How CSI Piemonte is apifying the Public Administration

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Digital Transformation Drivers

Digital Ecosystem Governance

Platform Setup and evolution

We are one of the most
important **Italian tech companies**.

We create **digital public services**
enhancing the daily lives of citizens and businesses.



A reliable public partner

WE WORK TO CREATE A DIGITAL AND CONNECTED COUNTRY

As technological **partner of 136 public institutions**, we support the digital transformation of Italy.



47 years of Digital Governance

OUR EXPERIENCE COVERS ALL PUBLIC ADMINISTRATION SECTORS

We offer to every institution, bigor small, a solution that is perfect for its **digital growth journey**.



Agriculture
and rural development



Environment
and energy



Tourism and cultural heritage



Demography



Finance, taxes
and anti-fraud



e-learning services



Labour market
and VET



Health



Territory management
and cartography



Public transport and
sustainable mobility

CSI | Digital Ecosystem Driver in the Public Administration Domain



DIGITAL SERVICES
FOR CITIZEN AND BUSINESS



TECHNOLOGY
FOR INTEROPERABILITY

CSI | API defnition

Application Programming Interfaces **(APIs)** are machine-to-machine digital interfaces that facilitate the **exchange of data and services**

APIs are **technical contracts** that can be seen as software products that produce business

APIs are software-based intermediaries that **allow businesses to to share their assets** to internal or external audiences and supercharge their capabilities

Business driver



velocity



availability

innovation



Sharing information



CSI | Velocity

- Rapid prototyping of services
- Speed in the API development process
- Rapidity in the management of SW change



CSI | availability

- Sharing IT assets to third parties, social networks
- New user families and greater visibility of services
- Segmentation of internal and external users



CSI | Innovation

- APIs as an accelerator of innovative service
- Omni-channel development
- COVID: accelerator of digital transformation
- Low-code and no-code API delivery



CSI | Sharing

- Sharing data and function
- Organization of services by areas
- Design of cross-cutting and reusable services



