Taskforce of Innovation Management

Deliverable 1.3

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Deliverable Number and Name	Deliverable 1.3: Taskforce of Innovation Management
Work Package	WP1 – Stocktake, understand and capitalise
Dissemination Level	PU – Public
Author(s)	Thomas Machiels (University of Antwerp)
Primary Contact and Email	Thomas Machiels, thomas.machiels@uantwerpen.be
Date Due	29/02/2024
Date Submitted	25/02/2024
File Name	CFIT_D1.3 TIM_20240229_vf
Status	Final version
Reviewed by (if applicable)	Stella Whittaker (WCF), Marco Carreira Silva (WCF), Nuha Eltinay (ICLEI), Katherine Peinhardt (ICLEI), Luca Constantino Arbau (ICLEI), Tom Coppens (UA), Tine Compernolle (UA)
Suggested citation	Machiels (2024). Taskforce of Innovation Management. CLIMATEFIT.

This document has been prepared in the framework of the European project CLIMATEFIT. This project has received funding from the European Union's Horizon Europe programme under grant agreement no. 101112705.

List of Contents

Tables

Figures

EXECUTIVE SUMMARY

CLIMATEFIT (CFIT) addresses the lack of finance for climate adaptation by providing critical insights to, building the capacities of, and facilitating collaboration between governmental and financial stakeholders. CLIMATEFIT's results will include products and services that aid EU territories in increasing their capacity to initiate financial activities for climate adaptation. CLIMATEFIT will be a demonstration project of innovative financial models, developing investment strategies, plans, and bankable cases for its 20 territories across eight EU countries.

This document describes the purpose, tasks, activities, and expected composition of CLIMATEFIT's Taskforce of Innovation Management (TIM) in relation to CLIMATEFIT's Exploitation and Upscale Plan (E&UP). To maximize the dissemination and implementation of CLIMATEFIT's outcomes, a Taskforce of Innovation Management (TIM) will be formed to help CLIMATEFIT's technical partners identify the innovation potential of CLIMATEFIT's results and propose actions and activities for the exploitation and upscaling of CLIMATEFIT's outcomes and products. Exploiting and upscaling innovative products and services for CLIMATEFIT will support public authorities (PAs) and financing and investment entities (FIEs) primarily in the EU, and possibly at a global scale, to engage in new or increased financial activities for climate adaptation. The TIM's responsibility is to carry out the objectives of the E&UP and its revisions throughout the project and to ensure that CLIMATEFIT's pathway to a broad impact is maintained in these exploitation strategies and activities included in the E&UP.

The TIM is envisioned as an expert panel of around eight members from organizations representing public authorities (PAs), governments, regulators, and financing and investment entities (FIEs) in the EU, as well as academia and related EU Horizon projects. The TIM will consist of two people from academia and/or related EU Horizon projects, two representatives of PAs or organizations of PAs at a European level, two individuals representing FIEs or organizations of FIEs at a European level, one innovation manager who will chair the TIM, and one secretary from the University of Antwerp. The CLIMATEFIT consortium will specifically look for individuals with expertise in innovation from all these sectors. To be eligible as a TIM member, a person must meet the following criteria:

- The person's organization does not have a commercial interest in the use of CLIMATEFIT's key exploitable results.
- The person's organization or project has a large network of PAs and/or FIEs (mainly EU-based).
- The person's organization or project can impact the operations of its members or network.
- The person's organization conducts activities on climate finance, and preferably climate adaptation finance.
- The person is an expert in one or more of the following domains: innovation, climate adaptation, climate finance.
- The person possesses at least one of the skills listed in Section 4.2.

The TIM will identify and propose five types (I-V) of exploitation strategies and activities in three categories aimed at reaching CLIMATEFIT's target audience (PAs and FIEs) in EU territories:

- Commercialization: (I) new or improved consulting and provisional services, and (II) for/non-profit business opportunities.
- Research and academia: (III) follow-up research, and (IV) educational training and a train-the-trainer approach.
- Policy recommendations: (V) policy recommendations, standards, or guidelines.
- Eligible members will be identified and invited between March 2024 and May 2024 to become a TIM member. The TIM will be established, and its composition will be communicated at the end of June 2024. During the remainder of CLIMATEFIT (until December 2026), the TIM will meet online six times, requiring a total commitment of 24 hours from every TIM member (4 hours/meeting).

ABBREVIATIONS

Abbreviations	Description
AFFS	Adaptation Funding and Financing Solution
E&UP	Exploitation and Upscale Plan
EUNLRT	European Network of Local Resilience Taskforces
FIE	Financing and investment entities
GA	Grant agreement
LRT	Local resilience taskforce
OSS	One-Stop-Shop
PA	Public authority
UA	University of Antwerp
TIM	Taskforce of Innovation Management
WP	Work package

GLOSSARY

This glossary contains the key terms of D1.3. The complete CLIMATEFIT glossary is included in Annex 2.

Adaptation Funding and Financing Solution (AFFS): An umbrella term covering individual or combinations of financial instruments, mechanisms, products and vehicles suitable to finance adaptation initiatives and projects. For example, blended finance (CLIMATEFIT project definition

CLIMATEFIT technical partners: Partners leading research and innovation activities, including the development of methodologies and tools. These partners, WCF, UA, CMCC, SEI, SA, ITASIF, ACTERRA, RAMBOLL, are also responsible to produce project deliverables. (CLIMATEFIT project definition)

CLIMATEFIT's target audience: Stakeholders for which CLIMATEFIT's results and outcomes are expected to have added value. The target audience includes public authorities (PAs) and financing and investment entities (FIEs) in the European Union. (CLIMATEFIT project definition)

European Network of Local Resilience Taskforces (EUNLRT): A common network or arena for the Local Resilience Taskforces to discuss financial innovations in resilience to replicate and upscale local experiences. All the LRTs will be part of the EUNLRT represented by local leaders (from FIEs, PAs, and other stakeholders such as NGOs, venture capitalists, impact investors, philanthropists, infrastructure entities, utilities). This network will be linked to existing European and global networks and initiatives such as the European network of Living Labs, Making Cities Resilient 2030, Resilient Cities Network, the EU Smart Cities Marketplace, the Covenant of Mayors - Europe, Carbon Disclosure Project, Climate Policy Initiative, Cities Climate Finance Leadership Alliance thus reaching as many territories as possible. (CLIMATEFIT project definition).

Exploitation and Upscale Plan (E&UP): The E&UP represents the efforts of CLIMATEFIT partners examining project activities, results, and deliverables to ensure their long-term impact and uptake by actors both within and outside of the project consortium. It involves a survey of the landscape of existing practices, initiatives, and projects in the space of climate adaptation financing, as well as the identification of Key Exploitable Results that are primed to add meaningfully to this landscape and achieve impact for CLIMATEFIT and its participant PAS and FIEs. (CLIMATEFIT D6.6)

Exploitation: The use of project results for concrete or practical purposes and refers to uses both during and beyond the project lifetime by audiences like researchers, stakeholders, industry (also SMEs), public authorities, policymakers, and civil society. This generally takes the form of commercial uses and investments, policy and standardisation, and/or research purposes. (CLIMATEFIT D6.6)

Financing & investment entity (FIE): Organisation or stakeholder that enable or do the provision of any type of funding and financing solutions for climate adaptation. (CLIMATEFIT project definition)

Key exploitable results: Deliverables or results from CLIMATEFIT deemed appropriate for Exploitation & Upscaling activities (see definition of E&UP above).

Local Resilience Taskforce (LRT): Specific group of stakeholders with complementary roles, including facilitators, technical experts, financing and investment entities and public authorities, collaborating to address adaptation finance in European territories. (CLIMATEFIT project definition)

One-Stop Shop (OSS): A virtual platform available to stakeholders directly from the project website. It is a unique place to find the main project outputs where potential end users find project resources, acting as a marketplace for the exchange of ideas, tools, good practice, and contacts relating to adaptation finance opportunities. (CLIMATEFIT project definition)

Public authority (PA): Local, regional, or national authorities that have the legal mandate to address climate change within their political jurisdictions. (CLIMATEFIT project definition)

Upscaling: The process of transferring proven social innovations to other actors or contexts thus creating a wider impact," and works towards growth of impact via the mainstreaming of methods, approaches, and results. (European Commission, 2021)

Taskforce of Innovation Management (TIM): An expert panel with the responsibility to support the implementation of CLIMATEFIT's Exploitation and Upscale Plan and its revisions throughout the project. The TIM will help CLIMATEFIT's technical partners to identify the innovation potential of CLIMATEFIT's results and propose exploitation strategies and activities to upscale CLIMATEFIT's outcomes and products. Exploiting and upscaling innovative products and services for CLIMATEFIT will support public authorities (PAs) and financing and investment entities (FIEs) in the EU and possibly on a global scale to engage in new or increase financial activities for climate adaptation financing. To maximize the impact of CLIMATEFIT, the TIM will be composed of members from organisations that represent public authorities (PAs) and financing and investment entities (FIEs) in the EU, and academia or related EU Horizon projects.

Territory: City, region, or community, represented by one or several public authorities. (CLIMATEFIT project definition)

1 Introduction

CLIMATEFIT addresses the lack of finance in climate adaptation. It does so by providing critical insights, building the capacities of, and facilitating collaboration between governmental and financial stakeholders. Aimed at supporting local and regional governments in attracting and orchestrating public and private funding and financing, the project also aims for banks, investors, and insurers to become more committed and equipped in identifying and accessing investment opportunities that contribute to climate adaptation. Tailored investment plans, investment strategies, and bankable investment cases are developed for climate adaptation. Finally, local Resilience Taskforces (LRTs) are established to boost climate adaptation financing in Europe.

CLIMATEFIT's results will include products and services that aid EU territories to increase their capacity for initiating in climate adaptation financing. Innovations to facilitate climate adaptation financing will be co-developed with other EU Horizon and Mission Projects, most notable Pathway2Resilience (P2R).[1] CLIMATEFIT will be a demonstration project of innovative financial models by developing investment strategies, plans, and bankable cases for its 20 territories from eight EU countries. Through this work, CLIMATEFIT is expected to yield innovations in the form of new knowledge, ideas, concepts, data, methods, governance, and business and financial models that are valuable for public authorities (PAs) and financing and investment entities (FIEs). Key exploitable results and actions to exploit and upscale CLIMATEFIT's results are described in the Exploitation and Upscale Plan (E&UP), Deliverable D6.6, D6.7 and D6.8 of the project.

A Taskforce of Innovation Management (TIM) will be formed that will assist CLIMATEFIT's technical partners (work package and task leaders) to identify innovative results from the project. The TIM will facilitate the exploitation and upscaling of CLIMATEFIT's results by proposing actions to link up to and create partnerships with existing initiatives of climate adaptation (finance) in the EU, and on a global scale if possible. The TIM is foreseen to be an expert panel of around eight members from organisations that represent public authorities (PAs) and financing and investment entities (FIEs) in the EU, and academia and related EU Horizon projects. The TIM's members will be experts in one or more of the following domains: climate adaptation, sustainable finance, climate finance, innovation.

This document describes the purpose, tasks and activities, and the desired composition of the TIM in relation to the E&UP. It further details how the TIM relates to EU climate adaptation policies and initiatives, and to other CLIMATEFIT bodies. More details about expected innovations and actions for exploitation and upscaling can be found in CLIMATEFIT's E&UP. More details about the wider communication and dissemination of the project activities can be found in the Communication and Dissemination Plan (C&DP), which aims to promote Project Results across external stakeholders, and the general audience, to maximise its impacts and visibility across Europe and beyond.

