

## Introduction to the Enhanced Geothermal Shot™ **Technology Pathways**

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### Reduce the cost of enhanced geothermal system electricity by >90% with 40 Gigawatts deployed by 2035\*





### Pathways to the Enhanced Geothermal Shot<sup>™</sup>

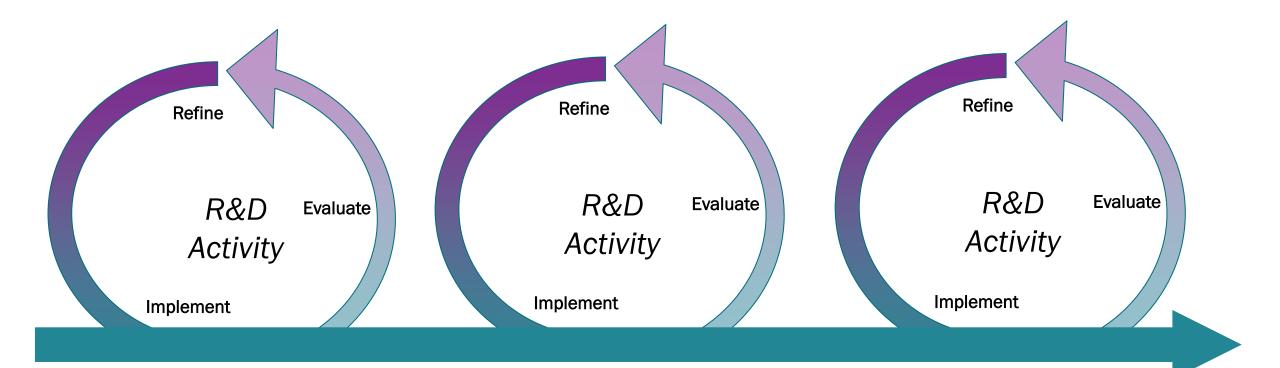
THE SUBSURFACE PREDICTING ITS BEHAVIOR		IN THE SUBSURFACE		
SEEING WITH GREATER PRECISION	PREDICTING WITH GREATER PRECISION	ACCESSING THE SUBSURFACE	匠司 DESIGNING & BUILDING WELLS	MANIPULATING & CREATING DURABLE RESERVOIRS
NEW TECHNOLOGY DEVELOPMENT	ADVANCED MODELS / EXOSCALE COMPUTING / ML / AI	DRILL WELLBORE AT 4X SPEED	REDUCE WELL CONSTRUCTION COSTS 60%	CONTROL FLUID FLOW
	Characterization Reservoir performance	Improve drilling efficiency Advanced tools and	- ENABLE ACCESS TO 50% MORE HOT ROCK	THE WELLBORE - SUSTAINED HIGH FLOW RATES (125 L/S)
	Induced seismicity monitoring and risk assessment Wellfield and reservoir development Active reservoir management	materials for well construction	New well designs and well field configurations (get more for less) Fit-for-purpose materials	Manipulate physical processes to control flow Engineering solutions to control flow New stimulation methods

Design, fabricate + test new materials for sensors, components, well construction/drilling, coatings, etc.

Integrated Field Demonstrations



## **Learn-While-Doing: Field Demonstrations**



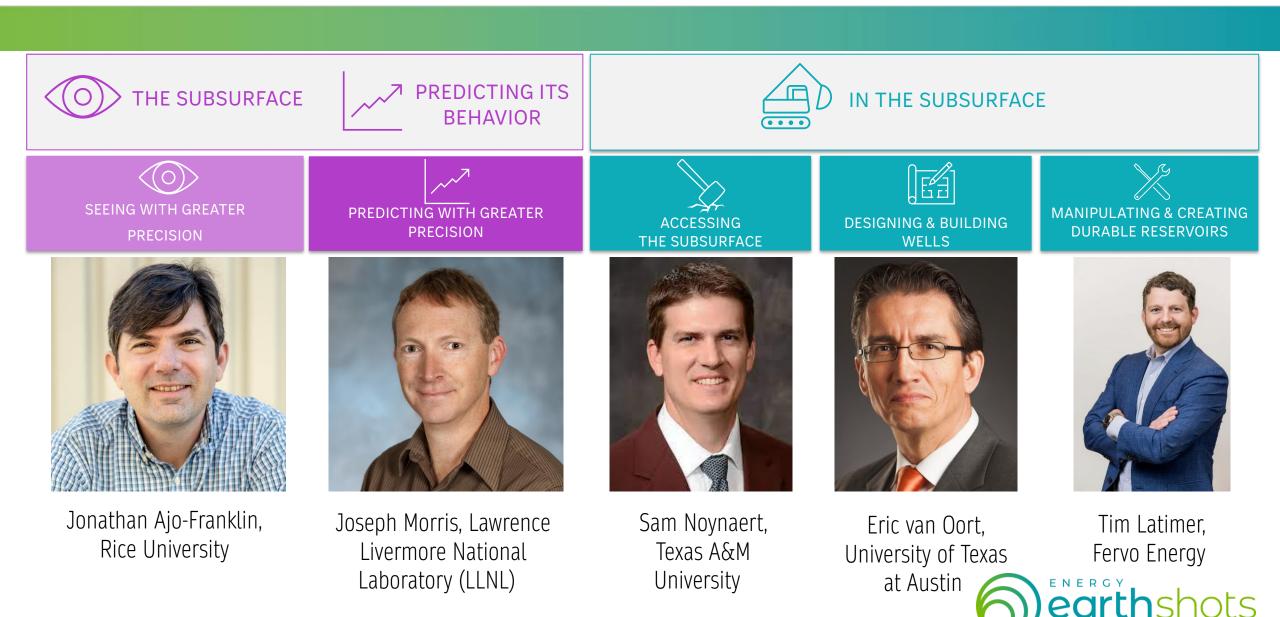
## EGS FIELD DEMONSTRATIONS

Key to Achieving the Enhanced Geothermal Shot™:

Successful demos with robust R&D addressing real-world needs to enable rapid refinement and redeployment of technologies.



#### **Panelists**





# Share your feedback and ideas!

Email <u>EGShotRoadmap@ee.doe.gov</u> to share thoughts, questions, and feedback on the Enhanced Geothermal Shot™ Roadmap.



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## Thank you!

