TransformAr

Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages

Understanding investment opportunities

Deliverable 5.3 Workshops with future solution buyers

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Introduction

To support pathways for transformational adaptation (WP3) and the demonstration of solutions (WP4), this task aims to gain insights in the project on the factors of success and failure of realisation in theory and in practice. To ensure ownership of the solutions, these deliverables support the creation of sustainable financing strategies and a network of financial stakeholders and solution implementors. Therefore, T5.3 is to perform a meta-analysis, based on a literature review supported by interviews with 50 public and private change-agents and 6 workshops, one per demo. T4.5, related to this deliverable is to develop longer term bankable solutions that allow for financial independence of demonstrators and a wider transformational change.

In this D5.3 deliverable, an overview will be given of interviews conducted with a broad range of adaptation implementers and financial stakeholders across Europe and beyond. In the first part, we aim to gain insight in adaptation finance from the perspective of private investment entities. By conducting in-dept interviews, we gain insight into the barriers and opportunities of upscaling investment in adaptation. This research methodology and the results are summarizes in part II of this deliverable, resulting in the main findings of D5.3.

In the second part (D5.5, to be submitted in M45) this knowledge is translated into practice. One bankability report for every demo is made to support financial independence of the demos. In each bankability report, an alternative financial model for the adaptation solution is explored. To support these region-specific bankability reports, another set of interviews is performed. These interviews serve a twofold purpose. TransformAr demo partners, who are experts in adaptation solutions, monitoring and governance, are trained to connect adaptation governance issues with financing and funding issues. They learn to investigate adaptation finance needs and potential solutions outside the 'regular' funding mechanisms such as public budgets and subsidies. Secondly, this deliverable brings partners in contact with financial stakeholders and builds a network on which future collaborations can be build. Especially by talking to private financial stakeholders, new synergies can sprout and result in interesting collaborations.

Reading guide

This document will be used to present both D5.3 (dd 31/03/2025) and D5.5 (02/06/2025). Both deliverables are dependent on T5.3, interviews and workshops with financial stakeholders. Part I of this report starts with an introduction in bankability and the terminologies used in adaptation finance. The introduction further sets the seen on what financial stakeholders have been considered in this report and introduces the research aims and questions for both D5.3 and D5.4. This is followed with a practical overview of the methodology and the list of respondents for interviews and workshops planned.

Part II of this report are the results from interviews with global financial stakeholders, benchmarked with international scientific and grey literature. This report provides insights in challenges and drivers for adaptation finance, best-suited instruments and solutions ranging from technical to policy making solutions. It concludes with a list of recommendations and priorities for upscaling investment in climate adaptation.

By 02/06/2025, D5.4 will be submitted. This will be an update of part I, combined with part III, which includes 6 bankability reports, one for each demo region. At the moment, part III consists of a brief summary of the interview results at the moment of writing. In this section, we will adopt the knowledge that is obtained in the interviews with global financial stakeholders and combine this with the knowledge obtained from local and regional stakeholders to create alternative financing models for adaptation solutions.

PART I: Research set-up bankability of climate adaptation

1.1 Terminology

Climate change poses risks such as natural disasters, biodiversity loss, and broader environmental impacts. The scale of investment needed to address these risks and mobilize capital for climate-resilient infrastructure exceeds the capacity of the public sector alone. Public funding alone will therefore be insufficient to achieve climate resilience. To bridge this gap, private investment must be leveraged, a shortfall often referred to as the **'adaptation gap'**.

In Finance, **funding** refers to the actual money used to cover project expenses, such as purchasing materials, paying for labor, or covering operational costs. **Financing**, on the other hand, is the process of securing capital to make these payments possible in advance. Financing often involves loans, bonds, or investments that provide the necessary funds upfront, with repayment occurring over time. For example, a city planning to build a flood control area may **finance** the project by issuing green bonds, securing a loan, or attracting private investors. Once the funds are secured, the city then **funds** the project by paying for construction, equipment, and workforce costs.

Investors decide whether they want to provide financing to a project initiator. Investment decisions are typically based on technological or **financial assessment criteria** such as security, profit margin, cash flow potential, and risk-sharing structures. While (semi-)public investors typically assess return on investment in terms of societal benefit, private investors increasingly consider expected **environmental, social, and governance (ESG)** factors as additional investment criteria. In a climate change adaptation context, ESG criteria may include improving the resilience of ecosystems and communities or aligning with national adaptation priorities.

Bankability refers to a project's ability to attract investors or lenders willing to finance or fund part or all of its costs. For traditional investments, such as real estate, bankability is straightforward because the return on investment is clear—for instance, rental income from tenants. The concept of bankability in climate change adaptation projects aims to demonstrate that delivering societal and environmental benefits can be as valuable as financial returns. Key challenges in increasing project bankability include:

1. Matching potential projects with suitable investors, partnerships, or financing instruments.
2. Developing bankability assessment criteria and a supporting evidence base that both inform investment decisions and quantify expected impacts.

Moreover, to justify the expected impact or return on investment, a clear monitoring, reporting, and verification (MRV) framework must be established during the project preparation phase.

Despite the growing demand for climate adaptation solutions, such as nature-based solutions, these projects remain underfunded, and private investment is critical. However, uncertainty about return on investment continues to hinder private sector engagement. The term 'bankability' in this context refers to the key question: **"How can we attract private investors to climate adaptation solutions?"** or, in other words, **"How can we enhance the bankability of adaptation solutions?"**

To explore these questions, we engaged **financial stakeholders** to understand their interest in investing in nature-based solutions and climate adaptation projects. For our initial interviews with global financial stakeholders, we focused on **institutional investors**; companies or organizations whose core business involves investment and who possess extensive financial market expertise. As we developed the region-

specific bankability reports, we expanded our target audience to include all stakeholders involved in adaptation solutions—such as solution providers, beneficiaries, risk bearers, public authorities etc.

These reports are exploratory in nature, seeking **alternative financial models** for adaptation projects. In this context, 'alternative' refers to financing models that go beyond the traditional public funding approach, where adaptation projects are funded by tax revenues and pre-allocated government budgets. Instead, new financial mechanisms must be explored—such as introducing revenue streams or attracting investors to finance adaptation initiatives at a lower capital cost.

1.2 Research aims and questions

1. Explore the existing approaches for bankability/investability measurement and verification.
2. Improve/validate the understanding of opportunities and barriers on accelerating investment in adaptation measures, including nature-based solutions from the perspective of financial services entities.
3. Understand the challenges of financing regional and local adaptation measures, explore opportunities for TransformAr demo partners to collaborate with regional or local financial stakeholders and explore opportunities to use innovative financing instruments.

1.3 Interview methodology and overview

The aim of the interviews is to understand the view of (potential) financial stakeholders on the bankability of transformative climate adaptation projects and on the role of private capital funding in achieving climate adaptation.

Guiding questions

The interviews were conducted as a semi-structured interviews. The interviewer was provided with guiding questions but was free to add or leave out questions depending on the respondent and the specific adaptation measure to be discussed (if this was specified).

Introductory questions

1. What type of organization do you represent?
2. What is your role in the organization?
3. What is the geographic scope of operations of your organization in terms of the location of financing recipients?
4. Do you have sustainable lending/investment strategies/frameworks or policies?
5. Does your organization offer sustainable lending/investment products?

Climate adaptation finance

6. Do you consider climate adaptation/nature-based solutions in your [lending/investment] capital allocation work?
    a. If YES: How?
    b. If YES: Do you have examples of specific funding cases of adaptation/nature-based measures? If YES:

i. Could you please share details: Type of entity receiving the funds; Type of adaptation/nature-based measures receiving the funds; Factors, which made this project "bankable"; How was "bankability" measured and or monitored?

c. If NO: Do you plan to consider climate adaptation/nature-based solutions in your work in the future?
   i. If YES: Why?
   ii. If YES: In what way?

7. In your opinion, which financing mechanisms/instruments offered by your type of organisations are the most suited for funding adaptation/nature-based solutions projects?
   a. Why?
8. The EIB has recently identified these as key barriers hindering private capital flows to nature-based solutions, please rate these barriers from your perspective:
   a. Valuation of adaptation / nature-based solutions project returns (challenge to capture revenues, payoffs on long term, internalising social and environmental benefits…)
   b. Experience with implementation of adaptation / nature-based solutions projects (lack of evidence, lack of design standards, lack of technical expertise…)
   c. Long-term character of investment in adaptation / nature-based solutions projects (continuous maintenance costs over long timeframe)
   d. Institutional challenges (difficulty shifting away from existing investment portfolio, limited clarity on risk-sharing with public sector…)
9. In contrast, do you identify levers that facilitate private investment in adaptation/nature-based solutions? E.g. derisking through blended and co-financing, third-party guarantees, financial standards, partnerships with stakeholder groups…

Bankability

10. Are you familiar with the term "bankability"?
    a. If YES: Do you use the term in your work?
    b. If YES: What is the definition of the term used in your work?
    c. If YES: What factors determine "bankability" in your work?
11. In your opinion, do climate change adaptation/nature-based solutions projects generally have a high or low bankability potential?
    a. Why?
12. In your view, are there any types of adaptation/nature-based solutions projects, which have a higher potential of bankability?
    a. Why?
    b. If YES: Which types of adaptation/resilience measures may have a higher bankability potential: nature-based solutions; traditional 'grey' infrastructure solutions; other, please explain?
13. In your view, which types of recipients (e.g. public vs. private sector, larger vs. smaller, industry sector etc.) are likely to be viewed as more bankable?
    a. Why?
14. Does inclusion of adaptation and/or nature-based solutions in Sustainable Finance Taxonomy or similar sustainable Finance Framework tools support the bankability of these solutions?

a. Why?

15. Can any other policy, knowledge or other solutions help? Please explain.

Cases

Do you have any experience with climate adaptation finance (successful, ongoing or exploratory projects)?

If no; do you wish to engage in climate adaptation finance, why/ why not?

If so; which type, what were difficulties/what went well? Which instruments were used, which stakeholders were engaged, which governance framework was used?

