CLIMATEFIT

Deliverable 2.4: E-learning Platform
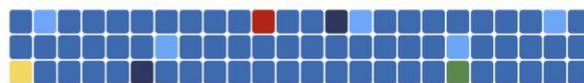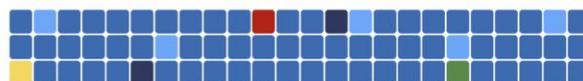
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1 EXECUTIVE SUMMARY

This deliverable includes a description of the e-learning platform, that is an integral part of the capacity building programme of the CLIMATEFIT project. The e-learning platform has been launched at the end of 2025 and is using the well-known Moodle platform.

The e-learning platform is compiling materials and lessons learnt from the capacity building programme for Public Authorities (PAs) and Financial and Investment Entities (FIEs). As these two target groups have different training needs, two parallel training courses have been developed and hosted on the same e-learning platform.

Each training environment has therefore a specific training objective and outcomes, as well as tailored content. Each of the training modules aims to provide PAs and FIEs with a tailored training course in the field of development and financing of climate adaptation projects.

As e-learning platform, Moodle was chosen. Moodle is a free and open-source learning management system that allows you to create custom websites with online courses.

The e-learning courses for the two target groups have each their specific training objective. The e-learning course for PAs will enable them to identify and develop climate adaptation projects through:
- Assessment of climate risks
- Identification of suitable adaptation options
- Creation of a cost benefit analysis of adaptation options
- Selection of the most promising adaptation options
- Creation of bankable projects through investment concepts

The e-learning course for FIEs will enable them to learn about the urgency of climate change and the way they can approach climate adaptation financing through:
- Assessment of climate risks
- Regulatory aspects in climate adaptation finance
- Understanding climate risks
- Creation of a cost benefit analysis of adaptation options
- Opportunities for financial institutions in climate adaptation finance.

The e-learning platform aims at those PAs and FIEs that have not yet been exposed to the capacity building. Therefore, the e-learning platform provides slightly less detail into the matter than the capacity building programme. The results of the capacity building programme are addressed in more detail in D2.1.
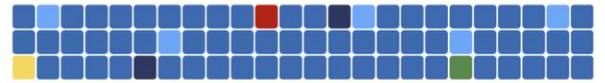
2   E-LEARNING – INTRODUCTION

One of the main activities in the CLIMATEFIT project is the capacity building of PAs and FIEs. A tailored capacity building programme for PAs and FIEs with direct involvement in the project has been developed. In order to make this training material available to wider target groups outside the project, the e-learning programme was created, including the majority of the training materials designed for the capacity building. The results of the capacity building programme for PAs are addressed in more detail in D2.1 and the capacity building programme for FIEs is addressed in more detail in D2.2.

The main objective of the e-learning platform is therefore to provide a wide range of PAs and FIEs a tailored training course in the field of development and financing of climate adaptation projects. As these two target groups have different training needs, two parallel training courses have been developed and hosted on the same e-learning platform.

The target audience for the e-learning course thus includes:
- **PAs**, existing of municipal and regional authorities
- **FIEs**, such as commercial banks, development banks and any other investment entity
- As well as any other stakeholders / professionals involved in climate adaptation projects.

The content focuses on topics like assessment of climate risks, setting climate adaptation objectives and climate adaptation finance. In detail, it includes detailed modules on financing tools such as green bonds and blended finance. It presents case studies and best practices from successful climate adaptation initiatives, drawing on examples from other EU funded projects and contributions from project partners. The programme also explains the methodology for creating investment plans, supported by practical exercises and examples developed within CLIMATEFIT. In addition, it covers relevant local, regional, and international regulatory frameworks affecting climate finance, alongside general information on climate change impacts, risks, and potential adaptation projects.

As shown in figure 1 below, there are 7 distinctive modules in the course for PAs and 6 in the training for FIEs. As each course is tailored to a specific target group, the content of each training course varies, although some modules overlap. E.g. similarity exists in module 1 on climate risks and module 4 on the estimation of costs and benefits of adaptation projects.
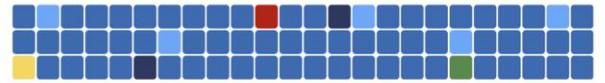
Modules Examples for E-Learning Platform - *FINAL*

Modules for PAs.

- Module 1. Adapting to climate risks

- Module 2. Identifying climate risks on regional or city level

- Module 3. Creating governance structures related to climate adaptation

- Module 4. Estimation of the costs and benefits of adaptation measures

- Module 5. Financial sources and instruments for climate adaptation

- Module 6. Developing bankable climate adaptation projects

- Module 7: Summary and final test

Modules for FIEs

- Module 1. Prepare the ground for adaptation

- Module 2. Regulatory Aspects in adaptation finance

- Module 3. Understanding climate risk

- Module 4. Estimation of the costs and benefits of adaptation measures

- Module 5. Opportunities for financial institutions in adaptation finance

- Module 6. Summary and final test

Figure 1: Schematic overview of the modules of the e-learning platform
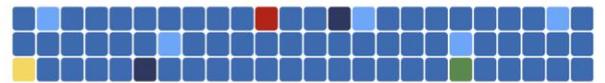
3 E-LEARNING - CONTENTS

In this chapter, we shortly address the contents of the PAs training and the FIEs training.

