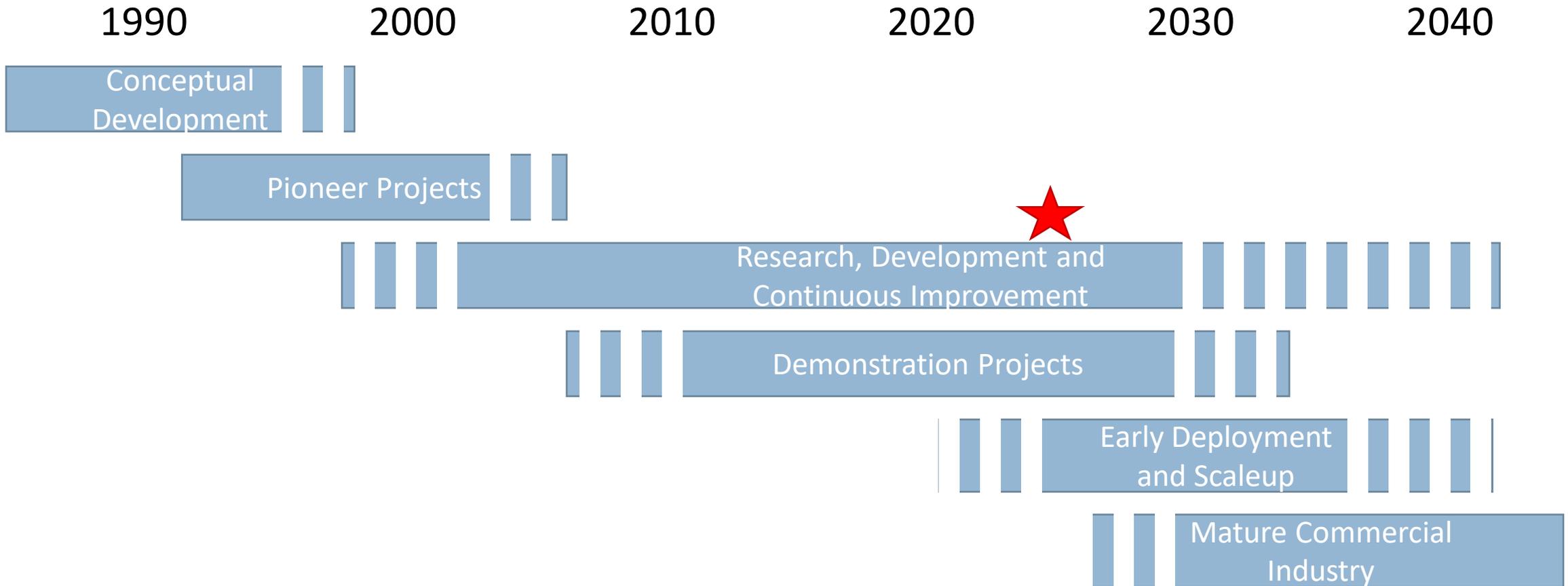




# From Demos to Early Deployment: The Next Step in the CCUS Journey

Sally M. Benson  
Deputy Director for Energy  
White House Office of Science and Technology Policy

# A Brief Global History of CCUS



# As We Enter This New Phase for CCUS...

Community members and other stakeholders will have lots of questions:



What is this technology and how does it work?



Is it safe?



Will it create and sustain good jobs for our community?



Will it expose my family or the environment to pollution?



Will it help stop climate change?



Will I have a say about how this project gets done in our community?



# We Need Good Answers To These Questions

- Good answers require:
  - ✓ Fully understanding the risks and benefits associated with these projects, and
  - ✓ Being forthcoming with information and data.

This is particularly important because people now get information from a wide range of sources!



# Emerging Questions About Air Quality Impacts from CO<sub>2</sub> Capture Facilities from Stakeholders and Communities

- Criteria pollutants from power generation and industrial facilities
- Toxics, particularly nitrosamines and nitramines emitted from capture facilities and/or created by photochemical reactions in the atmosphere.

**Extensive conversations with experts indicate that more work in this area is needed.**



# Needs Identified From Experts

- Air emissions data from operating capture facilities, including criteria pollutants and air toxics (nitrosamines, etc...)
- Reliable, practical, and cost effective methods/protocols for measuring toxics
- Proven and reliable control measures during steady state and transient operations that prevent hazardous air emissions from routine operations and disruptions
- Modeling to assess atmospheric photochemical interactions and transport to assess environmental impacts of secondary products from capture facilities
- Assessment of existing regulations and/or development of standards to guide project operator's reporting and compliance requirements



# Thank You for Your Leadership

- DOE Fossil Energy and Carbon Management
- National Carbon Capture Center
- Experts and stakeholders we have engaged with
- All of you for participating

