{ BnF

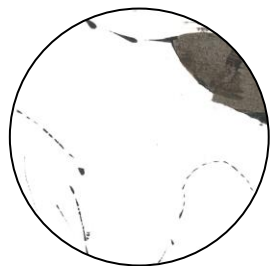Things to consider when implementing AI into your library – as a library leader

IA BnF

IFLA - CENL - Rotterdam

BnF AI Roadmap (2021-2026): actions

1

Making AI challenges and projects a part of the Institution's **global strategy**

2

Improving **R&D** organisation & implementation within the BnF

3

Developping **new skills**

4

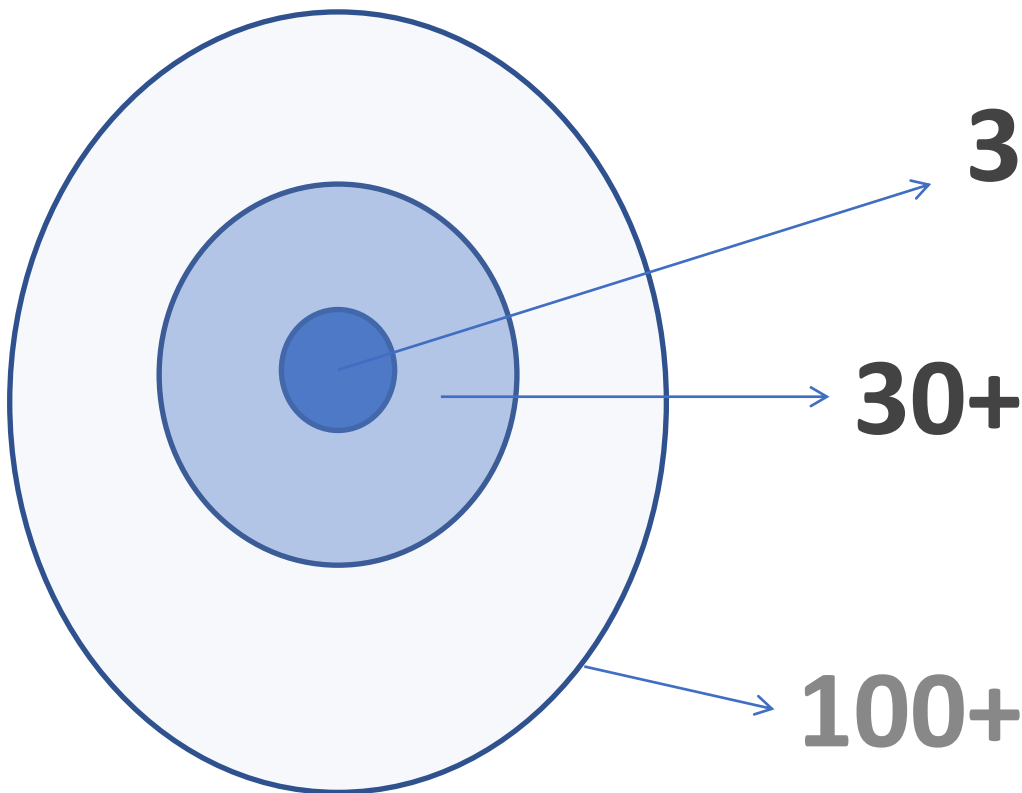Adapting **infrastructure** and **data management**

5

Designing a **multi-year programme** with other stakeholders

AI Roadmap milestones

	2021	2022	2023	2024	2025	2026
GOVERNANCE	AI strategy integrated into BnF's wider COP strategy (objectives and performance contract)	Charter on ethical use of digital technologies and AI, with related indicators		Global index for the creation, implementation and monitoring of R&D projects	Management plan for the developement of skills and workforce Map of BnF's data and governance scheme New IT services plan	
SKILLS UPGRADING COMMUNICATION	AI4LAM International conference « *Futurs Fantastiques* »	Seminars « les débats de la science » on AI	One-day event "Unraveling the discoverability of online cultural content " At least 10 staff members with advanced AI skills	15 to 20% of BnF staff aware of AI issues and technologies		
PROJECTS	Services offer available for the DataLab infrastructure	First AI project ready for the **industrial phase Gallica Images** First partnerships with the DataLab	3 to 4 **experimental** projects running		**5 to 10 projects implemented** as part of the multi-year AI programme Assessment of the DataLab network	

