

Microbial Culture Collection, Pune, India

National Centre for Cell Science

Department of Biotechnology, Government of India

Meeting of Member States and International Depositary
Authorities under the Budapest Treaty

13 -14, November, 2023, WIPO, Geneva, Switzerland

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Principal Investigator

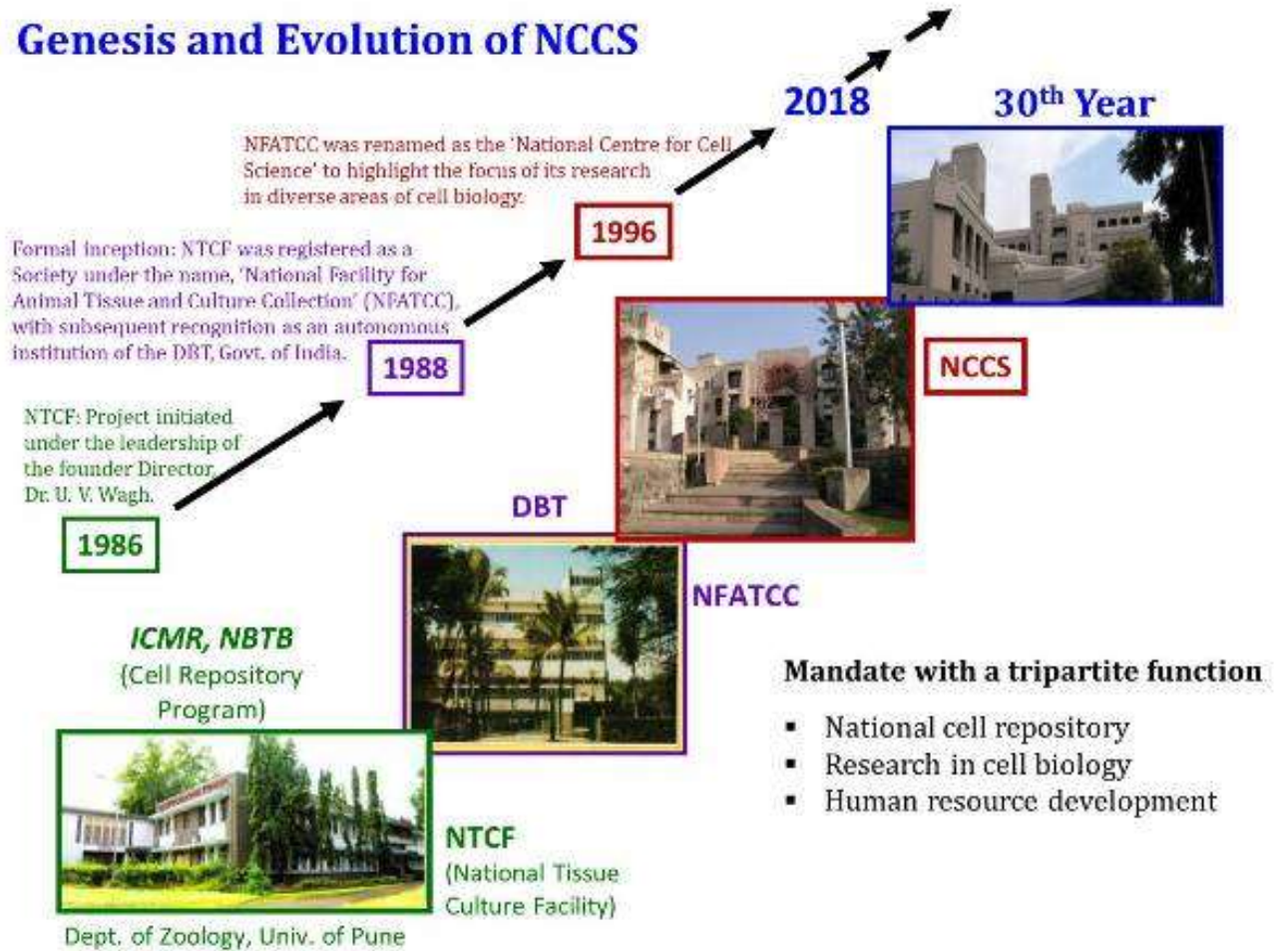
Incharge-IDA

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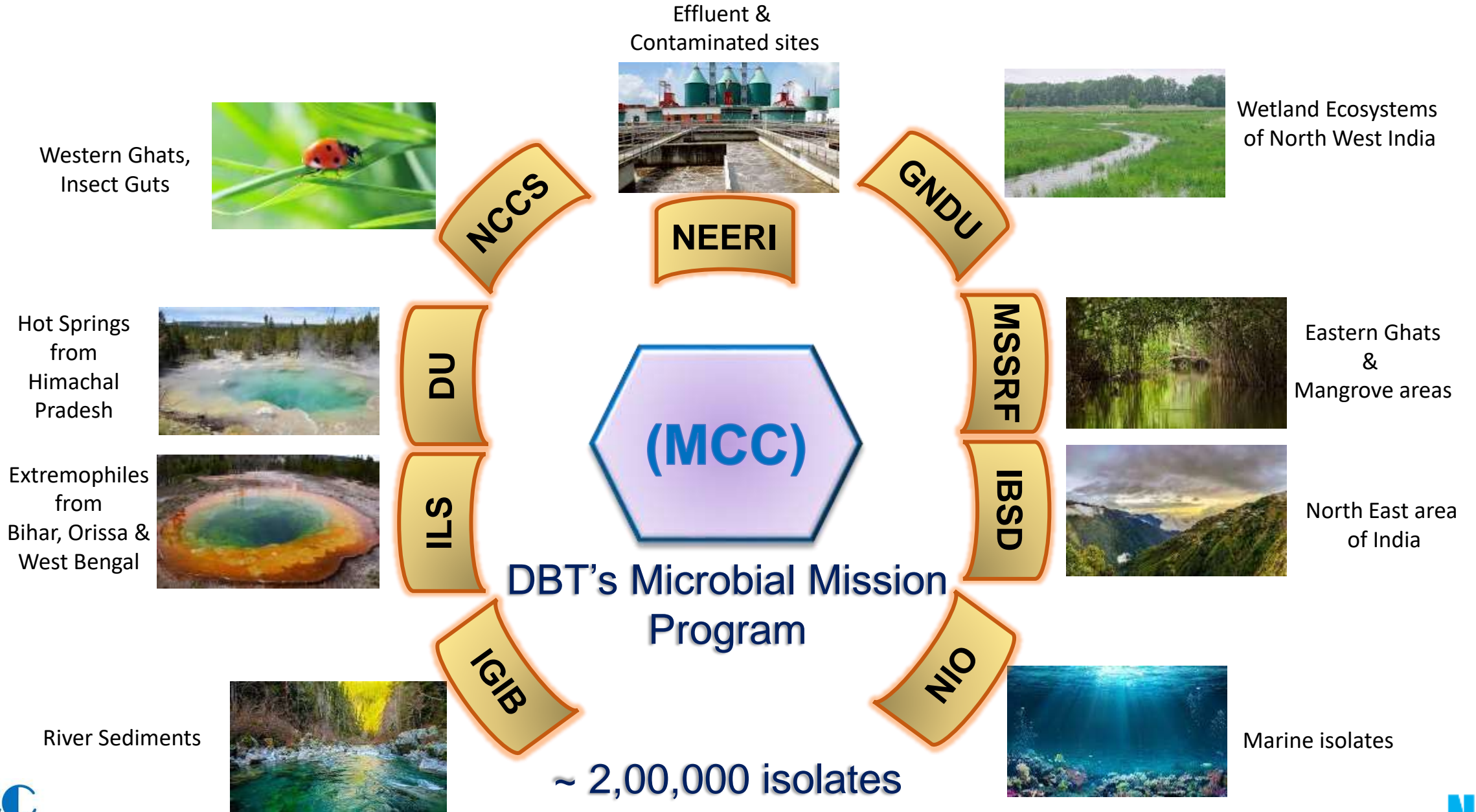
National Centre for Cell Science, Pune



