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Finanziato
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NextGenerationEU



MINISTERO
DELLA
CULTURA

DIGITAL LIBRARY
Istituto centrale per la digitalizzazione
del patrimonio culturale



Ecomonic
ecosistema
digitale per
la cultura

Ecomonic digital ecosystem for culture

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Digitalization of Cultural Heritage – Digital Library



fine debbe ciaschaduno sollicitamēte curare di puer
si ināzi che uēga a la morte di uno cōpagno o uero amico di
uoto adapto & fedele che ne lo extremo de la morte fidelmē
te gli stia presente & che lo uēga sollicitamēte a i citare & ina
nimare a la cōstātia & a pseuerātia ne la fede & che finalmen
te quādo egli e nella agonia de la morte dica fidelmēte cū de
bita & diuota attētiōe le oōni sopra decte . Aduēga dio che
a la efficacia de le oōni sia necessaria la dispositiōe de la pso
na che muore come expressamēte e stato decto nela materia
precedēte de larte del morire bene cioe secōdo dio & salute d
laia. Et po a ciaschaduno che uuole bene & sicuramēte mori

Agenda

This presentation introduces Ecomic, the digital ecosystem for culture, a strategic initiative launched by the Central Institute for the Digitalization of Cultural Heritage (Digital Library) with the aim of supporting the digital transformation of the cultural heritage sector in Italy, thanks to investments from the National Recovery and Resilience Plan (Next Generation EU).

1. Context

The Central Institute for the Digitisation of Cultural Heritage and the investments funded by Next Generation EU

2. Ecomic, digital ecosystem for culture

Competences and technological solutions to support the digital transformation of the cultural heritage sector

3. D.PaC, I.PaC, DPaaS, Access portal

Insight into the value proposition of the main systems produced by Digital Library for Ecomic

01/

Digital Library and the National Digitalization Plan (PND)

Background



Digital Library

The Central Institute for the Digitalization of Cultural Heritage – Digital Library – was established in 2020 to **coordinate and promote the digitalization programs of the Ministry of Culture** (Articles 33 and 35, Prime Minister's Decree, December 2, 2019, No. 169).



Mission

Its mission is to support institutions and cultural sites in their digital transformation, by improving the management of preserved assets, redesigning the interaction with cultural heritage, and developing **new value creation models within an ecosystemic logic**. Digital Library defines the reference framework within which each institution can design its own transformation path.

Digital Strategies and Platforms for Cultural Heritage

Overview of the 12 sub-investments funded by NextGeneration EU

Enabling services		Production services		Document management and preservation services		Access services	
1	National Digitalization Plan	5	Digitisation of cultural heritage	8	Digital preservation cluster	10	Integrated access platform - Digital Library
2	Cultural heritage digital identity certification system	6	Training and skills upgrading	9	Portal of procedures and services to the citizen	11	Co-creation and crowdsourcing platform
3	Cloud infrastructure	7	Operational support			12	Digital service platform for developers and enterprises
4	Cultural heritage software infrastructure						

Total investment: € 500 million

The National Digitalization Plan provides the strategic vision to promote and organize digital transformation across the different domains of the cultural ecosystem

02/

Ecomic, digital ecosystem for culture

Towards a definition for Ecomíc

Ecomíc is the Digital Ecosystem for Culture, promoted by Digital Library to realize the digital transformation of Italy's cultural heritage.

At its core is a technological backbone that provides services supporting the entire lifecycle of digital cultural assets.

These services are aimed at designers and managers of digital cultural services — the actors of Ecomíc — who, in turn, deliver solutions to their target audiences — the recipients of Ecomíc.

Ecomíc is a collaborative environment where skills, technologies, and organizational models converge in an ecosystemic approach to generate cultural, social, and economic value.