CSI | Governance of the Piedmont digital ecosystem

GOVERNANCE



Reliability, scalability, and availability
Availability H24 7x7



API Portfolio
Organization of services by scope and entity



Privacy GDPR
Compliance

TECHNOLOGICAL ADDRESS



Guide lines
Design and development of API
Open API standards



Catalogue API + Gateway HA
Internet exposure, Audit, dynamic scalability



Running ed evolution
Running API, cloud strategy

GOVERNANCE



Interoperability
According to guidelines set up by Italian institutions

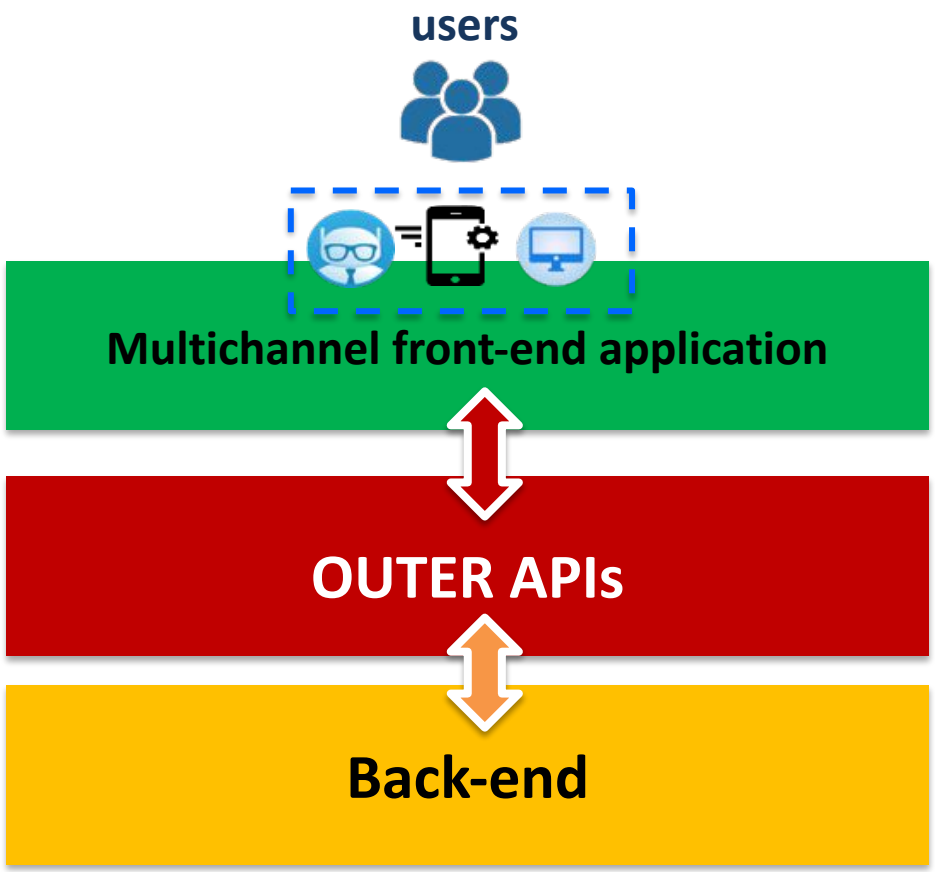


Support API
Support the use of APIs



Security
Secure access to API

CSI | Service layer design

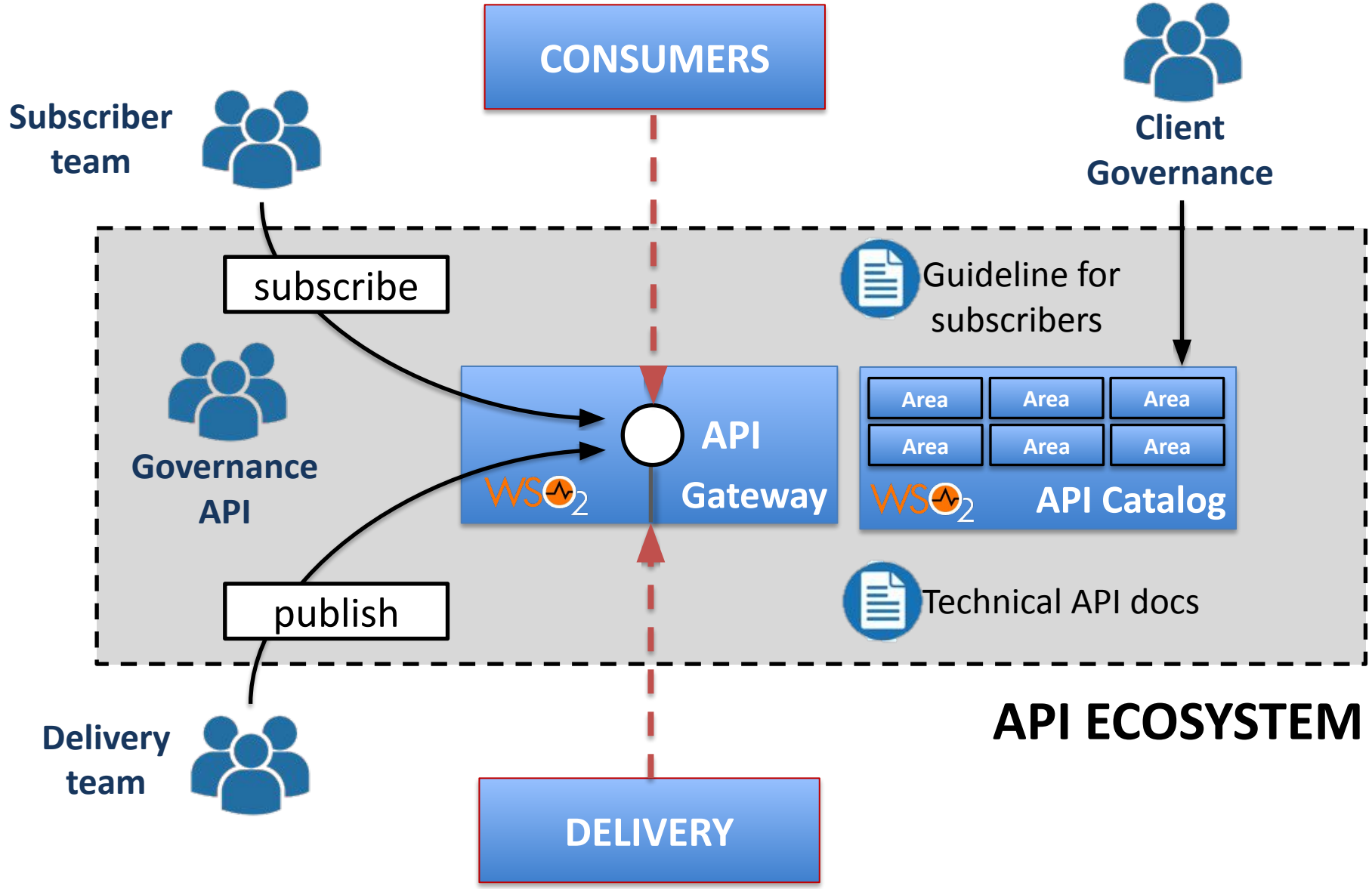


Decoupling of back-end and front-end systems

Dedicated layer for defining APIs for front-end channels

APIs can contain orchestration, transformation, and service composition logic

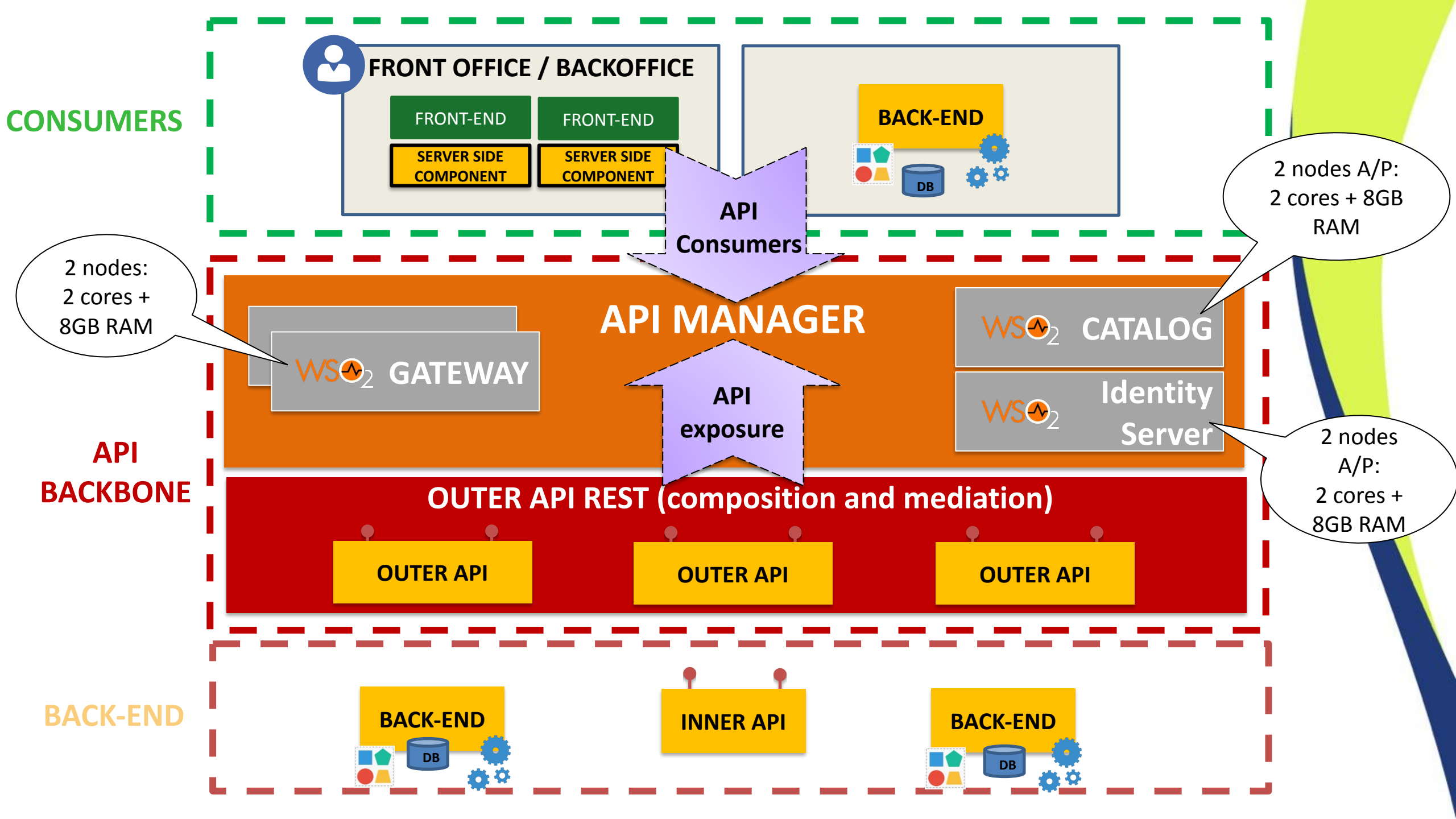
CSI | Ecosystem actors



API MANAGER Statistics

137 APIs	API in production with at least one user
167 APPS	Application that use at least one API
105 USERS	Distinct USERS who own at least one consumption APP or API delivery
100 INSTITUTIONS	INSTITUTIONS, COMPANIES, PRIVATE individuals accredited to the API STORE

5 million hits per month


CONSUMERS
FRONT OFFICE / BACKOFFICE
FRONT-END
FRONT-END
SERVER SIDE COMPONENT
