

Federated decentralized trusted dAta Marketplace for Embedded finance



D7.4 - Training Programs and Learning Centre

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Definitions

Acronym	Definition
AI	Artificial Intelligence
AML	Anti Money Laundering
API	Application Programming Interface
APM	Assets Policy Management
BPM	Business Process Management
DGA	Data Governance Act
DLT	Distributed Ledger Technologies
DOI	Digital object identifier
DQA	Data Quality Assessment
ESG	Environmental, Social and Governance
EU	European Union
EUC	End-User Computing
FAME	Federated decentralized trusted dAta Marketplace for Embedded finance
FAQ	Frequently Asked Questions
FDAC	Federated Data Assets Catalogue
FML	Federated Machine Learning
GA	Grant Agreement General Assembly
GDPR	General Data Protection Regulation
GPS	Global Positioning System
HTML	Hypertext Markup Language
IBM	International Business Machines
IDSAs	International Data Spaces Association
JSI	Institut Jozef Stefan
KPI	Key Performance Indicator
KYC	Know Your Customer
LC	Learning Center
LIME	Local Interpretable Model-agnostic Explanations
LLM	Large language model
LMS	Learning Management System
ML	Machine Learning
PDF	Portable Description Format
PM	Person Month
PSD2	2nd Payment Services Directive
REST	Representational State Transfer

SAX	Situation Aware eXplainability
SHAP	SHapley Additive exPlanations
UI	User Interface
URL	Uniform Resource Locator
XAI	Explainable Artificial Intelligence

Other acronyms and abbreviations not present in the table, are introduced in the text along with their definitions.

Executive Summary

The Horizon Europe FAME project developed a novel decentralized data marketplace infrastructure for data-driven Embedded Finance applications. One of the FAME project's main objectives was the creation and implementation of a learning centre that integrates and offer training resources for both technical and non-technical users. To this end, the FAME partners developed a variety of learning resources, including training courses, whitepapers, technical documentation and hands-on step by step tutorials related to FAME developments. In addition, they have collected third-party resources (e.g., third party courses and tutorials) that could serve the learning objectives of FAME stakeholders. All these resources have been integrated in a learning platform and an accompanying portal, which are destined to support the services of the learning centre and to complement the services and functionalities of the decentralized marketplace, as well as of the FAME technologies that support the marketplace.

The present deliverable describes the developments of the FAME learning centre. It outlines the methodology adopted for the design and implementation of the learning centre, including the FAME project's training resources and the learning platform. Furthermore, it presents the main user journeys that are supported by the learning centre. Most importantly, the deliverable provides a detailed description of the training resources that have been collected, developed, and integrated to date, including "home grown" resources (i.e., resources developed in the scope of FAME project) and related third-party resources (i.e., resources developed outside the scope of FAME by relevant projects and other initiatives). Finally, information about content organization and the standards used is also provided.

The training resources of the FAME learning centre include general tutorials in topics relating to data marketplaces and embedded finance, but also documentation for the FAME developments. Specifically, the learning centre is designed to support users of the FAME infrastructure in their efforts to learn how to use the FAME marketplace and/or how to develop data-driven applications based on FAME data assets. Most importantly, the FAME learning centre is designed in way that enables the integration of FAME training resources as data assets in the FAME marketplace.

One of the sections of the deliverable is dedicated to the description of the FAME training platform, an LMS (Learning Management System) like infrastructure that is destined to support the hosting and delivery of the various training resources and services. This training platform is described from a functional perspective, as well as from a technical and technological perspective since it is a core pillar of the learning centre.

Overall, the partners have developed a rich set of training resources, including eight (8) self-paced courses, training resources, a set of training webinars on FAME related themes, whitepapers, developers' documentation and video tutorials about the components of the FAME platform, as well as a catalogue of existing courses. Moreover, they have collected and integrated a series of existing resources such as whitepapers, courses, and training videos developed in past projects of the partners. The FAME learning centre has also delivered three (3) face-to-face trainings. The materials of these face-to-face trainings have been also integrated in the learning centre infrastructure and have been disseminating to the FAME and the European Data Spaces ecosystem via the digital channels of the project. As part of the post project exploitation phase, the FAME consortium members in charge of the learning centre (i.e. the relevant "exploitation champions") are committed to continually enhance the learning centre with new value-added resources and content. The FAME partners have developed a plan for exploiting the learning centre and boosting its wider use within the data marketplaces, data spaces and embedded finance communities.

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1 Introduction

1.1 Objective of the Deliverable

FAME has developed a federated data marketplace infrastructure for Embedded Finance Applications, including middleware and tools for creating, accessing, and trading data assets in-line with the principles of interoperability and data sovereignty. The FAME marketplace leverages a host of advanced concepts and technologies, including technologies where a considerable talent gap is observed (e.g., Industrial Data Spaces, Artificial Intelligence (AI), Federated Data Management). Furthermore, many of the project's developments are very innovative and grounded on concepts and technologies that go beyond the state of the art. Therefore, the mass of data producers, data consumers and other data management stakeholders and professionals are hardly acquainted with these concepts and technologies. Most importantly, FAME is also addressing stakeholders from the non-tech sectors (e.g., industrial end-users), which lack the knowledge and expertise required to adopt, use, and fully leverage advanced data marketplace concepts.

In this context, FAME must facilitate the upskilling and reskilling of data management stakeholders and professionals in directions that will allow them to understand, adopt, and benefit from the FAME federated management infrastructure and technologies. To this end, one of the main objectives of the project was to establish a Learning Centre, which is acting as a single-entry point to a wealth of training resources for tech and non-tech stakeholders of the FAME platform and services. The purpose of the present deliverable is to introduce the learning center of the FAME project as a collection of three main types of elements and resources:

- **Learning and training resources:** A rich set of learning and training resources, including video courses, webinars, whitepapers, tutorials, and more.
- **Learning platform:** A lightweight training platform and Learning Management System (LMS) tailored to the needs of the project.
- **Support Services:** A pool of training resources (including developers' resources) and support services destined to support SMEs, startups and other innovators in their innovation endeavors. These services include training and upskilling services linked to the above-listed training resources.

The present deliverable is focused on describing the status of the FAME Learning Centre as of December 2024 i.e., the last month (M36) of the project's lifetime. The consortium is committed to enhance the learning center with additional resources and services following the end of the project, which is part of FAME's plan for sustaining and exploiting the Learning Center in the years to come.

1.2 Methodology

The methodology of the project has been driven by the following principles:

- **Coverage of multiple user personas:** The FAME LC is destined to support learning journeys of different stakeholders that are interested in data marketplaces. Specifically, the LC provides resources and services for researchers, innovators, developers, and integrators of data management technologies, as well as non-technical users of EmFi applications.
- **Coverage of multiple technologies:** The FAME LC includes learning resources for different technologies ranging from distributed ledger infrastructures and authentication technologies to machine learning, AI, and XAI technologies.
- **FAME Community Support:** The FAME LC is an integral part of the FAME ecosystem. It will offer the FAME community with a range of resources that will support them in their data marketplaces development and deployment activities.
- **Opportunity to Learn FAME:** The LC is also designed to support researchers, developers and non-tech users that would like to learn how to use the FAME technologies, infrastructures and use cases.
- **Reuse Driven:** The FAME LC does not intend to "reinvent the wheel" by creating learning resources that already exist. Rather, it will try to reuse existing learning resources as much as

possible, including resources developed in previous projects of the partners and resources available in third-party learning ecosystems.

These principles have been considered in the design and implementation of the LC, including the implementation of its platform and the materials and resources of the LC.

Furthermore, the learning center is developed in the following four phases (Figure 1):

- **Phase 1 - Design and Planning (M6-M10):** This phase has focused on the specification of the LC features, functionalities, and materials, as well as on the planning of the LC design and launch. The outcomes of this phase are documented in the present deliverables.
- **Phase 2 - Implement and Launch (M10-M18):** This phase has focused on the implementation of the LC platform and on the creation of an initial pool of learning resources and materials. The latter were used to populate the platform with a critical mass of materials towards launching a meaningful LC by M18, rather than presenting a platform with few contents. The outcomes of this phase are also reported in the present deliverable.
- **Phase 3 - Grow and Expand (M19-M32):** This phase will commence following the delivery of the present deliverable. It will aim at growing and expanding the LC in terms of training resources, courses, and functionalities. Moreover, the users' and visitors' base of the FAME LC have been expanded.
- **Phase 4 - Plan to Sustain and Exploit (M33-M36):** This is the last phase of the LC development during the FAME lifetime. It will focus on the creation of a credible plan for sustaining and exploiting the LC, while at the same time expanding its use after the end of the FAME project. The activities of this phase are summarized and reported in deliverable D7.3, which details the exploitation planning activities of the project.

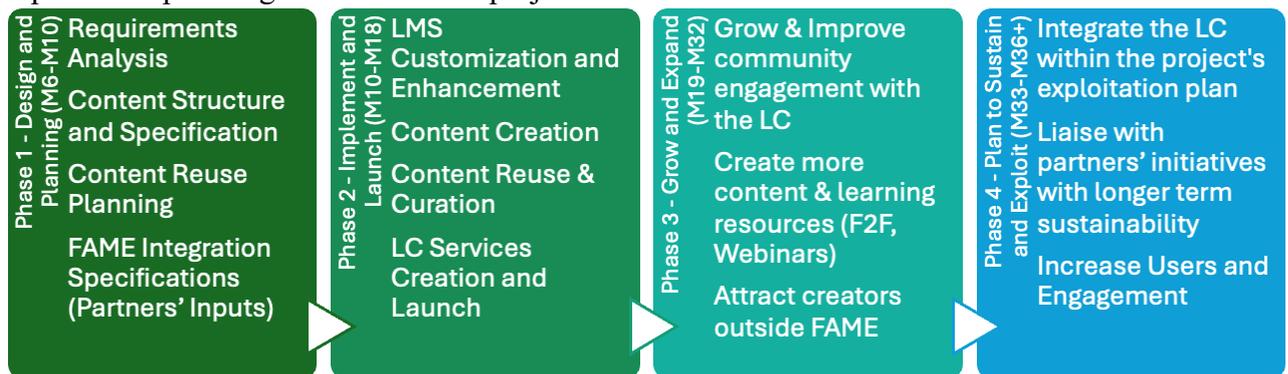


Figure 1: The Four Phases of the FAME LC Development Methodology

1.3 Insights from other Tasks and Deliverables

The FAME Learning Centre maintains links to all the technical tasks, components, and deliverables of the project, given that it is destined to comprise documentation about them. Specifically, the LC will comprise information and documentation about all the different components of the FAME marketplace platform to enable stakeholders to learn how to access, use and fully leverage their capabilities. Thus, the deliverable is linked to all technical deliverables of WP3, WP4, and WP5, which comprise information about the components of the FAME platform.

Moreover, the present deliverable is related to the FAME platform, given that it is part of the integrated platform of the project. Likewise, it is also linked to the deliverables of the project that describe the FAME architecture (i.e., D2.2 and D2.6), as these deliverables have driven the structuring of some learning resources in ways that make them compatible to the architecture of the FAME platform. At the same time, the present deliverable forms a core element of the FAME community and ecosystem, which is the reason why it is also closely linked with the dissemination and community building deliverables of the project (i.e., D7.2 and D7.3).

1.4 Structure

The remainder of this deliverable that follows this introductory section is structured as follows:

- Section 2 illustrates the main requirements and specifications that have driven the development of the LC.
- Section 3 describes the project's learning/training platform, including its technical and operational aspects. The section is structured according to the project's guidelines for software deliverables.
- Section 4 presents the training resources that have been integrated in the LC, including courses, documents, a training catalogue and more. The relevant resources include "home grown" on-line courses, as well as resources produced as part of the three face-to-face trainings of the FAME learning centre.
- Section 5 illustrates the training resources for the various FAME components. These resources are destined to support learning journeys of users that would like to learn FAME.
- Section 6 presents the innovation support resources and services that are or will be integrated in the LC, in support of innovators in the areas of data marketplaces.
- Section 7 is the final and concluding section of the deliverable. It summarizes the deliverable and provides an outlook for the post project exploitation of the Learning centres.

2 Learning Centre Requirements and Specifications

2.1 Targeted Stakeholders

The LC content and services target the following main stakeholders (personas):

- **Researchers** with an interested in federated data management, data spaces, and data marketplaces, as well as technological components relating to data spaces and data marketplaces.
- **Technology Vendors/Providers** notably vendors of technological components of data spaces and marketplaces, such as AI/ML vendors, as well as providers of blockchain solutions.
- **Data Spaces and Data Marketplaces solution integrators**, notably integrators of solutions for EmFi.
- **Innovators (including SMEs and high-tech start-ups)** notably innovators in the EmFi space that could directly benefit from the innovation support services of the LC.
- **Non-Tech users** of EmFi use cases, such as the end users of the FAME pilots and use cases.

Apart from the above listed stakeholders, the FAME LC content could also serve the educational needs of policy makers, regulators and SDOs. While content relevant to these stakeholders will become available on the platform, the functionalities of the platform are not primarily addressed to these groups.

2.2 Reference User Journeys

The following table (Table 1) illustrate sample user journeys for the above listed stakeholder groups. These user journeys are destined to illustrate the value of the LC for different actors. Note that the listed user journeys are indicative and not exhaustive, as the LC is open to be used by a broader range of potential users (e.g., data space and AI consultants).

Table 1 – Indicative User Journeys for the FAME Learning Centre

Persona	Sample User Journey Description
Researcher	Search the FAME Training Catalogue; Access FAME courses on the persona's research interests
Technology Vendor	Search the FAME components; Access documentation and sample code regarding selected FAME developments
DS Solution Integrator	Access to FAME Whitepapers and Examples on how to setup a data space solution with associated monetization mechanisms
Innovator	Fills in the Innovation Form providing information about a novel service or product; Receives links to resources and information
Non-Tech Users	View Webinars and Videos about the training solutions

2.3 Learning Platform Requirements

The platform that will support the hosting and the delivery of courses must adhere to basic LMS requirements in terms of:

- Supporting individualized training journeys and tracking their progress, especially in for the case of on-line courses.
- Hosting multiple sessions/lectures per course.
- Supporting User Management, including: (i) ability to create, manage, and delete user accounts; and (ii) Role-based access control (e.g., for students and administrators).
- Supporting course management functionalities, including tools for creating, structuring and managing courses.
- Supporting Content Management functionalities, including support for various content types (e.g., text, video, audio).

- Supporting assessment functionalities, including tools for creating quizzes, tests, and assignments, along with tools for grading the provided quizzes.
- Providing user Support and training, including access to support resources and trainings for the end-users of the platform.

2.4 Content Structure Specifications

The FAME Learning Center serves as a single point of access to all training and knowledge materials developed in the project. Its structure is designed to make it easy for users to find the resources they need, whether they are looking for introductory guidance, hands-on support, or more in-depth background material. Figure 2 presents how the Learning Center is organized and built around five main content categories.

