

A sociotechnical approach to nuclear energy development

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Nuclear Power in a Clean Energy System



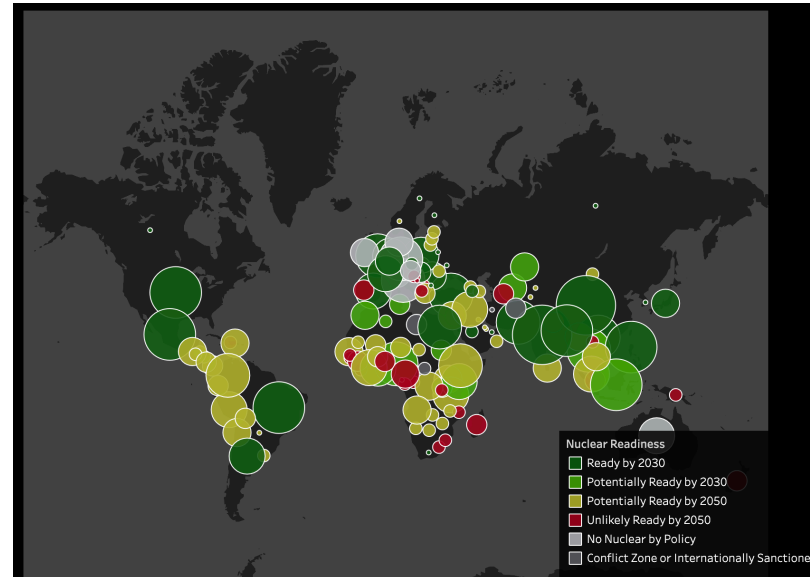
Nuclear is the second largest source of clean energy in the world

[learn more](#)

Commercializing next-generation nuclear energy technology

Oklo's team is using a startup mindset to build novel reactors while meeting federal regulations.

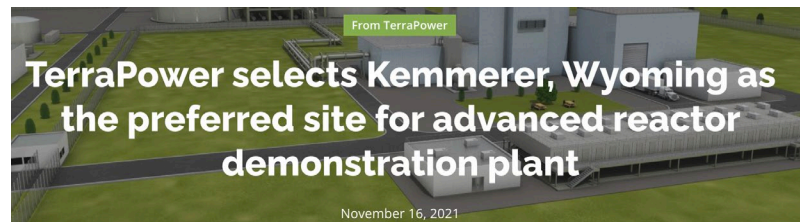
Zach Winn | MIT News Office
November 13, 2020



Executive summary

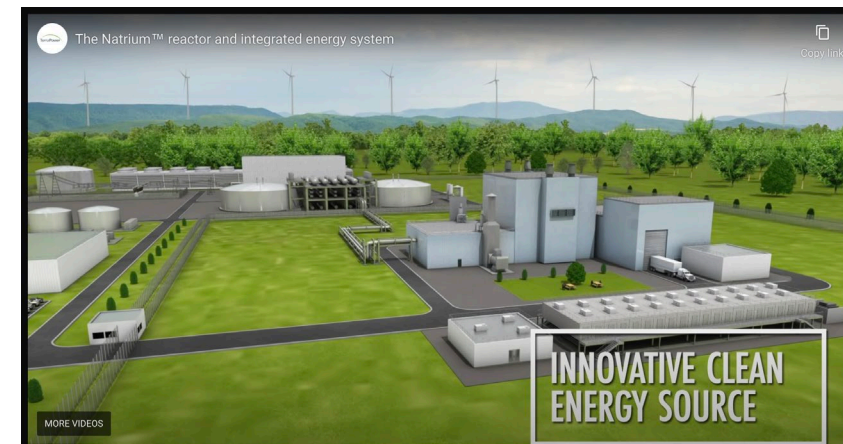
Nuclear power can play an important role in clean energy transitions

Without nuclear investment, achieving a sustainable energy system will be much harder



12.01.2021

Commonwealth Fusion Systems Raises \$1.8 Billion in Funding to Commercialize Fusion Energy