List of respondents

Interviews have been conducted on different geographical scales. First of all, interviews with financial stakeholders on global level were conducted mainly focusing on large and specialized financial institutions such as banks, asset managers and investment funds. These fall under code 1.X. Secondly federations, which often operate nationally or regionally have been interviewed, coded by 2.X. Thirdly local stakeholders, connected to the demo partners were interviewed, coded under 3-9.X (a different number for each demo). These stakeholders are not always operational in the field of finance but have stakes in local finance opportunities and/or adaptation measures.

Recordings and transcripts are confidential. Only aggregated results will be presented.

Table 1.1 **List of respondents**

°	Code	Institution	Function	Researcher	Date of the interview
1	1.1	Bank, Non-EU HQ, active in EU and internationally	Director, Sustainable Finance & ESG	Linda Romanovska (UA)	08/08/2024
2	1.2	Bank, active in Northern Europe and the Baltics	Sustainability Officer	Linda Romanovska (UA)	30/08/2024
3	1.3	Private equity firm, Europe-based	Vice President	Linda Romanovska (UA)	7/08/2024
4	1.4	Private equity firm	Director ESG & Stewardship	Linda Romanovska (UA)	13/08/2024
5	1.5	Narrowly specialised sustainable asset manager	Co-founder	Linda Romanovska (UA)	14/08/2024
6	1.6	Impact Fund, Europe based	Impact Lead	Linda Romanovska (UA)	26/08/2024
7	1.7	Impact fund, international	Chief Investment Officer	Linda Romanovska (UA)	18/09/2024
8	1.8	Insurance provider, operating globally	Group Operational Resilience expert	Linda Romanovska (UA)	8/12/2024
9	1.9	Insurance provider, operating globally	Sustainable Transformation Lead	Linda Romanovska (UA)	29/10/2024
10	1.11	KBC group (European bank)	Biodiversity Expert	Heleen Van Hecke (UA)	10/06/2024
11	1.12	BNP Paribas Fortis (European bank)	Head of Public and Financial Institutions Coverage	Heleen Van Hecke (UA)	06/06/2024
12	1.13	Belfius Bank (Belgian bank)	Promotor Energy Efficiency	Heleen Van Hecke (UA)	10/06/2024
14	1.14	VDK Bank (Belgian ethical bank)	- Coordinator Sustainable and Ethical Banking - Relations Manager Corporations and Organizations	Heleen Van Hecke (UA)	07/06/2024
15	1.15	KBC bank	- General manager sustainability	Climate Fit	Conducted in sister-project, results used for comparison

16	1.16	Triodos Ethical Bank	- General manager sustainability	Climate Fit	Conducted in sister-project, results used for comparison
17	1.17	TINC investment company	- CLO	Climate Fit	Conducted in sister-project, results used for comparison
18	1.18	NN Group	- ESG and climate change strategis - Member investment office - Manager of treasury and investment	Climate Fit	Conducted in sister-project, results used for comparison
19	2.1	Febelfin	Director of Economic and Strategic Affairs	Heleen Van Hecke (UA)	29/05/2024
20	2.4	Assuralia	Sustainability manager & CEO	Axelle Vincent & Tara Op de Beeck (UA)	26/02/2025
21	3.1	City of Genk	Financial director	Tara Op de Beeck (UA)	
22	3.2	City of Antwerp	Financial director	Axelle Vincent (UA)	26/12/2024
23	3.3	City of Bruges	- Financial advisor - Strategical advisor climate goals	Axelle Vincent & Tara Op de Beeck (UA)	22/01/2025
24	3.4	City of Gent	Financial director	Axelle Vincent & Tara Op de Beeck (UA)	19/03/2025
25	4.1	Green Finance Institute	Think tank researching and collaborating on green finance projects in the UK	Emily Widdecombe (WRT)	03/09/2024
27	4.2	Cornwall Council	Local authority working to implement finance schemes for nature-based solutions	Emily Widdecombe (WRT)	10/09/2024
28	4.3	Local Investment in Nature Cornwall (LINC)	DEFRA Test & Trial project establishing natural capital marketplace for range of ecosystem services in Cornwall	Emily Widdecombe (WRT)	02/09/2024
29	4.4	Nature Southwest	NEIRF funded project looking to aggregate ecosystem service providers in east Devon/west Somerset to sell NbS at sufficient scale to attract investment	Emily Widdecombe (WRT)	15/08/2024
30	4.5	Rivers Trust	National charity, involved in establishing green finance projects	Emily Widdecombe (WRT)	11/09/2024
31	4.6	Southwest Water	Utility company funding large NbS and farm advice project in southwest to improve water quality	Emily Widdecombe (WRT)	29/08/2024
32	4.7	United Utilities	Piloted one of the first public-private sector partnership for increasing hydraulic residence and improving water quality in the UK	Emily Widdecombe (WRT)	04/09/2024
33	4.8	Chrysalis	Start-up in Devon seeking to finance NbS for climate adaptation at scale, selling credits to private companies as part of ESG/CSR	Emily Widdecombe (WRT)	01/09/2024
34	5.1	Finnish government's real estate expert	Regional manager	Sanna Varis (LAPP)	20/02/2025
38	5.2	City of Lahti	Environmental coordinator	Sanna Varis (LAPP)	20/02/2025
39	5.3	City of Lappeenranta	Director of the Department	Sanna Varis (LAPP)	30/01/2025
40	5.4	City of Lappeenranta	Specialist/Urban land-use plans	Sanna Varis (LAPP)	13/02/2025
41	6.1	Ethic bank	Volunteer member and shareholder	Vania Statzu (MEDSEA)	20/11/2024
42	6.2	Freelance consultant	Consultant with deep experience on venture capital, he managed the first Italian Blue Economy accelerator	Vania Statzu (MEDSEA)	29/11/2024

43	6.3	Founder of an holding company	CEO of a holding company that invest in early-stage climate tech technologies (pre-seed and seed) with a TRL between 5 and 7	Vania Statzu (MEDSEA)	18/12/2024
44	6.4	Manager of a venture capital fund	Manager of the participation area in a regulated investment vehicles in early stage (pre-seed, seed, early stage) social and environmental impact startups	Vania Statzu (MEDSEA)	4/12/2024
45	6.5	MEDSEA foundation	Environmental economist, private companies consultant	Vania Statzu (MEDSEA)	19/12/2024
46	7.1	UCOGA (Insurance brokerage)	Account executive	Amaya Soto & Lucía Fraga (CETMAR)	30/09/2024
47	7.2	Marine Research Center – Ministry of the Sea	Director	Amaya Soto & Lucía Fraga (CETMAR)	30/09/2024
48	7.3	Fundamar (Fisheries and Shelfish Foundation)	Project technician	Amaya Soto & Lucía Fraga (CETMAR)	30/09/2024
49	7.4	Mulleres salgadas (Galician association of Sea women)	Secretary general	Amaya Soto & Lucía Fraga (CETMAR)	30/09/2024
50	7.5	Abanca (bank)	Director of Abanca - Mar	Email	30/09/2024
51	8.1	Financial department City of Egaleo	Head of the department	Evridiki Pavlidi (COE)	20-31/01/25
52	8.2	Green department City of Egaleo	Head of the department	Evridiki Pavlidi (COE)	20-31/01/25
53	8.3	National bank of Greece	Head of the bank branch	Evridiki Pavlidi (COE)	20-31/01/25
54	8.4	ASDA (Development Association of Western Athens)	Head of ASDA	Evridiki Pavlidi (COE)	20-31/01/25
55	9.1	Workshop on the Climate adaptation fund			
		Bank of the Territories	Territorial Development Officer	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Regional Council	Green Growth Director & Environment Director	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Department Council	Director of Agricultural, Land, and Environmental Policies	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		French Development Agency	Deputy Director, AFD Guadeloupe	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Chamber of Commerce and Industry	Sustainable tourism & Local authorities development manager	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Department of Food, Agriculture, and Forestry (Region)	Head of the Agricultural, Rural, and Forestry Territories Department	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Department of Environment, Planning, and Housing (Region)	Head of the Sustainable Development and Environmental Assessment Department	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Council for Architecture, Urban Planning, and the Environment	Manager of the Sustainable Urban Planning Network	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Guadeloupe Islands Tourism Committee		Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		FEADER	Deputy Director for Europe, Head of the European Programme Management Service, European and International Affairs Project Manager, European Program Management Service	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Water Office	Grants and Subsidies Manager, Aquatic Environments Monitoring Study Manager	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Crédit Agricole	Deputy Director	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023

		BPI France	Regional Director	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		French Office for Biodiversity	President	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023
		Regional Biodiversity Agency	Interim Director	Pauline Guerecheau-Desvignes (ADEME)	21/04/2023

1.4 Workshops overview

Between March and June, all demos of TransformAr will hold workshops where financial stakeholders will be invited. The bankability reports will be presented and feedback from project stakeholders will be gathered in order to improve the bankability reports and to identify the hurdles to be overcome when implementing the suggested financial models.

Table 1.2 **Overview of the demo workshops**

°	Region	Date of the workshop	Notes
1	West Country Region	19/03/2025	Following stakeholders were invited to the workshop: Local Investment in Nature Cornwall (LINC), Cornwall Council, Climate Impacts Group, B-Corp Network, Natural England, Cornwall Resource Ltd, Cornish Lithium, Duchy of Cornwall, National Landscapes, Imerys, Pennon Water (Southwest Water), Network Rail, National Highways, Celtic Sea Power, Cornish Metals, ICE, Forestry England
2	Lappeenranta	06/05/2025	TBC
3	Oristano	14/05/2025	The report presentation was attended by representatives of fishing cooperatives and related associations; the mayor, councilors, and representatives of the municipal council; representatives of local environmental associations; some agricultural workers and a representative of the local rural credit bank. Those present found the results that emerged very interesting, in particular the fact that by unequivocally linking the protection of the land through a nature-based solution to a profit-generating activity, alternatives to traditional public funding could be developed. However, lack of financial expertise on the one hand, and bureaucratic red tape on the other, were cited as the main barriers to the development of these alternatives.
4	Galicia	??/05/2025	All stakeholders involved in the pathways construction (producers associations, regional administration, Galician research centers, Galician social associations) and open the scope to other sectoral institutions working at regional-national level
5	Egaleo	5/05/2025	TBC
6	Guadeloupe	22/05/2025	The workshop will focus on the Adaptation Fund (AF). Financial partners, project leaders as well as all the organizations/institutions/local authorities that have been involved in the set-up of the AF and previous workshops will be invited.