- **FAME Courses:** This section includes structured learning material such as study guides, videos, and short assessment quizzes. These courses provide a clear learning path and connect directly with the training content described in Section 4.
- **Face-to-face Trainings:** This category covers resources linked to the in-person training sessions, including presentation slides and recordings. These materials support the delivery of the sessions and remain available afterwards for participants who wish to revisit the content.
- **Webinars:** Here users can access webinar presentations and recordings from online sessions. These resources allow participants to catch up on sessions they may have missed or return to key explanations at their own pace.
- **Learn FAME:** This section offers practical guidance on how to use the FAME platform and its various components. It includes documentation, step-by-step instructions, and short how-to videos. The material will be organised by FAME component, as outlined in Section 5.
- **Knowledge Assets:** This category brings together additional background material, such as whitepapers and publications.

Together, these categories form a clear and accessible structure that supports different learning needs and helps users make the most of the FAME platform and technologies.

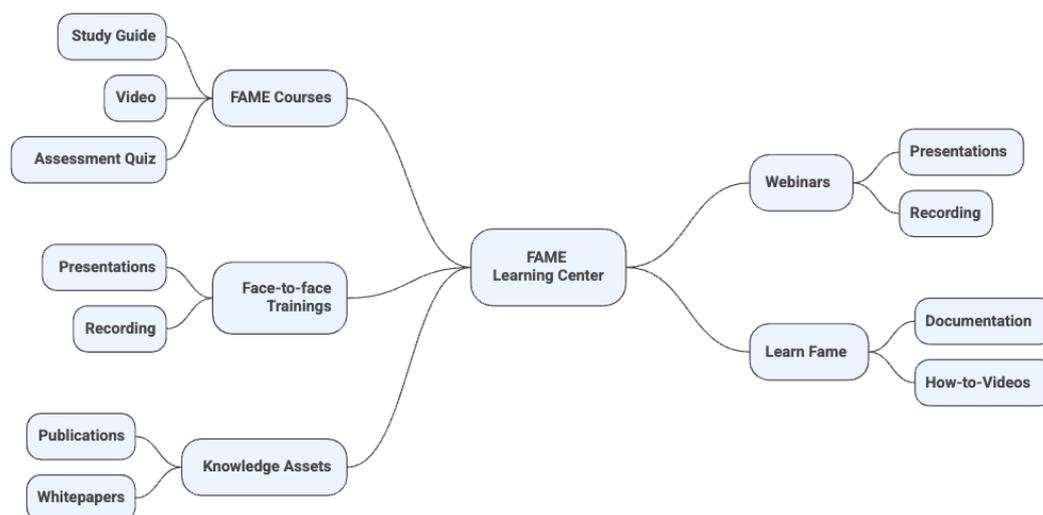


Figure 2: Overview of the Content Structure of the Learning Centre

2.5 Resource Description Specifications

Table 2 describes the metadata that should be provided with each training course that is integrated in the learning centre. These metadata guide for learning content creators to provide the information

needed to properly integrate their content/resource in the learning centre. These metadata may be extended with additional information.

Table 2 – Training Resource Description Specification

Type/Metadata	Description
Content Types	Types of content: text, video, presentation, quiz, etc. Can have more than one
Title	Title of the training
Subtitle	Brief summary of the training
Keywords	List of keywords
Description	Description of the training, can be text or video
Language	Language presented in the training
URL	URL of the training from the platform (Udemy, Coursera, etc..), if applicable
Provider	Name of the platform of the training (ex: Udemy, Coursera, etc), if applicable
Based Price	Price of the training, is related with the access time to the training (ex: lifetime access)
Schedule	Schedule of the training, if applicable (ex: On-demand)
Duration	Duration of the training (can be a duration of a video)
Chapters	List of chapters or modules from a course or the agenda from a presentation
Institution	List of institutions or companies responsible for the training
Instructors	List of instructors or speakers involved in the training
Dates	Can be the starting date of a course or the published date of a video
Multimedia Files	Resource files (PDF, Video, PPT, etc)

2.6 Marketplace Integration Specifications

The FAME Learning Centre has value and merit as a stand-alone tool i.e. independently of other FAME developments. Nevertheless, it is envisaged that the integration of the Learning Centre resources as data assets of the FAME marketplace will add value to the project, serving as a tangible showcase of the project's data marketplace functionalities. To this end, the integration of the Learning Centre and the FAME marketplace is done, based on the following specifications:

- Integration of the user management and access control mechanisms between the LC and the Data marketplace. Registered users to the Data Marketplace shall be able to access the LC resources.
- Integration of LC assets within the FDAC catalogue through indexing them and making available their metadata in the catalogue.
- Integration of LC assets with the pricing and monetization mechanisms of the data marketplace. It is envisaged that assets developed as part of this deliverable will be available free of charge to learners. However, this integration will provide opportunities for monetizing assets (e.g., courses, whitepapers, presentations) provided by third-party contributors.
- Integration of the user interfaces of the LC and of the data marketplace, at the level of the UI (User Interface) dashboard of the learning centre.

3 Learning Centre Platform

3.1 On-line Courses Overview

The learning centre platform is essentially an e-learning platform designed to host a diverse range of learning resources. This platform features multiple format content, including text, video, or other documents. Featured courses are structured with multiple chapters, each accessible through its own dedicated menu. For even more granular exploration, chapters can be further divided into subchapters, again readily available through dedicated menus. This organisation ensures users can navigate seamlessly through the course material. The training player also supports the learning process through interactive assessments in the format of quizzes. Quizzes are integrated as supplementary materials, allowing users to test their understanding of the covered material in a self-assessment format. These quizzes provide immediate feedback on answers, pinpointing if the given answer is correct or incorrect.

The progress throughout a course is tracked, so that the user can manage which chapters have been completed, the last chapter opened, and the answers to the quizzes. As chapters are marked as complete, a progress bar displayed on the platform's homepage visually reflects the advancement in the course. While quizzes are valuable self-assessment tools, it's important to note that they are optional and not mandatory for course completion. In other words, the user only answers if they desire to, and these are not necessary to complete a chapter or the course.

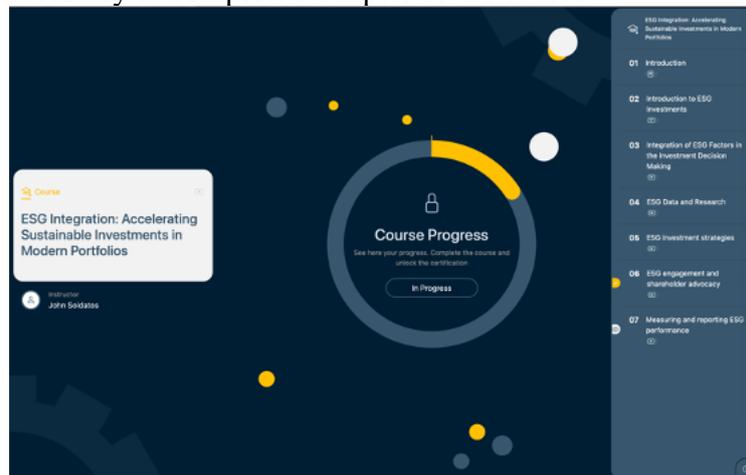


Figure 3: Training Player Homepage

3.2 Homepage

The homepage layout is designed for easy navigation and progress tracking (Figure 3). The central element is a progress bar that provides a visual indicator of the completion of a course. To access course content, a menu is featured on the right side. This menu indexes and manages the course content, listing each chapter with its number and types of content, which can be text, video, quiz or presentation. The homepage is composed of the elements listed in the following paragraphs.

3.2.1 Homepage Details

Figure 4 demonstrates the component that represents the basic information about a course. It contains the title, the types of content presented within the course, the summary, and the list of instructors and/or institutions.



Figure 4: Training Player - Homepage Details

3.2.2 Progress

Figure 5 represents the progress bar of the training player. The main function of the progress bar is to track the user's progress within a course. However, a user must initiate the course by clicking on the "Start" button in the progress bar (he could start a course by clicking on any chapter inside the menu).

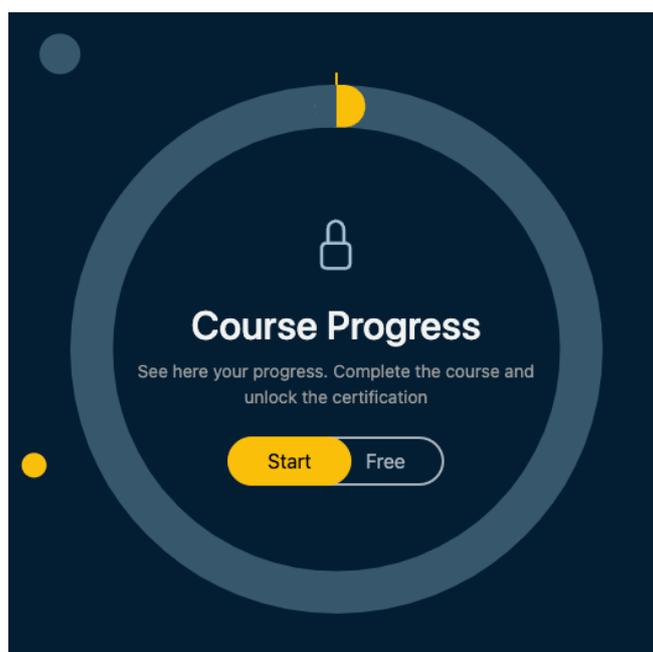


Figure 5: Training Player - Progress Bar

When the user has already started the course by opening any chapter, the buttons on the progress bar will be updated to "In Progress", as demonstrated in Figure 6.

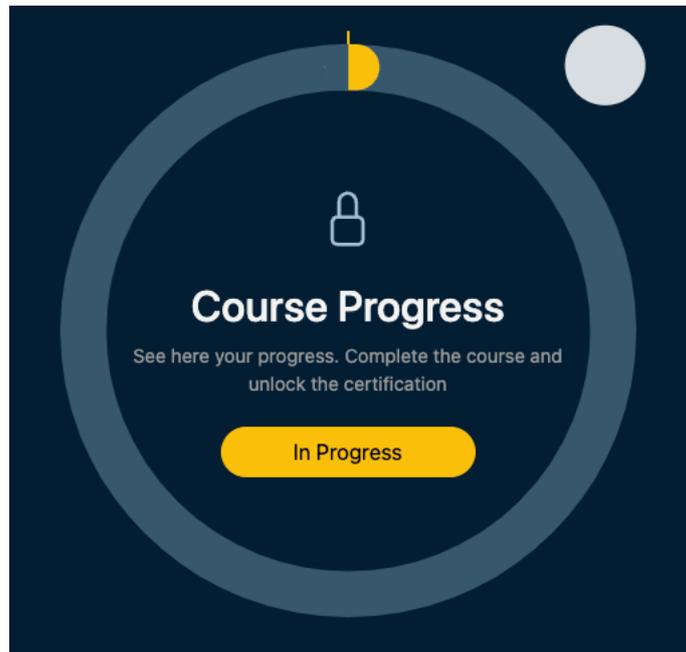


Figure 6: Training Player - Progress Bar with “in progress” state

When a chapter is marked as complete, the bar increases. If the bar reaches 100%, the course is considered completed. This feature provides users with visual feedback on their progression.

3.2.3 Training Player Menu

Figure 7 presents a snapshot of the menu of the training player (split in three parts). This menu, featured on the right side of the homepage, indexes, and manages the course content. It contains information about the title of the course, the list of chapters and also a disclaimer of the platform.



Figure 7: Training Player – Menu Snapshot

Each chapter has its number and types of content, as well as two states: complete and last opened, as demonstrated in Figure 8. When a chapter is complete, it is marked with a checkmark symbol and if the chapter was the last chapter opened it is marked with an “eye” symbol.



Figure 8: Training Player - Chapter states

To allow the user to see more information about the course and its contents, the user can hover through the menu. If the user hovers over the course title, it will show a popup with an overview of

the course. This overview features all the important details of the course such as the price, important dates (date of creation of the course e.g.), list of instructors and/or institutions, some statistics about the course such as total number of chapters, total number of quizzes, number of chapters grouped by type of content and the language presented in the course.

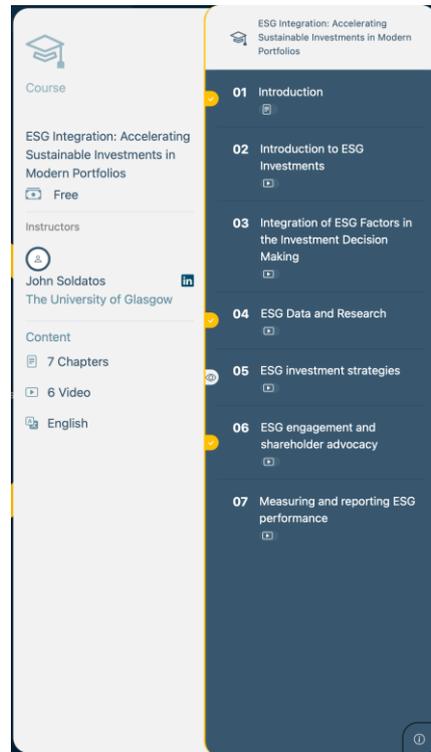


Figure 9: Training Player - Course Overview Screen

Also, the user can see more information about each chapter by hovering on its respective area in the menu. When a user hovers over a specific chapter, it will show a popup with the list of its subchapters and if is a video, also shows its starting time (see Figure 10).

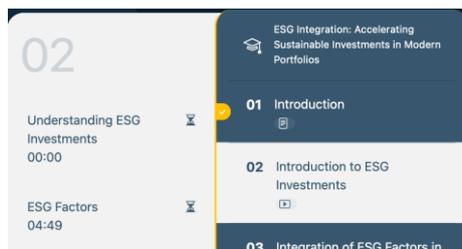


Figure 10: Training Player - Chapter Overview

3.2.4 Disclaimer

Figure 11 illustrates the page with the disclaimer of the platform. The disclaimer component has information about the project in which the training player was developed and the information about the project in which the course was created.



Figure 11: Training Player - Disclaimer

3.3 Chapter Pages

Figure 12 presents a chapter page. This page is divided into two sections: Menu and Content.

