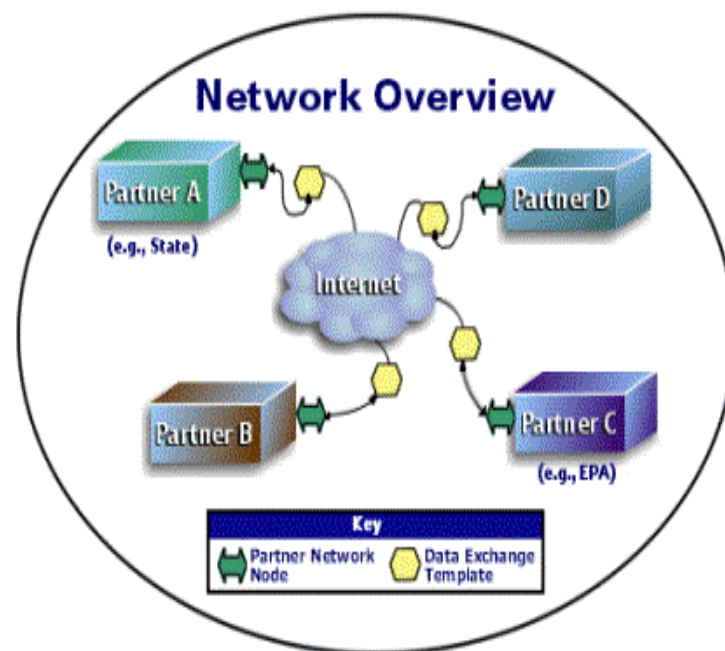# The National Environmental Information Exchange Network

Overview and Opportunities

National AQS User Conference

August 20, 2008

1

What is the Exchange Network?

Network Overview

Partner A (e.g., State)
Internet
Partner D
Partner B
Partner C (e.g., EPA)
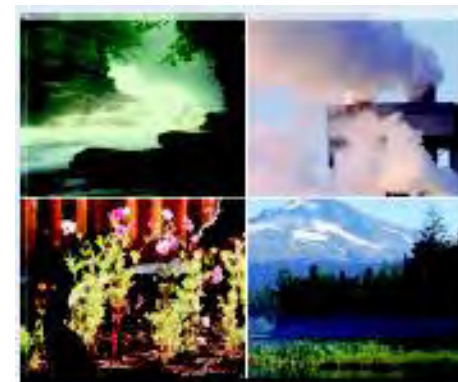
Key
Partner Network Node
Data Exchange Template

Principles:

1. Each partner manages their own data, and is the steward for data they originate.

2. The Network "doesn't care" how a partner manages and stores information.

3. Partners who need to store copies of data locally are responsible for the design, format, and maintenance of the copy they create.

4. Network partners agree to use adopted technology and data standards.

A common approach to sharing data that lets you use your partners' data as if it is a part of your own systems.

2

Why?

