



Maintenance and Development of Symbiota2

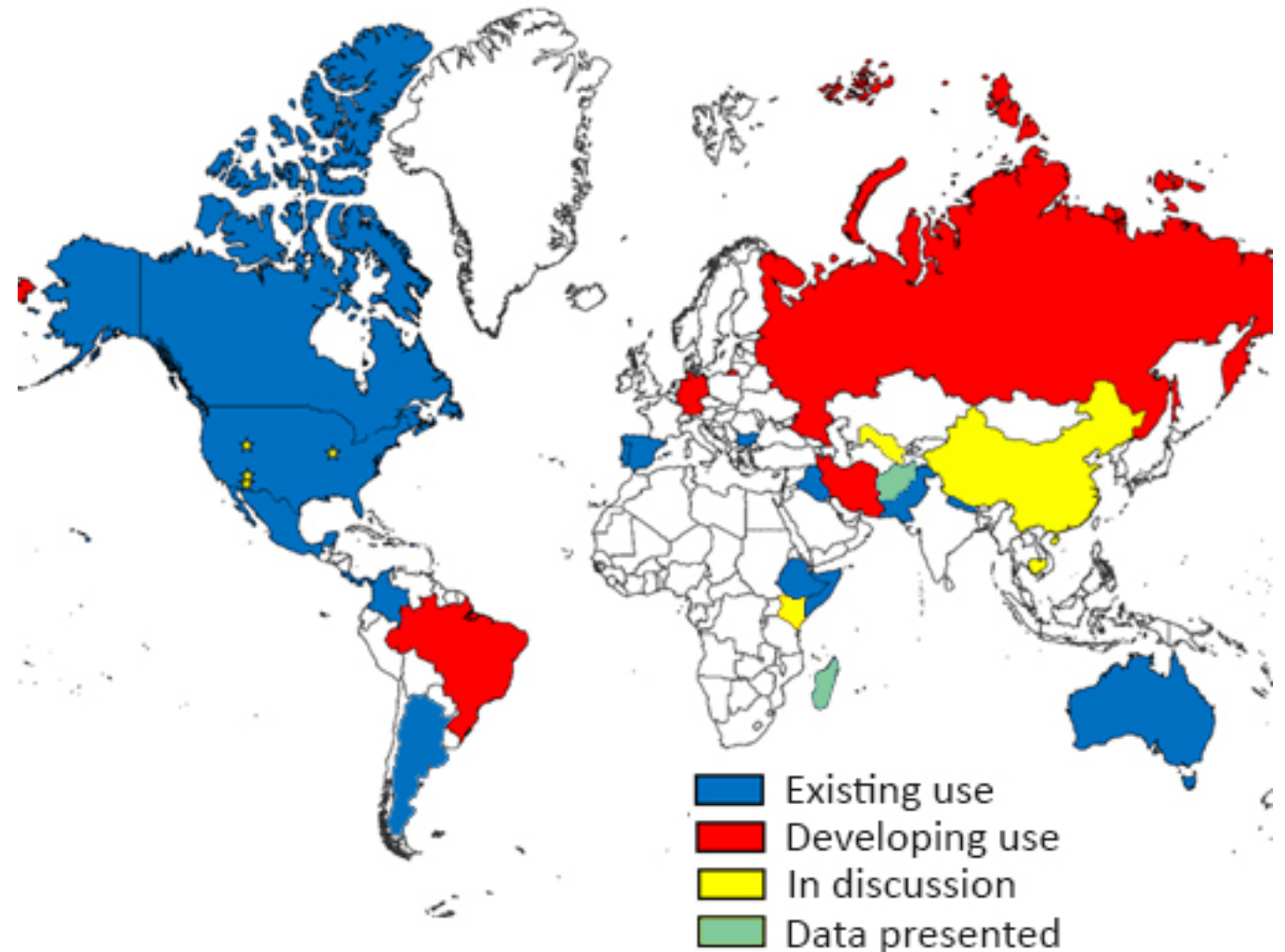
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What is Symbiota2?

