Atos Cognitive Data Framework

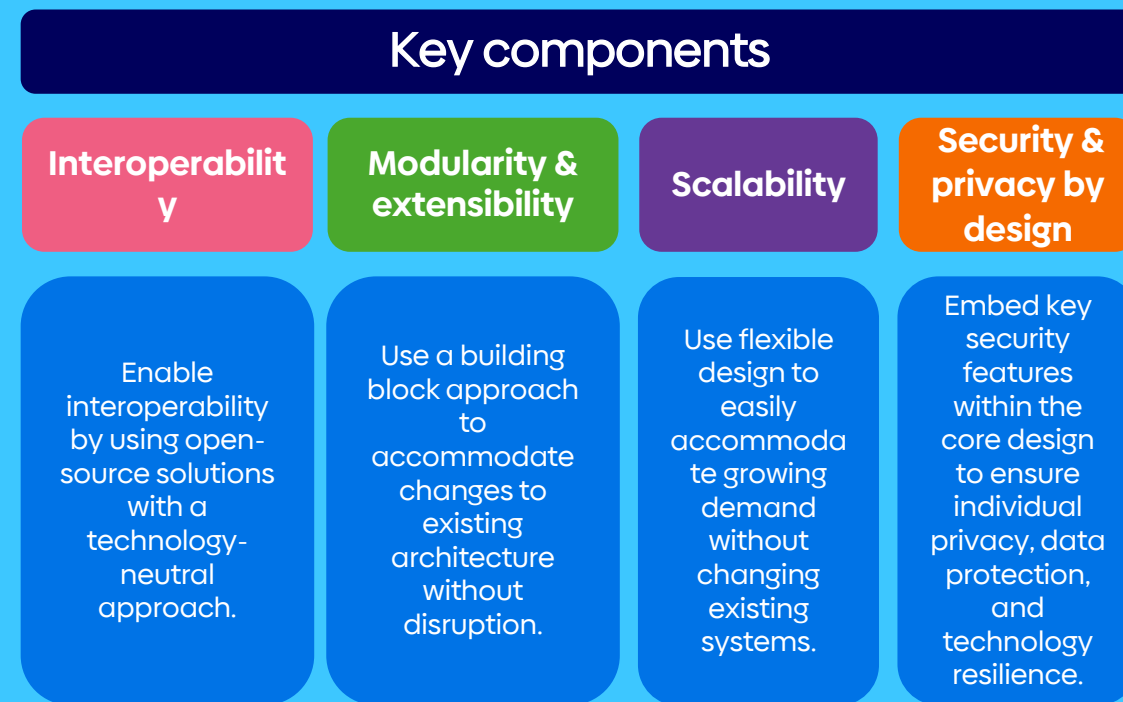## Next-Gen Data Framework for People Centered Smart Cities

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Atos pave the way to the people-centered smart city with its Next-Gen Data Framework

Following the guidelines of the Fiware Foundation, the G20 and UN-Habitat, **Atos** has combined its extended knowledge, experience and resources with the support of its global partners ecosystem to deliver an end-to-end 'people-centered Smart City Framework', the '**Cognitive Data Framework**'.

This unique framework of Atos Cognitive Data Framework, created to foster **SDGs11** achievement, is leveraging Digital Public Goods (DPGs) such as open software, open data, open content, open standards, and open AI models, creating a trusted environment for the combination and processing of data of different sources (**data ecosystem**), and providing technical assistance to facilitate the development and the adoption of data-driven policy and decision making.

Key components

Interoperability	Modularity & extensibility	Scalability	Security & privacy by design
Enable interoperability by using open-source solutions with a technology-neutral approach.	Use a building block approach to accommodate changes to existing architecture without disruption.	Use flexible design to easily accommodate growing demand without changing existing systems.	Embed key security features within the core design to ensure individual privacy, data protection, and technology resilience.

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Atos Cognitive Data Framework.
Make your life easier.

Founded on a **cutting-edge solution**, the Cognitive Data Platform empowers authorities an organizations to deliver state-of-the art smart services.

It is the corner stone of a "system-of-systems" or "platform-of-platforms", secured by design, breaking the data silos.

The Cognitive Data Framework enables integrated and personalized service matching the digital and physical world, leveraging Big Data Analytics and Artificial Intelligence delivering high-quality (public) service experiences to your citizens, guests and entrepreneurs.

With its open standard APIs (Application Programing Interface), it connects heterogenous data sources, breaks barriers between people & technology and increases cooperation between the multiple partners and users.