- High demand for access to environmental information among partners
- Multiple approaches to information exchanges are inefficient and burdensome
- States modernizing information systems and migrating away from use of EPA national systems
- Use of integrated information technologies and approaches is on the rise
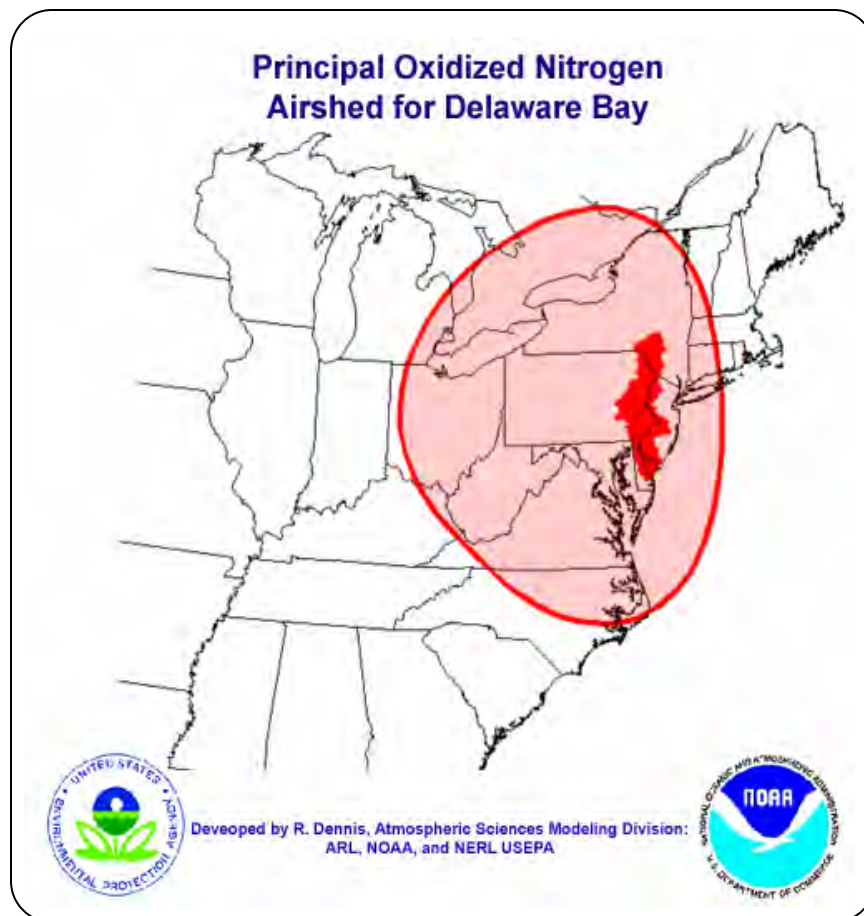- Yesterday's Answer for Today's question

So Why Are We Still Talking?

- The Exchange Network looks like an IT Initiative