PART II: Global perceptions of financial stakeholders on adaptation finance

Executive summary

With climate change impacts causing rapidly increasing losses worldwide, climate change adaptation is increasingly recognised as an urgent priority (including in the recently released European Union's "Competitiveness Compass"). Yet, global investment in adaptation remains insufficient. Despite commitments under international agreements such as the Paris Agreement, the UN Sustainable Development Goals (SDGs), and national adaptation plans, private sector engagement in adaptation finance remains limited due to several barriers.

This report analyses insights from private capital providers, including banks, investment funds and asset managers, and insurers (in their investment capacity) to identify:

- Key barriers preventing large-scale private investment in adaptation.
- The most investable adaptation solutions and preferred finance recipients.
- Best-suited financial instruments to mobilise adaptation capital.
- Knowledge and policy solutions required to accelerate adaptation finance.
- Actionable recommendations for policymakers, financial institutions, and adaptation project developers.

Key Findings

Challenges for adaptation finance

- **Unclear revenue models**: Many adaptation projects provide public benefits rather than direct revenue streams, making them less attractive to private investors. Unlike mitigation finance (e.g., carbon credits, energy savings), adaptation often lacks monetisable returns.
- **Lack of standardised metrics**: Investors struggle to assess risk-adjusted returns, resilience impact and various environmental and social co-benefits due to the absence of widely accepted adaptation finance evaluation tools.
- **Limited expertise within financial institutions:** Specialised adaptation expertise is rare within private sector financial institutions.
- **Fragmented regulatory and policy landscape**: The absence of standardised adaptation finance taxonomies and long-term policy signals increases uncertainty and discourages private sector engagement.

Most bankable/investable adaptation solutions & recipients

- **Grey infrastructure projects** (e.g., resilient transport, energy systems, water management) are highly investable due to their clear financial models, alignment with traditional financing mechanisms and ability to attract institutional investors.
- **Climate-smart agriculture and forestry** have clear revenue streams and offer substantial co-benefits, making them attractive for investment.
- **Larger organisations** are preferred finance recipients due to their creditworthiness and ability to manage long-term risks.
- **Small-scale and nature-based adaptation projects face greater investment barriers** due to uncertain financial returns, lack of credit history, higher risk profiles and lack of established relationships and trust with financial institutions.

Best-suited financial instruments & methods

- **Blended finance** (public-private partnerships, concessional financing, guarantees) is critical for de-risking adaptation investments and attracting private capital.
- **Green and sustainability-linked bonds** are the most frequently mentioned financial instruments suitable for adaptation finance, yet they remain underutilised.
- **Project aggregation** (bundling smaller adaptation projects into larger investment vehicles) enhances financial viability by spreading risk and increasing scalability.

Priority knowledge & policy solutions

- **Creating knowledge-sharing platforms** with case studies, financial models, and investment best practices will facilitate scaling adaptation finance.
- **Clear adaptation commitments, structured adaptation investment targets, regulatory harmonisation, and adaptation finance taxonomies** will reduce uncertainty and transaction costs, making adaptation a more straightforward investment category.

Recommendations

Urgent policy actions

- Adopt **clear adaptation commitments** and **national, regional and local adaptation investment targets** to provide long-term policy signals for investors.
- Establish a **standardised adaptation finance taxonomy** to clarify eligible adaptation investments and improve transparency.
- **Create government-backed financial incentives**, including risk-sharing mechanisms, concessional financing, and performance-linked subsidies.

Priority knowledge solutions

- Developing **standardised cost-benefit assessment tools** will enable investors to compare adaptation projects in financial terms, improving investment viability.
- **Expanding climate risk and adaptation data availability** will support evidence-based financial decision-making and enhance investor confidence.
- **Creating knowledge-sharing platforms** with case studies, financial models, and investment best practices will facilitate scaling adaptation finance.
- Strengthen **capacity-building initiatives for financial institutions** on adaptation investment models and risk assessment tools.

Recommendations for adaptation project developers

- **Develop clear revenue models** linking adaptation benefits to market-based returns, cost savings, or resilience-linked financing mechanisms.
- **Use blended finance, project aggregation**, and **long-term risk-sharing** arrangements to improve bankability: de-risk adaptation projects and mobilise large-scale investment.
- **Enhance transparency and performance tracking** with robust monitoring, reporting, and verification (MRV) systems aligned with global standards.

1.0 INTRODUCTION

1.1 Context

The Paris Agreement, adopted in 2015, aims to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit it to 1.5°C (UNFCCC, 2015). The agreement emphasises the importance of adaptation and calls for increased financial support to enhance adaptive capacity and reduce vulnerability to climate change. The agreement also highlights the need for a balance between mitigation and adaptation finance, with a focus on mobilising private sector capital to achieve climate goals.

The climate change adaptation investment gap refers to the disparity between the financial resources required to effectively adapt to climate change impacts and the actual investments being made. According to the "Is Europe on track towards climate resilience?" report by the European Environment Agency (EEA, 2023), EU Member States have made progress in their national adaptation actions. The report highlights that EU funds play a significant role in financing adaptation actions for most Member States, with €26 billion budgeted for climate adaptation funding for the period 2021-2027. A few countries also reported having dedicated national adaptation funds to finance the implementation of national or sectoral adaptation actions; however, lack of financing is being reported as one of the main barriers impeding adaptation implementation, which speaks powerfully for the need to consider financing sources outside of public sector budgets and mobilise private capital flows.

. COP29 emphasised the importance of scaling up finance from both public and private sources to reach USD 1.3 trillion per year by 2035. This is the new collective quantified goal on climate finance (NCQG). Achieving the NCQG will require substantial international cooperation, innovative financial mechanisms, and a commitment from both the public and private sectors to prioritise climate action. C2ES, in their “Baku to Belém Roadmap to $1.3T” (2025), emphasise the need to mobilise significant private capital to complement public funding. It encourages financial institutions, including banks, investment funds, and insurance companies, to align their portfolios with climate resilience and sustainability goals.

The World Resources Institute (WRI) emphasises that while renewable energy investments have reached parity with fossil fuels, adaptation measures present unique challenges due to the lack of revenue models and investor experience (WRI, 2022). Despite these challenges, private sector involvement is possible and necessary.

It is in this context, that TransformAr seeks to gain insight from in-depth conversations with private capital and financing providers, to understand their current readiness and interest to provide adaptation finance, the most likely and suitable ways and mechanisms of doing so, as well as their lived experiences of barriers and their views on priority required solutions to enable private adaptation finance flows.

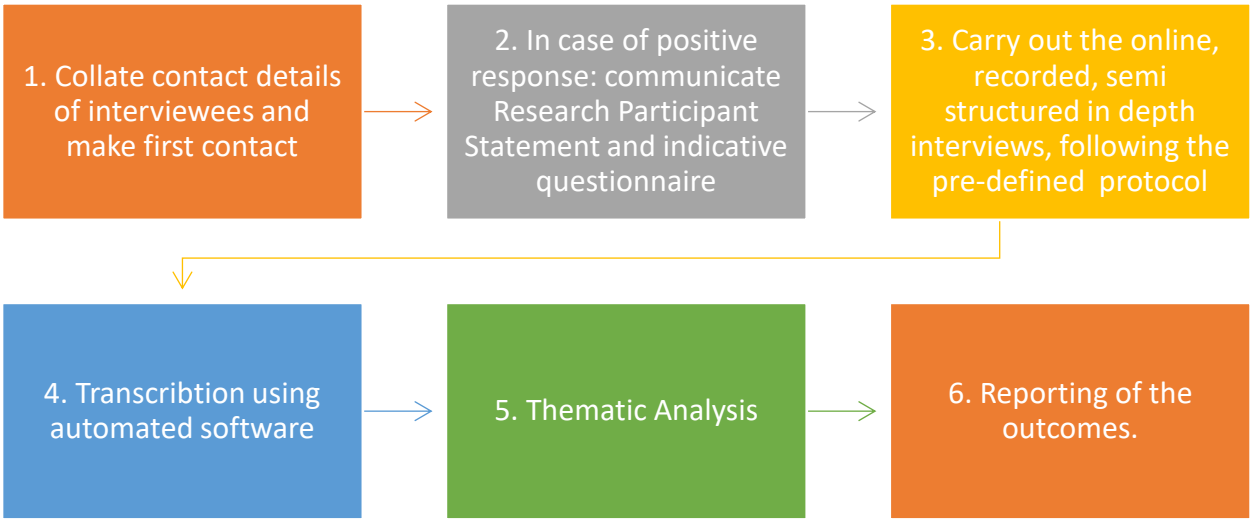
1.2 Research aims

1. Improve/validate the understanding of opportunities and barriers to accelerating investment in adaptation measures, including nature-based solutions, from the perspective of financial services entities.
2. Explore the existing approaches for the bankability/investability/insurability definition.

2.0 Methodology: semi-structured interviews

To arrive at the insights responding to the above research aims, semi-structured interviews were carried out with the representatives of private capital providers: credit institutions (e.g. bank), investment funds, asset/fund managers or owners (including pension funds), and insurance companies (in their investing capacity).

The work followed a six-step process:



2.1 Contact collation

The contact information of potential interviewees was collated via TransformAr team member networks in alignment with the personal data protection policy, ensuring the geographic and entity type diversity of the interviewees.

2.2 Communication with potential interviewees

The interviewees were contacted via the available/known contacts, with up to two reminders, after which communication was ceased if there was no response. In case of a positive response, a detailed Research Participant Information sheet was shared alongside the interview question guide. Upon final agreement, complete information on the online interview was shared.

2.3 Online interviews

The interviews will be held by one TransformAr Interviewer using Teams software and inbuilt transcription functionality.
The interviews, on average, lasted approximately 1 hour.
The interviewer was familiar with and followed the Interview Guide.

After the interview, interviewees will be asked:

- whether they would like to review the transcripts for accuracy and arrangements will be made.
- for permission to be contacted if the TransformAr team have clarifying questions.