An improved version of Symbiota - highly successful data mobilization software

- 40 networks
- 766+ collections*
- 37 million records
- Largest portals average 1600 sessions per day
- Cited in 1993 publications

Countries where Symbiota is being used to mobilize data or where there is interest



Server Space & Access
Registration

External

Developers
Manager - IT
Organization Management

Internal

Providers
Connections
Updates

Implicit

Supporters
Like but do not
need Symbiota2-
like resource

Parents
Businesses
Enjoyers of biological
world

Users
Need Symbiota2-
like resource

Educators
Consultants
Researchers
Landuse Managers

Current support

Grants and contracts

- NSF - Advancing Digitization of Biological Collections
- Institute for Museum and Library Services
- Federal agencies

Donations

- Time
 - Photographers
 - Data capture and cleaning
 - Collections
- Money

Annual cost estimates

Tier 1	Tier 2	Tier 3
Single portal Virtual server Required updates \$1000 per year	Tier1 plus ... Basic development Add collections \$10,000 - \$20,000	“Own” server for all Symbiota2 portals Full time developer, management \$150,000 - \$200,000

Thoughts

1

Market apps

- Trail guides
- Study guides

2

Advertisements

- ?Restrictions on university servers

3

Charge for services

- Who
- For what?

4

Fund/pledge drives

- Organization
- Major effort

Need data

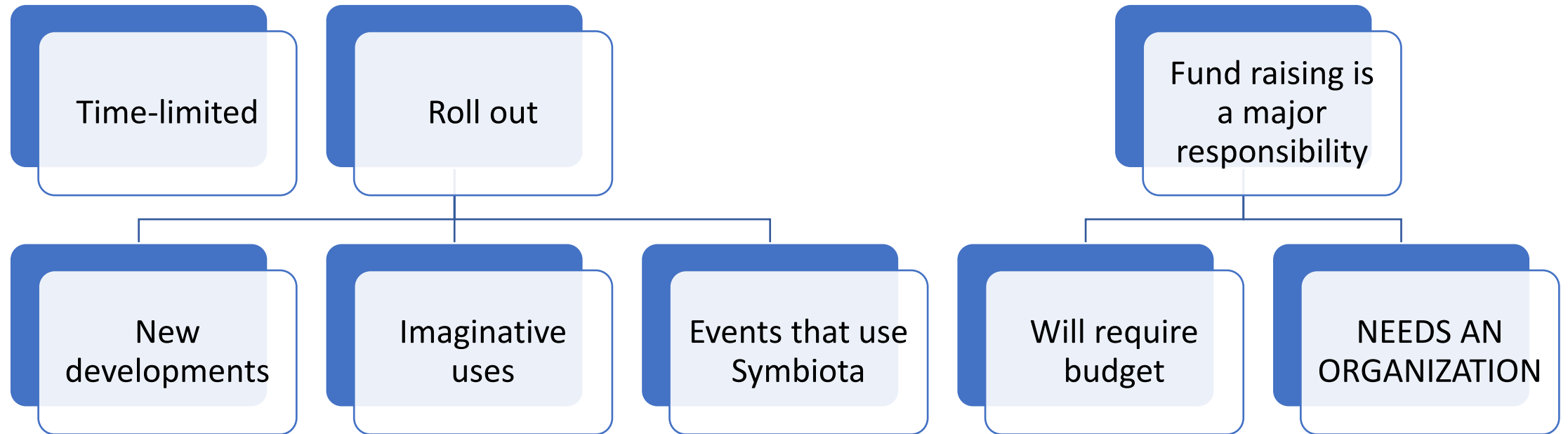
How are
Symbiota
networks used?

Use of specimen data
Displays Publications
Education

Data sources

Analytics software
Automated discovery
Questionnaires
Surveys ☹️

Organized fund raising campaigns



Who collects/manages money?

Organization

- Transparent
- Inclusive

Advisory Board

- Representative
- Include providers, users, developers

Conclusions

- Maintenance costs of Symbiota2 should be taken to include
 - Server and software registration costs
 - 1 FTE for developer familiar with the program
 - Support for critical partners
- Need to
 - Acquire data and automate data gathering
 - Establish appropriate organization
 - Build financial development capabilities
- Becoming financially sustainable will require changes in how we operate and will not be cost-free