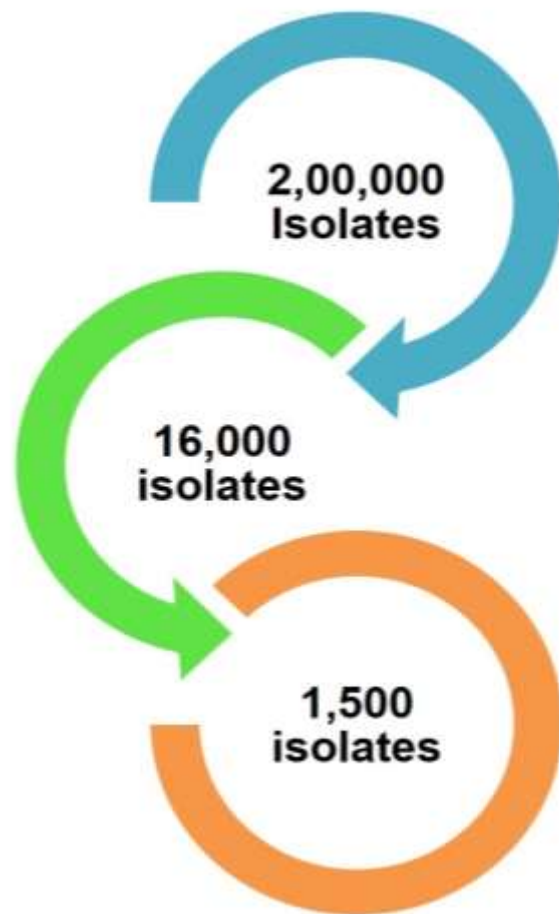
Genesis and Evolution of NCCS



Genesis of MCC



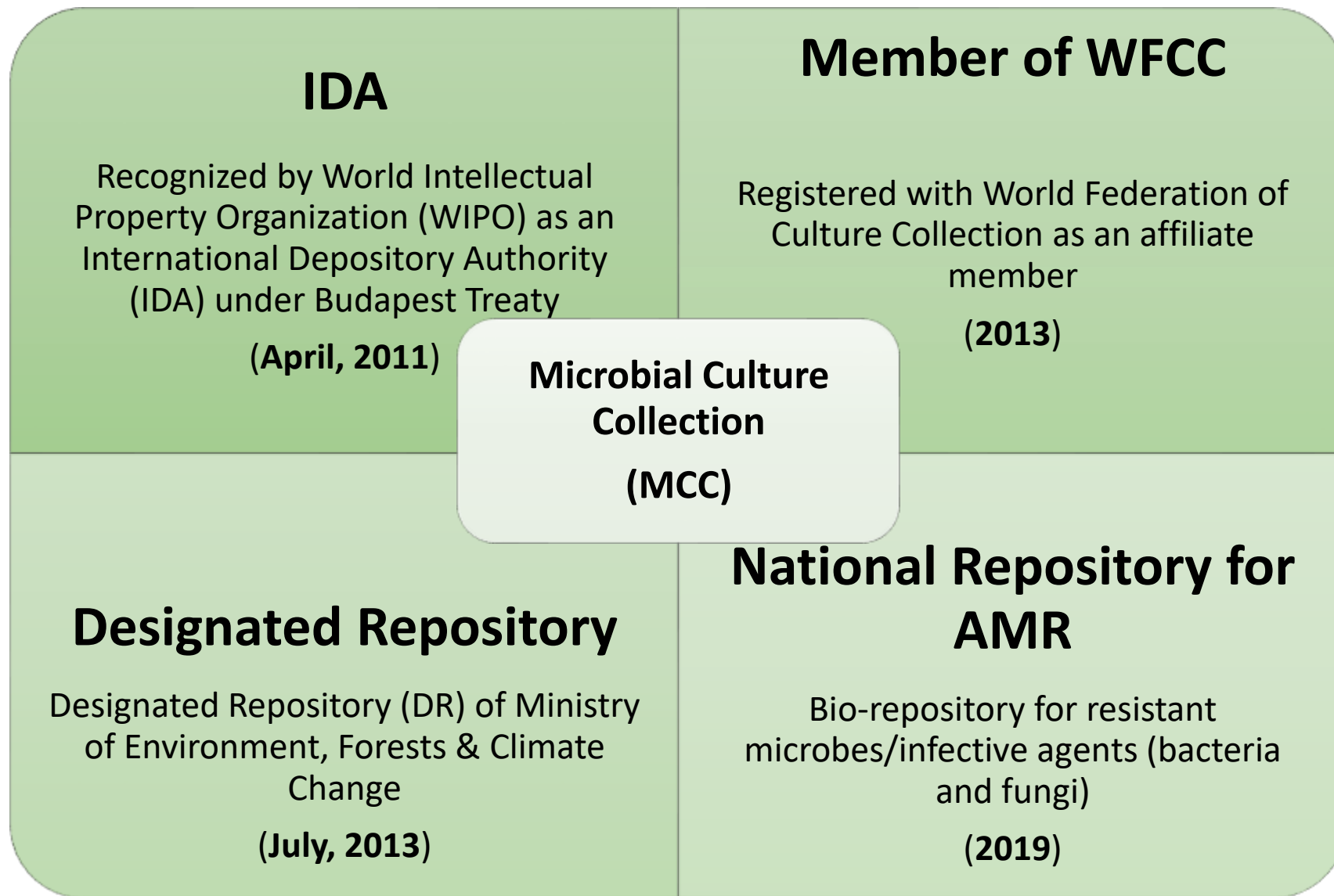
Bioprospecting Research Cultures



30 different media

- **High-throughput Screening**
 - **Anti-infective**
 - **Anti-inflammatory**
 - **Anti-cancer**
 - **Anti-diabetic**
- **Potential therapeutic activity**
- **Re-fermented isolates-**