  - AQS worked just fine before you came along, thanks!
  - Besides, I'm busy. What's in it for me?
- Checking the box doesn't matter much. And it doesn't seem to do much.

- You're right. Your IT shop just doesn't get it
- Full Disclosure: I'm one of them
- But they mean well—and they have money!!
- It really does pay off for IT
- Air program innovators have made it work for them
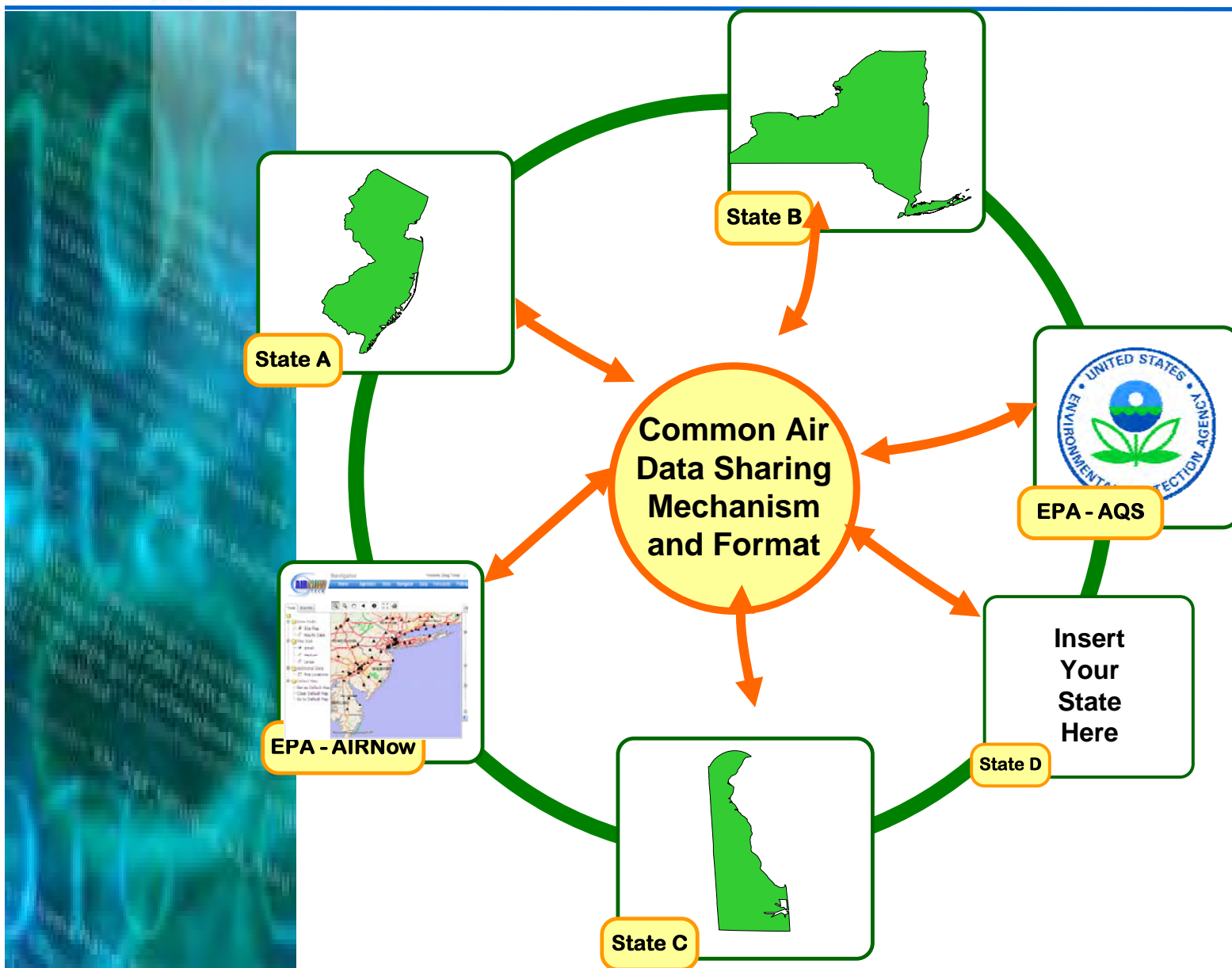- You only see the payoff when you do cool new stuff.

