DIAMOND

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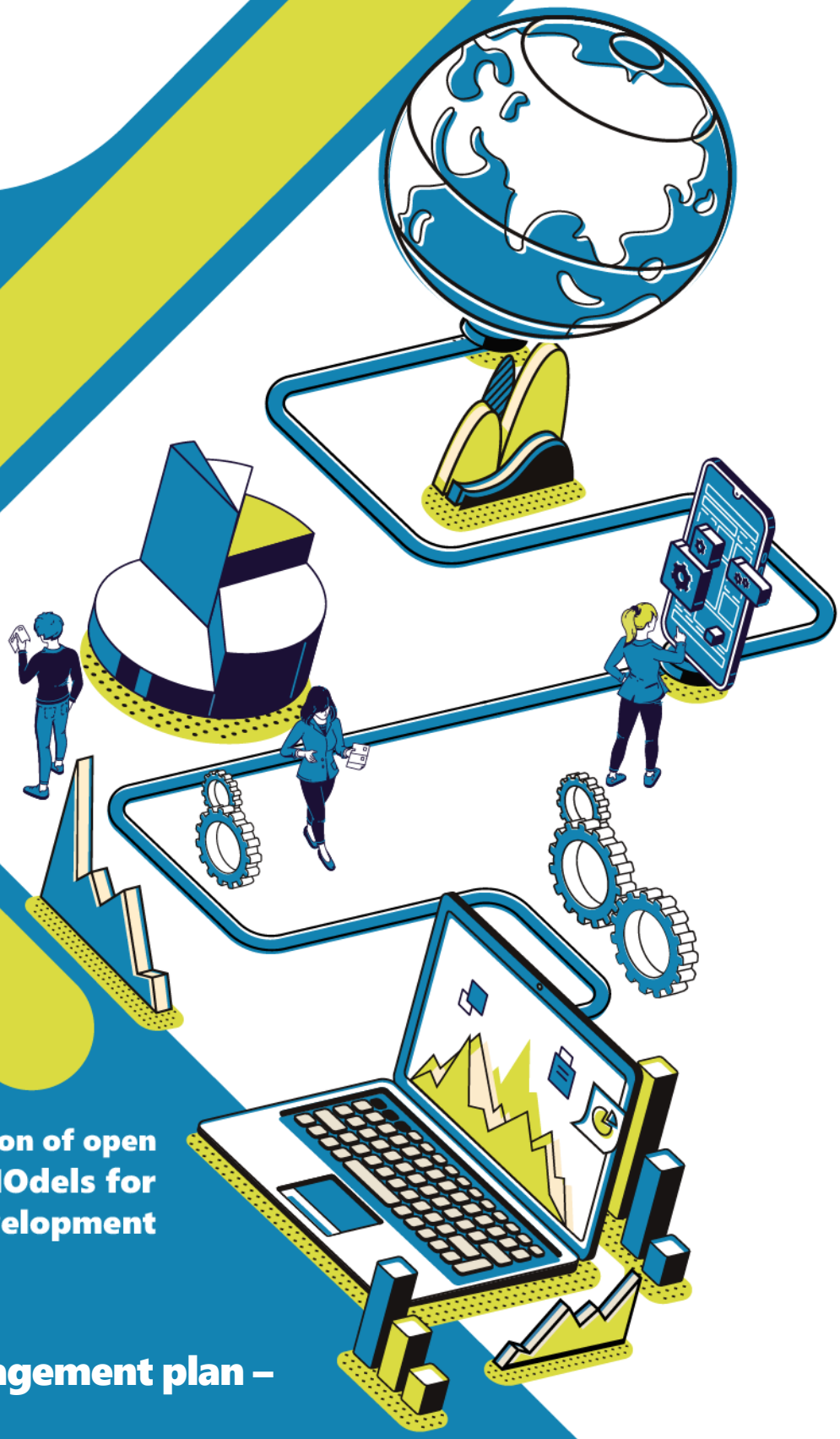

Delivering the next generation of open Integrated Assessment MOdels for Net-zero, sustainable Development

D6.3 – Open data management plan – Update 2

WP6 – Open

28/11/2025

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EC Summary Requirements

1. Changes with respect to the DoA

The I²AM PARIS web platform has been revamped and rebranded, and is now referred to, as IAM PARIS web platform. No other changes with respect to the work described in the DoA.

2. Dissemination and uptake

This report can be used internally by all consortium partners to guide all data management activities of the project. It can be also used by researchers outside the DIAMOND consortium as an example for informing their own data management strategy (especially for other Horizon Europe projects).

3. Short summary of results (<250 words)

This report presents the third and final edition (Update 2) of the DIAMOND project's open Data Management Plan (DMP). Like the previous DMP reports (D6.1 and D6.2), it describes the data that the project uses and generates, outlines the strategy for supporting Findable, Accessible, Interoperable, and Reusable (FAIR) data, and clarifies how resources and responsibilities are organised to ensure proper data management, data security, and attention to ethical requirements. Although this update does not markedly revise the practices established in earlier versions, it provides an updated overview of all datasets, journal articles, and project deliverables that have been released up to November 2025. These outputs are openly accessible through the DIAMOND website and its Zenodo community, while journal articles are also available through the respective publishers. In parallel with this report, the project continues to maintain a machine-actionable data management plan through OpenAIRE's ARGOS service, which is kept up to date with metadata for all generated datasets. Although this document represents the last DMP report to be produced within DIAMOND, data management procedures will continue throughout the final project year.

4. Evidence of accomplishment

This report and the DIAMOND maDMP hosted in ARGOS.

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Preface

DIAMOND will update, upgrade, and fully open six Integrated Assessment Models (IAMs) that are emblematic in scientific and policy processes, improving their sectoral and technological detail, spatiotemporal resolution, and geographic granularity. It will further enhance modelling capacity to assess the feasibility and desirability of Paris-compliant mitigation pathways, their interplay with adaptation, circular economy, and other SDGs, their distributional and equity effects, and their resilience to extremes, as well as robust risk management and investment strategies. This will be done via integration of tools and insights from psychology, finance research, behavioural and labour economics, operational research, and physical science. The project will develop a transdisciplinary scientific approach to legitimise the implementation process and co-create research questions that stretch the frontiers of climate science, as well as establish vibrant communities of practice to transparently open model enhancements and to develop capacities, thereby lowering the entrance barriers to the established IAM community.

ICCS	INSTITUTE OF COMMUNICATIONS AND COMPUTER SYSTEMS	EL
BC3	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES
CESAR	KRATENA KURT	AT
CICERO	CICERO SENTER FOR KLIMAFORSKNING	NO
CYI	THE CYPRUS INSTITUTE	CY
E4SMA	ENERGY ENGINEERING ECONOMIC ENVIRONMENT SYSTEMS MODELING AND ANALYSIS SRL	IT
HOLISTIC	HOLISTIC IKE	EL
COMILLAS	UNIVERSIDAD PONTIFICIA COMILLAS	ES
ISINNOVA	ISTITUTO DI STUDI PER L'INTEGRAZIONE DEI SISTEMI (I.S.I.S) - SOCIETA'COOPERATIVA	IT
SEURECO	SEURECO SOCIETE EUROPEENNE D'ECONOMIE SARL	FR
UM	UNIVERSITEIT MAASTRICHT	NL
ESMIA	ESMIA CONSULTANTS INC.	CA
USMF	THE UNIVERSITY OF MARYLAND FOUNDATIION INC	US
UMD	UNIVERSITY OF MARYLAND	US
EPFL	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
ETH	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
UNIBAS	UNIVERSITAT BASEL	CH
Imperial	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
Oxford	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
UCL	UNIVERSITY COLLEGE LONDON	UK

Executive Summary

This report is the final update to the initial version of the open Data Management Plan (DMP) of DIAMOND. In general, all versions of the DMP include the following information:

1. a description of the types and formats of data that are and will be generated and collected during the project, including the origin, size, and utility of the data;
2. a brief description of the project models that (will) process this data;
3. a strategy and an allocation of resources and responsibilities for achieving Findable, Accessible, Interoperable, and Reusable (FAIR) data; and
4. details on how we (will) ensure data security and correct handling of all ethical aspects.

