

Robust Learning and Reasoning for Complex Event Forecasting

Project Acronym: EVENFLOW

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Forecasting

DELIVERABLE

D2.1 – Project Presentation and Website

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Executive Summary

This document provides an overview of the project's graphical identity and online presence. In the following pages the purpose and scope of the document are outlined, along with the project's visual presentation and website structure.

Finally, this document showcases the visual elements that will be used in a coherent way to raise awareness about the project and support the project's branding as well as the channels and tools of communication to be utilised during the project's lifetime to communicate its results.



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Definitions, Acronyms and Abbreviations

Acronym/ Abbreviation	Title
Al	Artificial Intelligence
EC	European Commission



1 Introduction

1.1 Project Information

EVENFLOW is developing hybrid learning techniques for complex event forecasting, which combine deep learning with logic-based learning and reasoning into neuro-symbolic forecasting models. The envisioned methods combine (i) neural representation learning techniques, capable of constructing event-based features from streams of perception-level data with (ii) powerful symbolic learning and reasoning tools, that utilise such features to synthesise high-level, interpretable patterns of critical situations to be forecast.

Crucial in the EVENFLOW approach is the online nature of the learning methods, which makes them applicable to evolving data flows and allows to utilise rich domain knowledge that is becoming available progressively. To deal with the brittleness of neural predictors and the high volume/velocity of temporal data flows, the EVENFLOW techniques rely on novel, formal verification techniques for machine learning, in addition to a suite of scalability algorithms for federated training and incremental model construction. The learnt forecasters will be interpretable and scalable, allowing for fully explainable insights, delivered in a timely fashion and enabling proactive decision making.

EVENFLOW is evaluated on three challenging use cases related to (1) oncological forecasting in precision medicine, (2) safe and efficient behaviour of autonomous transportation robots in smart factories and (3) reliable life cycle assessment of critical infrastructure.

Expected impact:

- New scientific horizons in integrating machine learning and machine reasoning, neural, statistical and symbolic AI
- Breakthroughs in verification, interpretability and scalability of neuro-symbolic learning systems
- Interpretable, verifiable, and scalable ML-based proactive analytics and decisionmaking for humans-in-the-loop and autonomous systems alike
- Robust, resilient solutions in critical sectors of science and industry
- Accurate and timely forecasting in vertical sectors (healthcare, Industry 4.0, critical infrastructure monitoring)
- Novel FAIR datasets for scientific research
- Novel resources and approaches for verifiable, interpretable, scalable and knowledgeaware machine learning

Table 1: The EVENFLOW consortium.

Number ¹	Name	Country	Short name
1 (CO)	NETCOMPANY-INTRASOFT	Belgium	INTRA
1.1 (AE)	NETCOMPANY-INTRASOFT SA	Luxemburg	INTRA-LU

¹CO: Coordinator. AE: Affiliated Entity. AP: Associated Partner.



Number ¹	Name	Country	Short name
2	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	Greece	NCSR
3	ATHINA-EREVNITIKO KENTRO KAINOTOMIAS STIS TECHNOLOGIES TIS PLIROFORIAS, TON EPIKOINONION KAI TIS GNOSIS	Greece	ARC
4	BARCELONA SUPERCOMPUTING CENTER- CENTRO NACIONAL DE SUPERCOMPUTACION	Spain	BSC
5	DEUTSCHES FORSCHUNGSZENTRUM FUR KUNSTLICHE INTELLIGENZ GMBH	Germany	DFKI
6	EKSO SRL	Italy	EKSO
7 (AP)	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	United Kingdom	ICL

1.2 Document Scope

This document acts as a descriptive point of reference for the project's website layout, also providing a complete overview of the project's presentation.

The EVENFLOW website offers the opportunity to engage with the broader external community and establish links with relevant projects and European initiatives. The website is the official project website acting as a reference point between the partnership (internal audience) and all other relevant stakeholders and target audiences (external audiences).

The website will serve as an instrument to help raise awareness of the project and to promote the project's dissemination and communication activities thus enhancing the long-term exploitation strategy. Within WP2, Task 2.1 includes the definition of the website, considering user and project requirements, the architecture and providing a plan for its implementation.

It should be stressed that the EVENFLOW website does not represent the core output of the project; however, it constitutes a valuable means to ensure the achievements of its objectives and ensure greater visibility of the work carried out during project implementation.

1.3 Document Structure

This document is comprised of the following chapters:

Chapter 1 presents an introduction to the project and the document.