I'm not saying don't use the Network—just understand why, and make work for you.

Business Case: New Jersey

Principal Oxidized Nitrogen Airshed for Delaware Bay

Deveoped by R. Dennis, Atmospheric Sciences Modeling Division: ARL, NOAA, and NERL USEPA

- States share airsheds
- Air quality data isn't easily shared among states and is limited in EPA systems
- Information is needed consistently and timely for:
  - Environmental & Health assessments
  - Homeland security

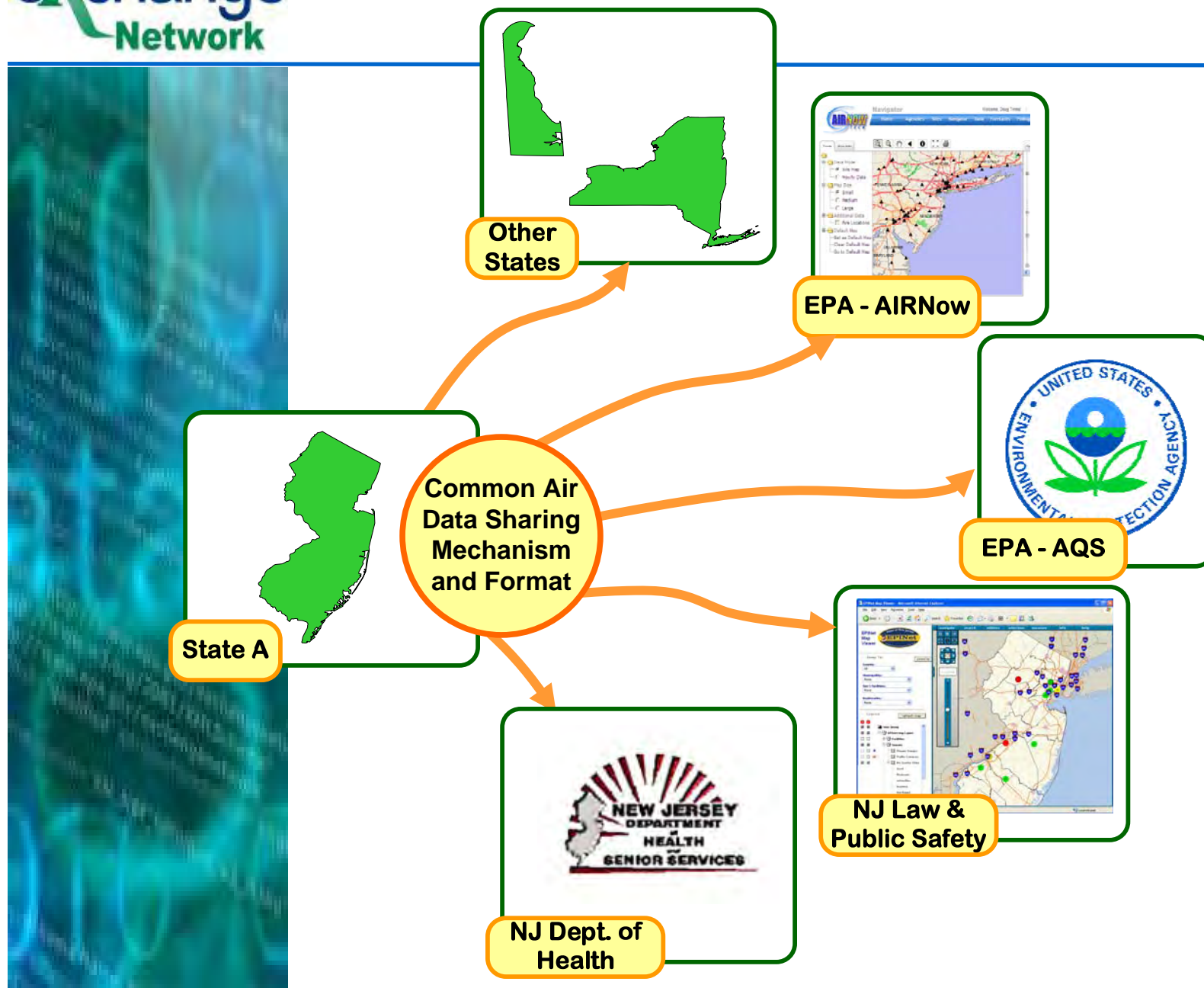# Share data for multiple purposes—not just reporting

Environmental Information
eXchange Network

State B

State A

Common Air Data Sharing Mechanism and Format

EPA - AQS

EPA - AIRNow

Insert Your State Here

State D

State C

6

GIS Analysis Tool – AirNow Tech

Results

- Improved sharing, use, and consistency of air quality data among states and EPA Air Programs
- Provided tool for states to publish air quality data in a near real-time fashion
- Enabled air quality data to be available on-demand and analyzed online, geospatially through Air Now Tech
- Minimized effort by harmonizing 3 different data sharing needs (AQS, AirNow, State to State) into one data flow
- Collaborated and re-used existing technology
- Ensured easy reuse by other States and Tribes

