

The background image shows a ship's deck with a large, cylindrical, metallic sampling device mounted on a structure. The device has a funnel-like shape and a vertical pipe extending from the top. The ship's railing and other deck equipment are visible on the left side. The overall scene is in grayscale, with a focus on the industrial and scientific nature of the equipment.

Breakout Session Day 2

Aligning seafloor sampling technology
with critical science questions

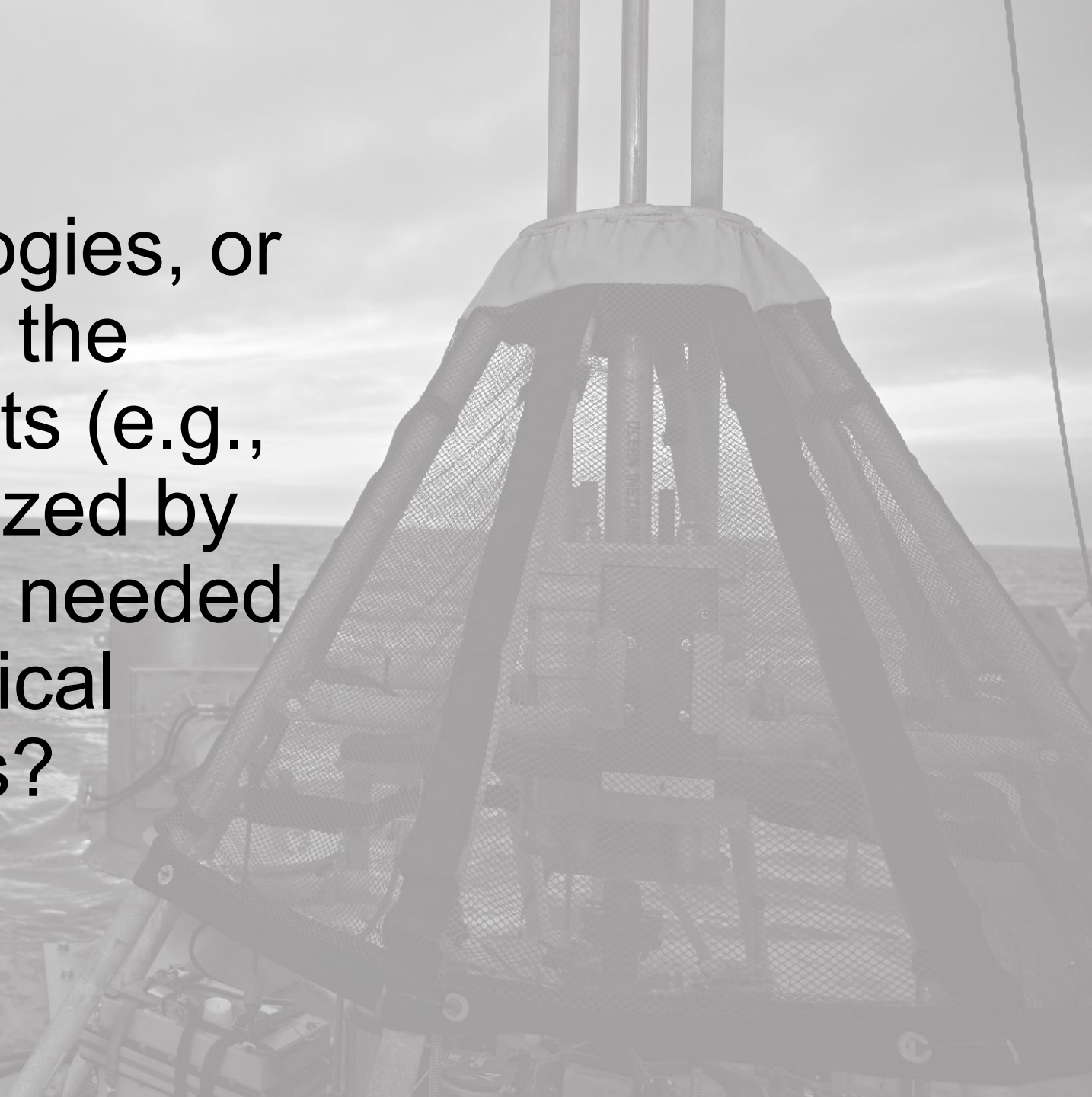
(1)

What currently available tools, technologies, and resources are essential to your research?



(2)

Are there tools, technologies, or resources for which the technology already exists (e.g., existed in the past, utilized by other countries) that are needed to address your critical science questions?



