

### A3.1 Carbon benefits

The carbon benefits associated with the potential for peatland rewetting and restoration over the next decade are shown in Table 3 below, which factors the typical carbon abatement potential specific to each type of peatland (second column) by the SOM (fourth column) and then by the assumed 50 year project life of a restoration, to give annual and lifetime reduced emissions calculations.

**Table 3 - Carbon benefits of restored peatlands**

| **Peatland archetype** (nexus of type & country) | **Typical carbon abatement factor** ($tCO_2e/ha/yr$) | **Abatement calculation** | **SOM** (Mha, 10-yr totals) (From Table 2) | **Annual reduced emissions** ($MtCO_2e/yr$) | **Lifetime reduced emissions** ($MtCO_2e$, assumes 50 year projects) |
|---|---|---|---|---|---|
| Blanket bogs (UK) | 3 | Abatement rate based on drained heather/grass emissions calculator. Actual deltas vary significantly: restoring actively eroding peatlands can abate much more | 0.33 | 1 | 50 |
| Fenlands (UK) | 19 | Abatement rate taken from grassland-on-peat rewetted fen emissions calculator. In practise abatement may be higher if cropland-on-peat rewetted fen models dominate | 0.04 | 0.75 | 37 |
| Blanket bogs (Ireland) | 3 | As per UK blanket bogs | 0.11 | 0.24 | 12 |

continued →

| **Peatland archetype** (nexus of type & country) | **Typical carbon abatement factor** ($tCO_2e/ha/yr$) | **Abatement calculation** | **SOM** (Mha, 10-yr totals) (From Table 2) | **Annual reduced emissions** ($MtCO_2e/yr$) | **Lifetime reduced emissions** ($MtCO_2e$, assumes 50 year projects) |
|---|---|---|---|---|---|
| Fenland/ polder | 10 | Dutch approach typically raises water table rather than full wetland conversion; abatement rates sit in single-digit to low-tens depending on ΔWT and soils. | 0.1 | 1 | 50 |
| Fenland/ polder (Germany) | 20 | Conversion of drained grassland/cropland on peat to rewetted; national materials and MoorFutures documentation use abatement rates in 15-25 $tCO_2e$/HA band for planning. | 0.1 | 2 | 100 |
| Fenland/ polder (Poland) | 13 | Poland-specific data are sparse; projects generally apply IPCC defaults[5] | 0.06 | 0.75 | 38 |
| Boreal aapa mires (Scandinavia) | 2 | Open-mire ditch-blocking tends to deliver modest $CO_2e$ savings; methane spikes can reduce net benefit early on. | 0.15 | 0.3 | 15 |
| Forested peatland (Scandinavia) | 1.5 | Rewetting reduces $CO_2$ from peat oxidation but may increase methane and loss of tree carbon sink; net climate effect depends on nutrient status, forestry practice and time horizon | 0.25 | 0.38 | 19 |
| **TOTAL** | | | **1.1** | **6.4** | **320** |

Table note: See Annex B for assumptions and sources used in Table 2. No uptick from future policy/financing developments (such as a recommended in section C of this report) is assumed. Not all peatland types in Europe are considered. Nor is any emissions reduction beyond 50 years counted, nor is any long-term sequestration benefits of peatland restoration assumed. As such, Table 2 likely underestimates the carbon benefits of restoration efforts possible over the next decade.

Even under very conservative assumptions, peatland restoration activity in Europe feasible over the next decade **could lead to lifetime emission reductions of over 300 million tonnes of CO2e emissions. This is approximately equivalent to the lifetime emissions of a large coal-fired power station operating continuously for 50 years, or the long-term removal of approximately 1.3 million passenger cars from Europe's roads.**

### A3.2 Water benefits

While carbon is currently the primary driver of peatland restoration, water may become the defining ecosystem service of peatlands in a climate-adaptation context. Restored peatlands can deliver a range of important hydrological benefits, including:

- **Improved water quality** – reducing dissolved organic carbon (DOC) and colour loads. For drinking water companies, reduced DOC is particularly important, as it drives chemical dosing, energy use, sludge handling, and the formation of disinfection by-products (such as Trihalomethanes, which can be carcinogenic)
- **Lower flood risk** – making hydrological responses less 'flashy' (less prone to flash floods), decreasing flood peaks and increasing lag times
- **Improving storage and recharge** - re-wetted peatlands can improve catchment water retention by slowing runoff, increasing infiltration and storing water within the peat matrix. This moderates low flows during dry periods and improves resilience to droughts and wildfires. In some catchments, restored peatlands may also contribute to groundwater recharge, supporting the resilience of underlying aquifers used for drinking water and irrigation. While effects vary by peatland type, hydrology and scale, this service is likely to become increasingly valuable under climate change. Recognising both surface water storage and groundwater recharge within emerging water-benefit markets could significantly expand the economic value of peatland restoration.
- **Reduced erosion** – restoration stabilises bare peat and gullies, reducing suspended sediments (SS) and protecting downstream assets, reservoirs, and aquatic ecosystems. There are a wide range of beneficiaries – from leisure and tourism operators in lakeland areas (esp. Scandinavia) and even downstream port operators who spend significant amounts on dredging harbours.

There is a robust evidence base around these benefits, as summarised in Table 4 below:

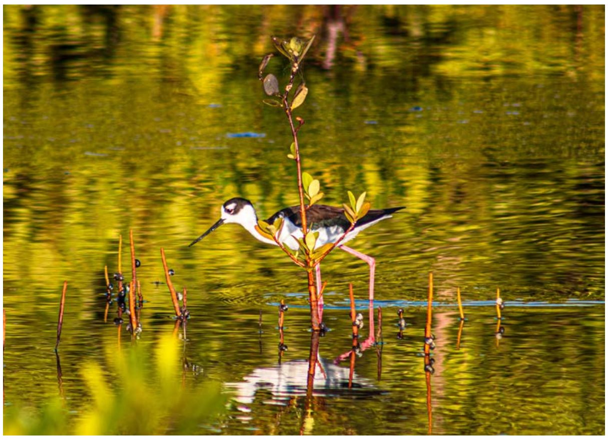


**Table 4 - Water benefits associated with peatland restoration**

| Peatland archetype | Water quality & treatability | Flow regulation & flood-risk reduction | Water storage & recharge | Sediment & erosion control |
|---|---|---|---|---|
| Blanket bogs (UK) | Cleaner raw water from upland catchments; lower colour and DOC | Slower runoff and reduced downstream flood peaks | Improved baseflows during dry periods | Reduced peat erosion and sediment loads |
| Fenlands (UK) | Lower nutrient and sediment runoff to drains and rivers | Managed water levels reduce rapid discharge | Seasonal water storage within managed systems | Reduced soil loss from rewetted soils |
| Blanket bogs (Ireland) | Improved raw water quality from restored peat surfaces | Reduced flashy runoff following rewetting | Retention of rainfall within bog systems | Lower peat and particulate loss |
| Fenland / polder (Netherlands) | Reduced nutrient and sediment loads in polder drainage systems | Controlled drainage moderates peak flows | Active water level management supports drought resilience | Reduced soil erosion from rewetted peat |

continued →

| Peatland archetype | Water quality & treatability | Flow regulation & flood-risk reduction | Water storage & recharge | Sediment & erosion control |
|---|---|---|---|---|
| Fenland / polder (Germany) | Improved water quality in agricultural drains and rivers | Slower discharge during heavy rainfall | Increased short-term water retention | Lower sediment transport from rewetted soils |
| Fenland / polder (Poland) | Cleaner water in protected-area drainage networks | Local flow attenuation in rewetted areas | Seasonal storage in restored fen systems | Reduced erosion and sediment loss |
| Boreal aapa mires (Scandinavia) | Stable, low-turbidity water from intact mire systems | Attenuation of local flows across open mires | Natural storage of rainfall and snowmelt | Minimal sediment mobilisation |
| Forested peatland (Scandinavia) | Reduced sediment and nutrient runoff after ditch blocking | Slower runoff from forested catchments | Improved soil moisture and baseflow resilience | Reduced erosion from forestry drains |

Table note: See Annex B for sources in Table 4.

As Europe faces increased demand for water (including for industrial and technological uses, such as for cooling data centres) and reduced supply (through drier summers in particular), as well as greater flood risk from extreme weather events, the water benefits of peatland restoration could even be a critical factor in wider economic development.

### A3.3 Biodiversity benefits

Peatland restoration can also generate significant biodiversity benefits. Peatlands create habitats for specialized plants (such as sphagnum moss) and unique insects (such as dragonflies and rare moths). They also support birds, amphibians, and mammals that rely on boggy conditions for food and shelter. These benefits are summarised in Table 5 below:

**Table 5 - Biodiversity benefits associated with peatland restoration**

| Peatland archetype | Headline biodiversity benefits seen after restoration | Example taxa / metrics often reported |
|---|---|---|
| Blanket bogs (UK) | Recovery of active bog habitat and specialist bog species | Increase in Sphagnum cover; improved habitat condition for upland birds |
| Fenlands (UK) | Return of diverse wetland and fen specialist communities | Rising species richness and presence of target wetland species |
| Blanket bogs (Ireland) | Improvement in condition of protected blanket bog habitats | Higher habitat quality scores and recovery of characteristic plant communities |
| Fenland / polder (Netherlands) | Recovery of rich-fen and meadow species with careful water management | Presence of specialist plants, invertebrates and wetland birds |
| Fenland / polder (Germany) | Development of peat-forming wetland vegetation mosaics | Shift towards sedges and helophytes; increased wetland habitat diversity |

continued →

| Peatland archetype | Headline biodiversity benefits seen after restoration | Example taxa / metrics often reported |
|---|---|---|
| Fenland / polder (Poland) | Stabilisation and expansion of priority fen habitats | Increased area and use of habitat by flagship fen species |
| Boreal aapa mires (Scandinavia) | Improved diversity and abundance of mire specialist species | Higher counts of mire birds and wetland invertebrates |
| Forested peatland (Scandinavia) | Transition from drained forest to bog-like ecosystems | Vegetation communities moving closer to natural reference states |

Table note: See Annex B for sources in Table 5.

## A3.4 Productive benefits

Restored peatlands can also support a limited but important set of productive land uses compatible with high water tables and long-term ecological integrity. These are additional but distinct from the ecosystem services (carbon, water, biodiversity etc.) discussed so far. Productive uses are not universally applicable, nor in most cases do they replace the primary restoration objective, but they can provide supplementary income streams, rural economic resilience, and political acceptability, particularly on former agricultural peat soils.

**Paludiculture, Wet Grazing and Horticulture**
The most developed productive pathways on restored peatlands are **paludiculture and wet grazing** — land uses designed to operate under permanently high water tables. Unlike conventional agriculture on drained peat, these systems maintain saturated conditions, thereby preserving peat carbon stocks and reducing emissions while enabling continued biomass or livestock production. Across Europe, systems under development or early deployment include:

- **Wet biomass crops** such as reed (Phragmites), cattail (Typha) and sedges, used in insulation materials, fibreboard, animal bedding, bio-based packaging and energy feedstocks
- **Extensive wet grazing**, including water-tolerant livestock systems (e.g. buffalo and certain cattle breeds) in lowland fen contexts, providing lower-intensity agricultural income without re-drainage
- **Horticultural and niche crops**, including sphagnum farming for growing media, which can directly substitute for extracted peat in horticultural markets

These approaches are most relevant in lowland fen and polder peatlands (e.g. the Netherlands, Germany, Poland and parts of the UK Fens), where land ownership is predominantly agricultural, opportunity costs are material, and political feasibility often depends on maintaining some form of productive use. By contrast, paludiculture and wet grazing are generally not appropriate for upland blanket bogs or boreal open mires, where restoration objectives prioritise hydrological and ecological recovery over ongoing production.

**Biochar production**
In forested or afforested peatland contexts, restoration frequently requires the removal of commercial or semi-commercial timber established on drained soils. Rather than treating this biomass purely as a disposal cost, it can be converted through pyrolysis into biochar — a stable carbon material that can deliver long-term sequestration when incorporated into soils.

**Renewable energy or enabling infrastructure**
Restored peatlands may also host certain forms of renewable energy or enabling infrastructure, provided this is compatible with hydrological objectives and does not undermine ecosystem services.

- **Onshore wind** is already present on some degraded peatlands, particularly in upland UK and Irish contexts. Where carefully designed, continued operation – or selective repowering – can coexist with restoration, provided access roads, foundations and drainage are remediated to avoid ongoing peat damage.
- **Solar PV** is generally less compatible with deep rewetting due to foundation and access requirements, but may be feasible in limited cases on shallow peat or peripheral zones where hydrological impacts are neutral.
- **Grid, data, and water infrastructure**, including transmission corridors, monitoring assets, or water-management structures, can sometimes be co-located within restored peatland landscapes, generating lease or access payments.

Renewable or infrastructure uses are not suitable for intact peatland, and are not additive to all restoration projects. Their relevance lies less in direct revenue magnitude and more in land-use efficiency and social licence, particularly where peatlands already host infrastructure or where restoration must coexist with national energy and resilience priorities.