3.1 Public authorities training

The overall learning objective of this e-learning course is to provide PAs with the understanding of the key concepts of climate adaptation. It will provide them with guidelines on how to develop climate adaptation projects by undertaking the following steps:

- Assessment of climate risks impacting their territory
- Identification of suitable adaptation options
- Creating governance structures for implementation of adaptation options
- Creation of a cost benefit analysis of adaptation options
- Selection of the most promising adaptation options
- Creation of bankable projects through investment concepts

These learning objectives then resulted in the development of the following training modules:

1. Introduction how to adapt to climate risks
2. How to identify climate risks and propose measures on local and regional level
3. Creating governance structures for the implementation of adaptation options
4. Estimation of the costs and benefits of adaptation measures and their economic case
5. Identification of financial sources and instruments
6. Developing an Investment Plan & Concept / Understanding Bankable Climate Adaptation Projects
7. Summary and final test

Module 1 – Introduction – how to adapt to climate risks

This module introduces the existing climate risks and possible climate adaptation measures that are there to cope with them. Examples are nature-based solutions and other infrastructure related adaptation measures.

The module includes some basic information related to:

- Expected impact of climate change in Europe (mention main climate risks)
- Statement: current financing available for climate adaptation is totally insufficient.

Droughts
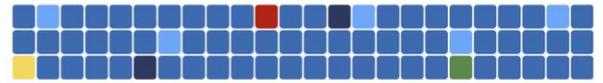
Floods & heavy precipitation

© Jan Ramon

Belgium ranks 18th in the world in terms of **water stress**, out of 164 countries (World Resources Institute, 2023)

© Karel Hemerijckx

The floods that hit Belgium, The Netherlands, Germany, and France in 2021 caused 240 deaths and €43 billion damage, making it the **2nd worst natural disaster of 2021** globally.

Figure 2: Examples of climate impacts included in the e-learning slides. Source: Authors

Module 2: How to identify climate risks on local/regional level

Module 2 outlines how to identify climate risks at the local and regional level, drawing on examples from Module 1. It proposes methods for analysing these risks and describes how to identify and select appropriate climate adaptation measures suited to local and regional contexts. The participants learn how to identify the climate risks by which their territory is impacted, recognising their level of urgency and determining which risks and sectors should be prioritised. In other words, the adaptation needs to drive the prioritisation. This is illustrated based on the table below "*Assessment and prioritisation of climate risks and sectors*".

- **Identification** of measures – for each of the climate risks (and sectors) identified.
- **Prioritisation** of measures based on IP methodology (example of IP module 2 could be used - - priority assessment)
- **Examples** of measures identified in CLIMATEFIT regions based on risk assessment– 4 lead territory slides (in the order – climate risk assessment – proposed long list of measures – prioritisation of measures)

Table 1 :example of assessment and prioritisation of climate risk and sectors

Module 1 : Assessment and prioritisation of climate risks and sectors					
Main Identified Risk	Vulnerable Sector	Severity (High/Medium/low)	Urgency (High/Medium/Low)	Vulnerable sector to be prioritised (Yes/no)	Comments
Example: Flooding	Infrastructure (roads)	High	Medium	yes	

Table 2: example of priority assessment of climate options

Options		Adaptation criteria					Eonomic criteria				Pathways input		
Name	Option type	Potential regret	Adaptation effectiveness	Timing of adaptation limit	Indicative co-benefits	Lead time	Urgency of action	Indicative economic benefits	When costs arise	When benefits arise	When should the action happen?		
											Short	Med	Long
Option 1..													
Option 2..													
Option 3..													
..													
..													

