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Attorneys for the Ocean - Graduate Training in the Transatlantic Helmholtz Research School for Ocean System Science and Technology (HOSST/TOSST)

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The worldwide growth in population and standards of living is leading to ever increasing human pressure on the oceans: as a source of resources, a transportation/trade pathway, and a sink for pollutants. However, use of the world's ocean is not presently guided by any over-arching management plan at either national or international level. Marine science and technology provide the necessary foundation, both in terms of system understanding and observational and modeling tools, to address these issues and to ensure that management of ocean activities can be placed on the best-possible scientific footing.
The transatlantic Helmholtz Research School Ocean Science and Technology pools the complementary expertise of the Helmholtz Centre for Ocean Research Kiel (GEOMAR), the Christian-Albrechts-Universität zu Kiel, Dalhousie University and the Institute for Ocean Research Enterprise (IORE), to train the next generation of researchers in the key scientific areas critical for responsible resource utilization and management of the ocean with special emphasis on our "local ocean" - the North Atlantic.
The Research School is organized around three themes which encompass key sensitivities of the North Atlantic to external forcing and resource exploitation: 4D Ocean Dynamics, Ecosystem Hotspots, and Seafloor Structures. Interactions within and between these themes regulate how the ocean system responds to both anthropogenic and natural change. The HOSST/TOSST fellows gain an in-depth understanding of how these ocean systems interact, which in turn provides a solid understanding for the formulation of scientifically-sound management practices.
Given the broad scope of the school, student education is two-pronged: it provides excellent institutional support where needed, including scientific input, personal support and financial incentives, while simultaneously generating an open "intellectual space" in which ingenious, often unpredictable, ideas can take root, overcoming ideological and institutional boundaries. The combination of both will define the spirit of cross-disciplinary research that HOSST and TOSST fellows are expected to imbibe.
Initiated in 2012, the joint school currently has 38 PhD students on both sides of the Atlantic. The students are jointly supervised by Canadian and German PI's, and take part in 4 to 6-month research stays at the partner institutes, weekly seminars, annual summer schools and meetings, as well as in structured training in expert and transferable skills. An early contact with the job market outside academia and applied sciences is fostered.
Further details about HOSST/TOSST are available at: www.HOSST.org; www.TOSST.org