[1] https://www.pathways2resilience.eu/

1.1 TIM according to the CLIMATEFIT proposal

The Taskforce of Innovation Management is part of work package (WP) 1, Task 1.3: "We will form a Taskforce of Innovation Management (TIM) (D1.3, M6) at the commencement of the Project in WP1. The TIM will provide robust approaches and processes to maximise dissemination and implementation of innovation. (Grant Agreement – GAP). The TIM will be set up by University of Antwerp (UA) to implement CLIMATEFIT's Exploitation and Upscale Plan (E&UP). The E&UP is a project deliverable with the purpose is to elaborate on how to link up to and create partnerships with existing initiatives:

- **Deliverable D6.6** – Exploitation and Upscale Plan (E&UP), project month 6, February 2024.
- **Deliverable D6.7** – Exploitation and Upscale Plan (E&UP) first update, project month 30, February 2026.
- **Deliverable D6.8** – Exploitation and Upscale Plan (E&UP) final update, project month 40, December 2026.

The TIM supports the implementation of the E&UP by proposing exploitation strategies and activities, and the TIM will inform revisions of the E&UP throughout the project. the Taskforce of Innovation Management (TIM) formed at the commencement of the project will be used to ensure the pathway to impact is maintained in these activities (Grant Agreement). The TIM is expected to be the operational body of the E&UP. In doing so, the TIM contributes to CLIMATEFIT's Expected Outcome 4: A better understanding of mechanisms that would accelerate the transformation of the economic system and financial sector to internalise and reward climate adaptation and resilience aligned investments.

1.2 The meaning of innovation in CLIMATEFIT

The word "innovation" is defined in the Cambridge Dictionary[2] as "a new idea or method; the creating and use of new ideas or methods". In an EU context, innovation has been described or defined in the following ways as displayed in Table 1.

Table 1. Definitions of innovation in an EU-context

Source	Definition or description
Eurostat glossary[3]	Innovation is the use of new ideas, products, or methods where they have not been used before. An innovation is defined as a new or significantly improved product (good or service) introduced to the market, or the introduction within an enterprise of a new or significantly improved process.
Business Europe[4]	Innovation, the process whereby new ideas are generated and turned into economic value, is a crucial requirement for economic growth in the long term and for job creation in Europe.

[2] https://dictionary.cambridge.org/dictionary/english/innovation
[3] Eurostat Glossary, definition of innovation
[4] Business Europe, definition of innovation.

Innovation Union[5]	There is no one single definition. But innovation as described in the Innovation Union plan broadly means change that speeds up and improves the way we conceive, develop, produce, and access new products, industrial processes and services. Changes that create more jobs, improve people's lives, and build greener and better societies.
EU Leader Tool-kit[6]	Innovation can be defined as the development or adoption of new concepts or ideas, and/or the new or adopted ideas themselves as well as the successful exploitation of new ideas. Creativity is having the ideas, and innovation is its application. Creativity only emerges when the innovator takes the idea and does something with it. Successful exploitation of new ideas can lead to any form of increased organisational or social benefit.
EU's Innovation Policy[7]	The importance of innovation policy is widely recognised, and it is closely linked to other EU policies, such as those on employment, competitiveness, the environment, industry, and energy. The role of innovation is to turn research results into new and better services and products to remain competitive in the global marketplace and improve people's quality of life.

In CLIMATEFIT, innovations are project results that provide new or improved products and services that have the potential to create value for CLIMATEFIT's target audience: PAs and FIEs. Results can be any output of the project, such as ideas, concepts, data, knowledge, methods, business and financial models, or training materials. The value created will lie in the products' and services' ability to help bridge the climate adaptation finance gap by supporting PAs and FIEs in various ways. CLIMATEFIT will achieve seven main results, as foreseen in the grant agreement:

1. **A Financing Landscape**: Improved understanding of needs, barriers, enablers, and drivers as well as the actors and regulation frameworks affecting the mobilisation and leverage of funding and finance.
2. **A Capacity building programme**: Improved capacities of public authorities to develop investible climate resilience projects and bankable project pipelines (PR2), achieved through dedicated training sessions on planning and financing skills and tools needed to attract funding and finance at the local level.
3. **A Public Authority manual for accessing and leveraging finance**: Set of principles and a design tool developed to help an actor increase climate adaptation and resilience aligned investment.
4. **A Financing and Investment Entity's path for accelerating finance**: Improved awareness, knowledge, and capabilities within FIEs to co-develop investment concepts, incentive mechanisms and Adaptation Funding and Financing Solutions. This will be achieved through different steps undertaken in collaborations with FIEs and other actors to build and rigorously experiment with Adaptation Funding and Financing Solutions on CLIMATEFIT's four test beds territories.

[5] European Commission Innovation Union, description of innovation
[6] European Commission's Leader Tool-kit, definition of innovation.
[7] European Commision's Innovation Policy, definition of innovation

5. **Local Resilience Taskforces**: Specific group of stakeholders, including FIEs and PAs, with common interest and complementary roles to tackle the challenge of climate adaptation financing in their local context with a catalytic and systemic approach. This creates a local dynamic and mechanism to match local supply and demand.
6. **Recommendations for EU adaptation and sustainable finance policies**: Recommendations for local and national government policies (industry, fiscal, market, economic etc.) that would accelerate the transformation of the regulatory system, economic system, financial sector, and market architecture to internalise and reward climate adaptation and resilience aligned investments.
7. **A One-Stop Shop**: A virtual platform available to stakeholders directly from the project website. It is a unique place to find the main project outputs where potential end users find project resources, acting as a marketplace for the exchange of ideas, tools, good practice, and contacts relating to adaptation finance opportunities. All products for exploitation and upscaling are gathered on the **Climatefit One-Stop-Shop** (OSS).

Additionally, the process leading to these main results can generate outcomes that in themselves are potential innovations, meaning that main results can be composed of multiple project outputs that have a standalone value for our relevant stakeholders. For example, main result A Financing Landscape will be achieved through a stock-taking exercise that describes the investment landscape of approaches developed by supply and demand. This investment landscape maps the sources, actors, and possible Investment Concepts and AFFS for the 20 territories, their FIEs, and 20 international good practices. One output is an in-depth analysis of 20 international good practices that were sampled from a database with more than 250 international examples of innovative financial models or financing approaches for nature and climate adaptation investments. Some mitigation models are also included because of their transferability potential.

The database is developed by CLIMATEFIT and is an example of a standalone project output and innovation that has potential value for PAs and FIEs. The database is a standalone project output because it is only one part of the process of producing A Financing Landscape. The database can be an innovation because it is, to our knowledge, the largest database that documents climate related investments and initiatives from the perspective of finance. It is valuable for PAs and FIEs because it offers a large database of inspirational examples for innovative forms for climate adaptation financing. Innovative forms of financing and funding are financial models and instruments other than just public funds and grants, which are dominant instruments in the EU for climate adaptation financing (Hudson et al., 2023). Practices from the database could be used as examples in training materials or policy recommendations.

Whether results can be considered new or improved products and services that have the potential to create value for CLIMATEFIT's target audience (PAs and FIEs) will become clear over the course of the project. **The TIM will assist in identifying results as innovations with a potential for exploitation and upscaling**. Many of these innovations have been included as Key Exploitable Results, which are outlined in D6.6 E&UP, including their purpose, value-add, audiences, and Relevant Pathways and Potential Actions for Exploitation and Upscaling.

1.3 TIM's relation to financing barriers for climate adaptation

Academic research has increasingly identified financing barriers for climate adaptation, climate finance, and nature finance from the perspective of PAs and FIEs. At the time of writing this paper there is a very small number of scholarly studies covering adaptation finance. Some of the most frequently mentioned financing barriers for PAs include (den Heijer & Coppens, 2023a; Mayor et al., 2021; Moser et al., 2019; Toxopeus & Polzin, 2021):

- Public authorities face budgetary pressures. They often have limited budgets and must decide how to allocate them to a wide variety of sectors. Climate adaptation is those situations of less importance than, for example, social services.
- There is often a lack of political willingness within a PA.
- Innovative financial models often mean a radical shift from business-as-usual that requires changes to internal processes as well as regulatory and legal frameworks.
- Silo gaps lead to a lack of collaboration between different public sectors, departments, or administrations. Collaboration across disciplines is important because climate adaptation activities touch on multiple disciplines and departments within a PA (e.g., environment, spatial planning, economy, water management, green infrastructure, public domain, agriculture).

Some of the most frequently mentioned financing barriers for FIEs include (Bisaro & Hinkel, 2018a; Davies et al., 2018; den Heijer & Coppens, 2023b; Keenan et al., 2019; Toxopeus & Polzin, 2021):

- Climate adaptation financing usually does not have immediate revenue streams and benefits are rather long-term public values than private short-term cash flows. This discourages private investors that are looking for profit-making activities.
- Innovative financial models include financial uncertainties expressed in revenue stream instabilities, insufficiencies, or unpredictability.
- Many climate adaptation benefits are difficult to monetize.
- Lack of a track record, precedents, and sharing expertise about good practices.

An overall barrier is a lack of cooperation and working together across public and private actors and financiers. New forms of cooperation and new financial models, arrangements, and instruments are required to overcome barriers to climate adaptation financing and bridge the climate adaptation finance gap (Bisaro & Hinkel, 2018b). In CLIMATEFIT's WP1, the barriers to climate adaptation finance among PAs and FIEs in 20 territories will be further researched.

The TIM will play an important role to scope how CLIMATEFIT's results can be exploited and upscaled in Europe to overcome barriers for climate finance adaptation from the perspective of PAs and FIEs.

2 The purpose and tasks of the TIM

2.1 TIM's purpose

The TIM will help CLIMATEFIT partners to identify the innovation potential of CLIMATEFIT's results and propose actions and activities for the exploitation and upscaling of CLIMATEFIT's outcomes and products. Exploiting and upscaling innovative products and services for CLIMATEFIT will support PAs and FIEs in the EU to the engage in new or increase financial activities for climate adaptation financing.

The TIM members will represent CLIMATEFIT's target audience: PAs and FIEs in the EU. Additionally, The TIM will have members that represent related EU-funded Mission Projects[8] to scope the potential for collaboration, exploitation, and upscaling across project borders. More details about the TIM's members are provided in Section 3. In case CLIMATEFIT outcomes and products have a global exploitation and upscaling potential, the TIM will consider this in alignment with the Advisory Board's activities (see Sections 4.3 and 4.5).

The diverse and multidisciplinary character of the TIM ensures that the innovation potential is scoped from the perspective of PAs and FIEs. When it comes to climate adaptation financing, PAs and FIEs have different needs and require different forms of support. The TIM will identify exploitation strategies and activities (in accordance with D6.6 E&UP) that build the capacity of PAs to identify, orchestrate and attract various public and private financing sources for climate adaptation financing. For FIEs, the TIM will identify exploitation strategies and activities that build the capacity of FIEs to identify and access resilient investment opportunities. Exploitation activities aim to target PAs and FIEs on an EU-wide level to maximize CLIMATEFIT's impact. The members of the TIM will be affiliated with PA or FIE organisations or institutes that operate on the scale of the EU work, and for which CLIMATEFIT's results have relevance. This ensures that participation in the TIM is of value to the TIM's members themselves because they can disseminate CLIMATEFIT's results among their organisations.

