

CARING FOR IMPACTED PEOPLE, COMMUNITIES, ORGANIZATIONS

- Triage and provide support for workers, businesses, and communities adversely impacted by transition.
- Address legacy (stranded) economic interests.

ADDRESSING LEGACY SOCIAL & ENVIRONMENTAL EQUITY ISSUES

- Look to heal/cure past harm due to energy technology choices and decisions.
- Facilitate honest, difficult conversations.

ACCELERATING R&D

- Three focus areas (NAE Accelerating Decarbonization):
 - › Expanding technological options.
 - › Reducing costs of existing options.
 - › Better understanding of how to manage a socially-just energy transition.

PACING THE WORK

- Manage both short and long-term decision horizons.
 - › Recognize some key decisions may be a decade(s) away.
 - › Beware of 'quick fixes'.
 - › Navigate technology "learning curves".
- Exercise and model patience, perseverance, and grit.

FACILITATING EXPERIENTIAL DECISION-MAKING

- Develop interactive visualizations of models that enable people to see results, explore options, and gauge sensitivity of decisions/choices.

ENGAGING & EDUCATING THE PUBLIC / STAKEHOLDERS

- Help people face reality and confront brutal facts.
- Surface opportunities for win-win strategies.
- Engage in inclusive decision-making processes.

SHARING INFORMATION / FOSTERING TRANSPARENCY

- Share credible information and knowledge for understanding and buy-in.
 - › Build public confidence in metrics and 'big data' insights and applications.
 - › Add 'equity' indicators/metrics.
 - › Trusted, "Fauci-like" spokespeople/guides.