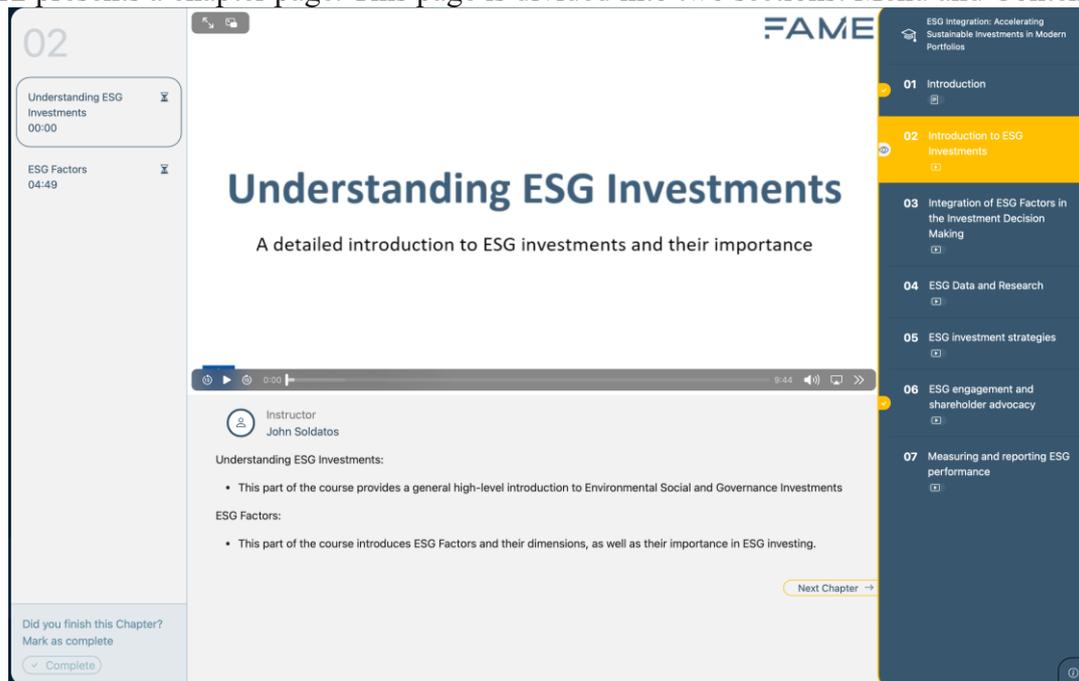


Figure 12: Training Player - Chapter page

3.3.1 Chapter Menu

The menu is composed of the number of the chapter, the list of subchapters and the complete status of the chapter. When a subchapter is a video, it will also show its starting time. The user can navigate between subchapters by clicking on a specific subchapter and the content of the page will be updated according to the option selected. Depending on the type of content of the page, its content will be updated in different ways. If the type of content is a text, the content will scroll to the corresponding header element in the text. But, if the type of the content is a video, the video will be updated to the time corresponding to the time of the selected subchapter. Also, if the content type is a presentation, the content will be updated to the corresponding page of the presentation. Moreover, in this menu, the user can mark a chapter as complete (or incomplete), by clicking on the button inside the bottom area of the menu.

3.3.2 Chapter Content

The content section is where the user can access the learning materials and tools of a specific chapter. Since, the learning centre platform supports types of content as text, video, presentation or quizzes, the content area can be displayed in different ways. When the type of content is text, the content will display a justified and formatted text for easy reading to the user. But when the type of content is a video, the content will show a video which represents the content of its subchapters and below the video is displayed more information such as, the list of instructors or institutions and some auxiliary text related to the video. Also, when the type of the content is a presentation, the content will display a PDF file with navigation buttons within the presentation.

Finally, the type of content can be a quiz, which is a complementary learning tool that the users can use for self-assessment. It is a multi-choice questionnaire about the chapter or course content. The quiz is not mandatory and is not intended to grade or evaluate a user's knowledge. When a question is answered, the quiz automatically evaluates if the answer is correct or wrong and provides visual feedback. Should be considered that completing quizzes is not mandatory and does not contribute to course progress.

3.4 Value-Added Features and Configurations

3.4.1 Theme support

The learning centre platform started as a tool tied to a specific project. In the scope of FAME theme support was added i.e., a feature that enables each project to have its main colours for websites, presentations, and more. This set of colours is known as a theme. It outlines which colours are important and how they're used.

This tool is focused on three main colours: primary, secondary and highlight. The primary colour represents the ink that is more prominent on the website. Normally this colour is given by the principal colour used by the brand. This colour is used as the base of the website, through backgrounds, buttons, main features, titles etc. The secondary colour is a more neutral colour that enhances the main colour. In this way, this colour works as a complementary and is used on backgrounds, text normally when is a darker or lighter background, hovers and more. The highlight colour is the second colour used on the brand. Normally designing a brand/ logo, is uses a complementary colour for equilibrium and normally it's a colour that has the same strength as the main colour. This way, it can't be used as a secondary colour on a website because of the contrast. So this colour is treated as a highlight, and its function is a complementary work with the main colour.

Overall, to support these customizations, the learning centre platform was designed using a combination of three colours: primary, secondary, and highlight. This way, no matter what colours a theme has, the platform's interface can adapt to each project's specific branding towards creating a visually unified experience.

3.4.2 Indexing training content to catalogue assets

One of the main goals of the learning centre platform was to give a simple and easy way to help users understand and learn more about specific topics and subjects. With the help of this tool, a user can learn while reading texts, watching videos or seeing a presentation, all of those together with a self-assessment quiz can enrich the user's knowledge about a specific subject.

A catalogue asset, which essentially serves as a comprehensive repository of information, when paired with an intuitive learning centre platform, significantly enhances the ease with which users can interact with and assimilate knowledge about that specific asset. This powerful combination not only simplifies the discovery process for users but also provides them with accessible tools and resources to facilitate their understanding.

To ensure this relation between catalogue assets and training content, the learning centre platform provides a tool that allows one to associate training resources to the assets on the catalogue.

4 FAME Learning Centre Training Resources

4.1 Training Catalogue

FAME does not intend to “reinvent the wheel” in terms of the production of learning resources. Rather it will integrate and make available existing third-party resources (e.g., courses, training videos). In this direction, a catalogue of third-party resources is developed and integrated in the learning center, notably a catalogue of different courses that are available through popular academic institutions and course ecosystems (e.g., Udemy, Coursera, edX). The FAME training catalogue has been developed over the respective catalogue of training courses that was developed in the scope of the INFINITECH project. It has been initially populated with over 100+ courses and training resources, including 50+ course entries from the INFINITECH project. The metadata of the catalogue include:

- **Course:** The name of the course. In the catalogue, the course title is hyperlinked and directs the reader to the official course webpage.
- **Keywords:** Short descriptive terms summarizing the main topics or themes of the course (e.g., “digital transformation,” “fintech”). These keywords help categorize and search for courses within the catalogue.
- **Platform:** The online platform through which the course is offered (e.g., Coursera).
- **Provider:** The institution, university, or organization that developed or delivers the course (e.g., CBS, New York Institute of Finance).
- **Level:** The difficulty level of the course, such as Beginner, Intermediate, or Advanced, as defined by the provider.
- **Duration:** The estimated time required to complete the course. In the catalogue, this may appear either as total hours (e.g., “11h”) or as weekly effort over a period of months (e.g., “3h/week × 5 months”).
- **Cost:** The price or subscription required to access the course (e.g., “Coursera Plus”). If the course is free, this would also be indicated here.
- **Location:** Where the course is delivered. For the entries in this catalogue, this is “Virtual,” as all courses are provided online.

URL: The direct link to the course page. In the catalogue, this URL is embedded as a hyperlink in the Course title.

Course	Keywords	Platform	Provider	Level	Duration	Cost	Location
Digital Transformation in Financial Services Specialization	digital transformation, financial services	Coursera	CBS	Beginner	3h/week x 5 months	Coursera Plus	Virtual
Innovation Strategy: Developing Your Fintech strategy	innovation, fintech	Coursera	CBS	Beginner	11h	Coursera Plus	Virtual
Future Development in Supply Chain Finance and Blockchain Technology	blockchain, supply chain, finance	Coursera	New York Institute of Finance	Intermediate	7h	Coursera Plus	Virtual
Machine Learning and Reinforcement Learning in Finance Specialization	machine learning, finance	Coursera	NYU	Intermediate	5h/week x 4 months	Coursera Plus	Virtual
FinTech: Finance Industry Transformation and Regulation Specialization	finance, digital transformation	Coursera	The Hong Kong University of Science and Technology	Beginner	3h/week x 5 months	Coursera Plus	Virtual

Figure 13: Snapshot of the FAME Training Catalogue

The Catalogue is offered as an [open dataset](#) in the [FAME project’s Zenodo Community](#).

4.2 FAME Courses

The courses that have been developed are integrated in the Learning Centre. Following paragraphs provide an overview of these courses, which are accessible through the project's YouTube Channels and through the learning platform of the FAME learning center (e.g., see the snapshot of a relevant landing page in Figure 14).

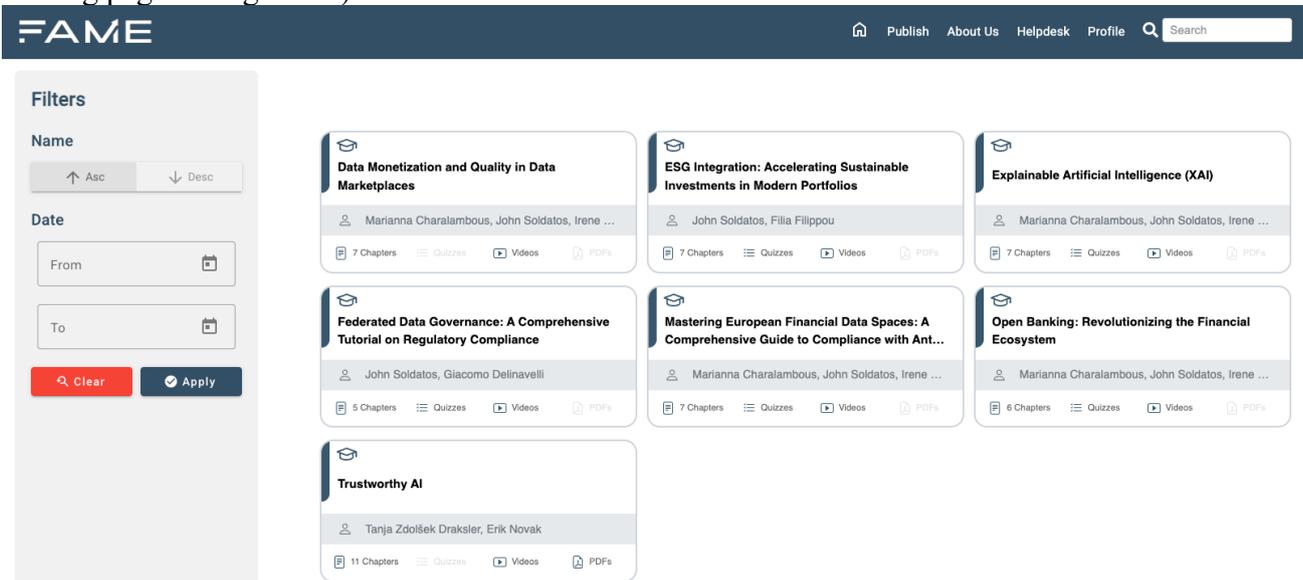


Figure 14: Sample Landing Page of the FAME Learning Center

4.2.1 ESG Integration: Accelerating Sustainable Investments in Modern Portfolios

4.2.1.1 Course Overview

This course provides insights on how to accelerate sustainable investments in modern portfolios. FAME is an embedded financial project which implements various data-driven embedded finance pilots, including pilots that deal with ESG bonds and investments.

The course is destined to help financial professionals and engineers in their efforts to make informed decisions that align with their values and financial goals. The course starts by providing a solid foundation in ESG investments, ensuring that learners grasp the fundamentals of this transformative approach. It provides an overview of what ESG factors are and why they are essential in today's investment landscape. Moreover, it presents different approaches to ESG integration along with information on how to incorporate ESG factors into your financial analysis effectively. Material ESG issues are also discussed, along with quantitative and qualitative methods for assessing ESG performance.

The course also provides information about ESG data and research, including information on how to evaluate the reliability and credibility of ESG data, which is a key for making informed investment choices. Furthermore, different ESG-focused investing strategies are presented along with the concepts of negative screening and exclusions, as well as positive screening and thematic investing. A dedicated part of the course focuses on engagement and advocacy as mechanisms for driving positive change within companies. Finally, the course provides insights on how to measure and reports ESG performance, which is vital for transparency and accountability. This knowledge is provided along with best practices in ESG reporting and information about investors' expectations for ESG disclosures.

4.2.1.2 Curriculum

The curriculum of the course is illustrated in Table 3.

Table 3 – Curriculum for Course “ESG Integration: Accelerating Sustainable Investments in Modern Portfolios”

Curriculum

1. Introduction to ESG Investments

-
- 1.1 Understanding ESG Investments**
 - 1.2 ESG Factors**
 - 2. Integration of ESG Factors in the Investment Decision Making**
 - 2.1 Integrating ESG factors into financial analysis**
 - 2.2 ESG integration approaches**
 - 2.3 Quantitative and qualitative methods for ESG assessment**
 - 2.4 Identifying material ESG issues**
 - 3. ESG Data and Research**
 - 3.1 ESG research and ratings**
 - 3.2 Sources of ESG Data**
 - 3.3 Assessing the reliability and credibility of ESG data**
 - 4. ESG investment strategies**
 - 4.1 ESG integration in active and passive strategies**
 - 4.2 ESG-focused investing**
 - 4.3 Positive screening and thematic investing**
 - 4.4 Negative screening and exclusions**
 - 5. ESG engagement and shareholder advocacy**
 - 5.1 Collaborative initiatives for ESG improvement**
 - 5.2 Corporate engagement on ESG issues**
 - 5.3 Proxy voting and shareholder resolutions**
 - 5.4 Stewardship principles and practices**
 - 6. Measuring and reporting ESG performance**
 - 6.1 Investor expectations for ESG disclosures**
 - 6.2 Key performance indicators (KPIs) for ESG**
 - 6.3 Reporting frameworks and standards**
 - 6.4 ESG reporting best practices**
-

4.2.1.3 Snapshots

Figure 15 provides a snapshot of the videos of the ESG course in the project's YouTube channel.

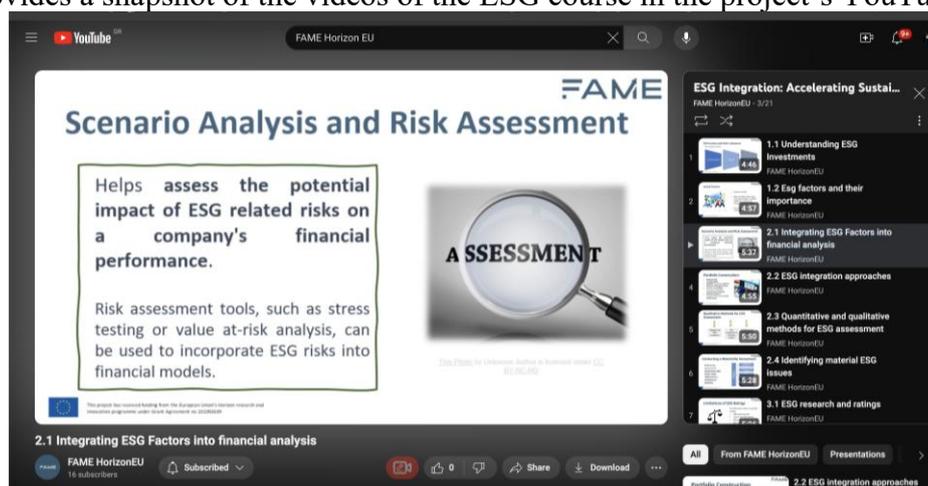


Figure 15: Snapshot of the ESG Course in FAME's YouTube Channel

The course is also integrated in the FAME training platform/player, where assessment questions are also available in the form of a quiz (see Figure 16).