Atos Cognitive Data Framework

IoT & RT Data

Make your different IOTs communicate with each other.
Fiware framwork based Data Platform
Real time data is enriched by referential data from your organization or external.
Many connectors available out of the box capacity to quickly build and deploy specifics one if needed.

Data monetization

Create new valuable services.
Generate revenue with your data.
Develop a global data ecosystem.
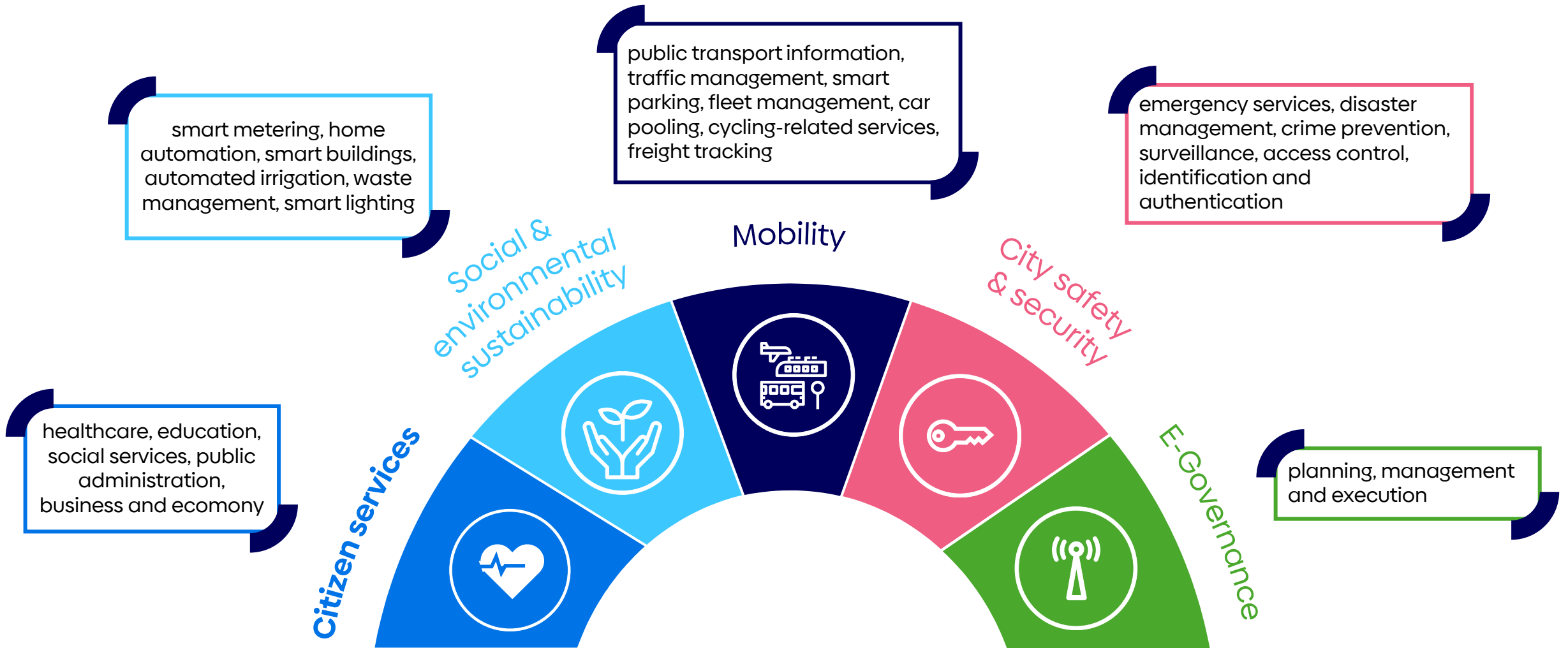Open data exposition of selected data.

Datalake & data management

Open source based modular platform.
Independent from any hyperscaler.
Capability to deploy on public, private and hybrid cloud.
Interconnection with tools from market-leading publishers like informatica, cloudera, amazon, microsoft and google.

Ready to use solution for crucial / essential smart services

Cognitive Data Platform enables public authorithies to create an open data ecosystem and provide a single access point for data-driven services.

