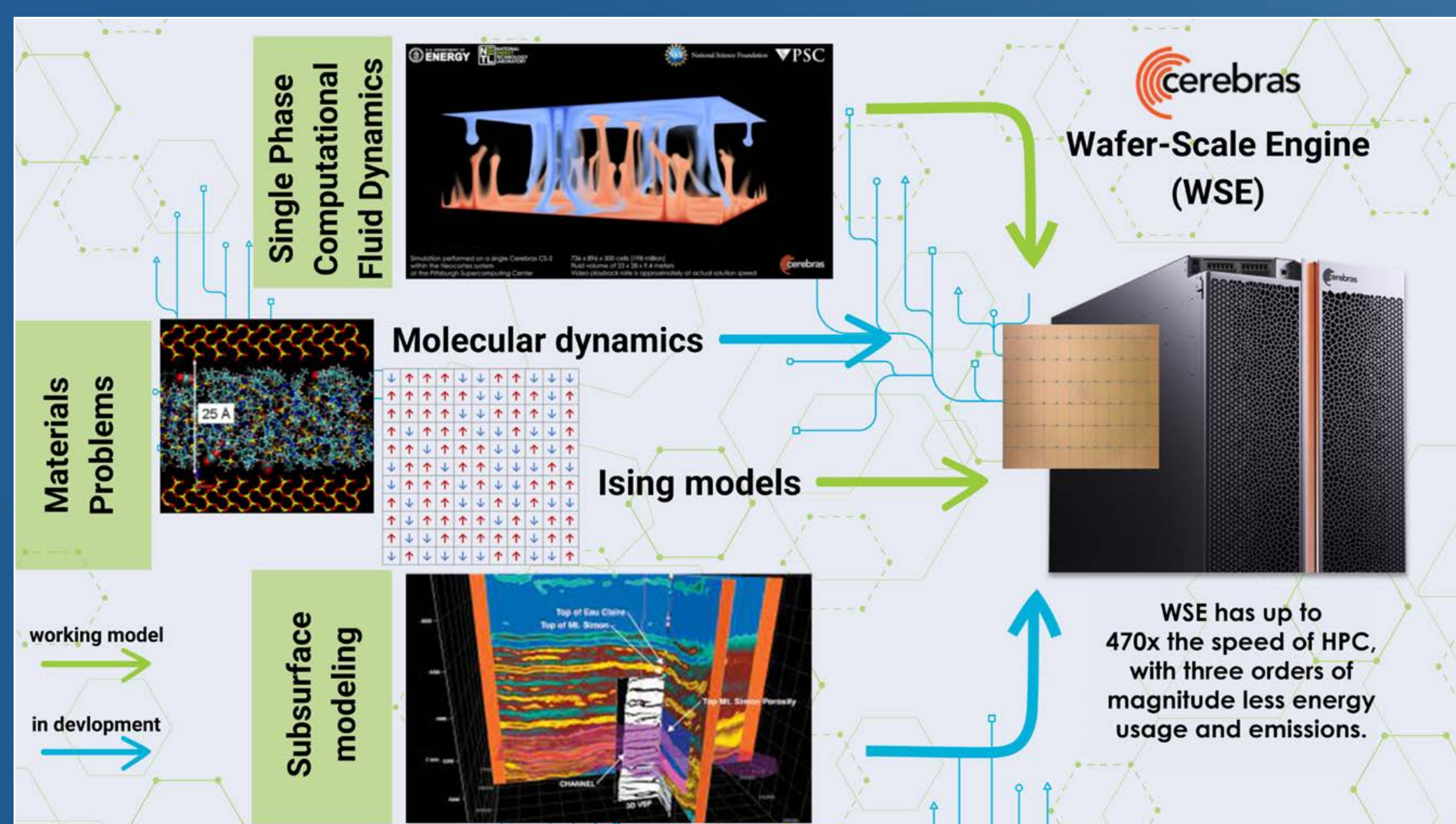


# NETL, CEREBRAS AND PITTSBURGH SUPERCOMPUTING CENTER WORK TOGETHER TO DEVELOP A NEW FUTURE FOR HIGH PERFORMANCE COMPUTING ON WAFER-SCALE ENGINES

*The impact will be transformative, improving modeling and simulation solution times by several hundred times over current methods.*



A programming interface such as the wafer-scale engine (WSE) field equation application (WFA) programming interface allows different computer programs to communicate — in this case with the revolutionary WSE designed by Cerebras Systems Inc. to tackle tough artificial intelligence (AI) problems.

- Applications for the WFA to accelerate and support include materials modeling, molecular dynamics and AI-accelerated scientific modeling, among others.
- The WSE allows for dramatic acceleration of existing scientific models on unique and emerging hardware, marching down the path to a new exascale computing method.
- With continued investment in software and hardware development, it will be possible to run the majority of NETL's computational methods on the WSE, dramatically increasing productivity as well as optimizing the operation of facilities and systems.
- NETL and Cerebras are now pursuing the first commercial application to run on the WSE through the NETL WFA interface.

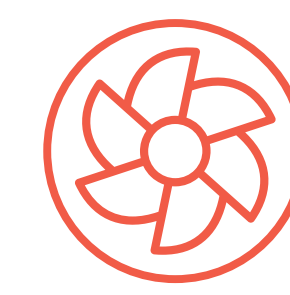
## RESEARCH PRIORITIES



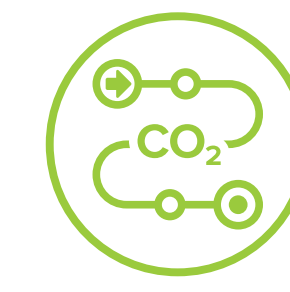
CARBON CAPTURE



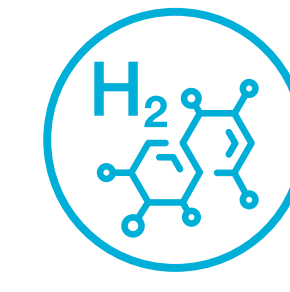
CARBON CONVERSION



CARBON DIOXIDE REMOVAL



CARBON STORAGE AND TRANSPORT



HYDROGEN WITH CARBON MANAGEMENT



DOMESTIC CRITICAL MINERALS PRODUCTION



METHANE MITIGATION

## PERFORMERS



NETL ANNUAL  
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