Module 3: Creating governance structures related to climate adaptation

This module includes examples of creating governance structures at PAs. An example is the so-called **Local Resilience Task Force (LRT)**, developed within the CLIMATEFIT project. A schematic overview of the LRT is shown in the scheme below.
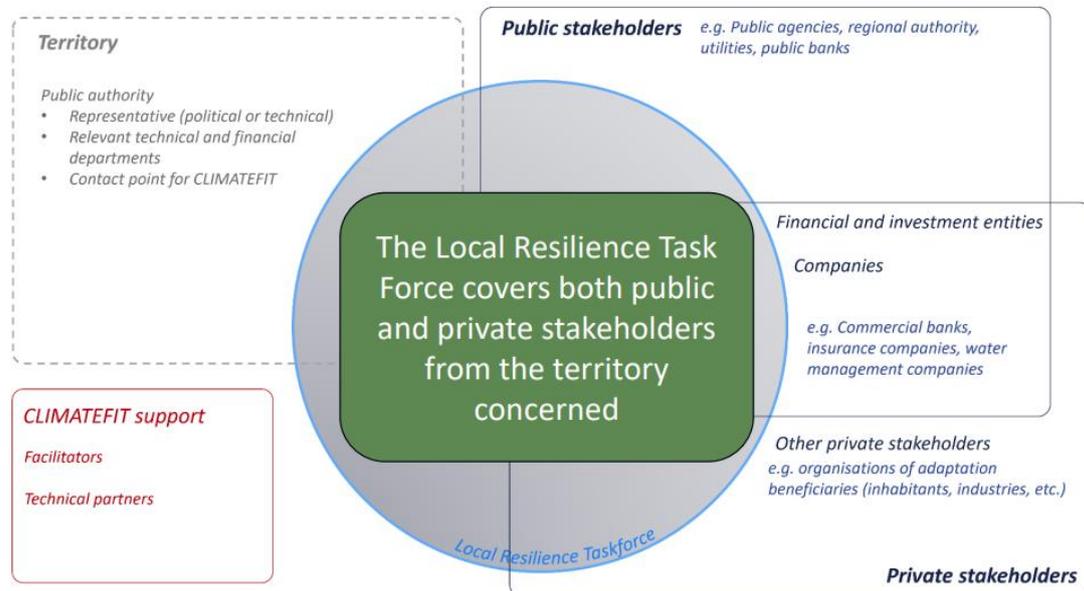

Figure 3: Scheme showing the position of a Local Resilience Task Force within a public authority. Source: Authors

Module 4: Estimation of the costs and benefits of adaptation measures and their economic case

This module addresses how to estimate costs and benefits of the proposed measures. Contents include:
- Typical costs and benefits of adaptation measures
- Cost estimates (using example from Investment Plan (IP) module 3)
- Estimating benefits
- Example of economic/financial case (using example from IP module 4)

The content of this module focuses on estimating the costs and benefits of proposed climate adaptation measures, with an emphasis on quantifying costs and identifying benefits. It covers typical cost and benefit categories, methods for cost estimation using examples from the IP Module 3 (approaches to estimating benefits), IP and illustrative economic and financial cases drawn from IP Module 4.

Module 5: Identification of financial sources and instruments (and good examples)
This module addresses what funding sources there are, such as
- o Local public funding
- o Public funding from other sources (e.g. grant programmes)
- o Private sources
- o Combination of public and private sources (e.g. like PPP)
- Examples of (innovative) financial sources
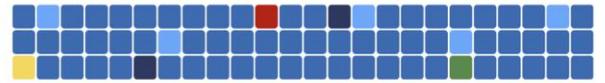
Module 6: Developing bankable climate adaptation projects

Based on the previous modules, this module aims to introduce the participants to the development of bankable projects – adaptation projects that are attractive to financial institutions. This module is therefore aimed to show PAs how financial institutions make their assessment on project financing. It also gives some inputs on how banks may start tackling risk mitigation related to climate change.

Within the module, PAs also learn about the way that banks think about project financing.

Module 7: Summary

This module provides a brief recap of the previous modules and includes a quiz with 10 questions. The quiz is based on the content from all prior modules, and participants who achieve a score of at least 70% will receive a certificate of completion.

3.2   Financial and Investment Entities training

The overall learning objective of this e-learning course is to provide FIEs with the understanding of key concepts related to climate adaptation:

- Provide key concepts on climate change, climate financing, and regulatory aspects
- Analyse the importance of potential climate financial risks (and opportunities) and impacts of climate change on financial institutions
- Introduce the main climate risks, including physical and transition risks, and their impact on financial institutions' business portfolios
- Explore why and how these issues could be integrated to policies, practices, risk analysis, and investment decisions of FIEs
- Discuss and learn on the case studies financial structures

These learning objectives then resulted in the development of the following training modules:
- **Module 1** – Prepare the ground for Adaptation
  Module 2 – Regulatory aspects in adaptation Finance
- **Module 3** - Understand climate risk and work on risk management
  Module 4 – Estimation of the costs and benefits of adaptation measures and their economic case
  Module 5 – Opportunities for financial institutions in adaptation finance
 **Module 6**: Summary

The materials created for e-learning were added to the Moodle platform as follows:

In the **Introduction space**:
- the announcements;
- introduction guide in PDF;
- the Glossary in PDF (a document gathering all the definitions used in the module materials.