1 effort reused 5 times in New Jersey

Environmental Information
eXchange Network

Other States

EPA - AIRNow

State A

Common Air Data Sharing Mechanism and Format

EPA - AQS

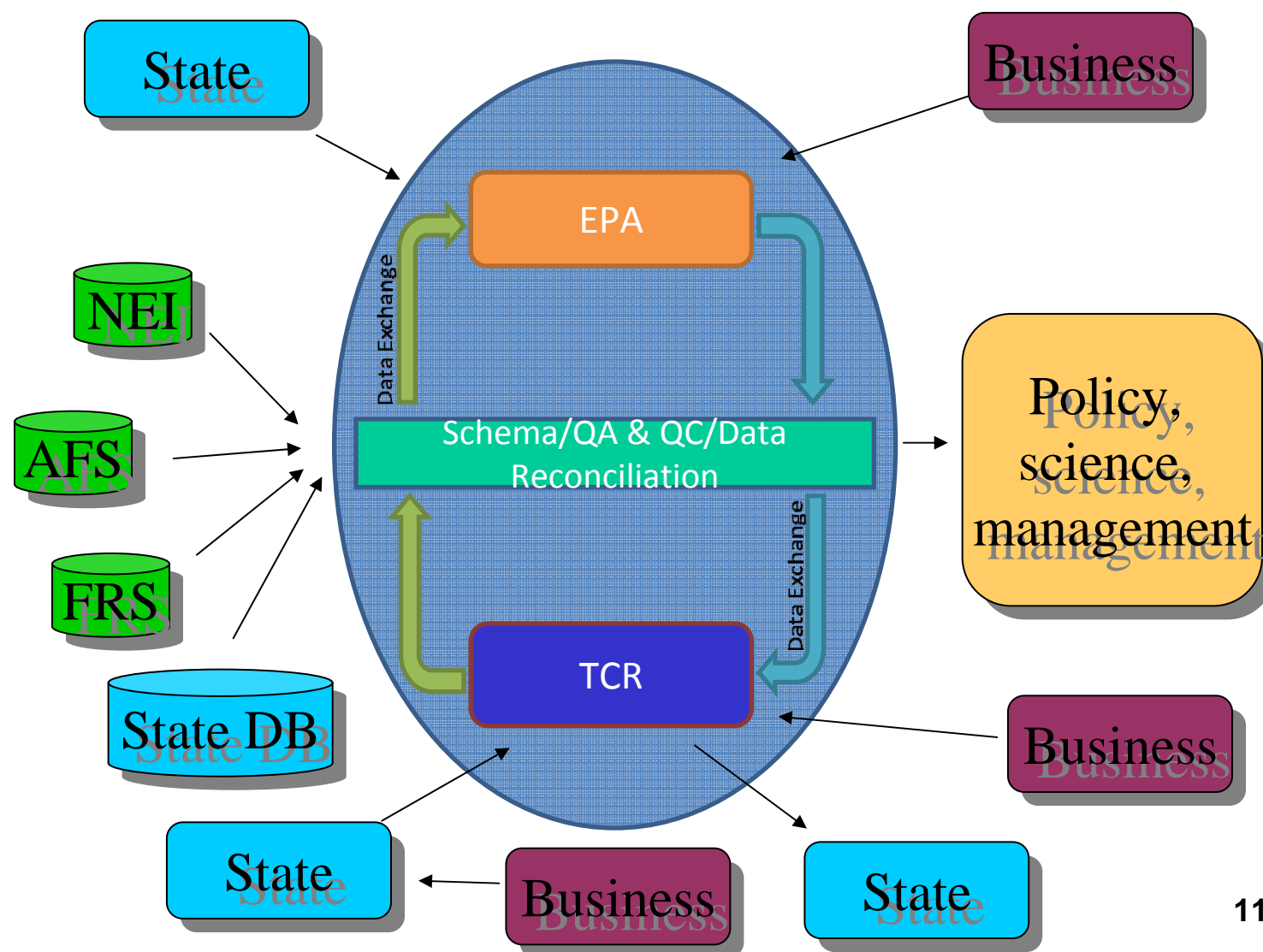**NJ Law & Public Safety**

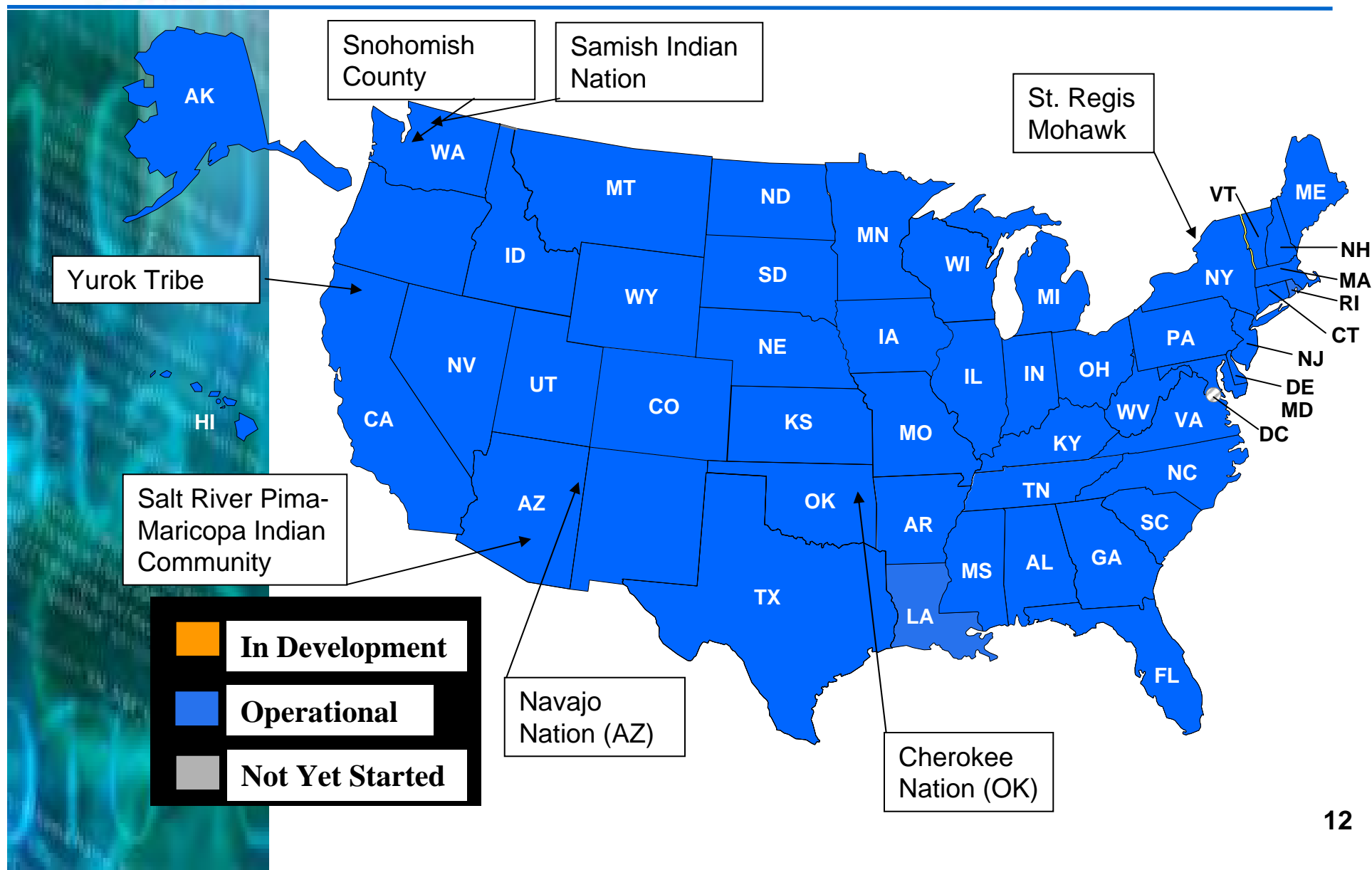**NJ Dept. of Health**

Other efforts

- Public Health Projects (6 states)

- Data Extraction (Water, at present)

  - Are AQS reports everything you can imagine?

- HERE Project (Emergency Response data sharing in a region), built on FRS exchange

- TCR, EIS, and GHG exchanges

Potential Data Exchanges

11

Status of Network - Today

Environmental Information
eXchange Network

Snohomish County

Samish Indian Nation

St. Regis Mohawk

Yurok Tribe

Salt River Pima-Maricopa Indian Community

Navajo Nation (AZ)

Cherokee Nation (OK)

Legend:
- In Development
- Operational
- Not Yet Started

Not Just Another Web Site!

- Can be "built in" to tools you use
- Send reports—or look it up.
- Build once, use many times
- Diminishing cost for new initiatives
- As protected as the owner chooses
- Shared Quality Assurance tools—before you try to load
- Data Standards—shared understanding
- Discovery Services

Finding Data

- Discovery services let you:
  - Find out what is on the Network
  - Learn which partners have the data you need
  - Find out how to access each node and how to request the needed data.
  - For sensitive data, learn how to obtain permissions for data you have a need to access
  - If someone has made tools that improve usability of the data, find and use those tools

Where am I going with all this?

- Define services
- Implement them on AQS—and between partners (want to call a sensor directly?)
- Tell your IT shop what you need to get done.
- The Exchange Network is built on innovation. You can create the "next big thing"
- We want you to ask "What's in it for me"
- Get together with IT, and let the network buy you that next "killer app".

Questions? Need Info

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