2.4 Thematic analysis of interviews

The analysis of the interview content followed a thematic analysis methodology. Thematic analysis is a qualitative data analysis method used to identify, organise, and interpret patterns or themes within textual data. The method involves systematically coding data and grouping codes into broader themes to provide insights into complex data sets. Guest et al. (2012) highlight that thematic analysis is particularly useful in applied research contexts, where themes are often used to inform decision-making or policy recommendations. Nowell et al. (2017) provide detailed guidelines to ensure the method is applied systematically and meets trustworthiness criteria, especially for academic research.

Integrating the foundational framework by Braun & Clarke (2006) with practical and methodological insights from Nowell et al. (2017) and Guest et al. (2012), the steps of thematic analysis applied were:

1. **Familiarization with the Data**
    - Immerse yourself in the data by reading transcripts, notes, or responses multiple times.
    - Identify potential patterns, repetitions, or standout phrases.
2. **Generating Initial Codes**
    - Create meaningful labels (codes) for segments of the data that relate to your research questions.
    - Codes should represent key ideas or patterns in the text and may overlap.
3. **Searching for Themes**
    - Group similar codes into broader themes that capture shared meanings or key insights.
    - Themes should represent significant patterns in the data and address the research objectives.
4. **Reviewing Themes**
    - Evaluate whether the themes accurately represent the data and refine them as needed.
    - Themes should be distinct, coherent, and supported by sufficient evidence.
5. **Defining and Naming Themes**
    - Clearly define the scope and content of each theme, ensuring it reflects specific aspects of the data.
    - Assign concise and descriptive names to themes that communicate their essence.
6. **Producing the Report**
    - Present the findings in a structured format, including a description of each theme, supporting quotes, and an explanation of how the themes address the research questions.

The thematic analysis was carried out following these steps and is described in detail in Annex B.

3.0 Participant profile

3.1 Financial Institution Types

The participants in the study represented a wide range of financial institutions, reflecting the diversity of stakeholders involved in adaptation financing. Among the nine participants, two were representatives of banks that focused on providing lending finance. Two participants were from private equity firms, both of which were engaged in self-identified mid-cap investments. Two others represented asset management firms, working on investments across a variety of real assets. One participant came from an impact fund, while another was from an insurance provider. This variety of institutional representation

allowed capturing perspectives from both more traditional and more specialised or innovative financial actors.

3.2 Geographic Scope of Lending/Investing Activities

The institutions varied widely in their geographic focus, with some targeting global markets while others concentrated on specific regions. Four institutions operated globally, prioritising investments in developed markets across Europe, North America, and Australasia. Two institutions strongly emphasised emerging markets, targeting adaptation financing in regions like Africa and Southeast Asia, where climate vulnerabilities are significant. Another institution focused on Australia and the Asia-Pacific region, responding to regional adaptation needs. The regional diversity of lending and investment activities of the respondents enriched the insights and helped validate universally or locally observed phenomena on the topic.

3.3 Broadly Focused vs. Specialized Institutions

The institutions represented in the interviews ranged from broadly focused to specialised organisations. Six institutions had broad mandates, managing diverse portfolios that spanned sectors and geographies. These institutions often integrated adaptation financing into larger strategies that balanced risk and opportunity across various markets.

At the other end of the spectrum, three institutions were highly specialised, focusing on narrow areas of expertise, such as providing financing models for specific sectors or focusing on select, narrowly defined investment themes or goals. Specialisation enabled these institutions to provide more targeted financial solutions.

This distinction highlights the differences in institutional strategies for addressing climate adaptation financing.

3.4 Sustainable Finance vs. General Financing providers

The participants' institutions also varied in their degree of focus on sustainable finance. Three institutions were fully specialised in sustainable finance, offering products explicitly designed to support climate and sustainability goals, such as sustainable funds, green bond investments, and sustainability-linked loans. These institutions embedded sustainability into all aspects of their operations, aligning their investments with global climate and sustainable development frameworks.

In contrast, five institutions were broader financing providers that incorporated environmental and social aspects into their lending and investment strategies. Among these, one institution acknowledged an absence of formal sustainable finance policies but reported using ESG considerations informally. This variation represented the different maturity levels in sustainable finance integration across the financial sector.

3.5 Thematic and Sector Focus

Participants' institutions exhibited diverse thematic and sector focuses, which shaped their approach to adaptation integration in their financing activities. Several institutions highlighted specific sectors where they concentrated their investments, including forestry, agriculture, as well as water, energy and urban or transport infrastructure.

3.6 Bankability/Investability definitions

Majority, bar few, interviewees did use the terms "bankability" (mostly used by institutional lenders) or "investability" (mostly used by private equity or debt capital providers) in their work. Another similar term mentioned was "creditworthiness". All respondents stressed the financial factors and

trustworthiness of the recipient entity to be the main factors determining bankability or investability. Unsurprisingly, those institutions with a strong or primary sustainable investing focus and those with targeted sustainable finance products also stressed the alignment with their bespoke sustainable finance frameworks (in terms of sustainability thematic and expected level of positive impact) as determining factors of bankability or investability. While the financial aspect assessments have a level of harmonisation and standardisation, the way financial services entities determine the alignment with their sustainability preferences is highly individual, which in turn, hinders clarity among potential applicants and does require resource-intensive direct engagement.

4.0 INSIGHTS

4.1 Challenges for adaptation bankability/investability

Unclear revenue models

A significant challenge for adaptation finance is that many adaptation projects lack clear, monetisable revenue streams, making them less attractive to investors. Unlike mitigation investments, which often generate measurable financial returns (e.g., energy savings or carbon credits), adaptation projects often primarily provide public goods benefits- reduced disaster or gradually occurring impact risk to a broad range of actors- that are not easily translated into cash flows.

Most private investors expect projects to generate stable and predictable revenues in order to justify long-term financial commitments. The predictability is perceived as especially important, as that reduces the credit or investment risk; in some cases it may be more important than the over size of the revenue (as long as it is within a reasonable range).Adaptation benefits are often indirect and long-term, making it challenging to structure self-sustaining business models. For example, a flood prevention system reduces future damages to everyone living, working and doing business in the affected area. Thus this “avoided damage” is often dispersed among a variety of beneficiaries, not just the recipient of the funds therefore does not fully factor in the lending/investment assessment- there is no direct market mechanism to capture that benefit as a financial return.

Additionally, investors face challenges due to uncertain long-term financing structures. Many adaptation projects require long investment horizons, but private capital tends to favour shorter payback periods with clear return mechanisms. Without well-defined pricing mechanisms for resilience benefits, adaptation finance remains underdeveloped.

Some private capital providers noted that better integration of adaptation into financial risk models could help bridge this gap by demonstrating how climate resilience enhances asset value (through “avoided damages”) and reduces long-term financial risks to the recipient entity (reducing the need to justify adaptation investments solely on the basis of cashflows).

Lack of standardised metrics

Another significant barrier to adaptation finance is the lack of standardised metrics and evaluation criteria to a) identify and recognise resilience-related investments and b) differentiate high- and low-impact adaptation investments. Investors struggle to assess financial risks and returns for adaptation projects, particularly for nature-based solutions (NbS) where benefits such as the combination and wide range of co-benefits, e.g. heat and flood protection, carbon sequestration, and biodiversity enhancement as well as social benefits, are difficult to holistically quantify in measurable metrics.

Unlike mitigation, which benefits from now well-established impact measurement tools (e.g. emission reduction metrics, carbon pricing), adaptation lacks universal assessment frameworks that translate

resilience benefits into financial terms. As a result, investors have no standard benchmarks to compare adaptation projects, which increases perceived risk and reduces investor confidence.

This gap is particularly evident in financial modelling, where default cash flow models used by investment decision-makers often fail to capture the value of long-term climate resilience benefits. Even if willing to consider adaptation projects, investment teams do not have suitable models for assessing them. Investors pointed out that adaptation projects remain difficult to track, evaluate, and justify financially without uniform measurement tools.

Lack of/limited internal expertise

Many financial institutions lack specialised knowledge on adaptation finance, which limits investment in climate resilience. Unlike mitigation finance—where institutions have established risk models, investment frameworks, and regulatory guidance—adaptation finance remains poorly understood in the investment community.

This knowledge gap is evident even in large institutional investors, such as pension funds, insurance companies, and commercial banks, where adaptation is often bundled into general risk assessments rather than treated as a distinct investment category. Many investment teams have limited exposure to climate adaptation as a financial asset class, making them hesitant to allocate capital to these projects. This lack of expertise, combined with inherently high conservatism and risk aversion ("no one wants to take the first step to invest into something that isn't fully understood yet") among private capital providers, leads to a slow uptake of adaptation investment.

Some organisations have attempted to address this gap by hiring climate scientists, environmental economists, and adaptation specialists. However, expertise remains fragmented, and there is no widely accepted adaptation finance curriculum in the industry.

It needs to be noted that adaptation knowledge is also limited among the potential funding recipients in certain geographical areas, even within Europe, which, in some cases, has led to a limited demand for adaptation finance products.

Interviewees suggested that capacity-building initiatives—such as dedicated adaptation finance divisions, investor training programs, and knowledge-sharing platforms—could help bridge this gap and increase investor confidence in adaptation finance.

4.2 More likely adaptation financing targets

Preferred private finance recipient characteristics

Private finance providers tend to prioritise larger organisations with established credit histories, financial stability, and strong risk management capabilities when allocating (any, but also) adaptation finance. These organisations- such as multinational corporations, large utilities, and state-backed enterprises- are often seen as lower risk, e.g. due to their access to diversified revenue sources, government backing and other factors.

Public sector projects, especially those with government guarantees (government guarantees are often provided for infrastructure, energy, sometimes social housing or health infrastructure projects) or concessional co-funding (usually provided by government finance or development banks – at a lower interest rates or longer repayment periods) , are also viewed as low risk, making them more attractive to institutional investors. However, some interviewees noted that public sector projects tend to be less

innovative, as they often focus on traditional infrastructure solutions rather than emerging adaptation technologies or nature-based solutions.