In the **Module 1 to 5 space**:
- The respective Module material in PDF;
- A small quiz for participants with 2/3 questions related to the Module;
- A PDF document with sources and additional materials.
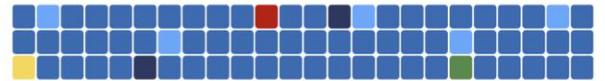
In the **Module 6 space**:
- Module 6 in PDF;
- The final test with 18 questions, which participants can complete and immediately see their results, with a passing score set at a minimum of 70%.

Module 1 – Prepare the ground for Adaptation

This module outlines the existing climate risks and possible climate adaptation measures that there are to cope with them.

It introduces participants to the landscape of climate risks across Europe and their implications for financial institutions. Participants learn to recognise key physical and transition risks affecting different regions and sectors and explore typical adaptation measures.

By the end of this module, participants are able to identify the most relevant regional climate risks, access authoritative data sources, and understand how climate-related risks can influence financial exposure and investment priorities

The module is divided in 3 sub-parts:
1. Recognize major climate risks and adaptation needs in Europe
2. Identify and use key information sources for regional climate risk data
3. Link physical climate risks to potential financial impacts on institutions' portfolios

At the end of the presentation, participants complete a quiz with two true-or-false questions designed to reinforce the key concepts covered.

Module 2 – Regulatory aspects in adaptation Finance

This module provides an overview of the European regulatory environment shaping adaptation finance. Participants learn about the EU Adaptation Strategy and key regulatory frameworks such as the EU Taxonomy, Corporate Sustainability Reporting Directive (CSRD), Sustainable Finance Disclosure Regulation (SFDR), and Corporate Sustainability Due Diligence Directive (CSDDD).

Module 2 is divided in 2 sub-parts:
1. Identify EU policies and regulations relevant to adaptation finance
2. Regulatory support and incentives to encourage private investments

Participants learn also how these regulations influence financing decisions, project eligibility, and disclosure requirements for financial operators.
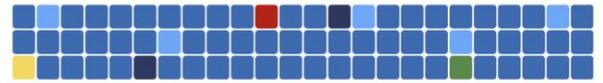
Figure 4: e-learning example slide showing the EU Sustainable Finance Framework

At the end of the presentation, participants complete a quiz with two matching exercises and one open question designed to reinforce the key concepts covered.

Module 3 – Understand climate risk and work on risk management

This module focuses on how financial institutions can identify, assess, and manage climate-related risks in their operations and portfolios.

Participants explore different types of risks (physical, transition, regulatory, financial, and reputational) and understand their impact on financial stability. The module also examines the strategic roles that financial operators can play in supporting climate resilience through risk-informed decision-making and new solutions.
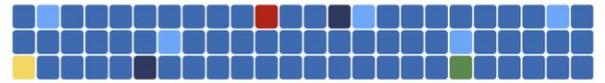
Module 4 – Estimation of the costs and benefits of adaptation measures and their economic case

This module helps participants understand the economic rationale behind adaptation projects and learn how to estimate the costs, benefits and co-benefits of adaptation actions, including the cost of inaction, using cost-benefit and other economic assessment techniques.
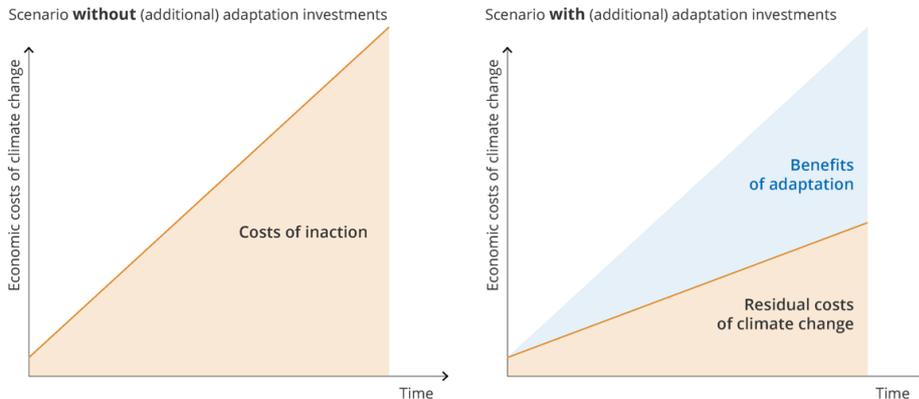
Module 3 is divided in the following sections:
1. Climate, financial, and operational risk categories and their impact on financial stability
2. Understand the role of financial institutions and possible solutions to bridge the finance gap in adaptation

At the end of the presentation, participants complete a quiz with one matching exercise and one open question designed to reinforce the key concepts covered.

Defining costs of inaction and costs and benefits of adaptation action

Scenario **without** (additional) adaptation investments

Scenario **with** (additional) adaptation investments

Source: Assessing the costs and benefits of climate change adaptation (EEA 2023)

www.climatefit-heu.eu

Figure 5: e-learning example slide showing the benefits of adaptation and the costs of inaction

**Module 5 – Opportunities for financial institutions in adaptation finance**

This module explores how financial institutions can seize opportunities in adaptation finance through innovative funding structures and partnerships. Participants learn about various financing sources (public, private, and blended) and review successful examples from Europe and beyond.