Ecomic's technological backbone

This infrastructure is composed of three systems developed by Digital Library

I.PaC, Infrastructure and Services for Cultural Heritage

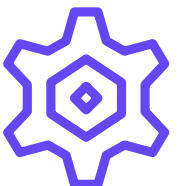
Hosts the digital heritage and provides tools for metadata enrichment and data management

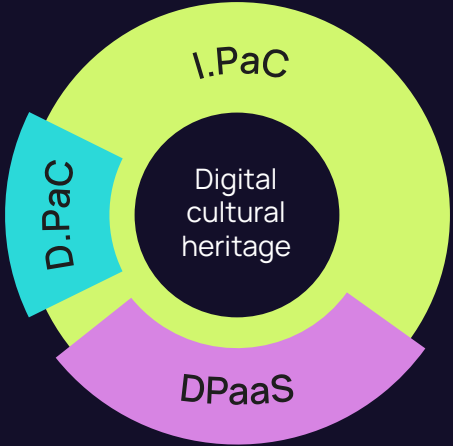
D.PaC, Digitalization of Cultural Heritage

Supports digitization campaigns in compliance with PND guidelines

DPaaS, Data product as a service

A development lab for creating innovative, data-driven cultural software





Lifecycle of Digital Cultural Assets

The technological backbone of Ecomic supports the entire digital asset lifecycle



1. Production

Acquisition and ingestion of new digital resources



2. Enrichment

Enhancing data with semantic metadata



3. Management

Create, read, update and delete digital assets



4. Access

Exploration and creation of “cultural landscapes”



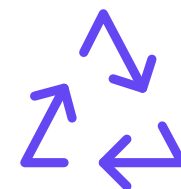
5. Transformation

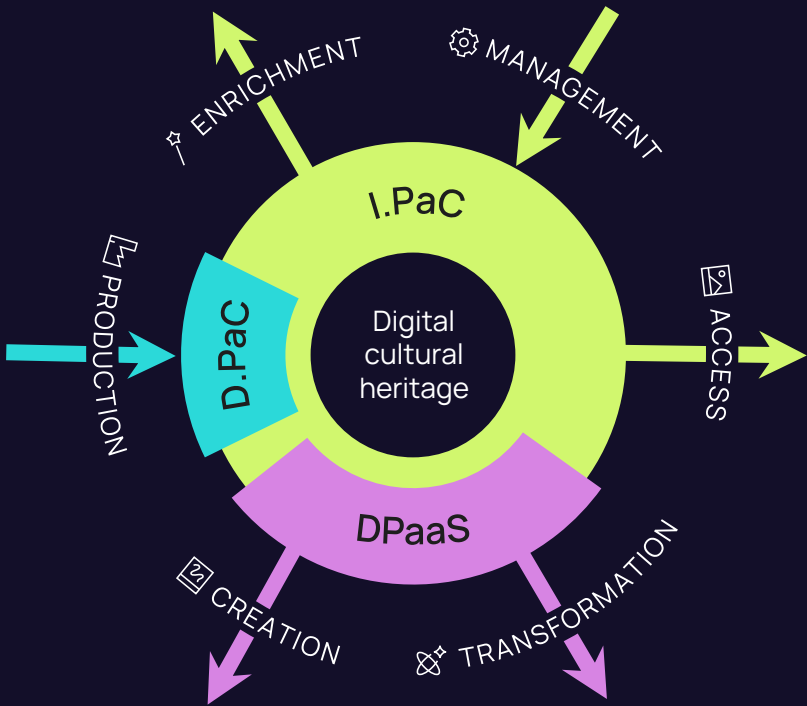
Reprocessing data for research and reuse



6. Creation

Generating new services and products for cultural valorization





Digital Services enabled or enhanced by Ecomic

Ecomic's services power and enhance digital solutions that leverage cultural data

1. Management services

They include services provided by platforms for the organisation, management and preservation of digital cultural assets

E.g. heritage cataloguing services, archival management services, Library management system, etc.

2. Access services

Services displayed by digital cultural resources access portals and aggregation systems on a local, national and international basis

E.g. digital libraries, web portals and applications of cultural venues, cultural aggregators, etc.

3. Value-added services

Services that use digital content and reprocess it to generate added value, for exhibition, educational, editorial or commercial purposes

