



# DATHARSIS

DATA SPEAKS, WE INTERPRET

## SCIENTIFIC RIGOR INTERPRETABLE RESULTS

Advanced statistical analysis  
for critical decision-making

 [www.datharsis.com](http://www.datharsis.com)  
 +34 657 28 85 85  
 [info@datharsis.com](mailto:info@datharsis.com)  
 Datharsis

Datharsis is a Technology Company founded as a spin-off from the University of Granada. Although recently established, our team brings **over 20 years of high-impact international research experience** in our core fields.

## THE PROBLEM



Many predictive solutions are **opaque "black boxes"**, hindering confidence and regulatory validation.



Management of **complex and heterogeneous datasets** (e.g., combination of tabular data, time series, text, images, ..)



**SOFTWARE  
DEVELOPMENT**



**CONSULTING  
SUPPORT**



**TRAINING  
CAPABILITIES**

We offer a complete technological solution for this challenge: We develop transparent and explainable predictive systems and computational solutions utilizing the rigor of **Computational Statistics** and the power of **Interpretable Machine Learning**.

Ensuring that all results are scientifically sound, auditable, and valid. We apply **Experimental Design, Data Science, and Machine Learning** methodologies across to maximize data value and reliability.

## EXPERTISE

We offer comprehensive support throughout the entire data lifecycle, applicable to any sector, from Molecular Biology and Cybersecurity to Industrial Processes (Industry 4.0) and Smart Cities.



**Advanced Statistics** and **analysis of complex and heterogeneous data** (high-dimensionality, time series, multi-source) for predictive segmentation and key variable detection in decision-making.

Consulting and support in **experimental design** to ensure data robustness (from its collection) and **Exploratory Data Analysis (EDA)** for pattern identification.



Development of predictive and classification models for **Decision Support Systems (DSS)** that optimize processes and strategies.

Development of **brand new computational statistics, algorithms, and visualizations** integrated via advanced software solutions.





## COMPLEX DATA ANALYSIS

1

### INTERPRETATION AND CAUSALITY

We design optimal experiments to address your questions, and explain the "why" behind the data

2

### SCIENTIFIC RIGOR + INNOVATION

Advanced statistics, data science, and predictive models for reliable and cutting-edge solutions

3

### FULL SCALABILITY

Any type of data and cohort size, always maintaining maximum precision and quality in the analysis



### TRANSDISCIPLINARY APPLICATIONS OF MOLECULAR BIOLOGY

Integration of omics data for advances in healthcare, ecology, and other fields



### CYBERSECURITY AND COMMUNICATION NETWORKS

Advanced detection and diagnosis of attacks or system failures, planning and optimization of networks and services



### INDUSTRIAL PROCESSES (INDUSTRY 4.0)

Process and quality improvement for efficient production



### CHEMICAL ANALYSIS

Compound identification, food traceability/authenticity, optimization of mixtures



### CLIMATE CHANGE AND PALEOCLIMATE

Data analysis to understand historical and current climate patterns



### VOLCANIC AND SEISMIC ACTIVITY

Monitoring and modeling of geophysical data for natural event prediction



### URBAN MOBILITY MODELS (SMART CITIES)

Traffic optimization and urban planning based on mobility data



### OTHER SECTORS

Given the universal nature of data, our analysis methodology is applicable to any field

Let's transform the future together. Contact us!