Chapter 2 presents an overview of the project's branding, such as the logo, the visual material and social media accounts.

Chapter 3 describes the website layout, its technical aspects as well as the plan for website updates and maintenance.

Chapter 4 provides conclusions.



2 Project Presentation

2.1 EVENFLOW Visual Material

2.1.1 Project Logo

The EVENFLOW project logo (Figure 1) has been created by a professional graphic designer, as partners wanted to create a unique and memorable logo which would bring together all facets of the project's research areas. Three different versions of the logo were presented by NCSR during the kick off meeting of the project in October 2022, from which the partners had the opportunity to choose through a voting procedure. The chosen logo is a smart, simple, and intuitive design that includes the project's full name. It provides an easily recognised project trademark to be used throughout all communication activities (e.g., project website, presentations, flyers, press releases, etc.) to enhance brand continuity and raise awareness.



Figure 1: EVENFLOW project logo.

2.1.2 Project Templates

To embed the project's brand identity across communications, several <u>project templates</u> (Figure 2) have been produced to ensure consistency across partner usage including:

- A PowerPoint presentation
- Meeting agenda
- Meeting minutes
- Deliverables

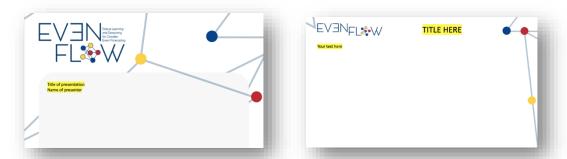


Figure 2: EVENFLOW power point presentation template.

The templates have been made available in the common folder shared between partners, for ease of access by all since the very start of the project.



2.1.3 Project Banners

A series of <u>electronic banners</u> (Figure 3) have been created to help promote the project online, bearing the project's brand identity, logo and colours and an accompanying tagline to highlight the unique proposition of the project *Robust Learning and Reasoning for Complex Event Forecasting*. These banners are freely available for partners to use on their social media, organisational websites, announcements about the project, press releases etc. This material is also available on the EVENFLOW website under the Media kit section for use by journalists or other stakeholders.

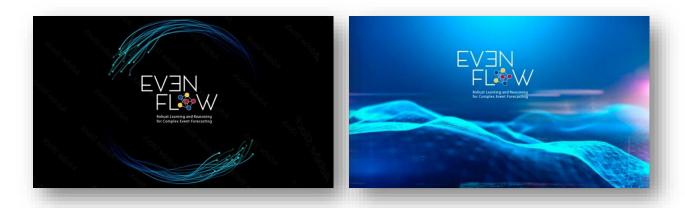


Figure 3: EVENFLOW banners.

A <u>virtual background</u> (Figure 4) has been created for online meetings to enhance the professional look and feel of the project when participating in meetings with external stakeholders or virtually presenting at events.



Figure 4: EVENFLOW virtual background.

A Media kit (link: https://evenflow-project.eu/media-kit/) has been created and is accessible for public use via the website (Figure 5). The kit includes the EVENFLOW logo in various formats as well as will include all the banners and visuals for social media in the appropriate sizes for usage in Twitter and LinkedIn. The Press Release is also included in the Media kit



which is in a format that can easily be translated in local partner languages and disseminated in each country so as to reach local audiences.

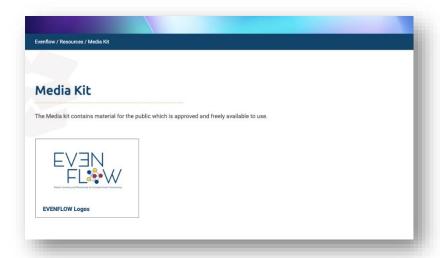


Figure 5: Media Kit page on website.

A <u>roll-up banner</u> (Figure 6) has been created to be used as informative material at physical event participations, providing the main info of the project such as logo, tagline, social media channels and a QR code that directs to the EVENFLOW website.



Figure 6: Roll up banner for EVENFLOW.



2.2 Project Social Media Channels

Designing a social media plan for the project was amongst the activities that have been realised early in the project. When the time came to choose from the variety of social media channels available, the lead partner considered two main factors:

- What is the domain and its stakeholders using? We researched what social media the ecosystem, sibling projects, key stakeholders, policy makers, governmental bodies and the EC utilise.
- What do our partners use? Following thorough investigation of partners' social media, it was decided to create accounts on social media channels that our partners would be able to follow and share content from. Thus, the choice was made to create accounts on Twitter and LinkedIn.