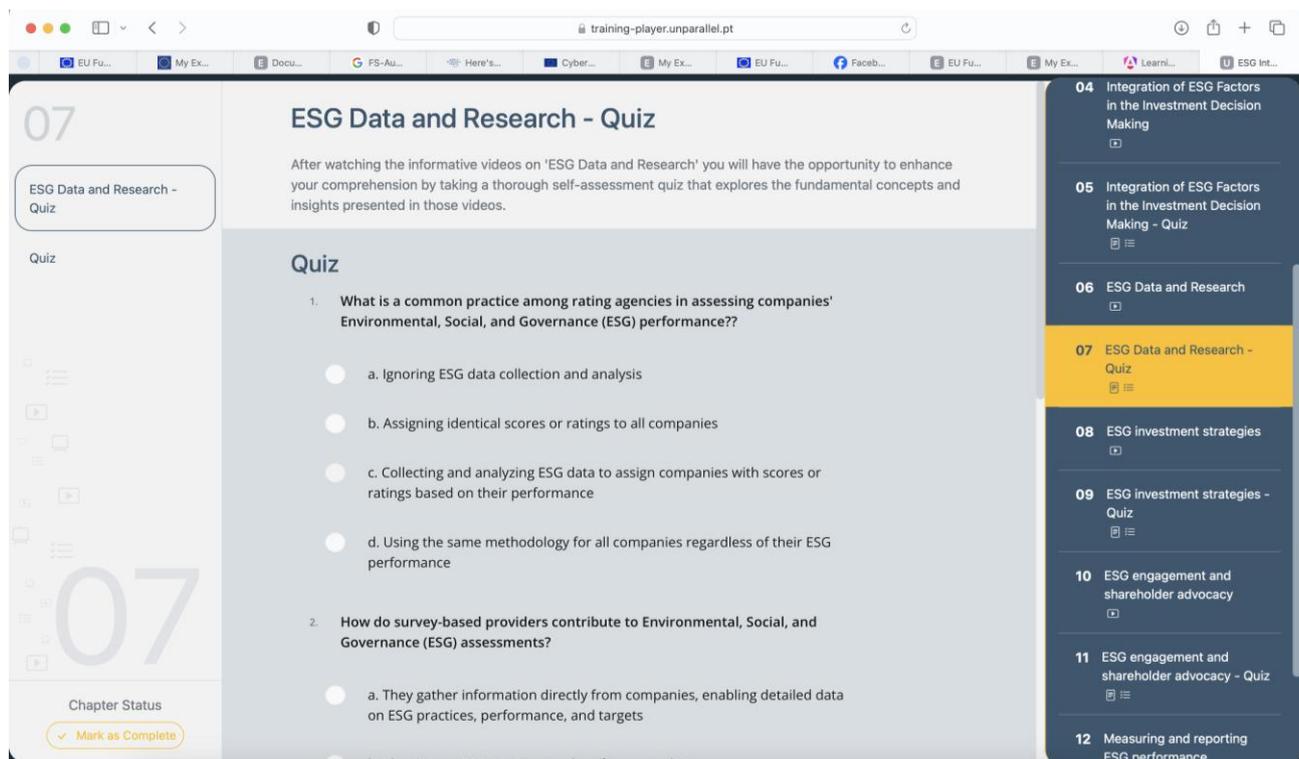


Figure 16: Snapshot of the ESG Course Quiz in FAME's Training Platform

4.2.2 Regulations and Compliance for Financial Data Spaces: A Comprehensive Guide to Compliance with Anti-Money Laundering (AML) Regulations

4.2.2.1 Course Overview

The course introduces the world of Anti-Money Laundering (AML) Regulations. It includes an overview of key regulations, GDPR impacts, and the essentials of data protection and cross-border data transfers. Emphasizing regulatory compliance, the course touches upon AML laws, KYC (Know Your Customer) protocols, and the critical role of financial institutions, highlighting the latest in AML directives and the integration of technologies like Distributed Ledger Technologies (DLT) and AI to bolster compliance efforts. This asynchronous course is tailored specifically for professionals and stakeholders within the financial sector and/or the data spaces community who wish to navigate European financial data spaces and achieve AML compliance.

4.2.2.2 Curriculum

The curriculum of the course is illustrated in Table 4.

Table 4 – Curriculum for Course “Regulations and Compliance for Financial Data Spaces: A Comprehensive Guide to Compliance with Anti-Money Laundering (AML) Regulations”

Curriculum

- 1. European Regulations in Financial Data Spaces**
 - 1.1 Overview of European regulations in financial data spaces.**
 - 1.2 Data protection regulations in Europe**
 - 1.3 Key regulatory bodies in Europe**
 - 1.4 Impact of GDPR on financial data spaces**
 - 1.5 Cross-border data transfers in Europe**
- 2. Regulatory Compliance in European Financial Data Spaces**
 - 2.1 Importance of regulatory compliance in financial data spaces**
 - 2.2 Internal controls and policies**

2.3 Risk assessment and management

3. Anti-Money Laundering (AML) Compliance in European Financial Data Spaces

3.1 Introduction to anti-money laundering (AML)

3.2 AML laws and regulations in Europe

3.3 Know Your Customer (KYC) requirements

3.4 Transaction monitoring and suspicious activity reporting

4. Anti-Money Laundering Laws and Regulations in Europe

4.1 Directive (EU) 2015849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing

4.2 Fifth Money Laundering Directive (AMLD 5) and its amendments

5. Compliance Procedures and Controls in AML

5.1 AML compliance monitoring and reporting

5.2 Customer due diligence procedures and enhanced due diligence for high-risk customers

5.3 Risk-based approach to AML compliance

6. Technology Solutions for AML Compliance in European Financial Data Spaces

6.1 Distributed ledger technology (DLT) and AML

6.2 RegTech solutions for AML compliance

6.3 Challenges and considerations in implementing technology solutions

4.2.2.3 Snapshots

Figure 17 provides a snapshot of the videos of the AML related course on the project's YouTube channel. The course is also integrated in FAME's training platform. A snapshot is illustrated in Figure 18.

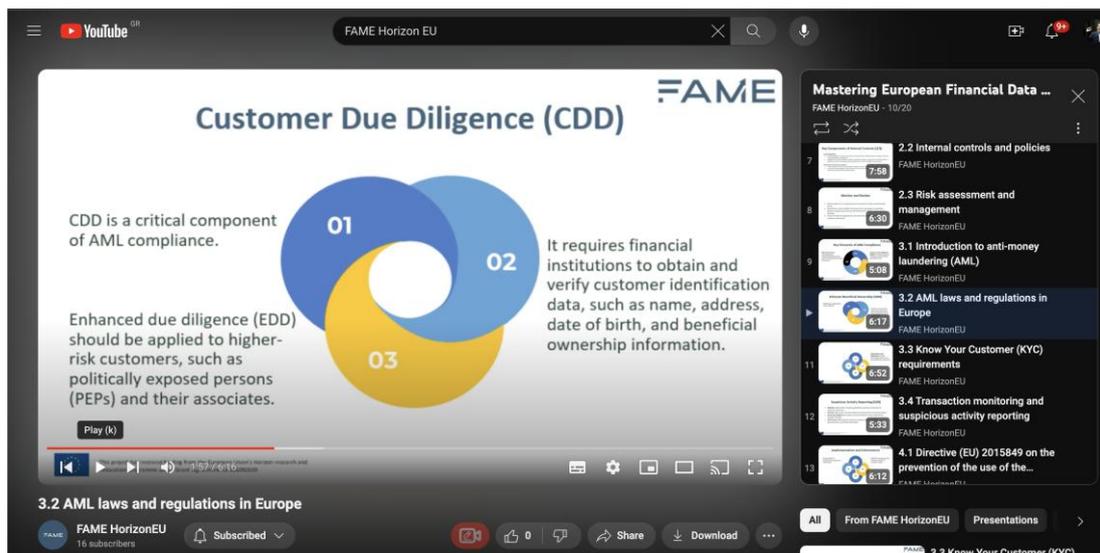


Figure 17: Snapshot of the AML related Course in FAME's YouTube Channel

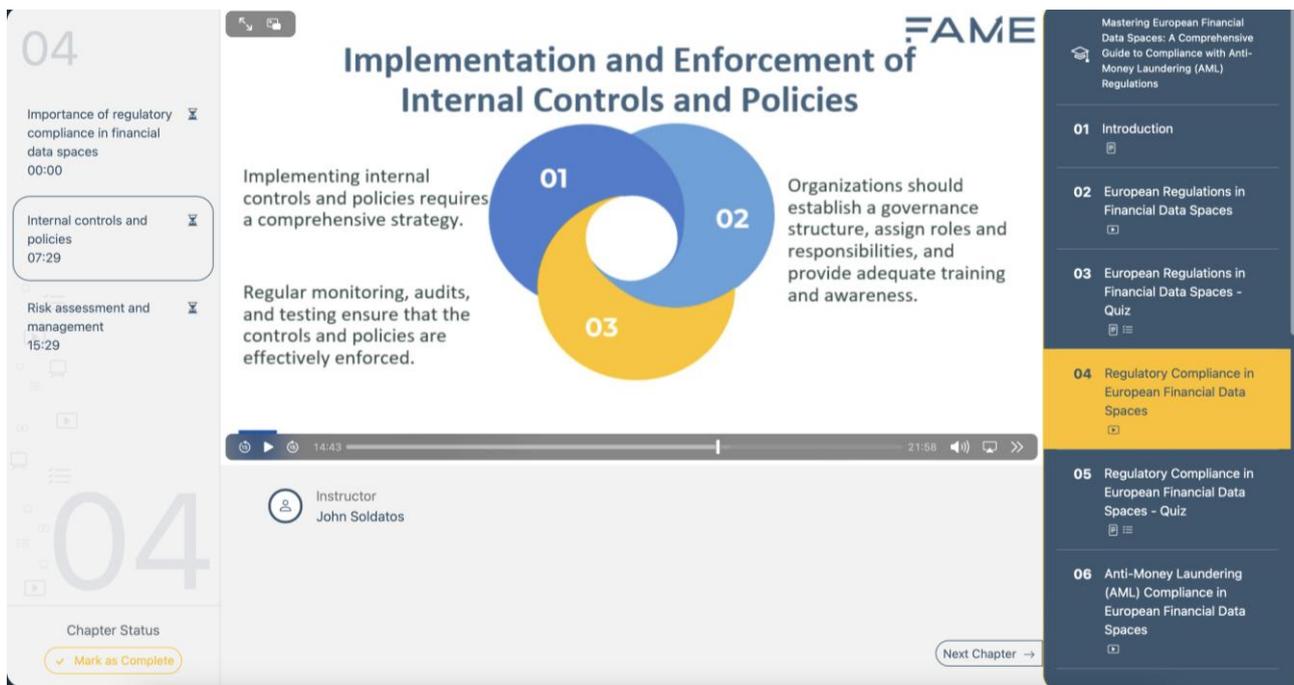


Figure 18: Snapshot of the AML related Course in FAME's Training Platform

4.2.3 Federated Data Governance

4.2.3.1 Course Overview

The course is designed to introduce the basics of Federated Data Governance and to equip learners with the knowledge and skills needed to tackle regulatory compliance over decentralized federated data management infrastructures. It provides an exploration of best practices, industry insights, and practical examples of federated data governance to empower learners to navigate the ever-evolving landscape of data governance with ease.

This course is designed for individuals that wish to acquire tutorial knowledge in federated data governance. It is ideal for relevant data professionals, such as data managers, data architects, and data stewards, who are responsible for implementing data governance strategies in their organizations. Additionally, individuals working in regulatory compliance roles, such as compliance officers or privacy officers, are likely to find this course valuable as it explores the role of regulatory compliance in the context of federated data governance. It is also beneficial for those who are interested in understanding the implications of data privacy regulations on federated data governance and how to mitigate risks to ensure compliance.

4.2.3.2 Curriculum

The curriculum of the course is presented at Table 5.

Table 5 – Curriculum for Course “Federated Data Governance”

Curriculum

- 1. Introduction to Federated Data Governance**
 - 1.1 What is federated data governance**
 - 1.2 Key concepts and components**
 - 1.3 Benefits and challenges**
 - 1.4 Role of regulatory compliance**
- 2. Federated Data Governance Frameworks**
 - 2.1 Overview of popular data governance frameworks**
 - 2.2 Comparison of centralized vs. federated approaches**

2.3 Implementing federated data governance

2.4 Integration with existing data governance practices

3. Regulatory Compliance in Federated Data Governance

3.1 Understanding regulatory compliance requirements

3.2 Data privacy regulations (GDPR, DGA, DA)

3.3 Implications of federated data governance on compliance

3.4 Mitigating risks and ensuring compliance

4. Best Practices and Case Studies

4.1 Designing effective federated data governance strategies

4.2 Collaboration and communication in a federated environment

4.3 Key takeaways and lessons learned

4.2.3.3 Snapshots

Figure 19 illustrates a snapshot of the course from the player of the FAME training platform. The course is also integrated within the YouTube channel of the project.

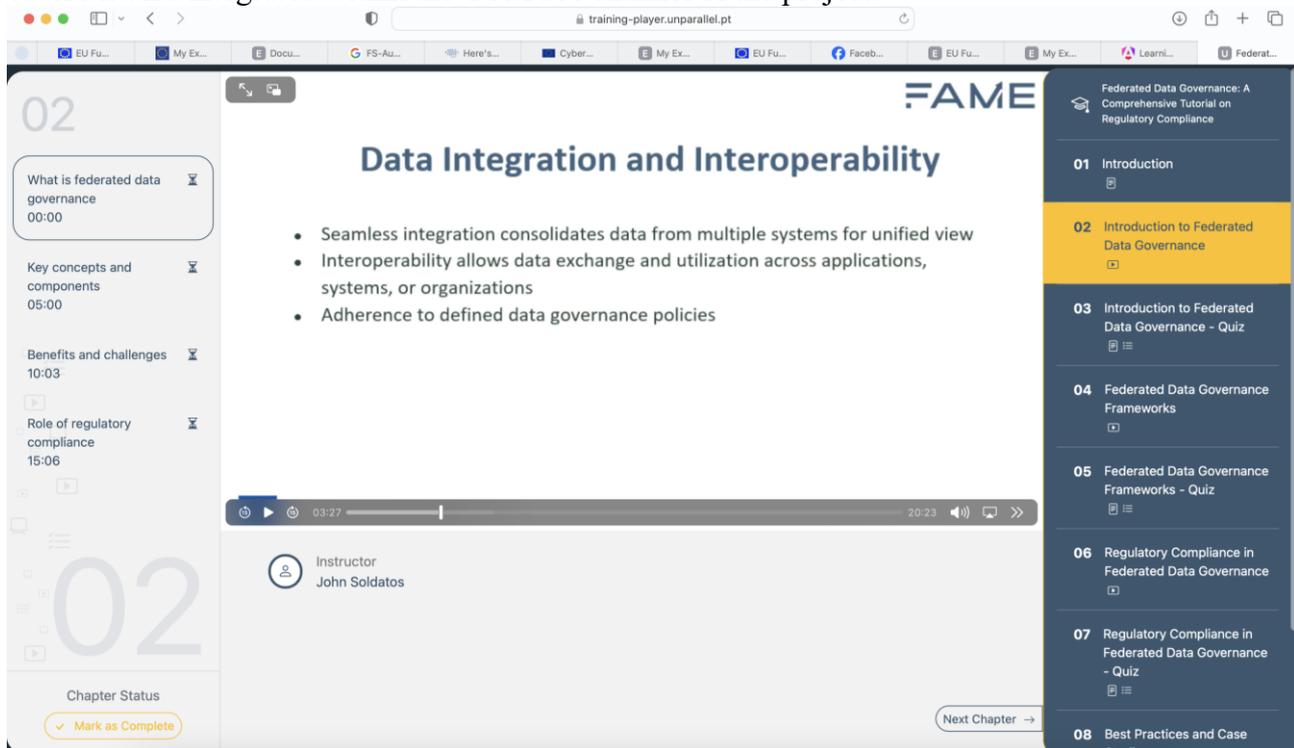


Figure 19: Snapshot of the Federated Data Governance Course within the Course Player of FAME's Training Platform

4.2.4 Data Quality and Monetization

4.2.4.1 Course Overview

The course begins with an introduction to data marketplaces and data monetization strategies. It also delves into the significance of data quality. It explains the factors that impact data quality, such as completeness, accuracy, and timeliness. Moreover, it uncovers the importance of data governance in data marketplaces and how it ensures the proper management, security, and compliance of data. It sheds light on the importance of data privacy and security in data marketplaces. Moreover, as technology advances, new trends and challenges emerge in the field of data marketplaces. Hence, the course explores emerging trends that could revolutionize the use of data marketplaces in the industry, while presenting potential challenges that may arise.

