

## Sedimentation rates – Europe

Abstract:	<p>Sedimentation rates are part of EMODnet (European Marine Observation and Data network) Geology, Work Package 3 (WP3) Seabed substrate. The objective of WP3 is to compile all available seabed substrate information on a scale of 1:100 000 or finer from all European seabed areas, and to update sedimentation rate data collected in the previous phases.</p> <p>WP3 has compiled and harmonized available information on the rate of sedimentation on the seafloor. The information on sedimentation rates for recent sediments is presented as point-source information.</p> <p>Estimations of modern sedimentation rates (centimetres/year) can be based e.g. on established historical records of anthropogenic radionuclides (e.g. <math>^{137}\text{Cs}</math> and <math>^{241}\text{Am}</math>), polychlorinated biphenyls (PCBs), lead (Pb) and stable lead isotope (<math>^{206}/^{207}\text{Pb}</math> ratios). Sedimentation rate estimations can be based also on varve/laminae counting, radionuclide <math>^{210}\text{Pb}</math> and <math>^{14}\text{C}</math> decay dating methods. In addition stratigraphic marker horizons, like in the Baltic Sea, horizons formed by documented Major Baltic Inflow (MBIs) events (Moros et al. 2017), can be used in the estimations.</p> <p>Project partners have delivered information on sedimentation rates available in their national waters including their EEZ. The focus is on the present-day sedimentation rates. That means sedimentation rates over the past decades, since AD 1900 or so.</p> <p>Further information about the EMODnet-Geology project is available on the portal (<a href="http://www.emodnet-geology.eu/">http://www.emodnet-geology.eu/</a>).</p>
Purpose:	<p>Sedimentation rate data is needed for studies related to sedimentation processes and accumulation history, e.g. for calculating sediment fluxes.</p>

Use limitation:	Sedimentation rate data is a point-source information, representing local sedimentary environment, and information cannot be extrapolated to the wider region.
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