

Robust Learning and Reasoning for Complex Event Forecasting

Project Acronym: EVENFLOW

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Forecasting

DELIVERABLE

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Executive Summary

This document provides an overview of the project's dissemination and communication plan which is to be employed during the EVENFLOW project. In the following pages the purpose and scope of the document are outlined, along with the activities planned for awareness raising and dissemination of the project's research findings. Target audiences are defined, and communication and dissemination targets are set (KPIs), which the partners will aim to meet by using all the available tools outlined in this document. Finally, an initial list of 11 EVENFLOW exploitable results is compiled and their exploitation plan is outlined in addition to that of each partner.



Deliverable leader:	Elena Galifianaki (NCSR)
Contributors:	Fay Pitsilidou (NCSR), Konstantinos Chisiridis (INTRA)
Reviewers:	Athanasios Poulakidas (INTRA), Nikos Giatrakos (ARC)
Approved by:	Athanasios Poulakidas, Dimitrios Liparas (INTRA)

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Definitions, Acronyms and Abbreviations

Acronym/ Abbreviation	Title
DoA	Description of Action
EC	European Commission
WP	Work Package
PR	Press Release
ER	Exploitable Results
KER	Key Exploitable Results

1 Introduction

1.1 Project Information

The EVENFLOW project aims to develop hybrid learning techniques for complex event forecasting, which will combine deep learning with logic-based learning and reasoning into neuro-symbolic forecasting models. The envisioned methods combine neural representation learning techniques, powerful symbolic learning and reasoning tools, 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 decision-making 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: EVENFLOW Consortium.

Number ¹	Name	Country	Short name
1 (CO)	NETCOMPANY-INTRASOFT	Belgium	INTRA
1.1 (AE)	NETCOMPANY-INTRASOFT SA	Luxembourg	INTRA-LU
2	NATIONAL CENTER FOR SCIENTIFIC RESEARCH	Greece	NCSR
	"DEMOKRITOS"		

Dissemination level: PU - Public, fully open

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



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

1.2 Document Scope

This document will act as reference material for the EVENFLOW partnership as it outlines dissemination and exploitation plans and communication activities for the duration of the project.

Efforts to be developed are directed at three levels: (i) Communication with public authorities, policy makers and the wider public and stakeholders (ii) Dissemination of scientific and technical dissemination to the research community; and (iii) Exploitation. Additionally, it aims to:

- Inform the research community of the latest developments taking place within the project and how the project may affect various research fields.
- Raise awareness of the project, its objectives, and its achievements.
- Communicate project progress, technologies, and results (outside the consortium and research community) to the social and technical communities as well as the general public and how it may affect them in the future.
- Ensure the widest dissemination possible of the project's results to all potentially interested parties and share best practices stemming from the project via various channels.
- Help to establish liaisons / synergies with other related projects to exchange knowledge and best practices.
- Help create new leads for the successful exploitation of project results at a later stage.

1.3 Document Structure

This document comprises of the following chapters:

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

Chapters 2 to 4 cover Dissemination and Communication: Chapter 2 elaborates on the Dissemination and Communication Plan; Chapter 3 describes Internal Communication; Chapter 4 describes External Communication.

Chapters 5 to 7 cover Exploitation: Chapter 5 describes the Exploitation Strategy; Chapter 6 describes the Project's Exploitable Results; Chapter 7 provides the Initial Exploitation Intentions of the Partners.



Chapter 8 refers to the Alignment with EU Directives.

Chapter 9 includes the Conclusions of this document.



2 Dissemination and Communication Plan

2.1 Dissemination objectives

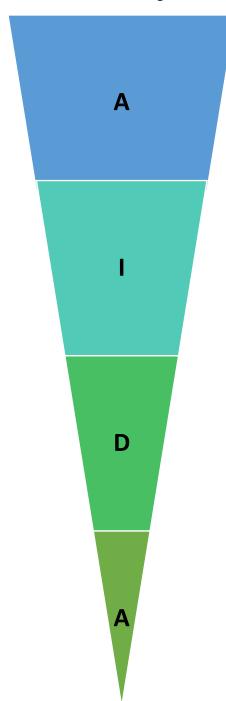
The general objectives of every dissemination and communication plan are to make potentially interested parties and stakeholders aware of the project's technologies and results, as well as share best practices of the project which may result in increased uptake of the outcome produced. More specifically, within EVENFLOW the main goals of the dissemination and communication activities, will be identified and formulated covering five key strategic directions (as described in the DoA):

- a) to approach relevant regulatory bodies and standardisation activities as summarised in Table 3.
- b) to create interest and open new AI research directions for relevant scientific communities via high-impact publications and participation in top-tier scientific events (Table 6);
- c) to directly involve stakeholders from the industry that will benefit from EVENFLOW's adoption in market applications via participation in industrial events, fairs and exhibitions (Table 6);
- d) to establish cooperation with ongoing and future EU projects;
- e) to diffuse knowledge, methodologies and technologies tested during the project to the public.

For these objectives to be satisfied, each partner will be fully committed to the dissemination of results across the ecosystem of stakeholders. Dissemination and communication will take place at multiple levels and all partners will contribute via the routes that are most appropriate to their operational model and expertise.

EVENFLOW's Dissemination, Communication Strategy is based on the *AIDA Marketing Communication Model* (Rawal, P. 2013), aiming to guide the audience from the acknowledgement of the EVENFLOW ecosystem to its active engagement. The AIDA model identifies four stages in sequential order to lead the "customers" or "main beneficiaries" through this journey. These four stages – Awareness, Interest, Desire and Action - are illustrated in Table 2.

Table 2: AIDA Marketing Communication Model for EVENFLOW project.



AWARENESS: Initial Phase / M1-M9: To build awareness for EVENFLOW, making the project visible and recognisable, sharing its objectives, values, and technological innovation(s). Visual identity and logotype, a template website, Web2.0 means and social media accounts are set. *Channels & Tools: Website, videos and social media.*

INTEREST: Early Intermediate Phase / M10-M18: The early results will be disseminated via publications and scientific papers to high-impact journals, as well as presenting at conferences and scientific events, to attract the interest of researchers and scientific communities. Channels & Tools: Website, videos, newsletters, social media, participation in scientific events/conferences, scientific publications, scientific workshop organisation.

DESIRE: Intermediate Phase / M19-M27: This phase will focus on further engagement of the targeted audiences with the project. Dissemination of evolving results through commercial and industrial events (Table 6), will create interest in EVENFLOW beyond the scientific community, from target markets and respective stakeholders. Channels & Tools: Website, newsletters, social media, participation in industrial events/fairs/exhibitions, scientific publications, industrial workshop organisation.

