

# Designing the MIRRI Information System

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## The starting point...

- Distinct on-line catalogues of microbial domain Biological Resource Centres (mBRCs)
- Limited and heterogeneous contents
- Heterogeneous data models and formats
- Different user interfaces
- Little inter-connections
- Few links to external databases

## ...and the desired outcome

- A repository for mBRC catalogues in a common format
- Validation of catalogue contents to provide quality data
- Interconnection of domain information systems for data extension
- Unique portal for catalogues and associated data
- An interoperable system based on APIs and service based interfaces and workflows

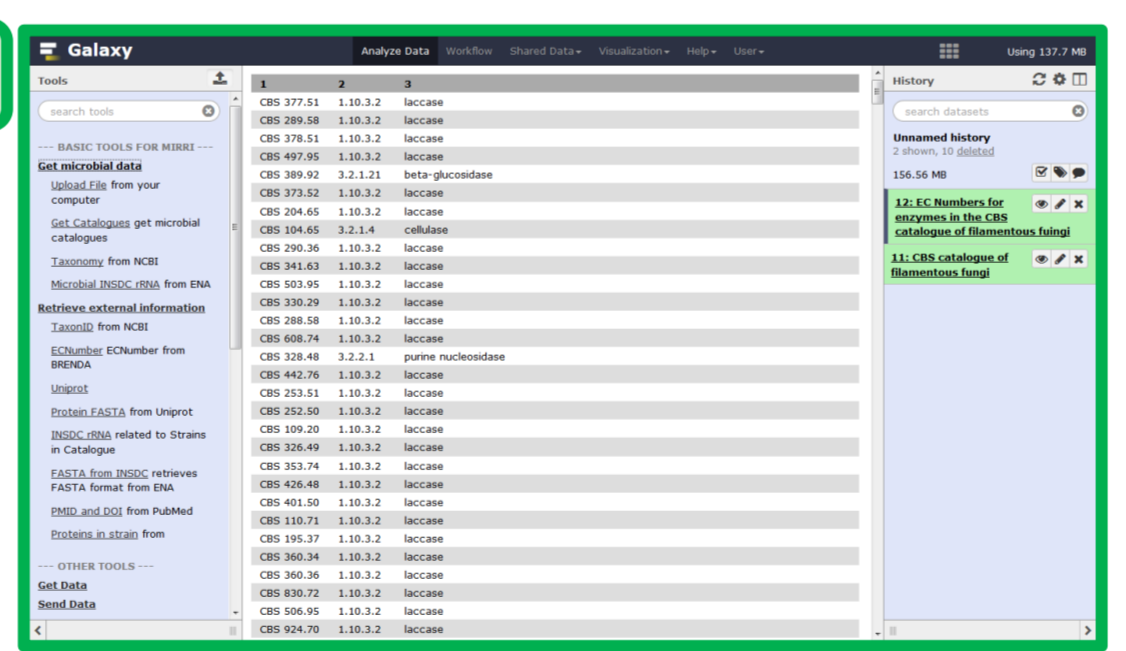
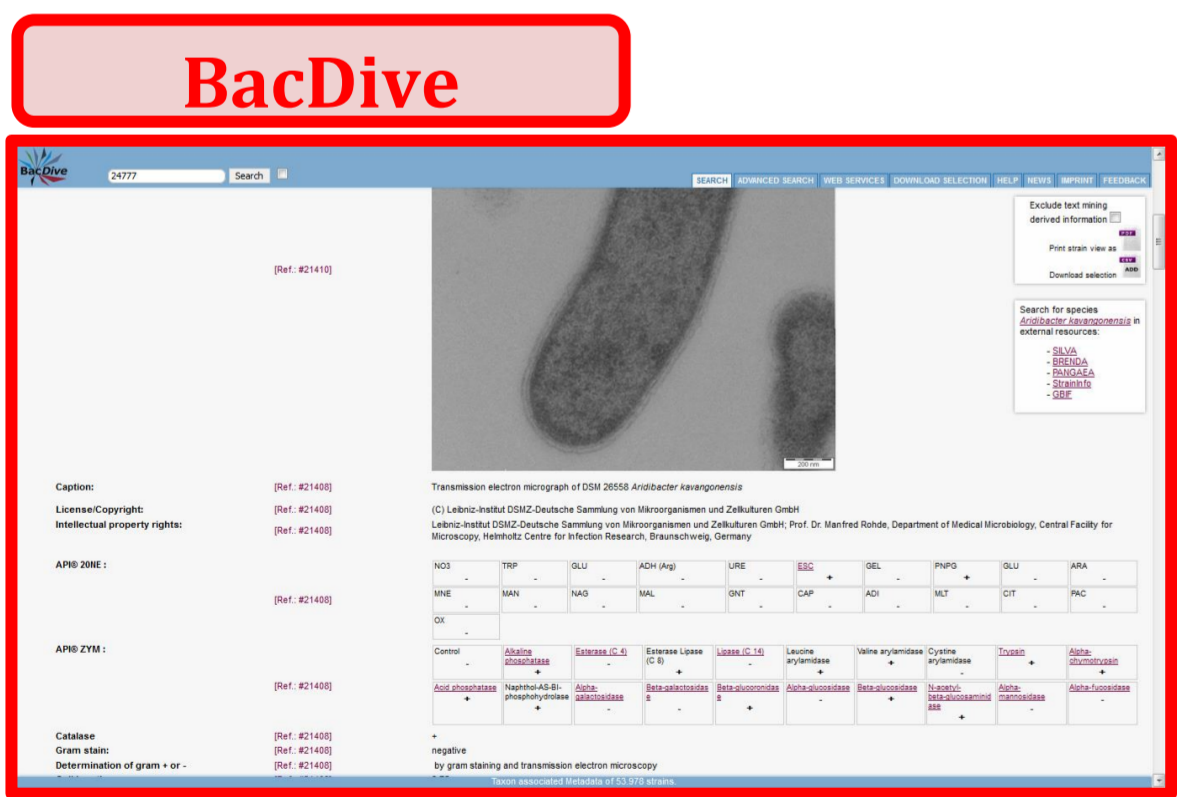
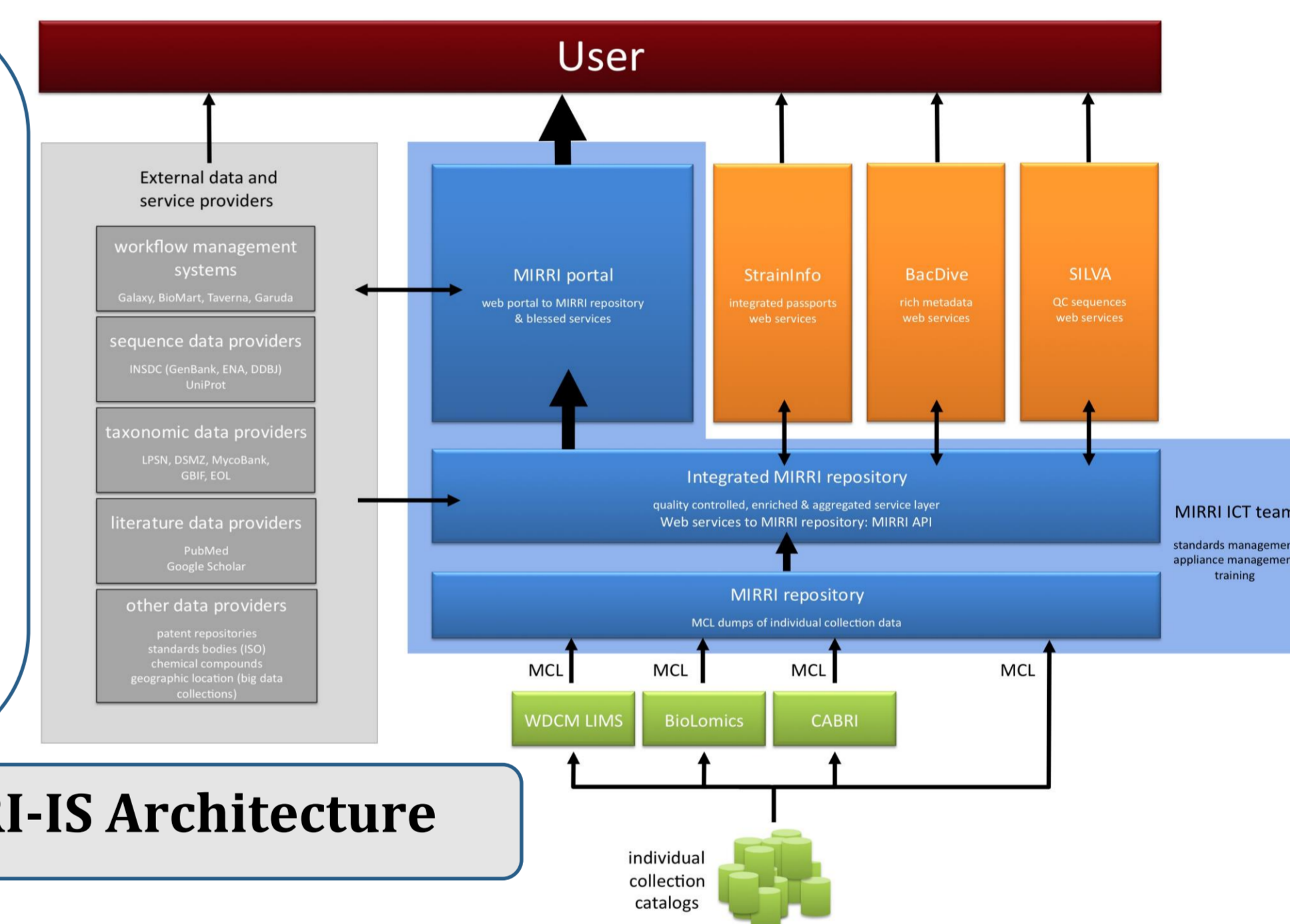
## ... the MIRRI demonstrators ...

