CyclOps

Project Overview

Sergi Nadal
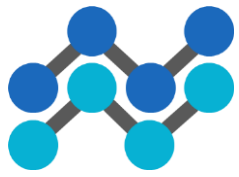
UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
UPC
Facultat d'Informàtica de Barcelona

FIB

Impulso definitivo a los Espacios de Datos – GAIA–X
March 20th 2024. Barcelona

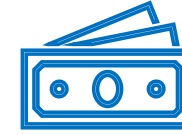# Automated end-to-end data life cycle management for FAIR data integration, processing and re-use

Key facts

HORIZON-CL4-2023-DATA-01-02
GA number: 101135513

Duration: 36 months
Starting date: 1 January 2024
Ending date: 31 December 2026

Budget 8.894.072,50 €
EU funding 8.894.072,50 €

24 partners from 11 countries

- **5 Large Companies**
  - *NTTDES (+ NTTDSL), EXAI, ATOS-IT (+ ATOS-RO, ATOS-SP), AVORIS, GRD*

- **8 Research institutes and Universities**
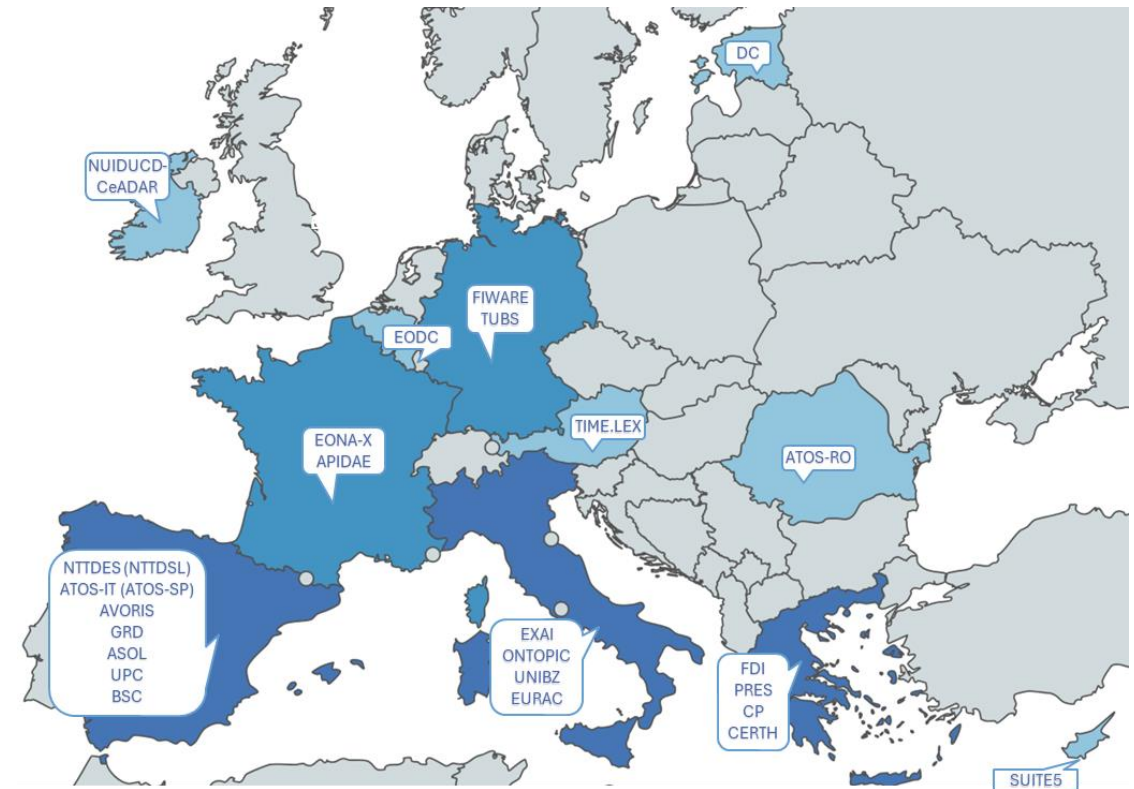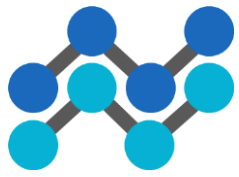 - *UPC, NUIDUCD-CeADAR, UNIBZ, BSC, CERTH, TUBS, EURAC, EODC*

- **9 SMEs**
  - *SUITE5, DC, FDI, ONTOPIC, TIME.LEX, ASOL, APIDAE, PRES, CP*

- **2 Associations**
  - *EONA-X, FIWARE*

- DC
- NUIDUCD-CeADAR
- FIWARE TUBS
- EODC
- TIME.LEX
- ATOS-RO
- EONA-X APIDAE
- NTTDES (NTTDSL) ATOS-IT (ATOS-SP) AVORIS GRD ASOL UPC BSC
- EXAI ONTOPIC UNIBZ EURAC
- FDI PRES CP CERTH
- SUITE5