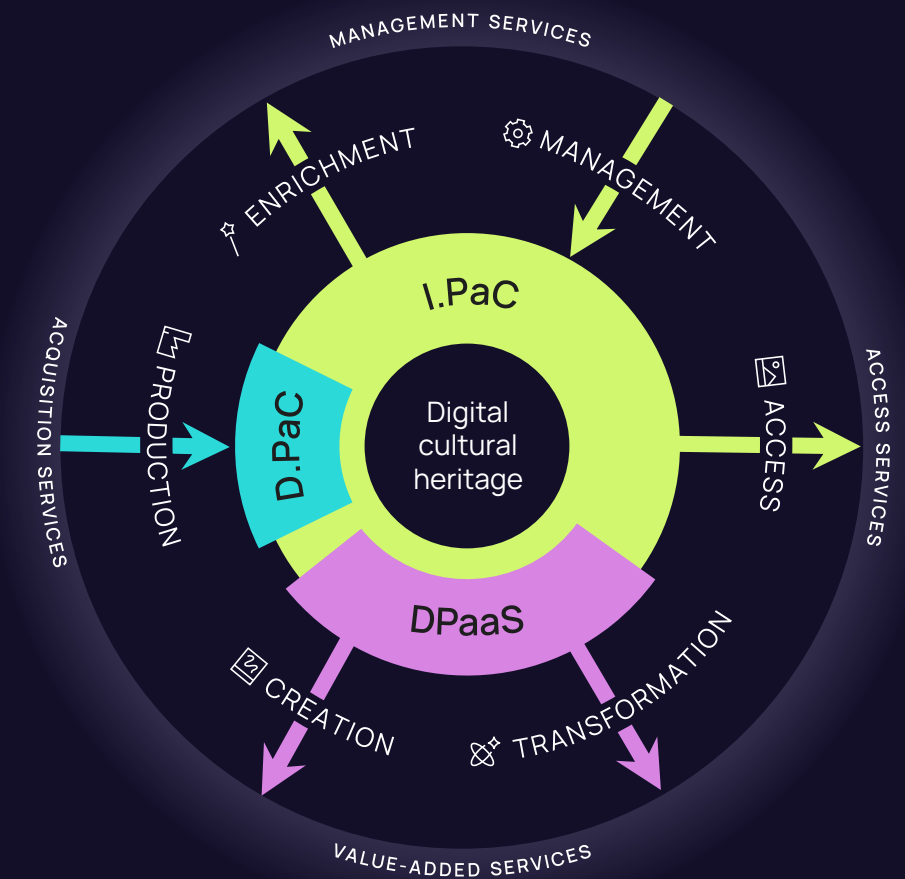
E.g. solutions to improve accessibility, 'advanced use' of cultural heritage, creation of new content

4. Acquisition services

Services supporting the production processes of new digital resources related to different cultural heritage domains

E.g. digitisation and metadata tools, systems for creating three-dimensional models





Actors of Ecomic

Ecomic's technological backbone offers solutions to enhance digital services designed and managed by 'Actors' for the benefit of their target audiences ('recipients')

CONSOLIDATED SEGMENT



Public and private cultural heritage holders

Interested in improving the management of their cultural assets and the quality of services offered to the public



Regional, national, and international authorities

Interested in improving the governance of cultural heritage and enhancing their territories

OPERATIONAL SEGMENT



Universities and research institutes

Interested in developing collective knowledge with research projects based on cultural data



Cultural valorisation professionals and enterprises

Interested in the use and re-use of cultural resources to realise new paths of fruition and content