Team

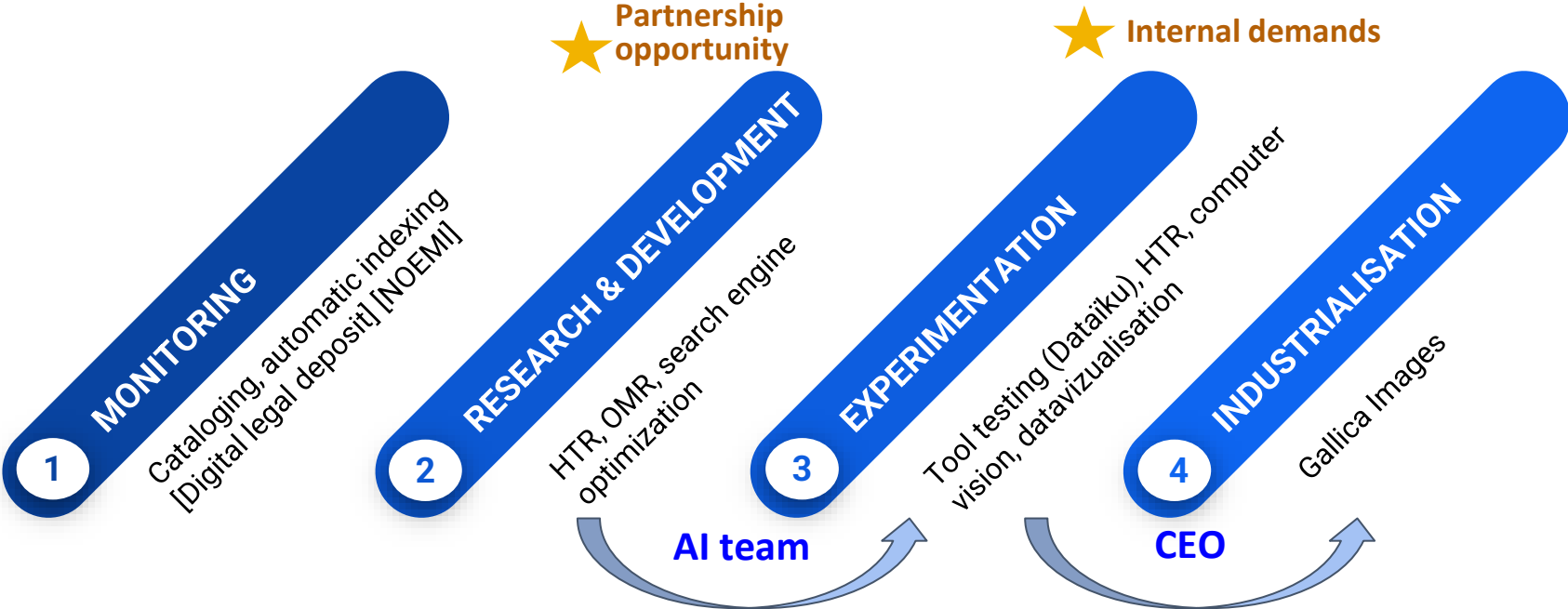**Sponsorship :** Head of Digital Services and network Direction

3

« AI team » of 3 members with complementary skills: Project management, digital collection expertise, IT support

30+

A larger community of 30+ people involved in the projects according to different needs : technical expertise, collection expertise, administrative support…

100+

A broader "aware" of AI activities through workshops, webinars, newsletters…

Several steps of AI projects

Partnership opportunity

Internal demands

MONITORING

Cataloging, automatic indexing [Digital legal deposit] [NOEMI]

1

RESEARCH & DEVELOPMENT

HTR, OMR, search engine optimization

2

EXPERIMENTATION

Tool testing (Dataïku), HTR, computer vision, datavizualisation

3

INDUSTRIALISATION

Gallica Images

4

AI team

CEO

Approval process/ decision-making entity

Impulsion

Staff involved

DSG

- Academic partnerships
- Collection experts
- IT team
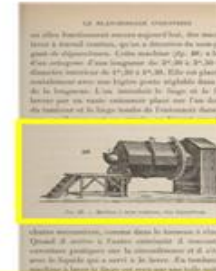
- Collection experts
- Dedicated IT team

- **Dedicated team (project manager, experts, IT support…)**
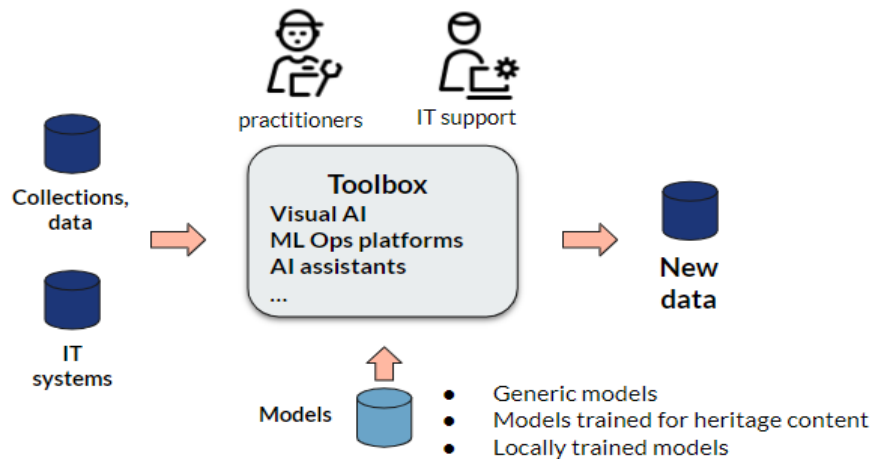
AI team