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Aim and Objective

## AIM

Facilitate the adoption and production of data, models, and services **from and for data spaces** to enable AI-based data-driven applications for all players, business and research alike

OBJECTIVE

Provide **interoperable**, **trustworthy** and **secure** automatic management, governance, and maintenance of the entire data life cycle for large-scale volumes of data generated in heterogeneous distributed sources to **enable data sharing and exchange in data spaces**
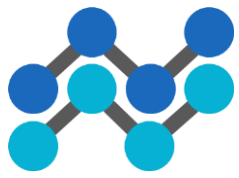
Challenges addressed

OBJECTIVE Provide **interoperable**, **trustworthy** and **secure** automatic management, governance, and maintenance of the entire data life cycle for large-scale volumes of data generated in heterogeneous distributed sources to **enable data sharing and exchange in data spaces**
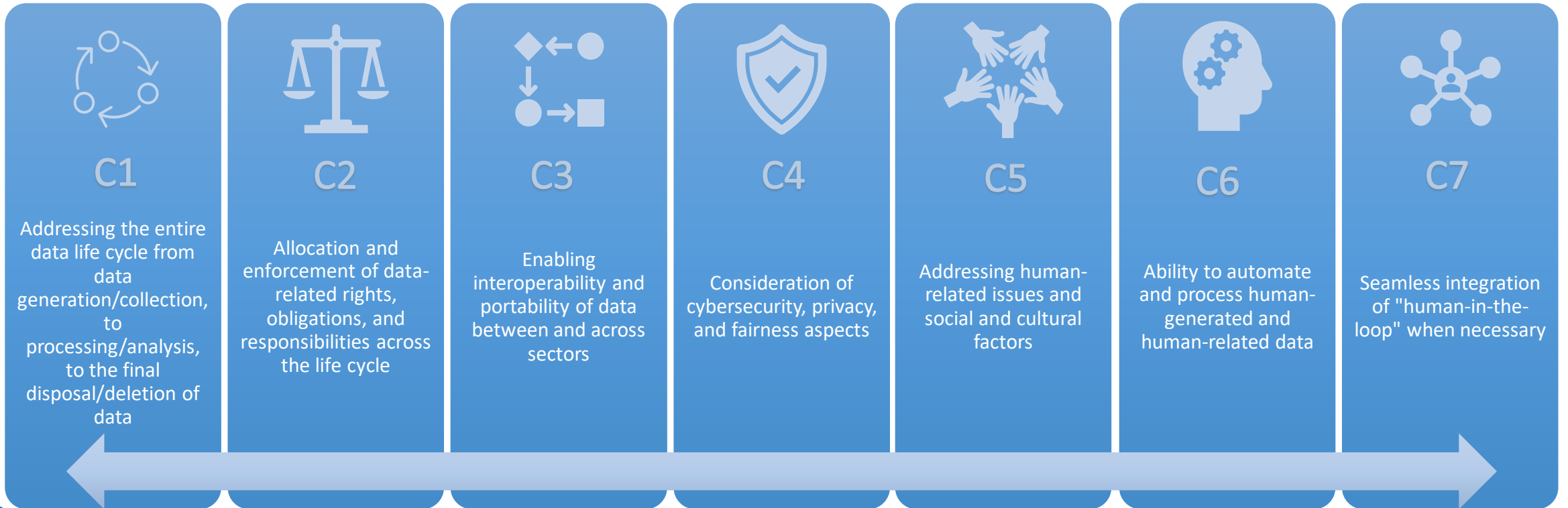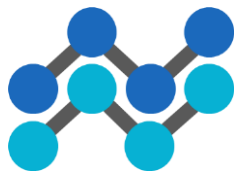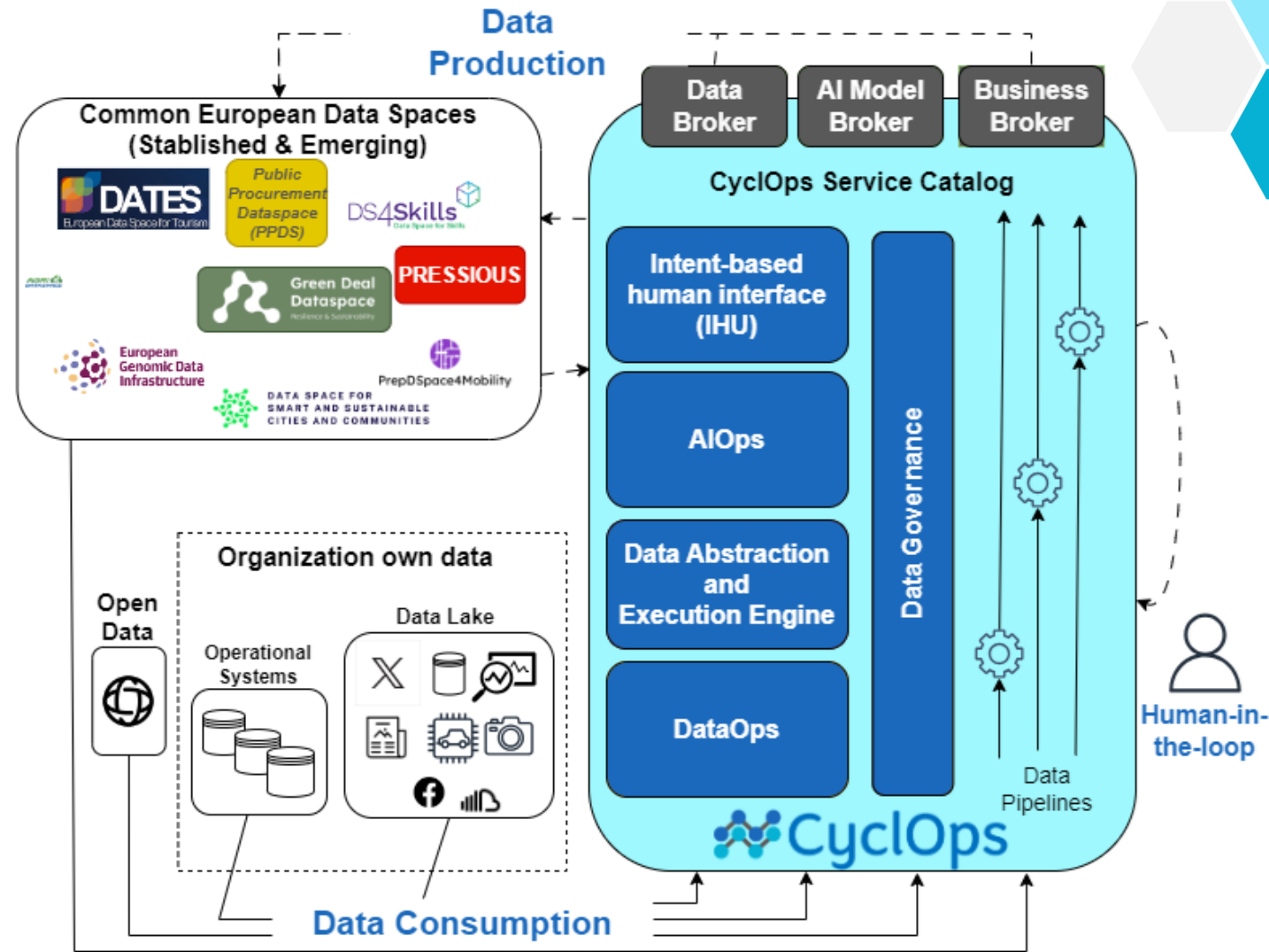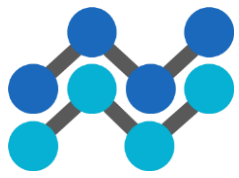
Challenges Addressed