This update does not include any significant changes or additions to the data practices established in the initial DMP. Nevertheless, it provides an exhaustive documentation of all datasets, articles, and deliverables that have been published acknowledging DIAMOND until now. Overall, eleven datasets and twelve project deliverables have been released, as of November 2025, and are provided as open access on the DIAMOND project's website and Zenodo community. In addition, thirty-eight journal articles acknowledging DIAMOND have been published (as fully open access). The articles are thus freely available on the websites of their publishers and are also referenced within the dedicated section of the DIAMOND website with the aim to increase their findability.

In parallel with this report, a machine-actionable data management plan[1] (maDMP) has been developed for DIAMOND using the ARGOS service of OpenAIRE. The maDMP has been and will be continuously updated with metadata for all datasets generated from project activities. Data management procedures will continue throughout the final project year, but this document represents the last DMP report to be produced within DIAMOND.

[1] https://doi.org/10.5281/zenodo.7781424

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Table of Abbreviations

DMP	Data Management Plan
maDMP	machine-actionable Data Management Plan
FAIR	Findable, Accessible, Interoperable, and Reusable
TRUST	Transparency, Responsibility, User focus, Sustainability, and Technology
CC	Creative Commons
GDPR	General Data Protection Regulation

1 Introduction

This report is the third and final version of the open Data Management Plan (DMP) of the Horizon Europe DIAMOND project. The DMP outlines guidelines and procedures on the collection, generation, processing, and sharing of data throughout the duration of the project. The report mainly includes information on the expected data, including a description of model data inputs/outputs, data formats, data sources, as well as practices for data processing, curation, and preservation (Chapter 2). The report covers the whole lifecycle of project data, including data handling during and after the project, along with a detailed strategy to ensure that this data is Findable, Accessible, Interoperable, and Reusable (FAIR; see Chapter 3). It also delineates DIAMOND's Open Science strategy, i.e., how we ensure that all data and project outputs are open access and that all project-developed applications and models are open source, along with the required allocation of project resources to accomplish this strategy (Chapter 4). Apart from data accessibility, the report discusses security (Chapter 5) and ethical aspects (Chapter 6) related to data collection and use.

In parallel with this document, a machine-actionable Data Management Plan (maDMP) was developed using the ARGOS service of the OpenAIRE[2] (Figure 1). The maDMP is an online collection of rich metadata for all datasets that have been and will be developed during the project as well as specific guidelines for each dataset, for instance, on how a dataset is shared and whether it is linked to another project output, e.g., publications. The datasets themselves are stored in Zenodo[3] which is a digital repository that follows the desired principles of Transparency, Responsibility, User focus, Sustainability and Technology (TRUST principles; see Lin et al., 2020), while the maDMP provides links to them. Through the ARGOS service, the maDMP can be read by both humans and machines and connects to OpenAIRE and European Open Science Cloud[4], improving the reusability and findability potential of the data. The maDMP is a "living document", to be updated immediately upon publication of a project dataset in Zenodo, even if there are no other periodic updates of the DMP report. Chapter 7 provides a strategy on how new datasets are added in the maDMP as well as on the roles of the different consortium partners in this process.

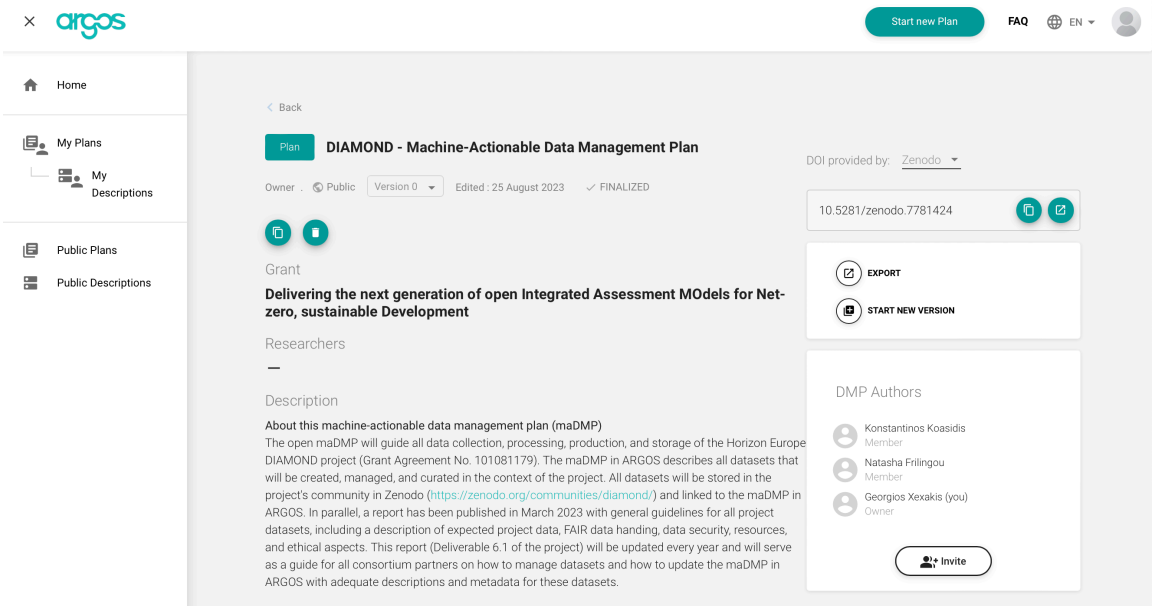

Figure 1. A screenshot of the Machine-Actionable Data Management Plan of DIAMOND in ARGOS

[2] https://argos.openaire.eu/explore-plans/publicOverview/de2a89ba-9d7a-48ab-ab64-ecab2bd19674
[3] https://zenodo.org/communities/diamond/
[4] https://open-science-cloud.ec.europa.eu

This final version of the DMP is mainly updated with summaries of all research products of the projects that have been released to date. Specifically, Chapter 8 lists all deliverables that have been produced in the context of the project as well as journal publications and accompanying datasets that have been acknowledging DIAMOND. Overall, thirty-seven journal articles, eleven datasets, and twelve deliverables have been published as of November 2025.

2 Data Description

2.1 Project objectives and implications for data collection and generation

The main objective of DIAMOND is to comprehensively upgrade six Integrated Assessment Models (IAMs) that have been instrumental in underpinning policy and research related to climate change mitigation. Apart from enhancing their existing capabilities, e.g., increasing their sectoral and technological detail as well as their spatial and temporal resolution, we also develop new features allowing the models to widen the scope of the research questions they can address, including trade-offs of climate transitions with circular economy, adaptation efforts, and more. Additionally, by informing model development with insights and methods from psychology, behavioural economics, finance and economics research, and other fields, we enable the models to explore interactions among climate pathways, political feasibility, societal desirability, distributional concerns, and more pertinent issues. All new models are openly provided and their development is informed by relevant communities of practice and stakeholder interactions. Then, using these advanced new models, DIAMOND aims to evaluate diverse scenarios on how to achieve climate neutrality at a global, European, and national scale as well as contribute to relevant scientific and policy assessments.

