Worldwide marine minerals industries presently generate about two billion dollars in annual revenues. This is largely from offshore diamonds and sand and gravel. Between 1970 and 1985 about 700 million dollars were spent trying to commercialize manganese nodules. This effort failed for a combination of economic, technical and legal reasons. Recent technological breakthroughs in AUVs, ROVs, surveying, dredging, control systems etc., largely pioneered by the deepsea cable industry, are rapidly changing the face of the marine minerals industry. The Law of the Sea regime has stabilized and favorable national mineral leasing regimes have been established in many countries. Accelerating natural gas demand is pushing interest in seabed methane hydrates. Demand and prices have risen for a number of key metals, such as cobalt, heavily used in high tech applications. The offshore oil industry, a major marine technology developer, has deployed a range of innovations to produce oil in greater than 5000 feet of water and tie production back tens of miles across the seabed to a deepwater pipeline grid in both the Gulf of Mexico and the North Sea. The offshore diamond industry has commissioned a whole new class of survey AUVs. This range of technological development is rapidly improving the economics of offshore development. The formerly uncompetitive position of a variety of seabed mineral deposits with respect to onshore mineral resources is being reevaluated.