smart metering, home automation, smart buildings, automated irrigation, waste management, smart lighting

public transport information, traffic management, smart parking, fleet management, car pooling, cycling-related services, freight tracking

emergency services, disaster management, crime prevention, surveillance, access control, identification and authentication

healthcare, education, social services, public administration, business and ecomony

planning, management and execution

Social & environmental sustainability

Mobility

City safety & security
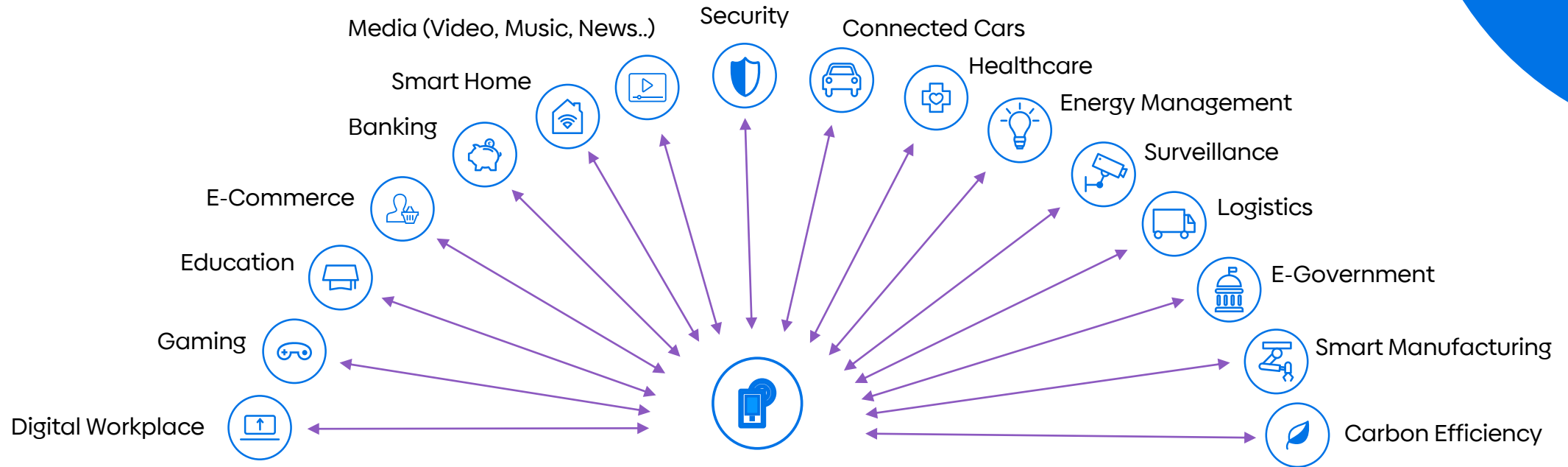
Citizen services

E-Governance

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Empowering key players in the marketplace ecosystem

Atos Cognitive Data Framework enables and orchestrates value chains within the extended data-driven ecosystems build of the society. One in which stakeholders of the ecosystem (organizations, partners, suppliers and users) can, manage and monetize services with transparency and contractual guarantees of how data will be used and protected.

Empowering key players in the marketplace ecosystem

Media (Video, Music, News..)
Security
Connected Cars
Healthcare
Smart Home
Energy Management
Banking
Surveillance
E-Commerce
Logistics
Education
E-Government
Gaming
Smart Manufacturing
Digital Workplace
Carbon Efficiency