The social media posts will be modified, with different communication campaigns to be created and modified during the project's lifetime in order to adapt to project results.

2.2.1 Twitter

Following the above-mentioned decision-making process, the creation of a Twitter account (Figure 7) was decided in November 2022 (https://twitter.com/EvenflowProject @EvenflowProject) which has a gradually increasing follower base with currently 24 followers.



Figure 7: EVENFLOW Twitter account.



Twitter is an excellent tool which allows frequently connecting and interacting with interested audiences in a synchronous way. Twitter will be used to draw interested audiences to the EVENFLOW website via specific weblinks. The account not only shares consortium and project updates, as they happen, but also aims to build a wider community around the areas of Artificial Intelligence and Complex Event Forecasting, which is the main areas of research of the EVENFLOW project. By sharing public body/governmental reports and resources, stories of experts, insights, and news of other relevant bodies, audiences will be keen to follow our account and share our tweets. Additionally, this augmented community will be more interested to find out about our project news (such as conference participation and published papers), and thus will be easier reaching out to all mentioned user groups. Tweets will be shared regularly by project partners to keep followers updated and interested.

2.2.2 LinkedIn

A LinkedIn page has been created under the URL https://www.linkedin.com/company/evenflow-project/ (Figure 8) with currently 56 followers.



Figure 8: EVENFLOW LinkedIn account.



3 Project Website

The official project website is the most important online tool of communication as it allows the partnership to structure information as required to connect with the ecosystem that it will be reaching out. The EVENFLOW project website (Figure 9) has been made publicly available in November 2022 and is available under the URL https://evenflow-project.eu/.

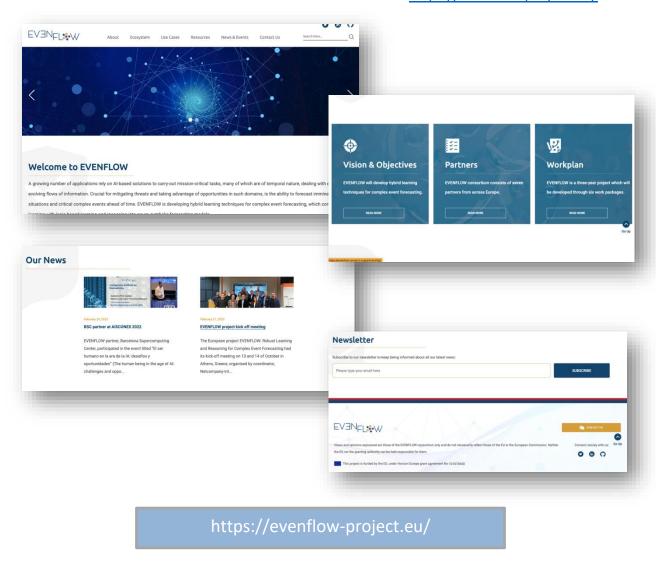


Figure 9: EVENFLOW project website URL & home page.

The project website will play a key role in the project's communication strategy (more regarding the communication strategy is provided in D2.2 - Plan for Dissemination and Exploitation Including Communication Activities) as it provides an online platform accessible by the public, showcases the project, holds all project achievements and updates, as well as its social channels in one place.

The EVENFLOW website will be updated regularly to reflect the current state of the project. Lead partner NCSR is responsible for the maintenance and content update of the website, by sourcing content from all EVENFLOW partners, as well as from the wider community.



3.1 EVENFLOW website requirements

The EVENFLOW has been designed based on three sets of requirements:

- user needs;
- EVENFLOW ecosystem requirements;
- project requirements.

The following sections illustrate each type of requirement.

3.1.1 User Needs

In general, the website will be used by different types of actors: consortium members, civil society (general population, vulnerable groups, new citizens), AI developers, representatives from industry and academia, researchers, SMEs, policy makers, related projects, and representatives from additional fields. At the moment, some basic needs have been identified, taking into consideration the activities the users may have to perform, the different types of actors and the potential differences in computer literacy:

- Accessibility;
- Simplicity;
- Straightforwardness;
- User-friendliness.

The website has been structured in an intuitive fashion and designed in order to attract attention and foster engagement. Based on likely future feedback, additional needs will be added to this list and implemented in the website's design.

