

# **Progress in Developing CAS IR Grid**

*Zhu Zhonming, Zhang Xiaolin ,  
Zhang Dongrong, Ma Jianxia,  
Lu Linong*

*National Library of Science, CAS*

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# Outline

- **Vision and Strategies**
- **Status Quo of Spreading IRs across CAS Institutes**
- **Development of CAS IR Grid Service Portal**
- **Future Development of CAS IR Grid**

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# CAS IR Grid Vision

- **Developing a knowledge management infrastructure to facilitate capture, access, preservation, dissemination of CAS-wide knowledge attainments**
- **Shaping a sustainable knowledge capacity building mechanism for institutes across CAS**
- **Bootstrapping and fostering a culture of open access in CAS and China,**
- **facilitating national and international collaboration in development of high level knowledge repository network service**

# **CAS IR Grid development Strategies**

- **Spreading IRs across institutes in CAS**
  - **NSL plays a leading role to provide consultation and support service**
  - **Institutes libraries assume major implementation tasks in planning and promoting IR service in the help of NSL**
- **Developing and deploying CAS IR Grid service portal**
  - **Running by NSL**
  - **An OAI-based harvester and aggregation service**
  - **Gradually Providing from content based search service to context based discovery service**

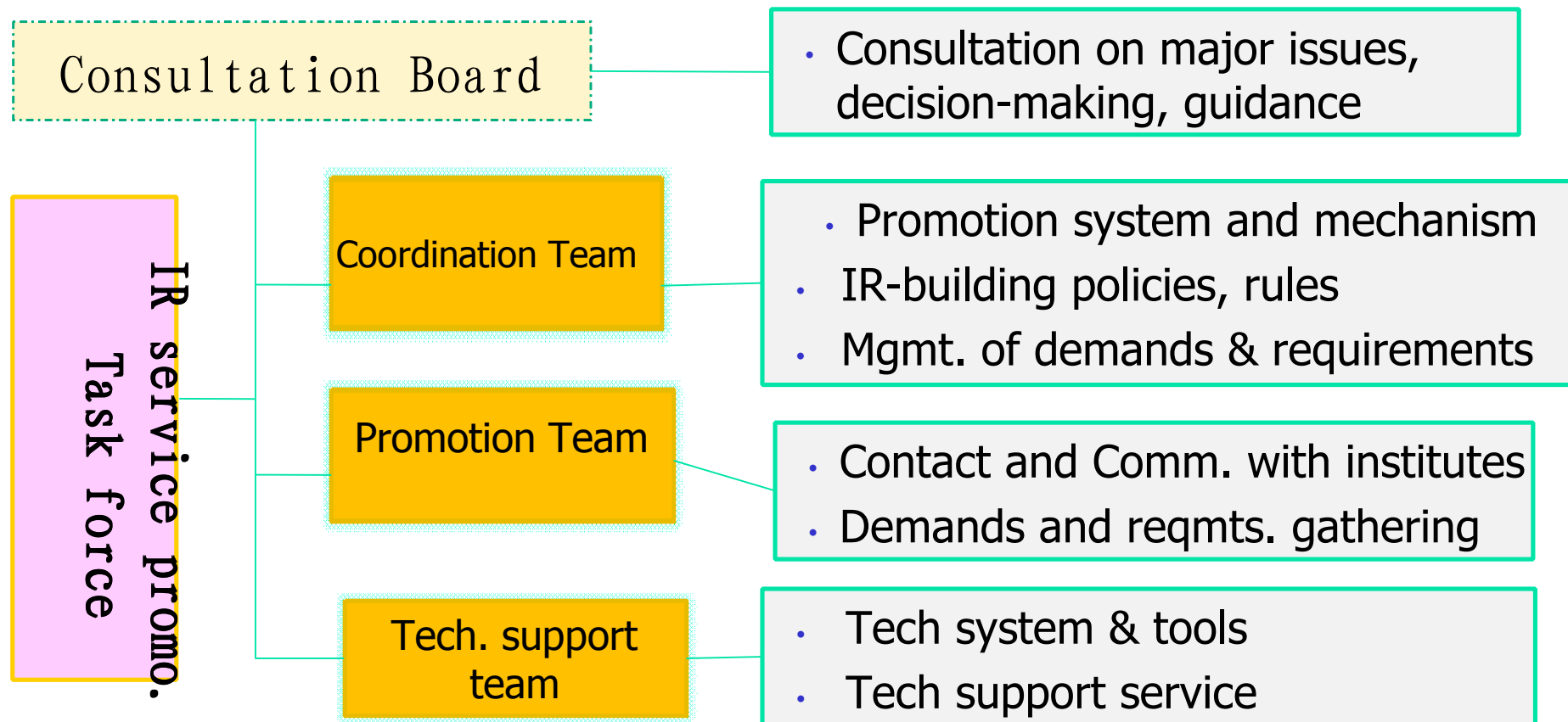
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# **1. Completed and released a formal version of IR building package**