## A.4 What is the investment potential?

Peatland restoration involves up-front costs to pay for initial works, and some ongoing costs that are incurred before revenues start to flow. These costs can include:

- Civil works - e.g. gully blocking or building check dams
- Land purchase (if required)
- Preparation and submission of public applications (e.g. planning permission, access to public environmental payment schemes)
- Registration of carbon or other credits with relevant schemes
- Community levies, in some markets

This report has researched the range of current peatland restoration costs and factored these by the Serviceable Obtainable Market to estimate the minimum investment opportunity for European peatlands over the next decade. These estimates are shown in Table 6 below:

**Table 6 - Estimation of CAPEX and total capital need given SOM for each peatland archetype**

| **Peatland archetype & jurisdiction** | **Serviceable Obtainable Market (SOM)** (Mha, 10-yr) from Table 2 | **Median CAPEX** (€/ha, 2025€) | **Minimum 10 year inv. need** (given SOM) €m |
|---|---|---|---|
| Blanket bogs (UK) | 0.33 | 1300 | 429 |
| Fenlands (UK) | 0.04 | 2300 | 92 |
| Blanket bogs (Ireland) | 0.08 | 3000* | 240 |
| Fenland / polder (Netherlands) | 0.1 | 3500 | 350 |
| Fenland / polder (Germany) | 0.1 | 4000 | 400 |
| Fenland / polder (Poland) | 0.06 | 1100 | 66 |
| Boreal aapa mires (Scandinavia) | 0.15 | 800 | 120 |
| Forested peatland (Scandinavia) | 0.25 | 1600 | 400 |
| **TOTAL** | **1** | | **>€2,000m (€2 bn)** |

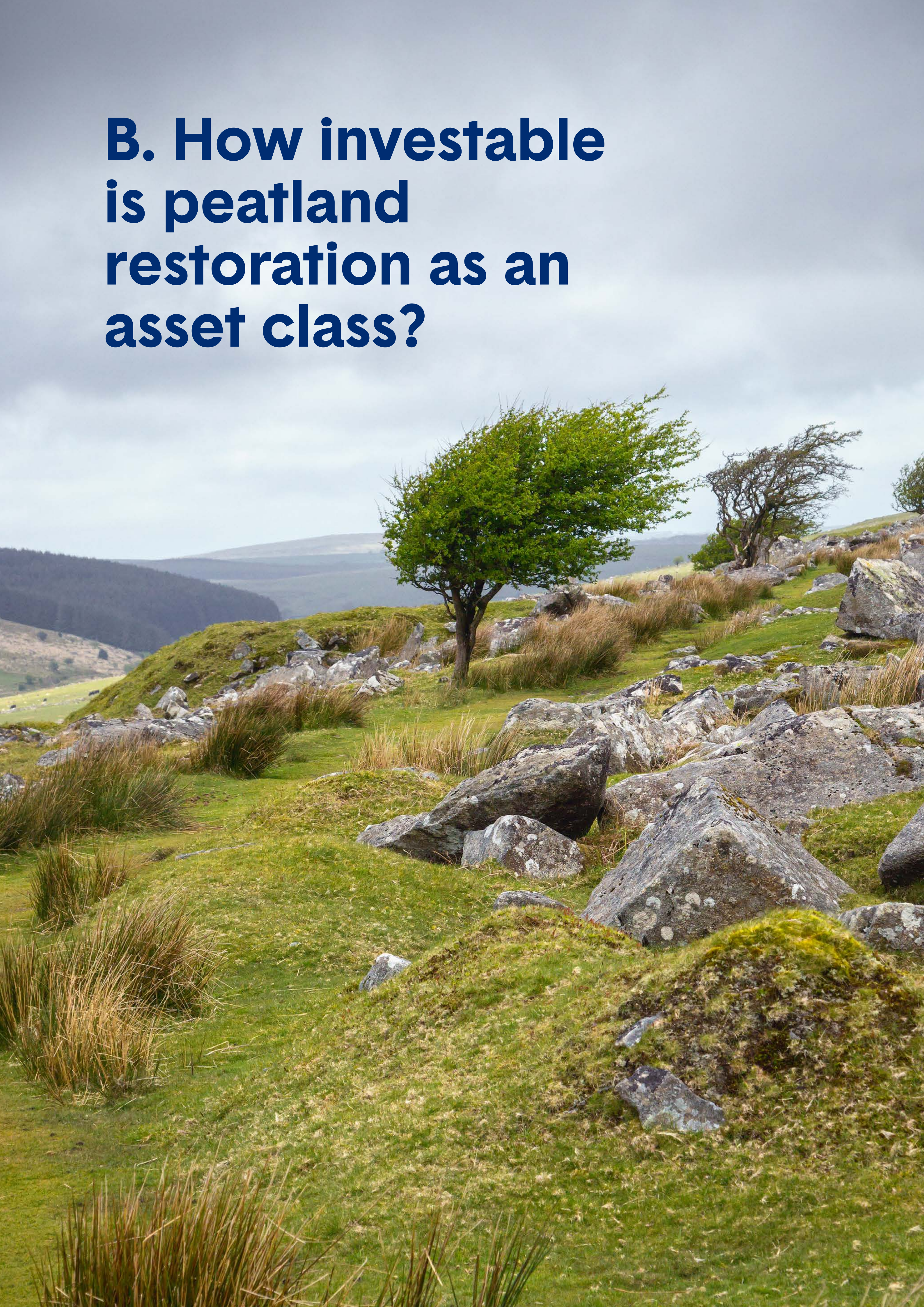
Table note: See Annex A for sources used in Table 6. * Median CAPEX for Ireland is based on blanket bogs, with median capex for restoring grassland-based peatland likely to be lower.

It should be emphasised that Table 6 represents a conservative estimate as it is based on:

- **likely obtainable pace** of peatland restoration over next ten years (e.g. serviceable obtainable market 'SOM' which is itself cautiously calculated, see table 2), and not on the basis of maximum potential area for restoration ('SAM').
- **median capital costs per archetype**, not higher-range costs. It is unclear whether median capital costs will increase or decrease as more peatland is restored. One the one hand, it might be reasonably assumed that the easiest and cheapest sites are restored first. On the other, there is a large area of unrestored peatland remaining, and there is significant scope for technological innovation (see for example, section B4.1 Deep dive into carbon markets) and for a market of specialist subcontractors to emerge that could drive down costs.
- **In-focus/prioritised peatland types only** (e.g. covers 8 archetypes only, see table 1) – in practise almost every European country has some peatlands that can be restored.
- **may not include all up-front costs** that can be incurred in before any revenue is earnt, such as registration for carbon credits and initial years of landscape management.

These caveats notwithstanding, the near-term financing need for peatland restoration is already over **€2 billion**. This is an amount significantly in excess of public or philanthropic grant capital availability, given the constraints on these sources. So, the key question is – what is the scope for private capital – capital which expects to be repaid and receive a return – to step in and fill this financing need? In other words, how investable is peatland restoration – today and in the future?

# B. How investable is peatland restoration as an asset class?



## B.1 What does the financing landscape look like today?

Extensive amounts of peatlands have and are being restored to date across Europe. This report has found data on c. 421 live or planned restoration projects in the UK, the Netherlands and Germany collectively, as of January 2026 (see Annex C). The total land area associated with these projects is c130,000 hectares. At an average capital cost of c. €2,000 per hectare (see Table 2 and Table 6), this crudely implies at least €250m of capital has or is being invested in restoring peatlands in Europe, since c. 2011 (when the first registry – the German MoorFutures – began project registration). Most of this capital has so far come from public sources, in the form of capital grants for restoration.

The most significant examples of private sources for peatland restoration capital expenditure (not including the purchase of carbon credits) in Europe[6] include:

- Up to £25m (or c. €30m), recently committed by three water utilities, for peatland restoration in the English Pennines. It is thought that the bulk of the contribution from water utilities will enter projects via capital grants (and as part of utilities' regulator-mandated capital budgets).
- Up to a £20m (c. €25m) via a loan facility from Triodos Bank UK to the developer Oxygen Conservation – with loan proceeds to be used for land acquisition and to finance a broad range of nature restoration (not necessarily only on peatlands).
- Approximately £40m (c. €45m) in equity funding raised by the developer Nattergal, including from investors such as Aviva, the large UK insurance group, with use of proceeds again not limited to peatland restoration.
- Over €3m pledged by Meta, Microsoft and Google to restore up to 450 ha of peatland in Ireland. Details of the financial instrument have not been publicly disclosed.

Whilst welcome, the amounts of capital invested so far from both public and private sources is but a small fraction of the €2bn needed to address the serviceable market (SOM) for peatland restoration over the next decade (see Table 2).

Where will this additional capital come from? Across Europe, public finances are tightening to cope with ageing populations and new defence and security considerations. Private philanthropy is stretched across a range of social and environmental needs. A step-up in funding of this magnitude can only realistically come from repayable private capital.

## B.2 What role can repayable private capital play?

### B2.1 Which type of private investors can provide peatland finance at scale?

For true scale, peatland restoration finance needs to eventually attract capital from institutional investors and their asset managers. Today, over ten trillions of euros and pounds are invested on behalf of European pension and life insurance beneficiaries. This capital, typically allocated via large asset managers, represents not only depth but duration: liabilities often stretch decades, aligning naturally with long-lived real assets. Institutional investors also carry growing fiduciary and societal expectations around environmental and social outcomes, making them a structurally important source of patient, responsible capital for peatland finance.

Such large pools of capital are properly invested across diversified global asset classes, spanning publicly traded markets/securities, as well as private markets (e.g. private equity, infrastructure and debt). Within private market allocations, there is space for specialist investment strategies such as natural capital investments. Some institutional investors are already taking limited partner positions in Natural Capital-focused private equity funds. There are thought to be at least 30-40 such funds globally that are either already in-market or at fundraising stage, and some examples of in-market managers are presented in Table 7 below. There is no public information on target returns across this family of funds, but it is reasonable to assume it is north of 8% p.a., in line with other impact and climate-first private equity strategies.

**Table 7 - Examples of in-market Natural Capital asset managers**

| Fund manager | Stage of fund / strategy (as of Q4 2025) | Indicative AUM (natural capital strategy components) | Geographic focus | Natural capital sectors |
|---|---|---|---|---|
| Climate Asset Management | In market / open-ended strategies | c. $1bn+ (platform-level public disclosures) | Global | Forestry; land restoration; nature-based solutions |
| New Forests | In market | c. $11bn (firm-wide; forestry-dominant) | Global | Forestry; land use; conservation finance |
| Finance in Motion | In market | c. €1bn+ across nature-linked funds | Emerging markets | Forestry; sustainable land use; climate & biodiversity |
| Gresham House | In market | c. £4bn+ (forestry and natural capital division) | Europe | Forestry; natural capital; land management |
| SLM Partners | In market | c. $1bn+ (public disclosures) | Global | Sustainable forestry; agriculture |
| Dasos Capital | In market | c. €600m+ (forestry funds) | Europe | Forestry; timberland |
| United Bankers | In market | c. €2bn+ forestry assets | Nordics/ Europe | Forestry; timberland |
| Ecosystem Investment Partners | Final close (Fund V) | c. $400m (Fund V) | United States | Wetland and habitat restoration; mitigation banking |
| Astanor | In market | c. €800m (venture platform) | Europe/ United States | Regenerative agriculture; food systems |
| Just Climate | Fundraising / first close | c. $375m (Natural Climate Solutions strategy) | Global | Natural climate solutions; land-use transition |

Table note: AUM figures are indicative and reflect publicly available disclosures at platform or strategy level, rather than commitments to individual peatland or wetland restoration funds. Inclusion in this table does not constitute endorsement.

The other type of institutional capital flowing to nature at the moment is via the banking sector. There is a cohort of major European lenders (e.g. Rabobank, Credit Agricole Group, BNP Paribas etc.) with significant exposure to land-based sectors, mainly through food & agriculture and some forestry. However, some specific biodiversity/nature finance propositions are emerging backed by these more mainstream lenders, as well as more specialist environment focused banks such as Triodos. These institutions represent plausible counterparties for future peatland restoration lending, particularly where revenue support mechanisms (e.g., carbon and water benefit payments) can improve bankability, as discussed later in this chapter.

In the next section the report surmises whether peatland restoration can meet the requirements of these investors.

### B2.2 What returns do peatland restoration projects need to generate to attract private capital?

This report deliberately assesses peatland finance against a 'high bar' for repayable private capital: the requirements of institutional investors in terms of risk, return, scale and structural robustness. That is not to imply such capital is immediately accessible. Rather, the case is that designing the market with institutional requirements in mind provides the most credible route to unlocking the deep, long-term pools of capital needed to match the scale of Europe's peatland restoration challenge.

This report further assumes that peatland restoration finance should eventually evolve to the point at which it:

- **largely subsidy free** - the advantages of not requiring public or philanthropic subsidy are relatively obvious – namely that this type of capital is extremely scarce and sourcing it can otherwise delay restoration projects and limit their scope
- **can simultaneously take advantage of both equity and debt financing**, most likely through infrastructure-like 'project-finance' vehicles (see also section B8.3 that discusses project-finance structures in more depth).

This report benchmarks expected institutional returns on other emerging infrastructure markets, such as non-utility scale renewable energy projects with strong impact credentials. From this, that it is reasonable to assume:

- **Equity investors** in peatland restoration will target c. 8% p.a returns. This is aligned with private infrastructure asset classes (with which peatland finance shares several attributes) rather than private equity in general.
- **Lenders/debt investors** will price at an all-in coupon of c. 4.7% p.a.. This is based on the EURIBOR 6m reference price (as of December 2025) of 220 basis points plus a credit margin spread of 250 basis points, giving an all-in coupon of 470 basis points. This pricing would be not atypical for European renewable energy infrastructure projects with some exposure to merchant off-taker risk, and commensurate with project credit risk rating being at the higher end of sub-investment grade (e.g. a BBB rating[7]).

This report then applies a simple calculation, shown in Equation 1, to derive what project level returns are required to generate these levels of debt and equity returns:

**Equation 1 - Determining the IRR for peatland restoration projects**

$$rA = \frac{rE + (D/E)rD}{(1+D/E)}$$

**where:**
**rA** = project level IRR
**rE** = return expectation of equity investors = 8% p.a. as per above
**rD** = return expectations of debt lenders = an all-in coupon of 4.7% p.a. as per above
A project gearing factor of **30% debt (D)** leaving **70% as equity (E)**. This is a conservative ratio, but commensurate with early market project finance structures

**Applying these input assumptions to the formula, the project level IRR can be derived:**

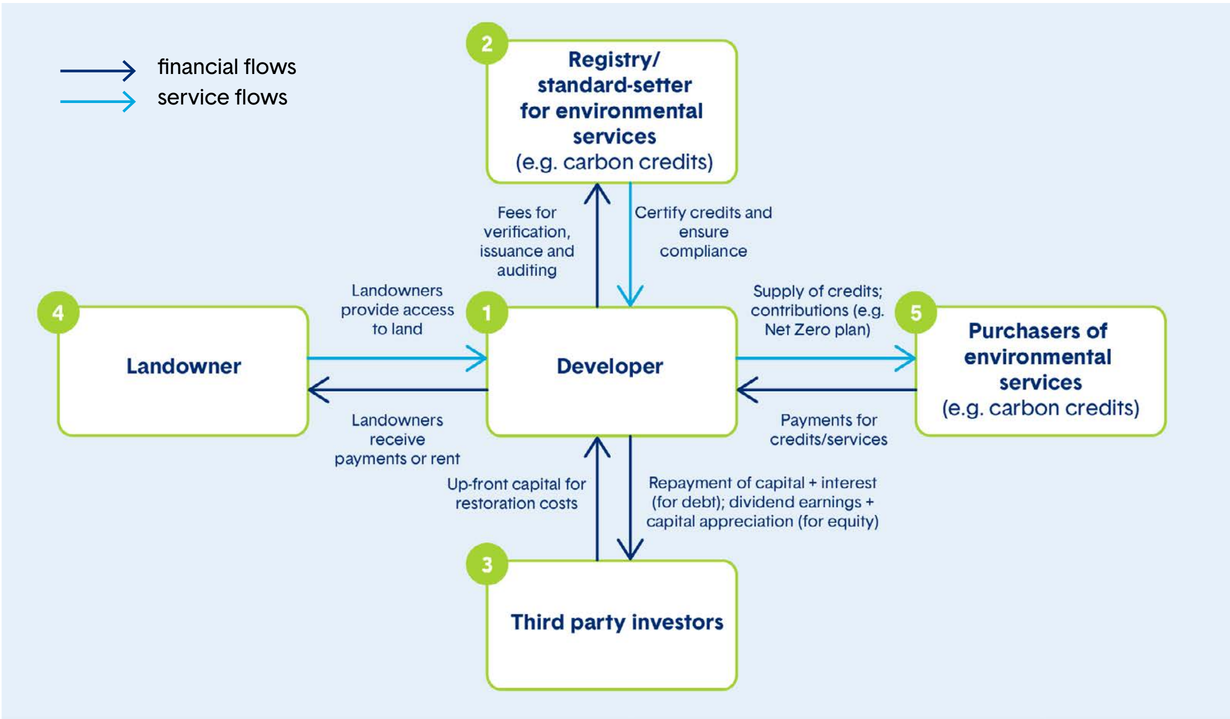
$$rA = \frac{(8\% + (0.3/0.7)*4.7\%) / (1+0.3/0.7)}{}$$
$$rA = 7\%$$

Or in other words, if European peatland projects can generate an internal rate of return of c. 7%, they should be able to attract the equity and debt finance they need to cover up-front capital costs without any public subsidy whatsoever.