3.1.2 EVENFLOW Ecosystem Requirements

The EVENFLOW Ecosystem includes the entire community that gravitates around the project, its members and the stakeholders. In the light of EVENFLOW mission to foster engagement and promote knowledge sharing amongst diverse stakeholders, it is essential to provide an environment that facilitates interactions and provides opportunities for dialogue and sharing of expertise, views and ideas. The website will, hence, support the EVENFLOW ecosystem in this sense and complement social media in fostering knowledge sharing and engagement. This will ease the understanding of each other's perspectives and the interactions among the different spheres of knowledge.

3.1.3 Project Requirements

As already mentioned, the EVENFLOW website is a vital tool for the implementation of the project activities: it represents a collaboration point for consortium members and the external community, thus contributing to strengthening the ecosystem and facilitating engagement activities. Moreover, specific work packages in the project will be highlighted on the website, such as the Use Cases (WP3).

The website will:

• host a dedicated webpage for the use cases;



- have dedicated sections to advertise EVENFLOW activities, such as the news section, etc.;
- ensure visibility of the project and its results.

3.2 Website Architecture

The EVENFLOW website is expected to facilitate the project's activities and foster interactions among the consortium and the external community, thus including experts, civil society, etc. To achieve this end state, it is important to provide a solution that is easy to access and navigate through. The EVENFLOW website is accessible to everyone. It contains information on the project, its events, news and publications, as well as information on the consortium members. Moreover, users have the possibility to directly ask questions to the EVENFLOW consortium by using the "Contact us" form.

The following sections illustrate respectively, the functionalities envisaged at this stage for the website, its information architecture and its technical architecture.

3.2.1 Functionalities

The following shows the functionalities currently identified as relevant for the EVENFLOW website. The functionalities have been divided into three categories:

- Awareness: functionalities that chiefly provide information and aim to attract the attention of the users;
- **Engagement**: functionalities that envisage an interaction of the user, (e.g. engagement through the contact us form);
- **Community building**: functionalities that facilitate group interactions, thus allowing communication and knowledge sharing (e.g. engagement through social media, newsletter form).

3.2.2 Information Architecture

The information architecture (Figure 10) defines the structure of the website and the relation between its different areas. The information architecture of the EVENFLOW website is structured in a simple and intuitive way that will facilitate navigation and use of services.

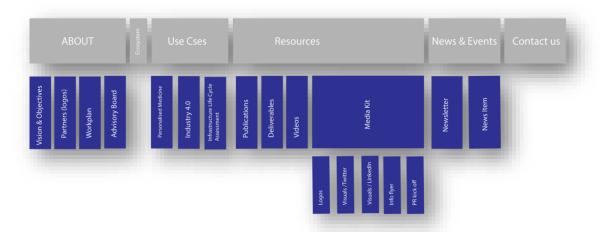


Figure 10: EVENFLOW website sitemap.



At its first release, the website comprises the following sections and subsections:

PROJECT WEBSITE

- O Homepage: this is the initial landing page, which provides general information about the project, showing a preview of the major sections (e.g. Vision & Objectives, Partners, Workplan, etc.). It contains the EU disclaimer, a search function and a direct link to the project social media pages (Twitter and LinkedIn). It also includes a News section showcasing the most recent news of the project and the subscription field for EVENFLOW newsletter (Figure 9).
- About us: this section provides more details about the EVENFLOW project and its objectives, the consortium and the workplan (Figure 11).
- Ecosystem: this section showcases the EVENFLOW Ecosystem which will continue to grow throughout the project. The relevant webpage will include two subsections (Figure 12):
 - <u>EU related projects</u>, listing projects that are related to the topic and/or objectives of EVENFLOW;
 - <u>Sibling projects</u>, i.e., ENEXA and TALON. These two projects have received funding from the EC under the same call as EVENFLOW dedicated to Artificial Intelligence & Robotics, HORIZON-CL4-2021-HUMAN-01.
- Use Cases: this section aims to highlight and provide corresponding information regarding the use cases that will validate the EVENFLOW outcomes. This tab has the three respective subcategories of (Figure 13):
 - Personalised Medicine;
 - Industry 4.0;
 - Infrastructure Life Cycle Assessment.
- Resources: this area is expected to gather all relevant with the project resources, such as the publications, deliverables, videos and the media kit (including free to use logo, visuals and press releases)(Figure 14).
- News & Events: this section aims to publicise the events organised within the project (e.g. conferences, workshops, etc.), other events where the project is presented or where consortium members participate to promote EVENFLOW activities. Moreover, other news relevant to the project (e.g., the release of publications, EC initiatives, etc.) will be included here. A subcategory titled Newsletters will also be created to include all the Newsletters that will be published during the project's years of action (Figure 15).
- Contact us: it contains the contact details of the project coordinator as well as a
 "contact us" form that allows users to send a message to the EVENFLOW info mail
 inbox. The inbox is monitored by the coordinator, who will take care of the follow up.