- **Internally called standard version of CAS-IR**
- **Based on DSpace 1.4.2**
  - **Highly localized**
  - **Intensively extended and optimized**
  - **Much more easily deployed and production–environment -oriented**
- **Built-in OAI-compliant metadata exposure**
  - **oai\_dc (mandatory)**
  - **qdc (preferred)**
  - **mets and mods(optional)**

## 2. Established a long-term working mechanism of promotion IR service





## 2. Established a long-term working mechanism of promotion IR service (cont.)

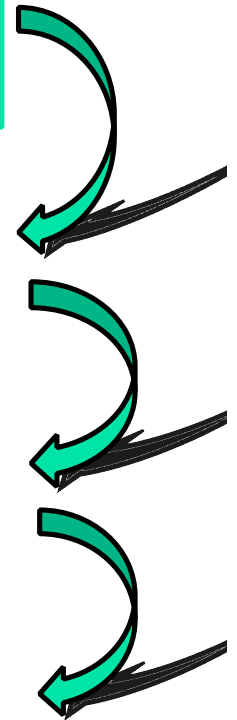
### ■ Basic working procedures

Institute (in the help of responsible subject librarian from NSL) submits an application request to NSL

NSL assesses whether required conditions are met

NSL and institute assign an agreement in support of IR service building in institute

NSL (responsible librarian and tech support team) helps institute launch IR service



### **3. Achieved an expected level of deployment**

- **Over 50 institutes have assigned building agreements with NSL**
- **Nearly 40 institutes have launched IR service or installed CAS-IR package**
- **On the whole, content collection and recruitment are still in an initial stage**
- **But some IRs have reached a few thousand-level**



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# 1. Development of harvest and aggregation service system

- **Evaluation and selection of candidates**
  - **OCLC harvester 2.0 package**
  - **ARC**
  - **DNET**
  - **OAI ORE support in DSpace**
- **Mainly the latter two were evaluated**

# 1. Development of harvest and aggregation service system (cont.)

- **Desired selection– DNET**
  - **Has Powerful and attractive service oriented architecture**
  - **Is support platform of DRIVER**
  - **Will be very good for collaboration between DRIVER and CAS-IR Grid**
- **But current DNET 1.1**
  - **Not fully support l10n/i18n**
  - **Not so stable**

## 1. Development of harvest and aggregation service system (cont.)

- **Current selection– OAI ORE support in DSpace 1.6**
  - **We have localized version of DSpace, and deployed in many institutes**
  - **Can harvest UDC and QDC metadata**
  - **Can be relatively easy for transplanting and integrating it into CAS-IR package**

# 1. Development of harvest and aggregation service system (cont.)

- **However, we anticipate new release of DNET being a future option**
  - **Completely java-based, not currently mixture of perl and java implementation**
  - **Built-in i18n mechanism**
  - **Support more types of metadata formats**



## 2. Test CAS-IR Grid portal

- At current only a part of deployed IRs are harvested
- Has Similar functions and services with CAS-IR
- Support oai\_dc compliant metadata exposure and re-harvest

The screenshot displays the CAS-IR Grid portal interface. The header includes the Chinese Academy of Sciences logo and the text "中国科学院 机构知识库服务网格 CHINESE ACADEMY OF SCIENCES". Below the header is a search bar and a navigation menu. The main content area is divided into several sections:

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- **Continue to develop enhanced version of CAS-IR:**
  - **support wide-expansion of types of knowledge resources**
  - **develop further search and discovery features**
  - **Improve its composability and interoperability to integrate or to be integrated with other services easily.**

- **Spread CAS-IR to be deployed in most institutes across CAS**
- **Upgrade CAS-IR Grid service portal**
  - **Harvest IRs across CAS as many as possible**
  - **Develop advanced search and discovery functionalities**
  - **Make concrete progress in metadata sharing with DRIVER**

**Thank you!**  
**zzm@lzb.ac.cn**