The module provides practical insights on adaptation projects, using instruments such as green bonds, sustainability-linked loans, and public–private partnerships.

The module foresees 2 sections:
1. Identify available financing sources and instruments for adaptation projects
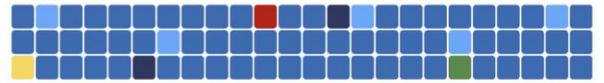2. Analyse case studies of successful financial mechanisms supporting climate resilience

Adaptation finance holds opportunities for different private actors
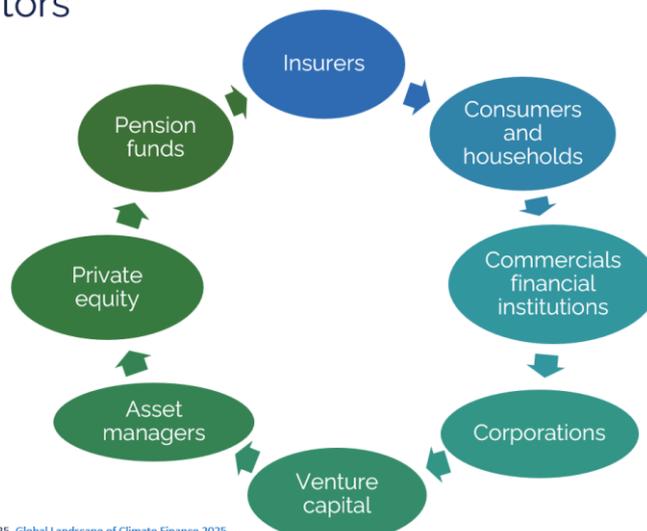
Source: Climate Policy Initiative, 2025. Global Landscape of Climate Finance 2025

Figure 6: e-learning example slide related to adaptation finance opportunities

At the end of the presentation, participants complete a quiz with one matching exercise and one single-choice question designed to reinforce the key concepts covered.

Module 6: Summary

This module provides a brief recap of the previous modules and includes a final test with 18 questions. The final test is based on the content from all prior modules, and participants who achieve a score of at least 70% will receive a certificate of completion.
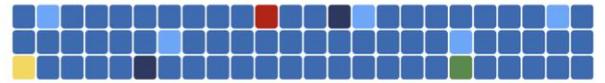
4   E-LEARNING - DESIGN

4.1   E-learning course - development

The e-learning programme was prepared by the CLIMATEFIT project partners ENVIROS (for the PAs training) and ITASIF (for the FIEs training). In addition, ENVIROS is managing the e-learning platform on Moodle.

For the design of the content, both ENVIROS and ITASIF mainly used information from existing training materials developed for the capacity building for PAs and FIEs by multiple technical partners during the course of the project.

Partners contributing to the training materials included CMCC, which supported the Investment Strategy Methodology; Ramboll, which developed the Local Resilience Task Forces (level 2 training) and SEI (level 3 training) for the Investment Plan Methodology and the calculation of costs and benefits of adaptation measures.

Materials were made available for the following three levels of capacity building:

1. Level 1 training – consisting of an awareness-raising session on climate change consequences, sharing good practices for attracting financing (as identified in WP1 of the project) and providing guidance on how to disclose climate-related risks and opportunities. This was a combined training of PAs and FIEs held in May 2024. Information from the trainings' 150 slide deck was used in the e-learning
2. Level 2 training – separate for PAs and FIEs.
   a. PAs training – workshops addressing 20 territories' training needs to identify and articulate sources of funding as well as the first possible **Investment Strategies**, and the first step to co-design investment strategies on the ground with all the 20 territories involved in CLIMATEFIT.
   b. FIEs - A selection of FIEs already involved in resilience projects and those involved in the 20 territories of the case studies started discussing potential pre-identified Investment Concepts. ITASIF provided examples of actual return on investment, strategic resilience investment options or institutional transition plans that include disclosure requirements, stress testing, and asset resilience programmes for infrastructure and/or ecosystem adaptation
3. Level 3 training – separate for PAs and FIEs
   a. PAs – a detailed training focusing on the combination, application and negotiation of funding sources was prepared and delivered to 10 territories designing **Investment Plans**, including co-design sessions, before starting to define tailored investment plans. Separate sessions on costs and benefits of adaptation options and on investment were held as well.
   b. FIEs - The 3rd level training aimed to create platforms in the form of fora and groupings for FIEs to work together to identify Incentive Mechanisms (IMs) and develop innovative Adaptation Funding and Financing Solutions (AFFS) (including those built upon low carbon/mitigation experience, e.g., the EU Green Deal). Guidance was given on new revenues that FIEs can access more than on avoided losses and existing investments.

