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# The Role of the Deformation Monitoring in the Current Global Practice of Structural Health Monitoring and Lifecycle Management of Assets

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The value of monitoring within the asset management process gets increased attention. Asset owners have learned that monitoring systems considerably help in risk- and asset management. Within the current practice of monitoring the constructed infrastructure deformation measurements play a dominant role. They are an integrated part of a wider monitoring concept integrating information from various types of sensors.

Most of the SHM works in the past have been focused on damage detection, which should actually be the exception in asset management rather than the daily practice. Therefore the objectives of monitoring have to be shifted towards decision support and generation of useful information for asset managers. This comprises

not only the definition of actual condition but also the targeted related maintenance and inspection schedules.

The presentation provides an overview on structural health management of constructed assets on object scale starting from monitoring through system identification to decision making. It is described how this process is embedded into the asset management and finally the network management procedures.

Practical examples from monitoring campaigns of the last 5 years will be presented where deformation monitoring provided an integrated part of the campaigns.

**Keywords.** Structural Health Monitoring, Lifecycle Management, Deformation Monitoring