## B.3 What is the restoration 'business model'?

Can peatland restoration drive a 7% project-level return in practice? To identify what evidence needs to be collected to answer this, a simple model of the capital and revenue flows through a restored peatland – in other words the restored peatlands' 'business model' - is summarised in Figure 1:

**Figure 1- A stylized version of a peatland restoration business model and cashflows**




## B.4 What are the core revenue drivers?

Restored and/or conserved peatland landscapes will generate a range of ecosystem benefits, which are covered in section A, and for which revenue might be earned if a market for these benefits exists. Each and every source of revenue/earnings is critical – as for any business – as it provides the means to repay the up-front costs involved in restoration.

The 'markets' from which revenue might be earned for ecosystem services are varied in their maturity and mechanisms. Markets which are ultimately powered by private sources of demand for ecosystem services (e.g. from corporates) can be divided into three types:

1. **Bespoke bilateral arrangements** – between a developer of benefits and an 'off-taker' of benefits such as a corporate, and which might conceivably cover several environmental benefits at once (e.g. carbon but also biodiversity, water quality and quantity, and so forth. In bespoke agreements, payment for benefits are not normally tradable nor exchangeable between buyers. Price is determined by negotiation and not observable to third parties.
2. **Voluntary markets** – which typically describes European carbon markets (such as the Woodland, Peatland, Saltmarsh Codes in the UK; MoorFutures in Germany; Valuta Voor Ven in the Netherlands; Verra/Gold Standard internationally). Participation in these markets is voluntary for both buyer and seller, but units are theoretically exchangeable and prices are more sharply driven by forces of demand and supply.
3. **Compliance-driven markets** – such as the Carbon Emission Trading Scheme (ETS) in the UK or equivalent in the EU, or the off-set markets created by planning system requirements in the UK such as Biodiversity Net Gain and nutrient neutrality. Developers of verified 'credits' can then trade these credits in a market where the prices are subject to market forces (e.g. demand for and supply of credits), as well as by the quality of the market itself with respect to transparency/ information and transaction costs.

In general, there is much scope for markets for ecosystem services to evolve along this 3-way typology – starting with bespoke agreements before moving to voluntary markets before benefits are incorporated into compliance-driven schemes, sometimes on a regional/international basis (see also the Roadmap recommendations in section C).

There are also public environmental/agricultural payments available for peatland restoration– such as via Environmental Land Management schemes (ELMs) and the Nature for Climate Fund in the UK, and LIFE and the Common Agricultural Policy (CAP) in the EU. These schemes typically provide ex-ante, administratively set payments, rather than prices determined by market demand and supply, and any environmental outcomes generated are not transferable or tradeable between parties.

At EU level, policy is increasingly recognising peatland restoration as a climate-mitigation activity. In particular, the EU Carbon Removal Certification Framework (CRCF), which entered into force in late 2024, explicitly includes peatland rewetting and restoration within its definition of eligible carbon-farming activities. While CRCF establishes a framework for certification rather than a payment mechanism, it reinforces the role of public policy in supporting land-use change for climate and environmental outcomes, alongside CAP and LIFE funding streams.

In practice, public environmental payment schemes currently play a material role in underpinning the economic viability of peatland ownership and restoration. This reflects the opportunity cost associated with land-use change, particularly where restoration entails reduced agricultural productivity or foregone extractive income. In such cases, landowners and farmers require financial incentives to make the transition. This report assumes that public land management or land-use change subsidies are sufficient, in aggregate, to offset these opportunity costs. This is necessarily a simplifying assumption. A detailed assessment of marginal agricultural productivity and the design of subsidy regimes lies beyond

Stacking revenues from multiple ecosystem services is frequently constrained by concerns about additionality. In the UK, for example, projects cannot generally 'double-dip' into Biodiversity Net Gain (BNG) payments while also issuing voluntary carbon credits for the same intervention. However, peatland restoration generates distinct carbon, hydrological and biodiversity outcomes. The core issue is therefore not whether stacking should be prohibited, but how value is transparently allocated across different benefit streams. Clear benefit definitions, registry disclosure and contribution-based additionality tests can enable responsible stacking without undermining market integrity (see also Section C).

### B4.1 Deep dive into carbon markets

Understanding revenue potential for any given ecosystem service has two main determinants:

- what volume of service the restored peatland can generate and (e.g. the carbon abatement capacity, explored in a couple of pages)

- what price a buyer will pay for these services (e.g. the carbon price, see section below)

**Carbon prices for peatland**
The best current evidence on prices commanded by different voluntary peatland carbon markets across Europe are shown in Table 8 below:

**Table 8 - Carbon prices achieved by peatland carbon scheme**

| Jurisdiction / Scheme | Indicative price | Price basis | Confidence / evidence strength |
|---|---|---|---|
| United Kingdom – Peatland Code (PC) | £23.95 – £25.04 / $tCO_2e$ (2022 – 2024) | Ecosystem Marketplace aggregated transaction data (2020–2024) with IUCN/Scottish Forestry collaboration | High – official UK price pages & EM releases |
| Germany – MoorFutures (regional) | €29.41 – €67.23 / $tCO_2e$ (2019–2021) | Project tables and public reports showing per-project €/$tCO_2e$ | High – multiple sources |
| Netherlands – SNK / Valuta voor Veen (veenweide) | €40–€65 typical; first sale c. €70; some reports c. €80 | Scheme communications; early transactions and media reports | Medium-High – several corroborating sources |
| Ireland – Peatland Standard (pilot) | TBD (no public price) | Official site & FAQs; trade press (pipeline only) | High on status; Low on price |
| Finland – Hiilipörssi (non-registry donations) | ≈ €44 / $tCO_2e$ (May 2022 reference) | EU project paper referencing offset price used in calculations | Medium-Low – external citation; programme frames as donations |
| International – Verra VCS (peatland/ wetland methodologies) | ≈ US$7–$24 / $tCO_2e$ (broader NBS 2024–2025) | Public dashboards & market reports (NBS segment) | Medium – aggregated, not peat-only |

Table Note: See Annex B for sources used to generate Table 8.

The prices illustrated in Table 8 are of necessity backwards-looking, and unlikely to be exactly what restored peatlands can earn from issuing credits now or in the future. However, forecasting the future price of carbon is very difficult to do in a precise way.

The drivers of future carbon pricing, as in any market, are fundamentally determined by the balance of supply and demand for credits placed into the market. As peatland restoration supply is expected to increase in the coming years—assuming the enabling conditions outlined in this report are realised—the key determinant of future price stability will be whether demand expands at least commensurately.
Buyers of peatland carbon credits are typically corporates with net-zero commitments. Public disclosure of buyer identity remains limited, but evidence suggests participation across food and agriculture sectors (e.g. McDonald's, Engbers), aviation (Lufthansa), financial services (Commerzbank, Starling Bank), real estate (British Land), and technology (Microsoft). Despite sustained long-term interest in nature-based solutions, several factors may constrain near-term voluntary carbon credit demand:

- **Many corporates remain cautious about the voluntary carbon market (VCM).** Reputational concerns, evolving standards, and regulatory uncertainty have led some firms to defer discretionary purchases. The global VCM remains relatively small (c. US$1.7bn annually) and has experienced periods of price volatility and flat demand, reinforcing buyer caution.
- **Restrictions within the Science Based Targets initiative (SBTi)** materially constrain near-term demand. Under the current Net-Zero Standard of the Science Based Targets initiative (SBTi), credits are primarily permitted for neutralising residual

emissions and are expected to be removal-based. This constrains the role of reduced-emission credits – such as those typically generated by peatland restoration – in formal net-zero claims. While SBTi has recently consulted on revisions, the framework remains conservative regarding reductions.

- **SBTi's sequencing logic** – often summarised as "mitigate first, compensate later"– tends to defer large-scale offsetting demand toward the 2040s, potentially contributing to subdued current pricing.
- **Policy asymmetries** across jurisdictions further dampen confidence. In some countries, including the UK, differing treatment of woodland and peatland credits in compliance-adjacent discussions creates additional uncertainty for buyers and investors.

It would be premature, however, to conclude that voluntary carbon markets are structurally incapable of supporting peatland finance at scale. A significant proportion of potential reductions demand remains under-mobilised rather than absent. SBTi guidance permits the use of high-quality reductions credits in the transition period toward net zero and explicitly prioritises avoided land-use emissions. Given the emissions intensity and methodological robustness of peatland restoration, there is a credible case for positioning peatlands alongside deforestation avoidance within corporate mitigation hierarchies.

Companies with material peatland exposure in their value chains—particularly in food and beverage, livestock, retail and beverage sectors—have a clear Scope 3 mitigation rationale to engage in peatland carbon markets. Well-designed sectoral case studies could materially influence corporate purchasing behaviour. In addition, the potential inclusion of peatland methodologies within Article 6 mechanisms or eligibility frameworks such as CORSIA for international aviation could materially expand demand. CORSIA alone is projected to generate 50–200 $MtCO_2e$ per year of demand over the coming decades. Even partial eligibility of peatland-based reductions could improve liquidity and price stability.

Indeed, several medium-term carbon market outlooks[8,9,10] anticipate tightening supply–demand balances from the early 2030s onward, particularly if corporate net-zero commitments translate into material credit purchasing during the transition phase. Independent analyses project increasing scarcity of high-integrity nature-based credits under credible decarbonisation pathways. If realised, such dynamics would support stronger and more stable price formation than is currently observed. Unlocking this potential will depend on the strategic positioning of peatland methodologies within evolving carbon governance frameworks and on the market reforms outlined in the Roadmap in Section C.

**Abatement capacity/volume of carbon benefits**
The typical abatement capacity of different peatland archetypes has been set out in Table 3. These figures represent central estimates of potential emissions reductions under successful restoration.
Several project-level factors influence whether theoretical abatement potential is achieved in practice.

- **Site selection and project design.** The choice of site – and the quality of upfront project design – has a significant influence on both abatement outcomes and delivery costs. Variations in peat depth, historic drainage intensity, surrounding land use and hydrological connectivity affect achievable emissions reductions. Improved data integration—combining satellite imagery, LiDAR, soil data and historic land-use information—is enhancing early-stage screening and feasibility assessment, for example via platforms developed by New Gradient. More accurate site selection reduces downside risk, improves performance predictability and strengthens underwriting confidence at project inception.
- **Restoration techniques and materials.** Innovation in restoration approaches may improve consistency and speed of abatement outcomes. Novel materials and approaches, such as the engineered moss and substrate technologies developed by BeadaMoss, aim to accelerate vegetation establishment, stabilise water tables and reduce the risk of restoration failure. While still developing, such approaches may shorten time-to-impact and reduce variability of outcomes, which is particularly relevant for performance-linked revenue models.
- **Monitoring, reporting and verification (MRV).** The credibility and cost-efficiency of MRV systems materially affect both measured abatement and investor confidence. Traditional approaches rely on periodic site inspections and manual data collection, which can be expensive and spatially limited. Advances in remote sensing, satellite monitoring and automated data analytics offer the potential for more continuous and comprehensive performance tracking. Improved MRV can reduce verification costs, detect underperformance earlier, and support more sophisticated, performance-based contracting structures.

Moreover, biophysical abatement potential is only financially meaningful to the extent that it translates into credible, marketable volumes of carbon credits. Credit issuance depends not only on ecological performance but on robust demonstration of additionality (that restoration delivers genuine, incremental emission reductions beyond business-as-usual) and permanence (that emissions reductions are not reversed through drainage, fire, mismanagement or future policy change). Where additionality is uncertain or permanence safeguards are weak, credits may be discounted by buyers, subject to larger buffer pool deductions, or face reduced demand. Integrity risks therefore directly influence projected revenues, leverage capacity and cost of capital.

In aggregate, abatement capacity should therefore be understood as a range rather than a fixed outcome. Translating archetype-level potential into investable credit volumes depends on disciplined site selection, technological reliability, credible long-term monitoring frameworks and robust integrity safeguard. These factors are as central to capital mobilisation as the underlying ecological logic of peatland restoration.

### B4.2 Deep dive into water markets

Peatland restoration today is typically justified through its carbon abatement potential. However, and as shown in Table 4, **water-related benefits can be at least as material as carbon benefits.** And, crucially, they can be more readily monetisable than carbon. This is because, unlike carbon which is usually sold into relatively abstract markets, water benefits often accrue to identifiable local beneficiaries – particularly local infrastructure operators - who already incur significant, observable costs from degraded peatlands.

Water utility companies are natural anchor buyers for water quality benefits. Payments can be justified against: reduced chemical and energy cost; deferred treatment upgrades; and, reduced operational risk. A wider set of companies might buy flood attenuation benefits, including: road and rail networks; energy and telecoms infrastructure; urban and agricultural assets (in some cases, infrastructure companies being driven by their regulators to explicitly consider flood losses in their financial planning); and even port operators (who incur sediment dredging costs). Insurance companies should also be keen to 'buy' lower insurance losses and lower capital charges.

