

8th International  
Conference on  
**BIG DATA**  
& Data Science for Official Statistics

**BILBAO 2024**

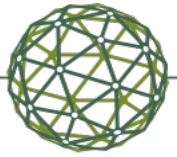
Informing Climate Change and  
Sustainable Development Policies  
with Integrated Data

**BILBAO. SPAIN** | **10-14 JUNE 2024** | **#UNBigData2024**

# A project to create A Spanish “Green Data Space”

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# Green Data Space

- Providing the public sector with tools to simulate economic, climate, environmental and other impacts.
- Creating a public-private secure data space to generate value and provide support in establishing economic policies.

## Leaders in technological solutions and B2G and B2B projects

The companies leading the project have extensive experience in designing and developing data sharing technological solutions.

## Firms with proven experience and collaboration with the public sector

The companies in the consortium already work with the public sector on a number of projects.

## Tools to predict and simulate economic impacts

and prevention of the effects of climate change

Insights

Infrastructure

## Public-private consortium

More than 20 firms and public organisations have been collaborating for years in the [BIDA-AECA Observatory](#).

## Public sector support needed to act as a driving force

To get the Green Data Space project up and running, government interest is needed to support it financially, determine how it will be used and consolidate it.

Analytics and AI

Data sources



Firms and entities  
Project led by



BANCO DE ESPAÑA  
Eurosistema

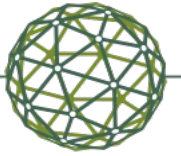
BBVA

MAPFRE



redela





## Data sources

Large volume of very diverse data provided by the partners

### BIDA Firms



### BIDA Public & Academia



### Open data



## Platform and infrastructure

Accessible and safe construction

### Platforms

- In the cloud
- Aligned with EU strategy
- Possibility of federated data

### Green data space

- Data governance and Stewardship
- Data ecosystem and economy



## Analytics and AI

Long track-record of successful AI projects

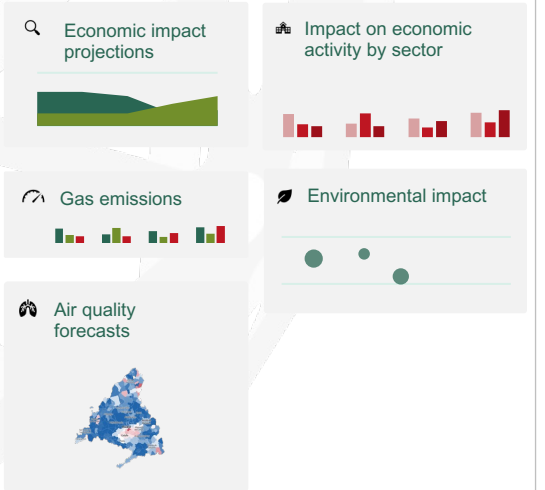
### Features

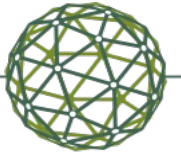
- Data interoperability
- Machine learning algorithms
- Ethical usage methodology
- Aligned with the European Commission's data strategy
- Aligned with the Spanish National AI Strategy (ENIA)



## Insights Decision-making

Reports and dashboard to aid decision making





# Catalyser of Digital Transformation of PPIs to fight Climate Change

## Opportunity

- To catalyse the digital transformation of the public sector.
- To lead and promote the data economy and B2G data sharing.
- Alongside partners with a proven track record in sharing data with firms and governments.
- Engaging the interest of policymakers (DG Connect, DG Climate, Frans Timmermans' cabinet) and requiring the Spanish government's support and funding.

### Infrastructure

Creating and developing an infrastructure to catalyse the digital transformation of the public sector.

### Extraction

Collecting relevant data for the private firms and government units involved.

### Technology

To perform the analytics and apply machine learning to generate the insights, dashboards and forecasts.

### Operation and training

## Possible Key Performance Indicators (KPIs)



**Carbon footprint**  
Greenhouse gases



**Economic variables**  
By sector and region



**Energy consumption**  
Energy efficiency



**Time until the recovery of economic activity**  
After extreme weather events or natural disasters



**Water consumption**  
Water footprint (stressed areas)



**Resource use**  
Waste and recycling



## Organisational model

The model must be sustainable. Options:

a) Fee-based use of data by governments and researchers (to cover initial and maintenance costs).



b) Funded by a government agency. Initial costs by applying to NGEU,\* maintenance costs underwritten by a government agency.