Smaller private entities, startups, and community-based adaptation projects face significant barriers to accessing private finance. These organisations often lack credit history, collateral, and financial track records, making them appear riskier to traditional investors. While these smaller organisations may be highly innovative- especially in areas such as climate risk analytics, resilience-focused insurance, and decentralised adaptation solutions (such as smaller-scale individual entity, building or household-level solutions)- they often struggle to attract capital without de-risking mechanisms (such as guarantees, collaterals, specialised insurance, risk-sharing arrangements etc.) which may need to be provided or supported by public capital .

To address these challenges, some investors pool smaller projects together into aggregated financing structures, allowing multiple small-scale adaptation initiatives to receive investment while spreading risk across a portfolio. This approach has been successfully applied in some regions through development finance institutions (DFIs) and green investment funds, but it remains underutilised in mainstream finance.

Most bankable/investable adaptation solutions

Certain types of adaptation solutions are perceived as having higher bankability or investability potential due to clear financial models, quantifiable co-benefits, and alignment with investor priorities. These include grey infrastructure, urban resilience projects, and sector-specific solutions with well-defined outcomes.

Grey infrastructure projects, such as flood defences, resilient roads, energy systems, and water management solutions, are seen as more investable because they fit within traditional financing models. These projects often come with government contracts, long-term concession agreements, or revenue guarantees, reducing financial risk and increasing their attractiveness to institutional investors.

In contrast, nature-based solutions (NBS)—such as coastal wetland restoration, reforestation, or biodiversity-focused adaptation—face greater investment challenges because their financial benefits are difficult to quantify in traditional financial models.

Sector-specific adaptation solutions in water resilience, disaster risk reduction, and climate-smart agriculture are viewed as relatively investable due to the investment security stemming from their strong alignment with national climate policies and clearly defined adaptation needs. Some of these also offer better defined revenue streams or other financial value added. Water infrastructure projects, for example, offer long-term revenue opportunities through water tariffs and service fees, making them more financially viable. Adaptation in agriculture deems the producer overall more financially stable due to higher natural/climate risk factor shielding leading to less fluctuations in cropping/grazing outputs and therefore financial outcomes for the farms.

Similarly, urban resilience projects, such as flood-resistant housing and smart water management systems, are increasingly attracting investment—particularly when structured as public-private partnerships (PPPs). Interviewees noted that real estate developments incorporating climate resilience are becoming more common as investors recognise the importance of future-proofing assets against climate risks.

In summary, these sectors were especially called out in the interviews for their private sector adaptation finance potential:

- **Water resilience**: Projects focusing on drought-resistant agriculture, water conservation, and efficiency, as well as investments in flood protection infrastructure, have clear co-benefits and appeal to both public and private investors.
- **Forestry**: Sustainable forestry initiatives linked to biodiversity and carbon sequestration due to their ability to achieve a dual role.
- **Agriculture**: Climate-resilient farming practices, such as drought-resistant crops and soil restoration (ensuring long-term cropping success).
- **Energy infrastructure**: Resilient energy grids and renewable energy projects are interesting as they are scalable and can mitigate investment risks.
- **Real estate and housing: Resilient buildings are easier to finance as they involve** measurable outcomes.
- **Resilient transport systems:** follow established financial models, therefore easier to finance.

4.3 Best-suited financial instruments/methods/approaches

Embedded vs. explicit adaptation finance

Based on the interviews, private capital adaptation finance follows two distinct approaches:

1**. Embedded Adaptation Finance** – Climate resilience is integrated into general investment and lending decisions but not explicitly classified as adaptation finance. This is often referred to as "climate proofing". Institutions often incorporate climate risk assessment into infrastructure finance and lending without labelling it an adaptation investment. In this case, it is perceived as part and parcel of prudent investment/lending risk management, and it is by far the most common current approach, according to the interviewees. Although the target investment objective is often unrelated, this approach still leads to better resilience outcomes as it strongly incentivises the integration of adaptation measures in target projects or entities and indirectly provides capital for those measures.

2. **Explicit Adaptation Finance** – Where investments are directly targeted at adaptation, either by financing specific adaptation measures (e.g. flood barriers) or by investing in companies that provide adaptation solutions (e.g. climate risk analytics or designing and building/installing resilience solutions).

A number of respondents shared concern that there is confusion in financial markets about how to classify adaptation finance, leading to inconsistencies in reporting and investment strategies. As described above, many do not have a separate category for adaptation finance. Most institutions follow the embedded approach of the two approaches above, where climate resilience is incorporated into risk assessment but not classified separately as adaptation finance. This is commonly applied to infrastructure and real asset finance as well as lending portfolios as "climate-proofing" the physical asset investments.

Where adaptation finance takes a more explicit form, which is much less common, it is most often targeted to financing specific adaptation measures. In some cases, it supports companies that provide adaptation solutions (e.g. climate risk modelling, disaster insurance).

Blended finance

Blended finance was frequently named by interview participants to be a crucial tool for addressing adaptation investment risks. It reduces financial uncertainty by leveraging public and private capital to create risk-sharing mechanisms- helping distribute risks between public and private capital, making investments more attractive and viable.

Public-private partnerships likewise have the potential to improve adaptation project bankability primarily through their de-risking characteristics. Interviewees emphasised that public-private partnerships (PPPs), concessional financing, and guarantee structures play a pivotal role in de-risking adaptation investments. These mechanisms are particularly important for projects in emerging markets and nature-based solutions, where the financial returns are less immediate or more challenging to quantify and the perceived risks are higher. Also, grant-loan hybrids allow smaller projects to compete with larger-scale investments.

However, a major challenge in blended finance is the lack of standardisation. Different institutions use different structures and risk-mitigation approaches, leading to complexity and inefficiencies. Some respondents recommended standardising blended finance structures to make them scalable and more widely replicable.

Significant role of green/ sustainable / sustainability-linked bonds

Green bonds, sustainability-linked bonds (and similar), were frequently cited as effective instruments for financing adaptation. These bonds allow issuers- such as governments, municipalities, and corporations- to raise capital for adaptation measures while providing investors with a stable, fixed-income investment.

Interviewees noted that municipal and sovereign bonds especially have been used successfully in some regions to finance public sector adaptation projects. However, they emphasised that adaptation-focused bond issuance remains relatively limited compared to mitigation-focused green bonds.

A key challenge is that smaller adaptation projects often lack sufficient scale to justify bond issuance. Some investors suggested that aggregating multiple small adaptation projects into larger bond issuances could improve investor interest by spreading risk across multiple projects.

There was also limited private sector engagement in adaptation bonds, with most issuance coming from governments or public entities. Interviewees suggested that expanding adaptation taxonomies and creating clear impact measurement frameworks could help increase private sector participation in adaptation bonds.

4.4 Technical and knowledge solutions

Improved cost-benefit assessment methods

One of the most persistent challenges in adaptation finance (especially where it takes the more explicit form) is the lack of standardised, credible cost-benefit assessment (CBA) methods that accurately quantify financial and social returns on adaptation investments. Many investors struggle to justify adaptation projects because their benefits- such as reduced disaster risks, ecosystem services, and long-term resilience- are often non-monetized or are undervalued in traditional financial models.

Interviewees pointed out that nature-based solutions (NbS) are complicated to assess using conventional financial methodologies, as they provide benefits over decades rather than immediate financial returns. Without clear financial valuation frameworks, many adaptation projects appear less viable than mitigation investments, which often have direct revenue models (e.g., carbon credits, energy savings, efficiency gains).

The answers stressed that efforts need to be underway to develop science-based methodologies that incorporate integrated life-cycle assessments, ecosystem service valuation, and resilience impact metrics. Some financial institutions have started adopting hybrid models that consider both economic and social benefits in investment decisions.

However, a universally accepted approach remains lacking, making adaptation projects difficult to compare and benchmark across different investment portfolios.

Interviewees emphasised that aligning adaptation finance with climate risk modelling—similar to how mitigation is tied to carbon emissions accounting—could help bridge this gap. Additionally, governments and Development Finance Institutions (DFIs) should play a role in creating and endorsing standardised cost-benefit assessment tools to increase investor confidence in adaptation.

Knowledge generation and sharing

The lack of or limited available documented knowledge or knowledge-sharing was repeatedly cited as a barrier to adaptation investment. Many financial institutions are hesitant to invest in adaptation due to a lack of known successful adaptation financing case studies, investment models, and best practices. Interviewees stressed that a centralised knowledge-sharing platform- where financial institutions, policymakers, researchers, and project developers can exchange insights- could significantly improve adaptation investment confidence.

Some suggested that development finance institutions (DFIs) and multilateral banks should play a leading role in coordinating knowledge-sharing efforts. Others pointed out that company sustainability disclosures (such as the EU's Corporate Sustainability Reporting Directive requirements), which include adaptation reporting, is a step in the right direction to ensure greater visibility of private sector adaptation efforts and investments, as well as to improve data availability and sharing on both climate risk exposures, but also successful solutions.

Another key area is the need for more investor-focused research on adaptation finance. While academic studies on climate resilience and ecosystem services exist, many are not tailored to investor decision-making. Interviewees suggested that research institutions should focus on translating adaptation benefits into financial metrics that align with standard investment decision-making frameworks.

4.5 Required policy-making solutions

The high importance of national adaptation strategies and targets

Clear national adaptation strategies, action plansand investment targets were identified as critical policy enablers for adaptation finance. Unlike mitigation, which benefits from GHG emissions reduction commitments and climate action roadmaps, adaptation finance often lacks clear policy direction, making it harder for investors to identify opportunities.

Interviewees noted that governments should provide detailed adaptation plans with the inclusion of specific adaptation investment-plans at the national, regional, and local levels, ideally with sector-specific investment roadmaps, to give private investors greater certainty and reduce financial risk.

Some pointed out that existing adaptation strategies and commitments, such as Nationally Determined Contributions (NDCs), do not always translate into clear adaptation financing mechanisms. Several respondents suggested that stronger regulatory frameworks could help align private capital with adaptation priorities. Countries that integrate adaptation into their national investment planning tend to attract more private finance, as investors gain greater visibility on long-term policy direction.

Regulatory harmonisation

Respondents operating in larger or federated countries pointed out that fragmented state-based regulations create uncertainty—a federal-level framework is needed in these cases to ensure consistency. Aligning national policies with global adaptation goals can further bolster investor confidence by signalling consistent priorities.