Over the past decade, the World Resources Institute[11] and others have done much to develop strong and standardised volumetric water benefit accounting (VWBA) and water quality benefit accounting (VWQA) methodologies. What has not yet evolved is a market to link water benefits to purchasers, with a well-understood way of valuing and attributing these benefits. Table 9 overleaf sets out a potential market framework to treat water benefits as core ecosystem services, capable of standardisation, aggregation, and monetisation at scale:

**Table 9 - Proposed framework for water benefit markets**

| Benefit/ service | Beneficiaries and potential buyers | Value logic and why it is financeable | Proposed metric | Pricing (UK analysis only) |
|---|---|---|---|---|
| **Water quality and treatability** | Water utilities and, indirectly, regulators and consumers | Avoided or deferred operating and capital expenditure in treatment works; reduced compliance risk. These costs are real, recurring, and already measured within utility cost frameworks. | **Water Quality Units (WQU)**<br><br>1 WQU = 1 kg of DOC (or colour units) delivered to a defined control point (e.g. abstraction intake).<br><br>Accounting via WQBA methodologies | UK evidence[12] supports **low single-digit £/ha/year** values when averaged across large peatland study areas, rising to **high single-digit £/ha/year** when attributed to directly restored 'source areas' influencing treatability. |
| **Flow regulation and flood risk reduction** | Flood risk authorities, local authorities, infrastructure operators (rail, roads, power, telecoms), landowners, and potentially insurers | Reduction in Expected Annual Damages (EAD), avoided flood defence costs, improved service continuity<br><br>Flood damages and protection costs are well understood, even if attribution remains probabilistic | **Flood Attenuation Units (FAU).** Either a reduction in peak flow ($m^3/s$), increase in lag time, or a reduction in Expected Annual Damages (EAD) (£/year) at a defined node.<br><br>Not a volumetric water benefit, is not covered by WQBA methodologies | Estimated in the range of roughly **£40–£400/ha/year** across UK catchment contexts, and a live precedent (Wyre) operationalises **c. £400/ha/year** as the land-manager hosting/ maintenance payment within a payment-for-outcomes structure. |
| **Water storage and drought resilience** | Water resource planners, utilities, regional resilience bodies. | Avoided restrictions, deferred supply augmentation, improved system resilience<br><br>Benefits are diffuse but can be tied to resilience planning metrics. | **Drought Resilience Units (DRU).** Metric: improvement in low-flow indicators (e.g. Q95) or avoided restriction days<br><br>Accounting via WVBA methodologies | **£5–£40/ha/yr** in typical UK/IE catchments; up to c. **£50–£120/ha/yr** in stress-prone, intake-linked or reservoir-contributing sub-catchments. |
| **Sediment and erosion control** | Water companies, reservoir operators, fisheries bodies. | Avoided dredging, reduced asset wear, improved ecological status. | Sediment Avoidance Units (SAU)<br><br>Metric: tonnes of sediment avoided or equivalent avoided management costs.<br><br>Covered by WQBA methodologies when restoration measurably increases accessible supply or return flows in the right basin and season | **£15–£90/ha/yr** in most peat catchments (anchored to avoided reservoir/asset sediment management and turbidity handling); **c. £100–£200/ha/yr** for hotspots directly upstream of reservoirs/ intakes or critical assets where dredging/ disposal costs are high |

Table Note: See Annex B for sources for the 'pricing' column

Once water benefits are modularised, monetisation becomes a contracting problem rather than a valuation exercise. Contracts can be structured as long-term, outcomes-based catchment management agreements. Initiatives such as the Wyre Catchment Natural Flood Management project illustrate that such arrangements are possible.

The implications for peatland finance, if this shift can be enacted, would be profound. Treating water benefits as standardised, monetizable services has three major implications for peatlands:

- **Revenue stacking:** water services can sit alongside carbon credits, diversifying, stabilising and augmenting cashflow
- **Risk reduction:** contracted water revenues can reduce project-level risk and lower the cost of capital.
- **Local legitimacy:** unlike carbon, water benefits are inherently place-based, strengthening stakeholder alignment and public support.

In many peatland contexts, particularly upland catchments supplying drinking water or protecting downstream assets, water benefits may equal or exceed carbon benefits in economic value.

### B4.3 Deep dive into other markets – biodiversity and productive uses

**Biodiversity markets**
Peatland restoration delivers substantial biodiversity benefits (see Section A). From a financing perspective, however, the key question is not ecological value but whether biodiversity outcomes can generate reliable, scalable revenues that strengthen project economics.

Biodiversity-related revenues linked to peatland restoration remain nascent and uneven in their ability to support private investment. The most developed compliance pathway is the UK's Biodiversity Net Gain (BNG) regime, which creates legally mandated demand for biodiversity units. In principle, restored peatlands—particularly lowland fens—can generate high-value units due to habitat distinctiveness and long-term management requirements. Another example is Finland's ecological compensation scheme. It is not compulsory on a national basis, but some Finnish towns and municipalities are now requiring land development schemes to adhere.

Elsewhere, biodiversity payments are typically bespoke and place-based, funded by public bodies, conservation organisations, or corporates seeking specific nature outcomes. While these payments can be meaningful at project scale, they are negotiated case-by-case and lack standardisation, liquidity, and long-term price certainty.

At EU level, the European Commission is exploring the development of 'nature credits' as a potential mechanism to mobilise private capital for biodiversity restoration, including peatlands. This work signals an important medium-term policy direction, but such credits should currently be treated as option value rather than bankable revenue.

Relative to carbon and potentially water, biodiversity revenues are less mature, less standardised, and harder to contract over long tenors. As a result, they are unlikely to underpin large-scale aggregation or debt finance in the medium term. That said, peatlands are structurally well positioned for future biodiversity markets: gains are often large, durable, and highly additional, and occur at landscape scale rather than as isolated features. For investors, biodiversity should therefore be understood as long-dated upside embedded within peatland assets, rather than a prerequisite for near-term investability.

**Productive markets**
From an investment perspective, other productive uses of restored peatlands (paludiculture and wet-grazing, generating biochar, hosting renewable energy assets) should be understood as optional upside and risk-mitigation features, rather than core return drivers. They can:

- reduce landowner opportunity costs, lowering required compensation or public payments
- provide small but stable cashflows that help cover ongoing costs such as monitoring costs
- strengthen stakeholder alignment, particularly in agricultural regions where 'non-productive' land use faces resistance

Generating biochar is emerging as an interesting potential enhancer of peatland restoration revenue. Where produced under recognised monitoring and verification standards, biochar may qualify for engineered carbon removal credits, which typically command a premium relative to avoided-emissions credits in voluntary markets. So, although biochar manufacture is not a continuing land use of restored peatland, it can provide a front-loaded, restoration-linked revenue stream that offsets tree removal costs, improves early-year cashflow profiles, and enhances overall project IRRs. In capital-intensive archetypes — particularly afforested blanket bogs and certain boreal systems — this circular revenue pathway can materially reduce equity requirements and strengthen blended-finance viability.

Any productive use of restored peatland helps reposition it away from a perceived land-use sacrifice for environmental benefits only, and towards a multi-functional land system. This will increase its durability as an investable asset class over multi-decade horizons.

## B.5 What are the core cost drivers?

Revenues generated by restored peatlands are of course only one side of the coin. The other is the costs required to restore peatland in the first place, and then maintain the restoration. These costs split between capital (or one-off) costs and recurrent (or regular) costs.

### B5.1 Capital costs (one-off or infrequent costs)

The bulk of capital costs in peatland restoration relate to civil works involved in rewetting the peatland under restoration. These works can vary significantly in intensity and cost:

- **Light:** Minimal intervention — e.g. grip blocking, bunding, water level adjustments
- **Medium:** Moderate re-shaping — e.g. ditch/gully blocking, some reprofiling, bunding
- **Heavy:** Intensive work — e.g. forestry removal, re-contouring, hydrological re-engineering using heavy machinery

No central source or database of peatland project costs exists, but using available evidence this report has generated capital cost estimates as shown in Table 10 below:

**Table 10 - Detailed capital cost estimates by archetype**

| **Peatland archetype & jurisdiction** | **CapEx range** Typical range (€/ha) | **Median CapEx** (€/ha, 2025€) | **CapEx /interventions in scope** |
|---|---|---|---|
| Blanket bogs (UK) | 1,100–1,900 (5th–95th pct c. 220–5,250) | 1300 | Grip/drain blocking, hag/bare-peat reprofiling, bunds, light repropagation; excludes major forestry removal |
| Fenlands (UK) | 1,000–3,500+ | 2300 | Raise water tables, sluices/weirs, ditch/berm works; excludes land purchase & annual farm compensation |
| Blanket bogs (Ireland) | 2,500–3,500 | 3000* | Large-scale re-wetting & rehab on state/industrial peatlands (PCAS/NPWS), hydrological works, basic revegetation |
| Fenland / polder (Netherlands) | 1,000–5,000 | 3500 | Adjustable drainage, weirs, polder WL infrastructure; excludes annual farmer compensation |
| Fenland / polder (Germany) | 3,000–6,000 | 4000 | Planning + earthworks to rewet drained fens (dams, spillways, ditch blocking); excludes annual management |
| Fenland / polder (Poland) | 800–2,000 | 1100 | Protected-area style rewetting (dams/ditch infill, shrub removal) |
| Boreal aapa mires (Scandinavia) | 700–1,200 | 800 | Ditch blocking, small peat dams on open mires; state-land operations |
| Forested peatland (Scandinavia) | 1,200–2,500+ | 1600 | Ditch blocking plus tree/furrow handling; more machinery time |

Table Note: See Annex B for sources for the CAPEX estimates. GBP sterling to Euro currency conversion at prevailing exchange rates.

### B5.2 Recurrent costs drivers include:

There are a multitude of recurrent costs involved in peatland restoration which can include:

- Maintenance of land/restoration and conservation.
- Measuring, Reporting and Verification (MRVs) of carbon or other ecosystem/nature credits
- Payment of profit share or income/leases to landowners and/or developers and/or communities (if relevant)
- Some landscape restoration/conservation efforts may reduce input costs (e.g. reduced fertiliser use in restorative agriculture models), which should also be identified as cost reductions.

## B.6 What do current restoration economics and project returns show?

The key assumptions made for different parts of the peatland business model and across different archetypes can be inputted into a simple discounted cash flow models to generate outputs that include an indicative project-level return (internal rate of return or IRR) and time to break-even in years. These outputs and the underlying input assumptions are shown in Table 11 below:

**Table 11- Project level IRRs by peatland archetype**

| Peatland archetype | Key results | | Key assumptions | | |
|---|---|---|---|---|---|
| | **Project level IRR** | **Years to break-even** | **CapEx typical** (€/ha, as per table 5) | **Carbon price** (€per $tCO_2e$, see table Table 8 for range) | **Abatement rate** ($tCO_2e$/ha/yr, see Table 3) |
| Blanket bogs (UK) | -1% | never | 1300 | 29 | 3 |
| Fenlands (UK) | 13% | 10 | 2300 | 29 | 18 |
| Blanket bogs (Ireland) | 1% | 40 | 3000 | 50 | 3 |
| Fenland / polder (Netherlands) | 11% | 11 | 3500 | 60 | 10 |
| Fenland / polder (Germany) | 15% | 9 | 4000 | 50 | 20 |
| Fenland / polder (Poland) | 16% | 9 | 1100 | 50 | 13 |
| Boreal aapa mires (Scandinavia) | 1% | 39 | 800 | 45 | 2 |
| Forested peatland (Scandinavia) | -1% | never | 1600 | 45 | 2 |

Table Note: For simplicity, all project lifetimes set at 50 years; maintenance costs assumed at (€40/ha/yr), MRV at (€20/ha/yr), no landowner payments (assumed covered by public/environmental transfers, see section B4). No specific evidence could be found for carbon prices achieved for restored peatland projects in Poland so German carbon prices were assumed.

Table 11 implies that the investability of European peatland restoration, based on revenue from selling carbon benefits only, is currently variable. On the one hand, an investor in restoring forested peatland in Scandinavia, or blanket bogs in the UK, might not see their capital fully returned over the lifetime of a project, given the low carbon abatement factors of these landscapes. On the other hand, an investor in fenland or polder peatland restoration could make handsome returns, with capital repaid in around a decade, driven by high carbon abatement factors, and despite relatively high upfront restoration costs. Investors in restoring boreal aapa mires in Scandinavia or peatlands in Ireland may see their capital returned, but beyond this the rate of positive return would be negligible and not fully consummate with the risk or illiquidity associated with peatland investments.

## B.7 How could future economics improve investability?

The previous section shows that the project economics of fenland/polder peatland restoration are strong and should mean they are investable today. The project economics of other peatland archetypes are not yet investable. So this report has conducted a limited set of scenario analyses that flex the different drivers of the peatland business model, to understand at what point the restoration of these types of peatland become investable.

For UK Blanket Bogs, these scenarios are illustrated by Table 12 below. The cells in the table show the rates of return (IRRs) generated by flexing revenue upwards from that implied by current carbon price alone, and by flexing upfront capital costs up/down +/- 10% from the current central estimate.

**Table 12 - IRR scenario analysis for UK Blanket Bogs**

| Revenue factor (1.0x = current carbon price) | Capital cost factor (1.0x = central assumption) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.8x | 0.84x | 0.89x | 0.93x | 0.98x | 1.01x | 1.07x | 1.1x | 1.16 | 1.2x |
| 1x | 0.8% | 0.6% | 0.4% | 0.2% | 0.0% | -0.2% | -0.3% | -0.5% | -0.6% | -0.8% |
| 1.1x | 2.1% | 1.9% | 1.6% | 1.4% | 1.2% | 1.0% | 0.8% | 0.7% | 0.5% | 0.3% |
| 1.2x | 3.3% | 3.0% | 2.7% | 2.5% | 2.2% | 2.0% | 1.8% | 1.6% | 1.5% | 1.3% |
| 1.3x | 4.3% | 4.0% | 3.7% | 3.4% | 3.2% | 2.9% | 2.7% | 2.5% | 2.3% | 2.1% |
| 1.4x | 5.3% | 5.0% | 4.6% | 4.3% | 4.1% | 3.8% | 3.6% | 3.3% | 3.1% | 2.9% |
| 1.5x | 6.2% | 5.9% | 5.5% | 5.2% | 4.9% | 4.6% | 4.3% | 4.1% | 3.9% | 3.6% |
| 1.6x | 7.2% | 6.7% | 6.3% | 6.0% | 5.7% | 5.4% | 5.1% | 4.8% | 4.6% | 4.3% |
| 1.7x | 8% | 7.6% | 7.2% | 6.8% | 6.4% | 6.1% | 5.8% | 5.5% | 5.2% | 5.0% |
| 1.8x | 8.9% | 8.4% | 7.9% | 7.5% | 7.2% | 6.8% | 6.5% | 6.2% | 5.9% | 5.6% |
| 1.9x | 9.8% | 9.2% | 8.7% | 8.3% | 7.9% | 7.5% | 7.2% | 6.8% | 6.5% | 6.3% |

Table 12 illustrates that revenue would have to nearly double before UK blanket bogs can generate project returns (>7% p.a. e.g. the green-shared cells) that could attract repayable private capital, without any public subsidy or reduction in costs. Whilst this would represent a significant increase in revenue, it is far from beyond the realms of possibility. 'Stacking' other ecosystem payments (such as water or biodiversity benefits) on top of carbon is the most promising possibility, and Table 9 has shown that water benefits alone could feasibly generate such a revenue uptick if they can be monetised.

For Scandinavian forested peatlands, the scenario analyses are repeated in Table 13, only here the abatement factor is flexed (e.g. in the hope that good site selection can increase abatement) as well as upticks in revenue.