2.2 TIM's contribution to EU climate adaptation policies and initiatives

The TIM will identify innovation opportunities and propose actions to maximise the impact of CLIMATEFIT and to trigger innovations in the financial landscape for climate adaptation in the EU. In doing so, the TIM's work will help to ensure that CLIMATEFIT's results support and contribute to the EU Mission on Adaptation and the execution of relevant Green Deal-related initiatives and projects.[9]

Financing climate adaptation measures has emerged as a critical aspect of the EU's commitment to building resilience and fostering sustainability. The European Union has been actively working on various regulatory frameworks to address climate change, including instruments regulations to financing and funding climate adaptation. In 2020, the **EU Green Deal** set the target of climate neutrality (put into

[8] Mission projects are EU-funded projects that have completed or are undertaking research and developing innovative approaches and options for climate adaptation and associated guidance, tools, data, and case studies to help regional and local authorities deliver the EU Mission on Adaption to Climate Change.
[9] This section is adapted from D6.6's Section 3.2 and 3.3, which describes in more detail the relevance of CLIMATEFIT in the EU Climate Adaptation Context.

law the following year with the EU Climate Law) to be achieved by 2050.[10] One year later, the **EU Adaptation Strategy** (put into action with the EU Mission on Adaptation to Climate Change) added the resilience goal for Europe to become the first resilient continent by 2050 as complementary and synergic to climate neutrality, becoming a key priority under the same Green Deal umbrella.[11]

The aspiration to make Europe resilient and climate neutral in the next few decades resulted in the development of important additional regulations, strategies, platforms, and initiatives. The Sustainable Finance Strategy plays a crucial role in mainstreaming finance into climate change adaptation by integrating environmental, social, and governance (ESG) criteria into financial decision-making. Adopted as part of the EU Green Deal, the **Sustainable Finance Strategy** aims to redirect financial flows towards sustainable and resilient activities, including those related to climate change adaptation.[12] As an important component of the strategy, the **EU Taxonomy Regulation** establishes a classification system for environmentally sustainable economic activities.[13] It aims to provide clarity on what can be considered environmentally sustainable, including activities contributing to climate change adaptation. By setting criteria for sustainable activities, the taxonomy aims to guide investors and financial institutions toward funding projects that enhance climate resilience. Through the EU Taxonomy and other relevant initiatives (such as the InvestEU programme[14] and the EU Smart Cities Marketplace[15]), the European Union has pushed for a higher involvement of the private sector (including investors and insurers) into the development of climate adaptation projects.

The **EU Mission on Adaptation to Climate Change** is currently the main programme to accelerate climate resilience across European regions and communities. As mentioned in the previous chapter, this Mission was established in 2022 to translate the EU Adaptation Strategy into a shorter-term implementation plan. The EU Adaptation Strategy set the ambition to make Europe the first resilient continent by 2050, while the Adaptation Mission aims to accelerate resilience in 150 regions and communities across Europe by 2030. By supporting selected territories to become resilient in the current decade, the Mission has key relevance in testing innovative adaptation planning and financing solutions and enabling replication, thus accelerating and enabling the transition to a more climate resilient Europe. CLIMATEFIT's role in the Adaptation Mission is outlined in D6.6 E&UP in section 3.3.

The TIM plays an important role in supporting the implementation and execution of the Mission on Adaptation to Climate Change to achieve goals of the EU Adaptation Strategy and the EU Green Deal. It achieves this by providing guidance to CLIMATEFIT on scaling up project outcomes to enhance climate adaptation financing and accelerate the transition to a climate-resilient society within the EU. **Figure 2** shows CLIMATEFIT's position as a Mission Project within the EU climate policy framework.

[10] The European Green Deal and Fit for 55
[11] EU Adaptation Strategy
[12] European Commission, Sustainable finance
[13] The EU Taxonomy for Sustainable Activities
[14] https://investeu.europa.eu/index_en
[15] https://smart-cities-marketplace.ec.europa.eu/

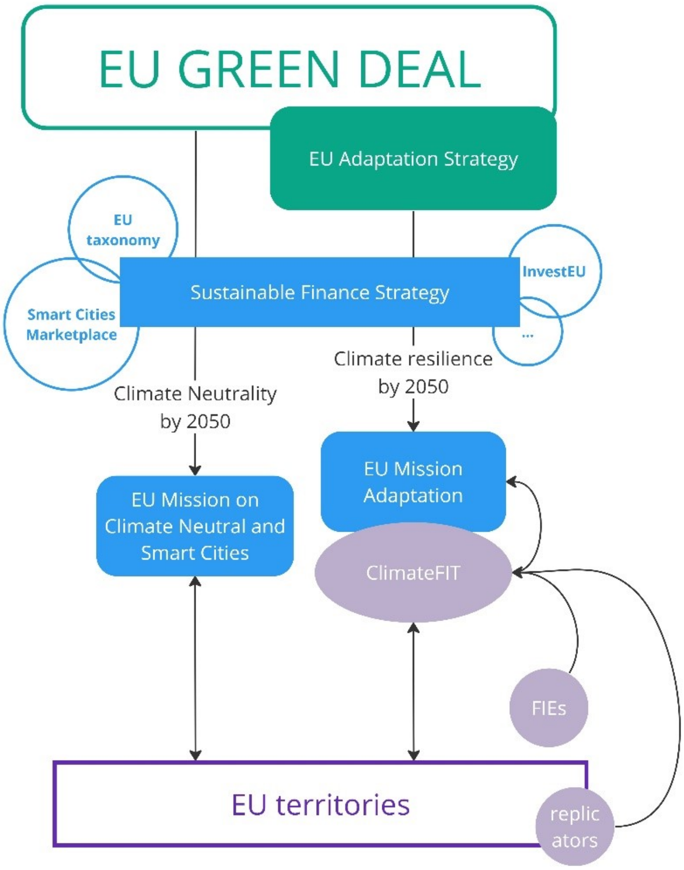

Figure 1. CLIMATEFIT's position in the EU climate policy framework. Source: ICLEI, CLIMATEFIT D6.6

Current EU initiatives are illustrative of the increasing importance of and attention to climate adaptation. At the same time, climate mitigation still receives more attention than climate adaptation. Globally, climate finance in 2021 and 2022 has doubled compared to 2019 and 2020, with a total of $1,265 billion (Buchner et al., 2023). Of that total, only $63 billion was used to finance climate adaptation activities, $51 billion was used to finance activities that contribute both to adaptation and mitigation, meaning 9% of all climate financing. Climate Policy Initiative's "Global Landscape of Climate Finance 2023" report draws two important conclusions about adaptation finance (Buchner et al., 2023, p. 6):

- "While adaptation finance reached an all-time high of USD 63 billion, growing 28% from 2019/2020, this still falls far short of estimated needs of USD 212 billion per year by 2030 for developing countries alone."
- "Tracked adaptation finance remains dominated by public actors (98%), with fragmented flows from the private sector. Adaptation finance tracking challenges continue to impede our understanding of progress of both public and private flows."

There is potential for innovative financial solutions already in place for mitigation to contribute to financing climate adaptation efforts, but they are not yet applied in climate adaptation financing. At the same time, climate adaptation financing may require new and innovative financial solutions which will be researched and developed in CLIMATEFIT. Exploiting and upscaling adaptation funding and financing solutions is urgent to bridge the climate adaptation financing gap. The TIM will play an important role and will advise CLIMATEFIT how it can exploit and upscale (innovative) results and outcomes to facilitate a faster growth of climate adaptation financing and an increase of private sector participation in adaptation finance.

2.3 TIM's responsibility and tasks

The **TIM's responsibility is to carry out the objectives of the E&UP and its revisions throughout the project**, and to ensure that CLIMATEFIT's pathway to a broad impact is maintained in these exploitation strategies and activities that are included in the E&UP. Exploitation strategies and activities will have to be developed to facilitate exploitation and upscaling of the project results that are believed to be innovative and/or create added value for PAs and/or FIEs in Europe regarding climate adaptation finance. The strategies aim to structure and coordinate the exploitation activities to maximise the impact of the project results. **Five exploitation strategies and activities in three categories** are proposed:

- **Commercialization** with two Relevant Pathways and Potential Actions for Exploitation and Upscaling:
    - New or improved consulting and provisional services (commercial). Consulting and provisional services, depending on the content, can target PAs or FIEs.
    - For-profit and non-profit business opportunities or technologies mainly target FIEs, but could also be applicable to, or involve PAs.
- **Research and Academia** with two Relevant Pathways and Potential Actions for Exploitation and Upscaling:
    - follow-up research (non-commercial). This would mainly entail scoping possible collaborations across EU Horizon projects related to CLIMATEFIT. Follow-up research can include, but is not limited to, sharing of knowledge and data to create new combined data(sets) for further analyses, initiating new research proposals/projects.
    - Educational training and train the trainer approach (non-commercial). Depending on the training material, training activities can target PAs or FIEs.
- **Policy** with one Relevant Pathway and Potential Action for Exploitation and Upscaling: policy recommendations, standards, or guidelines (non-commercial). These target PAs at EU, national, regional, or municipal level.

The TIM will perform the following **leading tasks**:

- Scope the innovation and exploitation potential of results.
- Propose ownership rights of results after the project. There are generally two types of protection. First, open innovation and publication of results to reach a broad audience of PAs and FIEs in Europe with IP protection through copyrights. Second, legal protection of intellectual property through copyrights, patents, or trademarks.
- Propose exploitation strategies and activities for exploitation and upscaling to be incorporated in the E&UP first update (D6.7, February 2026) and final version (D6.8, December 2026).

- Determine the resources required to execute the proposed exploitation strategies and activities.
- Propose actions to monitor and evaluate the execution of the E&UP after CLIMATEFIT.

The TIM will perform the following **supporting tasks**:

- Proofread and provide feedback on the first update (D6.7) and final version (D6.8) of the E&UP.
- Liaise with the TIM member's networks of PAs, FIEs, and the scientific community to initiate the execution of exploitation activities and strategies and promote CLIMATEFIT's key exploitable results.

When the TIM is established (see Section 3), the first E&UP (D6.6) will be available. This E&UP will include an overview of expected key exploitable results for every work package, as proposed by the CLIMATEFIT partners in preparation of D6.6. This will be the departure point for the TIM to perform its tasks. Figure 1 gives an overview of the relation between the TIM and the E&UP, whereby the TIM serves as the operational body that takes carriage of the E&UP, focussing on five possible exploitation activities and strategies in three categories.