Demonstrators depict opportunities offered by MIRRI-IS.

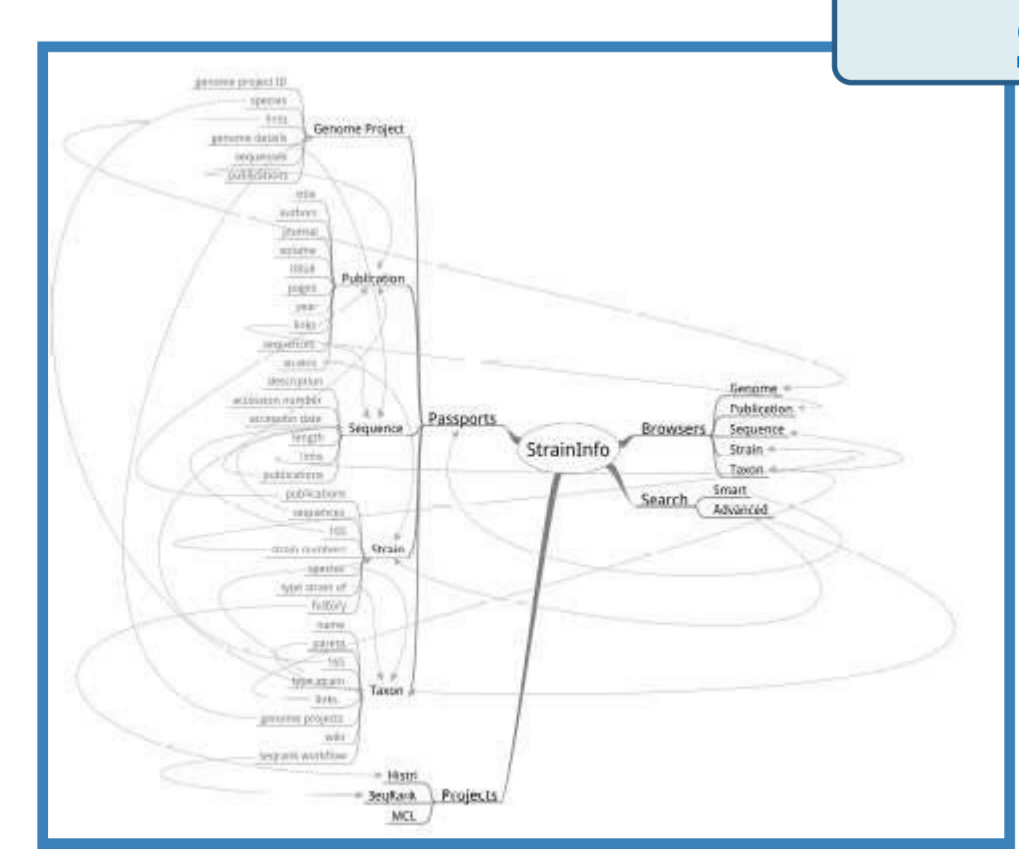
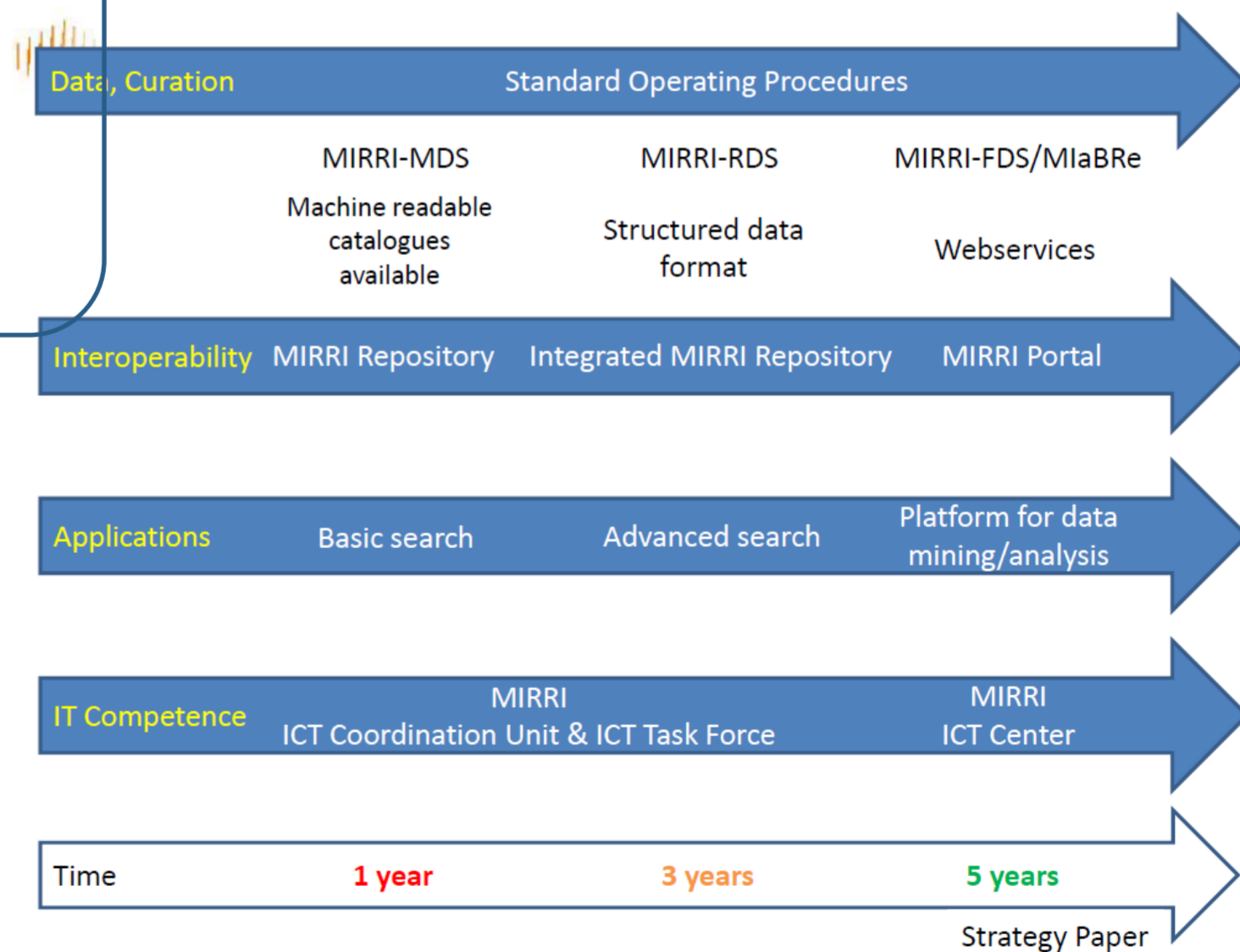
- **BacDive** extends the catalogues contents with high-quality data and annotations
- **StrainInfo** improves integration among catalogues by identifying common strains and set up links to main DBs
- **USMI Galaxy** allows integration with external resources in a well-known integration platform

## Some components, ...

- A standard for exchanging data between mBRCs: extended Microbiological Common Language
- A Minimum Data Set for essential data, to evolve into a Minimum Information about Biological Resources (MIaBRe)
- User friendly interface in a Collaborative Working Environment (CWE)
- State-of-the-art APIs and services/workflows for well-known integration software



...and the way to go  
A five-year plan for the implementation of the MIRRI Information System



**References**  
MIRRI: <http://www.mirri.org/>  
BacDive: <http://bacdive.dsmz.de/>  
StrainInfo: <http://straininfo.net/>  
USMI Galaxy: <http://bioinformatics.hsanmartino.it:8080/>

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