ACTION: Mature - Final Phase / M28-M36: This phase will focus on maximising the target market and industry awareness about EVENFLOW's exploitable results. All the results will be disseminated through the above-listed channels. Communication and dissemination efforts will support the project sustainability and its effective exploitation and potential market replication. All the efforts of the previous phases will be leveraged in this final stage. *Channels & Tools:* Every possible means cited above.

2.2 Defining Target Audiences – Internal & External

To achieve EVENFLOW goals and objectives, partners have identified key stakeholders who need to be kept up to date with the progress and outcomes of the project. The audiences are generally divided into internal and external; to cater for these inherently diverse audiences that require different types of information, we provide a segmentation. The first step is the identification of concrete interest groups and the analysis of their characteristics. This will allow for the design of



specific content for each target user group and the adoption of specific verbal and visual communication styles.

Table 3: Monitored Standards and EVENFLOW Contributors.

Standards/Directive/Body - Results	Foreseen Contribution & Partner(s) in
Alignment	Charge
JTC 1/SC 42, Artificial Intelligence:	Blueprints for distributed CEF applications
Considered in the specification of the	over cloud/edge computing architectures
platform (R1)	(INTRA-LU)
EOSC Portal/Marketplace: Delivery of	Practical examples of data-intensive AI for
relevant AI/CEF applications (R6-R8) as	the Scientific community (ARC)
Notebooks	
European Parliament's Draft AI Regulation:	The project will provide robust and
EVENFLOW applications will be compliant	explainable AI tools that promote safety
with the mandates of the regulation	and adhere to the mandates of the
_	regulation (NCSR).
IEEE P2894™ - Guide for an Architectural	EVENFLOW will enhance IEEE P2894™
Framework or Explainable Artificial	categories and catalogue with information
Intelligence: EVENFLOW platform will	about the end-to-end explainability
consider this standard	techniques of the project (INTRA-LU)

Table 4 below summarises the foreseen dissemination and communication target groups of EVENFLOW.

Table 4: Dissemination and communication Target Groups.

Target Group	Message & Goal	Channel
Scientific community:	Emphasise the significance of the	Website / events /
Universities and research	obtained novel results for future	social media /
institutes focusing on	research in the academia and	publications / Data
Advanced AI research, notably	access to open data repositories.	sets
novel learning paradigms.		
Industrial EU sectors linked to	Demonstrate EVENFLOW	Website /
EVENFLOW pilots:	objectives, use cases and	Newsletters / events
Manufacturing, Healthcare,	technologies developed and	/ social media /
Critical Infrastructure,	validated, with respective	publications /
including relevant	benefits. Demonstrate how the	workshops &
stakeholders like citizens and	platform is customised for	webinars / videos /
policy makers.	different use cases.	whitepapers
Siblings & Related Projects	Common ground, interests, and	Website / events /
with similar research activity	actions in R&D in relevant AI	social media /
and values with EVENFLOW,	topics (e.g., novel learning,	publications
incl. projects focusing on Al	explainability).	
research for vertical sectors.		
EU Organisations, Financial	Value for them of the results and	Website / social
Actors and Policy Makers:	knowledge for benefits of being	media / publications
Representatives of national	applicable to many sectors;	/ workshops &



Target Group	Message & Goal	Channel
bodies/ministries, EC and	Demonstrate compliance to	webinars /
other Institutions.	regulations.	whitepapers
General Public and Media: EU	Create awareness for the	Website / social
citizens, Media, NGOs and	project's benefits for the society;	media / publications
others that have a general	Explain the project's impact and	/ workshops &
interest in tech, innovation,	regularly present news.	webinars / videos
and engineering.		
Associations, Clusters, and	Diffuse the knowledge and how	Website /
CSA as BDVA/DAIRO, AIOTI,	the results can be used and	Newsletters / events
EFFRA, H-Cloud,	exploited by more entities, share	/ social media /
EU-IoT/OPEN-DEI and	benefits and improvements for	publications
emphasis on GAIA-X.	end-users.	
Open-source ML/AI	Scientific discoveries, knowledge	Website /
communities to adopt and use	on open data, FAIR datasets,	Newsletters / events
the project's open-source	metadata, and protocols.	/ social media / data
results.		sets
Scientific and Cloud/AI	Diffusion of knowledge on how	Website /
communities (e.g., AI4EU,	EVENFLOW can be used for AI use	Newsletters / events
EOSC, GAIA-X) and related	cases in the context of	/ social media /
standardisation organisations	AI4U, EOSC, and GAIA-X	videos
(ETSI, IIC, ISO, CEN/CENELEC).	communities; How the project	
	contributes to standards.	
Innovators (incl. SMEs and	Present Innovation Opportunities	Website /
Midcaps) developing AI-	using the novel learning paradigm	Newsletters / events
related products/services.	and related resources.	/ social media /
		publications / videos
Al Innovation Hubs in Europe	Present EVENFLOW results and	Website /
(i.e., AI DIHs, DIHNET, AI4RS)	applications; Attract follow-up	Newsletters / events
and Accelerators (e.g.,	funding for advancing TRL levels	/ social media /
MedTech) in the areas of the	and commercialisation	publications / videos
use cases		

<u>Internal Audiences:</u> Apart from external audiences, which are the most common recipients of information, it is important to identify the need for information of project partners and their respective organisations and deal with them as internal 'customers'. As the project develops and technical complexity increases, communication within the partnership becomes of utmost importance. To cater to this need, the WP2 lead partner, in collaboration with the coordinator, have created internal communication tools and channels as early as the kick-off meeting. Additional information on the tools being utilised is available in Chapter 3.

<u>External Audiences:</u> Documents such as this deliverable, are considered as the master document which outlines the strategy to be followed by partners for the year to come for external audiences. Broadly speaking, the target audience of EVENFLOW includes stakeholders within the Industry, SMEs, policy makers, citizens, Academia, and the Media. The communication plan is



expected to target all interested parties. It is also expected to identify potentially interested members, who will spread the word of EVENFLOW, increasing audience participation. Additionally, the dissemination plan will be rolled out to reach the scientific research communities who need to be made aware of the project's scientific results thus, ensuring useful insights are provided to experts for future research.

2.3 Key Performance Indicators (KPIs) of Dissemination Activities

For EVENFLOW partners and EC officials to be able to measure and evaluate the impact of the dissemination and communication strategy, a set of measurable success indicators have been established setting a basis for verifying objectives' achievement. To gather online dissemination data, the Matomo Analytics application was chosen to be used as an alternative to Google Analytics. This is a free and open-source web analytics application to track online website visits and create reports for analysis. An account has been set up and linked to the project website (Figure 1), while for all other social media, available analytics tools are being used (e.g. Twitter Analytics etc.).

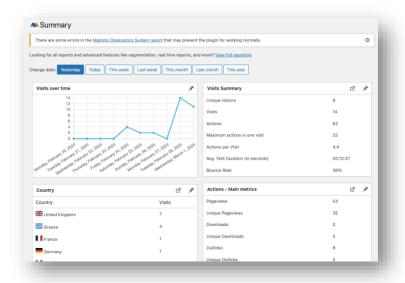


Figure 1: Website analytics using Matomo Analytics.

