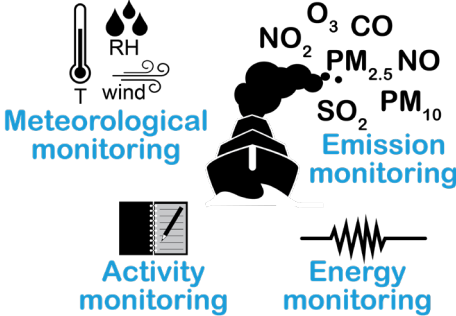


CORNET Call for Proposals: International Collective Research
--- Project idea ---

Subject:	Heading towards the Green Deal: From correlations between ship's energy consumption, ship activity and air quality to energy/pollution saving solutions
Coordinator:	Antwerp Maritime Academy
Other applicant(s):	
Sector:	<input type="checkbox"/> Materials <input type="checkbox"/> Process Engineering, Energy Technology and Environment <input type="checkbox"/> Business Management and Organisation <input type="checkbox"/> Construction and Production <input type="checkbox"/> Chemistry, Textile, Food, Health and Medical <input checked="" type="checkbox"/> Measurement and Information
Target group:	Data science and maritime oriented companies and research groups
Proposal summary:	<p>It is the intention to develop a mobile lab that can be setup on any kind of inland ship. The mobile lab monitors all the parameters needed to follow energy consumption, ship activity and release of exhaust gases by reading existing sensors on board of ships, placing self-developed monitoring systems, or by automating logbooks. With the help of the technical information of the ship (ex., size, empty weight, etc.) it should be possible to label the moments during a journey as energy efficient or energy inefficient and as unacceptable polluting or acceptable polluting. With this labelled data, the goal is to identify quick win scenarios (e.g., switching off the engine, changing the speed, etc.) to realize energy savings and/or pollution savings.</p> <div style="text-align: center;">  <p>The diagram illustrates four monitoring components: Meteorological monitoring (humidity, temperature, wind), Emission monitoring (various pollutants), Activity monitoring (ship icon), and Energy monitoring (waveform icon).</p> </div>
Advantages for trade and industry:	<ul style="list-style-type: none"> • Enhancing ship performances • Making data series available to companies so that they can detect patterns and discover solutions themselves • Providing a baseline measurement of current technology so that the

	progress of innovations towards zero emission can be quantified
Dissemination concepts:	<ul style="list-style-type: none"> • Making the mobile lab available for specific tailor-made measurement campaigns • Providing ships to carry out measurements with company instruments • Sharing knowhow about the development of the measuring system, data processing and data visualization
Profile of additional partners:	<ul style="list-style-type: none"> • Companies that can contribute in the development of the monitoring system • Companies who want to analyse, process and/or visualize data • Research groups with expertise in energy monitoring, energy monitoring systems, data science
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