**Table 13- IRR scenario analysis for Scandinavian forested peatland**

| Revenue factor (1.0x = current carbon price) | Abatement factor (1.0x = central assumption) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.6x | 0.69x | 0.78x | 0.87x | 0.96x | 1.04x | 1.13x | 1.22x | 1.31 | 1.4x |
| 1x | -100% | -100% | -100% | -100% | -6.0% | -3.7% | -2.3% | -1.3% | -0.4% | -0.3% |
| 1.1x | -100% | -100% | -100% | -6.1% | -3.6% | -2.1% | -1.1% | -0.2% | 0.6% | 1.3% |
| 1.2x | -100% | -100% | -7.0% | -3.8% | -2.2% | -1.0% | 0.0% | 0.8% | 1.5% | 2.2% |
| 1.3x | -100% | -11.3% | -4.4% | -2.4% | -1.1% | 0.0% | 0.9% | 1.7% | 2.4% | 3.1% |
| 1.4x | -100% | -5.7% | -3.0% | -1.4% | -0.2% | 0.8% | 1.6% | 2.4% | 3.1% | 3.8% |
| 1.5x | -10.2% | -3.9% | -1.9% | -0.5% | 0.6% | 1.5% | 2.4% | 3.1% | 3.9% | 4.6% |
| 1.6x | -5.9% | -2.8% | -1.1% | 0.2% | 1.2% | 2.2% | 3.0% | 3.8% | 4.5% | 5.3% |
| 1.7x | -4.2% | -1.9% | -0.3% | 0.9% | 1.9% | 2.8% | 3.6% | 4.4% | 5.2% | 5.9% |
| 1.8x | -3.1% | -1.1% | 0.3% | 1.5% | 2.5% | 3.4% | 4.3% | 5.1% | 5.8% | 6.6% |
| 1.9x | -2.3% | -0.5% | 0.9% | 2.0% | 3.0% | 4.0% | 4.8% | 5.7% | 6.5% | 7.2% |

Table 13 illustrates that only under the most extreme favourable scenarios of a revenue uplift (1.9x) and abatement factor/site selection (1.4x) are Scandinavian forested peatlands likely to generate returns that can attract private investors without any subsidy. This suggests that mixed financing models involving new revenue streams (e.g. such as biochar) and/or an element of public subsidy are required for the foreseeable future.

## B.8 What investment risks and market constraints remain?

Despite strong ecological fundamentals and, in some cases, investable project-level economics, peatland restoration has not yet attracted private capital at scale. The binding constraints are not scientific or technical, nor are they primarily about headline returns. Instead, they arise from three market-level bottlenecks— each of which manifest to investors as a distinct category of risk - and investors care as much about risk as they do headline returns. Put simply, significant private finance is not yet flowing into peatland restoration because:

- revenues are insufficiently stable and bankable,
- projects lack scale and aggregation, and
- established project-finance structures have not yet been adopted.

These three risks and bottlenecks are now explored in turn.

### B8.1 Revenue instability and weak bankability

From an investor perspective, the most significant constraint on peatland finance is revenue risk. Most revenues associated with peatland restoration — particularly voluntary carbon credits — remain short-term, price-uncertain and exposed to fluctuations in corporate demand, standards evolution and policy sentiment. Equity investors may tolerate this volatility in pursuit of upside, but lenders generally will not. Without predictable, long-dated cashflows, peatland projects struggle to support leverage or infrastructure-style capital structures.

At a market level, this reflects a deeper bottleneck: weak revenue bankability. Carbon markets remain fragmented and largely discretionary; water and biodiversity payments, where they exist, are typically bespoke, pilot-based and non-standardised. As a result, revenues are difficult to contract over long tenors, difficult to insure, and difficult to treat as reliable security for debt providers.

Performance and issuance risks reinforce this challenge. While the ecological case for peatland restoration is strong, evidence on the variability of timing and magnitude of outcomes at project level remains limited and unevenly disclosed.[13] Delays in verification or issuance — even where outcomes are ultimately delivered — can materially affect cashflow profiles, particularly in early years. For lenders, uncertainty over timing is often as problematic as uncertainty over volume.

Policy and permanence considerations further compound revenue risk. Investors are highly sensitive to retrospective changes in rules around additionality, stacking, permanence or credit eligibility. While regulatory evolution is expected in nascent markets, uncertainty over how peatland revenues will be treated across carbon, biodiversity and agricultural policy frameworks undermines confidence in long-term cashflows.

Taken together, these factors explain why peatland restoration remains heavily reliant on grants and equity-like risk capital. Until revenues become more predictable, contractable and durable, private capital — particularly debt — will remain constrained.

### B8.2 Lack of scale and aggregation

A second, closely related constraint on private investment is scale and liquidity risk. Most peatland restoration projects remain small, bespoke and landowner-specific, often spanning hundreds rather than tens of thousands of hectares. While illiquidity itself is not necessarily a deterrent for long-term investors, sub-scale projects impose disproportionately high costs of due diligence, structuring and monitoring, making them unattractive for institutional capital.

This investor concern reflects a deeper bottleneck: the absence of effective aggregation mechanisms. Without catchment-, landscape- or programme-scale vehicles capable of bundling multiple projects, landowners and revenue streams into diversified portfolios, peatland finance remains fragmented. Even where individual projects are viable, their small size prevents efficient capital allocation and portfolio construction.

Aggregation is not simply about achieving size for its own sake; it is a core risk-mitigation mechanism. Portfolio approaches diversify ecological, delivery and revenue risks, reduce exposure to site-specific underperformance, and enable more standardised contracting and monitoring. Without aggregation, investors face concentrated risks that are difficult to price and manage in outcome-based markets. There are early examples of aggregation in practice. Landscape-scale initiatives such as the Flow Country in northern Scotland coordinate restoration across multiple estates and landowners, demonstrating that aggregation across ownership boundaries is feasible and that governance and monitoring can be centralised. Similar principles underpin large multi-site and catchment-based programmes elsewhere in Europe.

However, most such initiatives remain grant-led or publicly funded and do not yet function as capital aggregation vehicles. They focus on delivery coordination rather than pooling revenues, standardising contracts or creating investment units capable of absorbing private capital.

The aggregators of the future will evolve these models into investment-ready platforms that bundle cashflows, introduce portfolio-level risk buffers and support institutional deployment at scale. The table below shows four potential archetypes of aggregator, all based on existing precedents across Europe.

**Table 14 - Different aggregation models for European peatlands**

| Aggregation model | 1. Private-led portfolio aggregator | 2. Cooperative / landowner aggregator | 3. Public-private catchment vehicle | 4. Statutory catchment authority / quasi-public entity |
|---|---|---|---|---|
| **Core Features** | Developer-led aggregation of multiple sites; standardised MRV; portfolio diversification; multi-buyer contracting | Multiple landowners pool restoration, MRV and contracting; collective bargaining with buyers | Geographically defined basin/ catchment entity; multi-buyer contracting; long-term mandate | Legally mandated basin authority; ability to levy charges or issue bonds; system-level governance |
| **Governance Structure** | Corporate SPV or fund structure; developer-controlled pipeline | Cooperative or syndicate structure; land retained by owners | Hybrid governance (municipality, water utility, private delivery partners) | Statutory regional authority; elected or appointed board |
| **Capital Structure** | Equity-led initially (natural capital funds, climate funds); later project finance debt | Blended finance; grants initially; increasing equity participation; possible pooled revenue-sharing | Utility-backed offtakes; concessional capital; eventual institutional co-investment | Tax/levy-backed revenues; green bonds; institutional debt |
| **Cross-Sector Examples (with links)** | Forestry in Spain & Portugal (e.g. Sonae Arauco); Iberian forest investment funds; Renewable energy SPVs (e.g. Iberdrola)<br><br>Covalo (France) – nature-based solutions platform aggregating forestry and agricultural projects across fragmented landholdings, standardising MRV and contracting with corporate buyers. | French Agricultural Cooperatives (e.g. InVivo); Dutch farmer–water board collaborations; German Landschaftspflegeverbände | Aarhus Water catchment model; UK Independent Water Commission recommendations; American Water Funds | Dutch Water Boards –; US Soil & Water Conservation Districts; River Basin Authorities under EU Water Framework Directive |
| **Relevance to Peatlands** | Suitable for fragmented landholdings; can scale to €20m+ portfolios; aligns with existing natural capital fund structures | Particularly suited to agricultural peatlands in Northern Europe; politically feasible; lowers transaction costs | Most credible model for monetising water benefits at scale; strong alignment with avoided-cost logic | Potential long-term counterparty for large peatland portfolios; lowest cost of capital if established |
| **Likely Time Horizon** | 0–5 years (scales early) | 0–5 years (parallel to private models) | 3–7 years (requires regulatory alignment) | 5–10+ years (requires legislative reform) |

### B8.3 Absence of project-finance structures and debt

The final bottleneck is financial rather than ecological. To date, peatland restoration has largely been financed either on landowner balance sheets or through developer-level equity and fund structures. While appropriate for early-stage market development, this approach excludes the financial architecture that underpins much of Europe's green infrastructure investment.

From an investor perspective, the absence of ring-fenced project vehicles, non-recourse or limited-recourse financing, and clearly allocated risks increases perceived credit risk. From a market-level perspective, this reflects the limited use of established project-finance structures. Project finance has evolved over several decades to allocate construction, performance, revenue and policy risks contractually, enabling conservative leverage and materially lowering the overall cost of capital once revenues are sufficiently stable.

The lack of project finance is not an independent problem. It is a consequence of the first two market bottlenecks. Without bankable revenues and sufficient scale, project-finance structures cannot be deployed. Conversely, without project finance, peatland restoration remains overly dependent on higher-cost equity and grants, slowing deployment and limiting scale.

Until peatland restoration adopts financing structures familiar to infrastructure investors — supported by contracted revenues and portfolio-level risk management — access to lower-cost debt capital from banks and private debt funds will remain limited.

**A Roadmap to overcome market bottlenecks and risks, and deliver peatland finance at scale**

Fortunately, all three risks and bottlenecks that are currently holding back the flow of private capital into peatland finance can be addressed. The next section (section C) suggests the key market shifts that must occur and then provides a Roadmap of actions for different stakeholder groups that would achieve them.

# C. What would a roadmap to a more investable market for peatland restoration look like?

This report has demonstrated the considerable impact and >€2bn investment opportunity represented by rewetting and restoring Europe's peatlands (Section A). It has also demonstrated that the economics of peatland restoration are not a fundamental barrier to private investment, and indeed some peatland restoration have investable economics today (section B). Instead, what is holding back private finance flows are interrelated market bottlenecks that create undue risk and cost for private investors. Fortunately, these bottlenecks can be overcome by three market shifts, which are summarised below.

## C.1 What are the three market shifts that a Roadmap must deliver?

The three market or system-level shifts that would unlock more private finance for peatland restoration are for:

- **Revenue to be diversified and stabilised.** Addressing the revenue bankability constraint identified in Section B8.1 requires moving beyond reliance on short-term, voluntary carbon revenues. While carbon markets will remain important and can be improved, scaling private finance will depend on bringing water benefits — and eventually biodiversity outcomes — into more standardised, contractable frameworks that support long-term offtake agreements. Revenue stabilisation mechanisms, including price floors, contracts for difference, guarantees or regulated payment structures, can materially reduce risk and unlock debt financing.
- **Aggregation mechanisms to mature.** Responding to the scale and liquidity bottleneck described in Section B8.2 requires the development of catchment-, landscape- or programme-level vehicles that bundle multiple projects, landowners and revenue streams into investable portfolios. Aggregation enables diversification of ecological and delivery risk, reduces transaction costs, and creates investment units of sufficient scale for institutional capital.
- **The peatland restoration sector to transition decisively towards project-finance structures.** Unlocking lower-cost capital by resolving the financing-structure gap outlined in Section B8.3 requires the adoption of ring-fenced project entities, adding conservative amounts of leverage, and the contractual allocation of risks familiar to infrastructure investors. Initially, these structures might rely on blended-finance tools and public risk-sharing to demonstrate bankability. Over time, as revenues stabilise and performance data accumulates, leverage can increase and the cost of capital fall.

These shifts do not need to happen all at once. Arguably they are best sequenced, starting first with revenue stabilisation and diversification, and concluding with project finance structures (see Table 17) . But taken together, these shifts would allow peatland restoration to be financed much more like green infrastructure: at larger scale, through diversified portfolios, using both equity and debt finance, and at a materially lower cost of capital. The challenge is therefore not whether peatland restoration can be investable, but how quickly the market can organise itself to deliver bankability, scale and financial standardisation.

To achieve these shifts concerted action is needed across multiple stakeholder groups: standard-setters and stewards of voluntary markets; buyers (especially utilities and corporates) of ecosystem services; public agencies; project developers; and investors of different sorts.

Some of the actions that would be most valuable for each stakeholder group are set out in the Roadmaps below.

## C.2 What actions are needed by standard-setters and stewards of voluntary markets?

The bodies that steward and standard-set the voluntary markets for ecosystem services have a key role in the further development of European peatland restoration, having already played an important role in the markets' evolution to date. These organisations include IUCN UK Peatland Programme (who set the UK peatland code), Peatland Finance Ireland, Valuta voor Veen  in the Netherlands, and Moor Futures in Germany. For water benefits specifically they also include stewards and technical bodies of water benefits accounting methodologies such as the World Resource Institute and European hydrology/water-quality research network

Some of the key actions that they could consider and that collectively would boost confidence in **carbon markets** include to:

- **Consider ways to make different European peatland standards interoperable**, including standardising key metrics/KPIs and their definitions.
- **Join and adhere to 'standards of standards'** e.g. the Integrity Council for Voluntary Carbon Markets
- **Continue to advocate for the inclusion of peatland restoration within the Science-based Target initiative (SBTI)**, which currently does not allow emission reductions to qualify
- Consider further **technical improvements to carbon registries and MRV systems**. For example, in the case of the UK, a range of suggestions have been made by leading academics (Evans et al, 2023)[14]
- **Make explicit the alignment of European peatland standards with internationally recognised integrity frameworks**, including the Global Peatland Targets and Guiding Principles developed under the Peatland Breakthrough. European standards are already broadly consistent with such frameworks, but clarifying this alignment — for example through cross-referencing or disclosure statements — would provide a clear, globally recognisable safeguards benchmark for investors and corporate buyers, reinforcing confidence in additionality, permanence and long-term stewardship claims
- **Consider a range of disclosure improvements** , across all European carbon registries. The process of researching this report has uncovered large inconsistencies in disclosure across different registries which does not overall improve confidence or the forward-signalling ability of European markets. Instead, registries could work together towards a **European Peatland Carbon Transparency Standard (EPCTS)** (see Annex C)
- **Work together to actively reposition peatland restoration within global carbon governance frameworks and corporate climate strategies.** Peatland-based reductions are frequently conflated with avoided-deforestation controversies, despite materially different risk profiles and governance contexts. At the same time, peatlands remain far less visible to corporate carbon buyers than forestry projects, despite comparable or stronger climate integrity.A coordinated, evidence-led communications and standards initiative—led by carbon registries, multinational initiatives and project developers—should clarify these distinctions, elevate peatlands alongside deforestation and afforestation in mitigation hierarchies, increase visibility of peatland restoration as a high-integrity carbon solution.