Another emergent idea was that a structured approach to defining responsibilities for public, private, and household adaptation measures would improve investment alignment and avoid the moral hazard of the various actors expecting others to take responsibility for climate change resilience.

Government-backed financial incentives

To de-risk adaptation investments and attract private capital, interviewees strongly advocated for government-backed financial incentives, including public-private guarantees to mitigate investment risks, return top-ups and concessional finance mechanisms that lower the cost of capital, as well as performance-linked subsidies for successful adaptation projects.

Interviewees suggested that governments should explore performance-based funding models, where public funds are used to incentivise successful adaptation outcomes. In particular, climate-resilient infrastructure projects could benefit from structured public-private investment mechanisms that allow governments to absorb part of the financial risk at early stages.

As discussed, public funding in blended finance structures could help scale adaptation investment; however, governments need to clarify their role in adaptation finance and establish clearer public-private financing models for adaptation. Policy incentives, such as tax breaks and concessional loans, are also seen as effective ways to boost adaptation financing.Adaptation inclusion in standardised sustainable finance taxonomies and frameworks

Lastly, most interviewees, especially those based and /or primarily operating in Europe, voiced strong support for the need for standardised taxonomies and metrics for adaptation, such as within the EU or other sustainable finance taxonomies. Including adaptation and nature-based solutions in sustainable finance taxonomies legitimise these projects as sustainable finance and increase their appeal to investors. However, many taxonomies focus more on mitigation activities, creating challenges for adaptation-specific projects. The respondents call for flexible taxonomies that accommodate transition pathways and hybrid projects, making them more inclusive for diverse adaptation activities.

The broader sustainable finance frameworks also include the safeguarding of the financial systems from climate-related shocks. This is typically managed by financial market regulators via stress-testing and climate risk exposure reporting requirements. This is sometimes detached from other aspects of sustainable finance frameworks (e.g. from guiding investment flows towards sustainable economic activities), and respondents call out misalignments and inefficiencies, which should be addressed.

5.0 RECOMMENDATIONS

5.1 Most urgent policy-making action

1. Establish clear national adaptation investment needs and targets

- Governments should define national adaptation investment strategies that include specific sectoral identification of investment needs and targets for adaptation finance (e.g., water resilience, disaster risk reduction, agriculture, and infrastructure).
- Adaptation finance need identification and planninghould provide long-term structured adaptation investment signals to attract private sector engagement.

Sub-national regions, local authorities, as well as individual entities and households should align their adaptation efforts and investments with the strategic direction set at the international and national level to ensure well-coordinated and synergistic approach – “orderly adaptation”.

2. Improve Regulatory Harmonization

- Adaptation finance regulations should be standardised across jurisdictions to reduce investor uncertainty and confusion. In practice, that means national plan alignment with globally agreed objectives, as well as harmonised approaches within federated countries and in between national, regional, and local levels.

3. Fully integrate adaptation in mandatory company disclosure requirements

- Financial and non-financial entity climate change-related disclosure requirements should explicitly include adaptation considerations and adaptation finance, ensuring greater visibility of adaptation investment flows, which would lead to greater familiarity and incentives for more private sector investment.

4. Achieve better and clearer coverage of adaptation in Sustainable Finance Taxonomies.

- The taxonomy should clearly define parameters for eligible adaptation activities, metrics for resilience benefits, and assessment methods.
- Governments should align adaptation finance frameworks with financial regulators to ensure adaptation risks are integrated both into capital allocation and risk assessment/stress testing models.
- The private capital providers, many of which operate internationally, emphasise that policymakers should work towards a common globally accepted adaptation finance taxonomy, which would include adaptation

5. Create Government-Backed Financial Incentives for Adaptation

- Public adaptation finance should be directed toward de-risking mechanisms, making adaptation investments more viable for private capital
- Introduce public-private risk-sharing mechanisms, such as:
    - Government guarantees to lower the risk profile of adaptation projects
    - Concessional financing and grants and grant-loan solutions to improve investment attractiveness
    - Performance-based subsidies that reward successful resilience outcomes
    - Tax incentives
- Consider and promote the issuance of sovereign and municipal adaptation bonds. Eligible municipalities may greatly benefit from capacity building and “match-making” initiatives bringing together experienced financial institutions and willing, but less knowledgeable potential bond issuers.

5.2 Priority knowledge solutions and tools

1. Develop Standardized Cost-Benefit Assessment (CBA) Tools
    - Financial institutions and policymakers should collaborate on developing industry-wide methodologies for quantifying adaptation benefits. Cost-benefit tools should integrate:
        - Financial return projections
        - Long-term resilience impact metrics
        - Environmental and social co-benefits
    - The tools should be aligned with financial sector risk models, making adaptation investment more comparable to traditional asset classes.

2. Strengthen Climate Risk and Adaptation Data Accessibility

- Governments and research institutions should provide open-access databases on:
  - Historical climate risks and projected future climate impacts
  - Sector-specific adaptation case studies with financial performance insights
  - Investment risk models linked to climate resilience indicators
- Climate risk data and adaptation solution parameters should be integrated into financial decision-making software, ensuring investors have near real-time adaptation risk data and evidence-based basis for investment decision-making

3. Establish and/or expand knowledge-sharing platforms and adaptation finance
   - Establish a centralised adaptation finance knowledge hub which provides easy access to information on successful adaptation finance models and best practices in bankable adaptation projects in various regions internationally
   - EU's Climate-ADAPT portal is a good example of a rich adaptation-related resource. However, the integration of private capital provider perspective/usefulness can be further improved.

4. Build capacity for investors and financial institutions
   - Create training programs on adaptation finance for investment managers, insurance companies, and pension funds.
   - Integrate adaptation finance into MBA and finance professional certification programs, ensuring future financial professionals have expertise in climate resilience investment.

5.3 Project-level recommendations

1. Where possible, develop clear revenue models and monetization strategies

- Identify stable revenue sources, such as user fees, resilience-linked insurance savings, or ecosystem service payments.
- If they cannot be identified, explicit private adaptation finance may not always be the most suitable funding mechanism, and other options may need to be considered – such as general purpose lending, equity finance or public funds, and in some cases bond issuance. For these solutions, emphasis needs to be on enhancing the overall creditworthiness and trustworthiness of the recipient entity, independent of the adaptation solution targeted.

2. Improve financial structuring and risk reduction mechanisms

Structure projects to match investor expectations, including:

- Long-term contractual agreements (e.g., government-backed adaptation infrastructure deals)
- Risk transfer mechanisms, such as adaptation insurance or performance guarantees
- Project aggregation models, where multiple small adaptation projects are bundled into investment-ready portfolios.
- Explore blended finance structures, where public grants reduce financial risk and attract private co-investment.

3. Align with investor priorities

- Target sectors with strong adaptation investment potential, such as:
  - Criticalinfrastructure (flood protection, resilient transport, energy systems)
  - Water resilience and disaster risk reduction
  - Nature-based solutions with carbon and biodiversity co-benefits
  - Climate resilient agriculture and forestry
  - Climate-proof real estate and housing
- Engage with financial institutions early in the project design phase to align with investor expectations.

4. Enhance transparency and performance tracking

- Transparently communicate the (wherever possible quantified) intended resilience outcomes and their alignment with global, national, regional and local adaptation strategies and plans
- Implement robust monitoring, reporting, and verification (MRV) systems for adaptation projects.
- Use internationally recognised evidence-based impact measurement frameworks to track:
  - Financial performance
  - Climate resilience benefits
  - Other environmental co-benefits
  - Socioeconomic co-benefits
- Quantify the cost of inaction to highlight long-term financial benefits of adaptation to the recipient entity – i.e. the improved medium- to long-term financial stability, which increases the borrower trustworthiness and reliability

5. Co-create adaptation investment knowledge

- Be aware that financial institutions may have less expertise on climate change adaptation than your project team. While your understanding of financial mechanisms may be less advanced. Commit to working together to co-create the required solutions for mutual benefit.

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ANNEX A: INTERVIEW QUESTIONNAIRE

No.	*Question*	*Sub-question*
1	What type of organization do you represent?	
2	What is the geographic scope of operations of your organization in terms of the location of financing recipients?	
3	Are you familiar with the term [“bankability” or “investability” or "insurability"]?	IF YES: **3.1** Do you use the term in your work? **3.2** What is the definition of the term used in your work? **3.3** What factors determine [“bankability” or “investability” or “insurability”] in your work?
4	Do you have sustainable lending/insurance/investment strategies/frameworks or policies?	
5	Does your organization offer sustainable lending/investment/insurance products?	
6	Do you consider climate resilience in your [lending/investment/insurance] capital allocation work?	IF YES **6.1** How? **6.2** Do you have examples of specific funding cases of adaptation/resilience measures? IF YES **6.2.1** Could you please share details: • Type of entity receiving the funds • Type of adaptation/resilience measures receiving the funds from your organization? • Factors, which made this project [“bankable” or “investable” or “insurable”] • How was [“bankability”, “investability” or “insurability”] measured and or monitored? IF NO: **6.3** Do you plan to consider climate resilience/adaptation in your work in the future? IF YES **6.3.1** In what way?
7	In your opinion, do climate change resilience/adaptation solutions projects generally have a high or low bankability/investability/insurability potential?	**7.1** Why?
8	In your view, are there any types of adaptation/resilience projects, which have a higher potential of bankability/investability?	**8.1** Why? IF YES

		8.2 Which types of adaptation/resilience measures may have a higher bankability/investability/insurability potential: A) Nature-based solutions B) Traditional "grey" infrastructure solutions C) Other? Please explain
9	In your view, which types of recipients (e.g. public vs private sector, larger vs. smaller etc.) are likely to be viewed as more bankable/investable?	**9.1** Why?
10	In your opinion, which financing mechanisms/instruments offered by your type of organisations are the most suited for funding adaptation/resilience projects?	**10.1** Why?