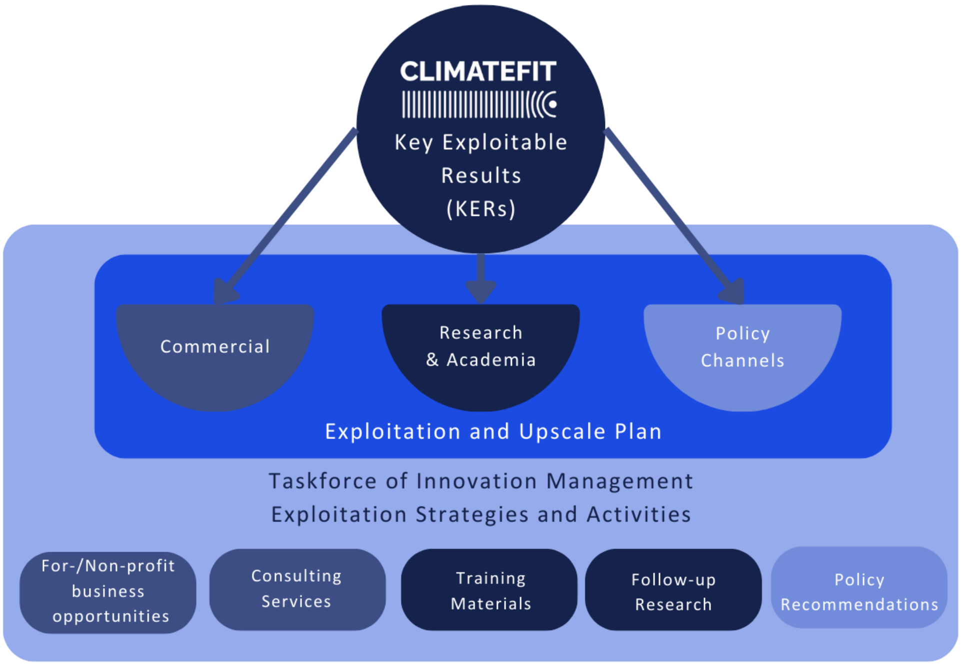

Figure 2. Relation between the TIM and the E&UP. Source: ICLEI, CLIMATEFIT D6.6 E&UP

3 Key Exploitable Results (E&UP) and CLIMATEFIT deliverables

The E&UP (D6.6) includes a first iterative list of Key Exploitable Results, deliverables or results from CLIMATEFIT deemed appropriate for Exploitation & Upscaling activities. Key exploitable results are identified by consortium partners that are responsible for deliverables, WPs, and WP tasks. The key exploitable results have been identified in a way that they can be immediately used by the TIM to identify exploitation strategies and activities. For each key exploitable result, its value-add in the landscape of climate adaptation finance, its intended main audiences, and potential pathways for Exploitation & Upscaling are described. D6.6 is a confidential project deliverable, and its contents can therefore not be included in this deliverable. When potential TIM members are contacted about the TIM, the E&UP will be shared with them.

Potentially, each WP task could have key exploitable results. On a higher level, the TIM can identify exploitation strategies and activities to upscale and increase the impact of the following deliverables on an EU-wide level:

- **D1.1 – Adaptation investment landscape**. Provides an approach to map and assess the investment landscape in a territory. It includes the documentation of both supply and demand approaches and maps the sources, actors, and possible Investment Concepts and AFFS for the 20 territories, their FIEs and frames international good practices within these individual landscapes. This deliverable furthermore provides maturity assessment models as approaches to assess the investment maturity for PAs and FIES.
- **D2.1 - Capacity building package for PA and for FIEs**. Compiles the 4-level learnings, tools, processes, and methods, accessible on the e-learning platform.
- **D2.2 - Guidance document on the role of FIEs to reduce the climate resilience financing gap**. Outlines highlights and takeaways from sharing knowledge activities between organizations dedicated to research on these topics (such as ITASIF) and financial operators who will have had the opportunity to meet and engage in dialogue on these issues.
- **D2.3 – Report containing methodology to build investment strategy**. Defines guidance to support public authorities defining pipelines of projects, identifying, and articulating the funding and financing sources and pre-matching with Investment Concepts.
- **D2.4 – E-learning platform**. The e-learning platform compiling materials and lessons used and developed in PA training and FIE awareness raising activities (WP2). The platform will be used in the territories, replicators, and any additional territory.
- **D3.1 – Report containing guidelines to build investment plan**. Defines a common process for translating investment strategies into credible and scalable investment plans.
- **D3.2 - Guidance document on suitable Incentive Mechanisms**. Describes a range of Incentive Mechanisms and a set of policy recommendations.
- **D4.1 – Report on FIEs' path for accelerating resilience finance**. Aims to promote innovative Adaptation Funding and Financing Solutions and to improve the integration of climate resilience assessment into the investment processes of FIEs.
- **D4.3 – Guidelines for PA on manual for accessing and leveraging finance**. Compiles the improved methodology for investment strategies, investment plan and cases.
- **D5.1 – Guidelines to create and expand the LRT**. Provides guidance to engage stakeholder, create and upscale Local Resilience Taskforces, from one step to another.

- **D5.3 – CLIMATEFIT One-Stop Shop Platform final release**. Propose one unique place to find the main outputs and act as a marketplace for public authorities and FIEs.
- **D6.1 – Draft white paper for policymakers and practitioners**. Provides recommendations to support the mainstreaming of climate resilience finance. This also includes subsequent versions: D6.3 (further draft), and D6.4 (final white paper).

4 TIM membership and structure

4.1 TIM's structure and members

CLIMATEFIT departs from the **triple helix model of innovation** to identify members for the TIM. The triple helix model of innovation refers to a set of interactions between **academia** (the university), **industry** and **governments**, to foster economic and social development in a context of knowledge-based economic development (Etzkowitz & Leydesdorff, 1995). Academia traditionally refers to the research community of universities and research institutes. In the context of CLIMATEFIT, academia is more broadly interpreted to also include EU research projects with similar goals. Collaborations with industry and government are needed to ensure the uptake of CLIMATEFIT's knowledge by society to increase financial activities for climate adaptation financing. In CLIMATEFIT, government means public authorities (local, regional, national), and industry means financing and investment entities (FIEs). The TIM will include members of academia or related EU projects, and organisations that represent PAs (government) and FIEs (industry) on an EU-level sectors to maximise the impact of CLIMATEFIT. **The TIM is expected to have a maximum of eight members**:

- Two people from academia and/or related EU Horizon projects.
- Two people that represent PAs or organisations of PAs on a European level.
- Two people that represent FIEs or organisations of FIEs on a European level.
- One innovation manager that chairs the TIM, this could be one of the above six people. The chair is knowledgeable about EU's climate policies, with a specific focus on financing. The chair will be responsible for leading the TIM meetings and preparing the agenda of TIM meetings. The chair will also be invited to (digitally) attend the consortium meeting (2/year) to present an update about the TIM's activities.
- One secretary from University of Antwerp (UA), the CLIMATEFIT partner responsible for the TIM as described in the Grant Agreement (GA). The secretary is responsible for establishing the TIM by searching and inviting potential members. Once the TIM is established, the secretary will handle the TIM's practicalities to support the chair, such as, but not limited to, setting meeting dates and sending invitations, making meeting minutes, prepare the TIM meeting agendas, liaising between the TIM and the other CLIMATEFIT partners, report on the TIM's activities during CLIMATEFIT meetings.

In line with **EU's Gender Equality Strategy** for gender balance in corporate boards and the management of EU institutions and bodies[16], we strive for a 50% gender balance, meaning that three out of six or seven TIM members are represented by the same sex, excluding the UA secretary. We will only deviate from this ambition if the gender balance cannot be achieved due to practical reasons (e.g., availability and willingness to participate of invited TIM members).

Annex 1 gives an overview of EU projects, PA and FIE organisations that operate on an EU level, and other relevant organisations from which representatives can be invited as members of the TIM. This is a non-exhaustive list and serves to illustrate the type of organisations or projects that CLIMATEFIT will target and contact to compose the TIM. They preferably have a connection with climate finance. Every person that accepts the invitation will also be asked if he/she wants to chair the TIM. **To be eligible as a TIM member, a person must meet as many of the following criteria as possible**:

- The person's organisation does not have a commercial interest in the use of CLIMATEFIT's key exploitable results.
- The person's organisation or project that has a large network of PAs and/or FIEs.
- The person's organisation or project can impact the operations of its members or network.
- The person's organisation performs activities about climate finance, and preferably climate adaptation finance.
- The person is an expert in one or more of the following domains: innovation, climate adaptation, climate finance.
- The person has at least one of the skills listed in Section 4.2.

The Triple Helix model has been expanded since its conception to foremostly include civil society or (local) communities. The involvement of this sector is of crucial importance to ensure a broad support of climate adaptation activities. Addressing climate change successfully requires efforts and support from all layers of society. However, CLIMATEFIT's target audience is PAs and FIEs, and the TIM will therefore be limited to members from organisations that represent our key audience on an EU level, alongside academia. Civil society and (local) community organisations with a focus on climate change or climate finance will be invited to be a member of the Local Resilience Taskforces (LRTs) that will be established for CLIMATEFIT's leader territories (Belgium, France, Romania, Italy). Such organisations are expected to have deep knowledge about their territory that would be of greater value for the LRTs than the TIM. While the LRTs are focused on their territory, the TIM has an EU-wide scope to facilitate a maximum impact of CLIMATEFIT's results in EU territories.

4.2 Skills of the TIM members

A diverse team would contribute varied perspectives and skills, fostering a robust environment for innovation within the large research project. The collaboration of these specialists allows for a holistic approach to innovation management,

[16] European Commission, Gender equality strategy

considering technical, financial, ethical, and market-related aspects while keeping the project aligned with its goals. We strive to compose a diverse team that possesses skills and competencies from as many domains as possible, such as:

- **Project Managers**. Professional responsible for planning, executing, and closing projects. They are experts in overseeing all aspects of a project, including defining goals, setting timelines, allocating resources, managing budgets, and coordinating the efforts of team members.
- **Innovation Strategists**: Professionals and academics skilled in devising innovation strategies and approaches aligned with project goals, market needs, and technological advancements.
- **Subject Matter Experts**: Experts in the specific research field or domain targeted by the project, providing deep knowledge and insight into the area of study.
- **Technology Specialists**: Professionals with expertise in emerging technologies or tools relevant to the research, aiding in the integration of cutting-edge technology into the project.
- **Data Analysts and Scientists**: Data experts capable of analysing complex datasets, identifying patterns, and deriving actionable insights to enhance innovation.
- **Design Thinkers/UX Experts**: Those skilled in design thinking and user experience (UX) to ensure that innovations are user-centric and intuitive.
- **Legal and Compliance Advisors**: Professionals knowledgeable about intellectual property, patenting, and regulatory compliance issues related to innovations.
- **Financial Analysts**: Individuals capable of evaluating the financial viability of innovations, conducting cost-benefit analyses, and exploring funding opportunities.
- **Communication and Marketing Specialists**: Experts in communicating innovation value propositions, marketing, and creating engagement strategies with stakeholders.
- **Change Management Experts**: Professionals adept at managing organisational change and facilitating the adoption of innovations within the project framework.
- **Ethics and Social Impact Advisors**: Individuals focused on ensuring ethical considerations and assessing the social impact of innovations.
- **Collaboration Facilitators**: Professionals skilled at fostering collaboration among team members, departments, and external stakeholders to encourage innovation exchange and partnerships.

4.3 TIM's relation to other CLIMATEFIT bodies

The formation process of the TIM will start in March 2024, immediately after the completion of this deliverable. The aim is to complete the formation process and officially establish the TIM at the end of June 2024 (project month 10), in accordance with the end date of CLIMATEFIT's WP1. This will be done by University of Antwerp (technical partner).