OPEN SEGMENT



Cultural, creative, and tech companies

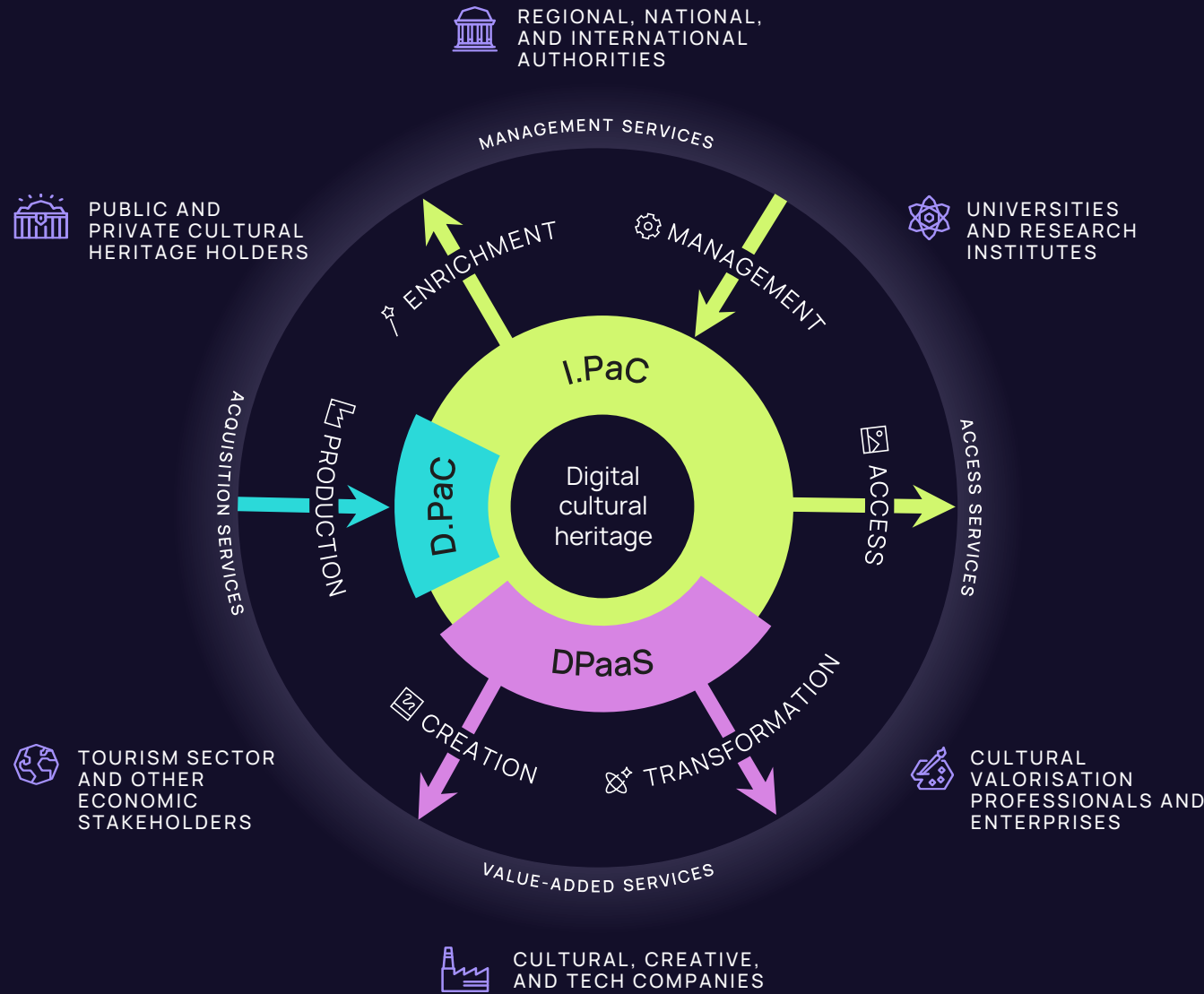
Interested in exploiting heritage data to create innovative cultural products and services