11 [Optional] EIB has recently identified these as key barriers hindering private capital flows to nature-based solutions, please rate these barriers from your perspective:

	Not a barrier	Somewhat a barrier	Significant barrier	Don't know, can't say
Challenges in identifying and assembling relevant information on the performance of nature-based solutions				
Gap in knowledge and skills within investor/lender teams				
Lack of coordination between various actors, necessary for NbS financing and implementation				
High transaction costs				
Small/insufficient scale of NbS projects				
Long time-frames for implementation (and financial returns)				
Inherent uncertain risks/higher risk profile				
"The challenge of public goods" – NbS produce a mix of public and private goods and the private benefits alone may not exceed the cost of the project				
Limited valuation mechanisms/methodologies for NbS				
Lack of clear revenue sources				
High input costs				
Lack of standardised KPIs/metrics for measuring and monitoring NbS performance				
High localisation, NbS are hard to scale by replication				
Regulations requiring a high level of liquidity of investment				
Lack of inclusion of NbS in Sustainable Finance regulations/frameworks				
Limited size and financial capacity of the recipient of the financing				

12	Does the inclusion of adaptation and/or nature-based solutions in Sustainable Finance Taxonomy or similar sustainable Finance Framework tools support the bankability/investability/insurability of these solutions?	**12.1** Why?
13	Can any other policy, knowledge or other solutions help?	**13.1** Please explain.

ANNEX B: THEMATIC ANALYSIS DETAILS

Interview thematic analysis step-by-step

1. Familiarization

Thematic analysis began with a close review of responses to questions 7–12 in the interview transcripts. These questions focused on:

- Bankability challenges for adaptation and resilience projects.
- Types of adaptation measures or recipients most likely to attract investment.
- Financing mechanisms and instruments.
- Most Bankable/Investable Adaptation Solutions
- Policy and knowledge gaps
- Preferred and most urgent knowledge and policy solutions.

Through repeated reading, the research team familiarised themselves with the nuances of the interview responses, identifying recurring ideas and standout phrases.

2. Coding

Key segments of the data were coded based on recurring patterns, important observations, and shared concepts across the interviews. These codes captured specific challenges, proposed solutions, and reflections on financing dynamics.

Note: The representative quotes were identified but have been removed from this report, as the commitment to interview participants is to present the results only in a consolidated manner.

Generated Codes

Code	Question
Unclear revenue streams Long-term financing unclear	Q7
Lack of financial assessment metrics	Q7, Q8
Lack of impact/benefit assessment metrics	Q7, Q8
Lack of investment risk assessment metrics	Q7, Q8
Lack of internal expertise	Q7, Q8, Q9
No “adaptation finance” category	Q7, Q8, Q9
Inherent risk aversion	Q7, Q8, Q9
Preference for larger recipients	Q9
Public sector as a safer recipient	Q9
Small-scale payers are innovative but risky	Q9
Grey infrastructure has high bankability	Q7, Q8
Adaptation in specific sectors more bankable	Q7, Q8
Urban resilience favoured	Q7, Q8
Adaptation “embedded” in general finance	Q6, Q7, Q9, Q10
Explicit adaptation finance - measures	Q6, Q7, Q9, Q10
Explicit adaptation finance enablers	Q6, Q7, Q9, Q10
Blended finance – de-risking	Q8, Q9, Q10
Blended finance - types	Q8, Q9, Q10
Green/sustainability bonds as a suitable instrument	Q10
Bonds as aggregators	Q10

Sovereign and sub-sovereign bonds	Q10
Private sector bonds	Q10
Improved cost-benefit tools needed	Q12
Case-based knowledge sharing needed	Q12
Taxonomies improve clarity	Q11
Mitigation focus of taxonomies hinders	Q11
Well-defined national adaptation strategies/long-term commitments – strong incentive	Q12
Specific adaptation policy targets- strong encouragement for investment	Q12
Policy fragmentation nationally and internationally inhibits investment	Q12
Common frameworks needed	Q12
Government-backed financial incentives – strongly promote	Q11

3. Theme Identification, definition and naming (Steps 3 and 5)

The codes were grouped into broader themes that reflect the underlying patterns and shared meanings. These themes capture the challenges, solutions, and dynamics discussed in the interviews.

Identified Themes

Theme/ sub-theme	Supporting Codes (extended)	Questions
1. Challenges for adaptation bankability/investability		
Unclear revenue models as a barrier to investment	- Many adaptation projects lack defined revenue streams, making them less attractive to investors. - Long-term financing structures are often absent, increasing perceived risk.	Q7, Q8
Lack of standardised metrics for assessing adaptation finance	- Investors struggle to assess adaptation projects due to the absence of clear financial evaluation criteria. - The benefits of adaptation investments, particularly nature-based solutions (e.g., flood protection, biodiversity gains), are difficult to quantify in monetary terms. - Adaptation lacks uniform impact measurement tools, making it difficult for investors to track performance. - There is no standardised way to assess financial risks and returns of adaptation-focused projects compared to mitigation.	Q7, Q8
Limited internal expertise on adaptation	- Investment teams lack expertise in adaptation finance, particularly in pension and superannuation funds. - Many financial institutions do not recognise adaptation finance as a separate category, making it difficult to allocate capital. - Internal conservatism and risk aversion in large funds prevent innovation in adaptation investment.	Q7, Q8, Q9
2. More likely adaptation financing targets (Types of Recipients or Adaptation Measures)		
Preferred recipient characteristics	- Larger organisations are preferred due to financial stability and creditworthiness. - Public sector projects benefit from government guarantees but may be less innovative. - Smaller, private entities can be highly innovative but face barriers in accessing financing.	Q9
Most bankable/investable adaptation solutions	- Grey infrastructure dominates: Transport and energy systems remain the most bankable due to proven financial models. - Sector-specific success: Water resilience, disaster risk reduction, forestry, agriculture, and energy infrastructure attract investment due to clear adaptation needs. - Urban resilience projects favoured: Investments in resilient housing, flood protection, and urban water systems are appealing due to their measurable outcomes and potential for public-private partnerships.	Q7, Q8

3. Best suited financial instruments/methods/approaches		
Embedded vs. explicit adaptation finance	- Many financial institutions incorporate climate resilience as part of broader investment risk assessments but do not classify it as adaptation finance. - Explicit adaptation finance is rare, but where it exists, it targets either specific adaptation measures (e.g., flood barriers) or companies providing adaptation solutions (e.g., climate risk analytics, insurance for climate disasters).	Q6, Q7, Q9, Q10
Blended finance as a solution	- Blended finance is critical for de-risking adaptation investments, especially for smaller-scale players - Public-private partnerships and grant-loan hybrids can improve project viability.	Q8, Q9, Q10
Role of bonds in adaptation finance	- Green bonds and sustainability-linked bonds are seen as viable instruments for funding adaptation measures. - Aggregation of smaller projects into larger bond issuances could improve their attractiveness to investors. - Municipal and sovereign bonds have been successfully used in some regions but face regulatory constraints in others. - Private sector engagement remains limited, with bonds primarily being used by governments and public entities.	Q10
4. Technical or knowledge solutions (e.g., research, data, method standardisation)		
Improved cost-benefit assessment methods	- Improved cost-benefit tools are needed to quantify the financial and social benefits of adaptation projects.	Q12
Knowledge sharing	- Knowledge-sharing platforms and successful case studies are essential to improving investor confidence.	Q12
5. Policy-Related Solutions		
National Adaptation Strategies and Investment Targets	- Clearly defined national adaptation strategies create long-term policy certainty for investors. - Adaptation investment targets, similar to mitigation targets, could encourage greater private-sector participation. - Countries without a national adaptation finance plan create uncertainty for financial institutions.	Q12
Regulatory harmonisation	- State-by-state regulatory differences create uncertainty, making adaptation finance harder to scale. - Investors struggle with inconsistent rules on adaptation, leading to fragmented investment strategies. - A federal or internationally coordinated framework could improve investor confidence by reducing fragmentation.	Q11, Q12
Need for standardised taxonomies and criteria for adaptation	- Lack of a common adaptation taxonomy makes it difficult to categorise and evaluate investments. - Investors struggle to distinguish between climate mitigation and adaptation finance. - Clearer sector-specific adaptation criteria would help mainstream adaptation finance.	Q11, Q12
Government-Backed Financial Incentives for Adaptation	- Risk-sharing mechanisms (e.g., public-private guarantees, concessional financing) can de-risk adaptation investments. - Public funding in blended finance structures can crowd in private capital. - Governments could explore return-enhancing mechanisms, such as performance-linked subsidies for adaptation investments.	Q11

4. Reviewing Themes

The themes were reviewed for coherence and distinctiveness to ensure that each theme:

- Reflects a key insight or observation from the data.
- Is mutually exclusive, with minimal overlap.
- Is sufficiently supported by data (at least three quotes per theme).

PART III: Bankability reports for TransformAr demo regions

While the demo-specific bankability reports will be submitted in M45, D5.5. These results show initial finding from interviews with financial stakeholders of every demi region.

5.1 Financial stakeholders in West Country Region

Whilst the TransformAr project has provided an opportunity to explore existing avenues for climate adaptation finance through leveraging nutrient neutrality markets, there is a broader context for financing NBS for climate change adaptation in Devon and Cornwall. Although many of these markets are relatively new, products such as biodiversity credits, carbon credits and more holistic solutions such as private funding for floodplain or sand dune restoration are being explored by a wide variety of regional actors, including local authorities, businesses, green finance institutions, etc. Together, these represent a much broader and more varied picture of climate change adaptation in the Westcountry. To more fully assess the financial sustainability of climate adaptation finance in the region, WRT have conducted a series of interviews with key actors, focusing on key barriers to the acceleration of green finance, as well as possible solutions.

Participants identified a total of 61 barriers and 26 potential solutions for accelerating uptake in climate adaptation finance. The barriers and solutions were grouped according to seven key categories:

1) Public sector governance and regulation
2) Private sector governance
3) Economic
4) Skills and Knowledge
5) Physical Capital
6) Socio-cultural
7) Environmental

5.2 Financial stakeholders in Lappeenranta

The interviews in Lappeenranta were conducted one-on-one in Finnish by the project officer of TransformAr of city of Lappeenranta (who has no financial background). The city of Lappeenranta struggled to find respondents that were willing to collaborate because respondents often argued they would not be able to contribute significantly and therefore declined. All respondents started the interview with disclaiming there lack of knowledge of financial issues, even though they were all able to answer almost every question.