Some of the key actions that they could consider to develop **water benefit markets** include to continue to define consistent accounting rules, baselines, additionality tests, leakage, and uncertainty approaches. The emergence of registry-like operators (could be existing environmental registries expanding scope, or new "water units" registries) plus independent assurance providers also need to be encouraged. These operators would issue unique unit IDs, prevent double counting, maintain a public ledger, and standardise verification protocols and auditor qualifications, much as has happened in the best voluntary carbon market registries.

## C.3 What actions are needed by buyers of ecosystem services?

Corporates that value and will pay for the ecosystem services are at the heart of the peatland restoration business model. If demand for these services (and associated credits) grow, it will greatly unlock the private investment market for peatland restoration. **Any corporate** can today take advantage of:

- Their ability to **hold the value of purchased carbon credits on balance sheet** and not expensed through the P&L account. This is due to recent changes made under the IFRS accounting standards. The effect of this change is to view carbon credits as an asset not an expense (until they are retired) which should greatly aid corporates who want to line-up enough credits for e.g. a Net Zero target that is still several years hence.
- The emergence of **buyers' clubs** - which will aggregate and thus stabilise demand for certain types of environmental credits. Rabobank Carbon Connect is a similar service.

**Infrastructure operators** have particular opportunities to benefit from the ecosystem services that restored peatland can provide. These include:

- **Operators of railways, airports, roads, electricity generation and transmission companies and other critical infrastructure**. All such infrastructure is vulnerable to rising flood risk due to climate change, which restored peatland can help mitigate, and which can otherwise result in serious financial loss (including fines from regulators) when such risks materialise. Collective efforts like the FloodAction Coalition in the UK are an illustration that such companies are beginning to take these risks seriously.
- **Water utility companies** have further specific opportunities to derive value from the significant water storage and quality benefits of restored peatlands, which can equal or exceed those from expensive physical infrastructure in the shape of reservoirs and filtering/pumping stations.

Infrastructure operators should look to create to define such benefits, and enter into long-term 'offtake' contracts with developers of restored peatland to pay for such benefits as they accrue and are independently verified. Stacking such payments on top of existing carbon benefits could be a major driver of an investable business model for peatland restoration.

## C.4 What actions are needed by public bodies?

Governments and other public bodies have a critical market-shaping role to play. Key actions they should consider include:

- **Continuing to fund the underpinning science on peatland co-benefits (Environment Ministries and publicly-funded research councils).** Priority areas include improved quantification of water quality, water quantity and flood-risk reduction benefits, where evidence and attribution remain weaker than for carbon emissions abatement, which is now comparatively well understood.

- **Improve interoperability across European carbon markets (Environment and Finance Ministries).** Europe currently hosts a proliferation of voluntary carbon standards and registries, many of which have emerged through NGO-led initiatives. While this has been effective in supporting early scientific work and market formation, the resulting landscape is fragmented and opaque, limiting corporate demand, liquidity and price discovery. Governments should actively help to “nudge” voluntary markets towards greater interoperability, including by:

- **Allowing a limited proportion of high-quality voluntary credits to be recognised within compliance carbon markets**, including emissions trading schemes. The EU has already signalled an openness to such approaches—potentially at modest levels (for example, around 5%) and in a manner consistent with Article 6 of the Paris Agreement.
- **Supporting greater alignment or integration between the UK and EU ETS**, to reduce regulatory friction and support cross-border corporate demand, and this is already under discussion in policy circles.
- **Developing a central EU-level registry for certified carbon removals and nature-based certificates.** The Carbon Removals and Carbon Farming Certification Framework (CRCF) is establishing methodologies, including peatland rewetting, with technical workshops in 2024–25 to refine certification standards.
- **Ensuring at all times integrity and safeguards requirements** (beyond MRV) including governance arrangements, environmental and social safeguards, and long-term stewardship.

- **Support the emergence of water benefit markets (Environment Ministries and Water Regulators).** This might include:
    - **Recognise water-benefit payments as legitimate “least-cost” catchment measures where evidence supports it.** Regulators can clarify how utilities may recover such costs — including under what performance conditions — and align monitoring requirements with regulatory reporting frameworks to reduce duplication. Water regulators, in particular, should encourage a shift away from programme-based investment in nature-based solutions and towards the procurement of standardised, contractable water-benefit units. They can also play a central role in designing the commercial and governance architecture required for outcomes-based procurement of water quality and flood-risk benefits to sit confidently alongside AMP (Asset Management Plan) regulation. This does not require the creation of a new compliance market, but rather the integration of nature-based outcomes into existing regulatory structures.
    - **Encourage the emergence of catchment-scale intermediaries.** The UK Independent Water Commission, chaired by Sir Jon Cunliffe, highlights a “missing middle” in water-system delivery. This supports the case for catchment-scale aggregators that can bundle interventions across landholdings, quantify benefits across water services, contract with multiple buyers, and manage monitoring and assurance. These bodies could evolve from rivers trusts, drainage boards or landscape programmes, or be purpose-built catchment service companies. Without them, water-benefit monetisation is likely to remain confined to bespoke pilots rather than scaling into investable, repeatable programmes. Appropriate governance of such bodies will be critical to maintain integrity and avoid unintended exclusion or inequitable benefit-sharing as programmes scale.
    - **Encourage water-benefit markets to operate as system markets rather than one-way procurement mechanisms.** Many current initiatives focus on purchasing specific nature-based interventions or additional water storage capacity. However, lessons from electricity markets suggest that resilient systems emerge when both supply-side infrastructure and demand-side flexibility are valued. Catchment-scale water markets could similarly reward both the provision of hydrological services (such as storage, filtration or groundwater recharge) and reductions in downstream treatment, abstraction or flood-management costs. This would position peatland restoration and other nature-based solutions as part of a form of distributed water infrastructure embedded across landscapes.
- **Enable viable post-restoration land-use pathways. (Environment and Agriculture Ministries).** Public agencies should support the development of standards, certification frameworks and market access for regenerative wet farming (paludiculture and adapted wet grazing systems). Formalising these land-use models would strengthen permanence, reduce incentives for re-drainage, and improve the long-term economic stability underpinning peatland carbon and water investments.
- **Adopting more innovative approaches to public subsidies (Environment and Finance Ministries).** Most public support for peatland restoration is currently delivered through capital grants to offset upfront restoration costs. While valuable, this approach does not address the primary constraint on private investment, which is uncertainty over future credit revenues, pricing and liquidity. A more effective approach in future would be to shift public support towards price-stabilisation mechanisms, such as carbon price floors or Contracts for Difference (CfD)-style arrangements. These instruments have proven highly effective in scaling other nascent markets—most notably offshore wind—while limiting long-term risk to taxpayers and, where prices exceed strike levels, allowing public subsidy vehicles to recycle capital.

## C.5 What actions are needed by project developers?

Project developers are integral to peatland restoration as without their dedicated skills and capacity, restoration simply will not happen at the scale required, and there will be nothing to invest in. Developers can:

- **Design for water benefits as well as carbon benefits from the outset** - embedding hydrology, downstream receptors and catchment priorities into project design. Use recognised water accounting - apply VWBA/WQBA-aligned baselines and have an approach to additionality and uncertainty to underpin credibility. Make water benefits as contractable as possible - propose multi-year, outcomes-based offtakes with clear performance terms and operations and maintenance (O&M) obligations
- **Look for standardised ways to aggregate smaller projects into larger landscape programmes.** This will be important to add scale to peatland restoration especially as the available supply of projects through the largest landowners becomes constrained and developing projects via medium and smaller-sized landowners becomes more important. Catchment management authorities, where they exist, as well as existing examples such as the Flow Country Partnership SCIO and the Brit Valley project may show the way forward (although it is not thought that substantial third party capital has yet flowed through these mechanisms).
- **Develop project finance structures for peatland restoration.** There is a significant opportunity within the next decade for the financing of peatland restoration (and nature-based schemes in general) to more closely resemble infrastructure-like project finance. The key to this shift is in enhancing the quality of revenue streams associated with peatland finance to the point where they become predictable, enforceable, can be insured and treated as security for a lender. So the actions of others (particularly the standards-setters/market stewards, as well as public bodies/regulators) are a necessary pre-requisite, but as market confidence does begin to grow, innovative developers and financiers can start to experiment with project finance structures. Some precedents exist already, for example in the Wyre Catchment Natural Flood Management project, and also dedicated project finance investors are emerging such as Lapwing Common.
- **Work together as an industry** (form a trade association if necessary) **to create an information and engagement campaign for landowners and communities** that currently steward undeveloped peatlands and to raise awareness about the opportunity of restoring these. Increasing the supply of projects, and ensuring long-term involvement and legitimacy with community groups, will be key to the further development of European peatlands.
- **Work together as an industry on an investor engagement and market-building programme** – for both asset managers already investing in adjacent sectors (e.g. in other natural capital domains, or in green infrastructure) as well as ultimate asset owners (such as pension funds and insurance companies) and their investment consultant advisers. Take care to segment investors by risk/return /liquidity preferences to ensure investor heterogeneity is understood by the peatland development sector from an early stage. Consider more open-source 'platforms' to showcase the pipeline of peatland projects and club investors together to provide finance.

## C.6 What actions are needed by investors, asset managers and other financial intermediaries?

The Roadmap actions for investors are deliberately presented last, as to be most effective these actions will benefit from prior action from all other stakeholders as listed above. However, when the right conditions are in place, ultimately it is down to investors to allocate more capital towards peatland restoration and back specific investment opportunities:

**For natural capital asset managers and financial product innovators**

- **Understand the role of peatlands projects within a broader natural capital portfolio**, in terms of impact, risk and return (see section B, and use this evidence in discussion with their limited partner investors.
- **Work with developers to effect the shift towards infrastructure project finance mechanisms**, and away from (only) private equity models of peatland finance. This may see also the entry of new asset managers (from adjacent fields such as green infrastructure and climate finance.
- **Develop more innovative investment products** when justified. For example, sufficiently larger clusters of peatland projects (see aggregation

point above) may be able to issue themed and sustainability-linked bonds with innovative features such as linking the rate of interest to impact achieved.

**For asset owners/institutional investors and their investment consultant advisers**

- **Consider strategic allocations to natural capital, including peatland restoration, within a Total Portfolio Return framework.** From an infrastructure perspective, diversified peatland and broader natural capital portfolios exhibit characteristics of long-duration, policy-aligned assets with moderate but potentially stable return expectations (with strong inflation-linkage), and limited correlation to traditional equity and fixed-income markets. Key risks are primarily regulatory, counterparty and ecological performance-related, rather than macroeconomic in nature. Where risks are appropriately priced and mitigated, such assets may enhance overall portfolio diversification and improve risk-adjusted returns (e.g. Sharpe ratios). In this context, natural capital can be viewed not solely as an impact allocation, but as a potentially finance-driven component of a long-term investment strategy.
- **Consider investments in natural capital 'fund-of-fund' products,** which are likely to come to market in 2026, and will build on the 40+ specialist natural capital asset managers who are already investing in natural capital and in some cases are on their second or later vintage of funds. Entering the market in this way would allow institutional investors to enter a new asset class whilst maximising portfolio diversification across underlying managers and different natural capital segments (including peatlands).

This report does **not** advocate widespread reliance on blended finance to support the capital structure for peatland restoration. Blended structures typically involve impact-first investors accepting below market, risk-adjusted returns in order to crowd in institutional capital seeking market-rate returns. While such approaches can play a catalytic role, particularly when structured via guarantees or debt service reserve accounts, their function should be limited to addressing temporary or transitional risks. Indeed, this report attempts to argue that durable risk reduction does not come from permanently subsidising returns via the capital structure, but from strengthening underlying revenue streams—particularly through the development and stacking of credible payment markets.

## C.7 How might Roadmap actions be sequenced over the next decade?

The actions set out in this Roadmap are necessarily sequential rather than simultaneous. Early progress depends on strengthening existing carbon markets, and establishing credible accounting frameworks and legitimate demand signals for water benefits. Once these foundations are in place, aggregation vehicles and standardised contracting can help scaling. Infrastructure-style project finance and long-term debt are then unlocked as a final stage, once revenues are predictable, diversified and contractable. As the market matures across these phases, the private investor base will evolve in parallel—moving from pioneering impact-first capital to ultimately attracting institutional investors. This does not imply that early capital is less sophisticated; rather, it plays the critical role of absorbing earlier-stage risk.