Based on these objectives, the data collection and generation of the project revolve around the development and use of the six new models. First, we ensure that all new model code is open source and that interested parties outside the consortium have access to and a say on model development. For this, we use best practices and paradigms from open-source software development, ensure that all new model code is uploaded on GitHub[5] or other open code repositories (e.g., GitLab[6] or Bitbucket[7]), and engage relevant communities of practice by participating or organising relevant events. Second, we compile the data that are used as an input for the models, which are based on datasets and insights from the various disciplines involved in the project, ideally from open access sources. In the case of multi-model assessments that are running during the project, we also need to assess the harmonisation of input data among the various models. Third, based on the priorities and needs of project stakeholders, we develop scenarios that are run by the new models. This creates a plethora of new modelling results, which are then communicated to all interested parties through scientific publications, policy briefs, and business guides.

Apart from these three potential outlets, all input data of DIAMOND models, outputs of scenario analysis, and links to modelling code in GitHub are hosted in the data sharing platform IAM PARIS[8]. The platform was developed by the project coordinator ICCS and project partners Holistic and BC3 in the context of the H2020 PARIS REINFORCE project, with the aim to establish a portal for the modelling community in support of climate policy and research. Currently, the platform allows modelling teams to host detailed documentation for their models and to develop interactive visualisations to describe the results of modelling exercises. Apart from storing new modelling documentation and scenario results, DIAMOND aims to go one step further and will produce applications for different stakeholders based on these results. In that way, the project aims to bridge the gap between simply disseminating modelling results to stakeholders and ensuring that these results become directly exploitable for different audiences, such as policymakers, researchers, industry representatives, and the civil society.

[5] https://github.com
[6] https://about.gitlab.com
[7] https://bitbucket.org
[8] https://i2am-paris.eu

2.2 Types and formats of data to be generated and collected

Each of the project activities described in Section 2.1 requires and generates different kinds of data. Table 1 shows a non-exhaustive list of the data types and formats that are used per project activity. Data used for modelling inputs are mostly quantitative and based on datasets in spreadsheet format (e.g., xlsx or csv) or prebuilt data (e.g., Rda format used for the R language). Turning to modelling development, new model code is in the format of the programming languages used to develop these models. For instance, GCAM development is mostly based on the C++ and R languages and, thus, its code is given in their respective file formats. Qualitative insights from previous reports and publications and from stakeholder co-creation activities are also used to inform modelling. As with most data inputs, the outputs of the scenario analysis performed in DIAMOND are also quantitative and exported in a spreadsheet format or other formats that are easily converted to spreadsheets. These output datasets inform the scientific and policy publications of the project which are provided in pdf formats.

Table 1. Data types and formats per project activity

Project activity	Data collected and generated	Data formats
Develop the new models	**Collect**: Code from previous versions of models, feedback from project stakeholders and communities of practice for the different models	File formats related to the programming language of each model (e.g., py, R, h, cpp, GAMS), reports documenting stakeholder feedback in pdf
	Generate: New model code	
Compile the input data for the new models	**Collect**: National and sectoral statistics on socioeconomics, energy use and supply, industrial indicators, finance, etc.; policy options; technological innovation data; costs; behavioural and consumption patterns of citizens; material use and consumption; data on land use, land-use change, and forestry (LULUCF); and other modelling inputs	xlsx, csv, txt, json
	Generate: Curate the raw data into a format and data structure that is usable by project models	
Scenario analysis using the new models	**Collect**: Scenario definitions based on the stakeholder engagement activities of the project	Reports documenting stakeholder feedback in pdf
	Generate: GHG emissions, jobs created, costs and other social, economic, and environmental indicators	xlsx, csv, txt, json

2.2.1 Data processing tools

Models are the main data processing tools used in the project. Table 2 shows all new models that are being developed in DIAMOND, along with the existing models that the new ones are based on, their scope, and the

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partners that develop them. With the exception of OMNIA, all new models eventually have a different scope from their base models, e.g., GCAM-Europe provides a detailed modelling of the European area that is based on the original global GCAM model. Based on their data inputs, the new models process the scenarios and narratives suggested by DIAMOND stakeholders to quantitative results for a variety of indicators and for multiple years in the future (at least to 2050 and, for some models, until 2100). See Section 2.2.2 for more examples of data inputs and outputs. All new models are open source and are shared in GitHub or other open-source repositories. In addition, in the context of activities of Work Package (WP) 6 of the project, we will aim to publish all models along with their requirements as Docker images, allowing external users to run the models without the need of installing anything.

Table 2. Models developed by the DIAMOND project

New models	Base models	Scope of new models	Responsible partner(s)
GCAM-Europe[9]	GCAM[10]	Global (with updated EU representation)	BC3, UMD, ICCS
OMNIA[11]	TIMES-GEO[12]	Global	Imperial, UCL, E4SMA, ESMIA
CLEWs-EU[13]	GLUCOSE, CLEWs[14], OSeMOSYS[15]	EU	Imperial, CyI, ICCS
GEMINI-E3 EU[16]	GEMINI-E3[17]	Global (with updated EU representation)	EPFL
NEMESIS-World[18]	NEMESIS[19]	Global	SEURECO
OPEN-PROM[20]	PROMETHEUS[21]	Global (with updated EU representation)	E3M

We also use specialised models that will be linked with all or with a subset of the six main IAMs (see Table 3), including the ENGAGE model for circular economy modelling, MAgPIE for land-use modelling, SILICONE and OpenSCM for modelling of climate impacts and non-CO_2 GHG-emissions, CHANCE and FIDELIO for household heterogeneity, and OpenTEPES for detailed electricity modelling. The auxiliary models are pre-configured with their own data inputs, and they are soft linked to the IAMs in order to provide the additional functionalities. We also make efforts to ensure that most input data for these models is open access, and their code is open source.

[9] https://github.com/bc3LC-GCAMEurope/gcam-core
[10] https://github.com/JGCRI/gcam-core
[11] https://github.com/CLIMATE-DIAMOND/OMNIA
[12] https://www.i2am-paris.eu/detailed_model_doc/times-geo
[13] https://github.com/CLIMATE-DIAMOND/EU-CLEWS
[14] https://www.i2am-paris.eu/detailed_model_doc/clews
[15] https://www.i2am-paris.eu/detailed_model_doc/osemosys
[16] https://github.com/Perdana-Sigit/GEMINI-E3-EU
[17] https://www.i2am-paris.eu/detailed_model_doc/gemini_e3
[18] https://github.com/Seureco/NEMESIS-World
[19] https://www.i2am-paris.eu/detailed_model_doc/nemesis
[20] https://github.com/e3modelling/OPEN-PROM
[21] https://e3modelling.com/modelling-tools/prometheus/

Table 3. Auxiliary models that are linked to the new DIAMOND models

Auxiliary models	Functionality	Responsible partner(s)
ENGAGE[22]	Circular economy modelling	UCL
MAgPIE[23]	Land-use modelling	Imperial, Oxford
SILICONE[24], OpenSCM, METEOR[25]	Climate modelling	CICERO
CHANCE[26], FIDELIO	Household heterogeneity	BC3, CESAR
OpenTEPES[27]	Electricity modelling	IIT

Apart from models, other data processing tools that are used are Microsoft Excel for reading and modifying xlsx and csv files, Microsoft Word for writing reports and manuscripts based on project results, and Adobe Reader/Acrobat for producing and reading publications in pdf format. It is also envisioned that other tools and scripting languages are used for data processing and curating, such as Python and R.

2.2.2 Data inputs and outputs for models

Since most of the IAMs are still under development, it is still unclear what will be the final set of data that will be used in the new models. Table 4 shows an indicative list of data inputs and outputs for these models, based on a similar list developed for the DMP of the PARIS REINFORCE project[28]. Since many models that participated in PARIS REINFORCE serve as base models of DIAMOND (e.g., GCAM, TIMES-GEO, GEMINI-E3, NEMESIS), many data inputs and outputs shown in Table 4 are expected to be present in the new models.

