

Division of Biological Infrastructure (DBI)



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Human Resources Cluster

- Research Coordination Networks (RCN-UBE)
- Postdoctoral Research Fellowships in Biology
- Research Experiences for Undergraduates (REU)

Research Resources Cluster

- Advances in Biological Informatics (ABI)
- Collections in Support of Biological Research (CSBR-previously BRC)
- Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Labs (FSML)
- Instrument Development for Biological Research (IDBR)

Centers

- NESCent, NIMBIOS, STCs (BEACON), etc.



Centers currently managed by DBI

- **Centers for Analysis & Synthesis**

- National Socio-Environmental Synthesis Center (SESYNC)

- National Evolutionary Synthesis Center (NESCent)

- National Institute for Mathematical and Biological Synthesis (NIMBioS)

- **Science and Technology Centers (STCs)**

- Bio/computational Evolution in Action Consortium (BEACON)

- Center for Microbial Oceanography: Research and Education (C-MORE)

- Biology with X-ray lasers (XFEL)

- **Nanoscale Science and Communication Centers**

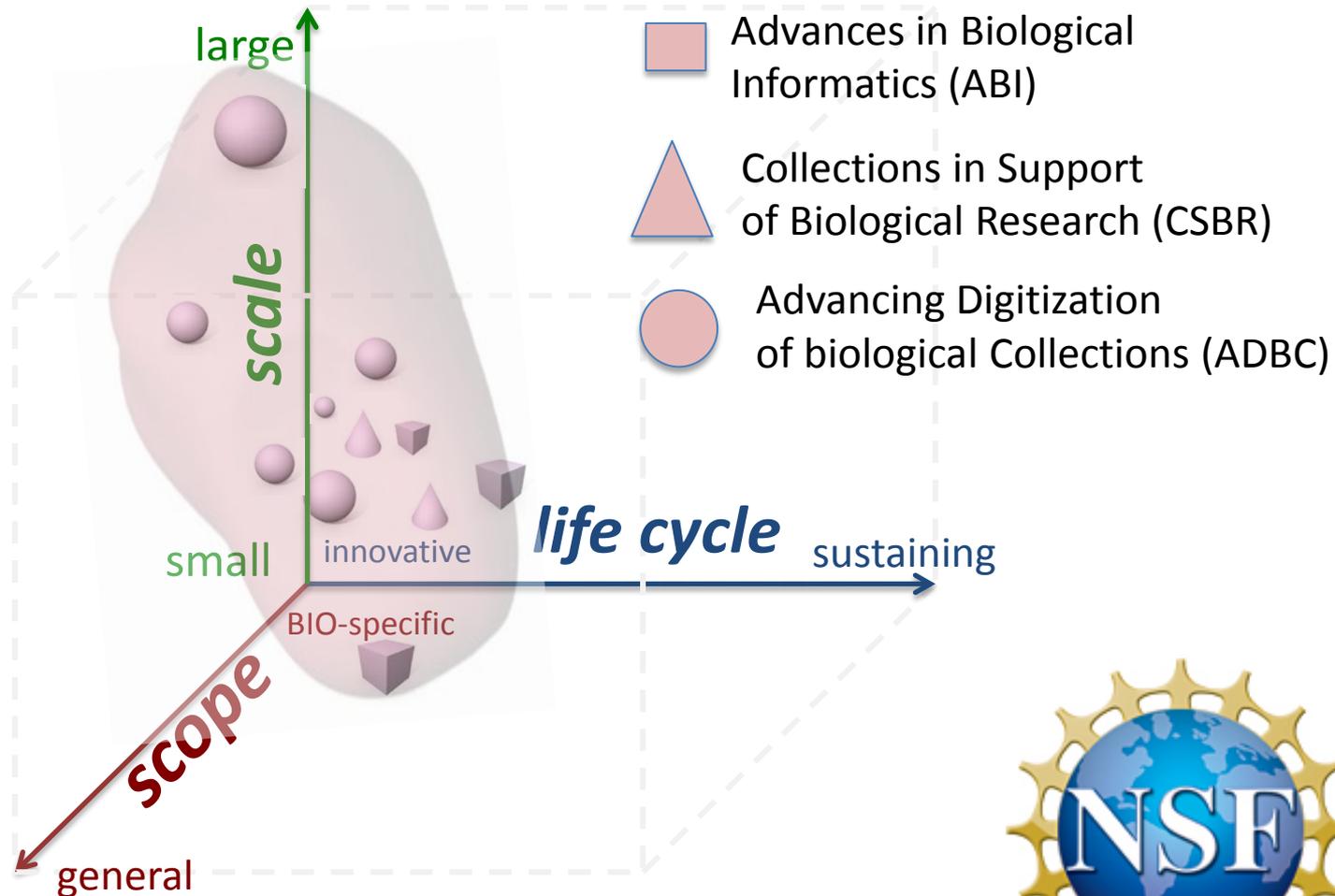
- Environmental aspects of nanotech (Duke/UCLA)