The following table (Table 5) provides measurable indicators for the project's dissemination and communication activities and sets a basis for verifying whether the project dissemination objectives are being met along the way.

Table 5: Key Performance Indicators (KPIs) of Dissemination Activities.

Online communication activities	Success Indicators
Project Website: The dedicated EVENFLOW website will be	- Average yearly visits: >2,000
the main dissemination reference with information about the	- Material downloads (yearly): 20
project, its objectives, partners, results etc.	
Social Media: Accounts will be created on the major social	>400 Twitter followers in total
media networks to disseminate information about the	>200 LinkedIn followers in total
project, its updates, form communities of interest and	
interact with stakeholders. Social media content strategy will	
be part of the EVENFLOW dissemination plan.	



Project Video: will communicate the EVENFLOW concept and	4 videos in total		
approach in a simplified and direct style appropriate to all			
target groups, including non-technical stakeholders.			
<u>Project eNewsletter:</u> will be emailed to interested recipients	6 Newsletters in total		
and be published online on the project website and social	No. of recipients: > 200 in total		
media. The newsletter will include project updates, inform			
and engage with end-users in the project activities.			
Publications	Success Indicators		
Press Releases & articles: Relevant publications will be	9 in total		
prepared for all stakeholder communities including press			
releases and articles that describe project outcomes.			
Whitepapers: An authoritative guide that discusses issues on	4 yearly in total		
certain subjects of EVENFLOW projects, along with a			
proposed solution for handling them.			
Peer-reviewed scientific journals and conference	≥ 12 in total		
publications: Partners from the research, academia and			
industry will engage in scientific publications in journals and			
conferences.			
Participation in events	Success Indicators		
Participation in events: Key related events will be attended by	> 20 in total		
EVENFLOW partners including scientific conferences,			
workshops, exhibitions, congresses and commercial events.			
Organisation of events: EVENFLOW will organise	> 5 in total		
Industrial/Scientific/Training Workshops & Webinars			
dedicated to the project activities, involving external			
stakeholders from the end user groups, industry and policy or			
decision makers.			
decision makers.			



3 Internal Communication

As mentioned in the previous chapter, partners are the internal audiences, who require easy-to-use, daily communication within the partnership mainly via digital means. To ensure smooth interaction and safe exchange of information amongst partners, the coordinator has established internal communication channels -as early as the kick-off meeting- which include:

- A dedicated project mailing list for ease of communication within the partnership.
- Specialised technical and WP2 mailing lists for partners to communicate amongst themselves, without spamming the whole partnership.
- To facilitate the sharing of ideas and collaboration among partners, it is essential to have
 a document management system that facilitates sharing and collaborative editing for all
 documents. A SharePoint site has been set up for that (Figure 2).
- Live project communications (teleconference, messaging) have been enabled using Teams, with separate channels for each WP. To enable all partners to keep abreast of updates in the project, bi-weekly plenary teleconferences have been set up with regular updates across Work Packages (WPs).
- Face-to-face plenary meetings will be organised approximately every six months to provide partners with the opportunity to meet and discuss in more detail and agree on the next steps for each WP.

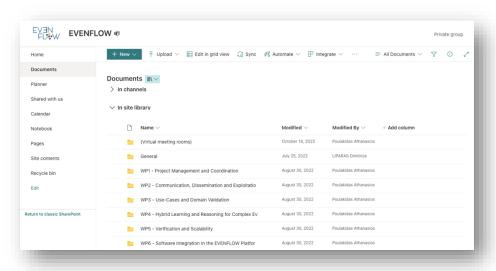


Figure 2: Internal Communication Management & Repository.



4 External Communication

External communication and dissemination are the biggest part of this WP as it includes the activities to be performed by all project partners to reach external audiences and meet the objectives set.

To reach the audiences summarised in the previous chapters of this document, the partnership will employ a breadth of tools and channels to communicate its messages which are outlined in this segment.

4.1 EVENFLOW website

The official project website is the most important online tool of communication as it allows the partnership to structure information as required and to connect with the ecosystem that it will be reaching out to. The EVENFLOW project website was made publicly available in November 2022, while a revised version of the website has been created with WordPress and was released with a new layout and increased functionalities on February 2023, available under the URL https://evenflow-project.eu/.

The project website will play a key role in the project's communication strategy 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. An extensive analysis of the website and its sections is provided in D2.1 "Project Presentation and Website".

4.2 EVENFLOW visual material & social media

The EVENFLOW project logo has been created early in the project and three versions of the logo have been presented to the partners during the kick-off meeting of the project in October 2022. The partners chose the logo shown in Figure 3 through a voting procedure. An extensive analysis of the project's visual identity, including the logo, and the produced material for the project (electronic banners, rollup banners, virtual backgrounds etc.) is provided in D2.1 "Project Presentation and Website".



Figure 3: EVENFLOW logo.

Continuing with the promotion and presentation of EVENFLOW to the public, WP2 Lead has planned further communications activities, as mentioned below:

- In the frame of creating visual content in the first six months of the project and to further promote our work, a communication initiative named 'Meet the Partner' will be up and running for seven weeks (one partner per week). This online activity is an initiative with the purpose to



promote partners, their role and work within the EVENFLOW project (Figure 4). Respective electronic banners will be designed, introducing to the wider public each organisation and its lead person working on the project. This activity will be communicated once a week (every Tuesday starting from March 2023) via the EVENFLOW project website and the project's social media. A dedicated webpage will be created on the website under the Partnership section, where all the partners' information will be stated and where the audience will be able to refer to.



Figure 4: Banners from the Meet the Partners Communication Campaign.

<u>- eNewsletters</u> are scheduled for production informing about events and highlighting project progress with a total of 6 newsletters to be produced. These electronic newsletters will be disseminated to users who have willingly subscribed to the project newsletter through the relevant section on the website (Figure 5), which is linked to a secure database (dedicated project's account through the Mailchimp application). Newsletters are a tool that can assist with creating a community around the project and can help establish its sustainability and impact in the long term.

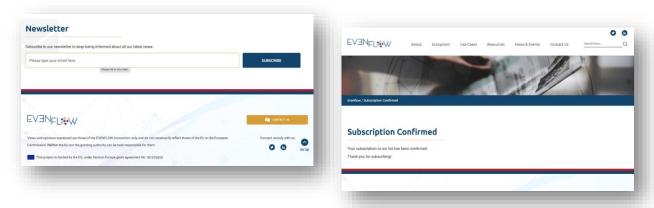


Figure 5: Newsletter subscription & confirmation webpages.

