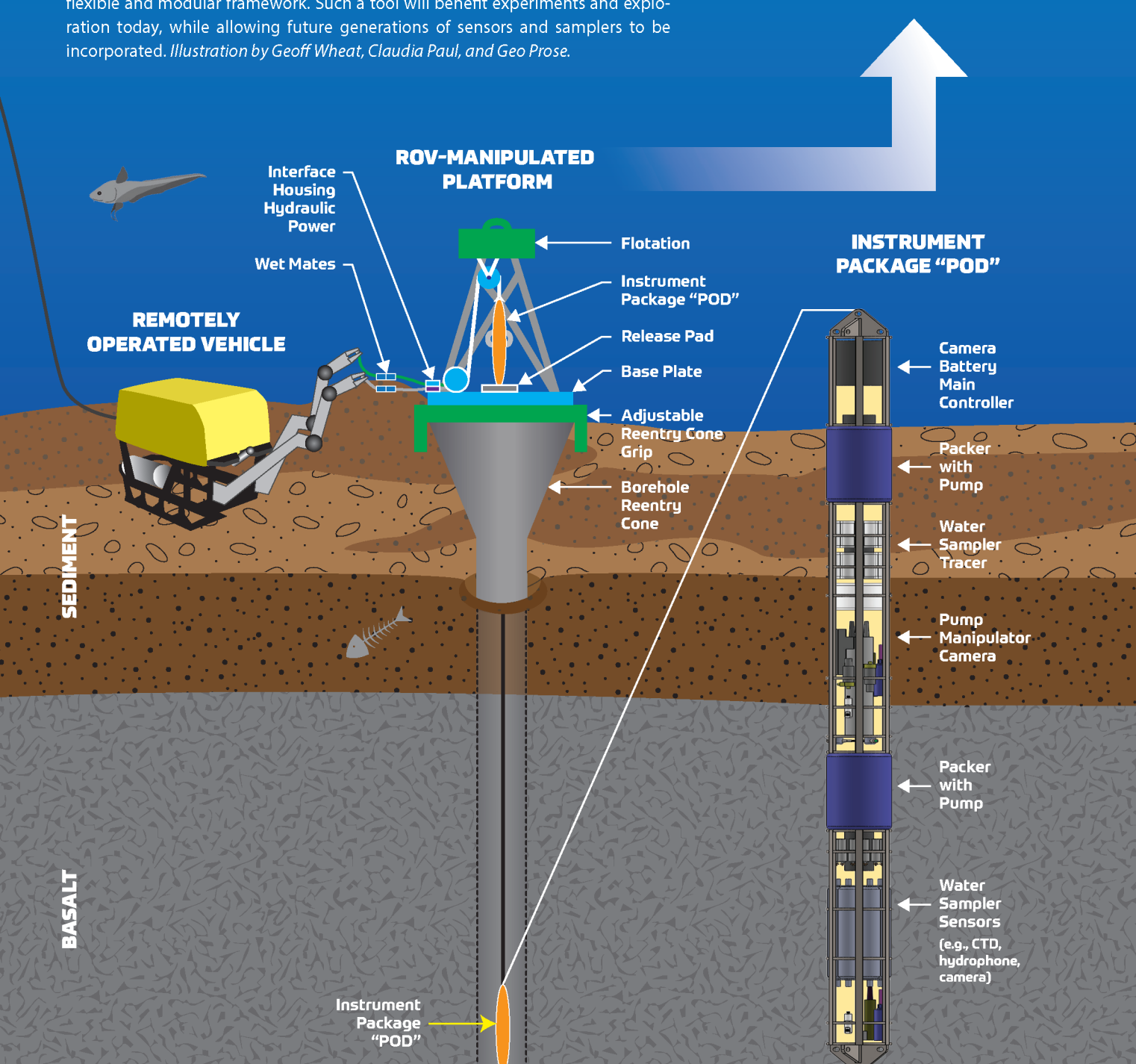
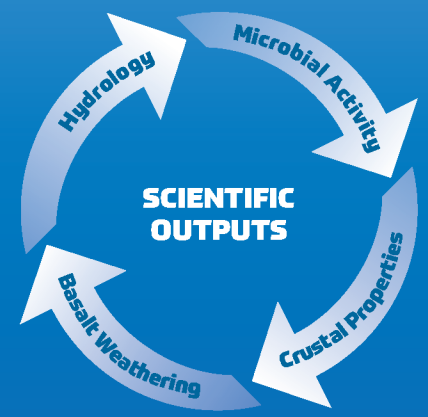


Example Technological Innovation for Future Drilling

We are at a technical inflection point where prior operational successes, multi-disciplinary needs, and broad scientific support will accelerate the pace of technological advancement to further our understanding of processes that shape the evolution of the oceanic crust. For example, several *Flagship Initiatives* will benefit from the design, fabrication, and commissioning of a remotely operated vehicle-manipulated platform that, when lowered to the seafloor, will allow a flexible array of sensors and samplers to be deployed in existing scientific ocean drilling boreholes in the upper volcanic oceanic crust. Such a platform will benefit from the availability of many off-the-shelf sensors, samplers, and systems within a flexible and modular framework. Such a tool will benefit experiments and exploration today, while allowing future generations of sensors and samplers to be incorporated. *Illustration by Geoff Wheat, Claudia Paul, and Geo Prose.*



not to scale