

# Advance Reactor Roadmap

## Critical needs for deployment

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June 29, 2023  
National Legislators Working Group





## VISION

To be a world leader in advancing science and technology solutions for a clean energy future

## MISSION

Advancing **safe, reliable, affordable, and clean** energy for society through global collaboration, science and technology innovation, and applied research

*Together...Shaping the Future of Energy*



# 2023 Advanced Nuclear Technology Program Membership

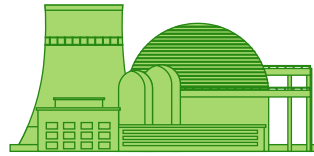
ANT Participation Extended to Over 80 Companies

## NUCLEAR SECTOR BASE MEMBERS



**22** US Members

**29** International Members



**>83%**  
of the world's commercial  
nuclear units



**>340**  
reactors worldwide

## FULL ANT SUPPLEMENTAL MEMBERS

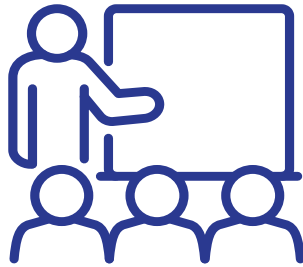
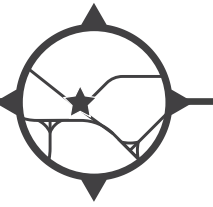


## ADVANCED REACTOR INITIATIVE MEMBERS

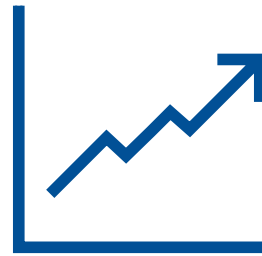


# Advanced Reactor Roadmap

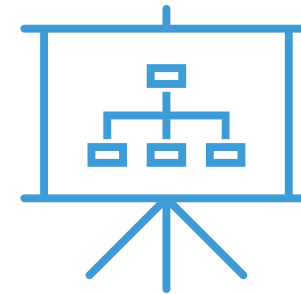
A shared strategy to ensure success at scale



**Serving** government, academic, industrial, and public **stakeholders**



Almost 100 GWe of **new nuclear** will be needed by 2050. This means around **300 ARs** in the next **30 years**