<u>- Multimedia material</u> is to be produced and distributed through the project website, social media and broadcast platforms such as YouTube. The videos will include informative videos about EVENFLOW, taking into consideration all GDPR guidelines for publication. A dedicated subcategory titled *Videos*, under the *Resources* section, has been created on the website to upload all relevant material to make them easily accessible to interested parties (Figure 6).



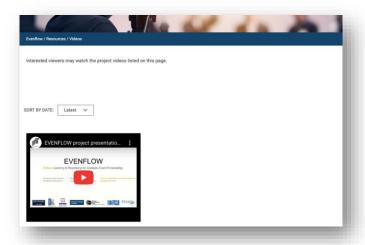


Figure 6: Videos section on website.

<u>- Social media accounts</u> for the project have been created early in the project (November 2022) and were selected strategically based on the use/presence of partners but also on the community (an extensive presentation of the project's social media accounts is provided in D2.1: Project Presentation and Website). The EVENFLOW project has accounts on LinkedIn and Twitter which will be populated frequently by sharing communications campaigns (such as Meet the Partner, Use Cases presentation etc.) and important community news.

4.3 Conferences | Workshops | Meetings | Webinars

4.3.1 Participation in events

For better planning purposes, partners have conducted research ahead and created a list of potential online and offline dissemination and communication opportunities where the project could be showcased at. A tentative list of these identified events is available in Table 6 below.

Table 6: Identified events from partners.

RTD Events – Conferences (Number of participants 100 – 1.000)

IJCAI, ECAI, ICML, ECML, SIGMOD, VLDB, CIKM, ISMB-ISCB, ECCB, RECOMB, GIW/BIOINFO

Commercial-oriented Events (Number of participants 10K – 200+K)

Hannover Messe, the world's most important technology show. European Data Forum, a meeting place for industry, research, policymakers and community initiatives to discuss the challenges of the emerging Data Economy and to develop suitable action plans for addressing these challenges. Automatica, the world's largest exhibition on robotics, assembly and handling technology and digital solutions for the smart factory. European Big Data Value Forum, the flagship event of the European Big Data and Data-Driven AI R&I community.

Additionally, the EVENFLOW project organised its kick-off meeting on 13th and 14th October 2022, at the premises of the project coordinator, NETCOMPANY-INTRASOFT in Athens, Greece, while at least one representative from each partner attended the meeting (Figure 7). The meeting was held in hybrid mode since this format became a new reality since the COVID-19 pandemic.





Figure 7: EVENFLOW partners at the kick-off meeting in Athens, Greece.

EVENFLOW has already been presented in a few virtual events at European level. Additionally, the partners will aim to participate in physical conferences and workshops in order to present their scientific work and the project to raise awareness and engage with the research community.

Partner Barcelona Supercomputing Center (BSC) presented EVENFLOW at the event The human being in the age of AI: challenges and opportunities on 29 December 2022 focusing on the project's Personalised Medicine use case (Figure 8).



Figure 8: BSC partner presenting EVENFLOW at event.

4.4 Publications

The major tool to reach one of our key audiences, that is the scientific community, is that of disseminating the scientific publications stemming from the results of the project itself. To keep track of the publications, a methodology has been established along with an online spreadsheet to keep records of all the required details, i.e., type of publication, reference, official link, repository, link to repository, authoring partners etc. This online spreadsheet acts as a guide for WP2 Lead to better plan further activities such as disseminating the produced publications through the project website and social media. In keeping with the European Commission's (EC) guidelines on open access publications, all publications will be made available through the



dedicated area on the EVENFLOW project website as well as through official repositories such as the OpenAIRE platform.

4.5 Brochures

The EVENFLOW project will aim to create an informative brochure about the project and the Open Calls in its first year of operations which will be distributed both online and offline to interested audiences. This flyer may include information on:

- The project vision, objectives and methodology
- The partnership and contact information
- Links to the website and social media profiles

4.6 Press Releases and Media Coverage

The aim of creating and disseminating a Press Release (PR) to the Media is to gain Press coverage. The first PR about the project was written and disseminated to the Media after the launch of the project with introductory information. Additional PRs will be drafted on a yearly basis and in line with key developments of the project as needed. Partners will send PRs to the Media within their own countries after translating them into their local languages, respectively. At the end of the PR, a standard "Note to editors" section is placed with information about the project, its partners and social media accounts. All PRs will be made available under the Media Kit section of the website.

4.7 Dissemination of the Use Cases

As part of the dissemination activities campaigns will be created about the Use Cases, which will include the creation of electronic banners and social media posts throughout our social media and website. All partners will have access to this material via the common folder for further dissemination. A dedicated section has been included in the main menu of the website, where every Use Case has a dedicated webpage with the respective information and visual material.

4.8 EVENFLOW Ecosystem – Collaboration with initiatives & sibling projects

The EVENFLOW partnership will invest heavily on creating strong bonds with the ecosystem that it aims to be a part of the Artificial Intelligence community. For this purpose, NCSR has researched extensively the ecosystem at the start of the project thus identifying key players and making efforts to directly engage with them via email, social media and virtual meetings.

In a very early stage of the project, EVENFLOW has been included and presented -with an introductory video (Figure 9) - in the Launch Event: Paving the way towards the next generation for R&I excellence in AI, Data and Robotics, co-organised by the Adra-e and AI4Europe Coordination and Support Actions (CSAs), to introduce and take stock of the newly funded R&I landscape and to identify common themes and challenges for future activities and collaboration with the AI-on-Demand Platform.



Figure 9: EVENFLOW Introductory video.

Additionally, EVENFLOW has already participated in a cluster event, titled Clustering - Connection Bridge (Figure 10), on 2 March 2023, together with all the sibling projects that resulted from HORIZON-CL4-2021-HUMAN-01 call. During the event, the project partners meet each other, presented their projects and identified areas for collaboration, events and opportunities to jointly pursue in the near future. More public events will follow right after the first clustering meeting.





Figure 10: Clustering - Connection Bridge event.

Moreover, EVENFLOW has been included in the AI-on-Demand Platform with a dedicated profile (Figure 11), while all its initiatives/news/events will be uploaded on the platform to help gain a wider awareness and create bonds with the broader community of the Artificial Intelligence domain.

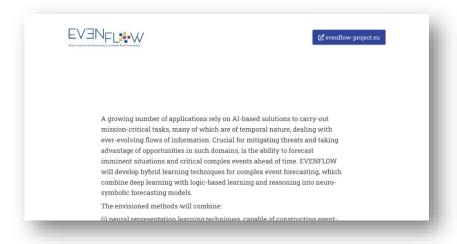


Figure 11: EVENFLOW profile on the Al-on-Demand Platform.



