



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

[**UPCxls: DATA SPACE**]

RESEARCH, DEVELOPMENT & INNOVATION AT THE UNIVERSITAT POLITÈCNICA DE CATALUNYA - BARCELONATECH (UPC)

The Universitat Politècnica de Catalunya - BarcelonaTech (UPC) specialises in the fields of engineering, architecture, science, and technology.

Building on our expertise, we have developed a shared, secure, and transparent digital infrastructure that enables companies, institutions, and public administrations to combine their data with sector-wide datasets. This fosters collaboration and innovation, while creating new business opportunities and strengthening competitiveness. We are already working within the following ecosystems:

- Agrixels: intelligent crop monitoring and efficient use of agricultural resources.
- i-MovE: optimisation of urban mobility using real-time data.
- MultiMo: integration of mandatory mobility data.
- AgriLogistics: predictive and efficient agricultural logistics.
- GreenBIMxels: sustainable building and energy efficiency through BIM data.
- UDStream: real-time data processing and analysis.

As a result of UPC's recognised research track record in its areas of specialisation, we can offer a wide range of services in

- R&D technology transfer projects
- Consortia for national and Horizon Europe projects
- Patents
- Technology evaluation
- Specialised facilities

UPC is a leading university in Spain in research volume and technology transfer to companies, and one of the largest knowledge centres in Southern Europe.

UPCxels: THE UPC DATA SPACE

The Universitat Politècnica de Catalunya - BarcelonaTech (UPC) drives UPCxels, a multisectoral data space connecting companies and administrations to create value from information.

With an advanced governance model and the oversight of a neutral Ethics Committee, UPCxels ensures secure, anonymised and interoperable data sharing, while preserving sovereignty and control over data.

At UPCxels, data becomes a strategic asset serving innovation and collaboration.



WHAT IS A DATA SPACE?

A data space is a shared, secure and transparent digital infrastructure that enables companies, institutions and public administrations to access and combine their own data with that of their sector (suppliers, clients, regulators, competitors, etc.) to foster collaboration and innovation, generating new business and competitiveness opportunities.

Each organisation decides what to share, with whom, and under what conditions, always maintaining control and sovereignty over its information, with guarantees of security, transparency, traceability, regulatory compliance and prevention of misuse.



WHY JOIN?

Benefits for companies and administrations:

- Improve decision-making using real and reliable data.
- Develop new products and services.
- Create data-driven business models.
- Optimise processes, strategies and real-time predictions across the value chain.
- Promote innovation and collaboration projects with other stakeholders in the sector.
- Full control of data with guaranteed traceability and security, in a trusted environment.
- Full compliance with current regulations (GDPR and other European standards).
- Access to UPC's cutting-edge knowledge and technology.

Join the new data-driven digital economy and turn information into a competitive advantage.

[SERVICES]

BASIC

- Formal adhesion and registration with defined roles and responsibilities within the governance model.
- Connection via digital identity and node as Connector as a Service, with existing APIs and connectors.
- Validation of interoperability and integration in real use cases (IoT and other data spaces).
- Publication and access to verified data and product catalogues.
- Tools for data cleaning, standardisation and enrichment.
- Advanced tools for data quality and suitability certification, artificial intelligence, synthetic data and benchmarking.
- Guaranteed governance and traceability with digital contracts and usage records.

ADVANCED

- Identification of opportunities and new use cases with customised incorporation plans, digital maturity analysis, ecosystem benefits and definition of new use cases using internal data.
- Regulatory and legal support, with detection of risks and compliance gaps.
- Preparation of data products (cleaning, harmonisation, enrichment and data inventory), definition of standards and data standardisation with guarantees of anonymisation and pseudonymisation.
- Integration of proprietary APIs and connectors with full interoperability validation.
- Preparation of reports and statements, coordination with official bodies, and support until aid is obtained.
- Scalable cloud infrastructure with high-performance storage and computing.
- Catalogue of data and services with secure monetisation options.
- Artificial intelligence models for process prediction and optimisation.
- Secure communications between participants and 24/7 service monitoring.
- Hosting of new sectoral ecosystems within UPCxels.





AVAILABLE ECOSYSTEMS

Being part of UPCxels gives access to different sectoral data spaces:

- **Agrixels:** intelligent crop monitoring and efficient use of agricultural resources.
- **i-Move:** optimisation of urban mobility using real-time data.
- **MultiMo:** integration of mandatory mobility data.
- **AgriLogistics:** predictive and efficient agricultural logistics.
- **GreenBIMxels:** sustainable building and energy efficiency with BIM data.
- **UDStream:** real-time data processing and analysis.



JOIN UPCxels
AND TRANSFORM YOUR
DATA INTO REAL
OPPORTUNITIES FOR
BUSINESS, INNOVATION
AND COLLABORATION.

Participating entities:



 **UPCxels**

**EXPLORE, CONNECT AND
INNOVATE WITH UPCxels**

CONTACT US!

CIT UPC
Ed. K2M (Office 106)
C/Jordi Girona 1-3
08034 Barcelona
Tel. +34 93 405 44 03
info.cit@upc.edu



www.cit.upc.edu



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