SERVER SIDE COMPONENT
BACK-END
DB
API Consumers
2 nodes A/P: 2 cores + 8GB RAM
2 nodes: 2 cores + 8GB RAM
API MANAGER
GATEWAY
CATALOG
Identity Server
API exposure
API BACKBONE
OUTER API REST (composition and mediation)
OUTER API
OUTER API
OUTER API
2 nodes A/P: 2 cores + 8GB RAM
BACK-END
BACK-END
DB
INNER API
BACK-END
DB



focus on interoperability framework in Italy

Promoted by AGID - Agency for Digital Italy
National Agency that operates under the supervision of the Presidency of the Council of Ministers

PDND - National Digital Platform for Data
The PDND is a strategic project with the purpose of enhancing interoperability of public information

Guideline interoperability
Set of development guideline and standard
comply with the **E**uropean **I**nteroperability **F**ramework

Upgrade API Manager

Move from WSO2 APIM 4.1 to 4.3

Implement Italian interoperability framework standard

API Management on Kubernetes

Design API strategy within on Kubernetes environment

Seamless integration, scaling and robust security for microservices

Data play a pivotal role in enabling AI-powered systems

Data are crucial for training and refining AI models and ensuring their effectiveness in real-world applications

Data APIs are essential in facilitating the interaction of AI systems

Thanks

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