**7 Enablers** and **46 key actions** chart our path towards a **net-zero future**



Convening the industry for **strategic action**

Industry's roadmap to the future fleet





# Purpose and Audiences

**01** For potential customers of advanced reactors

**02** For policy-makers and regulators

**03** For financial institutions

**04** For public stakeholders, including local communities and Tribal Nations

**05** For industry stakeholders



**Provides an achievable path forward to support the successful commercialization of advanced reactors**

# Enablers

01 First Mover Success

02 Fast Followers

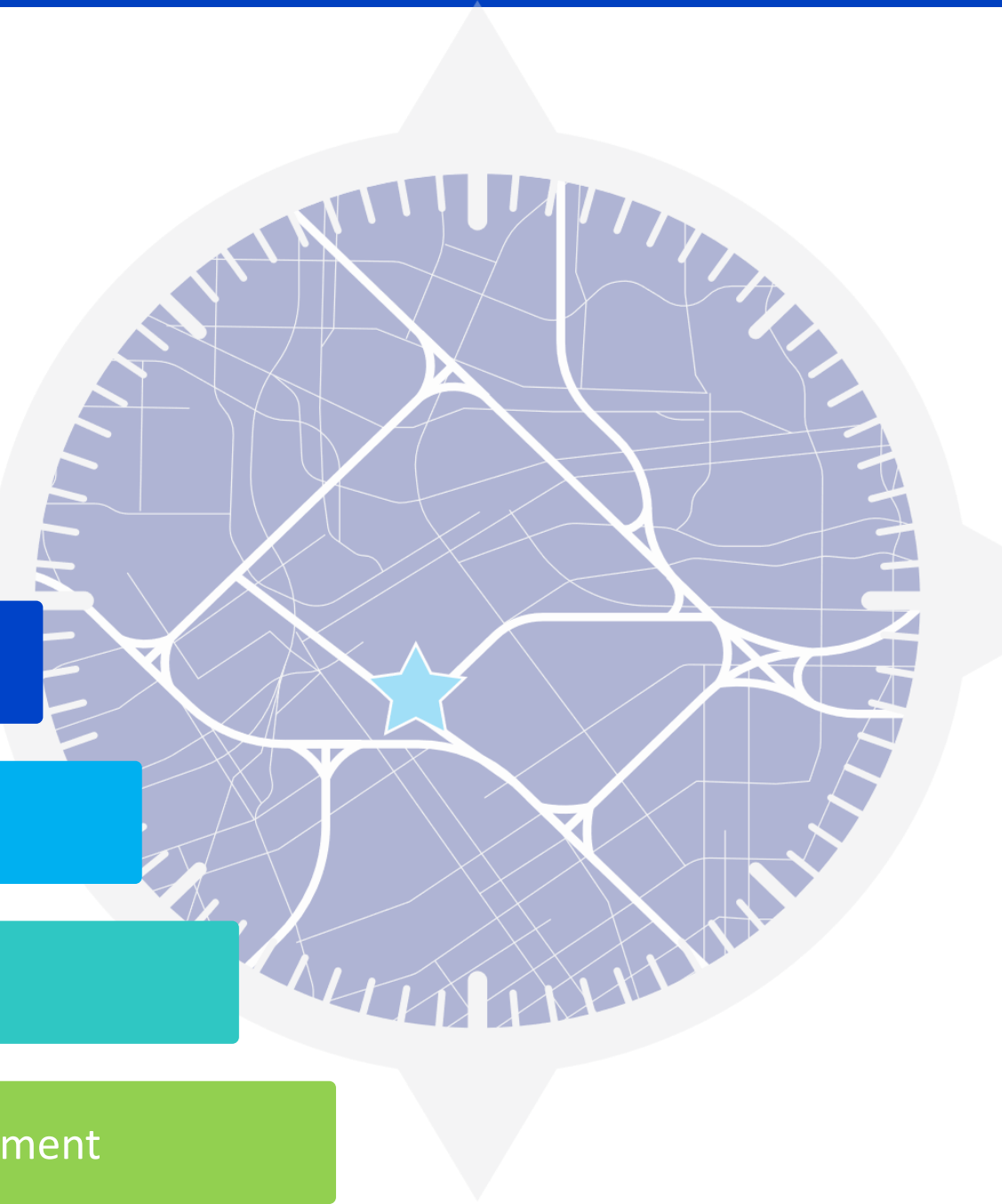
03 Regulatory Efficiency

04 Siting Availability

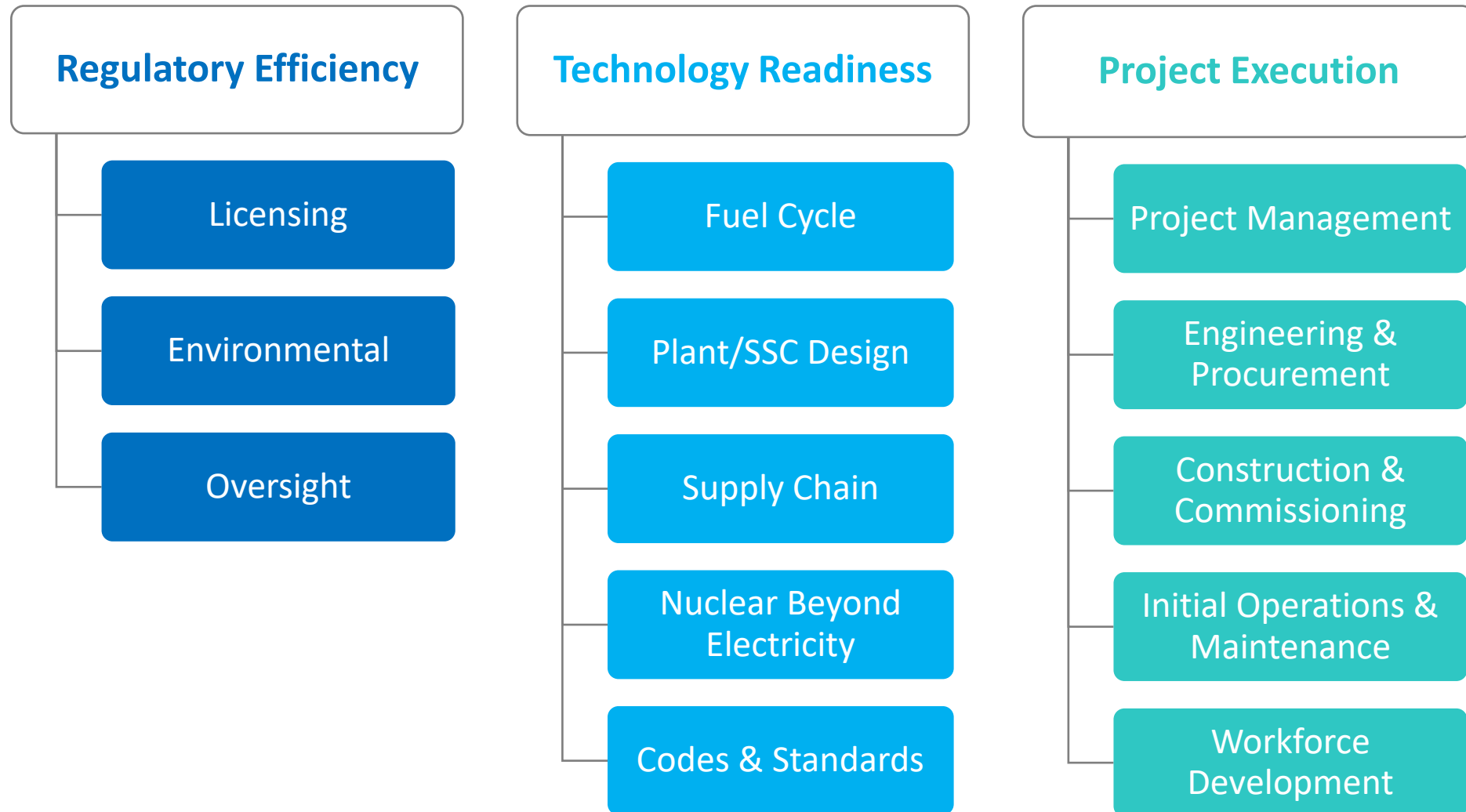
05 Public Engagement

