

# Research unit Naval architecture, Maritime engineering, Inland and Sea shipping, Transport System Analysis

// Website research group

www.anast.ulg.ac.be



Experimental facilities  
& analysis capacity



Data & information  
management and  
computing infrastructure

Infrastructure Categories		Infrastructure
	Overview	
	Marine land-based facilities for engineering	<ul style="list-style-type: none"> <li>Towing tank: length: 100 m, height: 6 m, Depth: 4 m</li> <li>Moving platform (Max speed : 6 m/sec, Length measuring the maximum speed: 30 m, Fully automated and programmable controls, Model up to 4 m)</li> <li>Wave generator (Generator type component single joint (computer control), Wave type: regular or random, Maximum amplitude waves: 0.4 m, Period : 1 s to 10 s)</li> </ul> <p><b>Associated equipment</b></p> <ul style="list-style-type: none"> <li>1 component dynamometer balance</li> <li>6 components dynamometer balance</li> <li>Measurement system of self-propulsion</li> <li>Motion capture with camera</li> <li>System data acquisition, processing and calculation</li> </ul>
	Num. models, spec. software and comp. IR	<p><b>Several software packages were developed for fluvial and maritime transport</b></p> <ul style="list-style-type: none"> <li>AIWAT (fluvial traffic)</li> <li>ESTIMA (choice of mode of transport)</li> <li>OLEMSE1 (optimisation of location emergency posts)</li> <li>OLEMSE2 (optimisation of emergency routes)</li> <li>WINOLEMSE (integration of OLEMSE1 and OLEMSE2 for Windows)</li> <li>Traffic management in locks</li> <li>Traffic management in ports</li> <li>Economic evaluation of cost/benefits</li> <li>Market analysis (attractiveness &amp; competitiveness)</li> <li>Development of software in support of multi-criteria decision</li> <li>CCT-VEI, (cost of fluvial transport)</li> <li>Costs of transport of an intermodal transport chain</li> </ul> <p><b>Software for ship building</b></p> <ul style="list-style-type: none"> <li>LBR-5 (optimisation of floating and sailing structures)</li> <li>LUNAIS (construction of ships)</li> </ul>