Because TIM members participate voluntarily in the TIM, we avoid asking too much time commitment by ensuring that possible members are not already part of, or will not become part of other CLIMATEFIT bodies, specifically the Advisory Board, the LRTs, the PAs and FIEs (in the CLIMATEFIT adaptation finance network) and the European Network of Local Resilience Taskforces (EUNLRT). The TIM will differ significantly in its purpose and tasks from these three bodies:

- The main objective of the **Advisory Board** is to enhance the scientific excellence and innovative character of the project, through the provision of external high-level advice, supervision, and guidance. This includes insights to enhance the quality and impact of the project, eventually maximizing the uptake of project results by the financial sector and governments across Europe. The TIM is focused on identifying exploitation opportunities to upscale innovative project outcomes across territories and FIEs in the entire EU beyond those already involved in CLIMATEFIT. The Advisory Board is more focused on following up on CLIMATEFIT's overall progress and project delivery, and the board provides advice that affects and benefits the execution of CLIMATEFIT's work packages and tasks within the consortium.
- The **LRTs** are specific groups of stakeholders with complementary roles, including facilitators, technical experts, financing and investment entities, government, regulators, and public authorities, and are set up in CLIMATEFIT's eight territories to collaborate and to tackle the challenge of climate resilience financing in their local context with a catalytic and systemic approach. The LRTs will follow a dynamic and user engagement close to the Living Lab approach. All the LRTs will be part of the **EUNLRT** represented by local leaders, providing a common arena for the LRTs, to discuss financial innovations in resilience to replicate and upscale local experiences. The LRTs are focused on the local context of CLIMATEFIT's twenty territories and are therefore composed of stakeholders with local knowledge and expertise, whereas the TIM will facilitate the exploitation and upscaling of CLIMATEFIT's results in the entire EU, beyond CLIMATEFIT's territories. The EUNLRT targets PAs in Europe, whereas the TIM aims to support exploitation and upscaling that target both PAs and FIEs.
- **Consortium partner members** are not invited to become TIM members if they are already active within CLIMATEIFT, to ensure that the TIM time commitment does not interfere with their project activities. Members of consortium partners Partner organizations can be involved if they are not directly involved in CLIMATEFIT. Consortium partners are indirectly involved in the TIM by proposing key exploitable results for the E&UP that are further developed into propositions for exploitation strategies and activities by the TIM members.

4.4 TIM's formation process

The formation process of the TIM will be caried out by University of Antwerp from March 2024 to June 2024 through the following steps:

1. For each organisation listed in Annex 1, one or two key people are identified. The profile of each person is described by assessing which criteria (Section 4.1) they meet and which skills (Section 4.2) they possess (March 2024). The result is a profile longlist.

2. The profile longlist is presented to the consortium members for feedback and additional suggestions. A discussion will be held during the CLIMATEFIT second consortium meeting, 25-27 March 2024, Ljubljana, Slovenia. The partners will be specifically asked if there is an overlap with LRTs and the EUNLRT. In case of an overlap, a person or organisation will be excluded from the profile longlist if he/she would be a more suitable member for an LRT, or if he/she is preferred to be invited for EUNLRT related activities. The advisory board is already established, and its members will not be included on the profile longlist. The outcome is a final profile longlist with opinions from consortium members about the most or least interesting profiles.
3. From the profile list, fourteen people will be selected who best meet the criteria for eligible members (Section 4.1) who possess a diversity of skills (Section 4.2). These will be placed in shortlist A and shortlist B. Each shortlist has seven people. (April 2024), at least two from research, FIE organisations, and PA organisations. To ensure inclusive access for organisations in the EU, Shortlists A and B will be diverse and an organisation will only be placed on one shortlist. That way, Shortlists A and B will have people from fourteen different organisations. If no person can be identified but an organisation is highly relevant for the TIM, the organisation as a whole will be added to shortlist A or B, and a general email address will be used to contact the organisation.
4. Shortlist A contains the people that best match the criteria for eligible TIM members. These are the preferred members of the TIM and will be invited to become a TIM member via email in early April. Each email will include a copy of this deliverable, a copy of D6.6 (E&UP), and a TIM brochure that allows them to understand the TIM's purpose, roles, time commitment, and benefits in one minute. Each person will also be asked to suggest someone else from their organisation if he/she is not available or believes that someone else is a more suitable candidate.
5. If a person or organisation from shortlist A declines, or does not respond within two weeks, then a complementary person or organisation from shortlist B will be contacted.
6. People that accept will be asked to complete a one-page profile form, so that we have a complete profile of each member, emphasizing their background, expertise and experience, and skills.
7. Once the TIM has enough at least six members, the members if someone wants to take the role of TIM chair. Once the TIM chair has been appointed, the formation process is considered complete. A statement about the TIM formation will be published, including the profile pages of the members and a final overview of TIM activities.

4.5 Timeline of TIM activities and member's time commitment

Invitations to members from the organisations listed in Table 2 will be sent out from project month 7 onwards (March 2024). The final TIM will be established at the end of project month 10 (June 2024). From that moment onwards, **the TIM will meet six times over the course of the CLIMATEFIT project**, as shown in **Table 3**. Each meeting is expected to last two hours. Preparatory materials for the meetings will be provided in a single compact document to limit the preparation and aftercare time to two hours per meeting. **A total time commitment of 24 hours (4h/meeting) is expected from TIM members**. Additionally, the chair will be invited to attend the consortium meeting (2/year) digitally to provide an overview of the TIM's activities if. Below is an overview of the schedule and the core tasks that are performed during each meeting. Each meeting will last two hours. The schedule is based on the deliverable timing of the E&UP first update (M30, February 2026 and final version (M40, December 2026).

To optimize the TIM's efficiency while not exceeding the requested time commitment of the TIM's members, the TIM will define priority areas during Meeting 1. Priority areas are based on the expertise and interests of TIM members and will ensure there is no overlap with the activities of other CLIMATEFIT bodies (Advisory Board, LRTs, EUNLRT).

- Overlap is expected between the TIM and the EUNLRT, since the latter also targets PAs on an EU-wide level. Activities that will be part of the EUNLRT will not be a priority area of the TIM. A close relationship will be maintained between the chair and secretary of the TIM, and the EUNLRT's lead partner ICLEI to support each other by information sharing and aligning activities.
- The Advisory Board is composed of members from globally active organisations (CPI, CDP, CCFLA, I4CE). The TIM chair and secretary will liaise with the Advisory Board if project outcomes and results are believed to have a global exploitation and upscaling potential. If possible and relevant, one of the meetings could be a joint TIM and Advisory Board meeting to discuss the global exploitation and upscaling potential of CLIMATEFIT.

The TIM will keep a log of the proposed exploitation strategies and activities that CLIMATEFIT partners can consult. This is a dynamic document that will be expanded with input from partners and TIM members during the project. The first log will be based on the key exploitable results from the first E&UP (D6.6).

Table 2. Overview of the Taskforce of Innovation Management activities

Meeting	Month	Provisional agenda
Outreaching	M7-M9	Identify and contact people from organisations listed in Annex 1 to invite them as TIM member
Establish TIM	M10	The TIM is established with eight members. The TIM and its composition will be published according CLIMATEFIT's communication and dissemination plan
TIM Meeting 1	M13	Kick-off meeting, introductions, expectations from members, first impressions of the E&UP (D6.6, M6), setting priorities for meetings 2-6.
TIM Meeting 2	M21	Discuss exploitation activities and strategies for intermediate project results
TIM Meeting 2	M27	Perform leading tasks to propose input for the E&UP first update
TIM Meeting 3	M29	Perform supporting tasks to provide feedback on the E&UP draft
TIM Meeting 5	M37	Perform leading tasks to propose input for the E&UP first update
TIM Meeting 6	M39	Perform supporting tasks to provide feedback on the E&UP draft; a summary of the TIM's work and output for inclusion in the final E&UP (D6.8)

REFERENCES

Bisaro, A., & Hinkel, J. (2018a). Mobilizing private finance for coastal adaptation: A literature review [https://doi.org/10.1002/wcc.514]. *WIREs Climate Change*, *9*(3), e514. https://doi.org/https://doi.org/10.1002/wcc.514

Bisaro, A., & Hinkel, J. (2018b). Mobilizing private finance for coastal adaptation: A literature review. *Wiley Interdisciplinary Reviews: Climate Change*, *9*(3), 1-15. https://doi.org/10.1002/wcc.514

Buchner, B., Naran, B., Padmanabhi, R., Stout, S., Strinati, C., Wignarajah, D., Miao, G., Connolly, J., & Marini, N. (2023). *Global Landscape of Climate Finance 2023*. Climate Policy Initiative. https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2023/

Davies, H. J., Doick, K. J., Hudson, M. D., Schaafsma, M., Schreckenberg, K., & Valatin, G. (2018). Business attitudes towards funding ecosystem services provided by urban forests. *Ecosystem Services*, *32*, 159-169. https://doi.org/https://doi.org/10.1016/j.ecoser.2018.07.006

den Heijer, C., & Coppens, T. (2023a). Paying for green: A scoping review of alternative financing models for nature-based solutions *Journal of Environmental Management* (Vol. 337). Academic Press.

den Heijer, C., & Coppens, T. (2023b). Paying for green: A scoping review of alternative financing models for nature-based solutions. *Journal of Environmental Management*, *337*, 117754. https://doi.org/https://doi.org/10.1016/j.jenvman.2023.117754

Etzkowitz, H., & Leydesdorff, L. (1995). The Triple Helix--University-industry-government relations: A laboratory for knowledge based economic development. *EASST review*, *14*(1), 14-19.

European Commission. (2021). *Call for expression of interest for indirect management of the Social Innovation+, Annex B Explanatory memo* (https://european-social-fund-plus.ec.europa.eu/system/files/2021-07/B%20Explanatory%20memo%20final%2022%2007.pdf

Hudson, G., Hart, S., & Verbeek, A. (2023). *Investing in nature-based solutions: State-of-play and way forward for public and private financial measures in Europe*. European Investment Bank. https://www.eib.org/attachments/lucalli/20230095_investing_in_nature_based_solutions_en.pdf

Keenan, J. M., Chu, E., & Peterson, J. (2019). From funding to financing: perspectives shaping a research agenda for investment in urban climate adaptation. *International Journal of Urban Sustainable Development*, *11*(3), 297-308. https://doi.org/10.1080/19463138.2019.1565413

Mayor, B., Toxopeus, H., McQuaid, S., Croci, E., Lucchitta, B., Reddy, S. E., Egusquiza, A., Altamirano, M. A., Trumbic, T., Tuerk, A., García, G., Feliu, E., Malandrino, C., Schante, J., Jensen, A., & López Gunn, E. (2021). State of the Art and Latest Advances in Exploring Business Models for Nature-Based Solutions. *Sustainability*, *13*(13).

