Strategies for HIFI line surveys

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One of the activities of the HIFI instrument will consist in performing unbiased or partial line surveys of astrophysically interesting regions. In this contribution, recent results from ground based instruments are discussed, and strategies to obtain the maximum scientific output with HIFI are developed. The discussion addresses source selection criteria, selection of bands for partial line surveys and survey modes - e.g. deep vs. shallow surveys. Important aspects for planning the observations are also simulations of the expected spectra, tools for extracting the relevant information out of the data, and ground based observations to be performed to serve as a basis for these simulations. The existing data base is reviewed, and suggestions for preparatory and supporting observations with existing instruments are made.