



# RESPONDENT

## D3.3 AI/ML Weather Forecasting Algorithm

**Submission date: 31<sup>st</sup> January, 2024**

**Due date: 31<sup>st</sup> January, 2024**

### DOCUMENT SUMMARY INFORMATION

<b>Grant Agreement No</b>	101082355	<b>Acronym</b>	RESPONDENT
<b>Full Title</b>	Renewable Energy Sources Power FOrecasting and SyNchronisation for Smart GriD NEtworks MaNagement		
<b>Start Date</b>	01/11/2022	<b>Duration</b>	30 months
<b>Deliverable</b>	D3.3: AI/ML Weather Forecasting Algorithm		
<b>Work Package</b>	WP3 – RES Power Generation Forecasting		
<b>Type</b>	R	<b>Dissemination Level</b>	SEN
<b>Lead Beneficiary</b>	FINT		
<b>Authors</b>	Daniel Dimitriou, Charisios Zafeiris		
<b>Co-authors</b>	Fanis Fakoukakis, Effie Makri		
<b>Reviewers</b>	Vasilis Iliadis (GREEN), Carles Rodriguez (Anell)		



This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101082355

The material presented and views expressed here are the responsibility of the author(s) only. The European Commission takes no responsibility for any use made of the information set out.

## PROJECT PARTNERS

Partner	Country	Short name
FUTURE INTELLIGENCE EREVNA TILEPIKINONIAKON KE PLIROFORIAKON SYSTIMATON EPE	Greece	<b>FINT</b>
FUNDACION CENTRO DE TECNOLOGIAS DE INTERACCION VISUAL Y COMUNICACIONES VICOMTECH	Spain	<b>VICOM</b>
CARR COMMUNICATIONS LIMITED	Ireland	<b>CARR</b>
KIEFER TEK ETAIREIA PERIORISMENIS EFTHYNIS	Greece	<b>KIEFER</b>
GREENESCO ENERGEIAKI ANONYMI ETAIREIA	Greece	<b>GREEN</b>
ESTABANELL Y PAHISA ENERGIA SA	Spain	<b>EPESA</b>
FUNDACIO INSTITUT DE RECERCA DE L'ENERGIA DE CATALUNYA	Spain	<b>IREC-CERCA</b>
ELECTROTECNICA DEL URUMEA SL	Spain	<b>EUSKABEA</b>

## Executive Summary

This deliverable describes the work performed in the framework of Task 3.3 – AI/ML Weather Forecasting Algorithm. Initially, a summary of weather forecasting, its types and models/techniques used is presented, in order to offer a general overview of the subject matter. Subsequently, the specific algorithm developed for the purposes of the project is extensively presented, including its operational principles, design methodology, data used, AI/ML techniques, training, validation and prediction outputs. The document concludes with an overview of the algorithm's performance evaluation, its future integration with the power generation forecasting module and considerations on the actual deployment.