Moser, S. C., Ekstrom, J. A., Kim, J., & Heitsch, S. (2019). Adaptation finance archetypes: local governments' persistent challenges of funding adaptation to climate change and ways to overcome them. *Ecology and Society*, *24*(2), Article 28. https://doi.org/10.5751/ES-10980-240228

Toxopeus, H., & Polzin, F. (2021). Reviewing financing barriers and strategies for urban nature-based solutions. *Journal of Environmental Management*, *289*, 112371. https://doi.org/https://doi.org/10.1016/j.jenvman.2021.112371

ANNEXES

Annex 1. Overview of EU projects and relevant (PA and FIE) organisations

EU Mission projects	
Mission projects	A wide range of EU-funded projects have completed or are undertaking research and developing innovative approaches and options for climate adaptation and associated guidance, tools, data, and case studies to help regional and local authorities deliver the EU Mission on Adaption to Climate Change. There are currently (Feb 2024) 25 ongoing Mission projects. Examples of projects closely related to CLIMATEFIT are Pathway2Resilience and TransformAr.
Organisations and initiatives that represent public authorities	
Organisation	Description
Coalition of Finance Ministers for Climate Action	The Coalition of Finance Ministers for Climate Action brings together fiscal and economic policymakers from over 90 countries in leading the global climate response and in securing a just transition towards low-carbon resilient development.
Council of European Municipalities and Regions (CEMR)	The Council of European Municipalities and Regions (CEMR) is the broadest European association of local and regional governments. We are the only organisation that brings together one million democratically elected European politicians, in 60 member associations from 40 countries since 1951. Our work is organised around two main pillars: Influencing European policy and legislation; and providing a forum for debate.
Covenant of Mayors - Europe	The EU Covenant of Mayors for Climate & Energy is an initiative supported by the European Commission bringing together thousands of local governments that want to secure a better future for their citizens. By joining the initiative, they voluntarily commit to implementing EU climate and energy objectives.
EU Mission on Adaptation to Climate Change	The Mission on Adaptation to Climate Change focuses on supporting EU regions, cities and local authorities in their efforts to build resilience against the impacts of climate change. The Mission's objective is to accompany at least 150 European regions and communities towards climate resilience by 2030. A total of 311 regional and local authorities from 25 EU Member States have signed the Mission Charter.
European Regions Research @ Innovation Network (ERRIN)	ERRIN is a well-known Brussels-based platform that gathers around 120 regional organisations from more than 20 European countries. Established in 2001, ERRIN supports members to enhance their regional and local research and innovation capacities and further develop their R&I ecosystems. The network maintains a long-standing relationship with the EU institutions and other organisations to strengthen the regional and local dimension in EU Research and Innovation policy and programmes.
Eurocities	Eurocities is the largest network of European cities. We count over 200 large cities among our membership from within and outside the European Union. The covenant currently has almost 12.000 signatories (14 Dec 2023)
European Urban Knowledge Network (EUKN)	The EUKN is the only independent, Member State-driven network in the field of European urban policy, research and practice. Our primary focus is working with European national and regional governments to promote sustainable urban development. We provide our members with expertise and tailored events, as well as fostering collaboration

	within our network, to create the just, green, productive and digitised cities of the future.
ICLEI Europe	ICLEI - Local Governments for Sustainability is a global network of more than 2500 local and regional governments committed to sustainable urban development and is active in 125+ countries. ICLEI Europe supports local governments in implementing the European Green Deal, the overarching EU strategy for climate neutrality, to build more resilient and equitable communities.
Regions4	Regions4 is the global voice of regional governments (states, regions and provinces) before UN negotiations, European Union initiatives and global discussions in the fields of climate change, biodiversity and sustainable development. Regions4 was established in 2002 at the World Summit in Johannesburg as the Network of Regional Governments for Sustainable Development – nrg4SD. In 2019, it became Regions4, and now represents 41 regional governments from 21 countries in 4 continents.
Organisations that represent financing and investment entities	
Organisation	Description
European Investment Bank (EIB)	The European Investment Bank is the lending arm of the European Union. We are the biggest multilateral financial institution in the world and one of the largest providers of climate finance.
European Banking Federation (EBF)	The European Banking Federation is the voice of the European banking sector, uniting 33 national banking associations in Europe that together represent some 3,500 banks – large and small, wholesale and retail, local and international – employing about 2,7 million people.
European Investment Fund (EIF)	We are a specialist provider of risk finance to benefit small and medium-sized enterprises (SME) across Europe. We are part of the EIB Group. Our shareholders are the European Investment Bank (EIB), the European Union, represented by the European Commission, and a wide range of public and private banks and financial institutions.
European Insurance and Occupational Pensions Authority	The European Insurance and Occupational Pensions Authority (EIOPA) is a European Union financial regulatory institution. EIOPA is at the heart of insurance and occupational pensions supervision in the EU. Our aim is to foster financial stability and confidence in the insurance and pensions markets.
European Securities and Markets Authority (ESMA)	The European Securities and Markets Authority (ESMA), the EU's financial markets regulator and supervisor, contributes to the transition towards a more sustainable economy in line with the European Green Deal and global efforts to address the climate crisis.
FEBEA	FEBEA is the European Federation of Ethical and Alternative Banks and Financiers. It gathers 33 financial institutions from 15 countries in Europe, with the aim of developing and promoting Ethical Finance principles. The Federation supports social finance, social economy entrepreneurs and all citizens and groups who work for the development of a fairer, more sustainable, and more inclusive society.
INREV	INREV is the European Association for Investors in Non-Listed Real Estate Vehicles. We are Europe's leading platform for sharing knowledge on the non-listed (unlisted) real estate industry. Our goal is to improve transparency, professionalism, and good practice across the sector, making the asset class more accessible and attractive to investors.
Network of Central Banks and Supervisors	The Network's purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize

	capital for green and low-carbon investments in the broader context of environmentally sustainable development. To this end, the Network defines and promotes good practices to be implemented within and outside of the Membership of the NGFS and conducts or commissions analytical work on green finance.
PensionsEurope	PensionsEurope represents national associations of pension funds and similar institutions for workplace and other funded pensions. Some members operate purely individual pension schemes. Through its Member Associations PensionsEurope represents more than € 7 trillion of assets managed for future pension payments.
EU bodies with a focus on climate adaptation	
Organisation	Description
Directorate-General for Climate Action (DG CLIMA)	The Directorate-General for Climate Action (DG CLIMA) leads the European Commission's efforts to fight climate change at EU and international level. Its key mission is to formulate and implement EU climate policies and strategies, so that the EU can turn into the first climate-neutral and climate resilient continent by 2050.
European Climate, Infrastructure and Environment Executive Agency (CINEA)	CINEA plays a key role in supporting the EU Green Deal through the efficient and effective implementation of its delegated programmes. Supporting stakeholders in delivering the European Green Deal through high-quality programme management that helps to implement projects contributing to decarbonisation and sustainable growth.
Organisations represented in CLIMATEFIT's Advisory Board	
Organisation	Description
CDP	CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. The world's economy looks to CDP as the gold standard of environmental reporting with the richest and most comprehensive dataset on corporate and city action.
Cities Climate Finance Leadership Alliance (CCFLA)	CCFLA's mission is to catalyse and accelerate additional capital flows to cities, maximize investment in low-carbon and climate-resilient infrastructure, and close the investment gap in urban areas over the next fifteen years. The Alliance is a coalition of thirty-six leading institutions that are committed to mobilize finance for low-emission and climate-resilient infrastructure, for the benefit of poor and vulnerable communities in cities.
Climate Policy Initiative (CPI)	CPI is an analysis and advisory organisation with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. Our vision is to build a sustainable, resilient, and inclusive global economy.
CONCITO	CONCITO is Denmark's green think tank, and we aim to translate relevant knowledge into climate action and thereby accelerate the green transition. Through scientific and knowledge-based analyses and information, the aim is to show how it is possible to create a climate-neutral and climate-resilient society.
Institute for Climate Economics (I4CE)	I4CE is a non-profit research organisation that provides independent policy analysis on climate change mitigation and adaptation. We promote climate policies that are effective, efficient and socially fair.

Annex 2. CLIMATEFIT Glossary

Project-specific Terms

These terms were initially defined for internal communication among consortium members. They have not been introduced to or taken up by academics and practitioners in the field of sustainable investment, adaptation finance or alike.

- **Adaptation Funding and Financing Solution (AFFS)**: An umbrella term covering individual or combinations of financial instruments, mechanisms, products and vehicles suitable to finance adaptation initiatives and projects. For example, blended finance (see annexes for more).
- **Champion**: Financing and investment entity (see below) with excellent knowledge of adaptation funding and financing solutions (see above), which participate in co-design and validation of investment cases in the selected territories. Champions include, but are not limited to, Arpinge, MPS Bank, CEB, EIB, EBRD, InvestEU Fund and Advisory Hub.
- **Facilitator**: One of eight (8) partners supporting the leader territories (see below) in their transformational journey to climate resilience. Mostly energy and climate agencies, ALEA, ENERGAP, ENVIROS, AMBIT, APEA, ADEPORTO, ACS, UA articulate with partners, public authorities and financing and investment entities to apply methods and solutions in practice.
- **Financing & Investment Entity (FIE)**: Organisation or stakeholder that enable or do the provision of any type of funding and financing solutions for climate adaptation.
- **Good practice**: although defined in multiple ways, a thread common to most definitions implies strategies, plans, approaches and/or activities that have been shown through research and evaluation to be efficient, sustainable and/or transferable, and to reliably lead to desired results.
- **Governments:** European, State and National governments that have the legal mandate to address climate change within their political jurisdictions.
- **Incentive mechanism (IM)**: Any measure or scheme offered by the public sector to attract or reward financing and investment entities (see above). Incentive mechanisms attract/mobilise private finance by de-risking investments. This can range from regulatory changes, to providing grants/subsidies/tariff support. Notice distinction with Financial Mechanisms (see below).
- **Investment landscape**: A descriptive assessment of the barriers, enablers and good practices as well as actors, networks and policy/regulatory frameworks associated to practices of funding and financing of climate adaptation. Such assessment is produced by the CLIMATEFIT project.
- **Investment plan:** Operationalising an investment strategy (see below) with measurable goals, including estimated resources needs, required innovative investment concepts and incentive mechanisms and optimised combination of financing sources for successful implementation. A pipeline of bankable/investable adaptation projects may be described in it.
- **Investment strategy**: Set of strategic principles designed to help a public authority increase financing and investment in climate adaptation using a

systemic and catalytic approach (see below). The main goal of an investment strategy is to align interests and financial needs of public authorities' with interests and financial resources of financing and investment entities.

- **Leader Territories:** Four (4) territories, namely cities or regions located in France, Belgium, Italy and Romania, where tailored funding and financing solutions (see above) are experimented, applied in practice, resulting in the creation of four (4) case studies.
- **Local Resilience Taskforce (LRT)**: Specific group of stakeholders with complementary roles, including facilitators, technical experts, financing and investment entities and public authorities, collaborating to address adaptation finance in European territories (see below).
- **One-Stop Shop**: A virtual platform available to stakeholders directly from the project website. It is a unique place to find the main project outputs where potential end users find project resources, acting as a marketplace for the exchange of ideas, tools, good practice and contacts relating to adaptation finance opportunities.
- **Public Authority (PA)**: Local and regional o authorities that have the legal mandate to address climate change within their political jurisdictions. Notice relation to territory (see below).
- **Technical Partner (TP)**: Partners leading research and innovation activities, including the development of methodologies and tools. These partners, WCF, UA, CMCC, SEI, SA, ITASIF, ACTERRA, RAMBOLL, are also responsible for the production of project deliverables.
- **Territory**: City, region, or community, represented by one or several public authorities.