Table 4. Indicative input and output data for project models

Data type	Category	Input/output
Population	Socioeconomic	Input
GDP	Socioeconomic	Input & output
Employment	Socioeconomic	Input & output
Total gross/real disposable income	Socioeconomic	Input & output
Interest rates and exchange rates	Socioeconomic	Input
Labour participation and productivity	Socioeconomic	Input

[22] https://doi.org/10.1007/s10368-017-0385-3
[23] https://rse.pik-potsdam.de/doc/magpie/4.2.1/
[24] https://silicone.readthedocs.io/en/latest/
[25] https://doi.org/10.5194/gmd-18-8269-2025
[26] https://www.i2am-paris.eu/detailed_model_doc/chance
[27] https://doi.org/10.1016/j.softx.2022.101070
[28] https://paris-reinforce.eu/sites/default/files/2022-12/D8.8%20Data%20Management%20Plan-Update%202_v1.00_SUBMITTED.pdf

Data type	Category	Input/output
Household size and space	Socioeconomic	Input
Physical activity data	Socioeconomic	Input
Macroeconomic and sectoral activity data	Socioeconomic	Input & output
GHG emissions (CO_2, methane, others)	Emissions	Input & output
CO_2 emission factors	Emissions	Input
Abatement curves	Emissions	Input
Water availability	Impacts	Input
Water withdrawal/consumption	Impacts	Output
Air quality (e.g., PM2.5)	Impacts	Output
Installed capacity for different energy technologies and for storage	Energy	Input & output
Electricity and heat production mix	Energy	Input & output
Specifications of energy technologies and availability	Energy	Input
Potential of renewable energy sources	Energy	Input
Network infrastructure specifications	Energy	Input
Conversion technology characteristics	Energy	Input
Sectoral energy intensities	Energy	Input & output
Energy/electricity trade	Energy	Input & output
Food/agricultural demand	AFOLU	Input & output
Land uses, types, and potential as emissions sinks	AFOLU	Input
Energy performance of buildings (HVAC, envelope, appliances)	Buildings	Input
Energy efficiency improvements rates	Buildings/Industry	Input
Industrial technologies - specifications and availability	Industry	Input
Sectoral productivity and growth	Industry	Input & output
Vehicle fleet and structure	Transport	Input & output

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Data type	Category	Input/output
Technological characteristics of vehicles	Transport	Input
Fuel efficiency	Transport	Input
Mobility characteristics and modal shifts	Transport	Input & output
Energy prices	Prices/costs	Input & output
Energy and power technology costs	Prices/costs	Input & output
Cost of technologies (all sectors)	Prices/costs	Input

Notes: Data adapted from the DMP of PARIS REINFORCE.

2.2.3 Data used in scenario analysis

Apart from the data inputs shown in the previous section, DIAMOND models need policy inputs related to specific scenarios to explore. Most of these inputs are produced during the engagement and outreach activities of the project and relate to pertinent policy and research questions that stakeholders want to explore with the new models. An indicative list of policies to explore is adapted by the DMP of the PARIS REINFORCE project and shown in Table 5. Other inputs for explorative scenario modelling are based on assumptions on the variables mentioned in Table 4, such as whether some technologies are available or not and various assumptions on their costs and other characteristics (e.g., energy conversion efficiencies). More details on scenario inputs are provided in the Model Development Strategy of the DIAMOND project (see Deliverable 3.1 in the project website[29]).

Table 5. Indicative policies that can be explored in project scenarios

Policy	Type of measures
Targets for emissions or global temperature	Targets
Climate change adaptation measures	Targets
Targets on efficiency performance	Targets
Targets on the energy mix	Targets
Targets for afforestation and protected lands	Targets
Carbon pricing	Economic
Carbon sink pricing	Economic
Land use change emissions tax	Economic
Energy taxes	Economic

[29] https://climate-diamond.eu/publications/deliverables/

Policy	Type of measures
Carbon border adjustments	Economic
COVID-19 recovery efforts	Economic
Regulations on emissions, energy, efficiency	Regulations
New standards on buildings, fuels, etc.	Regulations
Promotion of behavioural change	Social
International collaboration schemes (e.g., climate clubs)	Foreign policy
Changes in global supply chains (e.g., Europe's current efforts to reduce its reliance on Russian natural gas)	Foreign policy

Notes: Some policies were adapted from the DMP of PARIS REINFORCE.

2.3 Origin of the data and re-use of existing data

As discussed in the previous sections, the development of the new models are based on the existing code and structure of their base models while their inputs are based on existing data sources. These inputs are enhanced significantly with the insights and datasets from the various disciplines participating in DIAMOND, including from psychology, finance, and industrial ecology, and are based on an extensive review of the relevant literature (both peer-reviewed and grey) and available datasets. In addition, a significant goal of the project is to find ways to open-up both modelling code and input data. This indicates that all existing model code that cannot be opened needs to be adapted or circumvented to allow new models to be fully open source, while all data inputs need to be open access. The latter is one of the most challenging aspects of the Open Science strategy of the project, since many significant data sources for modelling are proprietary or not publicly available, such as the results from some of the analyses of IEA. An indicative list of data inputs used in the existing models that are publicly available and can be directly used by the new models is shown in Table 6. For more details, see Deliverable D6.7 "Open science protocols & diagnostics" on the project website[30].

Table 6. Open-access data from the base models that can be re-used by the new models

Data sources	Use	Base models using the data
EUROSTAT	Energy balance sheets, energy prices, macroeconomic and sectoral activity data, population data and projection, physical activity data, CO_2 emission factors and EU ETS registry for allocating emissions between ETS and non ETS	NEMESIS
EU reference scenarios	Potential calibration of NEMESIS to nuclear and hydro share in electricity mix and exogeneous	NEMESIS

[30] https://climate-diamond.eu/publications/deliverables/

Data sources	Use	Base models using the data
	energy efficiency	
EPA abatement curves	Calibration	GCAM, PROMETHEUS
IPCC Shared Socioeconomic Pathways	Population qualification projections	GCAM, PROMETHEUS, NEMESIS, TIMES-GEO
FAOSTAT balances	Food demand, agriculture	GCAM
UN	World Population projections	PROMETHEUS, GEMINI-E3
UNSD	Energy balances	TIMES-GEO
ClimateWatchData	GHG emissions	PROMETHEUS
OECD	GEMINI-E3: data for calibration of indirect taxation and government expenditures; NEMESIS: data for calibration of long-term project of GDP in non-EU countries (complementary to Eurostat)	NEMESIS, GEMINI-E3
IMF	GEMINI-E3: data for calibration of indirect taxation and government expenditures; NEMESIS: data for short/medium-term GDP projections for non-EU countries	NEMESIS, GEMINI-E3,
CEPII	alternative to OECD long-term GDP projections for non-EU countries	NEMESIS
World Input-Output Database	To complete EUROSTAT on imports and exports	NEMESIS
OECD/ITF	Transportation data	TIMES-GEO
Global Energy Assessment	Energy end-use in transport and buildings	TIMES-GEO

Notes: The list is adapted from the DMP of PARIS REINFORCE.

Apart from re-used data, a large volume of new data will be produced based on the co-creation activities of the project, as stakeholders' feedback guides both the new model development and scenario analysis of DIAMOND. During the project, stakeholders can provide their perspectives on what is currently missing from the wide IAM ecosystem and what features are required for new models. Communities of practice are also invited to participate in and inform the development of the new models, including communities behind the creation and maintenance of the existing models such as the GCAM, IEA-ETSAP, and OSeMOSYS/CLEWs communities as well as wider modelling communities such as the Integrated Assessment Modelling Consortium (IAMC). These practitioners and researchers, along with policymakers and representatives from the industry and civil society, will also help define the scenarios that are modelled during the project. These stakeholder perspectives are recorded and stored

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appropriately, based on GDPR guidelines (see Chapter 5) and adequate ethical treatment (see Chapter 6).