4.2   E-learning course versus capacity building

The capacity building trainings provided more in-depth information than the e-learning course. As these trainings were interactive, they offered PAs and FIEs greater
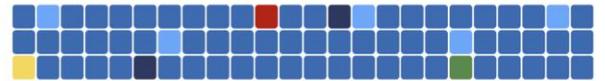
opportunities to actively apply the knowledge gained. For example, PAs participating in the training should be able to independently develop investment strategies and investment plans for climate adaptation themselves.

The e-learning course has a more modest objective, and it should be seen as an awareness raising tool. It provides 3 to 4 hours of training for PAs and FIEs, covering the basics of climate risk assessment, the identification of adaptation options and introduction to financing opportunities for adaptation.

Target users

As mentioned earlier, the e-learning course is aiming at representatives of PAs and FIEs that are interested in developing adaptation projects and seeking ways of financing these through private sources. Participation in the e-learning course will be determined by PAs and FIEs; however, the following target users are suggested:

- Among PAs – urban planners, environmental and climate change specialists, investment departments
- Among FIEs – investment analysts, loan officers, etc.

Strengths and weaknesses of e-learning

The availability of the e-learning course in an online environment ensures maximum exposure and accessibility. For example, anyone interested can participate in the course free of charge, which can be considered its main strength.
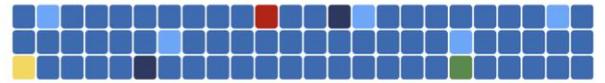
Unlike the capacity building trainings, the e-learning course does not provide direct feedback from a trainer, which represents its main limitation. To partly address this, each module finishes with a short test that allows participants to check their understanding of the content.

Future use of the e-learning course

At its completion by the end of January 2026, the e-learning platform will be available through a link on the CLIMATEFIT website. https://climatefit-heu.eu/
It will remain available there for the duration of the project.

The aim is to keep the e-learning platform operational for a certain number of years after the project ends (e.g. 5 years).

The continuity and exploitation of e-learning will be discussed by the Taskforce on Innovation Management (TIM).

5 CONCLUSIONS AND RECOMMENDATIONS

The e-learning platform is compiling and summarising materials and lessons learnt from the capacity building programme for PAs and FIEs. As these two target groups have different training needs, two parallel training courses have been developed and hosted on the same e-learning platform. The e-learning platform has been launched at the end of January 2026 and is based on the Moodle platform.

The e-learning courses for the two target groups have each their specific training objective. The e-learning course for PAs will enable them to identify and develop climate adaptation projects through:
- Assessment of climate risks
- Identification of suitable adaptation options
- Creation of a cost benefit analysis of adaptation options
- Selection of the most promising adaptation options
- Creation of bankable projects through investment concepts

The e-learning course for FIEs will enable them to learn about the urgency of climate change and the way they can approach climate adaptation financing through:
- Assessment of climate risks
- Regulatory aspects in climate adaptation finance
- Understanding climate risks
- Creation of a cost benefit analysis of adaptation options
- Opportunities for financial institutions in climate adaptation finance.

The e-learning platform aims at those PAs and FIEs that have not yet been exposed to the capacity building within CLIMATEFIT. Its availability in an online environment ensures maximum exposure and accessibility. For example, anyone interested can participate in the course free of charge, which can be considered as its main strength. A limitation is that the e-learning course does not provide direct feedback from a trainer. Nevertheless, this is partly addressed through tests at the end of each module and at the end of each course.

The e-learning platform will be online from the end of January 2026. As the CLIMATEFIT project will continue for one additional year, there remains the possibility to make minor updates to the content based on the feedback from the project partners and the participating PAs and FIEs.
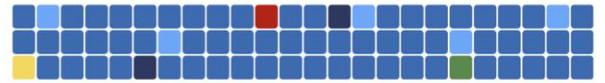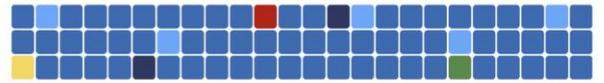
6 ANNEX: SCREEN SHOTS E-LEARNING

Below some screen shots of the e-learning course are shown.