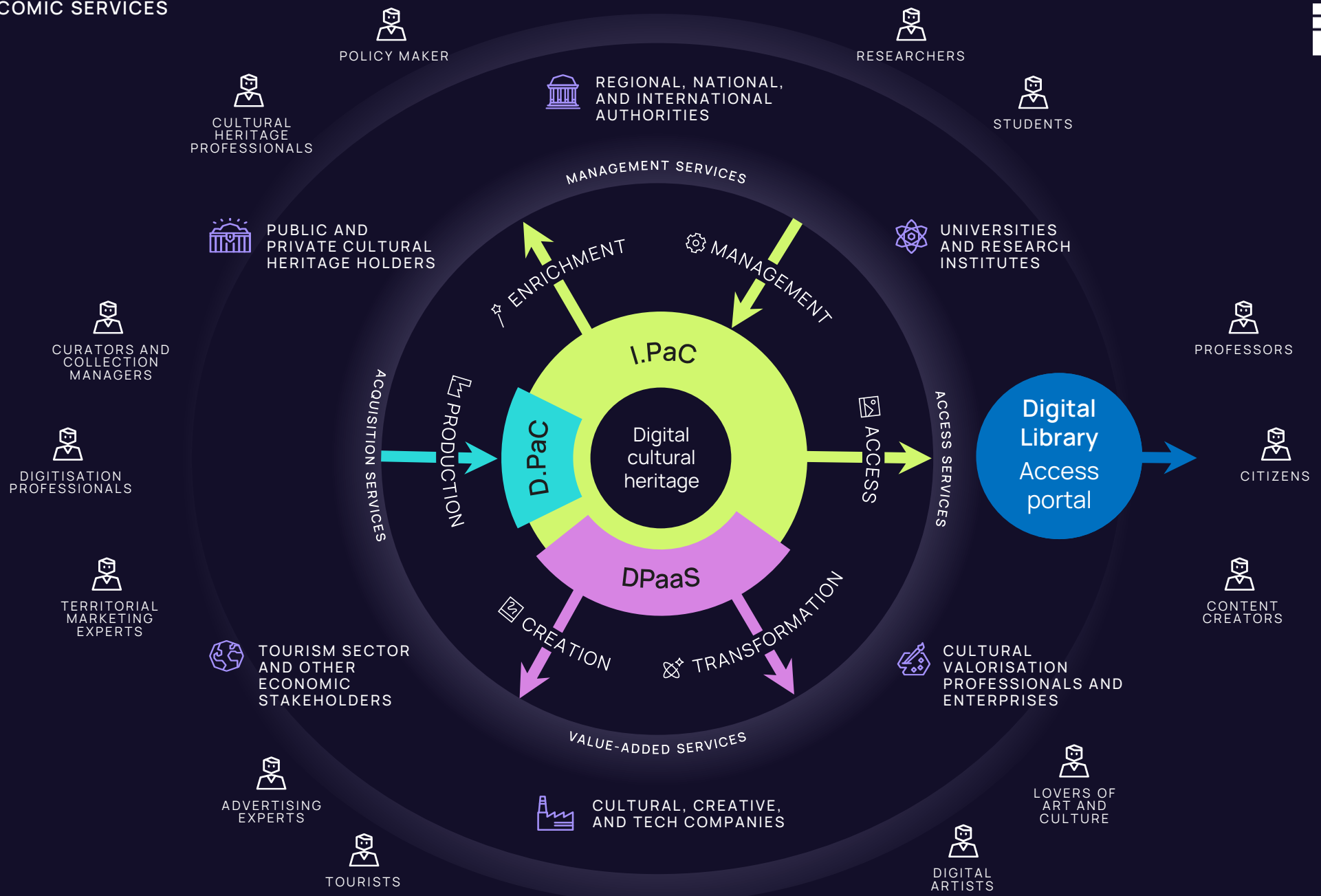


Tourism sector and other economic stakeholders

Interested in activating synergies between cultural heritage and their own value propositions







03/

D.PaC, I.PaC, DPaaS and the Digital Library Access Portal

D.PaC

Digitisation of Cultural Heritage



ACTORS

Who wants to digitise cultural heritage

Modular software platform for planning, managing and monitoring cultural heritage digitisation campaigns

- Cloud solutions for data transfer
- Planning and monitoring tools
- Digital and metadata quality validation

Main services



Planning

Configuring and monitoring the activity plan



Description

Drafting of digitised resource descriptions



Upload

Importing digital resources into Ecomic's database



Document management system

Structured management of digitisation site documents



Validation

Support for the validation of new acquisitions



Business intelligence

Project progress monitoring with dashboard

I.PaC

Infrastructure and services for cultural heritage



ACTORS

Who manages data and provides access to it

Technological engine of the Ecosystem, hosting digitised cultural heritage and offering technological services to enrich and enhance the data

- Hosts digital cultural heritage
- Enriches data with advanced technologies
- Offers services based on artificial intelligence

Main services



Digital asset management and processing

Tools for the preservation, processing and presentation of digital resources contributed to I.PaC



Domain and cross-domain knowledge graphs

Describe semantic relationships between cultural goods, for the first time also linking goods from different domains



Artificial intelligence

I.PaC's AI services extract more information from digital resources and can create new content



Multimedia showcase

Widget enabling integrated systems to manage digital assets through their systems

DPaaS

Data product
as-a-service



ACTORS

Who work with data and develop technologies

'Laboratory' offering companies technology services and a development environment to create innovative data-driven products in a simple and scalable way, to meet, for example, analysis, valorisation, diagnostic needs

- Simplifies access to data for businesses
- Enables the use of advanced technological services
- Facilitates supply/demand matching

Main services



Expression of innovation needs

Cultural institutes can report their needs
e.g. a chatbot to improve research



Combination of different datasets

The laboratory allows the combination of datasets extracted from I.PaC with each other and with other relevant datasets