2.4 Expected size of the data

Based on previous modelling-based projects such as PARIS REINFORCE[31], the total size of data that is expected to be collected, processed, and produced by the end of the project will be around 250GB. Most of this size is expected to result from the data inputs used in the new models, and, especially, from the sheer amounts of data outputs that will be produced. Other types of data that can be relatively heavy include the audio and video recordings of consortium and stakeholder meetings, which should be at a scale of hundreds of MB for each meeting, multiplied by a few dozens of meetings that are and will be organised. On the other hand, the minutes of these meetings are documented in a small number of reports which are not more than a few MB each. Model publications are also expected to not take too much space, considering that they will be around 60-80 pdf documents.

2.5 Data utility

The data outputs that are and will be produced by DIAMOND are expected to be useful to all expected audiences of the project. The new models are directly useful to climate-economy modellers and other researchers while they are indirectly useful to policymakers, industry, and civil society representatives. The results of the scenario analysis are useful to the same target audiences and inform their policies, strategies, research, and other activities. We will especially focus our efforts to disseminate project data to the European Commission and EU agencies, national/local governments, businesses, energy-intensive industries, financial institutions, and researchers of the broader climate modelling landscape (mitigation, impacts, adaptation).

[31] https://paris-reinforce.eu/sites/default/files/2022-12/D8.8%20Data%20Management%20Plan-Update%202_v1.00_SUBMITTED.pdf

3 FAIR Data Guidelines

3.1 Making Data Findable

We will ensure that all project outputs are findable by using adequate identifiers and metadata. All deliverables and policy briefs are uploaded in a Zenodo community that has been specifically created for the project[32] and where they are automatically fitted with persistent digital object identifiers (DOIs). In the case of scientific publications, a DOI is provided by the publishing journal, although we still upload publications (or accepted manuscripts) in Zenodo and, potentially, also preprints. A versioning system is also employed to track the state of each publication and ensure that interested parties can find the version they are looking for. For this, we use Zenodo's paradigm where each new version gets a separate DOI, but a top-level DOI is also available, resolving to the latest version available. When each document is uploaded in Zenodo or on a journal, we include adequate keywords to facilitate document retrieval via search engines. We are also using a consistent naming system for each type of publication:

- Scientific publications: "author(s)_name(s)_year" (e.g., Smith_et_al_2023.pdf)
- Policy briefs: "DIAMOND_Policy_Brief_Title (e.g., DIAMOND_Policy_Brief_IAMs_In_Policy.pdf)
- Deliverable: "DIAMOND_D*XX*_Title" (e.g., DIAMOND_D6.2_Open_Data_Management_Plan_Update_1.pdf)

Datasets of project outputs that underpin publications are also archived in Zenodo and fitted with a DOI and adequate keywords. We then link all datasets in Zenodo with the maDMP in ARGOS[33] and accompany them with rich metadata, using the Horizon Europe template provided in ARGOS (see Chapter 7 for more information). Similarly, all model code are stored in public repositories in GitHub which will be then linked to Zenodo and the maDMP.

All model code, documentation, inputs, and outputs will be also published in the IAM PARIS modelling platform which will be continuously promoted as an integrated hub of information for the climate-economy and energy modelling community. For each dataset, we will include links to all related project publications in Zenodo and scientific journals to further increase findability. Finally, both the platform and the project website will include enough relevant content and an optimised sitemap structure to ensure findability in search engines like Google and Bing.

3.2 Making Data Openly Accessible

All project deliverables, policy briefs, and datasets are published in Zenodo under Creative Commons licenses. In most cases, we have published project outputs with the highly permissive CC BY license (version 4.0). Exceptionally, we may also consider less permissive licenses such as CC BY-NC to restrict commercial uses of project outcome, but only when this is necessary for specific and clear reasons by the author(s) of the publication or the dataset.

Similarly, scientific publications of the project have been and will be published in journals offering open-access options in compliance with the Horizon Europe rules. When possible, we will publish in fully open-access journals, also considering the Open Research Europe publishing platform. In case that the available fully open-access options do not align with the scope of a publication, we will select a journal that offers a gold open-access option from the list of journals that the organisations of project partners have a publishing agreement with. In that way, we ensure that all project insights become immediately available and exploitable by project audiences. In case

[32] https://zenodo.org/communities/diamond/
[33] https://doi.org/10.5281/zenodo.7781424

that a project deliverable is linked to a scientific publication, we still add the deliverable in Zenodo, but we may add an appropriate embargo period so that the deliverable becomes publicly available only after the paper is published.

All new models developed by the project have been published under open licenses. Table 7 shows the licenses that have been so far selected for the new models (for more details see D6.7). It is noted that these licenses refer to the model code and not the input data. In the case of input data, there are still some pending issues with the use of publicly restricted datasets in some of the base models and for which we are exploring open-access alternatives. The selection of licences for input data will be finalised towards the end of the project with the delivery of the final version of each model.

Table 7. Selection of open-source licenses to use for new model code

New models	Open-source licence
GCAM-Europe	Educational Community License v2.0[34] (same as base model, GCAM)
OMNIA	Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License[35]
CLEWs-EU	MIT License 2.0[36] (same as base model)
GEMINI-E3 EU	GNU LESSER GENERAL PUBLIC LICENSE Version 2.1[37]
NEMESIS-World	Apache License 2.0[38] adding the "Commons Clause" [39]
OPEN-PROM	GNU AGPLv3[40], adding the "Commons Clause"[37]

In terms of file formats, we strive to use well-known formats that can be opened by freeware software such as pdf, csv, txt, mp3, and mp4 files. We aim to avoid sharing content through proprietary file formats such as docx and xlsx. When this is not feasible (for instance, when we need to publish spreadsheet files with multiple tabs), we will accompany files in proprietary formats with links to compatible freeware software such as the Open Office suite.

We also ensure that all open project outputs remain available for as long as possible. All project publications and datasets are published in established online repositories such as Zenodo and GitHub where high availability is expected for many years to come. This is especially the case for Zenodo where its operation is supported by the EU. The project website will be also kept online for at least three years after the project's end to support the dissemination and findability of project outcomes. Project coordinator ICCS and project partner HOLISTIC will also ensure the longevity of the IAM PARIS platform for at least three years after DIAMOND's end (till around 2030). The partners will also undertake efforts to ensure the platform's sustainability, either by future projects that will take over its operation or through appropriate funding mechanisms. The Horizon Results Booster service of the EU will be also consulted to find these mechanisms.

[34] https://choosealicense.com/licenses/ecl-2.0/
[35] https://creativecommons.org/licenses/by-nc-sa/4.0/deed.en
[36] https://choosealicense.com/licenses/apache-2.0/
[37] https://www.gnu.org/licenses/old-licenses/lgpl-2.1.en.html
[38] https://www.apache.org/licenses/LICENSE-2.0
[39] https://commonsclause.com/
[40] https://choosealicense.com/licenses/agpl-3.0/

3.3 Making Data Interoperable

We achieve high interoperability of project data by using adequate data formats and by providing informative metadata. As suggested in Section 3.2, all project datasets and reports of the project are shared through widespread formats such as pdf, csv, and txt, avoiding proprietary formats when possible. The documentation of all new models along with the results of the scenario analysis are formatted based on the IAMC reporting templates, ensuring that the wider climate-economy modelling community can use them, while also achieving interoperability with other relevant platforms of the community such as the Scenario Explorers by IIASA. Metadata for all project datasets are added in DIAMOND's maDMP in ARGOS, using the format template of Horizon Europe. As the maDMP is machine actionable, it will be easy to read the internal representation of metadata and potentially convert it to another format, further ensuring the interoperability of project datasets.