The table overleaf describes the potential evolution of peatland restoration over the next decade, via four distinct phases, if the majority of the actions in this Roadmap are enacted:

**Table 15 - the phases of peatland restoration and financing over the next decade**

| Time Period | Today<br><br>*Dominated by grants* | Within 2–3 Years<br><br>*Revenue stabilisation and diversification* | Within 5 Years<br><br>*Aggregation becomes commonplace* | Within 10 Years<br><br>*Green infrastructure finance* |
|---|---|---|---|---|
| **Capital – Instruments & Structure** | Primarily capital grants (public & philanthropic). Limited venture-style equity via developer–landholder partnerships. | Grants still significant, but increasing equity from natural capital funds. Early structured co-investment and portfolio models. | Repayable capital becomes significant. Natural capital funds scale equity provision. First limited-recourse project finance structures introduced, supported by development banks. | Predominantly limited-recourse project finance. Developers and climate/natural capital funds provide ~50% equity; banks and impact private debt provide ~50% debt. |
| **Governance Structure** | Projects typically <1,000 ha; capital needs <€2m. Limited aggregation. | First examples of aggregation to ~5,000 ha with capital needs c. €10m. Early catchment-level portfolios. | More aggregators emerge (private-led and statutory/catchment-based). Portfolio structures increasingly common. | Most transactions aggregated; typical deal size €20m+. Mature catchment-scale vehicles. |
| **Capital Structure** | Family offices, private wealth, philanthropy, entrepreneurial impact investors. | Specialist natural capital funds, carbon developers, structured impact funds. | Development banks (EIB, KfW, SNIB, National Wealth Fund), larger impact funds backed by institutional LPs, early environment-focused private debt. | Infrastructure funds, pension-backed impact funds, commercial banks, insurance balance sheets. |
| **Total size of private repayable capital flows (p.a.)** | <€50m | €50m–€100m | €100m–€200m | €250m+ |
| **Revenue – Public & Carbon** | Significant public land-management subsidies. Voluntary carbon markets active but with price and liquidity uncertainty. | Land management subsidies continue BUT policy work underway to design future floor-price/contracts for difference.<br><br>Carbon markets develop transparency and partially integrate with compliance markets. Prices begin to stabilise and liquidity grows. | Carbon-floor prices or contracts-for-difference are live.<br><br>Land-management subsidies begin tapering. | Land-management subsidies largely retired. Carbon markets interoperable with compliance schemes; public price support tapered. |

continued →

| Time Period | Today<br><br>*Dominated by grants* | Within 2–3 Years<br><br>*Revenue stabilisation and diversification* | Within 5 Years<br><br>*Aggregation becomes commonplace* | Within 10 Years<br><br>*Green infrastructure finance* |
|---|---|---|---|---|
| **Revenue – Water & Other Markets** | Water and biodiversity payments minimal and largely pilot-based. | First bespoke water-benefit offtake contracts (OTC). Limited biodiversity pilots. | Water contracts increasingly standardised with broader buyer base. Early biodiversity revenue streams in select markets. | Water markets mature with bankable, insurable offtakes; early secondary tradeability. Biodiversity payments established in some jurisdictions. |

## C.8 What is the long-term vision for an institutional peatland restoration market?

If the Roadmap described above is enacted in full, within a decade peatland restoration projects could target a 'capital stack' as illustrated in the table below:

**Table 16 - Peatland restoration finance's target capital stack**

| | Proportion | Target return | Characteristics | Investors |
|---|---|---|---|---|
| Senior Debt | 30-50% (and rising) | c. 4-5% all in | Debt Service Coverage Ratio (DSCR) >1.3x;<br><br>sized to contracted revenues; 10-15 yr tenor | Private debt funds<br><br>Banks |
| Equity | 30-50% (and falling) | c. 8% (with upside potential) | Via equity into projects /SPVs | Sponsor/developer equity contributions<br><br>Private equity investors |
| Risk buffer | Declining towards zero | Blended finance | Via guarantees, price floors, contracts for difference, debt service reserve accounts. Etc. | Governments, large philanthropists |

For institutional investors, peatland restoration will be understood within a broader natural-capital and net-zero toolkit, alongside options such as afforestation and engineered carbon removals, as per Table 17 overleaf:

**Table 17- Peatland restoration v. other Natural Capital and Net Zero investments**

| Dimension | Peatland restoration | Afforestation | Engineered removals (e.g. direct air capture) |
|---|---|---|---|
| **Indicative cost per $tCO_2e$ (order of magnitude)** | Low (tens of €) | Low–medium (tens to low hundreds of €) | High (hundreds of €) |
| **Timing of climate impact / cashflows** | Near-term (reduced emissions after rewetting and restoration) | Long-dated (sequestration builds over decades) | Near-term once operational |
| **Revenue certainty today** | Low–medium (carbon); potentially higher via water benefits | Medium (more mature forestry markets) | Medium–high (policy- or contract-backed where available) |
| **Delivery risk** | Medium (site and hydrology dependent) | Low–medium (mature practice) | Medium–high (technology and scale-up risk) |
| **Material water benefits** | High (water quality, storage, flood mitigation) | Low–medium | None |
| **Wider benefits** | Social and wider ecological benefits (such as biodiversity) | | None |
| **Role in a portfolio** | Low-cost, multi-benefit, place-based allocation | Long-term biological removals | High-certainty, high-cost abatement |

Peatland restoration will be delivering climate outcomes at substantially lower cost than engineered removals — typically in the tens of euros per $tCO_2e$ rather than the hundreds often associated with engineered technologies (albeit with less measurement precision and greater ecological variability). Compared to afforestation, peatland restoration will generate earlier climate benefits, as emissions reductions begin once hydrological conditions are restored (in some cases within one to three years), rather than being deferred until significant biomass accumulation occurs. This nearer-term impact profile will appeal to investors seeking measurable emissions reductions within current investment horizons.

Peatlands also deliver material non-carbon benefits, particularly related to water quality, water storage and flood-risk reduction. These benefits are often more local, more immediate, and in some cases more readily contractable than voluntary carbon revenues—especially where regulated utilities, insurers or public authorities are involved.

Taking these attributes together, peatlands will be viewed as a complementary allocation within a diversified natural-capital portfolio—combining relatively low-cost, near-term climate benefits with water-related co-benefits that can underpin more stable cashflows than carbon alone.

## C.9 What are the near term priorities for delivering this Roadmap?

This report has been completed on an accelerated timetable using desk research, a structured review of public datasets, and targeted interviews.

There are a number of ways to build out its analytical work and market-building suggestions, including to:

- **Complete the build-out of live restoration project database** (for projects over a certain size), anonymised if necessary, detailing size, capital required, presence of any external investor, to build confidence in market(s).
- **Conduct more analysis** of:
    - **peatland restoration failure rates** and/or delays/lags in achieving benefits
    - **developer capacity, constraints, opportunities**
    - **investor appetite across both debt and equity**
- **Commission detailed studies** into
    - **how to build out the market for ecosystem services for water quality and quantity**. This is arguably the most urgent priority, given the need to stabilise and diversify peatland restoration revenue, and would specifically cover how water and flood-risk benefits could be defined, attributed, verified, and contracted in ways that are compatible with existing water utility regulation.
    - how to shift public/philanthropic grants towards accelerating markets for ecosystem services (floor prices, contracts for difference etc.)
    - how to shift peatland finance onto a project finance (not landowning) structure to enable more efficient financing including debt/bond issuance

There is considerable scope to bring together a Roadmap Action Group (RAG), involving senior leaders from each of the main stakeholder groups identified in the Roadmap, to drive action within their own industry over the coming years. The Landscape Finance Lab will be consulting with key players in Q2 2026 to understand the appetite for forming a Roadmap Action Group and how it can be governed and funded.

**Finally, It is also possible to apply the conceptual and analytical framework of this report to other ecosystems (forestry, waterlands, regenerative agriculture etc.), and to regions outside of Europe.**

# Conclusion

**Peatland rewetting and restoration in Europe sits at a pivotal moment. The ecological case is no longer in question: degraded and drained peatlands are among the largest and most persistent sources of land-use emissions, while restored peatlands deliver durable climate mitigation alongside water regulation, biodiversity recovery and landscape resilience. What has been missing to date is not evidence of impact, but a financial architecture capable of mobilising private capital at scale.**

This report shows that peatlands have many of the characteristics required to function as an investable asset class. They deliver long-lived, place-based ecosystem services; their outcomes are increasingly measurable and verifiable; and they align closely with European climate, water and nature policy objectives. However, they will not scale on the basis of today's carbon markets alone. The next phase of market development must be broader, more integrated and more infrastructure-like.

### Three conclusions stand out.

- **First, stabilised carbon markets and monetised water benefits together form the foundation for scale.** High-integrity carbon markets remain the most immediate and standardised revenue stream for peatland restoration and, with stronger governance and greater price stability, can provide the core cashflow needed for project finance. However, carbon alone is unlikely to provide sufficient revenue depth or resilience across all peatland archetypes. So water benefits—avoided treatment costs, flood-risk reduction, drought resilience and sediment control—offer a substantial complementary revenue stream, often linked to identifiable counterparties with long-term liabilities. Standardising water outcomes into contractable payment mechanisms is therefore critical — not as a substitute for carbon, but as the mechanism that diversifies and stabilises the revenue base required for scale.
- **Second, aggregation is essential. Individual peatland projects are typically too small, bespoke and operationally complex to attract institutional capital.** Aggregation—at catchment, landscape or regional level—diversifies ecological and delivery risk, reduces transaction costs and creates portfolios of sufficient scale for banks, insurers and asset managers. Without aggregation vehicles, peatland finance will remain fragmented and overly dependent on grants or developer balance sheets.
- **Third, financing models must transition decisively towards project finance.** Scaling restoration will require a shift away from upfront grant dependency and scarce developer equity, towards ring-fenced project entities supported by contracted revenues, conservative leverage and long-term stewardship obligations. Blended finance has an important role to play—but increasingly as a tool for risk reduction and market formation, rather than as a permanent capital subsidy.

Taken together, these market shifts imply a reframing of peatland restoration: from an episodic and grant-dependent environmental intervention to a form of natural infrastructure investment capable of delivering contracted ecosystem services, revenue visibility and risk-managed returns over multi-decade horizons.

Achieving this transition will require coordinated action by different stakeholder groups:

- **Standards bodies and registries** can strengthen transparency, interoperability and data consistency, ensuring high-integrity additionality and permanence safeguards.
- **Corporate and infrastructure buyers of ecosystem services** should move from discretionary grant programmes and short-term credit purchases towards long-term, outcomes-based offtake agreements for carbon, water and (where appropriate) biodiversity services
- **Project developers** must continue to build pipelines and collaborate to aggregate projects.
- **Policymakers must focus less on one-off capital grants and more on enabling markets for ecosystem services**, helping to stabilise carbon revenue and by encouraging an emerging market for water benefits (through, for example that actions of water regulators).
- **Investors must engage early**, with development banks having a key role in shaping bankable structures rather than waiting for fully mature assets to emerge.

The prize is significant. Even the conservative, finance-constrained ten-year pathway outlined in this report, and for just some of Europe's peatlands, could **unlock billions of euros of private investment**, accelerate progress towards climate and nature targets, and create resilient rural economies rooted in long-term stewardship rather than extractive land use.

Europe has already demonstrated leadership in peatland science and policy. The challenge now is to match that leadership with financial innovation, market design and credible governance frameworks. If it succeeds, peatlands can move decisively from the margins of environmental finance into the mainstream—becoming a cornerstone of Europe's transition to a climate-resilient, nature-positive economy.

# Annexes

# Annex A - Endnotes


1. United Nations Environment Programme (UNEP) (2022) *Global Peatlands Assessment: The State of the World's Peatlands.* Nairobi: United Nations Environment Programme.

2. Tanneberger, F. et al. (2017) *The peatland map of Europe*, Mires and Peat, 19, 1–17.

3. Heinrich-Böll-Stiftung, Bund für Umwelt und Naturschutz Deutschland (BUND), Michael Succow Stiftung (Partner in the Greifswald Mire Centre) and UN Global Peatlands Initiative (2023) *Peatland Atlas 2023.* Germany: Heinrich-Böll-Stiftung.


4. This report has captured data (see Annex D) on 421 peatland restoration projects with land size information across UK, Germany and the Netherlands. The median size of these projects was 123 hectares.


5. IPCC (2014). 2013 *Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands.* Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Baasansuren, J., Fukuda, M. and Troxler, T.G. (eds). Intergovernmental Panel on Climate Change, Geneva, Switzerland.


6. Larger-scale privately financed transactions have taken place outside Europe. In the United States, AXA IM Alts financed a forestry and natural capital portfolio of approximately US$1.3 billion, including significant peatland exposure. This transaction signals that major institutional investors are willing to allocate substantial capital to peatland-linked assets where scale, governance and long-term carbon revenues are sufficiently robust.

7. This credit rating also suggests the level of project repayment risk that debt investors would tolerate. Long-run rating studies (e.g. from Moody's or S&P) suggest 10-year cumulative default rates of c. 2–3% for BBB corporates globally, while project finance bank loans in Western Europe have exhibited 10-year cumulative default rates of c. 2%.  Peatland restoration projects that borrowed at the spread suggested in this report would therefore need to deliver similar levels of impairments. For a discussion of risk in peatland restoration, see section B8.


8. Bloomberg NEF (2024) *Long-Term Carbon Market Outlook 2024.* London: Bloomberg NEF

9. McKinsey & Company (2021) *A blueprint for scaling voluntary carbon markets to meet the climate challenge.* New York: McKinsey & Company

10. Trove Research (2023) *Voluntary Carbon Market Outlook 2023.* London: Trove Research.

11. World Resources Institute (WRI) (2023). *Volumetric Water Benefit Accounting (VWBA): A Practical Guide for Accounting and Valuing Water Benefits.* World Resources Institute, Washington, DC.

12. *Valuing our Peatlands: Natural capital assessment and investment appraisal of peatland restoration in Northern Ireland*; Dr Jim Rouquette, Prof Joe Morris and Dr Angus Middleton, June 2021


13. Unfortunately, there is as yet no clear evidence on 'failure rates' within peatland restoration projects. Some literature suggests that over 70% of restoration projects are 'beneficial'(IUCN, 2019). Of the residual projects, there is little data or information on what level of project performance is generated, and whether projects 'fail absolutely' or rather take longer than originally anticipated to deliver benefits.


14. Evans, C., Artz, R., Burden, A., Clilverd, H., Freeman, B., Heinemeyer, A., Lindsay, R., Morrison, R., Potts, J., Reed, M. and Williamson, J. (2023) *Aligning the Peatland Code with the UK peatland inventory.* Report to Defra and the IUCN UK Peatland Programme. January 2023 update (originally March 2022)

# Annex B - Sources, citations and references for Tables in the report

### Sources for Table 1 - Summary of key European peatlands, by indicative footprint


| | |
|---|---|
| **General Sources** | Montanarella, L. (2006). *The Distribution of Peatland in Europe*. JRC/ESDAC, European Commission.<br><br>Tanneberger, F., et al. (2017). *The peatland map of Europe*. Mires and Peat, 19, pp. 1–17.<br><br>Tegetmeyer, C., et al. (2025). *The European Peatland Map 2025* (EPM2025). Greifswald Mire Centre. |
| **Sources for UK & Ireland peatlands** | Artz, R., et al. (2019). *State of UK Peatlands: An Update.* [Online] IUCN UK Peatland Programme.<br><br>IUCN UK Peatland Programme (n.d.). About Peatlands. [Online]. IUCN UK Peatland Programme.<br><br>IUCN UK Peatland Programme (n.d.). Blanket Bog (Distribution & Characteristics). [Online]. IUCN UK Peatland Programme.<br><br>JNCC (2019). UK Conservation Status Assessment for H7130—Blanket Bogs (Article 17 Reporting). Joint Nature Conservation Committee. |
| **Sources for European peatlands** | CINEA (2023). *The Benefits of Peatland Restoration for Europe. Policy Brief.* European Climate, Infrastructure and Environment Executive Agency (CINEA), European Commission.<br><br>UNEP-WCMC (2021). *Research Reveals a Quarter of Europe's Peatlands are Degraded.* [Online]. UN Environment Programme World Conservation Monitoring Centre. |
| **Sources for Boreal Aapa Mires** | Sallinen, A., et al. (2019). Undrained peatland areas disturbed by surrounding drainage: a large-scale GIS analysis in Finland with a special focus on aapa mires. *Mires and Peat*, Volume 24, Article 38, 1–22<br><br>Sallinen, A., et al. (2022). Recent and future hydrological trends of aapa mires across the boreal zone. *Journal of Hydrology. 617. 129022. 10.1016/j.jhydrol.2022.129022.* |