5 EVENFLOW Exploitation Strategy

5.1 Overview and Objectives

The EVENFLOW consortium emphasises on exploiting the novel AI/ML tools, software components, processes, and services that will be developed and tested during the project's technical activities and pilots. From the early stages of the project, we have designed and implemented the **EVENFLOW exploitation strategy** – a framework comprised of phases, processes, and methods – to facilitate the proper identification, analysis, and further commercial/research utilisation of the project's innovations. This exploitation strategy creates value for the exploitable results and facilitates successful impact generation of the project innovations; its main objectives are the following:

- ▶ Describe the innovation management plan and how project partners will identify the Exploitable Results (ER) and the Key Exploitable Results (KER) and communicate their benefits and added value to relevant stakeholder groups.
- Develop individual and joint exploitation pathways for the ER.
- ▶ Develop a market and competition analysis and business models for the project's KER.
- ▶ Develop a business plan and a technical feasibility study for the innovative solutions/tools, focusing on the KER (marketing and pricing strategy), to ensure their sustainability after the end of the project.
- ▶ Design and implement the IPR Management Strategy to manage the BG and FG IP knowledge of the project and define the respective access rights and licences per ER.
- ▶ Produce the EVENFLOW Results Ownership List by the end of the project.

An overview of the various phases and activities of the EVENFLOW Exploitation Strategy is presented below (Figure 12), while we delve into more details about each phase in the subsections that follow.

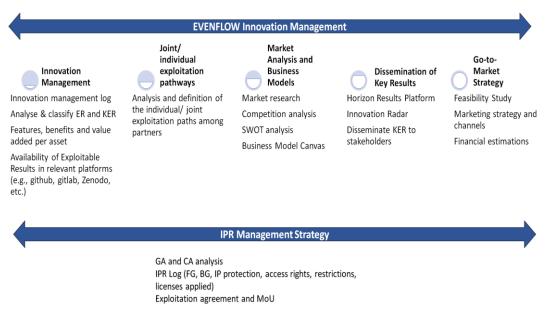


Figure 12: EVENFLOW Innovation Management & Exploitation Plan.



More specifically, the exploitation strategy is comprised of two distinct but interrelated pillars; namely, the **Innovation Management Plan**, as well as the **IPR Management Strategy** of the project. The former sets the premises to (i) identify the project's Exploitable Results (ERs) and distil the Key Exploitable Results (KER), (ii) design the individual or joint exploitation paths and (iii) create concrete business models and marketing plans for the KER. The latter constitutes a strategy that defines partners' involvement in the IP developed by the project. Besides, it also elaborates on potential IP agreements and investigates the application of potential licenses (e.g., open source, copyleft) and protection measures (e.g., copyrights, trade secrets) to the project's exploitable results.

As part of our exploitation plan, an internal project team (comprising of 1-2 members per partner) has been formed to address the exploitation activities the exploitation and IPR Management activities of the project.

In more detail, the role of this team is to (i) provide inputs to the exploitation contributions and activities needed throughout the project, (ii) align via ad-hoc meetings and consultation on the business and exploitation aspects and (iii) elaborate on ideas and potential exploitation routes for the KER. Contributions and feedback from all project partners will be needed to ensure the effective exploitation of the project's ER.

The EVENFLOW Exploitation Strategy has been designed as of M6 of the project. It will be constantly updated throughout the project lifetime to keep track of the associated activities, including any change in the exploitation plans, the documentation of new opportunities, or the occurrence of new needs with regard to the exploitable results.

5.2 Exploitation of results

Exploitation of project results means the use of results in further research activities other than those covered by the action concerned, or in developing, creating, and marketing a product or process, or in creating and providing a service, or in standardisation activities. Not all foreground items of the project may meet the above conditions. ER should be in principle re-usable with minor modifications and may hold licensing, IPR, or other ownership schemes due to background knowledge preceding the project, or foreground work performed within the project.

In contrast to ERs, the project's "Results in general" (i.e., a superset of ERs) are "Any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected.". They can be commercial, societal, political, or for improving public knowledge and action.

Key Exploitable Results are the selected subset of the above ERs (designated as "key"), which based on the partners' business strategies and views, hold significant potential in innovation, exploitability, market impact and readiness to market launch. These are measured, benchmarked, and handled properly by the innovation management plan and the IPR strategy of the project, as presented in the next sections. Among others, the consortium will mainly seek exploitation opportunities of the project's results, in (i) further research activities, (ii) developing, creating, or marketing a product or process, (iii) creating and providing a service, and (iv) using them in standardisation activities.



5.3 Innovation Management Plan

The core aim of the innovation management activities of EVENFLOW is to classify and analyse the various project innovations and facilitate their exploitation via market research, business modelling and marketing activities. To do so, we follow a framework that involves 5 distinct but interrelated aspects.

5.3.1 Innovation management

To properly identify and manage the project innovations we have already designed and introduced a tool referred to as "Innovation Management Log" (in the form of an .xlsx template available in the project's SharePoint repository). The EVENFLOW innovation management log is used to map the innovations developed by the project and identify which of them have exploitation potential – standing out as Exploitable Results or Key Exploitable Results. It is also used to map several pieces of information about the ER including their description, current TRL, and type. In fact, we have categorised the results' various types as:

- ▶ Al Algorithm,
- ML Method,
- SW (software toolkit in which the algorithms are embedded; standalone),
- SW (Module side product, NOT standalone),
- Training Datasets,
- Other Dataset.
- Integrated platform,
- HW (Hardware),
- Both (SW/HW integrated),
- ▶ Intangible, or Other.

We follow a Work Package-based approach; Work Package Leaders will analyse the activities of each technical task to identify and report the various results/ innovation created. Given the dynamic nature of the project's technical activities, the Innovation Management Log will be a living document that will be adjusted by INTRA and the Work Package Leaders on a regular basis to capture the most up-to-date progress of the project's exploitable results.

5.3.2 Joint/individual Exploitation Pathways

Since most of the results created under a European R&I project have collaborative nature, we distinguish, at first, between two main types of exploitation individual and/ or joint exploitation.

Individual Exploitation: Indicates the commercial and/or academic exploitation of an ER/KER, individually, by a single partner (e.g., a partner develops further an existing Background IP during EVENFLOW and exploits it in further research after the project). Each partner will define a detailed exploitation plan in-line with their strategy. Technology provider partners (coming from industry) will attempt to exploit the exploitable results in conjunction with their existing products and services. In parallel, research partners will design exploitation paths to enhance their research capacity in the technological areas of the project.



Joint Exploitation: Typical for many innovations developed in collaborative R&I projects, this indicates that more than one partner is involved in the development of an ER/KER – therefore, acting as respective IP owners - and subsequently to its commercial and/or academic exploitation. As part of our IPR Management Strategy and the pertinent exploitation plan, and towards the end of the project, the partners aim to devise and sign a joint Exploitation Agreement and a related Memorandum of Understanding (MoU) for the case where a joint exploitation scheme is identified. The exploitation agreement will specify the IP shares of the partners in the exploitable results, along with the rights and obligations during the joint exploitation.