3.4 Making Data Reusable

As suggested in the previous section on open access, by releasing all deliverables and datasets through CC BY license we also support their uptake by interested parties. Similarly, all scientific papers are published under open-access licenses and are made available directly after acceptance by the journals. We will use more restrictive licenses, e.g., including clauses to limit commercial use, only in exceptional cases and when it is fully necessary. We also ensure the reusability of datasets by using the Horizon Europe metadata scheme in the maDMP of the project. For each dataset, the scheme provides a short description of the data, links with publications and other datasets, and guidelines for the specific dataset related to FAIR practices, allocation of resources, and security and ethical aspects. Lastly, all modelling documentation and results are formatted using the reporting templates of IPCC AR6 (IAMC format[41]) to ensure reusability by the wider modelling community of integrated assessment and climate change mitigation.

[41] https://docs.ece.iiasa.ac.at/iamc.html

4 Allocation of Resources

Most of the practices described in Chapter 3 for ensuring FAIR data in the project are not requiring any costs from the project. All deliverables and datasets are uploaded in Zenodo which is free to use, and we also use the free version of GitHub to store project code. Similarly, the documentation of datasets in the maDMP in ARGOS is also free of charge.

Other activities for ensuring FAIR data (see Chapter 3) require resources which have been considered in the project's Grant Agreement. The extension and hosting of IAM PARIS requires funds that have been budgeted under WP6, while funds on the development and maintenance of the project website have been considered in the budget of WP7 and the defined purchase costs for ICCS and HOLISTIC. We have also earmarked a part of the budget for publishing in open access journals. Most of this budget is managed by the project coordinator ICCS while all partners have some funds available for individual open access publications related to their work in the project. Suggested options for publishing in open access journals are shown in Table 8.

Table 8. Suggested options for open-access scientific publishing in DIAMOND

Access type	Funder	Fees	License
Publish in a fully Open Access journal	Paid through DIAMOND's Grant	Article Processing Charges indicatively ranging between 130€ and 9,500€	CC BY 4.0 CC BY-NC-ND 4.0
Publish in a journal that has the option of Gold Open Access	Paid through publishing agreements between the organisations of project partners and the publisher		

In terms of responsibilities of project partners, ICCS and HOLISTIC have the overview of all data management in the project. The same partners ensure that all project data and publications are uploaded in Zenodo and linked to the project website, the maDMP, and the IAM PARIS platform. The platform is further developed by HOLISTIC and ICCS, including creating new visualisations and applications based on the project's data. All project partners are responsible for correct data handling and curation based on the guidelines of the DMP, including that model code is frequently uploaded in the DIAMOND community in GitHub. As also mentioned above, HOLISTIC is responsible for keeping the website and the platform online and all related project data available for at least three years after the end of the project. For the platform, both ICCS and HOLISTIC are exploring ways to further extend its lifetime.

5 Data Security

We ensure the security of all project data through robust data storage and secure platforms for communication and data exchange. On the latter, ICCS has created a dedicated workspace in its enterprise version of Microsoft Teams as an internal communication system for video-calls and chatting among project partners (see also Milestone 2). This system is also connected to a secure instance of Microsoft SharePoint which serve as the exclusive data exchanging system for the project. The management and security of these systems is supported by the admins and the Data Protection Officer (DPO) of ICCS, while their servers are within the EU (Greece), ensuring compliance with GDPR and relevant EU legislation. This is important as SharePoint is also used to store contact details of project stakeholders that need to be fully secure. Similarly, the personal data of newsletter subscribers are stored in the MailerLite account of HOLISTIC which is also GDPR-compliant.

Apart from the SharePoint, other data storage systems used in the project include the databases of the project website and the IAM PARIS platform. For both databases, HOLISTIC and ICCS have implemented disaster recovery and backup policies to ensure that the data is safe from loss caused by a disaster such as a critical systems failure, fire, theft, or natural disaster. A similar process is followed by ICCS for the SharePoint system while there is also a versioning system in place that protects the users from accidentally deleting or modifying data.

The project's communities in Zenodo and GitHub are also used to store data during the process, and, most importantly, to preserve all created datasets and publications after the end of the project. The possibility of data loss in these repositories is very low, as all files and documents are stored in multiple online servers that ensure redundancy. Additionally, it is highly unlikely that these repositories will close operations and, even in that case, they will migrate all content to suitable archives such as the servers of the Software Heritage Foundation and Internet Archive.

6 Ethical Aspects

All data collection and management activities of the project are compliant with the EU GDPR regulation and with the national privacy and data protection laws of the countries of each partner. For most activities related to model development, there are no ethical or legal aspects apart from respecting the licenses of databases that are used as sources of modelling inputs. In contrast, ethical aspects are especially important in all the co-creation activities of the project (WP2), where we collect the perspectives of different project stakeholders through workshops, interviews, and surveys. For the workshops we use the Chatham House Rule ("when a meeting, or part thereof, is held under the Chatham House Rule[42], participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."). Minutes of the workshops follow this rule and avoid linking individuals to specific statements. The same process is used for documenting interviews, while surveys also avoid questions on personal details other than those that are needed for research reasons (e.g., whether a respondent is from academia or policymaking). In all engagement activities, we ask for an explicit and clear informed consent from the participants.

As mentioned in Chapter 5, all contact details and feedback of project stakeholders are stored in the project's secure SharePoint instance while the contact details of the newsletter subscribers are stored in the MailerLite account of HOLISTIC. Both the SharePoint and the MailerLite instances are hosted within the EU and are GDPR compliant. We avoid exchanging contact details through unsecure channels such as emails. No personal data transfer take place from EU to non-EU countries and vice versa. The only information to be collected include lists of research questions to be extracted by project stakeholders, without capturing who expressed which opinion (anonymisation).

[42] https://www.chathamhouse.org/about-us/chatham-house-rule

7 Machine actionable DMP in Argos

In parallel with this report, the DIAMOND maDMP in ARGOS provides a detailed overview of all datasets generated, curated, or managed during the project[43]. The maDMP is updated whenever a project dataset is created or modified during the project. Personnel from ICCS and HOLISTIC are responsible for creating entries for new datasets in the maDMP while all project partners are responsible for checking that the metadata provided for their datasets in the maDMP is correct. The following process is being used for creating a new dataset in maDMP:

1. The project partner(s) that created the dataset (henceforth called "data creators") share it with ICCS and HOLISTIC ("data managers").
2. The data managers then upload the dataset on Zenodo.
3. The data managers also create a new dataset in the maDMP and prefill it by searching the name of the dataset through the search engine of ARGOS.
4. The data managers complete the metadata for the dataset based on guidance from this report as well as link the dataset to relevant deliverables or scientific publications.
5. The data creators are invited to check these metadata and ensure their accuracy.
6. The data managers update the maDMP with the new dataset.

A similar process is used for new model code, where links are and will be created between the model repositories in GitHub and Zenodo to ensure that the code base of the models receives a unique DOI. This Zenodo entry is then linked to the maDMP which will be documented with adequate metadata as above. In some cases, such as the OMNIA model, the entire raw input database is also uploaded in Zenodo. All these processes are evaluated based on the experience of data managers and creators and may be adapted and optimised further during the project.