4.2.4.2 Curriculum

The curriculum of the course is presented in Table 6.

Table 6 – Curriculum for Course “Data Quality and Monetization”

Curriculum
1. Introduction to Data Marketplaces
1.1 Definition of Data Marketplaces
1.2 Role of Data Marketplaces in Data Monetization
2. Data Monetization in Data Marketplaces
2.1 Types of Data Monetization Strategies
2.2 Benefits of Data Monetization
2.3 Challenges in Data Monetization
3. Data Quality in Data Marketplaces
3.1 Importance of Data Quality
3.2 Factors Impacting Data Quality
3.3 Data Quality Assessment and Maintenance
4. Data Governance in Data Marketplaces
4.1 Overview of Data Governance
4.2 Role of Data Governance in Data Marketplaces
4.3 Data Governance Frameworks and Best Practices
5. Data Privacy and Security in Data Marketplaces
5.1 Importance of Data Privacy and Security
5.2 Data Privacy Regulations (e.g., GDPR)
5.3 Data Security Measures and Techniques
6. Future Trends and Challenges in Data Marketplaces
6.1 Emerging Trends in Data Marketplaces
6.2 Potential Challenges and Mitigation Strategies
6.3 Opportunities for Innovations in Data Marketplaces

4.2.5 Open Banking

4.2.5.1 Course Overview

This is a tutorial in nature course that provides information about Open Banking, including information about technical/technological and legal/regulatory elements. This includes the discussion of Open APIs and the infrastructures that support them, as well as key European Regulations (e.g., the 2nd Payment Services Directive (PSD2) regulation) that drive the adoption of Open Banking within the EU.

4.2.5.2 Curriculum

The curriculum of the course is presented in Table 7.

Table 7 – Curriculum for Course “Open Banking”

Curriculum

1. Introduction to Open Banking

1.1 What is Open Banking

1.2 History and Evolution of Open Banking

1.3 Benefits and Challenges of Open Banking

2. Open Banking Regulations

2.1. Overview of Open Banking Regulations

2.2 Key Regulatory Frameworks

2.3 Compliance and Data Privacy

3. Open APIs and Data Sharing

3.1 Understanding Open APIs

3.2 API Economy and Data Sharing

3.3 Security and Authentication in Open Banking

4. Open Banking Ecosystem

4.1 Parties Involved Banks, FinTechs, and Third-Party Providers

4.2 Use Cases and Innovation in Open Banking

4.3 API Marketplaces and Partner Integration

5. Future of Open Banking

5.1 Emerging Technologies and Trends

5.2 Global Adoption of Open Banking

5.3 Implications and Opportunities

4.2.5.3 Snapshots

Figure 20 provides a snapshot of the videos of the Open Banking course in the project's YouTube channel. The course is also integrated in the FAME training platform/player. A snapshot is illustrated in Figure 21.

What is Open Banking?

Brings benefits in terms of transparency, efficiency, and security

Promotes competition, innovation, and customer-centricity in the financial sector

Open Banking allows third-party financial service providers to access customer banking data

Data sharing is done through open APIs

Customers have control over their data and must provide consent

01
02
03
04
05

FAME

Open Banking: Revolutionizing ...

FAME HorizonEU - 1 / 13

1.1 What is Open Banking, History and Evolution
FAME HorizonEU

2 1.2 Benefits and Challenges of Open Banking
FAME HorizonEU

3 2.1 Overview of Open Banking Regulations
FAME HorizonEU

4 2.2 Key Regulatory Frameworks
FAME HorizonEU

5 2.3 Compliance and Data Privacy
FAME HorizonEU

6 3.1 Understanding Open APIs
FAME HorizonEU

7 3.2 API Economy and Data Sharing
FAME HorizonEU

8 3.3 Security and Authentication in Open Banking
FAME HorizonEU

9 4.1 Parties Involved: Banks, FinTechs, and Third-Party...

1.1 What is Open Banking, History and Evolution

FAME HorizonEU

43 subscribers

Share Download Clip

All From FAME HorizonEU Industry Pres

Figure 20: Snapshot of the Open Banking's related Course in FAME's YouTube Channel

Figure 21: Snapshot of the Open Banking related Course in FAME's Training Platform

4.2.6 Explainable Artificial Intelligence (XAI)

4.2.6.1 Course Overview

This online course is designed to introduce students to Explainable Artificial Intelligence (XAI). In the rapidly evolving AI landscape, the lack of transparency and interpretability in AI models presents significant challenges. Hence, understanding the inner workings of these models and being able to explain their decisions and predictions is crucial for building trust, ensuring fairness, and addressing ethical concerns. This tutorial in nature course introduces explainable AI and provides some practical insights into this field. The course explores the importance of explainability in AI models and the ethical considerations surrounding this topic, leading to more trustworthy and responsible AI applications. It covers various explainability metrics, their use in interpreting model predictions and decisions, and how they help evaluate fairness and bias in AI models. Key aspects include model-agnostic explainability techniques like LIME and SHAP, which work across different machine learning models, and rule-based explainability metrics, such as certainty-factor-based and fuzzy logic-based explainability.

4.2.6.2 Curriculum

The curriculum of the course is presented in Table 8.

Table 8 – Curriculum for Course “Explainable Artificial Intelligence”

Curriculum

1. Introduction to Explainable Artificial Intelligence

1.1 Overview of Explainable Artificial Intelligence

1.2 Importance of explainability in AI models

1.3 Ethical considerations in Explainable AI

2. Explainability Metrics for AI Models

2.1 Different types of explainability metrics

2.2 Evaluating fairness and bias in AI models

2.3 Interpreting model predictions and decisions

3. Model-Agnostic Explainability Techniques

3.1 Introduction to model-agnostic explainability techniques

3.2 LIME (Local Interpretable Model-agnostic Explanations)

3.3 SHAP (SHapley Additive exPlanations)

4. Rule-based Explainability Metrics

4.1 Overview of rule-based explainability metrics

4.2 Certainty-Factor based explainability

4.3 Fuzzy Logic-based explainability

5. Evaluating Explainability Metrics

5.1 Comparing and selecting explainability metrics

5.2 Case studies and real-world applications

6. Best Practices and Future Trends

6.1 Implementing explainability in AI models

6.2 Challenges and limitations of explainability

4.2.6.3 Snapshots

Figure 22 provides a snapshot of the videos of the Explainable Artificial Intelligence related course in the project's YouTube channel. The course is also integrated in FAME's training platform. A snapshot is illustrated in Figure 23

The figure consists of two main parts. On the left is a diagram titled "Addressing Fairness Issues" with the FAME logo. The diagram features a central white cross with four colored circles (01, 02, 03, 04) at its ends. Surrounding these are four text boxes: "Modifying the training process" (top-left), "Taking corrective actions" (top-right), "Retraining the model with a diverse dataset" (bottom-right), and "Adjusting decision thresholds" (bottom-left). Below the diagram is a small European Union flag and the text: "This project has received funding from the European Union's Horizon research and innovation programme under Grant Agreement no 101092639".

On the right is a screenshot of a YouTube video player. The video title is "Explainable Artificial Intelligence" and it is from the channel "FAME HorizonEU". The video list shows 9 videos with the following titles and durations:

- 1. Artificial Intelligence (5:18)
- 2. 1.2 Importance of explainability in AI models (4:08)
- 3. 1.3 Ethical considerations in Explainable AI (5:08)
- 4. 2.1 Different types of explainability metrics (4:10)
- 5. 2.2 Evaluating fairness and bias in AI models (4:45)
- 6. 2.3 Interpreting model predictions and decisions (4:03)
- 7. 3.1 Introduction to model-agnostic explainability... (5:55)
- 8. 3.2 LIME (Local Interpretable Model-agnostic Explanations) (3:38)
- 9. 3.3 SHAP (SHapley Additive exPlanations) (5:04)

 The video player interface includes standard YouTube controls like play/pause, volume, and share options.

Figure 22: Snapshot of the Explainable Artificial Intelligence's related Course in FAME's YouTube Channel

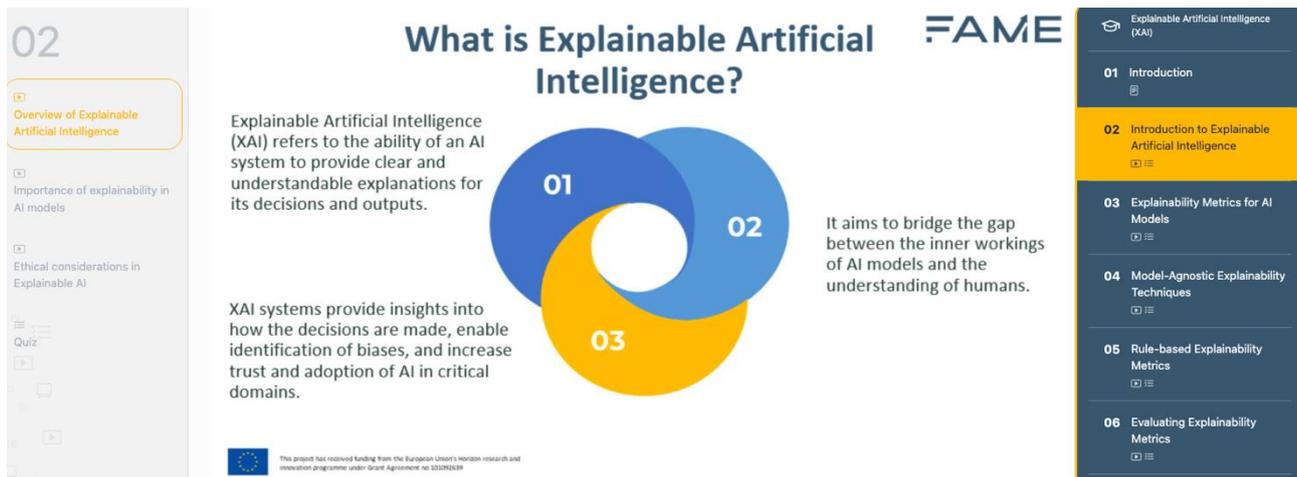


Figure 23: Snapshot of the Explainable Artificial Intelligence's related Course in FAME's Training Platform

4.2.7 Learning and Training Framework for the Data Economy

4.2.7.1 Course Overview

This learning and training course provides an exploration of the data economy, focusing on its principles, technologies, challenges, and implications for various industries. Participants will gain insights into the growing importance of data as a valuable asset, the emergence of new business models, and the ethical considerations surrounding data usage. The course will cover topics such as data monetization, privacy concerns, regulatory frameworks, trustworthy artificial intelligence, and the role of emerging technologies in shaping the future of the data economy.

The learning course consists of two sub-learning courses. The first is titled “Understanding the Data Economy” and is suited for beginners or non-tech users. The second is titled “Data Economy - FAME Master”, prepared for tech users as intermediate to expert level.

4.2.7.2 Curriculum – Learning Objectives - Competencies

4.2.7.2.1 Learning (Sub)course: Understanding the Data Economy (for beginners, non-tech users)

Table 9 presents the curricular of this (sub)course.

Table 9 – Curriculum for (Sub)Course Understanding the Data Economy (for beginners, non-tech users)”

Curriculum

Module 1: Introduction to the Data Economy

Lesson 1.1: What is Data Economy?

Lesson 1.2: Significance and Impact of Data Economy

Module 2: Introduction to Embedded Finance

Lesson 2.1: Embedded Finance

Module 3: Privacy, Security, Ethics and Compliance

Lesson 3.1: Privacy, Security and Ethics

Lesson 3.2: Regulatory Frameworks and Compliance

Module 4: Emerging Technologies and Future Trends

Lesson 4.1: Artificial Intelligence

Lesson 4.2: Blockchain and Distributed Ledger Technology

Lesson 4.3: FAME technology and use cases

Also, Table 10 presents the learning objectives for the course.

Table 10 – Learning Objectives (Sub)Course “Understanding the Data Economy (for beginners, non-tech users)”

Modules	Lessons	Learning objectives
Module 1: Introduction to the Data Economy	Lesson 1: What is Data Economy?	Define data economy.
	Lesson 2: Significance and Impact of Data Economy	Understand the significance of data economy in modern society.
Module 2: Introduction to Embedded Finance	Lesson 1: Embedded Finance	Define embedded finance. Explore examples of embedded finance applications.
Module 3: Privacy, Security, Ethics and Compliance	Lesson 1: Privacy, Security and Ethics	-Understand the importance of privacy in data exchange. -Recognize ethical dilemmas associated with data transactions.
	Lesson 2: Regulatory Frameworks and Compliance	-Understand the regulatory frameworks and compliance requirements.
Module 4: Emerging Technologies and Future Trends	Lesson 1: Artificial Intelligence	Explore emerging technologies such as artificial intelligence.
	Lesson 2: Blockchain and Distributed Ledger Technology	Explore emerging technologies such as blockchain.
	Lesson 3: FAME technology and use cases	Discuss potential applications and use cases of emerging technologies in data marketplaces.

The competencies gained with the (sub)course “Understanding the Data Economy” for beginners include:

- Understanding of Data Economy Concepts:** Participants will acquire a solid understanding of the principles and significance of the data economy in modern society.
- Knowledge of Embedded Finance:** Participants will gain insights into the concept of embedded finance and its role within the broader context of the data economy.
- Understanding Privacy and Security:** Participants will gain knowledge related to privacy and security in data transactions.
- Awareness of Regulatory and Ethical Considerations:** Participants will become familiar with regulatory frameworks governing the data economy and embedded finance, as well as ethical principles for data exchange, ensuring compliance and responsible practices.
- Knowledge about Emerging Technologies and Insight into Future Trends:** Participants will explore emerging technologies: artificial intelligence and blockchain, and their potential impact on the data economy, enabling them to anticipate future trends, challenges, and opportunities.

4.2.7.2.2 Learning course: Navigating the Data Landscape - advanced course (intermediate to expert level, for tech users)

Table 11 presents the curriculum of the sub-course, which is connected/linked to the previous sub-course.