 - **Randomly selected to represent each ecological niche**

Recognition of status of MCC

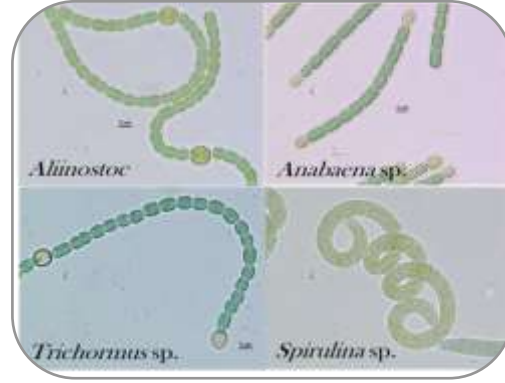


Specialized Repositories



Anaerobic Bacterial Repository

129 anaerobic cultures



Cyanobacterial Repository

131 cyanobacterial cultures



Anoxygenic Photoautotrophic Bacterial Repository

69 cultures



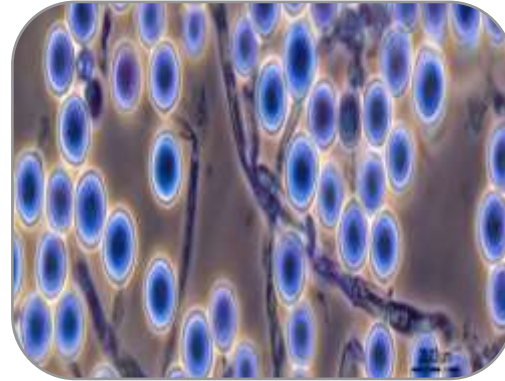
International Depository Authority (IDA)

