



Common European
Data Spaces and
Robust AI for Transparent
Public Governance

CEDAR

Pre-Standardisation Paper



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Overview

CEDAR's value should be viewed within the wider European policy and regulatory context. The European Digital Decade is a policy framework established by the European Union to guide its digital transformation by 2030.

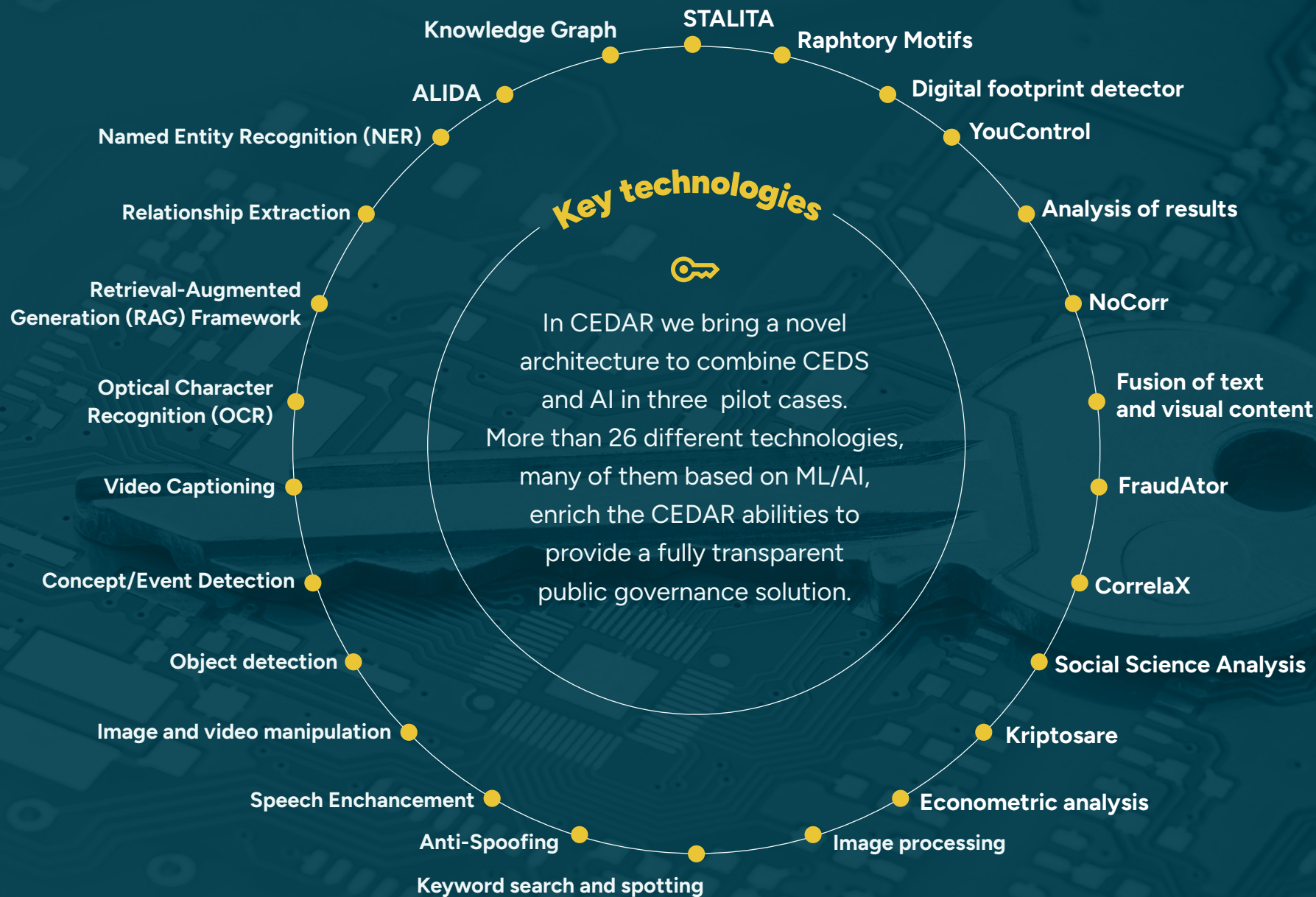
This strategy focuses on four key areas



Despite the European Strategy for Data creating Common European Data Spaces like the "Public Procurement Data Space" to fight corruption, high-value public procurement data remains inaccessible in analytics-ready, structured formats. An ecosystem of data gathering, data crunching and data sharing capabilities is needed for the public organisations to move fast forward. By addressing these data availability and quality issues, we can transform transparent governance efforts, potentially saving billions in misappropriated funds across Europe while restoring public trust in governance. A modernized approach leveraging advanced data analytics would significantly improve detection capabilities and help combat corruption's far-reaching negative impacts on European economy, society, and politics.