- **Science of Learning Centers**

- Role of time and timing in learning (TDLC) - UCSD

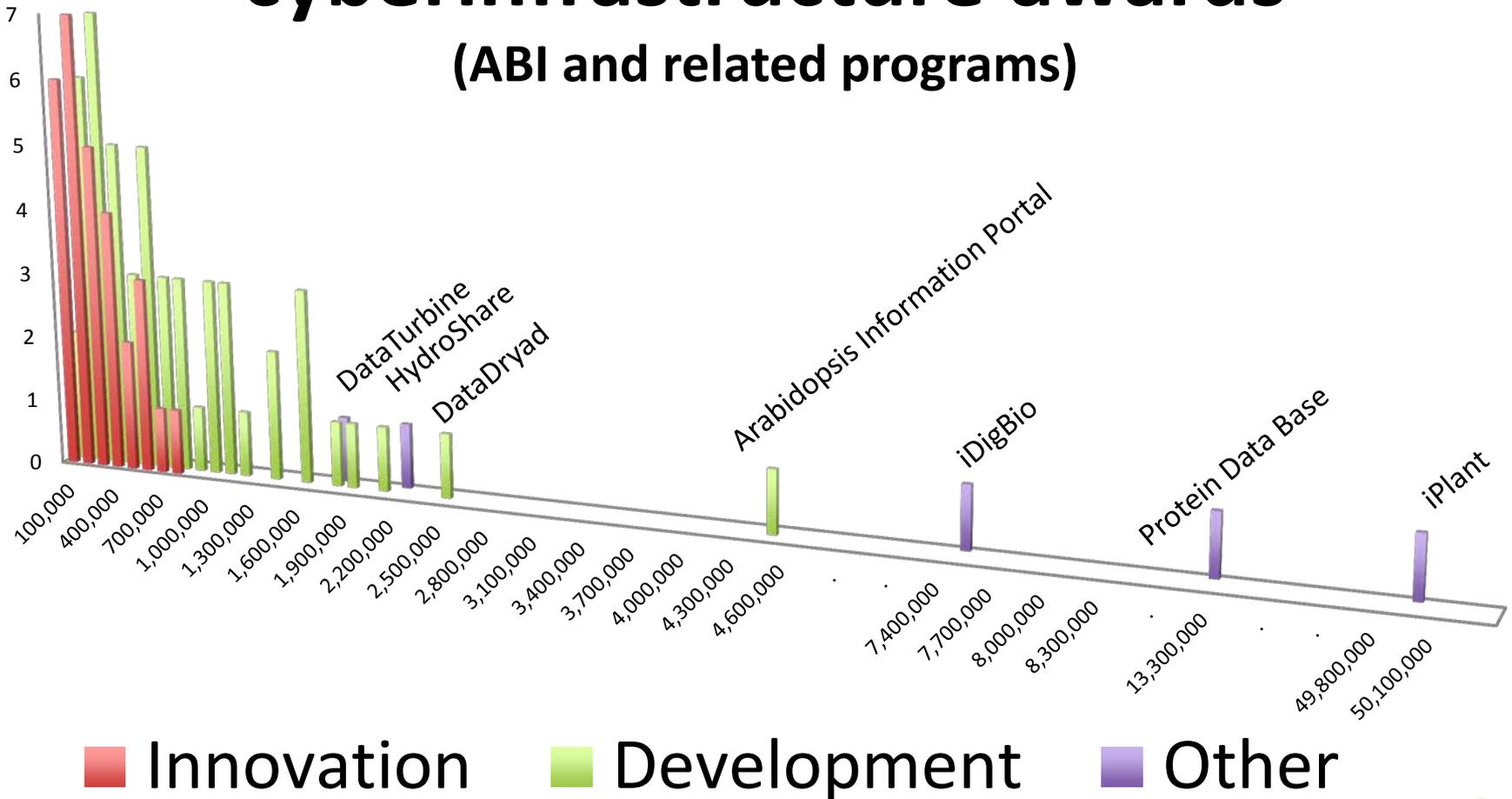


DBI infrastructure portfolio: visualizing impact



Examples of BIO and DBI cyberinfrastructure awards

(ABI and related programs)



Recent CI Investments in BIO Priority Areas



ABI, SI², CHE

Neuroscience

Synthetic Biology



ABI, SI²

Genomes to Phenomes



ABI, SI²,
Earthcube, ES

Earth, Climate and Biosphere



ABI, SI², STCI,
Earthcube



ABI, SI²,
Earthcube, ES

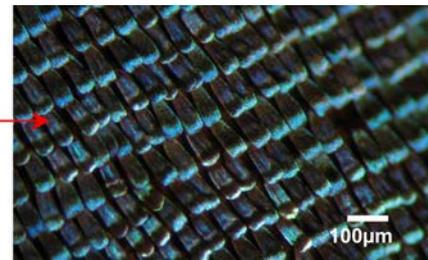
Biodiversity



ABI, SI², Earthcube

Collections in Support of Biological Research (CSBR)

- **Supports**
 - Improvements to Natural History Collections and partial maintenance of vital Living Stock Collections
- **Challenges**
 - NHCs and LSCBRs have different needs
 - “Collections Conundrum”
 - Reduced institutional commitments to infrastructure = more desperate CSBR requests
 - Current scientific climate values NHC data, LSC resources for new discoveries



Field Stations Program: Ongoing initiatives

- **NSF Supported Study** of Field Stations and Marine Labs by Organization of Biological Field Stations and the National Association of Marine Labs. Spring 2013.
- Board of Life Sciences, National Academy, study of Field Stations, Marine Labs and Natural Reserves. Ongoing.
- **Regional planning activities**
 - **Harvey:** Marine Science Village at Moss Landing Marine Laboratories
 - **Whipple:** Regional Research Vision for Connecting & Enhancing Field Stations
 - **Fiedler:** Mediterranean Reserve Managers International Training Cooperative



Field Stations and Marine Laboratories of the Future: A Strategic Vision



DBI & Cyberinfrastructure at NSF



NSF

BIO

DBI