Climate Adaptation Terms

- **Adaptation finance gap**: The difference between the estimated costs of meeting a given adaptation target and the amount of finance available. Term commonly referring to national, continental, or global finance gaps. It can be applied to the local level.
- **Adaptation finance**: see definition of 'Climate finance' below.
- **Adaptation funding gap**: The difference between the available capital for a given adaptation initiative or project and what is required to fully cover the costs of the same. Term commonly referring to sub-national finance gaps and used interchangeably with adaptation finance gap.
- **Adaptation options**: The array of strategies and measures that are available and appropriate for addressing climate adaptation. They include a wide range of actions that can be categorised as structural, institutional, ecological or behavioural.
- **Adaptation pathways:** A series of adaptation choices involving trade-offs between short-term and long-term goals and values. These are processes of deliberation to identify solutions that are meaningful to people in the context of their daily lives and to avoid potential maladaptation.

- **Adaptation plan**: Generally accompanying an adaptation strategy (see below), sets out what needs to be done to turn the prioritized adaptation options into actions. Main elements are: i) details of each action and associated processes and synergies; ii) roles and responsibilities; iii) timeframe for implementation; iv) human and financial resources needed and/or available funding schemes (supplemented with investment strategies and plans); v) indicators of success to be used for monitoring and evaluation.
- **Adaptation planning**: Overarching process of planning with the aim of adapting to climate change, which include the design and development of adaptation strategies and plans and respective investment strategies and plans.
- **Adaptation strategy**: A general strategic plan of action for addressing the impacts of climate change, including climate variability and extremes. Such a strategy includes a mix of policies and measures that have the overarching objective of reducing vulnerability to climate impacts.
- **Biodiversity loss**: Decrease in genetic, species, and ecosystem diversity in a specific area due to death, destruction, or removal. It can occur at various scales, leading to reduced overall diversity.
- **Biodiversity or biological diversity**: Diversity of living organisms in different ecosystems, including genetic, physical, and functional variations. It also encompasses changes in population and distribution over time and space within and between species, communities, and ecosystems.
- **Blue economy**: Industries and sectors connected to oceans, seas, and coasts, both in the marine environment (like shipping and fisheries) and on land (such as ports and coastal tourism).
- **Capacity building:** The practice of enhancing the strengths and attributes of, and resources available to, an individual, community, society or organisations to respond to change.
- **Carbon footprint:** Annual amount of greenhouse gas emissions, mainly carbon dioxide, resulting from the activities of an individual or group of people, in particular their use of energy and transport and their consumption of goods and services.
- **Climate adaptation**: The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.
- **Climate change**: A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
- **Climate finance**: The term climate finance is generally applied to the financial resources devoted to addressing climate change by all public and private actors from global to local scales. Climate finance aims to reduce net greenhouse gas emissions and/or to enhance adaptation and increase resilience to the impacts of current and projected climate change. Finance can

come from private and public sources, channelled by various intermediaries, and is delivered by a range of instruments, including grants, concessional and non-concessional debt, and budget reallocations.

- **Climate impacts**: The effects on natural and human systems of extreme weather, climate events, and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as consequences and outcomes. The impacts of climate change on geophysical systems, including floods, droughts, and sea level rise, are a subset of impacts called physical impacts.
- **Climate resilience**: The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning and transformation.
- **Climate resilient development:** the processes of implementing greenhouse gas mitigation and adaptation measures to support sustainable development for all.
- **Climate risk**: The potential for consequences where something of value is at stake and where the outcome is uncertain, recognising the diversity of values. Risk is often represented as probability of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure, and hazard (see below).
- **Climate-related [business] opportunity (associated with physical risk)**: The potential increase in demand for finance, investment, insurance and advisory services driven by the physical impacts of a changing climate on clients and their adaptation responses.
- **Climate-related financial risks**: Potential risks that may arise from climate change or from efforts to mitigate climate change, their related impacts and their economic and financial consequences. As defined in the TCFD recommendations, there are two types of climate-related risks: physical and transition risks (see below).
- **Ecosystem resilience**: A measure of how much disturbance (like storms, fire or pollutants) an ecosystem can handle without shifting into a qualitatively different state. It is the capacity of a system to both withstand shocks and surprises and to rebuild itself if damaged.
- **Ecosystem services**: Framework for expressing the 'usefulness' of biodiversity. They illustrate the link between, on one hand, the interactions of species with each other and with the physical environment; and on the other, the well-being of people, whether in terms of wealth, nutrition or security. The Millennium Ecosystem Assessment divided ecosystem services into four categories: provisioning, regulating, cultural and supporting services.

- **Exposure:** The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected.
- **Governance**: The structures, processes and actions through which private and public actors interact to address societal goals. This includes formal and informal institutions and the associated norms, rules, laws and procedures for deciding, managing, implementing and monitoring policies and measures at any geographic or political scale, from global to local.
- **Greenwashing:** the intentional or unintentional overrepresentation or misrepresentation of the qualifications and credibility of an organisation or an investment portfolio that markets itself as environmentally friendly, sustainable, responsible, or ESG-compliant.
- **Hazard:** The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources.
- **Materiality:** A environmental, social or governance factor is considered material if it contributes to the long-term financial performance of a specific business. Not all factors are always material for every company all the time.
- **Natural Capital:** An extension of the traditional economic notion of capital. The term was coined to represent the natural assets that economists, governments, and corporations tend to leave off the balance sheets. Natural capital can be non-renewable resources, like fossil fuels and mineral deposits; renewable resources, such as fish or timber; or ecosystem services (for instance the generation of fertile soils, pollination, or purification of air and water).
- **Physical risks**: The potential for consequences from impacts of climate change on geophysical systems, including floods, droughts, sea-level rise, and biodiversity loss. Physical climate risks can be either acute or chronic hazards.
- **Resilience**: Capacity to deal with change and continue to develop. See also 'Climate Resilience' above.
- **Social Capital**: Refers to social relations among individuals and the norms and social trust which they generate, and which facilitate coordination and cooperation for mutual benefit.
- **Social innovation**: The design and implementation of new solutions by public, non-profit and private actors that imply conceptual, process, product, or organisational change, dealing with socio-economic and environmental problems, which ultimately aim to improve the welfare and wellbeing of individuals and communities.
- **Social resilience:** The ability of human communities to withstand and recover from stresses, such as environmental change or social, economic or political upheaval. Resilience in societies and their life-supporting ecosystems is crucial in maintaining options for future human development.

- **Transformational adaptation**: Adaptation that changes the fundamental attributes of a social-ecological system in anticipation of climate change and its impacts.
- **Transition risks**: Risks associated with changes in policies, laws, technologies and markets, as a response to the transition to a lower-carbon economy.
- **Vulnerability:** The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Finance Terms

- **Active ownership:** refers to the active exercise of a shareholder's rights within a company, specifically active engagement with management and the discussion of financial and non-financial environmental, social and governance factors. See also definition of 'Stewardship'.
- **Active risk:** is the risk that a portfolio undertakes to compete against and outperform its benchmark index. It denotes how closely a portfolio aligns or diverges from its benchmark.
- **Alpha generation:** refers to the risk-adjusted contribution that a portfolio manager makes to the investment returns of a fund. This contribution may result in either positive or negative returns for the fund.
- **Asset Manager:** a financial professional who manages money and securities on behalf of a client, with the goal of growing the value of the assets. Asset managers are known by many names: investment advisors, financial advisors, wealth managers, institutional wealth managers, registered investment advisors (RIAs) and stockbrokers, to name just a few.
- **Bankability**: A project is bankable, whether from public or private sources, when its risk-return profile meets investors' criteria and can secure financing to implement the project. Key criteria for bankability include the probability of meeting the project's financial, environmental, and social goals, sufficient estimated cash flows to cover costs and produce returns that meet investor expectations, and whether the project will be implemented by a creditworthy entity.
- **Best-in-Class/Positive Screening:** Investment in sectors, companies or projects chosen based on their positive environmental, social and governance performance in comparison to industry peers and that achieve a rating (see below) above a defined threshold.
- **Business Model Canvas**: A standardised, modular approach to describe the business model of a organisations. The original version is based on nine components and excludes any social and environmental components. Novel approaches, such as the 27 components triple layered approach includes 9 environmental and 9 social components, called respectively environmental life cycle layer, and social stakeholder level.
- **Business model**: Describes in detail the services or products offered, the target markets, the cost structures and the resources required in a business or project. Often the business model goes hand in hand with a business model canvas, a visual representation of the business idea.

- **Carbon market:** a market that is created from the trading of carbon emissions allowances to encourage or help countries and companies to limit their carbon dioxide emissions.
- **Credit institution**: An undertaking the business of which is to take deposits or other repayable funds from the public and to grant credits for its own account.
- **Credit/financial scoring/rating**: An opinion on the general creditworthiness of a local or regional government and the likelihood that it will meet its financial obligations. Credit ratings are assigned following analyses of financial and non-financial factors.
- **Disclosures**: in financial terms, basically refers to the action of making all relevant information about a business available to the public in a timely fashion. Relevant information about a business refers to any and every piece of information that can potentially influence an investor's decision.
- **ESG integration:** Fund managers may incorporate or integrate ESG considerations into their investment process alongside other material factors and analyses. This approach to investing aims to boost a fund's financial performance.
- **ESG investing**: asset management approach where investors assess social, environmental, and economic risks and opportunities of environmental, social, and governance factors in their investment decisions. They also consider their role as owners (e.g. pension funds) and creditors (e.g. banks), with a goal of achieving long-term investment returns. See also definition of 'Sustainable Investment'.
- **ESG**: Environmental, social and governance factors to be taken into consideration in investment decisions and active ownership.
- **Financial / Financing instruments**: A contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. See annexes for examples.
- **Financial assets**: Assets that arise from contractual agreements on future cash flows or from owning equity instruments of another entity.
- **Financial liabilities**: An obligation that an organisation or individual has to pay for or deliver. They can be current liabilities (typically payable within 12 months) or non-current liabilities.
- **Financial market participant**: This can include an insurance undertaking which makes available an insurance-based investment product (IBIP); an investment firm which provides portfolio management; an institution for occupational retirement provision (IORP); a manufacturer of a pension product; an alternative investment fund manager (AIFM); a pan-European personal pension product (PEPP) provider; a manager of a qualifying venture capital; a manager of a qualifying social entrepreneurship fund; a management company of an undertaking for collective investment in transferable securities (UCITS management company); or a credit institution which provides portfolio management.
- **Financial mechanisms**: Generic term for a mechanism for the provision of financial resources (often incorrectly used interchangeably with instruments).

- **Financial product**: A portfolio managed in accordance with the definition of portfolio management (below); an alternative investment fund (AIF); an insurance-based investment product (IBIP); a pension product; a pension scheme; an undertaking for collective investment in transferable securities (UCITS); or a pan-European personal pension product (PEPP).
- **Financial regulators/supervisors**: a person or organisation that has been given the official job of making sure that banks, financial businesses, etc. act in a responsible way and do not break the law.
- **Financial system**: A set of institutions, such as banks, insurance companies, and stock exchanges, that permit the exchange of funds. Financial systems exist on firm, regional, and global levels. Borrowers, lenders, and investors exchange current funds to finance projects, either for consumption or productive investments, and to pursue a return on their financial assets. The financial system also includes sets of rules and practices that borrowers and lenders use to decide which projects get financed, who finances projects, and terms of financial deals.
- **Financing vehicle**: a type of instrument structured to seize investment opportunities in the market and generate returns from resources pooled by multiple investors.
- **Financing:** Capital resources provided with expected return on investment, for example through loans, either public or private.
- **Funding (beneficiary perspective)**: Total amount of money needed to pay for the implementation of an adaptation initiative or project. For example, a public officer would say “How do we fund the insulation of this building?”.
- **Funding (investors perspective)**: Capital resources provided without any expected return, for example through grants, either public or private.
- **Impact investment**: Investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return (from below market to market rate).
- **Investment advice**: Means the provision of personal recommendations to a client, either upon its request or at the initiative of the investment firm, in respect of one or more transactions relating to financial instruments.
- **Investment cases:** Demonstration of the readiness to implement investment plans, including robust adaptation funding and financing solutions uniquely matched to the need, context and condition of each territory and capabilities of actors engaged in the taskforces, allowing the mainstreaming of adaptation into the finance and economic sector and public authorities’ considerations.
- **Investment Concept** (IC): Document that translates an investment project idea into the financial language to mobilise financing for its realisation. The purpose is to provide investors and financial institutions with the information necessary to assess an investment project in a simple and fast manner. The owner of this document is the public authority proposing the investment project.
- **Investment firm**: Any legal person whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis.