C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**
Addressing the entire data life cycle from data generation/collection, to processing/analysis, to the final disposal/deletion of data	Allocation and enforcement of data-related rights, obligations, and responsibilities across the life cycle	Enabling interoperability and portability of data between and across sectors	Consideration of cybersecurity, privacy, and fairness aspects	Addressing human-related issues and social and cultural factors	Ability to automate and process human-generated and human-related data	Seamless integration of "human-in-the-loop" when necessary

Specific Objectives & Expected Results

1 **CyClops platform** to automate generation of data processing pipelines

From the consumption of data from multiple sources to the serving of data, models, and services ready for data spaces

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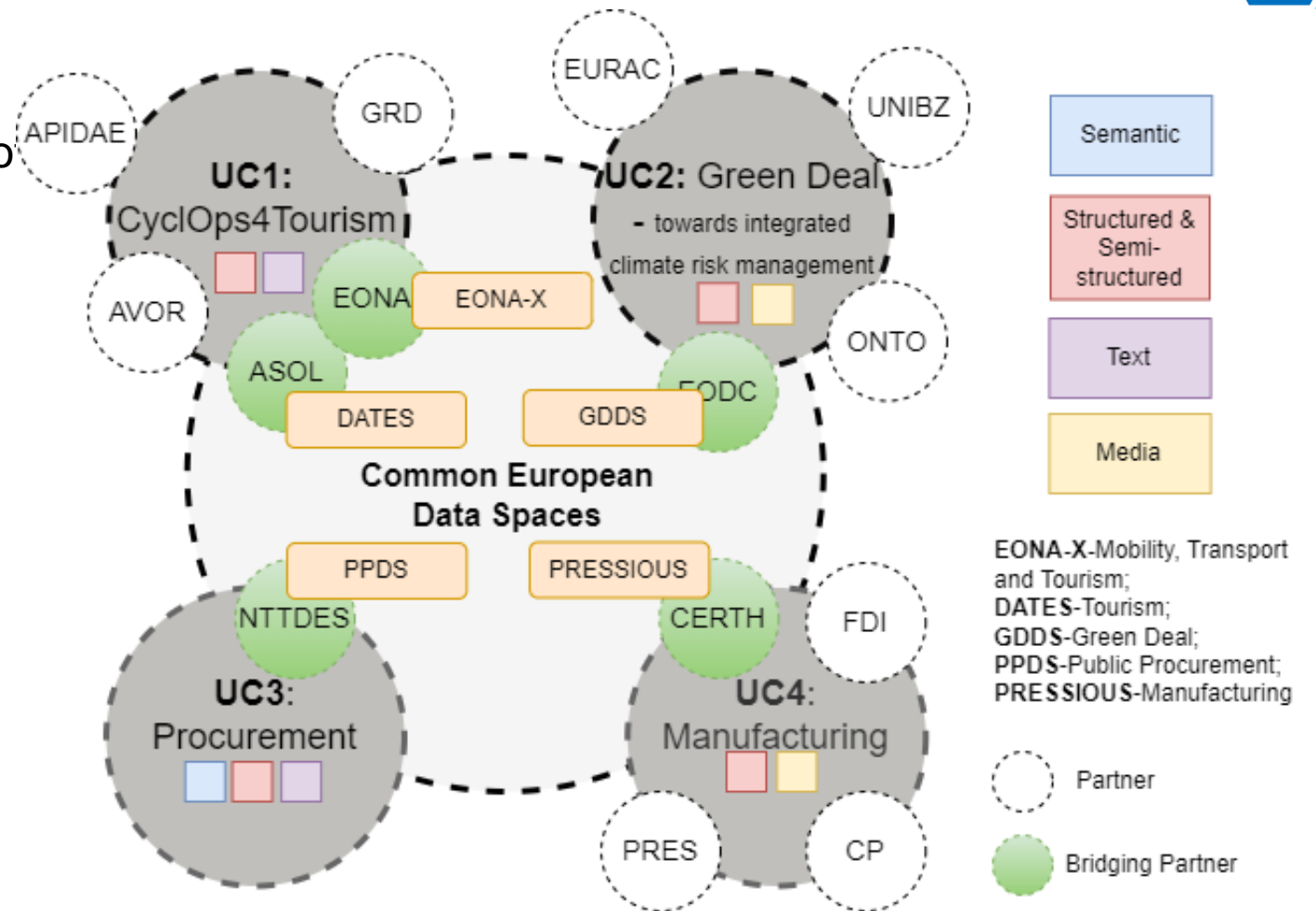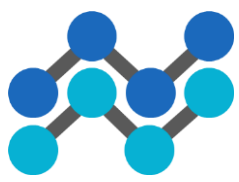
2 Deployment of **4 Use Cases** linked to the potential future EU Data Spaces
> Tourism and Mobility, Green Deal, Public Procurement & Manufacturing

Alignment with Data Spaces and Collaboration needs

DATA SPACES
SUPPORT CENTRE

Support and coordinates

Agriculture	
Cultural heritage	
Energy	
Financial	
Green Deal	Green deal data space
	Smart cities and communities
Health	European Health Data Space
	Cancer images
	Genomics
Language	
Industrial (manufacturing)	
Media	
Mobility	
Public Administrations	Legal
	Public procurement
	Security for innovation
	Once Only Technical System
Skills	
Research & Innovation- EOSC	
Tourism	

Integrate with Data Spaces about...

CyclOps

Follow

Propose

Provide & reuse

Monitor & Identify gaps

Data Spaces Landscape

European Union		China	NAFTA	Japan	...	Data regulations and strategy
DSSC	EDIB					

IDSA Data Sharing	Gaia-X Data Trust Framework	FIWARE Data models	BDVA Data Value Creation	Others	Initiatives & communities, business design, technical specs
DSBA (Data Spaces Business Alliance) Technical Convergence				(DSA, SOLID)	

Eclipse Data Space projects	FIWARE Data space components	SIMPL	Data-EX	Others	Technical implementations

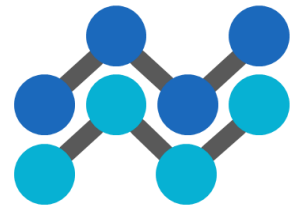| Formal Standardization Bodies ISO, ETSI/CEN/CENELEC, W3C etc.	Adoption

Source: DSBA

CyclOps

Contact and more information

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Technical Manager: Anna Queralt – UPC

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https://www.cyclopsproject.eu

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the European Union