## Potential Use cases



Cost of Climate for Households\*\*



Monitoring sustainability in supply chains.\*\*



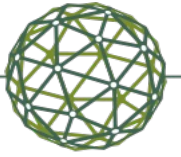
Using data from satellites and other sources to detect marginal land.\*\*



Identifying vulnerable areas (water-stressed areas, floods, fires, pollution, etc.).



Regional impact (municipality, province, region) of physical risk events on productive Households or business activity.



# Use cases Details for Households & Firms Use Cases

## Applications

Possible applications of the use cases

- The Cost of Climate in Household and Corporate Balance Sheet's
- Monitoring Sustainability in Supply Chains from various sources of GHG emissions.
- Using information from satellites & other data sources to detect marginal land

**“Measuring the Cost of of Climate Disasters on Households Balance Sheets”** covering the following:

- 1 Enhanced decision-making**  
The data allow households, Firms and Government (Local & General) to design Sustainability Smart Policies
- 2 Emissions in Real Time and High Granularity**  
Track the GHG footprint of Households in Real Time and high granularity
- 3 Measuring the Cost of Climate**  
Accurate impact of Climate Disasters in Households and Corporate Balance Sheets
- 4 Early Warning and Smarter Risk Management Policies**  
It allows governments and firms to early detect and response the consequences to climate disasters
- 5 Accountability and Responsible consumption**  
Allows Governments and Households to measure the consequence of their decisions

**“Monitoring sustainability in supply chains”** from various sources to obtain GHG emission data for organisations and their supply chains.

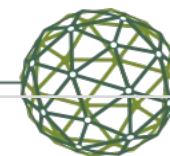
- 1 Enhanced decision-making**  
The data allow organisations to make informed decisions about the sustainability of the supply chain.
- 2 Performance monitoring**  
Track the carbon footprint of the supply chain over time, identifying areas for improvement and measuring progress.
- 3 Transparency**  
Provides information on the sustainability of the supply chain to investors, clients and regulators.
- 4 Risk identification**  
It allows organisations to detect and mitigate sustainability risks in supply chains.
- 5 Performance comparison**  
Allows organisations to compare their GHG emissions data with similar firms to identify opportunities for improvement.

The Spanish Observatory for Big Data, Artificial Intelligence and Data Analytics (BIDA) is an executive forum created in 2018 to address the intersection of business and artificial intelligence, providing valuable information on the changing technological landscape and its impact on various industries and firms in Spain.

The private-public forum comprises 27 firms and entities from the financial and banking, telecommunications and network, energy, insurance, technology and IT infrastructure and solutions provider, audit and consulting sectors, as well as public sector entities and national regulatory agencies.

The Observatory is co-led by representatives of the Spanish Association of Accounting and Business Management (AECA), the Banco de España and Universidad de Huelva, with participants considered either permanent members or partner institutions.

# Permanent members



//ABANCA

**aeca**  
Asociación Española de Contabilidad y Administración de Empresas

**aepd** agencia española protección datos

**Atos**

**FUJITSU**

**idealista**

**BANCO DE ESPAÑA**  
Eurosistema

**BBVA**

**BDO**

**EY**  
Building a better working world

**IEF** Instituto de Estudios Fiscales

**INE** Instituto Nacional de Estadística

**redeia**

**Registadores DE ESPAÑA**

**Telefónica**

**UNED**

**AIRPF** Autoridad Independiente de Responsabilidad Fiscal

**INFORMA**  
Una compañía Cesce

**iclac** Instituto de Contabilidad y Auditoría de Cuentas

**gmv** INNOVATING SOLUTIONS

**MAPFRE**

**pwc**

**Universidad de Navarra** DATA: THE FUTURE OF BUSINESS

## Partner institutions

**Iberinform**  
Crédito y Caución

**SINDICATURA DE COMPTES DE LA COMUNITAT VALENCIANA**

**Asesores Diaz & Diaz**  
Servicio y Organización de Empresas, S.L.  
C/Alfonso XIII, 10 - 46100 Sagunto (Valencia)

## Institutional support

**UNIVERSIDAD COMPLUTENSE MADRID**



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