Potential participants that enter the e-learning platform have the option to undertake the e-learning course for **1) Financial and Investment Entities** or **2) the course for Public Authorities**.
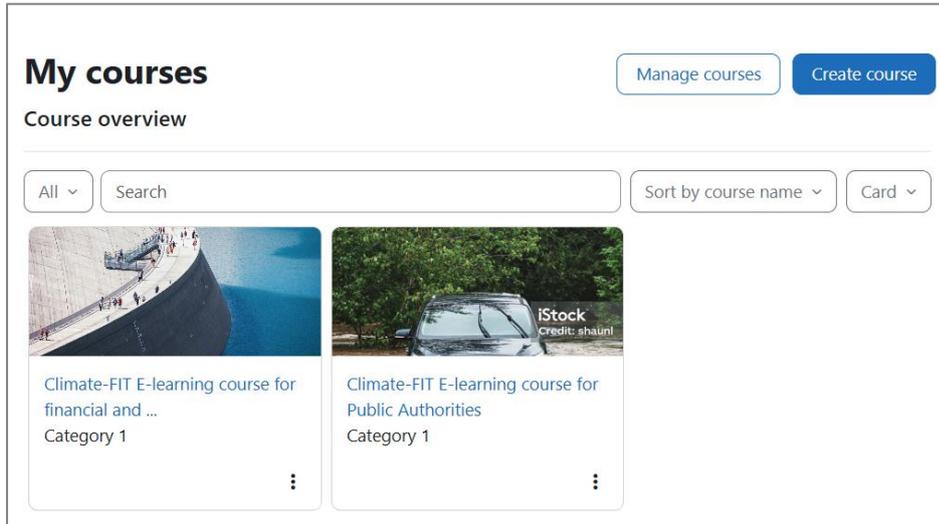
After clicking on each of the courses, a drop-down menu shows like the one below where the participants see all modules.

Climate-FIT E-learning course for financial and investment entities

Bulk actions ✏

Course | Settings | Participants | Grades | Activities | More ⌄

⌄ **Introduction to the e-learning course** ✏   Collapse all ⋮

📄 Introduction to the e-learning course ✏ PDF   ⋮
+

⌄ **Module 1 - preparing the ground for adaptation** ✏   ⋮

📄 Module 1 - prepare the ground for adaptation - PDF ✏ PDF   ⋮
+

⌄ **Module 2 - Regulatory aspects in adaptation Finance** ✏   ⋮

📄 Module 2 - Regulatory aspects in adaptation finance ✏ PDF   ⋮
+

⌄ **Module 3 - Understanding climate risk** ✏   ⋮

📄 Module 3 - Understanding Climate Risk ✏ PDF   ⋮
+

⌄ **Module 4 - Estimation of costs and benefits** ✏   ⋮

📄 Module 4 - Estimation of the costs and benefits of adaptation measures ✏ PDF   ⋮
+

⌄ **Module 5 - Opportunities for financial institutions in adaptation finance** ✏   ⋮

📄 Module 5 - Opportunities for financial institutions ✏ PDF   ⋮
+

⌄ **Module 6 - Summary and final test** ✏   ⋮

📄 Module 6 - Summary ✏ PDF   ⋮
+

Climate-FIT E-learning course for Public Authorities

Bulk actions ✏

Course | Settings | Participants | Grades | Activities | More ⌄

⌄ **Introduction to the course** ✏   Collapse all ⋮

📄 Course Introduction ✏ PDF   ⋮
+

⌄ **Module 1 - Adapting to climate risks** ✏   ⋮

📄 Module 1 - Adapting to climate risks ✏ PDF   ⋮
+

⌄ **Module 2 - Identifying climate risks** ✏   ⋮

📄 Module 2 - identifying climate risks ✏ PDF   ⋮
+

⌄ **Module 3 - creating governance structures** ✏   ⋮

📄 Module 3 - creating governance structures ✏ PDF   ⋮
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⌄ **Module 4 - estimation of costs and benefits** ✏   ⋮

📄 Module 4 - estimation of costs and benefits ✏ PDF   ⋮
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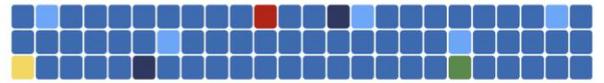⌄ **Module 5 - financial sources and instruments** ✏   ⋮

📄 Module 5 - financial sources and instruments ✏ PDF   ⋮
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⌄ **Module 6 - developing bankable climate adaptation projects** ✏   ⋮

📄 Module 6 - developing bankable climate adaptation projects ✏ PDF   ⋮
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⌄ **Module 7 - Summary and final test** ✏   ⋮
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Screen shots of slides – training course for public authorities
Title page of course introduction and example slide