At a second stage, each partner will devise its exploitation path while INTRA will coordinate partners to the activity of updating their business views per exploitable result. This is achieved via the continuous monitoring and update of the innovation management log, where each partner is (and will be responsible) for indicating its individual exploitation paths for the results it owns. For the case where a joint exploitation scheme is identified (e.g., again, via the innovation management log via which we also track partners' contributions – and therefore, ownership to the respective IP of each exploitable result) INTRA will organise dedicated online workshops among partners involved, in order to devise the proper exploitation routes, along with the business/marketing of each route. For each ER, we distinguish the following potential exploitation paths (not mutually exclusive):

- M Potentially new service/ product in the market: Partner to be producing the result as a new product or service in the market and selling it by using pre-existing sales channels. Notably, in this case, ownership of the asset is not necessary, since the partner may request permission to sell through a license agreement from another partner who owns the result.
- ▶ L Licensing to 3rd parties in the EU: Partner wishes to consider opportunities to license their rights or knowledge on the result, to 3rd party entities in the EU that wish to exploit it, for an agreed fee (this option is common for academia and research institutes).
- ► I Use internally in the production processes (common for pilot end-users): Indicates opportunities for using the exploitable result internally and expanding or replicating it in the future (typical for pilots, demonstrators, factories etc.) and for adoption in the partner's production processes.
- ▶ R Use in further research activities (internal) and projects (international): Use of the exploitable result either in further internal research activities (like internal R&D) in order to further develop the result, in academic research activities (like Journal/Conference Publications), or in other public/EU research projects (e.g., further maturing the solution via an EU-funded project).
- ▶ **D Dataset**: Partner can exploit datasets of the particular result through online marketplaces, for experiments, training models, academic research, or consulting services.
- ➤ S Exploitation via consulting services and training: Exploitation via the provision of services (complementing the result) such as consulting, technical integration support and maintenance. This type also includes production of training material and/or provision of training services (e.g., online test, webinar) related to the result.



- ▶ **G Governmental**: Partner has links and can promote the result to governmental /EC Policy recommendations.
- ▶ ST Standardisation: Partner aims to make contributions to standardisation bodies and associations.

The underlying innovation management activities will be facilitated, again, by a dedicated space in the Innovation Management Log. Moreover, several ad-hoc communications and teleconferences will be organised among the partners involved in the creation of results (and thus, having the relevant IP rights on them) to define the most promising market roadmap, pending on the partners' business goals and resources.

5.3.3 Market Analysis and Business Models

The next step of the innovation management plan is to make an analysis of the potential stakeholder groups/ customer segments that could use/exploit the identified exploitable results – including an analysis of the results' core features, benefits, and value propositions. Special focus will be given to analysing the characteristics and marketing aspects of the Key Exploitable Results. This activity is supported by the Innovation Management Log, as well as a set of internal online surveys (using tools like the EU Survey and Survey Monkey), engaging both partners and pilot participants, which will be launched in phases during the project's lifetime. The surveys will include questions with Likert scales and qualitative analysis will be performed. Specifically, via the online surveys, the exploitation team will be able to capture several marketing aspects like target markets to address, key benefits of each ER, optimal marketing channels and distribution methods, licenses, and business models to be used for each KER, as well as maintenance fees after the project's contractual closure and optimal pricing models.

A detailed market and competition analysis will be also made (and presented in the next deliverable under WP8) focusing on the EVENFLOW KER, in order to identify the market size, trends and the landscape of existing competitors who might offer similar solutions in the market. If applicable, we will try to identify the market niche and segment potential customer segments based on geographical and behavioural. At this phase, the existing competition will be also analysed via desk research and dedicated questions in the online surveys that will be launched during the project.

After the market and competition analysis, separate business models will be developed for each KER. To design the business models, we will rely on the well-known business model canvas methodology (along with the value proposition canvas) identifying several business aspects including potential collaborators, distribution channels, customers, as well as the cost structure and revenue streams. The business models will be designed via two online exploitation workshops that will be organised during the project. Canvases in online collaboration tools will also be used (e.g., Mural) so that partners will collaboratively work for the design of tailored business models.

5.3.4 Dissemination of Key Results

Given that the exploitation activities of the project are highly linked with the dissemination and communication activities, we aim to establish a collaboration pathway between the two tasks in



order to promote effectively the project results to the various stakeholder groups and communicate their benefits. For this reason, we will implement two main activities.

At first, we will utilise the EC services which are set to support the exploitation of innovations in R&I projects. Upon screening and careful selection, the key innovations produced by the project (likely the KER selection) will be proposed to be submitted in the Official Horizon Results Platform and/or the Innovation Radar. The former could be used to support the effective outreach of the EVENFLOW project results to the industry and promote the results' visibility to stakeholder groups and maximise the impact of the project. The Innovation Radar platform is another significant dissemination tool of our KER, and it could be utilised to (i) get an idea of the overall innovation potential of our KER, (ii) search for innovators and synergies related to the project and (iii) increase the visibility of our innovations to potential customers and/or investors. These services are free of any charge and are available on demand.

In parallel, in collaboration with the dissemination activities, project partners will select the appropriate means for the dissemination of project exploitable results (e.g., scientific publications, publication on websites, conferences, open access, etc.), according to the conditions outlined in the CA and in other specific confidentiality agreements that might arise. Respecting our IPR Management Strategy, we will first ensure the protection of a project's exploitable result and then proceed to dissemination actions of the underlying result.

5.3.5 Go-to-market Strategy

At the last phase of our exploitation strategy, a tailored business plan and a feasibility study for the KER will be drafted, also considering the work done under the business modelling and planning activities. The EVENFLOW business plan will provide the roadmap for the market exploitation of the KER or using them in further research activities (in academia) and policy-related actions. It will be comprised of a tailored marketing plan (highlighting how the results could be sustainably used after the end of the project by partners), a list of potential initial adopters and 3rd party stakeholders, and a route to a market roadmap with individual and joint exploitation paths, increasing the impact of the project activities. On top of that, and in accordance with the IPR management Strategy, we will investigate devising tailored IPR arrangements for each KER, in order to define the ownership and provisions for exploiting the project results. The go-to-market strategy of the project, focusing on the project's KER, will be presented in D2.3.