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Pilot Studies

01

Italian Pilot

The Italian Pilot aims at improving the transparency and efficiency of public procurement in the Friuli Venezia Giulia Region. While public procurement is regulated at the national level by the Public Procurement Code and overseen by the National Anti-Corruption Authority (ANAC), the focus of the Italian pilot is the analysis of patterns and schemas within public procurement processes.

The goal is to identify and define trends and thresholds of 'normality' and detect anomalies to enable internal corrective and monitor actions that support the efficiency and transparency of public fund usage.

Key use cases identified include negotiated procedures, analysis of demand and supply patterns in public procurement and risk assessment in evaluation bids and execution of the public contract.



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Pilot Studies

02

Slovenian Pilot

The Slovenian pilot focuses on increasing transparency and accountability in the management of public healthcare funds, with particular attention to low-value public procurement tenders.

In Slovenia, tenders below the threshold of €40,000 (goods and services) and €80,000 (construction works) are subject to fewer regulations and oversight, making them more vulnerable to irregularities.

The pilot aims to analyse historical procurement and bidding data from hospitals, integrating it with external public and private data sources to detect patterns and anomalies that may indicate fraud.

Key use cases include identifying tailored tenders that favour specific bidders, detecting bid coordination, price manipulation, purchase splitting or unnecessary purchases, and uncovering networks of potentially collusive bidders.



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Pilot Studies

03

Ukrainian Pilot

The Ukrainian pilot aims to help Ukrainian and international stakeholders — including the public, government, and donors (such as the EU) — make more effective use of open data, modern technologies, and secure practices to manage public funds and foreign aid more transparently.

The goal is to identify and prevent potential corruption and fraud risks in procurement procedures, while highlighting possible corruption risk indicators for further examination.

This will be achieved by collecting, modelling, and harmonising diverse data sources to enable multi-factor risk analysis of legal entities and their key individuals, such as owners, directors, beneficiaries, and PEPs.

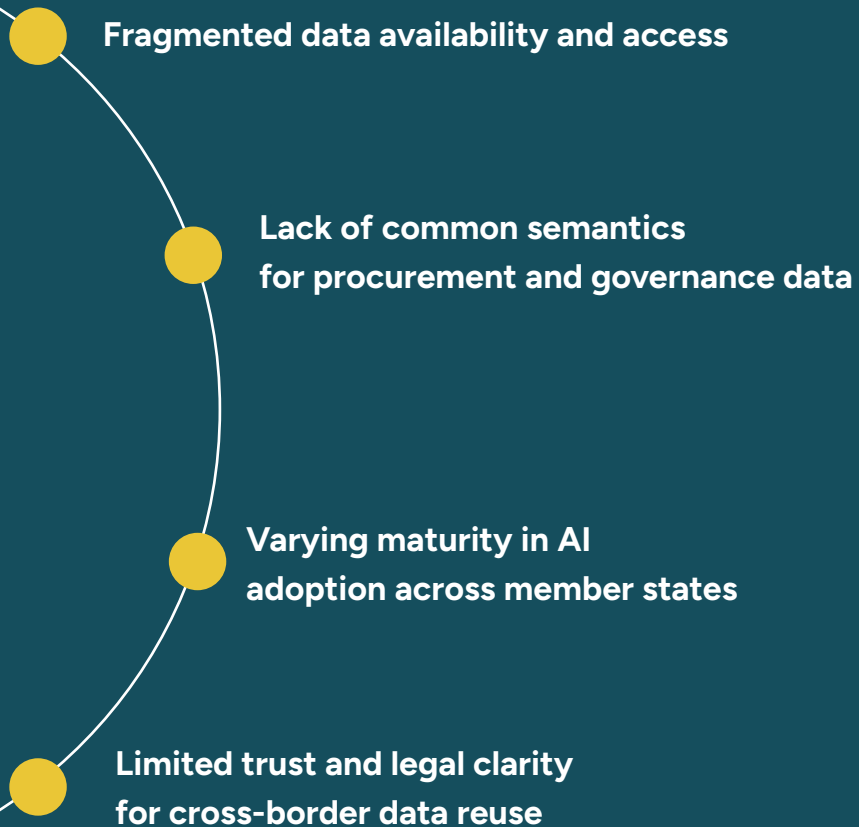
Key use cases include lack of automation in compliance, anti-fraud and anti-corruption monitoring; high-risk and low reputation tender participants; elimination of competition through bid coordination and/or tailored tenders; insufficient accessibility and transparency of anti-fraud and anti-corruption monitoring results.