CLIMATEFIT

Screen shots of slides – training course for financial and investment entities
Title page of course introduction and example slide
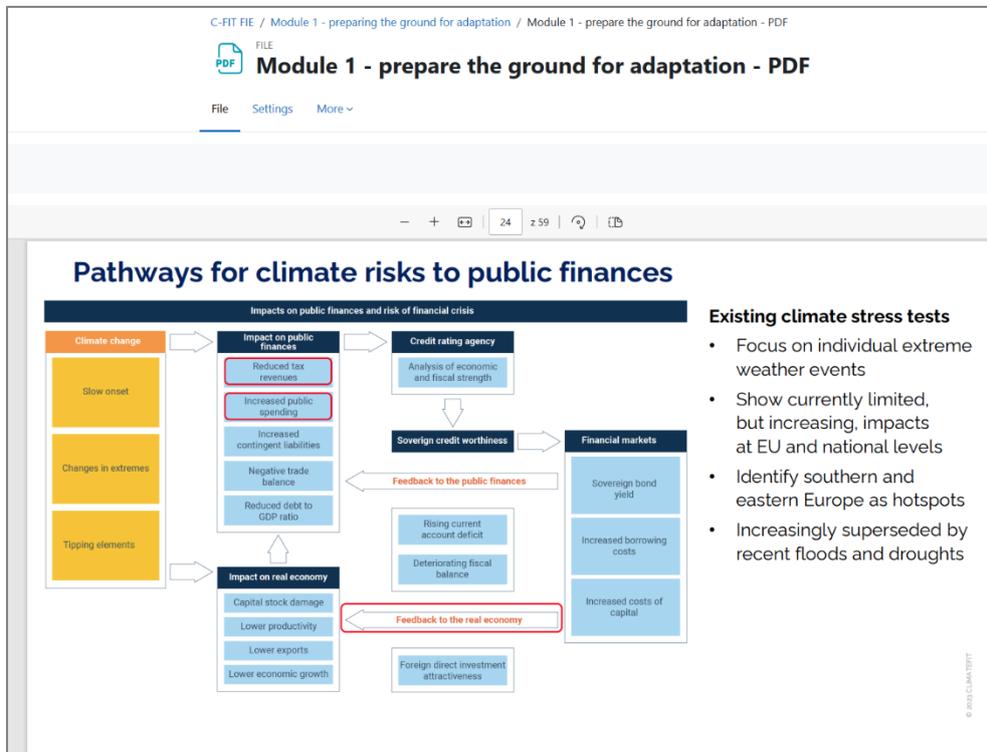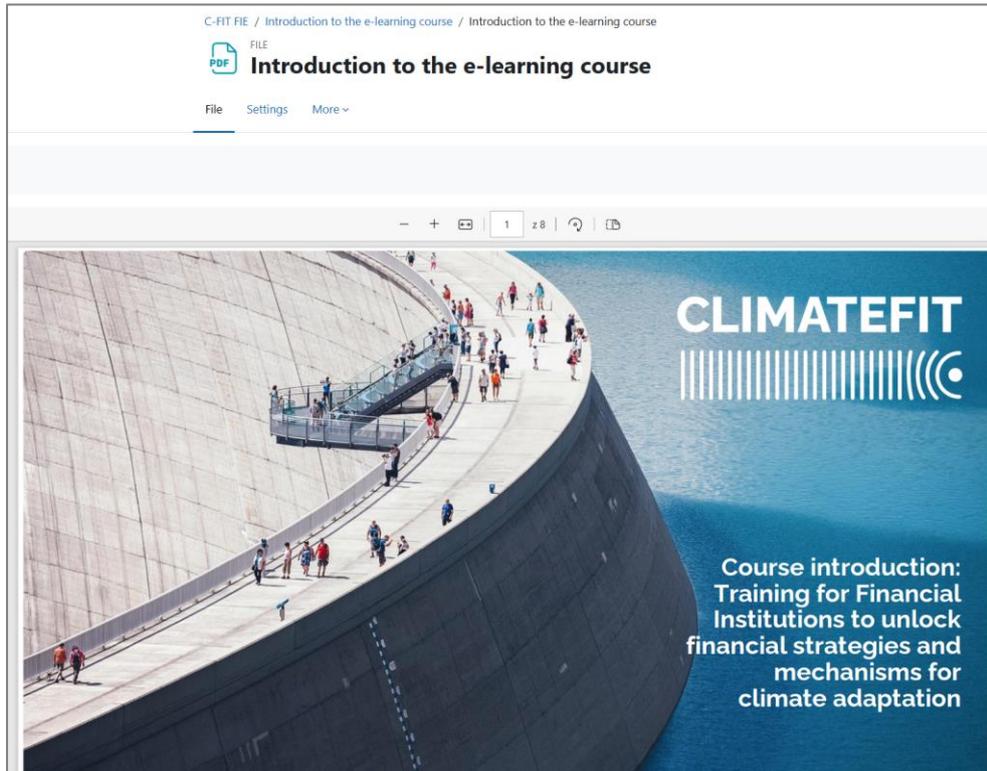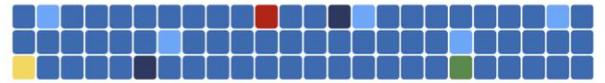
The CLIMATEFIT project aims to support EU territories in their just and transformational journey toward climate resilience by bridging the finance gap, providing critical insight and building the capacities of (i) Public Authorities (PAs) to identify, orchestrate and attract various public and private 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.