

Legal options to deal with diverging claims concerning use of underground space

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The use of the geological underground, the area below the surface to depths of several kilometres, has been taking place for quite some time. Not least because of the energy transition, diverging claims regarding underground utilization are increasing. In addition to established uses (e.g. extraction of mineral waters or landfilling) there is an increasing use of deep geothermal energy and energy storage (e.g. in the form of hydrogen, methane, or by underground pumped storage plants) and relatively new energy generation methods including fracking. Furthermore underground space may be utilized in the future for storing greenhouse gases (CCS). These competing uses will converge to intensify pressure on the future use of subterranean space.

At present decisions concerning the use of underground space in Germany are decided on the basis of mining law. The appropriateness of this process is increasingly in doubt. Doubts are partly expressed regarding the law's capacity to deal with environmental risks, because mining law does not provide a reasonable structure for comprehensive consideration of spatial and cross-sectoral environmental risks or for appropriate public participation. The expected conflicts over underground space require both spatial and temporal coordination to settle conflicting uses. A special challenge is the need for a long term perspective on underground uses because they cause irreversible and massive impacts to the soil resource. In consequence a coordination decision that takes into account the underground space is not only useful and necessary to eliminate conflicts regarding underground usage, but also to cope with possible conflicts between spatial uses on the surface and the underground and to balance current and future demands on the soil.

This talk will discuss the factual and legal issues of underground uses and present possible solutions. This includes the options for an altered mining law, the establishment of sectoral planning law for mining and the possibilities of "spatial planning for underground space". The discussion will take into account practical examples from Germany and Switzerland where legal changes to establish instruments for a spatial planning law regarding underground space have recently been created.