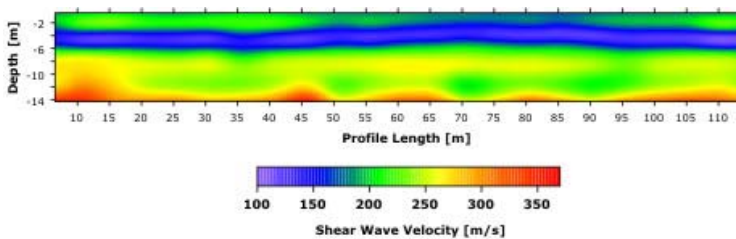




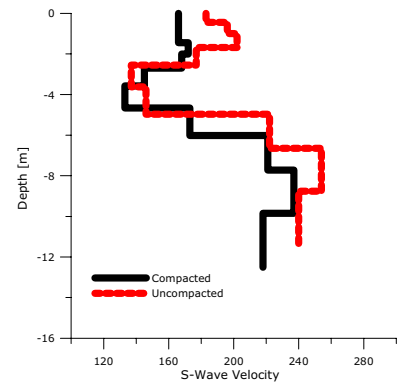
Application of MASW

The MASW - method (multichannel analysis of surface waves) is mainly applied for the investigation of construction sites. The obtained parameters (s-wave velocity, shear modulus) are essential for the design of dynamically loaded foundations and the estimation of earthquake induced loadings on buildings. It has also been shown to be a very useful tool in the frame of the quality control of compaction works of back filled areas.

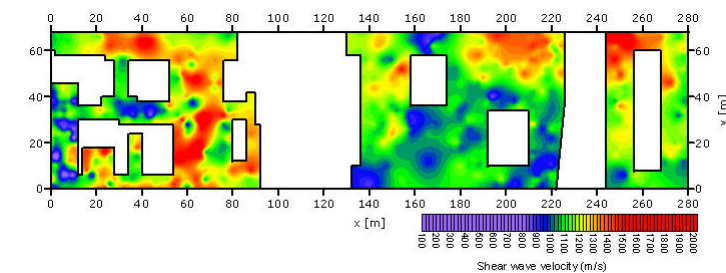
But the use of the MASW is not limited to applications on land only. It can also provide valuable information on the dynamic stiffness of the seabed and the first meters below leading to the identification of different types of sediments (sand, cap rock, mud). In combination with a sub-bottom sonar large areas of the seafloor can be mapped. These surveys are of a high value for the planning of dredging and land reclamation projects.



Cross-section from MASW. A weak, low-velocity layer is visible between 3 and 6 m depth.



Shear wave velocity profiles of the subsurface showing the effect of the mechanical compaction.



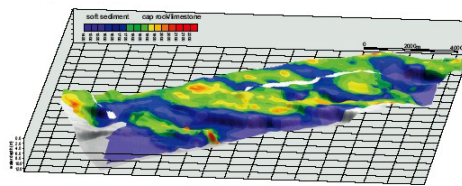
Plan view of s-wave velocity of a bridge construction site. The survey was carried out when cavities were found.



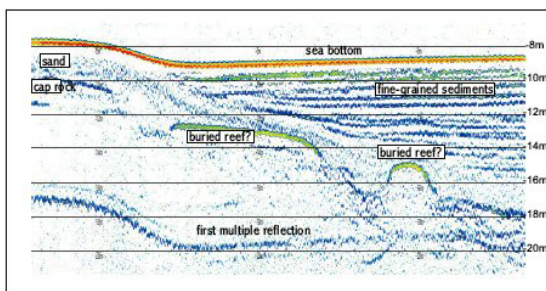
System for land survey of large areas. Note the geophone string (landstreamer) behind the quad bike.



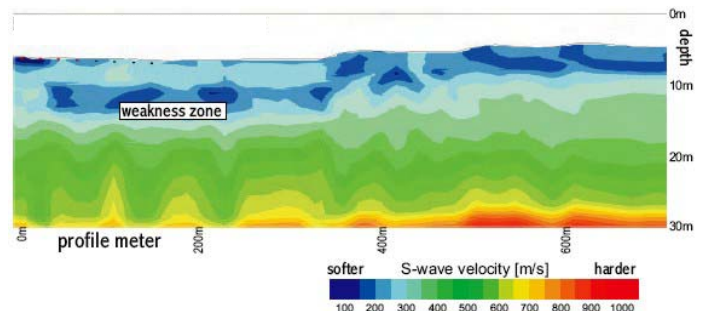
MASW-equipment (air gun and hydrophone string)



P-wave velocity to identify cap rock and unconsolidated sediments at the sea bottom



Echogram from sub-bottom sonar detecting a sunken reef or cap rock layer



MASW-profile of shear wave velocity