06 Supply Chain Ramp-up

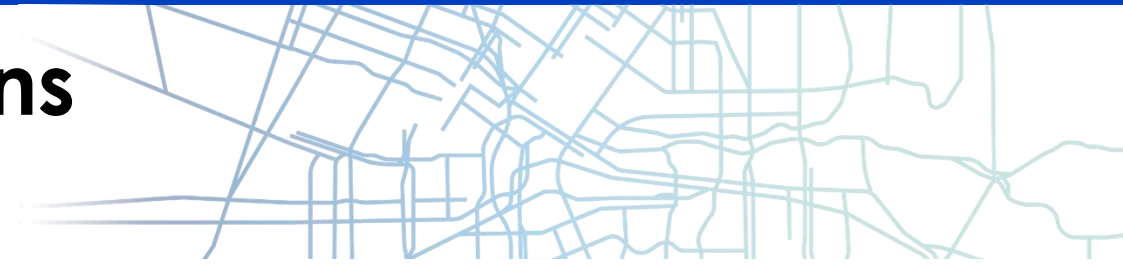
07 Workforce Development



# Strategic Elements



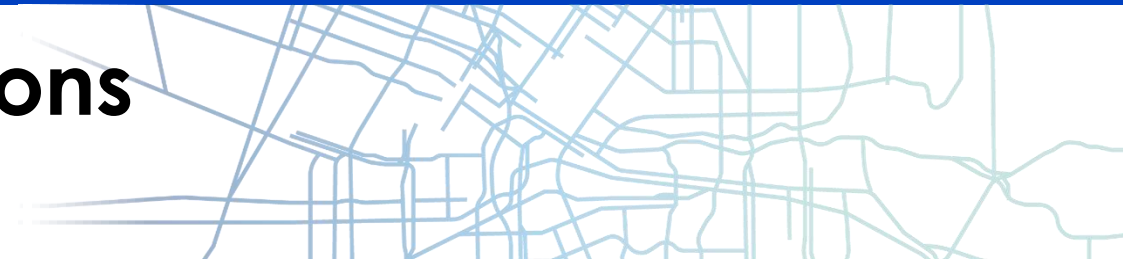
# Regulatory Efficiency Pillar Actions



Licensing



# Technology Readiness Pillar Actions



Fuel Cycle

# Project Execution Pillar Actions

Project  
Management

A blue-tinted photograph of four diverse professionals standing together. From left to right: a man with curly hair and glasses wearing a white lab coat; a man with glasses wearing a white lab coat; a woman wearing a white hard hat and a dark polo shirt; and a man with glasses and a beard wearing a light-colored button-down shirt. They are all looking towards the right side of the frame.

**Together...Shaping the Future of Energy®**