

# NATIONAL BIOLOGICAL INFORMATION INFRASTRUCTURE

*shaping the future*



## Why NBII?

The National Biological Information Infrastructure (NBII) is a public-private partnership to allow greater access to and organization of data on the nation's biological resources. Through the NBII, private companies, universities, state and local governments, not for profit organizations and others looking for solutions to a wide array of problems will be able to access high quality databases, information products and analytical tools housed in different institutions around the country. The NBII will be able to access and organize data that could help pharmaceutical companies find new antibiotics, agribusinesses identify more productive strains of wheat, and cities develop more effective and economic plans to address natural disasters or environmental pollution.

The President's Budget has requested \$8 million in the FY 2001 USGS budget to develop high-tech NBII "nodes" at research institutions in different regions of the country that can rapidly model, simulate, forecast, interpret and visualize biological and environmental conditions and processes.

## Why Tennessee?

The scientific resources housed and the research being conducted in Tennessee make it a natural home for a southeastern NBII node. The Oak Ridge National Laboratory, working with the University of Tennessee, the Smokey Mountain National Park, and other public and private partners, would combine a vast array of experts and supercomputer capabilities to develop cost effective systems to help tackle the economic and biological challenges posed to the region and the nation. In addition to regional issues, East Tennessee has a special expertise in invasive species research.

Alien and invasive species accidentally introduced to the United States have cost private businesses and governments hundreds of millions of dollars. Bacterial organisms and viruses that are transported from other regions of the world pose significant health risks to our population. These parasites and animals, including the Dogwood Anthracnos and the Zebra Mussel have done billions of dollars in damage to Tennessee's Dogwood trees, waterways and pipe systems. Unless the United States can do a better job of tracking, examining and understanding non-native species invasions, that cost will continue to rise.

Bringing an NBII node to Tennessee will:

- Extend Tennessee's reputation as a key location for sophisticated, high-tech biological and informatics research
- Enhance Tennessee's existing private and public sector investments in research and technology
- Use Tennessee's resources to continue to address national problems
- Bring a new source of high-tech jobs and funding to the state
- Create new opportunities for high-tech businesses
- Attract additional private and public investments in biological research and information technology
- Help focus Tennessee's information management and analysis capabilities into a Knowledge Nexus, a Gateway to Scientific and Technical Knowledge for the nation