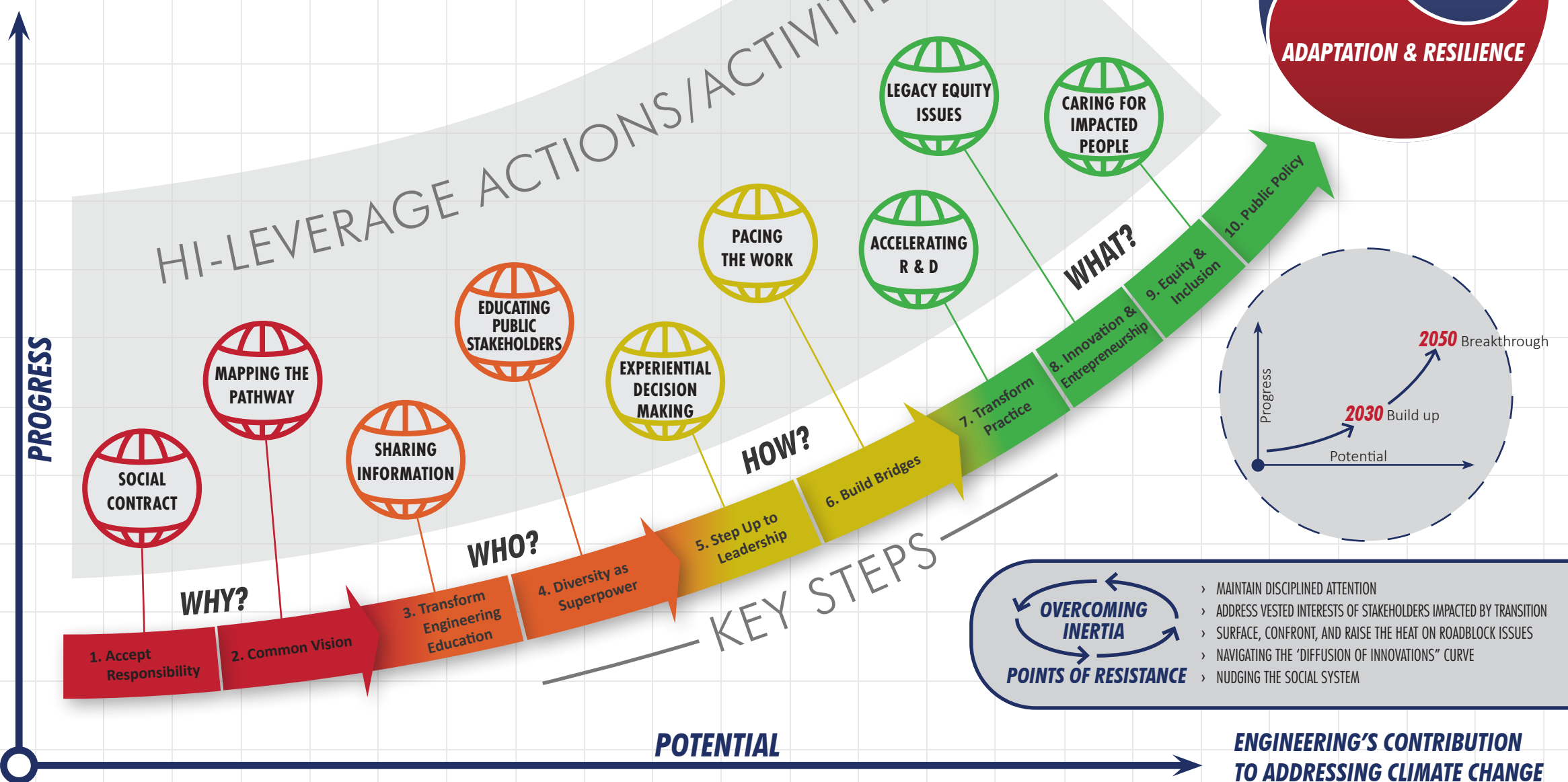
MAPPING THE PATHWAY

- Collaborate in the development and updating of a blueprint showing steps and key decisions required to move toward a low (zero) carbon future, adapt to climate-caused challenges, and build societal resilience.
- Balance investments, affordability, and long-term cost effectiveness.

SIGNING ON TO A SOCIAL CONTRACT

- Be party to a broadly shared understanding among stakeholders in support of efforts to transition to a carbon-neutral US economy that also meets societal criteria for equity and inclusion.

ACHIEVING CARBON NEUTRALITY & REDUCING THE THREAT OF CLIMATE CHANGE



Mapping The Future

ENGINEERING & THE GRAND CHALLENGE OF CLIMATE CHANGE



ENGINEERING CHANGE LAB USA

SUMMIT 11 KVD. 5/11/21

WHY?	WHO?	HOW?	WHAT?
<p>1. Accept Responsibility</p> <ul style="list-style-type: none"> • The engineering community "owns" the grand challenge of climate change. <ul style="list-style-type: none"> › "Our part" of past outcomes. › Full accountability for current and future actions. 	<p>3. Transform Engineering Education</p> <ul style="list-style-type: none"> • Environmental responsibility and climate change as fundamentals. • Champion comprehensive education and training of the workforce at all levels. <ul style="list-style-type: none"> › Values/ Mindsets/ Skills & Competencies. 	<p>5. Step Up to Leadership</p> <ul style="list-style-type: none"> • Communicating, connecting, convening, and care-giving. • Challenging the status quo / catalyzing change. • Taking the heat and holding steady. 	<p>7. Transform Engineering Practice & Design</p> <ul style="list-style-type: none"> • Hold climate change as a fundamental consideration. • Escape constraints of "engineering as usual" rules, standards, and boundaries.
<p>2. Commit to a Common Vision / Noble Purpose</p> <ul style="list-style-type: none"> • Coalesce around a shared vision. • Adopt a noble purpose to generate energy, excitement, and commitment. 	<p>4. "Diversity as an Engineering Superpower"</p> <ul style="list-style-type: none"> • Embrace and grow all types of diversity within engineering community. • Tap the creative and relationship/trust-building potential. 	<p>6. Build Bridges</p> <ul style="list-style-type: none"> • Collaborate with technologists, scientists, and other stakeholders. • Proactively reach out across divides and between "tribes." • Manage polarities and resolve conflicts. 	<p>8. Foster Innovation & Entrepreneurship</p> <ul style="list-style-type: none"> • Grow innovation toolkits and portfolios. • Foster an entrepreneurial mindset. • Engage in social entrepreneurship.
			<p>9. Promote Equity, Inclusion, & Justice in Process & Outcomes</p> <ul style="list-style-type: none"> • Identify and aid at-risk, underserved, and disadvantaged communities. • Empower public participation in decision-making. • Increase STEMpathy within engineering community.
			<p>10. Increase Public Policy Engagement</p> <ul style="list-style-type: none"> • Increase both acumen and action. • Guide public investment decisions and regulatory shifts.