The term 'bankability' was not very familiar to the respondents. Although respondents recognised the term at some level, they did not use it in their work. The interviews were conducted in Finnish, and it should be noted that since neither the interviewer nor any of the interviewees were financial professionals, finding a Finnish term for the word 'bankability' was challenging. The interviewees were therefore asked about the use of the English term.

The responses highlighted that adaptation actions are often measures that are either part of the normal functioning of the organisation or part of its legal obligations and therefore not considered as financing.

With regard to legal obligations, respondents commented that it was difficult to conceive of related measures being financed by private funding.

According to the interviews, several adaptation measures had been carried out, were ongoing and were planned for the future in all respondents' organisations, but were financed either by the normal operating budget or even by loans.

Most respondents were also not aware of the differences between private and public funding. EU and national funding, such as funding from the Ministry of Environment, were more familiar and had been used.

The use and application of private funding does not seem to be very common from these interviews, and respondents had little idea where to apply for private funding or for what kind of measures.

5.3 Financial stakeholders in Oristano

The TransformAr project manager in Oristano interviewed five financial stakeholders in the region; an impact investor specialized in the blue economy, a holding company that invests in early-stage climate technologies, a public sector employer with experience in ethical banking, a venture capitalist focused on social and environmental impact start-ups, a consultant for sustainability strategies for start-ups.

The results show that ethical banks adopt a different logic then traditional banks. While growth investment is the leading rationale for traditional banks, ethical banks require alignment with the bank's ideals and values in return for flexibility (e.g. advance invoices or the ability to give the project more time to achieve results on the market).

Because of high interest rates and a culture of relying on one's own savings, Italy has a limited investment market. On top, guarantees, in the form of movable or immovable assets, are very important to obtain loans and mortgages, making it ever more important for start-ups to present a convincing business case where preferably already generated revenue can be shown to demonstrate profitability. Together with the repayment schedule (preferably as fast as possible), the generated cash flow will determine the 'bankability' of the project.

Impact projects that do attract private investors are those that exhibit the following characteristics:

- Scalability: both quantitative and geographically
- Revenue generation potential: projects must be technologies, services or products that can be sold in the market, generating a return on investment
- Technological innovation: innovative technologies, even in the context of nature-based solutions, make projects more attractive to investors
- Strong team: a competent team with strong management skills
- Sustainable business model: a solid economic plan with the ability to generate value over time and return the invested capital/repay the loan

Projects with a focus on environmental and social benefits are often not financed by debt instruments/equity investment, but are paid directly from public or private entities' investment funds. Nature-based solutions specifically (unless they have a technological component) have difficulties attracting 100% private investment. In these cases, 'blended' financing mechanisms, combining public and private funds may be necessary to mitigate investor risk. Pure 'restoration' projects are often perceived to have little scalable technology. However, they could serve as opportunities to test technologies developed by companies in which they invest or be pursued by investors with philanthropic or corporate social responsibility objectives. For example, the generation of carbon credits from marine afforestation projects is an example of how economic impact can be created from restoration initiatives.

The interviews revealed that private investors might be interested in investing when it becomes an opportunity to test the new technologies they are developing. This becomes particularly advantageous where there is an 'ecosystem', i.e. an area in which local actors, both public and private, are already accustomed to collaborating in the development of environmental projects, and this reduces transaction costs, as it can reduce the time needed to obtain all the permits since all the actors are familiar with the rules and procedures and some of the necessary documentation may already be acquired.

The interviewees also highlight barriers that are not only economic. In Italy, for example, bureaucracy may block the development of innovative solutions. Furthermore, awareness and perception of the economic return of impact investments, especially in technology-free Nature-Based Solutions, may not yet be fully developed in the private sector. The need for more transparency and detail in impact reporting by both financial institutions and funded entities is another critical issue.

5.4 Financial stakeholders in Galicia

A meeting with key stakeholders was held on September 30th 2024 with selected agents in order to understand better the knowledge and interest in two relevant topics for the Galician demo community system: insurance situation in the aquaculture and fisheries sectors and bankability of the solutions implemented in Transformar.

Ten organizations were invited, and they received the questionnaire before the meeting, including explanations and 9 sections (8 on insurance and 1 on bankability). Six organizations confirmed their attendance but only 4 participated. Mentimeter was used to stir the debate, and discussion was opened after each section. Then, one more organisation answered the questions and sent the comments by email to CETMAR. An attempt was made to obtain a response from Agroseguro and the Insurance Compensation Consortium, and also from OPMEGA (mussel production association -OPP-) but it was not successful.

The questionnaires served to launch the debate with the agents who could potentially have knowledge about the situation. However, it is a subject that is complex for most of them, including CETMAR itself, which is not specialized. For future steps, it would be convenient to (1) adapt the questionnaires to each demonstrator with the help of the task leader (2) hold a workshop with the project partners to clarify concepts and points that should be further explored.

None was familiar with the term "bankability" and they would like to learn more about it. Overall, participants understood that bankability in their work could be determined by confidence, cost quantification, final success (solving the end user's problem), profitability, viability and whether the private sector is assumed to be an investor or not.

Regarding the question on what extent climate resilience/adaptation is considered in their work, the common answer is that it is considered quite a lot. It is of interest to both the administration, insurance companies and sector associations:

- Insurance companies, because they depend a lot on the effects caused by climate change, and it is expected that coverage and prices will vary in the future, as will access.
- The sector and the administration, because they are attentive to what happens in order to be able to adapt in the best possible way.

However, in their opinion, climate change actions for resilience do not usually offer economic benefit or a clear commercial revenue, it is in the interest of the administration to cover these costs. However, sector associations and a few producers are interested in investing in the solutions offered by the TransformAR project, in particular the Mussel Raft Monitoring.

Barriers preventing financing resilience measures were differently ranked in order of importance depending on the type of organization:

- Sector association response: Economic barriers (investment)
- Management response: Social and cultural barriers (mistrust, fear of change)
- Insurance response: public and private sector governance

It was also commented that the importance and characteristics of the barriers can depend and vary on the type of project. Finally, it is perceived that the stakeholders rely on the public sector as the ones more willing to fund or invest in these types of solutions (specially for the pilot phases).

After the meeting, the CETMAR team reflected on the idea of raising awareness on the topic and to prepare an illustrative presentation with the results of other demos, to start spreading and steering this debate in the Galician mussel and clam sectors.

Currently, the funding opportunity of *The Xunta de Galicia* has rised. This established a line of grants for local entities in Galicia to support the development of the PIMA Climate Change project. This initiative focuses on carrying out actions for climate change mitigation and adaptation. The objective is to promote adaptation to both current and anticipated impacts. The PIMA Climate Change project targets municipalities and local entities in urban and peri-urban areas, with a focus on implementing innovative pilot actions and drafting technical projects and reports. The projects include the application of nature-based solutions aimed at preventing risks associated with climate change in urban and peri-urban spaces, such as risks from high temperatures, urban-forest fires, floods, coastal phenomena, droughts, and more.

5.5 Financial stakeholders in Egaleo

Interviews with the financial department of the city of Egaleo, the green department of the city of Egaleo, the national bank of Greece and the Development Association of Western Athens has taken place in the last week of January 2025. The results will be disseminated with the submission of D5.5 in M45.

5.6 Financial stakeholders in Guadeloupe

In Guadeloupe, we have struggled to engage stakeholders from the financial sector to participate in the interviews – only one bank responded to our request and agreed to provide information on the subject in writing. This highlights a broader challenge: the bankability of NbS remains difficult due to the lack of sustainable and appropriate financing for such projects. While solutions such as mangrove restoration, agroforestry, and sustainable watershed management provide undeniable socio-economic and environmental benefits (coastal erosion protection, water quality improvement, carbon storage, etc.), their funding still largely relies on public subsidies and European funds (FEDER, LIFE, Interreg). The private sector remains hesitant, mainly due to the lack of clear financial incentives and insufficient recognition of the economic value of ecosystem services provided by these solutions.

More broadly, **green finance in Guadeloupe** is emerging but faces several challenges. On one hand, local financial institutions are beginning to explore instruments such as green bonds and impact investment funds, but their implementation remains limited. On the other hand, access to financing for green project developers (local authorities, businesses, associations) is often constrained by short-term profitability requirements, whereas NbS generate benefits over the long term. The lack of data on the economic impact of NbS, coupled with the absence of clear financial standards and monetization mechanisms (such as payments for ecosystem services or carbon credits), hampers their attractiveness to investors.

Despite our efforts, mobilizing private financial institutions for the **Local Adaptation Fund in Guadeloupe** has proven to be particularly challenging. Only one bank agreed to allocate €100,000 in direct funding for

a project. This limited engagement raises important questions: either the projects, focused on agriculture, are not considered financially viable enough to meet private sector risk-return expectations, or the fund's structure does not offer sufficient incentives to attract private capital. The absence of mechanisms such as blended finance structures, risk-sharing instruments, or fiscal incentives may further explain the reluctance of financial actors to engage.

Although some initiatives are in place, transitioning toward a more mature green finance ecosystem in Guadeloupe requires a strategic approach that aligns financial incentives with sustainability objectives, de-risks nature-based investments, and integrates NbS more effectively into long-term economic planning.

Climate change impacts are here and now. The impacts on people, prosperity and planet are already pervasive but unevenly distributed, as stated in the new EU Blueprint strategy (European Commission-EC, 2019). To reduce climate-related risks, the EC and the IPCC agree that transformational adaptation is essential. The TranformAr project aims to develop and demonstrate products and services to launch and accelerate large-scale and disruptive adaptive process for transformational adaptation in vulnerable regions and communities across Europe.

The 6 TransformAr lighthouse demonstrators face a common challenge: water-related risks and impacts of climate change. Based on existing successful initiatives, the project will develop, test and demonstrate solutions and pathways, integrated in Innovation Packages, in 6 territories.

Transformational pathways, including an integrated risk assessment approach are co-developed by means of 9 Transformational Adaptive Blocks. A set of 22 tested actionable adaptive solutions are tested and demonstrated, ranging from nature-based solutions, innovative technologies, financing, insurance and governance models, awareness and behavioral change solutions.

TransformAr

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