MiReBooks produces a series of virtual & augmented reality based interactive mining handbooks as a new digital standard for higher mining education across Europe.

In the project “MiReBooks” a series of virtual and augmented reality-based (Mixed Reality, MR) interactive mining handbooks will be produced as a new digital standard for higher mining education throughout Europe. Many current challenges in mining education will be confronted in an innovative way, by combining classical paper-based teaching materials with MR materials and their transformation into pedagogically and didactically coherent MR handbooks for integrative classroom use. The approach will be used in the future also in other disciplines.

With MiReBooks the way of teaching will change as instructors will be able to engage their students in a more effective way and offer them an enriched content repertoire as well as an increased comprehension opportunity. The array of possible industrial mine environment examples that students can be immersed into becomes endless and thus the industry will receive graduates that are familiarized in-depth with a holistic view on the industrial context. Students will enter the job market skilled as digital natives and highly influence the way the industry will work and develop in this way in the future. Mixed Reality is certainly a most promising way to enable users to make the most of their learning experience and thus leverage the improvement of operational efficiencies and innovation.

Technically, the MiReBooks-assisted lectures will include Smartphones with a special App that allows the students to trigger additional information (3D images, videos) from augmented illustrations within the MiReBooks textbooks. In addition, with virtual reality goggles they will be able to immerse themselves into a virtual mining environment/3D-filmed sequence of a real mine process.