Service Aggregation

- Marketplace for public and private bodies
- One-stop shop (Amazon-like)
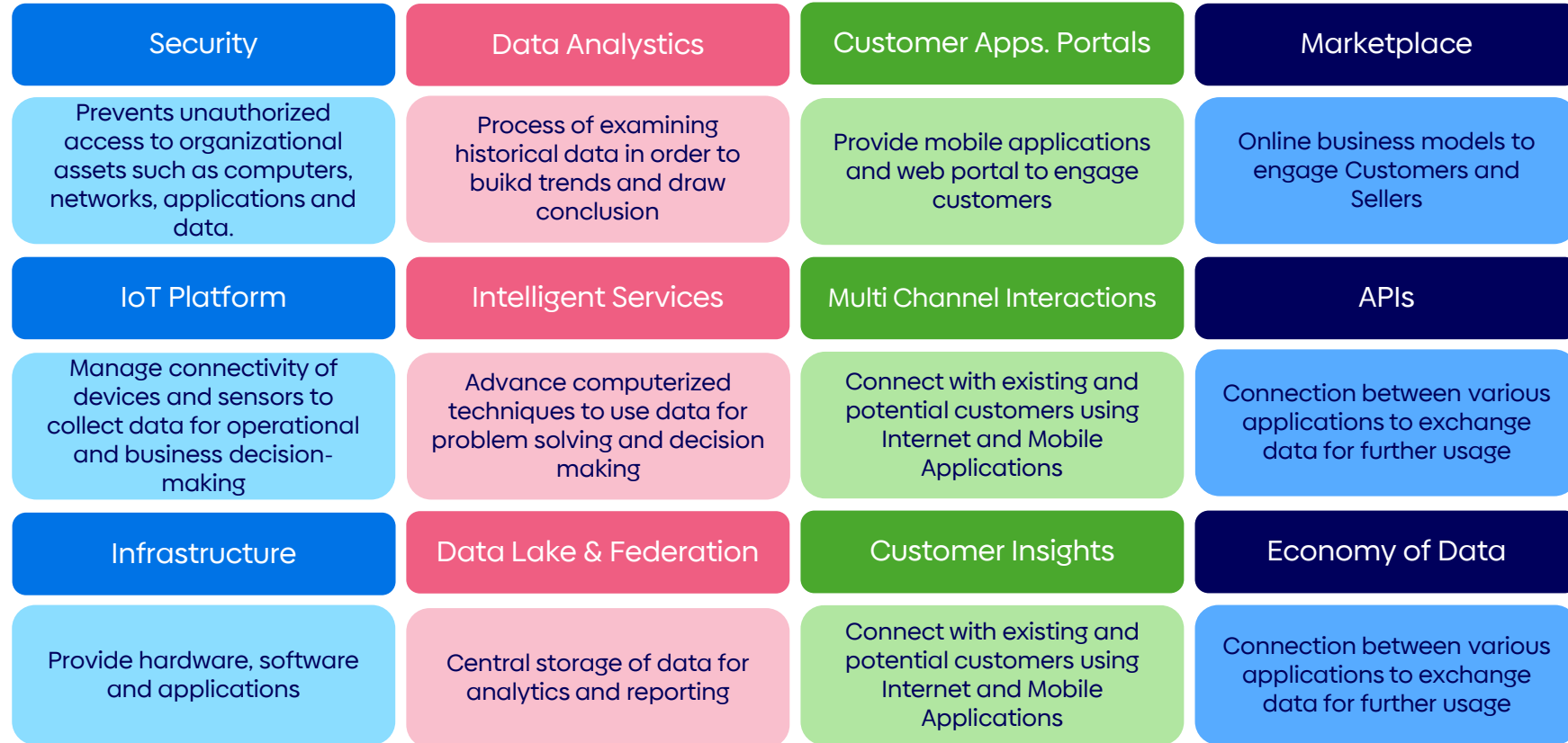- Unified delivery, tracking, payment

Cross-Service Intelligence

- Leverage unified customer data and intelligence, e.g.:
  - Location-based parking assistance
  - Loan and insurance based on e2e customer behavior
  - Sponsored data for value-adding services

Communities

- Personalized experience
- Dedicated services
- Self-assistance from members

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Key components of Cognitive Data Framework

Security	Data Analystics	Customer Apps. Portals	Marketplace
Prevents unauthorized access to organizational assets such as computers, networks, applications and data.	Process of examining historical data in order to buikd trends and draw conclusion	Provide mobile applications and web portal to engage customers	Online business models to engage Customers and Sellers
IoT Platform	**Intelligent Services**	**Multi Channel Interactions**	**APIs**
Manage connectivity of devices and sensors to collect data for operational and business decision-making	Advance computerized techniques to use data for problem solving and decision making	Connect with existing and potential customers using Internet and Mobile Applications	Connection between various applications to exchange data for further usage
Infrastructure	**Data Lake & Federation**	**Customer Insights**	**Economy of Data**
Provide hardware, software and applications	Central storage of data for analytics and reporting	Connect with existing and potential customers using Internet and Mobile Applications	Connection between various applications to exchange data for further usage

1 Information Systems & Data services

2 Intelligent Insights & Data Analytics

3 Customer Experience

4 Eco System

- Provides the physical infrastructure and hybrid cloud approach to enable hosting of various smart services.
- Enabled strong cyber security and authentification of services and users usig te services and/or data transferring and sharing.

- Provides an intelligent insight to data and patterns of service usage.
- Data from services can ben analyzed and to help with data driven decision making promotions and marketing campaigns.

- Enable various services that are hosted on the common data platform that can be utilized by general users.
- Improve overall user experience and journey.

- Enables connecting and data compliance of services hosted on the common platform.
- Provision of economy of scale and effeciency on services/products provided in the marketplace.

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Build / create your city of tomorrow. Take the next step today

Unleash the power of data to improve quality of life

To find out more about sustainable and human-centric Cognitive Data Framework, please get in touch with our experts.

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About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

Find out more about us

atos.net

Let's start a discussion together

About Tech Foundations

Tech Foundations is the Atos Group business line leading in managed services, focusing on hybrid cloud infrastructure, employee experience and technology services, through decarbonized, automated and AI-enabled solutions. Its 52,000 employees advance what matters to the world's businesses, institutions and communities. It is present in 69 countries, with an annual revenue of € 6 billion.