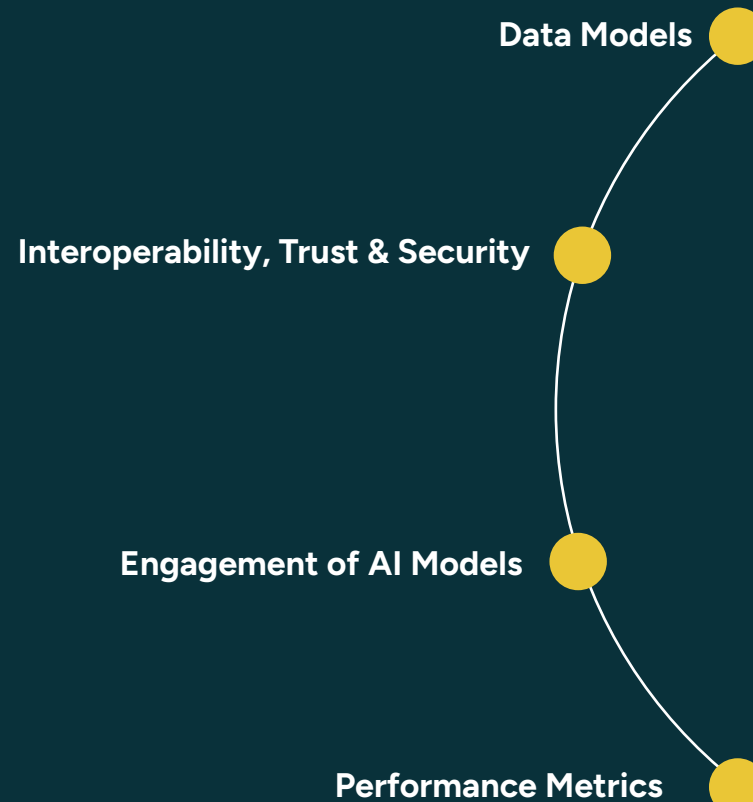
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Challenges and Standardisation Needs

Current Gaps



Standardisation Opportunities



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Cedar within the European Legal Framework

This section highlights how the CEDAR project fits into the EU Digital Decade 2030's policy framework and supports the EU's commitment to combating corruption and promoting good governance through the use of data and AI capabilities. The digitalisation of public administrations is a key priority for this decade, and the development of data analytics related to public procurement is seen as key to combatting corruption and maladministration.

Hence, CEDAR seeks to establish a safe and secure digital environment for public procurement where pseudonymised data can be shared, sustaining a competitive European economy. For CEDAR, the innovative use of public procurement data is essential to improving transparency and accountability of public spending, fighting corruption, and enhancing

spending quality, thus delivering on the European Data Strategy and European fundamental values, as established in the European Declaration on Digital Rights and Principles. However, public procurement data are scattered over several systems in the Member States, made available in different formats, and not readily usable. Such fragmentation and lack of standardisation hampers the reuse of data, thus hindering the European Data Strategy's ambitions, and practically slowing public tenders and their efficiency.

This is why CEDAR, with its focus on the Common European Data Spaces and AI technologies, plays a pivotal role in addressing those challenges, providing enriching datasets and an interoperable data space for the needs of the public administration. By pursuing its objectives, the CEDAR project significantly contributes to the European Data Strategy on two key fronts.

Cedar within the European Legal Framework

The project generates and shares over ten high-quality datasets to promote transparency and accountability in European public governance. This includes digitising data from public administration archives and creating synthetic data to increase the quality of real- world data. Additionally, the project focuses on developing robust AI and machine learning tools for analysing these datasets.