### Sources and assumptions for Table 2 – Serviceable Obtainable Market (SOM) for key European peatlands

| Peatland type & geography | TAM market | SAM calculation basis | SOM calculation basis |
|---|---|---|---|
| **Blanket bogs (UK)** | Scotland c. **1.8 Mha** (NatureScot); England blanket bog **c. 0.355 Mha** Legislation.gov.uk, Wales **c. 0.07 Mha** (National Trust), Northern Ireland **c. 0.142 Mha** (DAERA) = **TOTAL 2.37MHa** | SAM assumes 70% of peatland degraded overall. Consistent with undamaged bogs <20% and 70% of Scottish bogs damaged. 0.7 * 2.37 = **TOTAL 1.66MHa.** | Set at 20% of SAM over 10 years Reconciled with national targets/ plans: Scotland target 250k ha peat restored by 2030; assume 80% blanket bog ≈200k. Carry forward post-2030 delivery at c. 10k ha/yr to 2035 (+50k). England Peat Action Plan funds 35k ha by 2025; extend via ELMs to c. 50k by 2035. Wales NPAP scaled to c. 10k by 2035; NI early strategy delivery c. 10k. Sum = 200k + 50k + 50k + 10k + 10k = **TOTAL 320k–330k ha.** |
| **Fenlands (UK)** | Lowland peat in England c. **325,000 ha** = **TOTAL c. 0.33MHa.** | SAM assumes c. 74% of lowland peat in farming (drained, technically restorable via raised water tables) = 0.74 * 0.33 =**TOTAL 0.24MHa** | Set at 15% of SAM over 10 years. Reconciled with named projects: Great Fen 3.7k ha vision; South Lincs Fen up to 0.8k ha; other fen schemes bring named pipeline to c. 5–8k ha. Plus Nature for Climate Peatland Grant Scheme + ELMs support lowland peat pilots; assume 2–3k ha/yr new lowland re-wetting for c. 10 yrs ≈ 20–30k ha. Total ≈ 25–38k ha → rounded to 40k ha = **TOTAL 0.4MHa** |
| **Blanket bogs (Ireland)** | 0.75 Mha of blanket bog | SAM assumes 70% of peatland degraded overall = 0.7 * 0.75 = **TOTAL 0.52 MHa** | Set at c. 20% of SAM over 10 years. Reconciled with national peatland target pipeline (largely grasslands) of c. 80k ha over the next decade plus an additional c. 30MHa targeted by Bord Na Mona and the National Park and Wildlife Service across the Island of Ireland . **TOTAL = 0.11MHa.** |
| **Fenland / polder (Netherlands)** | Greifswald Centre estimate 0.275-0.29mHA of peat soils/peat-meadow area = **TOTAL = 0.275MHa** | SAM takes gov estimate of area both drained and practically targetable for rewetting e.g. largely agricultural peat meadows = **TOTAL = 0.2MHA** | Takes Dutch target: 1.0 MtC02e/yr from peat by 2030. Implies c. 100k ha needed. This reconciles reasonably well with active provincial plus water-board plans and pipelines. **TOTAL = 0.1MHa** |
| **Fenland / Neidermoor (Germany)** | Germany has around c. 1.8MHa of peat soils of which c. 1.0MHa is assumed to be fens (Niedermoor). **TOTAL = c. 1.0MHa** | SAM assumes 80% of fens are drained/ technically restorable. **TOTAL = c. 0.83MHa** | Set at 12% of SAM to reflect current funding/programme momentum. Reconciled with BMUV strategy which seeks c. 5 $MtCO_2e$/yr from peat by 2030. Assuming 10–20 tC02e/ha/yr abatement → 250–500k ha ultimately required. Given constraints and multi-type split, a conservative 100k ha for fens in 10 yrs is 'obtainable'. **TOTAL = 0.1MHa** |

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| **Fenland / Żuławy (Poland)** | Poland has c. 1.49 Mha peatlands of which c. 92% fens. **TOTAL = 1.37 Mha.** | SAM assumes 86% of fens are drained/ technically restorable. **TOTAL = c. 1.18MHa** | Set at 5% of SAM to reflect earlier stage programme and finance readiness (versus NL/DE). Reconciled with 0.3–0.6 $MtCO_2e$ abatement over next 10 years at 5–10 t/ha/yr →30–60k ha. **TOTAL = 0.06MHA** |
| **Boreal aapa mires (Scandinavia)** | Finland has 8–10 Mha peatlands; c. 2.0 Mha are undrained open mires (dominated by aapa in the north). Sweden and Norway add substantial aapa habitats. **TOTAL = c. 2.7 MHa** | SAM assumes sizeable proportion are degraded due to historic drainage around aapa margins and catchments, but can be restored. **TOTAL = 1.5MHa** | Set at 10% of SAM. Also reconciles with policy goals: Finland Helmi aims to protect 60k ha of mires and restore c. 30k ha by 2030 (incl. c. 10k already 2020–22). Assume continued delivery to 2035 (+20k). Add Norway & Sweden open-mire projects (+10–15k). Add incremental post-2030 protected-area restorations. **TOTAL = 0.15MHa** |
| **Forested peatland (Scandinavia)** | Huge areas of forested peatland in Sweden and Finland. **TOTAL = c. 11MHa** | SAM set at levels of known forestry-drained peatland: Finland c. 4.7MHa, Sweden c. 0.6MHa, Norway c. 0.4MHa. **TOTAL = 5.8MHa** | Set at < 5% of SAM. Sweden: national actions aim to rewet c. 100k ha forested peatland. Finland: assumes 2–3% rewetting over 10 years ≈ 100–140k ha. Norway: small programmes. **TOTAL = 0.25MHa** |

NB: For simplicity and so that the peatland restoration economics reflect underlying ecology rather than standards, the lifetime project length of all peatland archetypes is set at 50 years. In practise, some standards suggest alternative periods (e.g. UK IUCN peatland code project lifetimes can range from 30-100 years, VCM programmes typically have 40 year lifetimes)


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|---|---|
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|---|---|
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There is very little project level information on carbon prices achieved in the public domain. Across data on 467 individual peatland projects gathered for this report, carbon price information could be found for only 7 in Germany and 3 in the Netherlands, and none in the UK. For those 11 projects, actual carbon prices achieved are within the range indicated in Table 7

## Sources for final column of Table 9 - Proposed framework for water benefit markets


| | |
|---|---|
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Broads Authority (2013, 2024) Dredging strategies and unit-cost technical notes (historic £/$m^3$ and updated averages).

Environment Agency (2022–2024) FCERM Appraisal Technical Guidance (unit-cost/appraisal context).

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# Annex C – Glossary of key terms

**Additionality** - The principle that claimed benefits (carbon, water, biodiversity) would not have occurred without the intervention and associated finance. A core test for market integrity and buyer confidence.

**Aggregation** - The bundling of multiple sites, landholdings, or projects—often at catchment or landscape scale—into a single portfolio. Aggregation reduces transaction costs, diversifies delivery risk, and enables contracts and financing at investable scale.

**Baseline** - The reference scenario against which benefits are measured, representing what would have happened in the absence of the intervention. Baselines are critical for calculating additionality and net outcomes.

**Blended finance** - The use of concessional public or philanthropic capital alongside private investment to improve risk–return profiles and unlock commercial finance, particularly in early or emerging markets.

**Catchment intermediary / aggregator** - An organisation operating at catchment scale that aggregates interventions, quantifies benefits across service lines, contracts with multiple buyers, and manages monitoring, reporting and assurance. Often described as addressing the "missing middle" between individual projects and system-level buyers.

**Co-benefits** - Positive outcomes delivered alongside a primary benefit (e.g. biodiversity or flood mitigation alongside carbon abatement). In this report, co-benefits are treated as potential complementary revenues or sources of long-term value, not guaranteed cashflows.

**Contractable units** - Clearly defined, measurable benefit units (e.g. water quality improvement at an intake, flood attenuation at a receptor) that can be specified in contracts and linked to payments.

**Counterparty** - The entity that enters into a contract with a buyer or investor. For financeability, counterparties must have legal standing, operational capacity, and sufficient longevity.

**Debt tenors** - The length of time over which debt is repaid. Long-tenor, predictable revenues are required to support infrastructure-style debt finance.

**Environmental outcomes-based payments (Payments for Ecosystem Services)** - Payments linked to the delivery of measured environmental outcomes rather than inputs or activities. Often structured with performance thresholds, verification requirements, and payment collars.

**Leakage** - The risk that environmental benefits achieved in one location are offset by negative impacts elsewhere (e.g. displacement of damaging activity).

**MRV (Monitoring, Reporting and Verification)** - The systems and processes used to measure outcomes, report performance, and independently verify results. Robust MRV underpins credibility, buyer confidence, and financeability.

**Offtake / offtake agreement** - A contract under which a buyer commits to purchase defined volumes of benefits over time at agreed prices. Long-term offtakes are a key enabler of project finance.

**Option value** - The potential future value of a benefit stream that is not currently bankable or contracted (e.g. biodiversity credits). Option value may enhance equity returns but is typically excluded from base-case financing assumptions.

**Permanence** -The durability of delivered benefits over time. For peatlands, permanence is supported by hydrological restoration and long-term management obligations.

**Project finance** - A financing structure in which lenders rely primarily on project cashflows (rather than sponsor balance sheets) for repayment. Requires predictable revenues, strong contracts, and clear risk allocation.

**Revenue stacking** - The generation of multiple revenue streams from the same project (e.g. carbon, water, biodiversity). It is subject to considerations about additionality and double counting, and is not always permitted.

**Risk allocation** -The distribution of delivery, performance, regulatory, and market risks between developers, buyers, intermediaries, and financiers. Clear allocation is essential for investability.

**Standardisation** - The use of common definitions, metrics, contract terms and assurance processes to reduce transaction costs and enable scaling.

**Water benefit accounting (VWBA / WQBA)** - Frameworks for quantifying volumetric water benefits (VWBA) and water quality benefits (WQBA) relative to a baseline, supporting comparability, transparency and credible contracting.

# Annex D – Bespoke project data set

This report has compiled a dataset of existing and planned peatland restoration projects from public sources. See database here.

# Annex E – A Potential European Peatland Carbon Transparency Standard (EPCTS)

*Version 1.0 – Voluntary disclosure framework*

**Purpose**

To establish a minimum, standardised public disclosure baseline for peatland carbon projects and registries in Europe, improving market transparency, investor confidence, and buyer credibility, while respecting legitimate commercial sensitivities.

**1. Project identity & integrity (mandatory)**

For each registered project, registries shall publicly disclose:

- Unique project ID and registry name
- Project name, location (country + region), and peatland archetype
- Project area (ha), restoration activities undertaken, a mapped project boundary, and the defined monitoring/assessment area used to track hydrological impacts and potential leakage (i.e. catchment/watershed), including the basis for its delineation.
- Start date, crediting start date, and crediting period (years)
- Methodology and standard applied (with version number)
- Safeguards disclosure: stakeholder engagement process, grievance mechanism, and approach to benefit-sharing/tenure risk management.

**2. Carbon abatement metrics (mandatory)**

Registries shall disclose standardised, comparable carbon metrics:

- Annual abatement intensity ($tCO_2e$ / ha / year)
- Total expected credited abatement over the crediting period ($tCO_2e$)
- Baseline emissions assumptions (clearly stated)
- Any material uncertainty ranges or conservative adjustments applied
- Metrics shall be reported per hectare, per year, and in total.

**3. Credit status & lifecycle transparency (mandatory)**

For each project, registries shall maintain a live public summary showing:

- Credits issued (cumulative)
- Credits sold but not retired
- Credits retired (with retirement year)
- All credits must be serialised and traceable, with double counting prevented at registry level.

**4. Buyer & retirement transparency (mandatory, time-lagged)**

Registries shall disclose, with a 6–12 month delay:

- Buyer or retirement beneficiary name
- Buyer sector and country
- Volume purchased or retired ($tCO_2e$)
- Year of purchase or retirement
- Where credits are pooled or intermediated, the ultimate end-buyer shall be disclosed once known.

**5. Verification, permanence & risk management (mandatory)**

Registries shall publicly disclose:

- Verification frequency and independent verifier(s)

- Permanence period and risk-management approach
- Buffer or risk-pool contribution (% of issued credits)
- Conditions under which reversals, invalidation, or clawbacks may occur
- Information must be presented in plain English, with technical annexes where required.

**6. Market transparency & price signalling (recommended)**

Registries are encouraged to publish at least one of the following annually:

- Volume-weighted average transaction price by peatland archetype
- Anonymous price ranges (e.g. p25–p75)
- An aggregated price index for peatland credits
- No individual transaction prices need be disclosed.

**7. Accessibility & data format (mandatory)**

All disclosures shall be:

- Publicly accessible without paywalls
- Machine-readable (CSV / JSON) where feasible
- Updated at least annually

**Status**

This is a voluntary standard, designed to be compatible with existing methodologies and national schemes. Adoption signals high integrity and market leadership.

# Annex F – About the authors, Matt Robinson and Gokul Ganesh

**Matt Robinson** joined the Landscape Finance Lab in September 2025 as Senior Finance Adviser (part-time). During his initial period at the Lab he has focused on how to attract more private capital into European peatlands. He has spent much of his career building some of the world's leading impact investing institutions. He recently spent nine years at British International Investment (BII, formerly known as CDC), the UK's development finance institution. Matt held several senior positions at BII including Head of Strategy and Head of Private Capital Mobilisation. Earlier, Matt was one of the founding staff members of Better Society Capital (BSC), the UK social investment wholesaler. At BSC he was Head of Strategy and Market Development as well as a member of the Investment Committee, and led on several market-level interventions, including the creation of Access, the Foundation for Social Investment, and the UK social investment market sizing data series. Matt also worked in the UK Cabinet Office and Number 10 Downing Street. He first worked as Deputy Director of the Prime Minister's Strategy Unit, across a range of UK policy issues. He latterly was Head of the Social Investment team, which helped to create the UK social investment ecosystem which has been subsequently emulated around the world. Matt's early career was as a development economist, working in the Malawi Government as an ODI fellow and as a consultant across several African and Asian countries. Matt has degrees in economics from Cambridge University and the School of Oriental and African Studies (SOAS).

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**Gokul Ganesh** is a Consultant Researcher with the Landscape Finance Lab, contributing to the analysis of European peatland restoration as an investable natural capital asset class. His work on this report focuses on project-level economics, capital cost structures, carbon and co-benefit revenue pathways, and the implications for attracting institutional capital at scale. Gokul brings a background in project finance, investment due diligence, and applied economic analysis across infrastructure, climate, and natural capital–related assets. Prior to joining the Landscape Finance Lab, he worked with advisory and investment teams including J.P.Morgan, Rebel Group, Altica Partners, and the Nigerian Economic Summit Group, supporting financial modelling, investment appraisal, and risk analysis for real asset and sustainability-linked investments. He is currently completing a Master in Public Policy at Harvard University's John F. Kennedy School of Government, with a focus on sustainable finance and development, and holds a Master in Financial Engineering from UCLA Anderson. Gokul is a Financial Risk Manager (FRM) and has experience building and evaluating project-level financial models to assess investability, downside risk, and pathways to scale.

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