5.4 IPR Management Strategy

The EVENFLOW IPR management strategy is built upon a comprehensive framework that separates the IP management processes of the project in the following stages:

Grant agreement preparation stage: Both the EVEFLOW Grant Agreement (GA) and the Consortium Agreement (CA) constitute documents which include a description of several issues related to the management of the project's IPR. Their provisions constitute a reference point for IPR issues among project partners. Under this framework, any further advancements regarding IPR actions will be guided under the underlying provisions. The GA represents the contractual basis of the project; its main points and sections referring to IPR are included in Section 2 - Article 16 "INTELLECTUAL PROPERTY RIGHTS (IPR) – BACKGROUND AND RESULTS – ACCESS RIGHTS AND



RIGHTS OF USE" which we will meticulously analyse and adhere to. In parallel, the CA defines the rights and obligations during the partnership for the purposes of carrying out the project's foreseen actions and activities. The project's Consortium Agreement main points and sections referring to IPR are contained in:

- **Section 8 "Results"**, which sets out provisions on ownership and joint ownership of results, as well as on their transfer and dissemination.
- ▶ Section 9 "Access Rights", which clarifies the access rights governing principles along with the access rights for exploitation and dissemination purposes. It also states specific provisions for access rights to the software.
- ▶ Attachment 1 "Background included", which presents the initial list of usable backgrounds.

Project implementation stage: Several IP handling procedures will be applied among the partners to properly organise the management of the project's foreground. As the project evolves, the focus will be on foreground identification, partners' contributions to results, access rights, results' protection, as well as their exploitation focusing on academic use and further contribution to the European research in AI/ML and neurosymbolic AI. An IPR Log (as part of the innovation management log) will be created by INTRA by M12 in order to effectively manage the IP developed by the project. The IPR Log will be used to identify the IP owners of the project's exploitable results. The IP owners will be responsible for updating the log, on a quarterly basis under the facilitation of INTRA, indicating the (i) potential (open source) licences that could be applied to the exploitable results, (ii) availability of the results in open or other online repositories or websites, (iii) potential IP protection measures that could be applied, as well as the (iv) access rights of partners to each exploitable result, both during the project (as defined per the EVENFLOW CA) and for further exploitation after the end of the project. Exploitation agreements (defining IP and contributions among partners in the case of joint exploitation schemes) will be also pursued towards the end of the project and based on the info that will be gathered by the IPR Log.

Post-project stage: By the project's end, D2.3 "Final Report on Dissemination and Exploitation Plan" will be submitted, including the final list of exploitable results, the exploitation plans (individual/joint) of partners per exploitable result, a feasibility study for the core project innovations, the ROL, as well as any exploitation agreements among partners. The document will also include business models for each of the KERs and a business plan for the project innovations to facilitate their further usage and sustainability after the end of the project.

The exploitation activities until M6 were also coordinated during the monthly plenary calls of the projects, with the participation of all partners, as well as via ad-hoc and direct interactions between the exploitation manager and the partners involved. A pre-filled example of the innovation management log was given as a guide (.xlsx template) and shared with partners via the project's SharePoint. Since the exploitation and IPR management are collaborative exercises, the exploitation plan was devised, and agreed upon, by all partners, following online meetings and joint collaborative documents.



The final exploitation report of WP2 (D2.3) will also include the final Results Ownership List (ROL), as well as the EVENFLOW business plan and feasibility study via which partners will ensure the exploitation of EVENFLOW KER beyond the project.



6 Initial Project Portfolio of Exploitable Results

6.1 List of Project Results, Exploitable Results and Key Exploitable Results

The initial table of the project's exploitable results (Table 7), along with their description (Table 8), type, TRL, and potential stakeholder groups, as they perceived by the consortium so far, are presented below.

Table 7: EVENFLOW Portfolio of Exploitable Results.

ER ID	Exploitable Result	Related Task(s)	Result Type	TRL (Current)	Stakeholders	
1	EVENFLOW Platform	T6.1, T6.2, T3.1	Integrated platform	TRL 3	ICT Industry - Technology Providers in AI/ML (SMEs and Large Corporates), Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO	
2	Verification Toolkit for learning-based CEF	T5.3, T5.4	SW* (standalone)	TRL 3	ICT Industry - Technology Providers in AI/ML (SMEs and Large Corporates), Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO	
3	Reasoning-based forecast interpreter	T4.1, T4.2, T4.3, T4.4	SW* (standalone)	TRL 3	ICT Industry - Technology Providers in AI/ML (SMEs and Large Corporates), Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO	
4	Toolkit for Scalable Online Training and Incremental Model Construction	T5.1, T5.2	SW* (standalone)	TRL 3	AI/ML/Big Data centered SMEs; Researchers and scientists in AI; Industrial Enterprises / Industry 4.0 Users; European AI Ecosystem e.g. AI4EU	
5	Simulation & Trainable Forecasting Toolkit for Oncological Precision Medicine	T3.3	SW* (standalone)	TRL 3	ICT Industry - Technology Providers in AI/ML (SMEs and Large Corporates), Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO	
6	Prototype Neuro- Symbolic AGV Controller	T3.2	SW* (standalone)	TRL 3	Universities and research institutes, highly specialised Companies focussing on autonomous mobile robots	



ER ID	Exploitable Result	Related Task(s)	Result Type	TRL (Current)	Stakeholders		
7	Infrastructure Lifecycle Assessment Digital Twin Based on Real- Time Neuro- Symbolic CEF	T3.4	SW* (standalone)	TRL 3	Water and wastewater pipeline owners or management entities, communities (citizens), Pipelines producers		
8	FAIR datasets	T3.1	Training Datasets	N/A	Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO		
9	EVENFLOW Scientific Publications	All tasks in WP3 and WP4	Intangible	N/A	Research Organisations/ Academia, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO		
10	EVENFLOW Business models	T2.2	Intangible	N/A	EVENFLOW consortium partners		
11	EVENFLOW Brand and Website	T2.1	Intangible	N/A	EVENFLOW consortium partners, EU communities in Neurosymbolic AI - AI4EU, BDVA/DAIRO		
*Software toolkit in which the algorithms are embedded.							

Table 8: Description of the EVENFLOW Exploitable Results.

ER ID	Description
1	The integrated neurosymbolic online ML platform embedding various AI and ML algorithms to perform CEF in the three use cases of EVENFLOW. Refers to the EVENFLOW connectors, which will allow for the seamless communication, within the integrated system, between the heterogeneous software components developed in WP4 and WP5.
2	The verification toolkit for online neuro-symbolic learning for Complex Event Forecasting (CEF). A verification engine for CEF, implementing novel EVENFLOW methods for the verification of robustness of neural classifiers. It consists of novel methods for verifying the robustness of neural event predictors, addressing important challenges such as the high dimensionality and the temporal dependencies of the input streams, the complexity of the resulting neural predictors and the non-linearity of the activation functions.
3	Reasoning-based interpreter of forecasts, produced by the learnt models. It will be based on online neuro-symbolic learning and reasoning techniques, tailored to dynamic, stream-based applications. The neural and the symbolic parts will be continuously co-evolving, assisting each other towards robust and accurate forecasting.
4	Scalability toolkit for the online learning methods. It consists of novel techniques for scalable neural training. These involve sophisticated data synopses techniques, capable of summarizing incoming streams to feed the online training process of neural and neuro-symbolic models controllably sacrificing accuracy. The novel online neural training techniques also use attention and similar mechanisms, to focus on the most recently modified model and/or network region, aiming to minimise retraining costs.



