

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

BIOGEOCHEMISTRY BREAKOUT SESSION

REPORT OUT

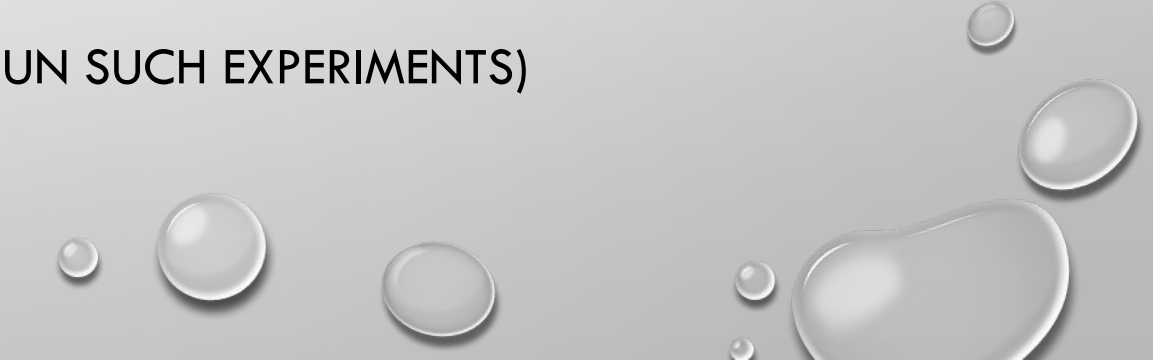
2024-08-06

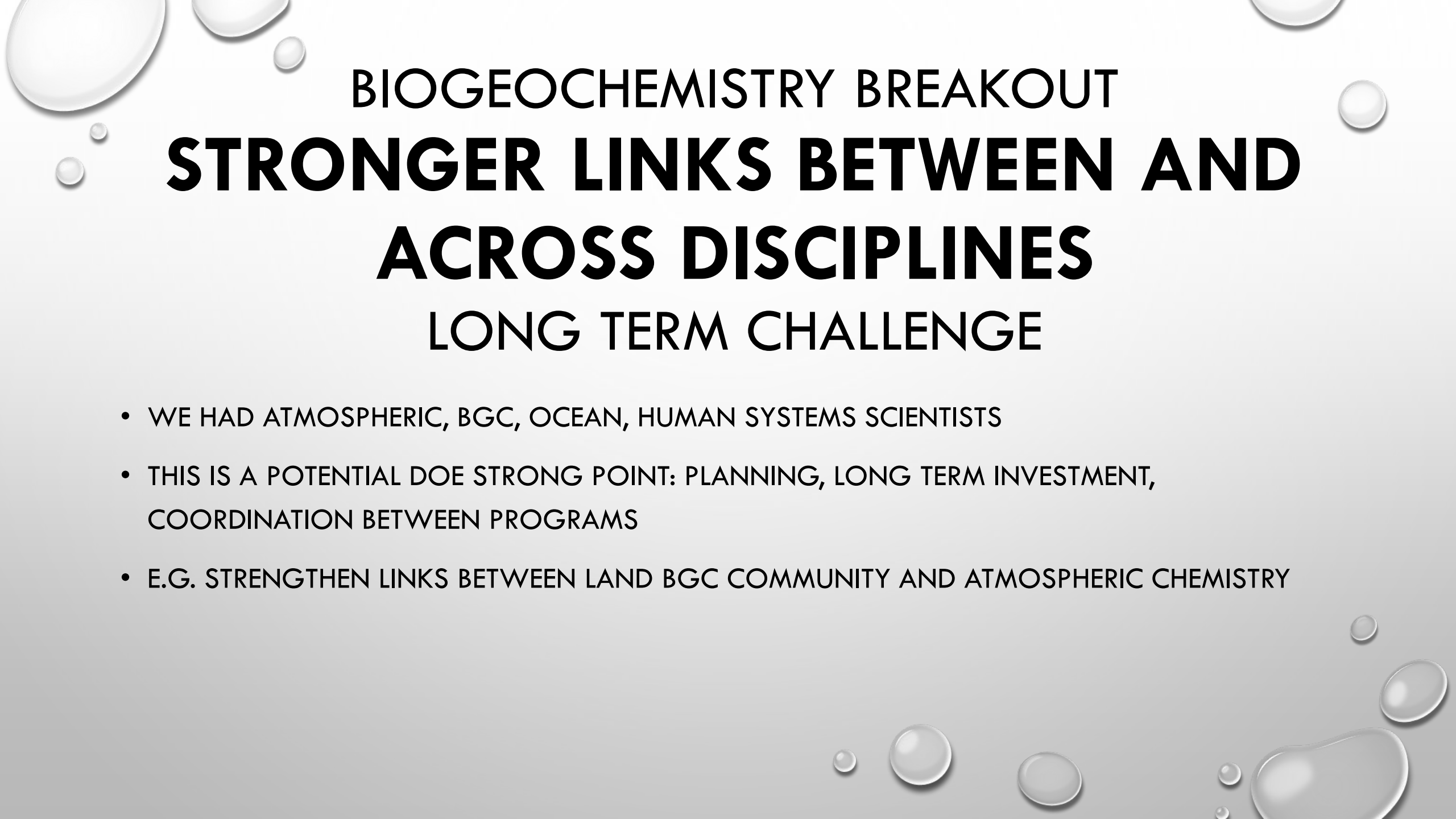


BIOGEOCHEMISTRY BREAKOUT

MAKE BETTER USE OF DISTURBANCE EXPERIMENTS AND OBSERVATIONS

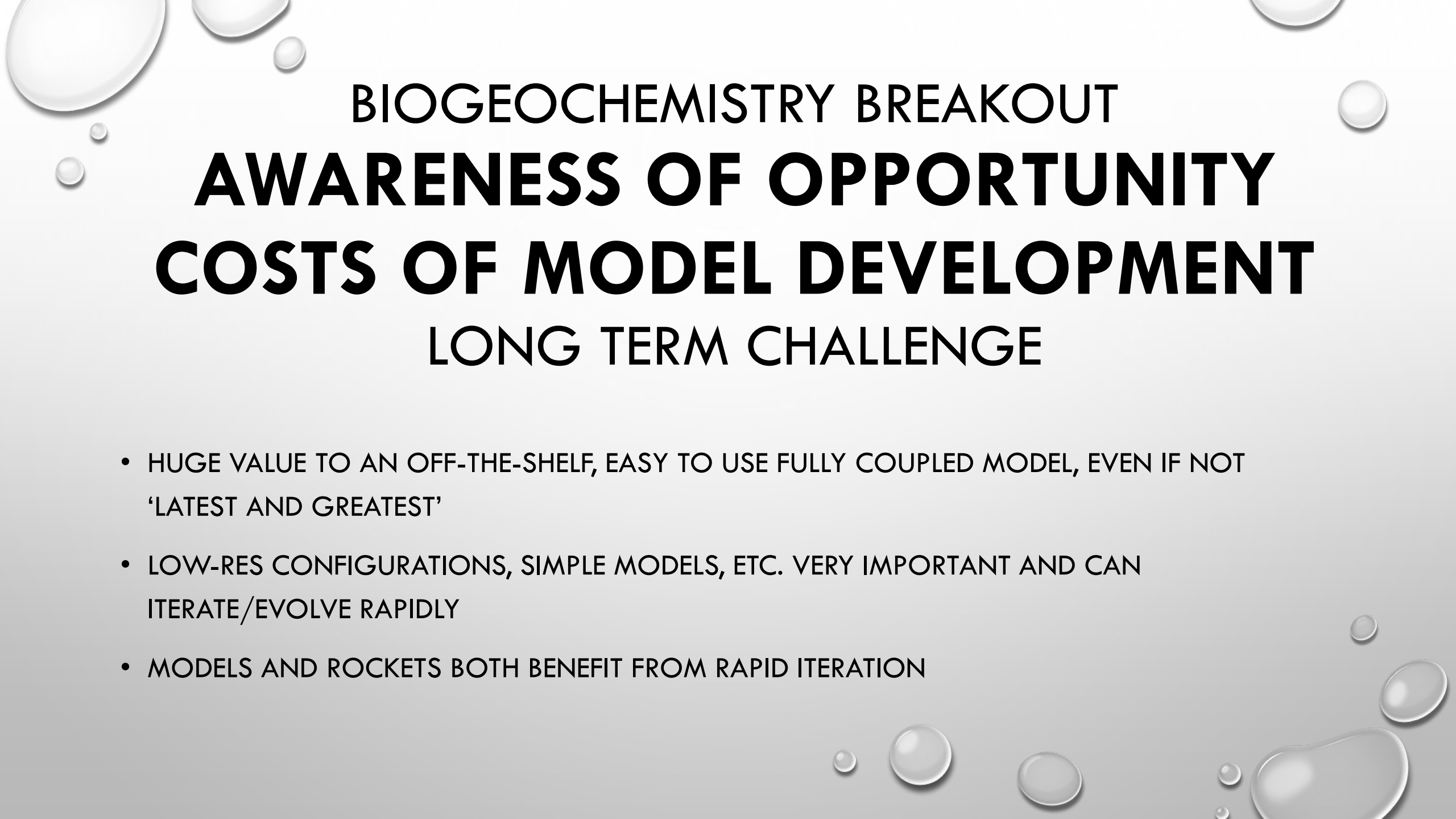
NEAR TERM CHALLENGE

- NEED A COHERENT SET OF BENCHMARKS BASED ON PERTURBATION EXPERIMENTS
 - THESE DATA EXIST!
 - EVERY YEAR RELEASES FRESH NEW HORRORS IN THE BIOSPHERE AND WE COULD USE THAT
 - BUILD PERTURBATION EXPERIMENTS INTO ILAMB?
 - (BUT MANY MODELING CENTERS DON'T WANT TO RUN SUCH EXPERIMENTS)
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BIOGEOCHEMISTRY BREAKOUT
STRONGER LINKS BETWEEN AND
ACROSS DISCIPLINES
LONG TERM CHALLENGE

- WE HAD ATMOSPHERIC, BGC, OCEAN, HUMAN SYSTEMS SCIENTISTS
- THIS IS A POTENTIAL DOE STRONG POINT: PLANNING, LONG TERM INVESTMENT, COORDINATION BETWEEN PROGRAMS
- E.G. STRENGTHEN LINKS BETWEEN LAND BGC COMMUNITY AND ATMOSPHERIC CHEMISTRY



BIOGEOCHEMISTRY BREAKOUT

AWARENESS OF OPPORTUNITY

COSTS OF MODEL DEVELOPMENT

LONG TERM CHALLENGE

- HUGE VALUE TO AN OFF-THE-SHELF, EASY TO USE FULLY COUPLED MODEL, EVEN IF NOT 'LATEST AND GREATEST'
- LOW-RES CONFIGURATIONS, SIMPLE MODELS, ETC. VERY IMPORTANT AND CAN ITERATE/EVOLVE RAPIDLY
- MODELS AND ROCKETS BOTH BENEFIT FROM RAPID ITERATION