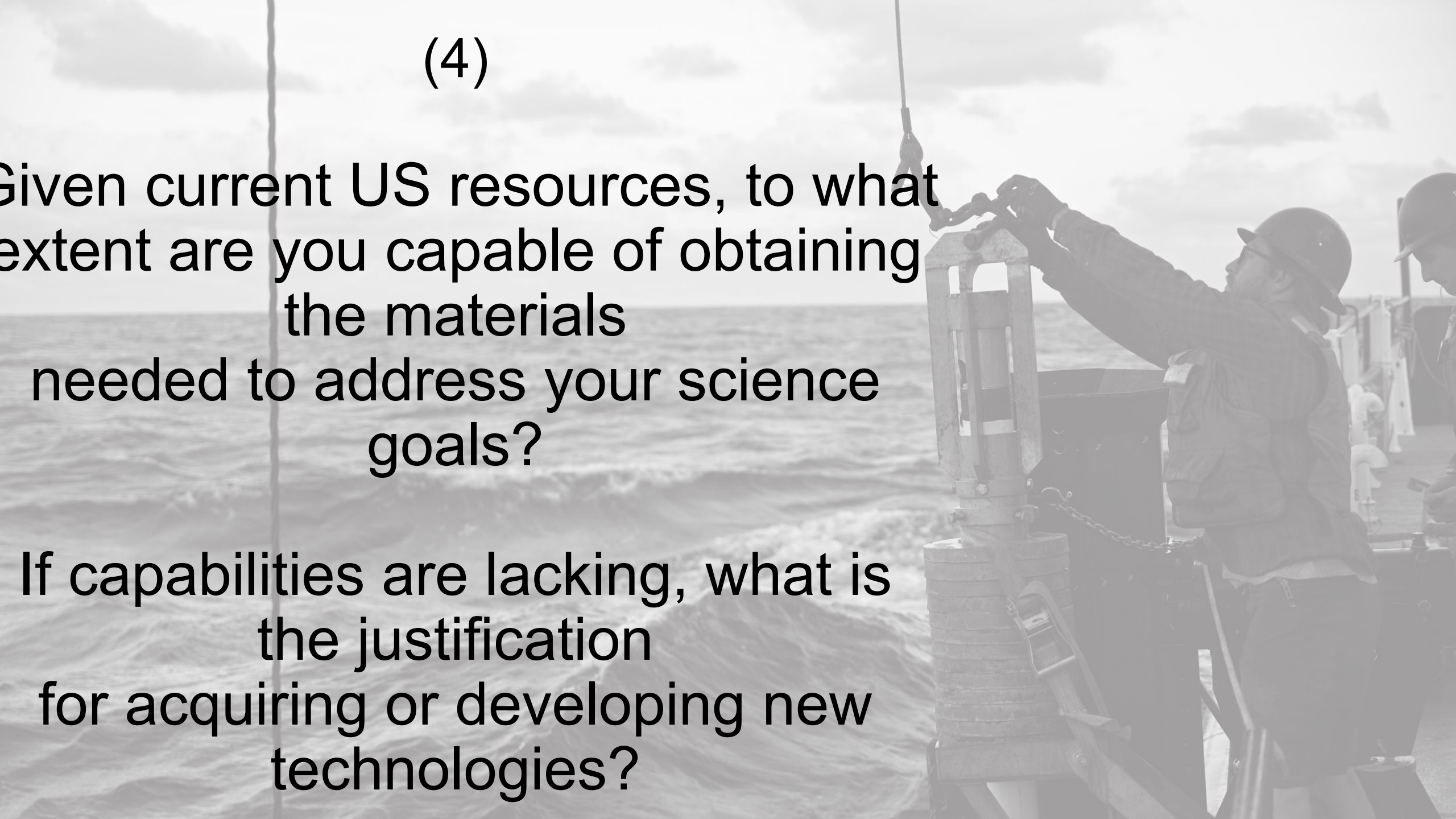
(3)

What are these largest challenges to acquiring the types of samples required for your research, from the smallest scales (e.g. DNA from a bug), to regional scales (e.g. characterization of complex depositional systems), to ephemeral properties (e.g. preserving redox chemistry of the seafloor)?

(4)

Given current US resources, to what extent are you capable of obtaining the materials needed to address your science goals?

If capabilities are lacking, what is the justification for acquiring or developing new technologies?



(5)

What types of sample curation, preservation, and data system infrastructure are needed to maximize the benefit of seafloor sampling campaigns?

To what extent can existing resources be used?

What new approaches or resources should be developed?