Enabling technology services

Access to technology services such as generative AI and NER, with online configuration possibilities



Scalable and reusable solutions

Solutions can simply be reused in different contexts,
e.g. to create ad hoc chatbots

Digital Library Access Portal



RECIPIENTS

Who benefits from the digital cultural offer

Portal that exposes the entire digital cultural heritage to the public and offers advanced functions for the exploration and creation of new content

- Allows the exploration of cultural heritage
- Exposes valorisation applications
- Enables the creation of new digital content

Main services



Exploration of digital cultural heritage

Cultural institutes can report their needs e.g. a chatbot to improve research



Display of tools for reuse access

The portal exploits applications, also AI-based, that enable access and re-use of digital assets



Crowd-sourcing campaigns

Experts and enthusiasts can collaborate on initiatives to improve information on digital resources



Links thematic and local portals

Digital Library wants to enable new content navigation paths in the culture infosphere



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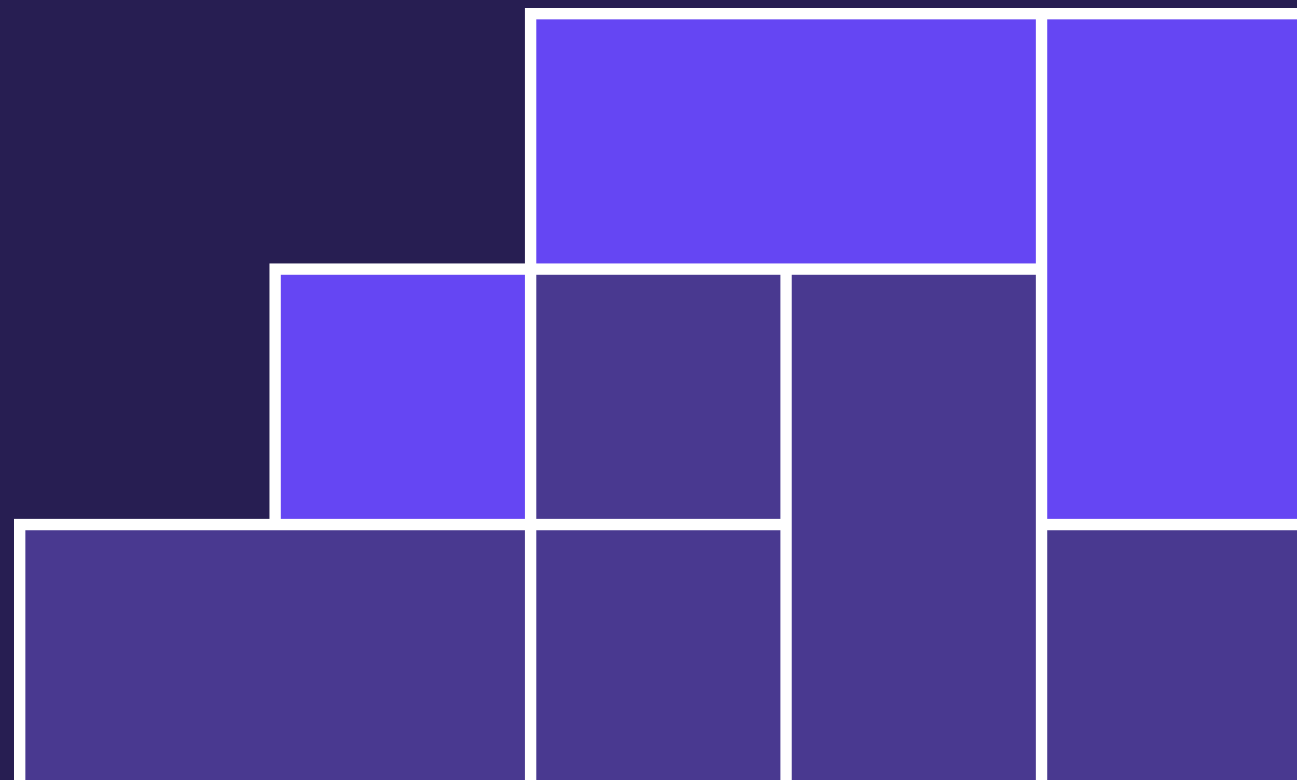
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Thank you!



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