Numerous formations with potentially commercial shale gas deposits exist around the world. But commercial production of shale gas has been reported exclusively from the United States to date. Here, gas shales are currently amongst the hottest plays as a result of high gas prices during recent years, and the remarkable technological successes exploiting the Lower Carboniferous Barnett Shale of the Fort Worth Basin. Western Europe is a region with minor shale gas resources (510 Tcf) compared to 16,112 Tcf worldwide (Rogner, 1997). One reason for this is Europe’s strong compartmentalization of the geological setting as compared to the large sedimentary basins in the US. However, as black shales with a wide range of maturities occur in almost all European Phanerozoic formations a significant potential for exploration success exists and -assuming successful exploration- may buffer local energy demands. European shale gas exploration is still in its infancy, although the first ideas to search for this unconventional gas resource can be dated back to the 1980s.

The presentation will give an overview about European black shales following stratigraphic order, and will introduce their potential as gas shales due to geological considerations. Furthermore, known industrial and scientific activities will be presented. As exploration activities for shale gas are known from Poland, Sweden, Austria and other countries, the geological background will be presented. Furthermore, current research activities will be briefly introduced.