263 IDA and 103 Safe deposits



Repository for Environmental DNA Samples

More than 73 microbial cultures



Fungal Repository

1872 fungal cultures



Antimicrobial Resistant (AMR) Bacterial Repository

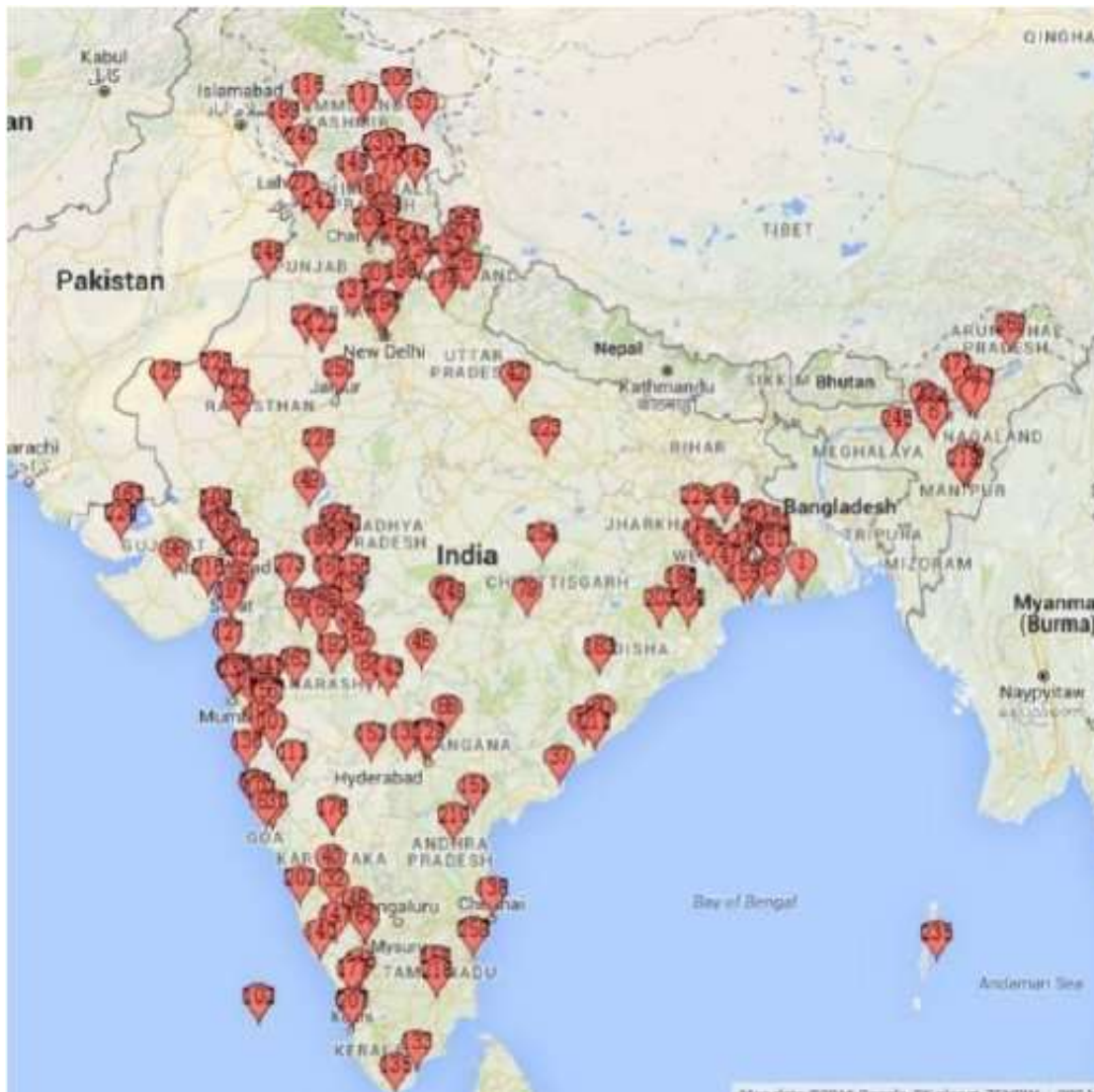
1888 AMR cultures



Archaeal Repository

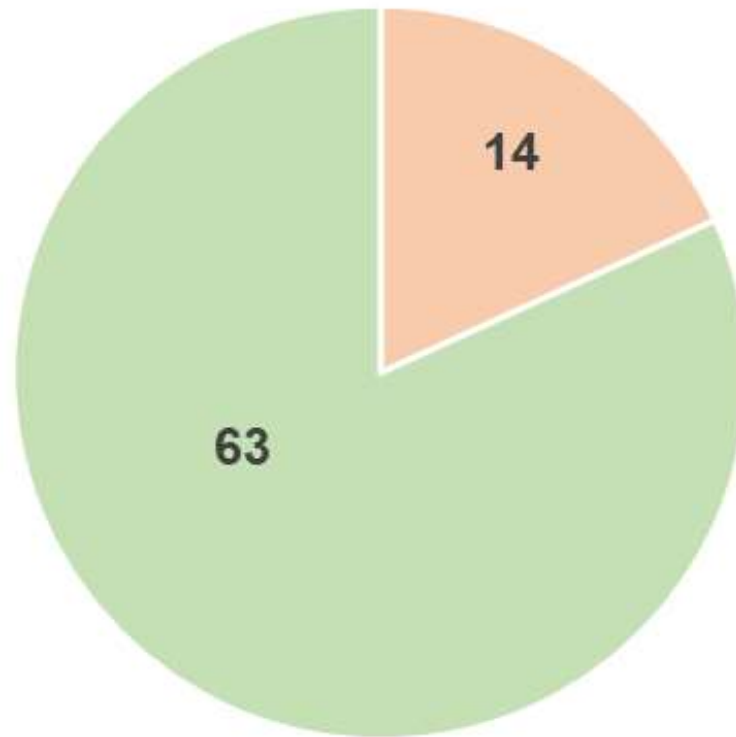
40 cultures

Distribution of services provided by MCC across the country and globe >3.0 lakh services



- Malaysia**
- Saudi Arabia**
- Denmark**
- Iran**
- Iraq**
- China**
- Spain**
- Singapore**
- South Africa**

Total Taxa Described By MCC Staff



Published but not validated: 14
Validly published name: 63

Total taxa described – 77

**National Biodiversity Authority, India
Public Access Restrictions**

International Depository Authority

- As per the rule Rule 13.2(a) of Budapest Treaty the deposits are made at an international depository authority (IDA) in accordance with the rules of the Treaty on or before the filing date of the complete patent application.

The Budapest Treaty – Features

Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedures

- *Various culture collections are recognized as International Depositary Authorities*
- *Any contracting state must recognize a deposit made in any IDA*

Why is it Advisable to Preserve Microorganisms?

- Microorganisms are genetically instable and can change their properties by subsequent cultivation
- Microorganisms needs to be available on a long-term basis with known, specific and stable properties
- Industry needs genetically stable production strains
- It gurantees that all the research has been performed with the same organisms