Table 11 – Curriculum for (Sub)Course “Navigating the Data Landscape - advanced course (intermediate to expert level, for tech users)”

Curriculum
Module 1: Decoding the Data Economy
Lesson 1.1: Understanding Data Economy

Lesson 1.2: Impact Assessment of Data Economy

Module 2: Embedded Finance Unveiled

Lesson 2.1: Demystifying Embedded Finance

Module 3: Safeguarding Data: Privacy, Security, and Ethics

Lesson 3.1: Balancing Privacy, Security, and Ethics

Lesson 3.2: Navigating Regulatory Frameworks

Module 4: Pioneering Technologies: AI and Blockchain

Lesson 4.1: Unleashing Artificial Intelligence

Lesson 4.2: Deciphering Blockchain and Distributed Ledger Technology

Lesson 4.3: FAME Technology and Real-World Applications

Table 12 presents the learning objectives of the sub course and how they map to the different lessons and modules.

Table 12 – Learning Objectives (Sub)Course “Navigating the Data Landscape - advanced course (intermediate to expert level, for tech users)”

Modules	Lessons	Learning objectives
Module 1: Decoding the Data Economy	Lesson 1.1: Understanding Data Economy	Define the concept of data economy. Explain the role of data economy in modern society. Analyse how data economy impacts business models and innovation.
	Lesson 1.2: Impact Assessment of Data Economy	Evaluate the far-reaching impact of the data economy. Discuss societal transformations driven by data. Articulate the significance of data in interconnected ecosystems.
Module 2: Embedded Finance Unveiled	Lesson 2.1: Demystifying Embedded Finance	Define embedded finance and its core principles. Explore examples of embedded finance applications. Recognize the seamless integration of financial services into everyday experiences.
Module 3: Safeguarding Data: Privacy, Security, and Ethics	Lesson 3.1: Balancing Privacy, Security, and Ethics	Understand the importance of privacy in data exchange. Identify ethical dilemmas associated with data transactions. Develop strategies to navigate privacy and ethical considerations
	Lesson 3.2: Navigating Regulatory Frameworks	Familiarize yourself with global regulatory frameworks. Comprehend legal requirements related to data handling. Recognize the impact of regulations such as GDPR and AI Act.
Module 4: Pioneering Technologies: AI and Blockchain	Lesson 4.1: Unleashing Artificial Intelligence	Explore applications of artificial intelligence (AI). Understand machine learning, neural networks, and natural language processing. Discuss AI’s potential in data-driven decision-making.
	Lesson 4.2: Deciphering Blockchain and	Unravel the architecture of blockchain. Explore smart contracts and use cases beyond

	Distributed Ledger Technology	cryptocurrencies. Appreciate the transformative power of blockchain technology.
	Lesson 4.3: FAME Technology and Real-World Applications	Learn about FAME technology. Discuss use cases of FAME. Envision innovative applications leveraging FAME capabilities.

Upon completing this advanced course, experienced learners will acquire the following competencies:

1. **In-Depth Understanding of Data Economy:** Participants will acquire a solid understanding of the principles and significance of the data economy in modern society. Moreover, they will gain the expertise to analyse the impact of data economy on business models, innovation, and societal transformations.
2. **Expertise in Embedded Finance:** Participants will understand embedded finance and its role within the data economy. They will gain the skills to demystify embedded finance and its applications and recognize how financial services seamlessly integrate into everyday experiences.
3. **Data Privacy, Security, and Ethical Proficiency:** Participants will understand the importance of privacy in data exchange. Furthermore, they will navigate ethical dilemmas associated with data transactions. Moreover, they will comprehend global regulatory frameworks and compliance requirements.
4. **Exploration of Emerging Technologies:** Participants will unleash the potential of artificial intelligence (AI) in decision-making. They will also decipher blockchain and distributed ledger technology beyond cryptocurrencies. Lastly, they will get to know real-world applications using FAME technology.

Completing the course will equip learners with competencies, allowing them to contribute meaningfully to discussions and drive innovation in the data-driven landscape.

4.2.8 Trustworthy Artificial Intelligence

JSI is involved in Horizon Europe project AI4Gov - Trusted AI for Transparent Public Governance fostering Democratic Values (2023 – 2025) and will re-use and adapt some of the learning materials from AI4Gov for FAME. AI4Gov’s main focus is on bias in AI, while FAME is not only focusing on data economy, but also on trustworthy AI, AI governance, SAX, and XAI etc. The latter are topics that are directly related to AI4Gov, which provides good opportunities for collaboration through content re-use and repurposing.

4.2.8.1 Course Overview

JSI has developed an introductory learning course titled “Trustworthy AI” in a beginner level type, and a duration of 5 hours. The course explores the foundations of building trustworthy and democratic AI. From understanding the basics of AI to the ethical considerations that underpin responsible AI development, this course is designed for learners of all backgrounds (non-technical and technical users). Whether you're a tech enthusiast, a business professional, in public administration, or simply curious about the forces shaping our digital landscape, this learning course will empower you with the knowledge to navigate the AI-driven world with confidence. By democratizing the discourse on AI ethics, governance, and technical standards, our aim is to ensure that future AI systems are rooted in principles of fairness, accountability, and transparency.

4.2.8.2 Curriculum

The curriculum of the course is illustrated in Table 13.

Table 13 – Curriculum for Course “Trustworthy Artificial Intelligence”

Curriculum
Module 1: Introduction to Trustworthy AI

Lesson 1.1: What is Artificial Intelligence?**Lesson 1.2: The Role of AI in Society****Lesson 1.3: The Scope of Trustworthy AI****Lesson 1.4: AI Governance****Lesson 1.5: Defining Bias in AI****Lesson 1.6: Impact of Bias****Lesson 1.7: Real-world Case Studies***4.2.8.3 Snapshots*

Figure 24 provides a snapshot of the Trustworthy Artificial Intelligence related course as it is integrated in FAME's training platform.



Figure 24: Snapshot of the Trustworthy Artificial Intelligence's related Course in FAME's Training Platform

4.3 FAME (Public) Webinars Series

FAME scheduled regular training webinars on thematic topics in order to training and upskill the project's stakeholders' community. The webinars addressed topics relating to the project's platform and technologies, including for example data federation, federated learning, data spaces, assets tokenization and monetization and more. The webinars are included in the LC as a training resource. Moreover, all the webinars were open to the public, which provided an opportunity and an extra channel to dissemination the project's results in conjunction with the activities of the LC. The FAME LC team has actively disseminated each one of the following webinars in order to achieve as broad participation as possible.

4.3.1 Webinar #1 : StreamStory Where Time Series Meet Explainable AI - Visual Journey Through Data

The first webinar, "StreamStory: Where Time Series Meet Explainable AI," featured Jan Šturm from the Jožef Stefan Institute. Jan introduced StreamStory, an innovative tool for interactive exploratory analysis of multivariate time data. He highlighted how StreamStory addresses challenges in understanding complex temporal patterns and handling large datasets. Through advanced visualization techniques and AI capabilities, the tool enables users to uncover meaningful insights from data. Case studies demonstrated its effectiveness in analysing UK weather data, GPS tracking, and oil refinery operations, illustrating how it can bridge the gap between data analysts and domain experts. The webinar is available on FAME Learning Center and FAME YouTube Channel.

Webinar Title: *StreamStory* Where Time Series Meet Explainable AI - Visual Journey Through Data

Date and Duration: 11/11/2024, 1 hour

Recording:

https://www.youtube.com/watch?v=UWu37BCDH5o&list=PLZ9SwiSpq6T_FVqkyWdJt9XQ0FWbDi04R&index=3

Presentation: <https://www.fame-horizon.eu/wp-content/uploads/2025/01/FAME-StreamStory-Webinar.pdf>

FAME
WEBINAR SERIES

STREAMSTORY: WHERE TIME SERIES MEET EXPLAINABLE AI - A VISUAL JOURNEY THROUGH DATA

November 11th, 2024
10:00 - 11:00 CET

Jan Sturm
Jozef Stefan Institute

REGISTER NOW

Funded by the European Union
This Project has received funding from the European Union's Research and Innovation programme under Grant Agreement no 101092639.

www.fame-horizon.eu

Figure 25: Banner for the webinar "StreamStory Where Time Series Meet Explainable AI - Visual Journey Through Data"

Innov-Acts | Marios Touloupou | Jan Šturm | Irene Charalamb... | Fireflies.ai Notet... | Oleksandra Topa... (+15)

FAME

StreamStory: Where Time Series Meet Explainable AI – A Visual Journey Through Data

Jan Šturm, Maja Škrjanc, Tanja Zdolšek Draksler, Oleksandra Topal
Jožef Stefan Institute (JSI)

This Project has received funding from the European Union's Research and Innovation programme under grant Agreement no 101092639

Figure 26: Snapshot of the webinar "StreamStory Where Time Series Meet Explainable AI - Visual Journey Through Data" available on FAME's YouTube Channel

4.3.2 Webinar #2: Strategies for Pricing Data Assets in the Era of AI

The second webinar, "Strategies for Pricing Data Assets in the Era of AI," featured Jana Peliova from The University of Economics in Bratislava and Samrat Gupta from the University of Agder. This session addressed the complexities involved in pricing data assets within an AI-driven

landscape. The speakers emphasized the importance of recognizing data’s value and developing effective strategies for its monetization. They provided insights into how organizations can navigate challenges related to data valuation while ensuring ethical considerations are met.

Webinar Title: Strategies for Pricing Data Assets in the Era of AI
Date and Duration: 27/11/2024, 1 hour
Recording: https://youtu.be/WVUN9h8aIU?si=LxnFW952sdzWSCqk
Presentation: https://www.fame-horizon.eu/wp-content/uploads/2025/01/FAME-workshop_v.pdf



Figure 27: Banner for the webinar "Strategies for Pricing Data Assets in the era of AI"

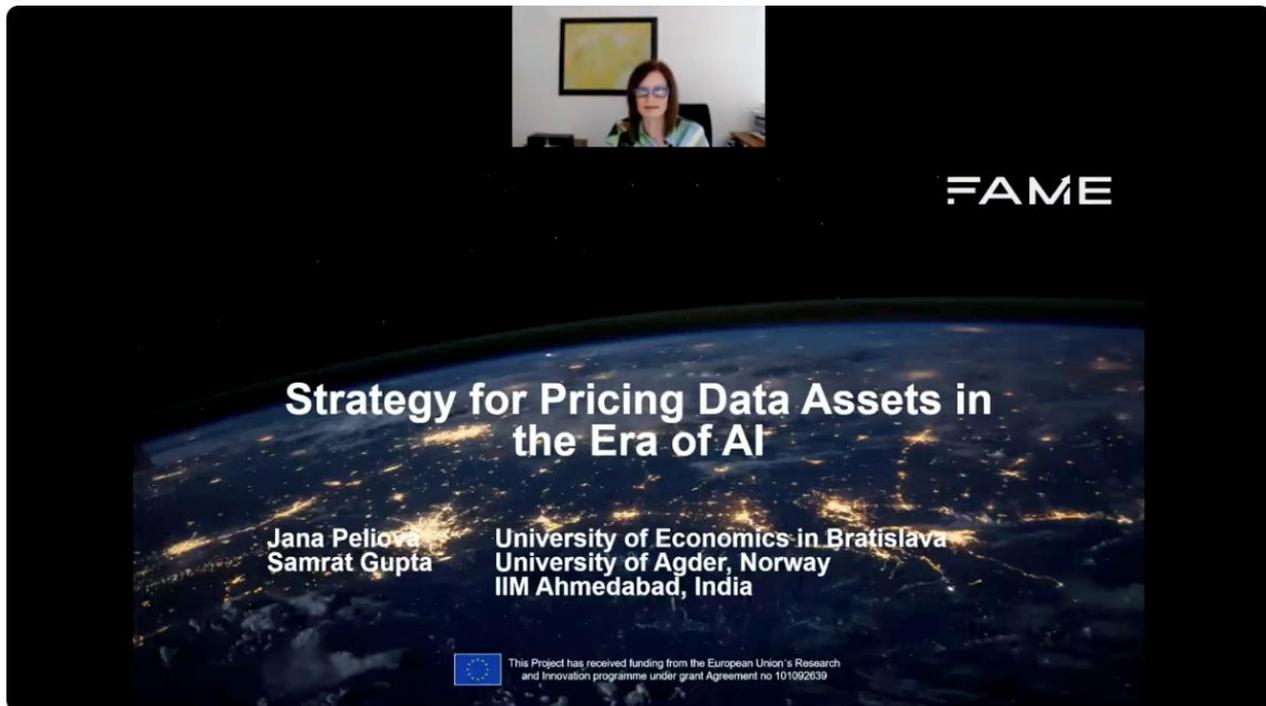


Figure 28: Snapshot of the recording of the webinar "Strategies for Pricing Data Assets in the era of AI"

4.3.3 Webinar #3 : Unlocking the Mystery of Business Processes with AI-Empowered SAX

The third webinar, “Unlocking The Mystery of Business Processes with AI-empowered Situation Aware eXplainability (SAX),” presented by Lior Limonad from IBM Research, focused on the critical need for explainability in AI-driven business process management (BPM). Lior discussed the limitations of current explainability models in reflecting true causal relationships and contextual situations within business processes. He introduced SAX, a suite of technologies aimed at enhancing the clarity and relevance of explanations generated by AI systems. Real-world scenarios, such as mortgage application processing and parking fine management, illustrated SAX’s potential to improve user understanding and trust in AI-generated outcomes.

Webinar Title: Unlocking the Mystery of Business Processes with AI-Empowered SAX
Date and Duration: 2/12/2024, 1 hour
Recording: https://youtu.be/QhQuLJN-KMY?si=CqF43hflF IVKZB4
Presentation: https://www.fame-horizon.eu/wp-content/uploads/2025/01/FAME-November-2024-Webinar-3.0.pdf



Figure 29: Banner for the webinar "Unlocking the Mystery of Business Processes with AI-Empowered SAX"

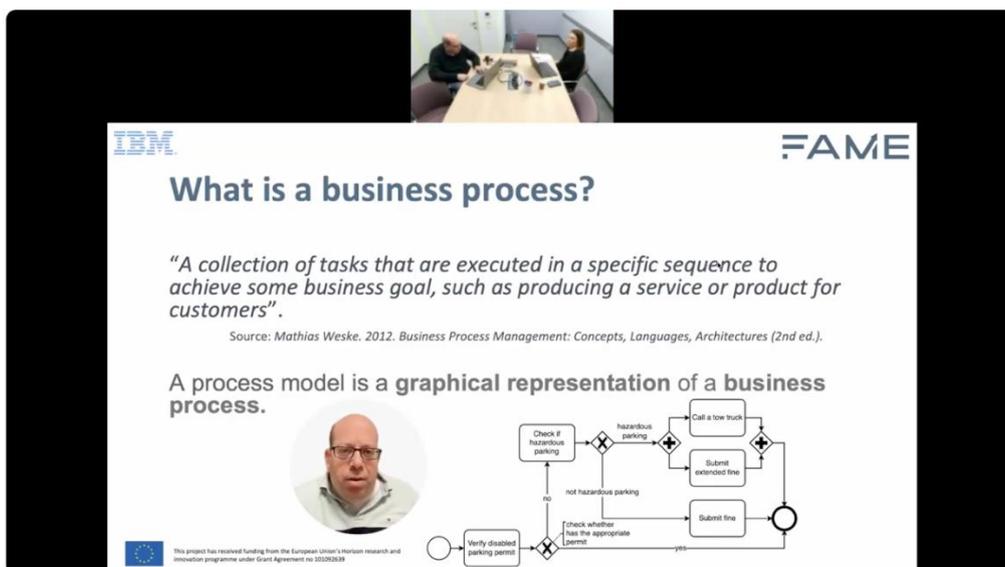


Figure 30: Snapshot of the recording of the webinar "Unlocking the Mystery of Business Processes with AI-Empowered SAX"

4.3.4 Webinar #4 : Beyond Traditional ESG Screening: MarketSenseAI-Driven Adaptive Stock Selection and Portfolio Optimisation

On September 16th, 2025, the FAME project organized the webinar “Beyond Traditional ESG Screening: MarketSenseAI-Driven Adaptive Stock Selection and Portfolio Optimization”. The event featured expert speaker Kostas Metaxas, Co-Founder and CEO of KM Cube Asset Management and explored how artificial intelligence can redefine ESG investment analysis by moving beyond static screening methods toward adaptive, data-driven portfolio management. Kostas Metaxas showcased the MarketSenseAI model [Fatouros25], which leverages dynamic data and advanced analytics to improve decision-making for sustainable investing. The event gathered more than 30 registrants from academia, finance, and technology sectors, offering valuable insights into AI’s transformative role in ESG-focused markets.