ER ID	Description
5	Simulation and trainable forecasting toolkit for oncological precision medicine.
6	A prototype neuro-symbolic AGV controller capable of discovering and forecasting critical complex events related to optimizing AGV operation. It will improve the AGV performance in a "plug-and-produce" fashion, i.e., without expensive hardware interventions to the transportation device and without extensive, expert engineering efforts.
7	Novel Life Cycle Assessment Digital Twin, based on real-time neuro-symbolic forecasting to produce accurate, reliable, and explainable LCA predictions on smart pipes.
8	A set of novel neural training data for scientific research.
9	A set of novel scientific publications in the fields of neurosymbolic AI and ML.
10	The novel business models developed for EVENFLOW's KERs that offer new ways of exploiting neurosymbolic AI applications, minimising the complexity and costs of deploying CEF toolkits to the market.
11	The EVENFLOW web portal and social media accounts used for disseminating and communicating the project results.



7 Initial Partners' Joint & Individual Exploitation Intentions

7.1 Framework for the Design of Exploitation Paths per Partner and Exploitable Result

This section presents an attempt to create an organised framework to answer the following questions:

- 1. Which partner has existing market access and the ability (pre-existing client base) to promote project results?
- 2. Which partner has the intention to produce the exploitable results has the existing infrastructure/knowledge to do so?
- 3. Who intends to use the project exploitable results internally and research further?
- 4. Who intends to offer license upwards in the value chain?
- 5. Who can produce publications, either in scientific journals or in other types such as handbooks or presentations, and contribute to the academic research of neurosymbolic AI?

We conduct this exercise to identify collaborations and licensing between partners in potential joint ventures, thus, driving forward the exploitation activities of the project. Furthermore, by doing so, we also steer partners into contemplating other exploitation possibilities that they might have overlooked.

Before devising the business models (to be presented in M36), we wish to initiate ideas within partners and assist them, on how exactly the exploitable results produced by the project could become the basis of numerous types of exploitation that they might have not considered. We have codified potential alternative exploitation paths with "code letters" (see below). These are exploitation paths from the official PEDR guidelines, which we enhanced and then categorised, so that they consider the particularities of the project. Each partner reflects on its organisation's resources, networks, strategies, opportunities, market access and restrictions.

7.2 Joint and Individual Exploitation and Beneficiaries

The following table (Table 9) presents the partners involved in the development and exploitation of each of the project's exploitable results, along with the initial exploitation intention for each of the results.

Table 9: Partners involved in EVENFLOW exploitable results and exploitation intention.

ID	Result Name	Type of Exploitation	Potential Exploitation path	Lead Beneficiary	Contributing Partner(s)	Indicative Licence/ IP Protection
1	EVENFLOW Platform	Joint	M, R, S	INTRA	NCSR, ARC, BSC, DFKI, EKSO, ICL	Open source/ Confidentiality agreements



ID	Result Name	Type of Exploitation	Potential Exploitation path	Lead Beneficiary	Contributing Partner(s)	Indicative Licence/ IP Protection
2	Verification Toolkit for learning based CEF	Individual	R, I	ICL	-	Confidentiality agreements
3	Reasoning-based forecast interpreter	Joint	R, S	NSCR	INTRA	Open source/ Confidentiality agreements
4	Toolkit for Scalable Online Training and Incremental Model Construction	Joint	R, S, I	ARC	INTRA	Open source
5	Simulation & Trainable Forecasting Toolkit for Oncological Precision Medicine	Individual	R	BSC	-	Open source
6	Prototype Neuro- Symbolic AGV Controller	Individual	R	DFKI	-	Open source
7	Infrastructure Lifecycle Assessment Digital Twin Based on Real-Time Neuro- Symbolic CEF	Individual	M, L, R	EKSO	-	Patent/ Trade Secret/ Confidentiality agreement
8	FAIR datasets	Joint	D, R, S	INTRA, BSC, DFKI, EKSO	NCSR, ARC, ICL	Copyright/ Open data
9	EVENFLOW Scientific Publications	Joint	R	NCSR, ARC, BSC, DFKI, ICL	INTRA, EKSO	Copyright
10	EVENFLOW Business models	Joint	I, S	INTRA	EKSO, NCSR, ARC, BSC, DFKI, ICL	Copyright/ Confidentiality agreement
11	EVENFLOW Brand and Website	Joint	R	NCSR	INTRA, ARC, BSC, DFKI, ICL, EKSO	Copyright



3 Alignment with EU Directives

European Commission research dissemination and exploitation resources and networks will be utilised in addition to local country networks. There will be planned participation in forthcoming EU Research Conferences and Workshops. EC recommendations on dissemination will be examined and implemented (e.g., Communicating EU Research and Innovation — a guide for project participants). We will strive to ensure that EVENFLOW is a transformative project and will seek Project Officer support for attending wide EU dissemination vehicles and being included in EC events.

8.1 Access to Deliverables and Publications

The EVENFLOW project intends to disseminate its results as widely as possible using all the tools outlined in this document. Following EU guidelines for open access of research results, public deliverables and publications of the project will be made available via the project website as well as through the Open Aire platform. More specifically:

- 1. Publication in open access journals.
- 2. Publication via the 'gold' route, whereby authors pay a fee to publish the material as open access immediately. Most high-level journals offer this option.
- 3. Publication via the "green" route, whereby authors archive the material in a disciplinary, institutional or public repository. To this end, we will submit project outcomes to OpenAIRE or the Zenodo repository, to provide a copy through institutional repositories in line with the involved partners' customary practices and institutional requirements.

8.2 Data Management Plan (DMP)

During the project, data will be collected and analysed from the participating organisations, to extract semantically rich relationships as expressed in the project proposal. Where appropriate, subject to regulatory constraints or restrictions and licensing issues from the owners of the data, the data and their metadata description participating in the pilots will be anonymised. Throughout all data collection activities, partners will adhere to the established General Data Protection Regulation (GDPR).

The EVENFLOW project will participate in the Open Research Data Pilot. The research results generated during the project will be used for dissemination and exploitation purposes adhering to international standards and recommendations to make sure that the format of the data will be interoperable. More specifically, the nature of the proposed design will guarantee the compatibility and interoperability with external well-known and established data models to maximise reuse of resources and interconnectivity of knowledge bases.



9 Conclusion

The aim of this document has been to outline the dissemination and communication plan to be employed for the duration of the EVENFLOW project and the activities planned for awareness raising of the project's research findings. The document covers a wide range of activities to be conducted to meet the dissemination and communication targets set. EVENFLOW intends to disseminate its results as widely as possible using all the tools outlined in this document to reach its KPIs and its audiences. Finally, the first list of EVENFLOW exploitable results is compiled and the exploitation plan is outlined in addition to that of each partner.