- **Market operator**: Means a person or people who manages and/or operates the business of a regulated market and may be the regulated market itself.
- **Negative screening:** involves the exclusion of particular sectors, companies, countries, or other issuers from a portfolio or fund due to activities deemed unsuitable for investment. Such exclusion criteria, which are based on ethical and moral standards, may relate to categories of products such as weapons or tobacco, company practices including animal testing, human rights or environmental violations, or corruption, as well as controversial issues.
- **Norms-based screening:** Applying filters to a range of financial instruments, such as securities, issuers, investments, and sectors, based on internationally recognised minimum standards of practice. These standards include commonly acknowledged frameworks such as the OECD Guidelines for Multinational Enterprises, the International Bill of Human Rights, UN Security Council Sanctions, and the UN Global Compact, among others.
- **Portfolio management**: Managing portfolios in accordance with mandates given by clients on a discretionary client-by-client basis where such portfolios include one or more financial instruments.
- **Public budgets for adaptation**: The direct (and creative) use of public budgets for climate adaptation financing: taxation, co-financing, grants, subsidies, endowments, participatory budgeting.
- **Special Purpose Vehicles (SPV)**: A legal entity created for a specific purpose, typically used to isolate and manage financial risks. SPVs are commonly used in complex financial transactions such as project finance. The use of an SPV allows investors to invest in specific assets or projects while limiting their exposure to the financial risks of the organisation that creates it.
- **Stewardship:** involves the responsible allocation, management, and oversight of capital. It aims to create long-term value for clients and beneficiaries, resulting in sustainable benefits for the economy, environment, and society. See also definition of 'Active ownership'.
- **Stress testing**: Forward-looking exercises that aim to evaluate the impact of severe but plausible adverse scenarios on the resilience of financial firms. This can include climate stress testing. They involve the use of models and data at the firm or system-wide level and may rely on historical or hypothetical scenarios.
- **Sustainability risk**: An environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of an investment.
- **Sustainable investment**: An investment in an economic activity that contributes to an environmental and/or social objective, provided that such investments do not significantly harm any of those objectives and that the investee companies follow good governance practices. See also definition of 'ESG Investing'.
- **Systemic risk (financial sector perspective)**: a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy. All types of financial intermediaries,

markets and infrastructure may be potentially systemically important to some degree.

- **Technical assistance**: any technical support related to repairs, development, manufacture, assembly, testing, maintenance, or any other technical service, and may take forms such as instruction, advice, training, transmission of working knowledge or skills or consulting services, including verbal forms of assistance.
- **Thematic investment:** This approach involves investing in enterprises that aid in sustainable solutions in both environmental and social dimensions. In the environmental sector, this could encompass investments in sources of renewable energy, for example. In the social sector, this involves investments in education, for instance. See also definition of 'Sustainable Investment'.

Policy Terms

- **Cities**: Open systems, continually exchanging resources, products and services, waste, people, ideas and finances with the hinterlands and broader world. Cities are complex, self-organising, adaptive and constantly evolving. Cities also encompass multiple actors with varying responsibilities, capabilities and priorities, as well as processes that transcend the institutional sector-based approach to city administration.
- **Cohesion funding:** Key source of EU-funding under shared management between the European Commission and the managing authorities responsible for the distribution at the Member State level.
- **EU Green Taxonomy**: A classification system established by the European Union, where a business activity is considered environmentally sustainable if it makes a substantial contribution to at least one of six environmental objectives (climate mitigation, climate adaptation, water and marine resources, circular economy, pollution prevention and control, and biodiversity and ecosystems), while doing no significant harm to any of them.
- **Green Taxonomy**: A classification system establishing a list of environmentally sustainable economic activities, to facilitate sustainable investment.
- **Metropolitan areas: C**omposed of a city plus its surrounding areas approximating the extent of the city's labour market (commuting zone - areas socio-economically integrated to the city).
- **Precautionary principle:** When potentially catastrophic or irreversible harm is possible, preventive action may be necessary even if complete certainty about future costs and benefits is lacking.
- **Regions and communities**: Following the definition of Regions in the Nomenclature of Territorial Units for Statistics (NUTS) classification, regions are the territories at NUTS 2 level. For practical implementation purposes, the concept of 'communities' has been added as groupings of people with social ties, shared values or interests, engaged in joint action. Communities can be of different size and are not always geographically confined.
- **Sustainability factors**: Environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.

- **Sustainable Finance Disclosure Regulation (SFDR)**: Requires financial market participants and financial advisers to inform investors about how they consider the sustainability risks that can affect the value of and return on their investments ('outside-in' effect) and the adverse impacts that such investments have on the environment and society ('inside-out'). Market participants have to make this information available with regard to specific products, but also relating to their respective firm as a whole. The Regulation does not force market participants to consider green criteria when investing. Rather, it sets out rules that require them to justify the sustainability claims that they make in relation to their financial products.

Glossary references

- Adaptation Gap Report 2023. (n.d.). UNEP - UN Environment Programme. https://www.unep.org/resources/adaptation-gap-report-2023
- Adapting to a changing climate | Swiss Re. (2023). Adapting to a Changing Climate. https://www.swissre.com/our-business/public-sector-solutions/adapting-to-a-changing-climate.html
- Bank for International Settlements. (n.d.). Bank for International Settlements. https://www.bis.org/
- Biodiversity strategy for 2030. (2023). Environment. https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en
- Capital Intelligence (CI) | Credit Analysis & Ratings | Banks, Corporates and Financial Instruments (Bonds & Sukuk). (n.d.). http://www.ciratings.com/
- Cities Climate Finance Leadership Alliance. (2023). Cities Climate Finance Leadership Alliance. https://citiesclimatefinance.org/
- Climate Change 2022: Impacts, adaptation and Vulnerability. (2022). IPCC. https://www.ipcc.ch/report/ar6/wg2/
- Climate-ADAPT. (n.d.). Climate-ADAPT. https://climate-adapt.eea.europa.eu/
- Community Financial Services Bank - Western Kentucky's Community Bank. (2023). https://www.cfsbky.com/
- Convention on Biological Diversity. (n.d.). Convention on Biological Diversity. https://www.cbd.int/
- Corporate Finance Institute. (2024). Corporate Finance Institute. https://corporatefinanceinstitute.com/
- Eco Friendly Books. (2023). Certificate in ESG Investing Curriculum 2023 Official Training Manual. https://store.ecofriendlybooks.com/products/certificate-in-esg-investing-curriculum-2023
- EEA Glossary. (n.d.). European Environment Agency. https://www.eea.europa.eu/help/glossary/eea-glossary
- EUR-LEX - 32010R1092 - Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (2010). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010R1092

- EUR-LEX - 32019R2088 - Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (SFDR) (216). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088
- EUR-LEX - 32020R0852 - Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (2020). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32020R0852
- EUR-LEX - 32022R0328 - EN - EUR-LEX. (n.d.). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R0328
- European Central Bank. (n.d.). European Central Bank. https://www.ecb.europa.eu/home/html/index.en.html
- Flexfunds. (2023). Academy | FlexFunds. FlexFunds. https://www.flexfunds.com/academy/
- Forbes (2024). Forbes Advisor. Forbes Advisor. https://www.forbes.com/advisor/investing/
- Funds' Use of ESG Integration and Sustainable Investing Strategies: An Introduction. (2020). Investment Company Institute. https://www.ici.org/doc-server/pdf%3A20_ppr_esg_integration.pdf
- IIGCC - the Institutional Investors Group on Climate change. (n.d.). https://www.iigcc.org/
- Investopedia. (2019). Investopedia. https://www.investopedia.com/
- Reporting Framework glossary. (n.d.). PRI. https://www.unpri.org/reporting-and-assessment/reporting-framework-glossary/6937.article
- Stockholm Resilience Centre - Stockholm Resilience Centre. (n.d.). https://www.stockholmresilience.org/
- Strengthening resilience for a changing climate. (n.d.). OECD. https://www.oecd.org/climate-change/theme/resilience/
- Sustainable Asset Management: Key Messages and Recommendations of SFAMA and SSF. (2020). https://www.sustainablefinance.ch/upload/cms/user/EN_2020_06_16_SFAMA_SSF_key_messages_and_recommendations_final.pdf
- Task Force on Climate-Related Financial Disclosures | TCFD). (2023). Task Force on Climate-Related Financial Disclosures. https://www.fsb-tcfd.org/
- The Global Impact Investing Network (GIIN). (n.d.). https://thegiin.org/
- The International Capital Market Association » ICMA. (n.d.). https://www.icmagroup.org/
- The triple layered business model canvas: A tool to design more sustainable business models. (2016). ScienceDirect. https://doi.org/10.1016/j.jclepro.2016.06.067
- Trends Report 2020 | GSIA. (n.d.). https://www.gsi-alliance.org/trends-report-2020/

- UK Stewardship Code. (n.d.). FRC (Financial Reporting Council). https://www.frc.org.uk/library/standards-codes-policy/stewardship/uk-stewardship-code/
- United Nations Environment Programme Finance Initiative. (n.d.). https://www.unepfi.org/
- What are "good practices"? (2021). European Website on Integration. https://migrant-integration.ec.europa.eu/page/what-are-good-practices_en
- World Bank. 2019. The World Bank Group Action Plan on Climate Change Adaptation and Resilience., Washington, DC: World Bank.

The CLIMATEFIT project aims to support EU territories in their just and transformational journey toward climate resilience by bridging the finance gap, providing critical insight and building the capacities of (i) Public Authorities (PAs) to identify, orchestrate and attract various public and private financing sources and (ii) Financing & Investment Entities (FIEs) to identify and access resilient investment opportunities. CLIMATFIT opens a significant opportunity to foster innovative resilience investments in vulnerable EU territories and to boost competitiveness and EU leadership in a growing market. The project will build on a deep understanding of existing initiatives to sustain systemic and catalytic resilience investments by engaging its Technical Partners, PAs and FIEs in the co-creation of twenty innovative investment strategies, ten concrete and scalable investment plans and four bankable transformational investment cases, increasing the bankability of resilient project pipelines across a diversity of scales, financing gaps, contexts, barriers to financing, climate risks and vulnerabilities, biogeographical regions, adaptive capacities and maturity regarding climate change represented from its twenty case studies grouped in three clusters: Northwestern, Eastern and Southern.

CLIMATEFIT