Webinar Title: Beyond Traditional ESG Screening: MarketSenseAI-Driven Adaptive Stock Selection and Portfolio Optimization
Date and Duration: 16/11/2025, 1 hour
Recording: https://youtu.be/QhQuLJN-KMY?si=CqF43hfIF_IVKZB4
Presentation: https://www.fame-horizon.eu/wp-content/uploads/2025/10/fame_presentation-2.pdf



Figure 31: Banner for the webinar " Beyond Traditional ESG Screening: MarketSenseAI-Driven Adaptive Stock Selection and Portfolio Optimization"



Figure 32: Snapshot of the webinar " Beyond Traditional ESG Screening: MarketSenseAI-Driven Adaptive Stock Selection and Portfolio Optimization "

4.3.5 Webinar #5 : The FAME Marketplace and Data Assets Indexing

On October 6th, 2025, the FAME project hosted a webinar titled “The FAME Marketplace and Data Assets Indexing” presented by Nikolas Zafeiropoulos (UPRC). The session introduced the FAME Data Marketplace, a secure, federated, and user-friendly environment designed to enable data asset discovery, publishing, monetization, and trading across diverse sectors. The presenters highlighted the technical framework and functionalities of FAME — including assets indexing, provenance, pricing, policy management, and analytics — and demonstrated user journeys such as onboarding, publishing, and purchasing data assets through the platform. The webinar also showcased the FAME Live Demo, guiding participants through how to navigate and access the marketplace via <https://marketplace.fame-horizon.eu>. The event attracted participants from research, industry, and policy domains, underscoring the growing interest in federated, trusted data marketplaces that promote data sharing, interoperability, and value creation within the emerging data economy.

Webinar Title: "The FAME Marketplace and Data Assets Indexing"
Date and Duration: 6/10/2025, 1 hr
Recording: https://youtu.be/dmFpLxkrhP8?si=CsGGPx2P_meskXyi
Presentation: https://www.fame-horizon.eu/wp-content/uploads/2025/10/FAME_UPRC_Webinar_06102025.pdf

FAME
WEBINAR SERIES

THE FAME MARKETPLACE AND DATA ASSETS INDEXING

Nikolas Zafeiropoulos
UPRC

REGISTER NOW

October 6th, 2025
15:00 - 16:00 CET

www.fame-horizon.eu

Funded by the European Union
This Project has received funding from the European Union's Research and Innovation programme under Grant Agreement no 101092639.

Figure 33: Banner for the webinar "The FAME Marketplace and Data Assets Indexing"

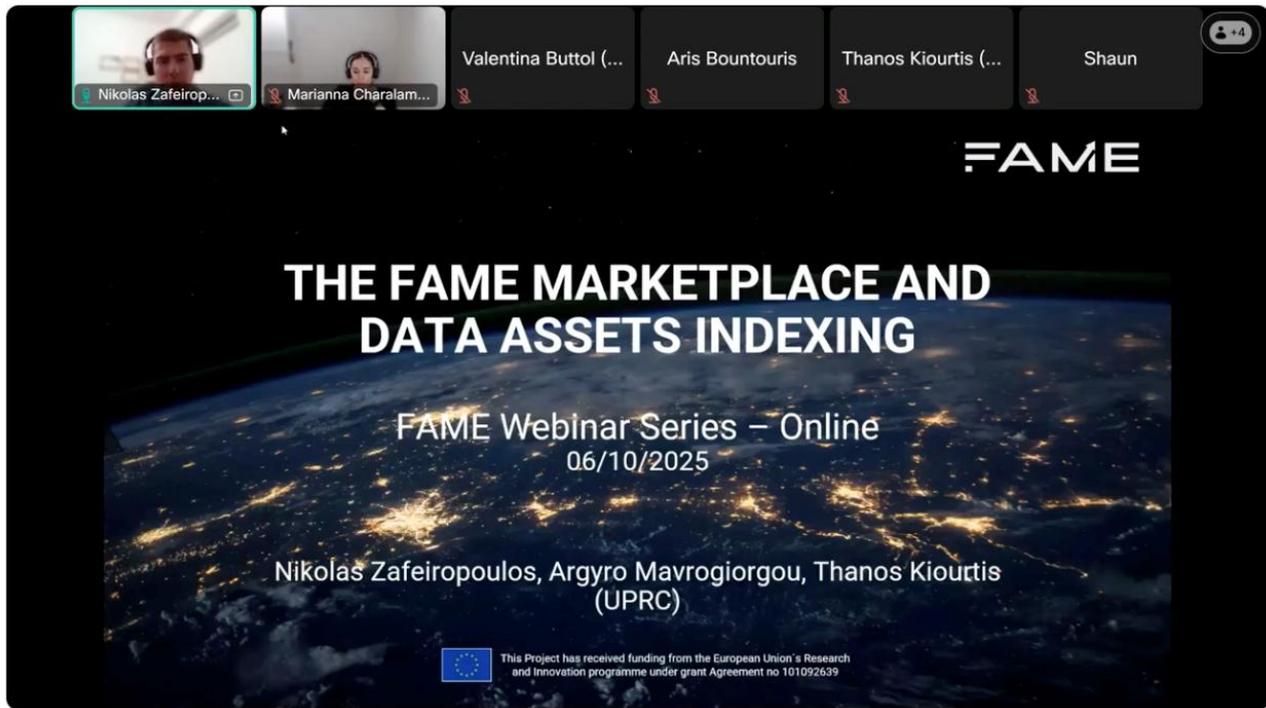


Figure 34: Snapshot of the recording of the webinar "The FAME Marketplace and Data Assets Indexing"

4.3.6 Webinar #6: From Code to Clarity: Understanding Data Assets through Smart Contracts

On November 24th, 2025, the FAME project hosted a webinar titled “From Code to Clarity: Understanding Data Assets Through Smart Contracts,” presented by Marios Touloupou (Innov-Acts). The session explored how smart contracts and blockchain can address key challenges in today’s data economy—such as unclear ownership, lack of traceability, and inefficient value distribution—by enabling transparent, verifiable, and programmable data governance. The presentation introduced core concepts including data asset structures, token standards, access control, and automated licensing, and featured a live demo showing how to build and deploy a DataAsset smart contract in the Remix IDE. The webinar attracted participants from research, industry, and policy domains, reflecting strong interest in trusted, interoperable approaches to managing data assets within emerging digital marketplaces.

Webinar Title: From Code to Clarity: Understanding Data Assets through Smart Contracts
Date and Duration: 24/11/2025, 1 hour
Recording: https://www.youtube.com/watch?v=SKMZf7UbiUQ
Presentation: https://zenodo.org/records/17937316



Figure 35: Banner of the webinar "From Code to Clarity: Understanding Data Assets through Smart Contracts"



Figure 36: Snapshot of the recording of the webinar From Code to Clarity : Understanding Data Assets through Smart Contracts

4.4 FAME Face-to-Face Trainings

The FAME project delivered a series of three Face-to-Face (F2F) Trainings designed to equip professionals, researchers, and innovators with practical knowledge on data monetization, tokenization, and decentralized data marketplaces. Each on-site training brought together experts from across the consortium to explore how blockchain, AI, and token-based mechanisms can enable trusted data sharing and new value-creation models.

The first training took place on March 12th, 2025 in Limassol, Cyprus, focusing on blockchain-powered data monetization, while the second training was held on June 18th, 2025 at Blockchain Reallabor, Studio 6 in Hürth, Germany, offering expert insights into tokenization and artificial intelligence in data markets. The third training, held on December 4th, 2025 at the EUC Startup Center by Microsoft in Nicosia, Cyprus, expanded on these themes with hands-on sessions covering the FAME decentralized marketplace, AI agent tokenization, marketplace resources for asset monetization, and smart contract-based data governance.

4.4.1 F2F Training #1: Blockchain-Powered Data Monetization: From Concept to Execution.

On March 12th, 2025, the FAME project hosted its first on-site training event in Limassol, Cyprus, titled “Blockchain-Powered Data Monetization: From Concept to Execution.” The event brought together a diverse audience of professionals and stakeholders from Cyprus, Israel, Italy, and beyond to explore innovative approaches to blockchain and data monetization. With over 100 registrants and more than 60 participants attending in person, the session marked a key moment in FAME’s efforts to advance secure, efficient, and practical data economy solutions.



Figure 37: Banner of the training "Blockchain-Powered Data Monetization: From Concept to Execution"



Figure 38: Photo from the training "Blockchain-Powered Data Monetization: From Concept to Execution"

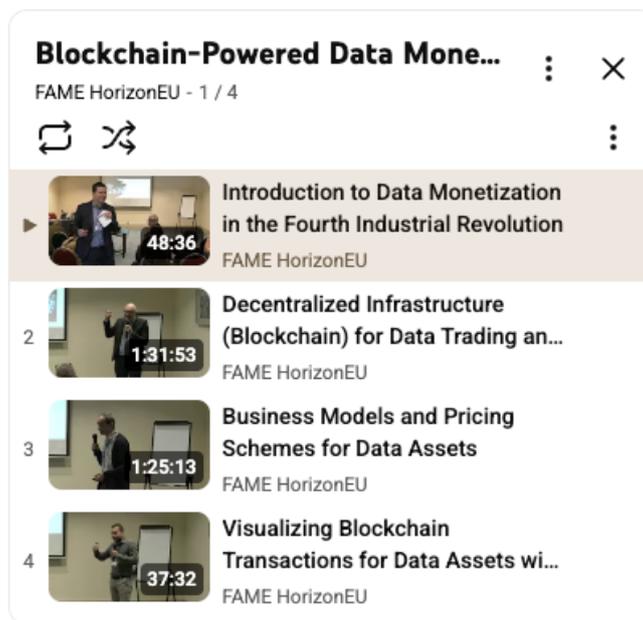


Figure 39: Playlist of Training Clips (“Shorts”) "Blockchain-Powered Data Monetization: From Concept to Execution" available on FAME Youtube's channel

4.4.2 F2F Training #2: Tokenization and Artificial Intelligence in Data Markets.

The 2nd FAME On-Site Training on Tokenization and Artificial Intelligence in Data Markets, was held on June 18, 2025, at the Blockchain Reallabor, Studio 6 in Hürth, Germany. Leading researchers

and practitioners explored the technological, business, and societal dimensions of the emerging data economy. From foundational frameworks for data marketplaces, to reflections on blockchain adoption, to the growing importance of data monetization in the age of AI, each speaker offers a unique perspective on how data-driven value creation is evolving. The training offered an accessible introduction to the concepts and challenges shaping the future of data markets.



Figure 40: Banner for the training "Tokenization and Artificial Intelligence in Data Markets"



Figure 41: Photo from the training "Tokenization and Artificial Intelligence in Data Markets"

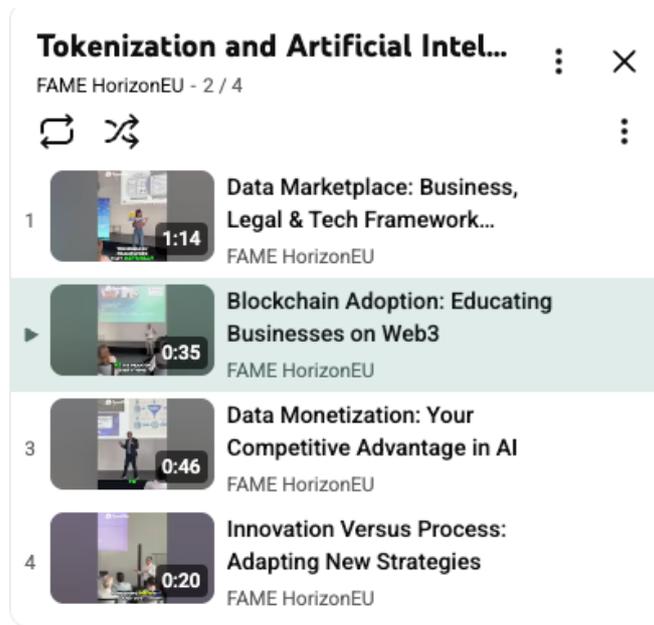


Figure 42: Playlist of Training Clips (“Shorts”) "Tokenization and Artificial Intelligence in Data Markets."

4.4.3 F2F Training #3: The Token Economy: New Methods for Asset Monetization

On December 4th, 2025, the FAME project hosted its third on-site training event at the EUC Startup Center by Microsoft in Nicosia, Cyprus, titled “The Token Economy: New Methods for Asset Monetization.” The event brought together researchers, industry practitioners, and ecosystem stakeholders to explore the practical tools and methods enabling the tokenization and monetization of data assets. Participants were introduced to the FAME Platform as a decentralized marketplace for data assets, engaged with a hands-on tutorial on tokenizing an AI agent through the MarketSense case study, and gained insights into complementary marketplace resources supporting data asset commercialization. The session concluded with a deep dive into smart contract-powered data governance, marking another important step in FAME’s mission to shape secure, trusted, and interoperable data markets.