Dedicated project team

Industrialisation

Gallica Images
2023-2026

Querying images in the whole Gallica collection based on **AI-generated keywords**

- **Segmenting** all images (**50M?**) in Gallica (**≈ 250M** pages)
- Automatic image **indexing**
- Providing **access** (API, IIIF)

{BnF

bnu
strasbourg

FRANCE
2030

institut
national
d'histoire
de l'art

INHA

iiif
International
Image
Interoperability
Framework

AUTOMOBILES
FOX

EXCELSIOR

Experimentations

HTR (handwritten text recognition)

Research & development

Several steps before the large-scale project

BnF Images Bank (2015) - Assisted cataloguing
GallicaPix (2017-2020) - Information retrieval
GallicaCIP (2018-2020) - Classification of heritage images
Gallica Snoop (2019-2020) - Visual similarity

MODOAP research project (2020-2021)
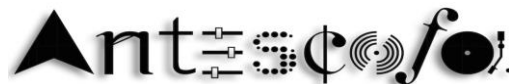   Embedded AIs in an interactive exhibition
    History of medias & Museography

Dataiku DSS experiments with CLIP (2022) - Zero-shot image classification ith CLIP

⬇

Gallica Images (2023-2026)

Current partnerships

Integrating AI into the institution's roadmap

BENEFITS

Offering new services

Optimizing work-processes
for in-house staff
Improving services for users

Gaining a **better understanding**
of the **collection** and its condition

Partnership opportunities

Source of **funding**

WAYS OF SUCCESS

Prioritizing projects

Strengthening teams dedicated to AI

Upgrading skills / recruiting new skills

Investing in infrastructure

IIIF and AI

BENEFITS

Fostering R&D and prototyping (in-house, external)
Easy access to collections
Uniform data model for all documents types

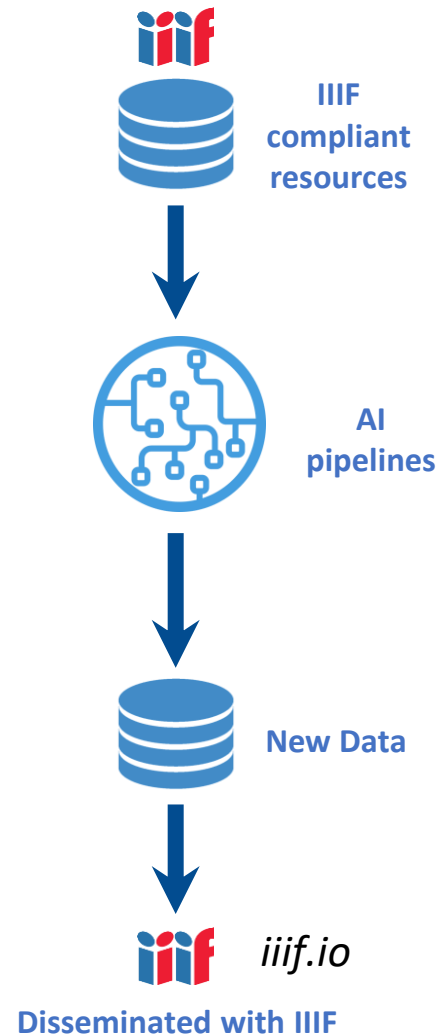**Makes production pipelines easier**
to develop and operate

On-going work and momentum from the IIIF community:
AI/Machine Learning Community Group

The more IIIF compatible libraries there are,
the more AI activity is generated on collections

See also: IIIF Guide for Chief Information Officers

IIIF
compliant
resources

AI
pipelines

New Data

iiif.io

Disseminated with IIIF

International cooperation and communities

AI in Libraries
network group

https://www.cenl.org/netwo
rkgroups/ai-in-libraries-
network-group/

"Artificial
Intelligence" Special
Interest Group

https://www.ifla.org/units/ai/

ai4lam.org

⟨BnF

Thank you for
your attention

Contact : ia@bnf.fr