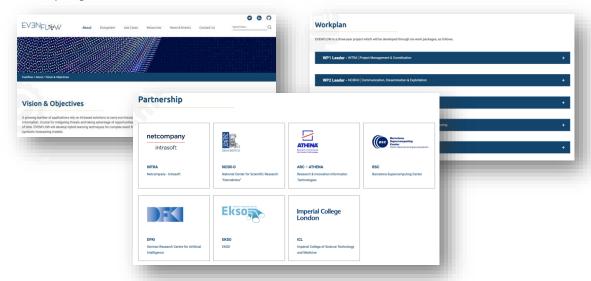


Figure 11: Vision & Objectives, Partnership and Workplan pages.

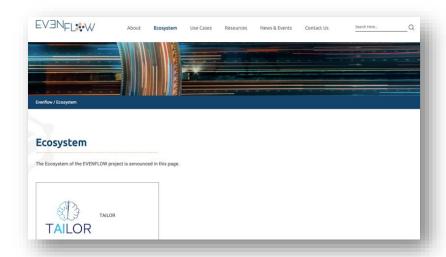


Figure 12: Ecosystem page.

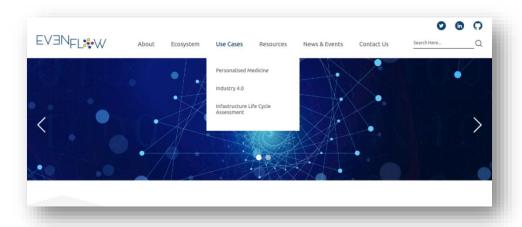


Figure 13: Use cases subcategories.



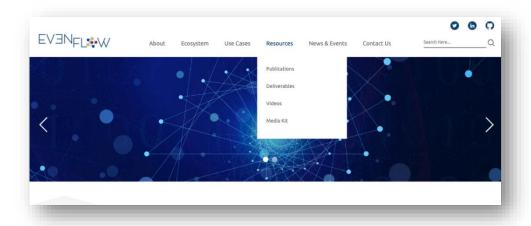


Figure 14: Resources subcategories.



Figure 15: News & Events page.

3.2.3 Technical aspects and website updates

The website is hosted on a cloud server of NCSR and its public IP is linked to the project domain managed by INTRA. In this way, the application can be accessed using a common web browser (like Google Chrome, Microsoft Edge, Safari, Mozilla Firefox) installed on a client PC or mobile device, such as a smartphone or a tablet, which has internet access. The website has been created using the web development tool WordPress.

Pages were linked to the homepage and among themselves. Moreover, the redirection to the EVENFLOW social media pages was established as well as the redirection to external pages (e.g., other projects, partners' websites, etc.). The "Contact us" page contains a form that users can fill out and send to get more information on the project or ask questions: an email inbox was created EVENFLOW-info@evenflow-project.eu, which receives messages sent through the form.



The website will be maintained and continuously updated during the project implementation, based on feedback received from the users (both consortium members and the external community). NCSR, WP2 Leader, will gather likely inputs and – upon agreement with the consortium members – proceed to update the website. Any new functionality added on the website will be advertised on EVENFLOW social media.

Additionally, the website has been linked to an analytics tool, more specifically, <u>Matomo Analytics</u>, providing insights in regard to users' webpages preferences so as to make any suitable changes or adjustments aiming at a better performance.



4 Conclusions

This deliverable provides an overview of the project's graphical identity and online presence.

The purpose and scope of the document have been described, and the project's presentation and website were illustrated.

The EVENFLOW website, represents the official and most crucial tool of the project's online presence and reaches external target audiences. This document illustrates the website's overall structure which includes sections about the partnership, the project's objectives and outcomes thus fostering engagement and facilitating interaction.

Communication campaigns and supporting material will evolve in line with project results and relevant material will be made available in modular mode to support multilingualism as required by partners.

Finally, this document showcases the visual elements that are being used in a coherent way to raise awareness about the project and support the project's branding as well as the channels and tools of communication that will be used during the project's lifetime to communicate its results.