Figure 43: Banner for the training "The Token Economy: New Methods for Asset Monetization"



Figure 44: Photo from the training “The Token Economy: New Methods for Asset Monetization”

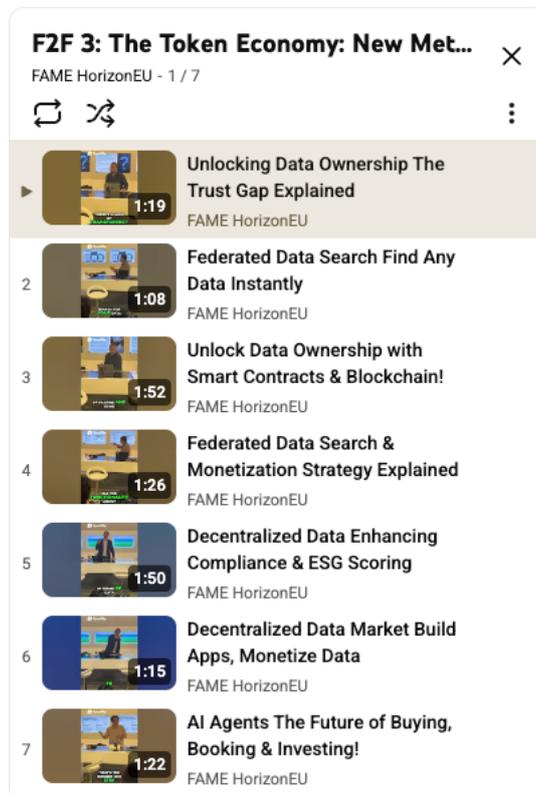


Figure 45: Playlist of The Token Economy: New Methods for Asset Monetization”

4.5 Other Training Resources (Tech Talks, Tutorials, Whitepapers)

The LC integrates tutorial knowledge about data spaces based on links to resources provided by the IDSA, including:

- An IDSA Tech talk this week prepared and developed in the context of FAME, which is available at: <https://internationaldataspaces.org/archive/#tech-talk>
- Tutorial in nature trainings about data spaces, available at: <https://www.youtube.com/playlist?list=PLjtVEFHmKqTvy6dw-kcpapuEDPSR1ANVd>

Furthermore, the LC integrates FAME Whitepapers as knowledge assets that can provide tutorial information about the project's developments, including the following papers:

- FAME Consortium, & TROIANO, E. (2024). FAME: A Federated Secured, Trusted and Interoperable Marketplace and Data Space. Zenodo. <https://doi.org/10.5281/zenodo.14216810>
- SOLDATOS, I., Peliova, J., Isaja, M., Saja, K., & Gupta, S. (2025). Monetizing Data in International Data Spaces: Business Concepts and Technical Enablers. Zenodo. <https://doi.org/10.5281/zenodo.14845137>.

At the end of the project, a recorded webinar that provides a tutorial in nature introduction to the FAME platform and key innovations has been also made available in the LC.

5 FAME Technologies Documentation and Resources

5.1 Overview

The LC also integrates training resources and documentation about FAME's technological developments, including developers' resources and documentation. In several cases these resources are directly derived from the documentation of the components in their repository (e.g., Readme files in github), while in other cases additional training content has been developed for the LC. A non-exhaustive list of the documentation that accompanies the FAME components and that is integrated in the LC is provided in Table 14.

Table 14: Non-Exhaustive List of FAME Technologies Documentation and Resources integrated in the LC

Component Name	Type/Link
FAAID - Federated Authentication and Authorization Infrastructure (Documentation)	Developers Documentation
FAAID - Federated Authentication and Authorization Infrastructure (Video)	Video
Tutorial on SAX Essentials	Tutorial
Tutorial on SAX4BPM Library	Tutorial
IIoT Data Quality Assessment Pilot Demo	Tutorial
IIoT Data Quality Assessment Tutorial	Tutorial
IIoT Data Quality Assessment GitHub Repo	Developers Documentation
IIoT Data Quality Assessment Service (Project overview, architecture, and installation)	Developers Documentation
IIoT Data Quality Assessment Service (Backend README - API documentation)	Developers Documentation
IIoT Data Quality Assessment Service (Frontend documentation)	Developers Documentation
IIoT Data Quality Assessment Service (end-user documentation)	Developers Documentation
IIoT Data Quality Assessment Service (License link (Apache 2.0))	Developers Documentation
IIoT Data Quality Assessment Service (Methodology)	Developers Documentation
Platform Package README (Gov)	Developers Documentation
Platform Package README (PT)	Developers Documentation
Platform Package README (PT-contracts)	Developers Documentation
FAME Onboarding	Developers Documentation
FAME UI Dashboard Documentation	Developers Documentation

Additional information about the documentation of some of the above components is provided in the following paragraphs.

5.2 Assets Policy Manager

The Assets Policy Manager (APM) plays a crucial role in ensuring the secure management of assets within FAME. The APM is designed to define and enforce access policies for all assets within the platform. It consists of two key modules, namely:

- Assets Policy Editor
- Assets Policy Engine

Together, they ensure that asset visibility and content access are controlled, secure, and aligned with defined policies. The two modules are illustrated in **Error! Reference source not found.**, which presents the overall architecture of the APM.

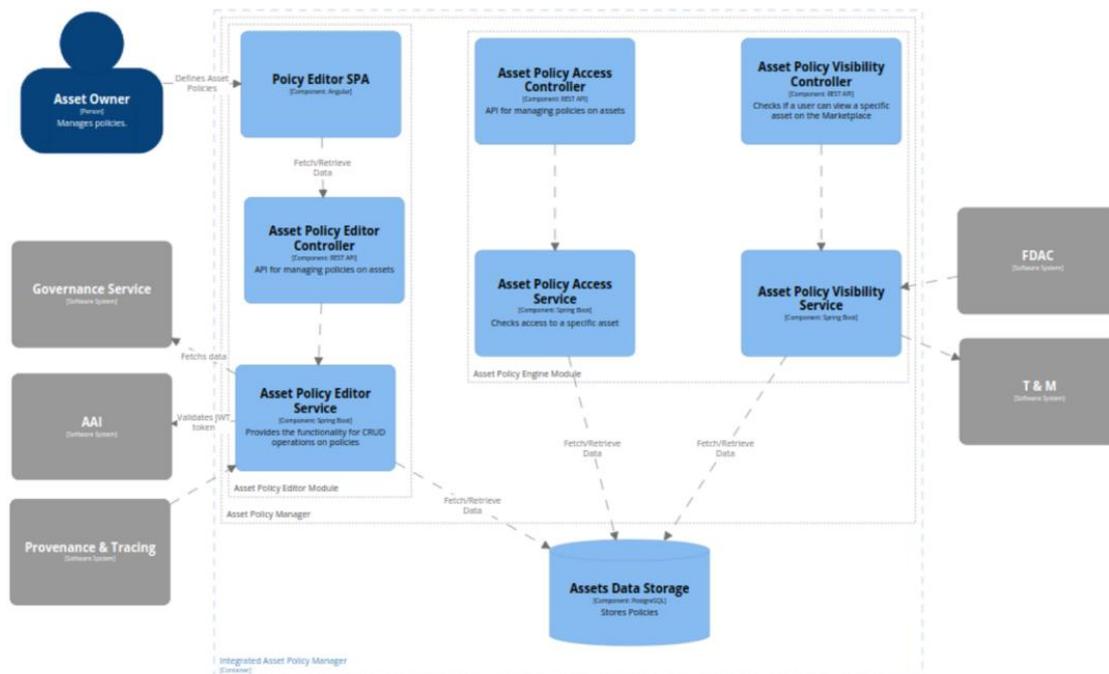


Figure 46: Assets Policy Manager Architecture Overview

In terms of training and documentation, the following resources are provided through the LC:

1. **APM Editor UI Demo Videos:** These videos demonstrate how end-users interact with the **Assets Policy Editor**, including how to create, update, and manage access policies for assets.
2. **Asset Policy Editor Guide:** A detailed user guide describing the functionalities of the Asset Policy Editor. It explains how users define asset visibility rules, apply restricted access conditions, and manage policy configurations through the graphical interface.
3. **APM Technical Manual:** This document provides: an architectural overview of the APM, deployment instructions (Docker and Kubernetes), configuration parameters and environment variables, and detailed descriptions of all REST API endpoints supported by the APM.
4. **API Documentation (Swagger/OpenAPI), Live Swagger UI:** These resources provide the full, machine-readable API definition of the APM. They describe all endpoints, request/response structures, authentication requirements, and example calls. The HTML and live Swagger interfaces enable users to explore and test APM endpoints interactively.

5.3 Situation Aware Explainability (SAX)

5.3.1 SAX Essentials Tutorial

Regarding the SAX asset, the LC integrates a “Tutorial on SAX Essentials”, including information about the following topics:

- Definitions and concepts from process mining.
- Causal discovery.
- Event processing.
- XAI
- LLMs.

SAX techniques are a set of services realized and offered as open source in the SAX4BPM library. These include services for process mining, causal discovery, context enrichment, feature importance ranking, and knowledge synthesis via large language models.

5.3.2 SAX4BPM Library Tutorial

Apart from the SAX Essentials tutorials, the LC integrates a tutorial about the SAX4BPM library. The tutorial details step-by-step how to search, find, and deploy SAX services. As SAX involves knowledge from different domains (e.g., causal inference, process mining, XAI, LLMs), the tutorial leverages the knowledge provided in the SAX essentials resource, that is, definitions and concepts required to become familiar with SAX terminology for the understanding of the different techniques employed.

5.4 Quality and Monetary Value Assessment System

FAME's Quality and Monetary Value assessment system has been developed in the scope of one of the FAME pilots. For this system, a tutorial has been developed, which provides a practical walkthrough of how the pilot system leverages the FAME platform to assess the quality and monetary value of industrial data assets. The tutorial is provided in the form of a video, which video guides users on how to execute end-to-end workflow i.e., workflows starting from the ingestion of high-frequency IIoT sensor data from Motor Oil Hellas (industrial user) and continuing through the application of FAME's Data Quality Assessment (DQA) service. It demonstrates how users can evaluate datasets across key quality dimensions—such as completeness, context, volume, and locality—and shows how these quality indicators contribute to the generation of enriched, value-added assets within the marketplace. By presenting each step visually, the video helps users understand how data assets are analysed, transformed, and prepared for downstream analytics and monetisation processes.

Complementing the video, a **step-by-step interactive guide is available via Storylane** (<https://app.storylane.io/share/e76owrcpsm0w>). This walkthrough allows users to follow the Pilot 7 workflow at their own pace, clicking through each action in the interface, from launching the IIoT-Data-Quality-Assessment service to exploring the XAI Dashboard for Time Series Pattern Analysis and inspecting the resulting insights. The combination of the recorded How-To video and the interactive Storylane guide provides training material for stakeholders, illustrating in a hands-on manner how FAME components are used in the respective to convert raw industrial data into actionable intelligence and measurable economic value.

Developers' and End-Users' Documentation for the Quality and Monetary Value assessment system for data assets, is also available in the following links:

- Documentation for developers:
 - [Main README - Project overview, architecture, and installation](#)
 - [Backend README - API documentation](#)
 - [Frontend README - Frontend documentation](#)
- [End-user documentation which includes:](#)
 - Documentation index and navigation
 - Methodology (probably the most useful for you)
 - Getting started guide
 - Feature-specific guides (data import, visualization, quality assessment, etc.)
 - Troubleshooting and FAQ

5.5 Federated Data Assets Catalogue

Basic documentation about the FDAC catalogue is included in the learning center, including API documentation, how-to-use tutorials and demonstrable examples of data assets indexing.

5.6 Federated Machine Learning (FML)

The FAME Federated Machine Learning solution comes with developers' documentation and learning resources, including readme files on how to deploy and use the FML components, as well as other technical documentation and descriptions of the different components, user guide, license and usage terms, and information on the dependencies of the various components.

6 Conclusions

FAME acknowledges the importance of training tech and non-tech users in using FAME marketplace and technologies. The FAME learning centre was developed to serve this purpose by providing a single point of access to a host of training/learning resources and services. These resources are hosted in the project's training/learning platform and integrated in the FAME marketplace.

The work carried out within WP7 has resulted in the specification, implementation, and population of the Learning Centre with rich content. In particular, the consortium has:

- Defined the structure, content organisation, and user journeys of the Learning Centre.
- Deployed a learning platform supporting self-paced learning, progress tracking, and multimedia content delivery.
- Developed and integrated seven MOOCs covering Embedded Finance and Data Marketplaces and related topics such as data monetization, ESG integration, explainable AI, federated data governance, and open banking.
- Delivered ten training events, including 7 webinars and 3 face-to-face trainings, addressing both conceptual and hands-on aspects of data marketplaces and Embedded Finance.
- Integrated an extensive catalogue of more than 100 third-party training resources from established academic and professional learning ecosystems.
- Provided technical documentation and tutorials supporting developers, integrators, and advanced users of the FAME platform and technologies.

Based on these results, the objective defined in the DoA/GA to establish a Learning Centre for the data economy in the context of Embedded Finance has been achieved without any essential deviations from the initial plan. The Learning Centre now constitutes a consolidated entry point for training, upskilling, and technical onboarding within the FAME ecosystem. Table 14 summarizes the alignment between the Learning Centre objectives and the achievements reported in this deliverable.

Table 15 – Learning Centre Objectives vs. Deliverable achievements

Objectives (as per the DoA/GA)	Comment
To establish a learning centre for the data economy in embedded finance	As part of Deliverable D7.4, the FAME Learning Centre has been specified, implemented, and populated with a critical mass of training, learning, and technical documentation resources, providing a single-entry point for tech and non-tech stakeholders.

In addition, the results presented in this deliverable demonstrate that the Learning Centre KPIs defined in the DoA have been met and exceeded. The number of integrated training programmes and training events goes well beyond the targets set, while the reach of the Learning Centre has resulted in the upskilling and reskilling of more than 2,950 Embedded Finance professionals. This has been achieved through a consolidated multi-channel approach, combining digital reach via MOOCs, webinars, and recorded training materials with live participation in webinars and face-to-face events. Table 15 summarizes the contribution of this deliverable to the Learning Centre KPIs.

Table 16 –Deliverable achievements vs. Learning Centre KPIs

KPI	Comment
2 MOOCs on Embedded Finance and Data Marketplaces	This deliverable integrates a total of seven (7) MOOCs within the FAME Learning Centre, covering Embedded Finance and Data Marketplaces as well as related topics such as Data Monetization, ESG Integration, Explainable Artificial Intelligence, Federated Data Governance, and Open Banking. Together with an extensive catalogue of 100+ third-party courses sourced from established learning ecosystems, the Learning Centre has reached a critical mass of content, enabling the structuring of training materials into multiple learning programmes

	addressing different skills profiles. The KPI can therefore be considered achieved and exceeded.
>10 Training Seminars	The project has delivered ten (10) training events, including seven (7) webinars and three (3) face-to-face trainings, addressing key themes such as explainable AI, ESG screening, pricing and indexing of data assets, blockchain-powered data monetization, and AI-driven tokenization in data markets. The KPI is considered fully achieved.
Training/Upskilled Stakeholders based on the FAME Learning Centre >=500	This KPI has been achieved through the consolidated use of multiple dissemination and training channels. The Learning Centre has supported the upskilling and reskilling of more than 2,950 EmFi professionals, combining digital reach via MOOCs, webinars, and recorded face-to-face training materials (2,790+ participants reached) with live participation in webinars and face-to-face training events (180+ participants). This multi-channel approach enabled broad and sustained engagement with both technical and non-technical stakeholders.

Following the successful establishment of the Learning Centre, the project has focused on maximising its visibility and impact by engaging a broad audience, including members of the FAME ecosystem, partner organisations, relevant Horizon Europe projects, industrial associations, and wider European innovation and startup communities. Learning Centre promotion activities have been closely aligned with the project's dissemination and communication actions to ensure coherence and reach. Importantly, the FAME Learning Centre is not considered a static outcome, but a sustainable, complementary asset of the FAME marketplace. The consortium remains committed to further enriching the Learning Centre with updated documentation, additional training resources, and new content reflecting the evolution of the FAME marketplace and technologies. These actions, together with the exploitation and sustainability measures defined within the project, will ensure that the Learning Centre continues to support capacity building and knowledge transfer beyond the project's lifetime.

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