

## On the Reliability of the H/V Spectral Ratio Technique

by  
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Recently a European project **SESAME** (Site EffectS assessment using **AM**ambient Excitations) was initiated aiming to study the site effects assessment techniques using ambient vibrations. Within the framework of the SESAME, a specific task is defined to investigate the reliability of the H/V spectral ratio technique in assessing the site effects. The work is now being conducted in mainly three different lines with the following objectives: firstly to study the effect of the experimental conditions, secondly to find out the influence of the data processing and finally compare the results from different techniques and data sets to empirically assess the reliability of its usage in microzonation studies. Preliminary results indicate significant influences depending upon the instruments used, experimental conditions and the data processing routines. Careful choice of instruments, controlled experimental setup and standardized processing routines are necessary to obtain reliable results. When applied taking these conditions into account, results from the H/V ratios are comparable to results from other techniques and data types. Final aim is to provide guidelines explaining the influence of different factors, and give recommendations on how the H/V technique should be applied. At the end of the project period, such documentation will be prepared and disseminated.

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