[43] https://doi.org/10.5281/zenodo.7781424

8 Project publications and datasets as of November 2025

As the project enters its final year, an increasing number of publications and datasets have been released that acknowledge DIAMOND. As of now, 38 articles have appeared in reputable scientific journals acknowledging the project. Alongside these, two new datasets have been made available: a Cost of Capital assessment dataset that supports an upcoming publication, and an updated version of the Model Development Strategy (D3.2). The project website has also been enriched with several new materials, including three updates and two newly released deliverables, which are mirrored either on Zenodo or GitHub. All publications and datasets are openly accessible through the project's website, the DIAMOND community on Zenodo, and GitHub, while journal articles are also available through their respective publishers' platforms. Every article has been published under open-access conditions, and all dataset metadata have been documented in the project's machine-actionable DMP in ARGOS, ensuring strong levels of accessibility and findability.

8.1 Publications

Overall, the following scientific articles have been published acknowledging DIAMOND:

1. Sampedro, J., Van de Ven, D. J., Horowitz, R., Rodés-Bachs, C., Roman, M. V., Tomas, M., ... & Arto, I. (2025). Enhancing energy and food access through reduction of income inequality does not jeopardize the achievement of existing climate pledges. *Environmental Research Letters*. https://doi.org/10.1088/1748-9326/ae17db
2. Lamboll, R., Al Khourdajie, A., & Pelz, S. (2025). How stocks judge COPs: market impacts of climate conferences. *Environmental Research Letters*, *20*(11), 114082. https://doi.org/10.1088/1748-9326/ae15a6
3. Sandstad, M., Steinert, N. J., Baur, S., & Sanderson, B. M. (2025). METEORv1. 0.1: A novel framework for emulating multi-timescale regional climate responses. *Geoscientific Model Development*, *18*(21), 8269-8312. https://doi.org/10.5194/gmd-18-8269-2025
4. Keppo, I., Al Khourdajie, A., Gardumi, F., Holtz, G., Nikas, A., Xexakis, G., ... & Zamanipour, B. (2026). Model linking for low-carbon transitions: Technical and conceptual challenges and best practices. *Renewable and Sustainable Energy Reviews*, *226*, 116384. https://doi.org/10.1016/j.rser.2025.116384
5. Boitier, B., Mekki, H., Le Mouël, P., & Zagamé, P. (2025). Projected climate impacts and impact-specific damage functions for EU countries: A review and estimation. *Climatic Change*, *178*(11), 189. https://doi.org/10.1007/s10584-025-04049-5
6. Frilingou, N., Van de Ven, D. J., Sampedro, J., Torné, A., Trutnevyte, E., Horowitz, R., ... & Nikas, A. (2025). Cost-optimal vs. policy-driven scenarios for a decarbonised European energy system. https://doi.org/10.21203/rs.3.rs-7847096/v1
7. Sampedro, J., Rodés-Bachs, C., Smith, S. J., Tomás, M., Urrutia, I., & Van de Ven, D. J. (2025). rhap: A tool to analyze health impacts attributable to household air pollution. *Journal of Open Source Software*, *10*(114), 8091. https://doi.org/10.21105/joss.08091
8. Sognnaes, I., & Peters, G. P. (2025). Influence of individual models and studies on quantitative mitigation findings in the IPCC Sixth Assessment Report. *Nature Communications*, *16*(1), 8343. https://doi.org/10.1038/s41467-025-64091-w
9. van de Ven, D. J., Rodés-Bachs, C., Rouhette, T., Horowitz, R., Sampedro, J., Nikas, A., ... & Koasidis, K. (2025). Beyond "Least-Cost" allocation: Optimising sectoral contributions for Paris-compatible mitigation

targets over multiple SDG trade-offs.

10. Serebriakova, A. S., Polzin, F., & Sanders, M. (2025). Effects of Monetary Policy Rates on Energy Technologies: Implications for the European Green Transition. ZBW-Leibniz Information Centre for Economics. https://hdl.handle.net/10419/316394
11. Zisarou, E., Fragkos, P., Van De Ven, D. J., Mittal, S., Frilingou, N., Rodés-Bachs, C., ... & Nikas, A. (2025). A window of (missed) opportunity? A comprehensive stocktake and energy-system impact assessment of global COVID-19 recovery packages. *Energy Research & Social Science*, *127*, 104216. https://doi.org/10.1016/j.erss.2025.104216
12. Al Khourdajie, A. (2025). The role of artificial intelligence in climate change scientific assessments. *PLOS Climate*, *4*(9), e0000706. https://doi.org/10.1371/journal.pclm.0000706
13. Buck, H. J., Al Khourdajie, A., Asayama, S., & Geden, O. Four scenarios for an IPCC navigating Artificial Intelligence. https://www.swp-berlin.org/en/publication/four-scenarios-for-an-ipcc-navigating-artificial-intelligence
14. Al Khourdajie, A., Gambhir, A., Keppo, I., Frilingou, N., Mittal, S., van de Ven, D. J., ... & Nikas, A. (2025). Navigating the unexpected: The impact of disruptive events on mitigation scenarios. https://doi.org/10.21203/rs.3.rs-7427967/v1
15. Sampedro, J., Horowitz, R., Rodés-Bachs, C., & Van de Ven, D. J. (2025). GCAM-Europe v7. 2.0: Enhancing Policy-Relevant Climate Modelling Through Spatial and Sectoral Detail. *EGUsphere*, *2025*, 1-32. https://doi.org/10.5194/egusphere-2025-3546
16. Beath, H., Mittal, S., Lamboll, R., & Rogelj, J. (2025). An exploration and evaluation framework for climate change mitigation scenarios with varying feasibility and desirability. *Environmental Research Letters*, *20*(7), 074020. https://doi.org/10.1088/1748-9326/addd35
17. Engel, L., Kukowski, C. A., & Hahnel, U. J. (2025). Empowering change: A self-control perspective on how choice architecture interventions can promote sustainable behavior change. *Motivation Science*. https://doi.org/10.1037/mot0000396
18. Koasidis, K., Soursos, A., Xexakis, G., Labella, Á., Karamaneas, A., & Nikas, A. (2025). APOLLO-Live: A multi-criteria-based webtool for synchronous group decision making and consensus reaching in energy and climate policy deliberations. *Open Research Europe*, *5*(88), 88. https://doi.org/10.12688/openreseurope.19614.3
19. Perdana, S., & Vielle, M. (2025). Industrial European regions at risk within the fit for 55: How far implementing CBAM can mitigate?. *Renewable and Sustainable Energy Transition*, *6*, 100088. https://doi.org/10.1016/j.rset.2024.100088
20. van de Ven, D. J., Mittal, S., Nikas, A., Xexakis, G., Gambhir, A., Hermwille, L., ... & Peters, G. P. (2025). Energy and socioeconomic system transformation through a decade of IPCC-assessed scenarios. *Nature Climate Change*, *15*(2), 218-226. https://doi.org/10.1038/s41558-024-02198-6
21. Pye, S., Bradshaw, M., Price, J., Zhang, D., Kuzemko, C., Sharples, J., ... & Dodds, P. E. (2025). The global implications of a Russian gas pivot to Asia. *Nature Communications*, *16*(1), 386. https://doi.org/10.1038/s41467-024-55697-7
22. Rodés-Bachs, C., Sampedro, J., Frilingou, N., Gardumi, F., & Giudice, C. L. (2025). Open Science Practices in Integrated Assessment Models. *Open Research Europe*, *5*,

12. https://doi.org/10.12688/openreseurope.18824.2

23. Rodés-Bachs, C., Sampedro, J., Amich, M., Nikas, A., Koasidis, K., Belis, C. A., & Van de Ven, D. J. A Socioeconomic Assessment of Projected Health Impacts from Outdoor Air Pollution under Current European Climate Policy. http://dx.doi.org/10.2139/ssrn.5597772

24. Calcaterra, M., Aleluia Reis, L., Fragkos, P., Briera, T., de Boer, H. S., Egli, F., ... & Tavoni, M. (2024). Reducing the cost of capital to finance the energy transition in developing countries. *Nature Energy*, *9*(10), 1241-1251. https://doi.org/10.1038/s41560-024-01606-7