Bloomberg

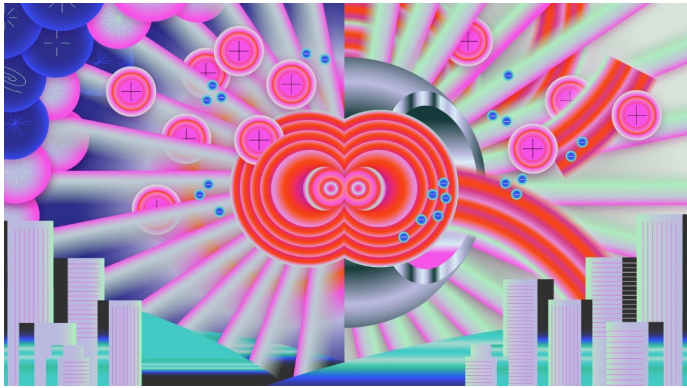
Green | Cleaner Tech

Corporations Join the Nuclear Fusion Craze

Investments in the unproven technology are a vote of confidence it can become a viable source of clean energy.

BRIEFING ROOM

Parallel Processing the Path to Commercialization of Fusion Energy



White House Sets Sights on Commercial Fusion Energy

Office of Science

White House Summit: Developing a Bold Decadal Vision for Commercial Fusion Energy

MARCH 2, 2022

SCIENCEINSIDER | PHYSICS

Road map to U.S. fusion power plant comes into clearer focus—sort of

National academies lay out to-do list to build multibillion-dollar plant by 2035

The race to build a commercial fusion reactor hots up

A Canadian firm plans a demonstration machine in Britain



Jun 24th 2021

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SCIENCE

Was 2021 A Breakthrough Year For Fusion Energy?

nature



The chase for fusion energy

An emerging industry of nuclear-fusion firms promises to have commercial reactors ready in the next decade.

By Phillip Ball
17 November 2021

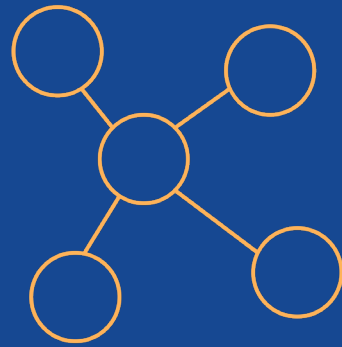
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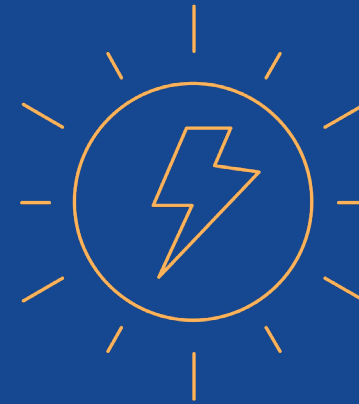
Engaging communities to understand their energy needs and preferences



Developing decision support tools for an equitable energy transition



Designing Energy technologies with users and communities



Mapping and repairing energy inequities



Lessons from fission technology development

Key takeaways from an advanced fission stakeholder focus group

Design teams should not make assumptions about what communities want		
<ul style="list-style-type: none">I. Many communities actively expressing interest in nuclear energy because of familiarity with nuclearII. Communities seek to clearly understand the intended uses and socio-environmental impacts of any potential facilityIII. Strong opposition to the decide-announce-defend model		