Need for a Patent Deposit

Requirement for filing a patent

- Maintain Confidentiality and Security*
- Reproducibility Assurance*

Dedicated facilities - Microbial Repositories - IDAs

MCC Accepts

Bacteria – Fungi – Yeast -
Plasmids

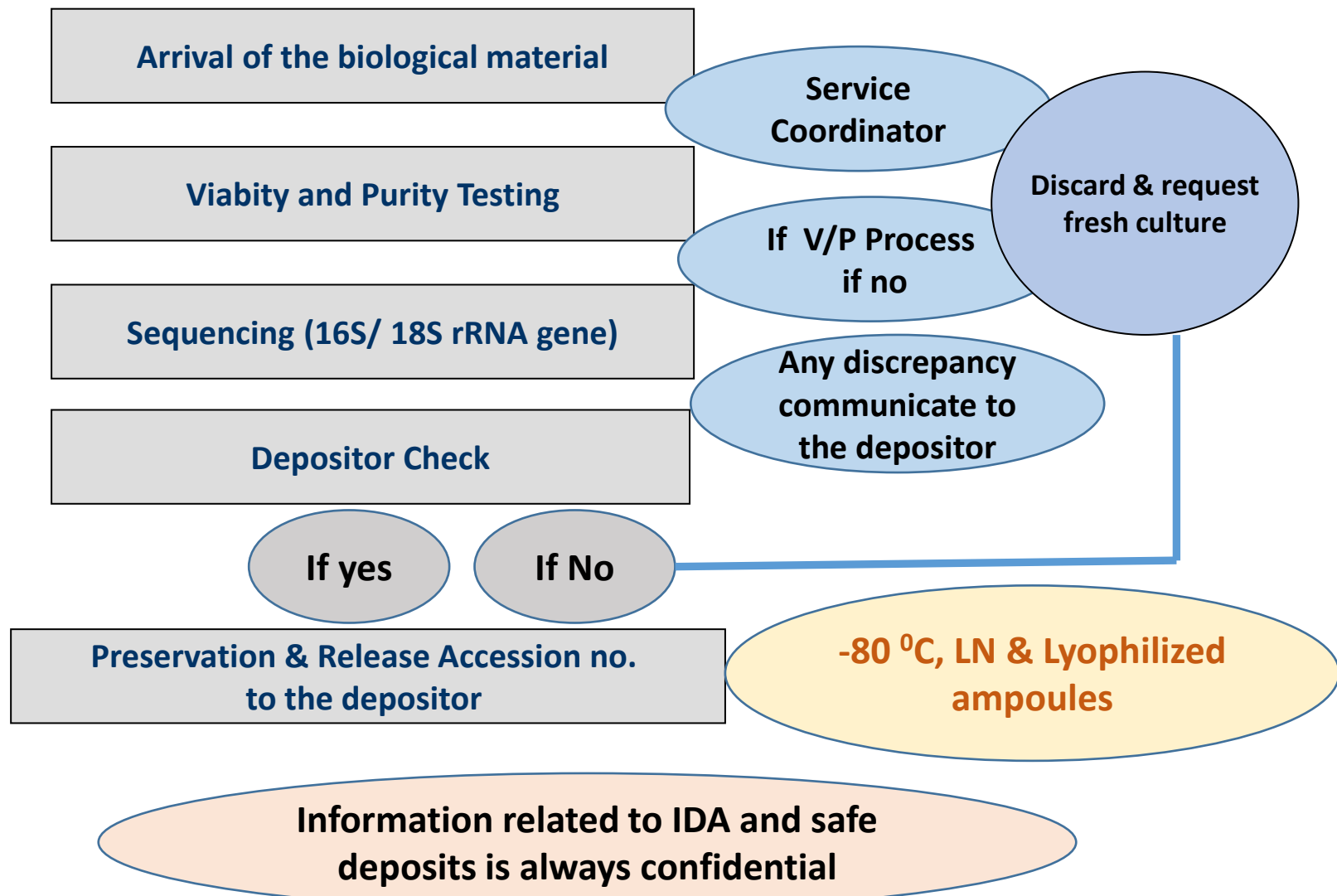
Risk group: 2

MCC got recognition as IDA on April 9, 2011

First patent strain: 2012

Total IDA= ~300

Procedure For Processing IDA Deposits



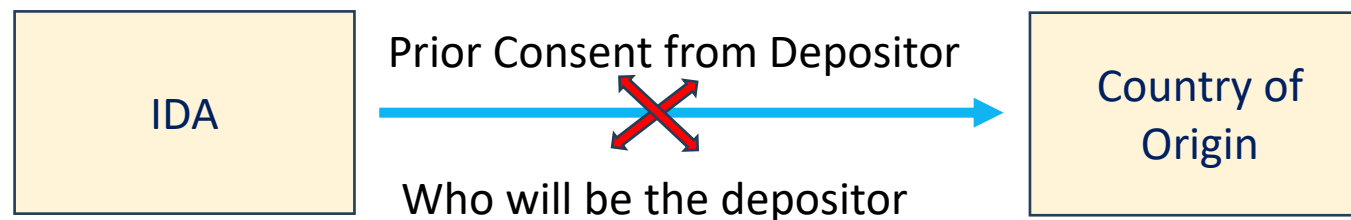
Why its Important to Decide the Fate of IDA after 30 years of Preservation

- *Resource for Continuous Innovation*
- *May not be available anymore (Once Lost, Lost Forever)*
- *Wastage of Biological Material & Knowledge*

Way Forward

PUBLICLY AVAILABLE

Public Access vs. Biodiversity Laws



Acknowledgements

- Department of Biotechnology, Government of India
- National Centre for Cell Science, Pune
- The World Intellectual Property Organization

Thank You!

National Centre for Cell Science

Department of Biotechnology, Government of India

www.nccs.res.in