This demonstrates CEDAR's capability to process large volumes of data, meeting one of the key expected outcomes of Horizon Europe, under which the project is funded.[1] Moreover, small and medium-sized enterprises (SMEs) are the backbone of the CEDAR consortium, reflecting Horizon Europe's commitment to supporting SME participation and innovation across Europe.

The technological advancements from this initiative support the development of responsible and serviceable AI solutions based on valuable public procurement data.

Secondly, CEDAR contributes to the European Data Strategy by establishing an inclusive, federated, and privacy-preserving common data space. This data space is developed with a strong emphasis on interoperability with the evolving Common European data spaces and is aligned with existing data architectures to ensure seamless integration. Indeed, the Project develops interoperable and safe connectors and APIs to enrich the 6+ Common European Data Spaces and will create links with the Data Spaces support centre funded under the Digital Europe Programme. In particular, CEDAR will enhance the Public Procurement Data Space while adopting a more holistic approach, integrating diverse data related to public governance.

This Project will facilitate the reuse of underutilised data, enabling it to flow freely throughout the public administration of the European Union. The ultimate objective is to benefit businesses, researchers, and public administrations.

Cedar within the European Legal Framework

In doing so, the CEDAR Project aligns with two other vital pieces of the EU Data strategy, namely the European Union's Data Governance Act and the Open Data Directive. The first provides mechanisms that facilitate the reuse of specific categories of data held by public sector bodies, while the second focuses on reusing publicly available information held by the public sector. As mentioned, by providing a secure processing environment, CEDAR can make data more accessible and interoperable, enabling reuse in a secure environment.

Through these efforts, CEDAR adheres to the principles outlined in that two legislation and actively contributes to creating a unified and efficient European data ecosystem.

Although efforts to open up and reuse publicly held datasets are long established, data sharing across Europe and interoperability are still in their early stages, and very few data spaces for public procurement data exist.

Data sharing is crucial among public administrations, as they often need to communicate with one another to gather information before delivering a response to the end user.

This exchange occurs primarily locally and significantly at regional, national, and European levels, necessitating smooth interoperability. Insufficient interoperability causes these data sources to be unreachable, leading to administrative processes that are both overly expensive and time-consuming, creating a burden for citizens, companies, and the administrations themselves.

Fundamentally, interoperability focuses on reaching shared objectives collaboratively, irrespective of the organisational or geographical gaps between participants. With its data space, CEDAR will support the reuse and sharing of pseudonymised data between public administrations across Europe.

Cedar within the European Legal Framework

In addressing these challenges, the CEDAR project delivers on the Interoperable Europe Act's mission to reinforce interoperability among public administrations in the EU. This Act facilitates collaboration among administrations, ensuring that public services operate smoothly across territorial, sectoral, and organisational boundaries while preserving their sovereignty at every level of government. The interoperable Europe Act provides, among others, support for the GovTech policy initiative, which aids in implementing innovative technological solutions in public sectors. It fosters collaborations between governmental bodies and private sector entities, particularly start-ups and small to medium-sized enterprises, to develop technology-driven solutions that streamline administrative processes, elevate service quality, and bolster transparency. The CEDAR project exemplifies alignment with the objectives of the Interoperable Europe Act by promoting collaboration between public administrations and innovative SMEs to develop interoperable digital solutions. By adhering to GovTech principles, CEDAR contributes to establishing a network of interconnected digital public administrations, facilitating seamless delivery of public services across borders and enhancing the EU's digital transformation initiatives.

In conclusion, the CEDAR project exemplifies how a forward-looking, data-driven initiative can serve as a cornerstone for the EU's broader digital transformation goals. By directly contributing to the EU Digital Decade 2030 and the European Data Strategy, it reinforces the commitment to building a secure, fair, and competitive digital environment. Crucially, CEDAR advances the standardisation of public sector data, making it interoperable, reusable, and aligned with emerging Common European Data Spaces. This upholds the Interoperable Europe Act, the Open Data Directive, and the Data Governance Act, ensuring seamless, secure data flows across borders.

Cross-project collaborations

1



CEN/CENELEC JTC 21
"Artificial Intelligence"
(CEN/CLC JTC 21)

2



BDVA
(Big Data Value Association)
Task Force for Data Spaces

3



**AI Data and Robotics
Association**
(Adra)

4



**Data Spaces Support
Centre Technology Thematic
Group (DSSC)**




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