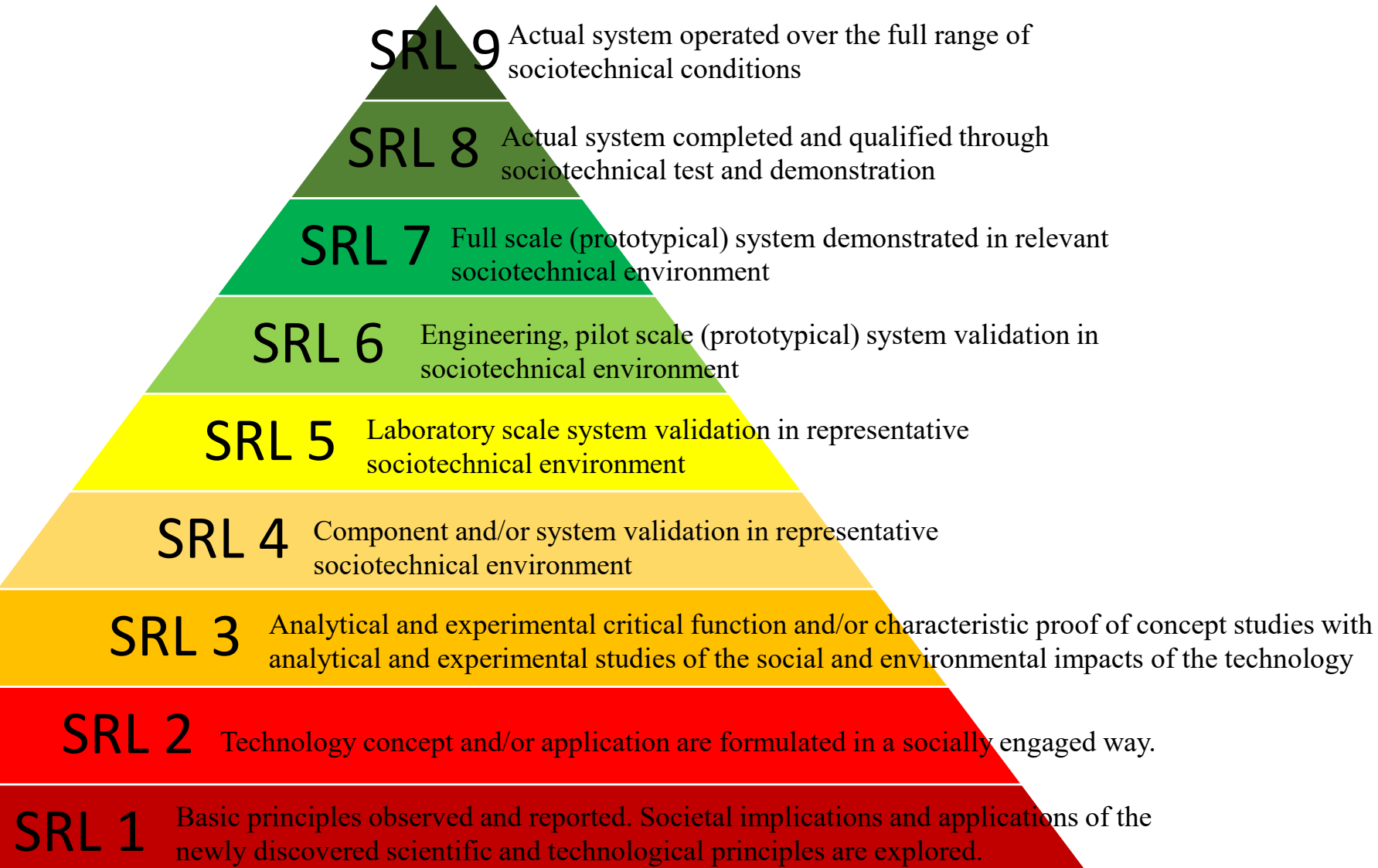
Key takeaways from an advanced fission stakeholder focus group

Design teams should not make assumptions about what communities want	Community expectations vary regionally and have technological design implications	
<ul style="list-style-type: none">I. Many communities actively expressing interest in nuclear energy because of familiarity with nuclearII. Communities seek to clearly understand the intended uses and socio-environmental impacts of any potential facilityIII. Strong opposition to the decide-announce-defend model	<ul style="list-style-type: none">I. Communities have some shared preferences but community and preferences also vary significantlyII. Important to find the right match between a host community, technology developer and technology typeIII. Tension between rapid technological development and need to go slowly to understand community concerns	

Key takeaways from an advanced fission stakeholder focus group

Design teams should not make assumptions about what communities want	Community expectations vary regionally and have technological design implications	Communities seek agency and meaningful participation in design-related decision making
<ul style="list-style-type: none"> I. Many communities actively expressing interest in nuclear energy because of familiarity with nuclear II. Communities seek to clearly understand the intended uses and socio-environmental impacts of any potential facility III. Strong opposition to the decide-announce-defend model 	<ul style="list-style-type: none"> I. Communities have some shared preferences but community and preferences also vary significantly II. Important to find the right match between a host community, technology developer and technology type III. Tension between rapid technological development and need to go slowly to understand community concerns 	<ul style="list-style-type: none"> I. Designers and developers must be careful not to overpromise and underdeliver II. High performance in early projects is especially important III. Developers may wish to appoint dedicated community liaisons IV. Engage communities in a discussion about risk

Sociotechnical readiness level framework



Engaging Wyoming Communities in an Environmental Justice Approach for Advanced Nuclear Energy Facility Siting



Integrating socially led co-design into consent-based siting of interim storage facilities