25. Nikas, A. (2024). Projecting progress in sustainable development goals vis-à-vis climate action in climate-economy models. *PLOS Climate*, *3*(7), e0000449. https://doi.org/10.1371/journal.pclm.0000449

26. Sampedro, J., van de Ven, D. J., Horowitz, R., Rodes-Bachs, C., Frilingou, N., Nikas, A., ... & Yarlagadda, B. (2024). Energy system analysis of cutting off Russian gas supply to the European Union. *Energy Strategy Reviews*, *54*(PNNL-ACT-SA-10794). https://doi.org/10.1016/j.esr.2024.101450

27. Joshi, S., Zakeri, B., Mittal, S., Mastrucci, A., Holloway, P., Krey, V., ... & Glynn, J. (2024). Global high-resolution growth projections dataset for rooftop area consistent with the shared socioeconomic pathways, 2020–2050. *Scientific Data*, *11*(1), 563. https://doi.org/10.1038/s41597-024-03378-x

28. Nikas, A., Frilingou, N., Heussaff, C., Fragkos, P., Mittal, S., Sampedro, J., ... & Van de Ven, D. J. (2024). Three different directions in which the European Union could replace Russian natural gas. *Energy*, *290*, 130254. https://doi.org/10.1016/j.energy.2024.130254

29. Moreno, J., Campagnolo, L., Boitier, B., Nikas, A., Koasidis, K., Gambhir, A., ... & Vielle, M. (2024). The impacts of decarbonization pathways on Sustainable Development Goals in the European Union. *Communications Earth & Environment*, *5*(1), 136. https://doi.org/10.1038/s43247-024-01309-7

30. McGookin, C., Süsser, D., Xexakis, G., Trutnevyte, E., McDowall, W., Nikas, A., ... & Gallachóir, B. Ó. (2024). Advancing participatory energy systems modelling. *Energy Strategy Reviews*, *52*, 101319. https://doi.org/10.1016/j.esr.2024.101319

31. Boitier, B., Nikas, A., Gambhir, A., Koasidis, K., Elia, A., Al-Dabbas, K., ... & Mittal, S. (2023). A multi-model analysis of the EU's path to net zero. *Joule*, *7*(12), 2760-2782. https://doi.org/10.1016/j.joule.2023.11.002

32. Koutsandreas, D., Trachanas, G. P., Pappis, I., Nikas, A., Doukas, H., & Psarras, J. (2023). A multicriteria modeling approach for evaluating power generation scenarios under uncertainty: The case of green hydrogen in Greece. *Energy Strategy Reviews*, *50*, 101233. https://doi.org/10.1016/j.esr.2023.101233

33. Perdana, S., Vielle, M., & Oliveira, T. D. (2024). The EU carbon border adjustment mechanism: implications on Brazilian energy intensive industries. *Climate Policy*, *24*(2), 260-273. https://doi.org/10.1080/14693062.2023.2277405

34. Bailie, A., Pied, M., Vaillancourt, K., Bahn, O., Koasidis, K., Gambhir, A., ... & Nikas, A. (2023). Co-creating Canada's path to net-zero: a stakeholder-driven modelling analysis. *Renewable and Sustainable Energy Transition*, *4*, 100061. https://doi.org/10.1016/j.rset.2023.100061

35. Cassetti, G., Elia, A., Gargiulo, M., & Chiodi, A. (2023). Reinforcing the Paris Agreement: Ambitious scenarios for the decarbonisation of the Central Asian and Caspian region. *Renewable and Sustainable Energy Transition*, *3*, 100048. https://doi.org/10.1016/j.rset.2023.100048

36. Gambhir, A., & Nikas, A. (2023). Seven key principles for assessing emerging low-carbon technological opportunities for climate change mitigation action. *PLOS Climate*, *2*(7), e0000235.

https://doi.org/10.1371/journal.pclm.0000235

37. Koutsellis, T., Xexakis, G., Koasidis, K., Frilingou, N., Karamaneas, A., Nikas, A., & Doukas, H. (2023). In-Cognitive: A web-based Python application for fuzzy cognitive map design, simulation, and uncertainty analysis based on the Monte Carlo method. *SoftwareX*, *23*, 101513. https://doi.org/10.1016/j.softx.2023.101513

38. Perdana, S., & Vielle, M. (2023). Carbon border adjustment mechanism in the transition to net-zero emissions: Collective implementation and distributional impacts. *Environmental Economics and Policy Studies*, *25*(3), 299-329. https://doi.org/10.1007/s10018-023-00361-5

8.2 Datasets & Repositories

The following datasets have been released in Zenodo and GitHub:

1. Frilingou, N. (2025). Frilingou_et_al_2025_CoC_dataset [Data set]. Zenodo. https://doi.org/10.5281/zenodo.14807258
2. Xexakis, G. (2025). CLIMATE-DIAMOND/IAM-development-practices: Version for Deliverable D6.6 (v1.0.0). Zenodo. https://doi.org/10.5281/zenodo.15548277
3. Sandstad, M. (2025). ciceroOslo/cscm-input-data-generation: v1.0.0 [Source code]. GitHub. https://github.com/ciceroOslo/cscm-input-data-generation
4. Joshi, S., Zakeri, B., Mittal, S., Mastrucci, A., Holloway, P., Krey, V., ... & Glynn, J. (2024). Global high-resolution growth projections dataset for rooftop area consistent with the shared socioeconomic pathways, 2020–2050. (Version V2) [Data set]. Zenodo. https://doi.org/10.5281/zenodo.11085013
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8.3 Deliverables

The following deliverables have been released in the project website and can also be found in Zenodo DIAMOND community (pending the upload of the latest deliverables published):

1. Xexakis, G., & Koasidis, K. (2025). D6.6 Open-source software development pipelines. DIAMOND. https://doi.org/10.5281/zenodo.15592781
2. Koasidis, K. (2024). D6.2 Open Data Management Plan – Update 1. Zenodo. https://zenodo.org/records/17702984
3. Briers, S., & Vienni-Baptista, B. (2024). D2.4 Stakeholder-informed research questions (Version v1). Zenodo. https://doi.org/10.5281/zenodo.11236722
4. Cassola, D., Faberi, S., Sessa, C., Briers, S., & Vienni Baptista, B. (2023). D2.1 Multi Layered Stakeholder Engagement Strategy. Zenodo. https://doi.org/10.5281/zenodo.11237003
5. Cassola, D. (2023). D2.2 Multi Layered Stakeholder Engagement Strategy – Update 1. Zenodo. https://zenodo.org/records/17702684
6. Nikas, A., Xexakis, G., Frilingou, N., & Koasidis, K. (2023). D6.1 Open Data Management Plan (Version v1). Zenodo. https://doi.org/10.5281/zenodo.11237118
7. Karamaneas, A., Koasidis, K., Nikas, A. (2023). D1.2 Report on project and SAB Meetings. Zenodo. https://zenodo.org/records/17702873
8. Koasidis, K., Nikas, A., & Frilingou, N. (2023). D1.1 Quality Management Plan (Version v1). Zenodo. https://doi.org/10.5281/zenodo.11236827
9. Polytanou, G., Xexakis, G., & Koasidis, K. (2023). D7.2 The DIAMOND Project CDE Plan (Version v1). Zenodo. https://doi.org/10.5281/zenodo.11236867
10. Polytanou, G., Nikas, A., & Xexakis, G. (2023). D7.1 Visual Identity Website (Version v1). Zenodo. https://doi.org/10.5281/zenodo.11237134
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12. Xexakis, G. (2023). D7.3 The DIAMOND Project CDE Plan – Update 1. Zenodo. https://zenodo.org/records/17703054

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